Honolulu High-Capacity Transit Corridor Project

ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Prepared Pursuant to
Hawaii Revised Statutes, Chapter 343

Submitted by:
City and County of Honolulu
Department of Transportation Services

The following person may be contacted for additional information concerning this document

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November 2005

NOTICE OF DETERMINATION

Applicant/Proposing Agency:
City and County of Honolulu Department of Transportation Services (DTS)
650 South King Street, 3rd Floor
Honolulu, HI, 96813

Accepting Authority:
Governor of Hawaii
Hawaii State Capitol
Executive Chambers
Honolulu, HI 96813

Brief Description of the Proposed Action:
The Honolulu High-Capacity Transit Corridor Project proposes to implement a transportation system that will provide improved person-mobility in the highly congested east-west corridor between Kapolei and the University of Hawaii at Manoa (UH Manoa). The project would support the goals of the regional transportation plan by serving areas designated for urban growth, and it would also provide an alternative to private automobile travel and improve linkages between Kapolei, Honolulu's urban center, UH Manoa, Waikiki, and the urban area in between.

Determination:
Implementation of this project triggers the State Environmental Impact Statement (EIS) law (Chapter 343 of the Hawaii Revised Statutes)

Reasons Supporting Determination:
The determination was made because of the proposed use of County funds and property, and the fact that prior studies of transit systems in Oahu's primary transportation corridor have identified potentially significant environmental and social impacts that could result from implementing such a system. Therefore, an EIS is the appropriate form of environmental documentation for this project.

Contact Person for Further Information:
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Summary

The City and County of Honolulu Department of Transportation Services (DTS), in cooperation with the U.S. Department of Transportation Federal Transit Administration (FTA), will be preparing an Environmental Impact Statement (Draft and Final EIS) to evaluate various alternatives with the potential to provide high-capacity transit service in a corridor from Kapolei to the University of Hawaii at Manoa.

Implementation of this project triggers the State Environmental Impact Statement (EIS) law (Chapter 343 of the Hawaii Revised Statutes) because of the proposed use of County funds and property. Prior studies of transit systems in Oahu's primary transportation corridor have identified potentially significant environmental and social impacts that could result from implementing such a system. Therefore, an EIS is the appropriate form of environmental documentation for this project.

Additionally, because of anticipated federal funding of this project, the National Environmental Policy Act (NEPA) is also triggered. A Draft Environmental Impact Statement (DEIS) to be prepared for this project is anticipated to satisfy the requirements of both Chapter 343 and NEPA.

Under Chapter 343, DTS is required to prepare an Environmental Impact Statement Preparation Notice (EISPN) and announce its availability in the Office of Environmental Quality Control's (OEQC) The Environmental Notice. The EISPN is used to invite public and agency comments on the proposed action before the preparation of the draft EIS. In addition to publication in the Environmental Notice, the EISPN will also be sent to federal, State, and City and County of Honolulu resource and jurisdictional agencies, as well as elected officials, neighborhood, community, civic, business and transportation organizations, and utility companies. In order to better facilitate public input and access to information, the EISPN will also be posted on a website: www.honolulutransit.org.

NEPA requires FTA to announce the preparation of an EIS by publishing a "Notice of Intent" in the Federal Register. Therefore, a Notice of Intent for this project will also be appearing in the Federal Register.

DTS will conduct an Alternatives Analysis (AA) that evaluates a range of alternatives prior to issuing the draft EIS. It is expected that only those alternatives advancing from the AA will receive detailed assessment in the DEIS.

The purpose of the Honolulu High-Capacity Transit Corridor Project is to provide improved person-mobility in the highly congested east-west corridor between Kapolei and the University of Hawaii at Manoa. The project would support the goals of the regional transportation plan by serving areas designated for urban growth. The project would also provide an alternative to private automobile travel and improve linkages between Kapolei, Honolulu's urban center, the University of Hawaii at Manoa, Waikiki, and the urban areas in between.

The alternatives proposed for evaluation in the AA--listed below, emerged from a screening process designed to represent the full range of reasonable alternatives expected to meet the project purposes. Several of these alternatives would provide an exclusive right-of-way, thereby ensuring faster and more reliable transit services than a transit system operating in mixed-flow traffic.

Alternatives emerging from the AA will be addressed in detail in the DEIS..

Alternatives proposed for study in the AA are:

- No Build Alternative (transportation projects included in official planning documents, excluding the proposed High-Capacity Transit Corridor Project)
- Transportation System Management (TSM) Alternative
- Managed Lanes Alternative (including high-occupancy toll lanes)
- Fixed-Guideway Alternative (including evaluation of several alignment alternatives)

Once the AA has narrowed the range of alternatives and the City Council has approved the findings of the AA, the DEIS will evaluate and disclose the environmental consequences of the Locally Preferred Alternative (LPA) on: land use and zoning; parklands; economic development; community disruptions, displacements, and environmental justice; aesthetics; air quality; noise and vibration; wildlife, vegetation, threatened and endangered species; farmland; water quality, wetlands, waterways, and floodplains; energy; hazardous materials; and cultural, historic, and archaeological resources. Impacts to resources covered by Section 4(f) of the 1966 U.S. Department of Transportation Act will also be addressed.

Public meetings will provide public-friendly and accessible venue for comments to be accepted regarding project alternatives, scope of the EIS, and the purpose and needs to be addressed. Meetings will be held on December 13 and 14, 2005, at the following locations. On December 13, the public scoping meeting will be held at the Neal S. Blaisdell Center, Pikake Room, located at 777 Ward Avenue, from 5:00 p.m. until 8:00 p.m. or until all who wish to provide oral comments have been given the opportunity. The meeting on December 14 will be held at Kapolei Middle School Cafeteria, at 91-5335 Kapolei Parkway, from 7:00 p.m. until 9:00 p.m., or until all who wish to provide oral comments have been given the opportunity. Both locations are accessible to people with disabilities. A court reporter will record comments for those who choose to provide oral input.

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1.0 Introduction

1.1 PROJECT LOCATION

The City and County of Honolulu Department of Transportation Services (DTS), in cooperation with the U.S. Department of Transportation Federal Transit Administration (FTA), will be preparing an Alternatives Analysis (AA) and an Environmental Impact Statement (EIS) to evaluate alternatives that would provide high-capacity transit service on Oahu. The primary project study area for the Honolulu High-Capacity Transit Corridor Project is the travel corridor between Kapolei and the University of Hawaii at Manoa (Figure 1-1). This corridor includes the majority of housing and employment on Oahu. The east-west length of the corridor is approximately 23 miles. The north-south width is at most 4 miles, because much of the corridor is bounded by the Koolau and Waianae Mountain Ranges to the north and the ocean to the south.

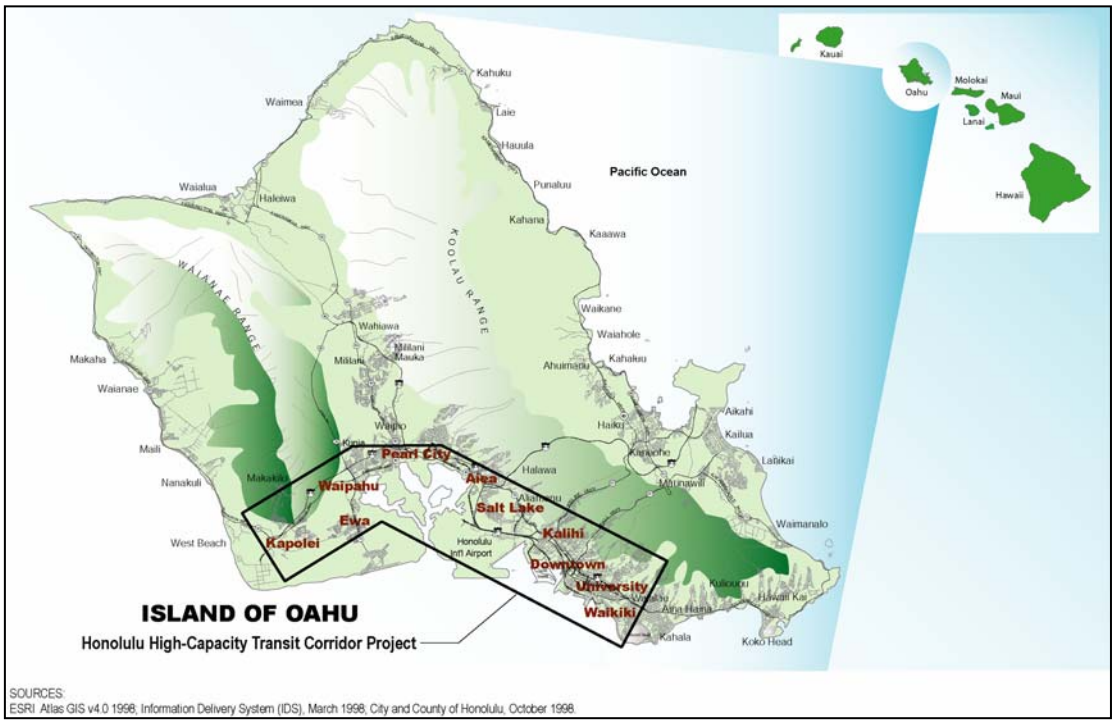

Figure 1-1. Project Vicinity

1.2 BACKGROUND

The purpose of the Honolulu High-Capacity Transit Corridor Project is to provide improved person-mobility in the highly congested east-west corridor between Kapolei and the University of Hawaii at Manoa, confined by the Waianae and Koolau mountain ranges to the north, and the ocean to the south. Several of these alternatives would provide an exclusive right-of-way alternative in the

corridor, thereby ensuring faster, more reliable transit services than operating in mixed-flow traffic. The project would support the goals of the regional transportation plan by serving areas designated for urban growth. The project would also provide an alternative to private automobile travel and would additionally improve linkages between Kapolei, Honolulu's urban center, University of Hawaii at Manoa, Waikiki, and the urban area in between.

Population

The 2000 census indicates that 876,200 people live on Oahu. Of this number, over 552,000 residents (63 percent) live within the Kapolei to Manoa corridor area that would be served by a high-capacity transit system. This area is projected to absorb an increase to 775,600 people (69 percent of the total population growth projected to occur on Oahu between 2000 and 2030). The highest growth rates for the island are projected in the Ewa and Kapolei areas, which are developing as a "second city" to downtown Honolulu. The anticipated housing and employment growth for Ewa is identified in the General Plan for the City and County of Honolulu.

Reliability

Present travel times are not reliable because of current levels of congestion in this corridor. Travelers on Oahu currently experience 42,000 vehicle-hours of delay per day. By 2030, the Oahu Metropolitan Planning Organization (OMPO) projects an increase of nearly eight-fold to 326,000 vehicle-hours of delay. Because the bus system primarily operates in mixed-traffic, transit users experience the same level of delay as automobile drivers. Current morning peak-period travel times for motorists from Kapolei to downtown average between 40 and 60 minutes. By 2030 the travel times are projected to more than double.

Congestion Increasing

Major arterial streets that will continue to experience increased morning peak congestion include Ala Moana Boulevard, Dillingham Boulevard, Kalakaua Avenue, Kapiolani Boulevard, King Street, and Nimitz Highway. In the Waipahu area there are only seven continuous lanes of roadway capacity in each direction, including both the H-1 freeway and arterials. Horizontal expansion of the roadway system between Kapolei and downtown Honolulu is physically constrained because of the ocean, Pearl Harbor, and the Waianae and Koolau Mountains.

Social Justice

Many lower-income and minority workers live in the corridor outside of the urban core and commute to work in the Primary Urban Center (PUC). Daily parking costs in downtown Honolulu are among the highest in the United States. Many

lower-income workers rely on transit because they are not able to afford the cost of vehicle ownership and operation. Transit capacity and reliability are expected to improve, provided a grade-separated, high-capacity system is implemented, rather than operating more buses in mixed traffic. This system would enable service to *all* transportation system users, including lower-income and underrepresented populations.

Funding

In recognition of these transportation needs, the Hawaii Legislature passed Act 247 in 2005. The Act empowered each county to levy a tax surcharge to fund transportation investments. The Honolulu City Council subsequently adopted Ordinance 05-027 to levy a tax surcharge to fund Oahu's transit system.

1.3 PLANNING PROCESS

EIS Trigger

Since the proposed action would use City and County of Honolulu funds and property, it must undergo environmental review in accordance with Hawaii Revised Statutes (HRS) Chapter 343 (the State EIS Law). Federal funds are also likely to be used, so the proposed action must comply with the National Environmental Policy Act (NEPA) as well. Other State and federal rules and regulations that would apply to the proposed action include:

- Hawaii Administrative Rules (HAR), Title 11, Chapter 200 (EIS Rules);
- FHWA and UMTA (FTA) Joint Regulations, 23 Code of Federal Regulations (CFR) 771; and
- Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR 1500-1508.

Significance Criteria

Based on Significance Criteria specified in HAR Chapter 200, DTS has determined that the proposed action is likely to have a significant impact on the environment; therefore, DTS will prepare an EIS. This document--the Environmental Impact Statement Preparation Notice (EISPN)--was prepared and will be announced in the Office of Environmental Quality Control's The Environmental Notice. The FTA has also determined that the proposed action is likely to have a significant impact on the environment and will publish a "Notice of Intent" (NOI) to prepare an EIS in the Federal Register. Therefore, the EIS will be prepared in a manner to satisfy both State (HRS Chapter 343) and federal (NEPA) requirements.

Alternatives Screening

A screening process was designed to consider the full range of reasonable alternatives that are expected to meet the purpose and needs identified for the

project. The alternatives identified are being presented for public comment during the federal scoping process, and an AA will be completed on the alternatives identified at the end of the scoping process. Upon AA completion, the Final Report will be available for public and agency inspection. The Honolulu City Council will select one or more Locally Preferred Alternatives (LPAs) for further analysis in the DEIS.

Scoping

Scoping activities, including analysis of input received from noticing and distributing this EISPN, will be conducted before the preparation of the AA and the DEIS (see Section 4.0). A 30-day public comment period will follow the publication of the notice EISPN availability, and input will be considered in the later formulation of the DEIS. The DEIS will include analyses of the environmental and social impacts of several alternatives of the proposed action, as well as a No Build alternative.

DEIS Review

The public will be given an opportunity to review the DEIS and provide comments for at least 45 days from its issuance. A public hearing will also be held on the DEIS.

Preliminary Engineering/FEIS

Following the public hearing, DTS and FTA will review and consider all public and agency comments on the DEIS. The LPA will undergo preliminary engineering during the preparation of the final EIS (FEIS). The FEIS will contain a record of all comments received on the DEIS, responses to those comments, and disclosure of the environmental impacts of the LPA.

Accepting Authorities

The accepting authorities of the FEIS are the Governor of Hawaii and the FTA Region IX Administrator. Once the Governor accepts the FEIS, the requirements of Chapter 343 will be satisfied. At the federal level, the Record of Decision (ROD) will be prepared and signed after the Regional Administrator accepts the final EIS. The ROD documents the selected alternative and environmental commitments for project implementation, and ultimately completes the NEPA process.

2.0 Alternatives

The alternatives proposed for evaluation in the AA were developed through a screening process intended to refine all possible and reasonable alternatives into those that will meet corridor needs, have been identified as technically feasible, and are viable for further study. The range of possible alternatives was developed based on previous transit studies, a field review of the study corridor, an analysis of current housing and employment data for the corridor, a literature review of technology modes, and work completed by the Oahu Metropolitan Planning Organization (OMPO) for its Draft 2030 Regional Transportation Plan. Alternatives that emerge from the AA will receive further consideration in the DEIS.

The AA will allow for evaluation of several design options as sub-alternatives, and the public is requested to comment on those alternatives during the scoping process. All comments on the purpose and need, alternatives, and scope of the analysis are due on January 9, 2006, after which, the LPA will be selected by the Honolulu City Council for further analysis in the DEIS. The final alternatives selected for evaluation in the EIS will be engineered at an *initial* level, so that their full impact on the environmental resources described in Section 3.0 can be better assessed.

2.1 ALTERNATIVE 1: No Build Alternative

The No Build Alternative includes existing transit and highway facilities and committed transportation projects anticipated to be operational by 2030. Committed transportation projects are those programmed in the Oahu 2030 Regional Transportation Plan prepared by the OMPO. Highway elements of the No Build Alternative will also be included in the build alternatives.

The No Build Alternative's transit component would include an increase in fleet size to accommodate growth, allowing service frequencies to remain the same as today. The specific number of buses, as well as required ancillary facilities, will be determined during the preparation of the AA.

2.2 ALTERNATIVE 2: TSM Alternative

The Transportation System Management (TSM) Alternative would provide an enhanced bus system based on a hub-and-spoke route network, conversion of the present morning peak-hour-only zipper lane to both a morning and afternoon peak-hour zipper lane operation, and relatively low-cost capital improvements on selected roadway facilities to give priority to buses. Highway components in the TSM Alternative would be the same as the No Build Alternative.

2.3 ALTERNATIVE 3: Managed Lanes Alternative

The Managed Lanes Alternative (Figure 2.1) would include construction of a two-lane, grade-separated facility between Waipahu and Downtown Honolulu for use

buses, by para-transit vehicles and vanpool vehicles. The lanes would be managed to maintain free-flow speeds for buses, while simultaneously allowing High-Occupancy Vehicles (HOVs) and variable pricing for toll-paying single-occupant vehicles. Intermediate bus access points would be provided in the vicinity of Aloha Stadium and Middle Street. Bus operations utilizing the managed lanes would be restructured and enhanced to provide additional service between Kapolei and other points Ewa of Downtown, through to the University of Hawaii at Manoa.

2.4 ALTERNATIVE 4: Fixed-Guideway Alternative

Overview

The Fixed-Guideway Alternative would include the construction and operation of a fixed-guideway transit system between Kapolei and the University of Hawaii at Manoa. The system could use any fixed-guideway transit technology meeting performance requirements and could either be automated or employ drivers. Station and supporting facility locations will be determined during further alternative development. Supporting facilities would include a vehicle maintenance facility and park-and-ride lots. The alternative would be within existing streets or highway rights-of-way where possible but would require the acquisition of additional property in various locations. This alternative would not preclude future extensions of the system within the corridor, or to Central Oahu or Hawaii Kai.

Technologies Considered

A broad range of technologies were considered for application to this alternative, including light rail transit, personal rapid transit, automated people mover, monorail, magnetic levitation (maglev), commuter rail, and emerging technologies that are still in the development stage. Through a screening process, several were selected and will be considered as possible options for use as the fixed-guideway technology. Technologies that were not carried forward from the screening process include personal rapid transit, commuter rail, and the emerging technologies.

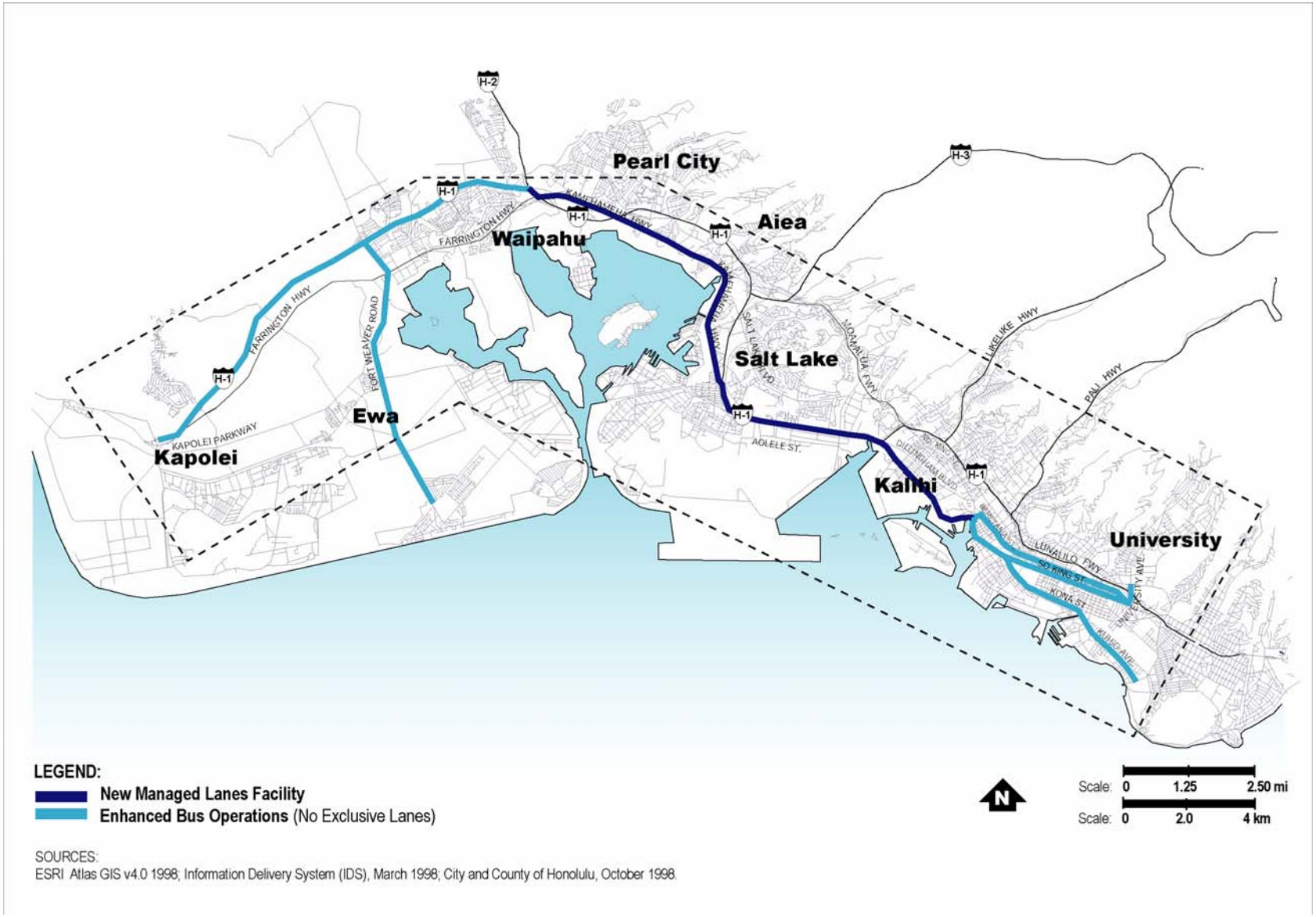

Figure 2-1. Alternative 3: Bus in Managed Lanes

Alignments Considered

There are four specific fixed-guideway alignments that are proposed for further study. Each of the alignments has distinctive characteristics, environmental impacts, and provides different service options, and each of the alignments will be evaluated individually and compared to the other three alignments.

Design Options

The "design options" associated with three of the fixed-guideway alignments will not change the structure of the alternative, but will offer options for connectivity of the alignment. These options can be included or dropped from the alternative selected as the final LPA, and are included to allow flexibility in decision making and analysis of the alternatives.

All four fixed-guideway alignments have the same proposed termini. The western terminus is Waianae of Kalaeloa Boulevard in Kapolei. The eastern terminus is at the University of Hawaii at Manoa's Lower Campus. The specific details of the terminals and exact orientation will be determined following detailed analysis in the AA process. However, for planning purposes, these locations have been designated as the fixed-guideway termini.

2.5 ALTERNATIVE 4a: Fixed-Guideway Alternative – Kamokila Boulevard/Salt Lake Boulevard/King Street/Hotel Street/Alakea Street/Kapiolani Boulevard Alignment

The Fixed-Guideway Alternative – Kamokila Boulevard/Salt Lake Boulevard/King Street/Hotel Street/Alakea Street/Kapiolani Boulevard Alignment (Figure 2-2), would begin at a transit terminal facility on the Waianae (west) side of Kalaeloa Boulevard in Kapolei. It would follow Kapolei Parkway, turn onto Kamokila Boulevard, and continue along Farrington Highway. Koko Head of Kapolei Golf Course Road, the guideway could be located either at-grade with limited grade crossings or on an elevated structure. Past Fort Weaver Road, the guideway would be elevated and follow Farrington Highway to Kamehameha Highway. In the vicinity of Aloha Stadium, the alignment would turn to follow Salt Lake Boulevard onto Pukoloa Street, then continue elevated over the Moanalua Stream following North King Street to Iwilei Road.

After crossing Iwilei Road, the guideway would descend to grade and follow Hotel Street. The line would operate as a streetcar on Hotel Street with transit signal priority to minimize delays between River Street and Alakea Street. At Alakea Street the guideway would begin to descend into a tunnel with a portal

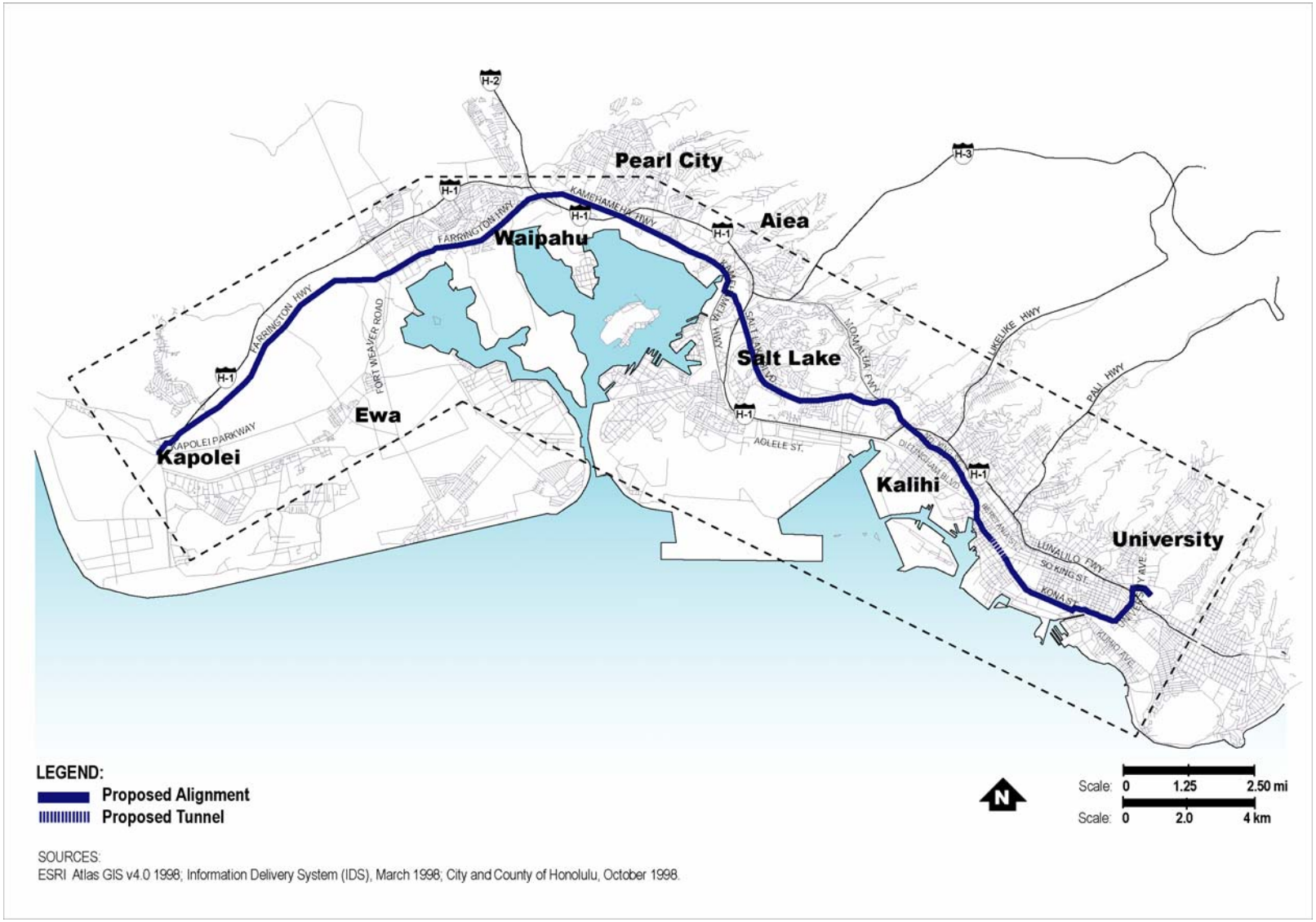

Figure 2-2. Alternative 4a: Fixed-Guideway Alternative – Kamokila Boulevard/Salt Lake Boulevard/King Street/Hotel Street/Alakea Street/Kapiolani Boulevard Alignment

at Richards Street. The guideway would continue in a tunnel under the government campus past Alapai Street, and then follow Kapiolani Boulevard to Cooke Street. The guideway would turn makai and transition to an elevated structure on private property between Dreier Street and Kamani Street. Following Waimanu Street, past Kamakee Street the guideway would turn mauka and follow Kona Street to past Ala Moana Center. It would turn mauka just before Atkinson Drive, and follow Kapiolani Boulevard to University Avenue. The guideway would then turn mauka, and follow University Avenue past the H-1 Freeway, ending at a proposed terminal facility in the University of Hawaii at Manoa's Lower Campus.

2.6 ALTERNATIVE 4b: Fixed-Guideway Alternative – North-South Road/Camp Catlin Road/King Street/Queen Street/ Kapiolani Boulevard Alignment

The Fixed-Guideway Alternative – North-South Road/Camp Catlin Road/King Street/Queen Street/ Kapiolani Boulevard Alignment (Figure 2-3)--would begin at the transit terminal facility in Kapolei, and follow Kapolei Parkway to North-South Road, turn mauka to Farrington Highway, and continue along Farrington Highway as shown on the Public Facilities Map of the Ewa Development Plan. Koko Head of Kalaeloa Boulevard, the guideway could be located either at-grade with limited grade crossings or on an elevated structure. Past Fort Weaver Road, the guideway would be elevated and follow Farrington Highway to Kamehameha Highway.

In the vicinity of the Airport Viaduct, the alignment would follow the mauka side of the H-1 Freeway to Camp Catlin Road, then turn mauka and continue elevated to Salt Lake Boulevard, turning Koko Head, continue elevated over Pukoloa Street, past the Moanalua Stream, and then along North King Street. Between Liliha Street and Iwilei Road, the guideway would turn makai over property to be acquired or over Nuuanu Stream, then follow Nimitz Highway Koko Head to Queen Street, then along Queen Street past Kamakee Street following the new Queen Street Extension alignment.

Property on the mauka side of Waimanu Street would be acquired to allow the alignment to cross over to Kona Street. As in Alternative 4a, the guideway would run above Kona Street through Ala Moana Center, and then turn mauka to follow Kapiolani Boulevard to University Avenue where it would again turn mauka to follow University Avenue over the H-1 Freeway to a proposed terminal facility in the University of Hawaii at Manoa's Lower Campus.

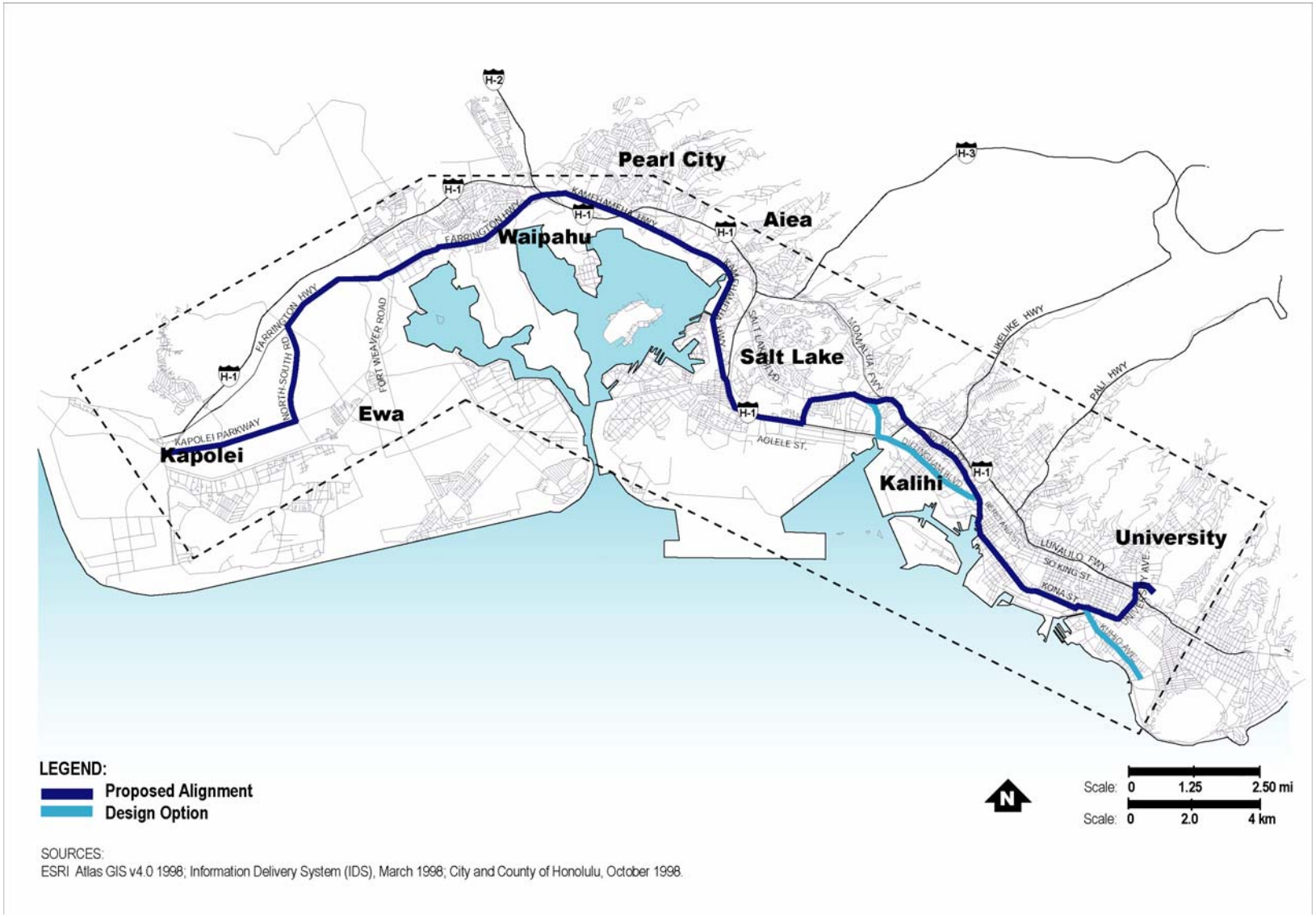

Figure 2-3. Alternative 4b: Fixed-Guideway Alternative – North-South Road/Camp Catlin Road/King Street/Queen Street/ Kapiolani Boulevard Alignment

Design Options

- In the vicinity of Moanalua Stream, the guideway could cross over to Dillingham Boulevard, and continue Koko Head, and would then connect to Nimitz Highway by following Sumner or Kuwili Streets.

- A branch line could extend from a transfer point at Ala Moana Center or the Hawaii Convention Center, into Waikiki following Kalakaua Avenue to Kuhio Avenue, and then continue along Kuhio Avenue to the vicinity of Kapahulu Avenue.

2.7 ALTERNATIVE 4c: Fixed-Guideway Alternative – Ft. Weaver Road/Farrington Highway/Kamehameha Highway/ Dillingham Boulevard/Kaaahi Street/Beretania Street/ King Street/Kaialiu Street Alignment

The Fixed-Guideway Alternative – Ft. Weaver Road/Farrington Highway/Kamehameha Highway/ Dillingham Boulevard/Kaaahi Street/Beretania Street/ King Street/Kaialiu Street Alignment (Figure 2-4)--would begin at the transit terminal facility in Kapolei, following Kapolei Parkway to Wakea Street, then turn makai to Saratoga Avenue. The guideway would continue on a future extension of Saratoga Avenue and Geiger Road onto Fort Weaver Road. Continuing on Fort Weaver Road, the alignment would turn Koko Head onto Farrington Highway and follow Farrington Highway, on an elevated structure to Kamehameha Highway. At the Pearl Harbor Interchange, the guideway could continue either at-grade in the median of Nimitz Highway under the viaduct, or continue elevated along the mauka side of the H-1 Freeway to Dillingham Boulevard, then follow Dillingham Boulevard Koko Head to Kaaahi Street.

The guideway would descend to a tunnel portal in the vicinity of Kaaahi Street, continue through a tunnel under Aala Park and Nuuanu Stream, and then follow Beretania Street. It would transition to an elevated structure on the makai side of Beretania Street between Punchbowl Street and Alapai Street. The guideway would cross over Alapai Street, turning makai to continue above South King Street to Kaialiu Street, where it would turn mauka to cross over University Avenue and the H-1 Freeway to a proposed terminal facility in the University of Hawaii at Manoa's Lower Campus.

Design Options

- In the vicinity of Middle Street, the guideway could cross over to North King Street, and follow North King Street Koko Head then descend to a tunnel portal in property to be acquired in the vicinity of Liliha Street.

- Another alignment option could serve Ala Moana Center by continuing underground to follow Kapiolani Boulevard to Waimanu Street as described for Alternative 4a, or to follow Kawaiahao Street as described for Alternative 4d. The guideway would transition to an elevated structure as described for those two alternatives.

2.8 ALTERNATIVE 4d: Fixed-Guideway Alternative – North-South Road/Farrington Highway/Kamehameha Highway/ Airport/Dillingham Boulevard/Hotel Street/Kapiolani Boulevard with Waikiki Spur Alignment

The Fixed-Guideway Alternative – North-South Road/Farrington Highway/Kamehameha Highway/Airport/Dillingham Boulevard/Hotel Street/Kapiolani Boulevard with Waikiki Spur Alignment (Figure 2-5)--would begin at the transit terminal facility in Kapolei and follow Kapolei Parkway to Wakea Street, then turn makai to a future alignment of Wakea Street to Saratoga Avenue. The guideway would continue on future extensions of Saratoga Avenue and North-South Road, and follow North-South Road to Farrington Highway. Waianae of Fort Weaver Road, the guideway could be located either at-grade with limited grade crossings, or on an elevated structure. Koko Head of Fort Weaver Road, the guideway would be on an elevated structure and follow Farrington Highway to Kamehameha Highway.

The guideway would be elevated along the makai side of the H-1 Freeway from Makalapa Gate to Keehi Interchange, then cross over Keehi Interchange to Dillingham Boulevard, and follow Dillingham Boulevard Koko Head to Kaaahi Street. In the vicinity of Kaaahi Street, the guideway would descend to grade and cross North King Street onto Hotel Street. The line would operate at grade with transit signal priority on Hotel Street to minimize delays between River Street and Alakea Street. As in Alternative 4a, the guideway would begin to descend into a tunnel with a portal at Richards Street, and would then continue in a tunnel under the government campus to past Honolulu Hale, turning makai under South King Street following Kawaiahao Street, where it would transition to an elevated structure past South Street. The guideway would continue on Kawaiahao Street—to near Kamakee Street--where property on each side of Kamakee Street would be acquired to allow the alignment to cross over to Kona Street. As in Alternative 4a, the guideway would run above Kona Street through Ala Moana Center and turn mauka to follow Kapiolani Boulevard to University Avenue, where it would turn mauka to follow University Avenue over H-1 Freeway to a proposed terminal facility in the University of Hawaii at Manoa's Lower Campus.

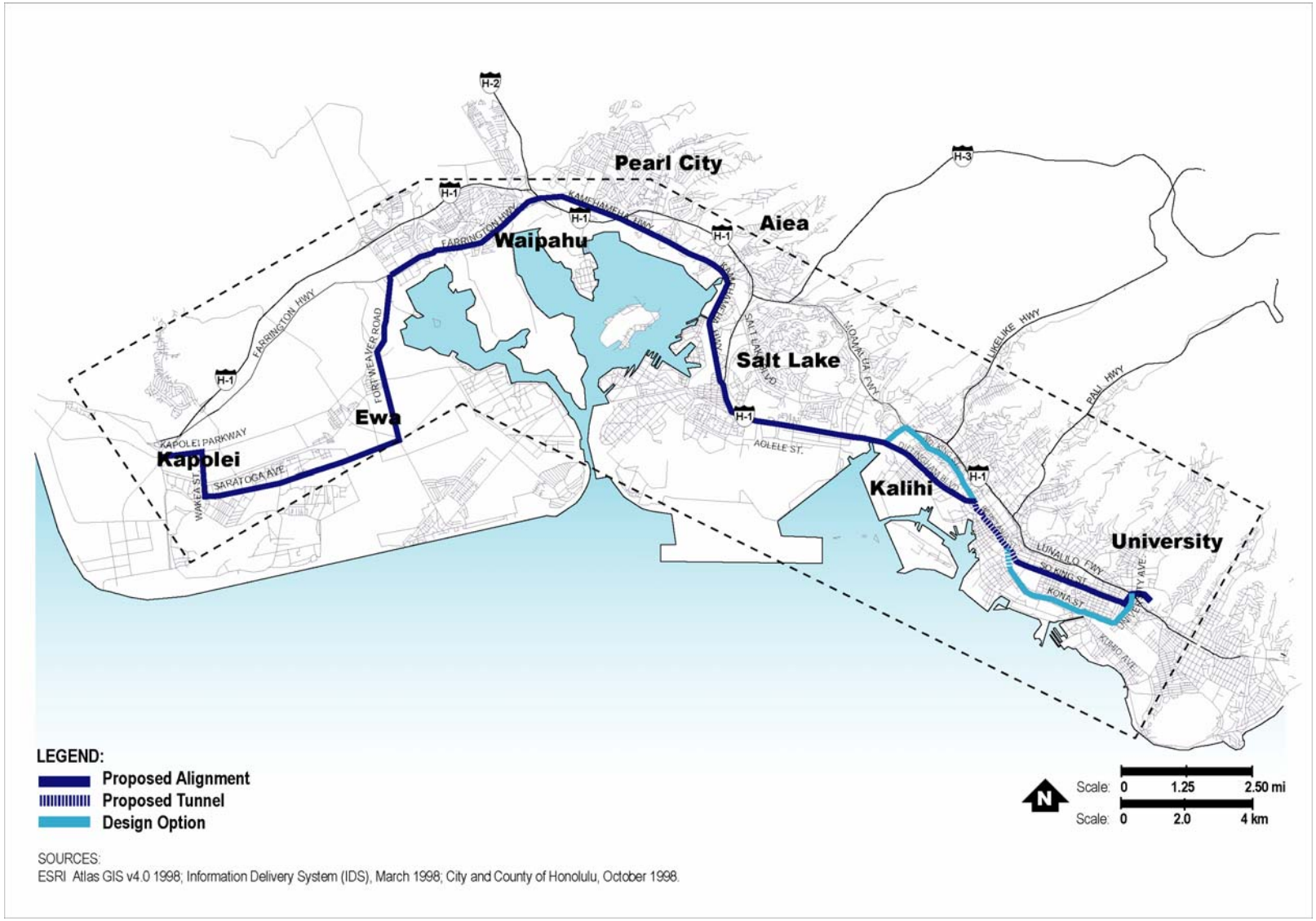

Figure 2-4. Alternative 4c: Fixed-Guideway Alternative – Ft. Weaver Road/Farrington Highway/Kamehameha Highway/ Dillingham Boulevard/Kaaahi Street/Beretania Street/ King Street/Kaialiu Street Alignment

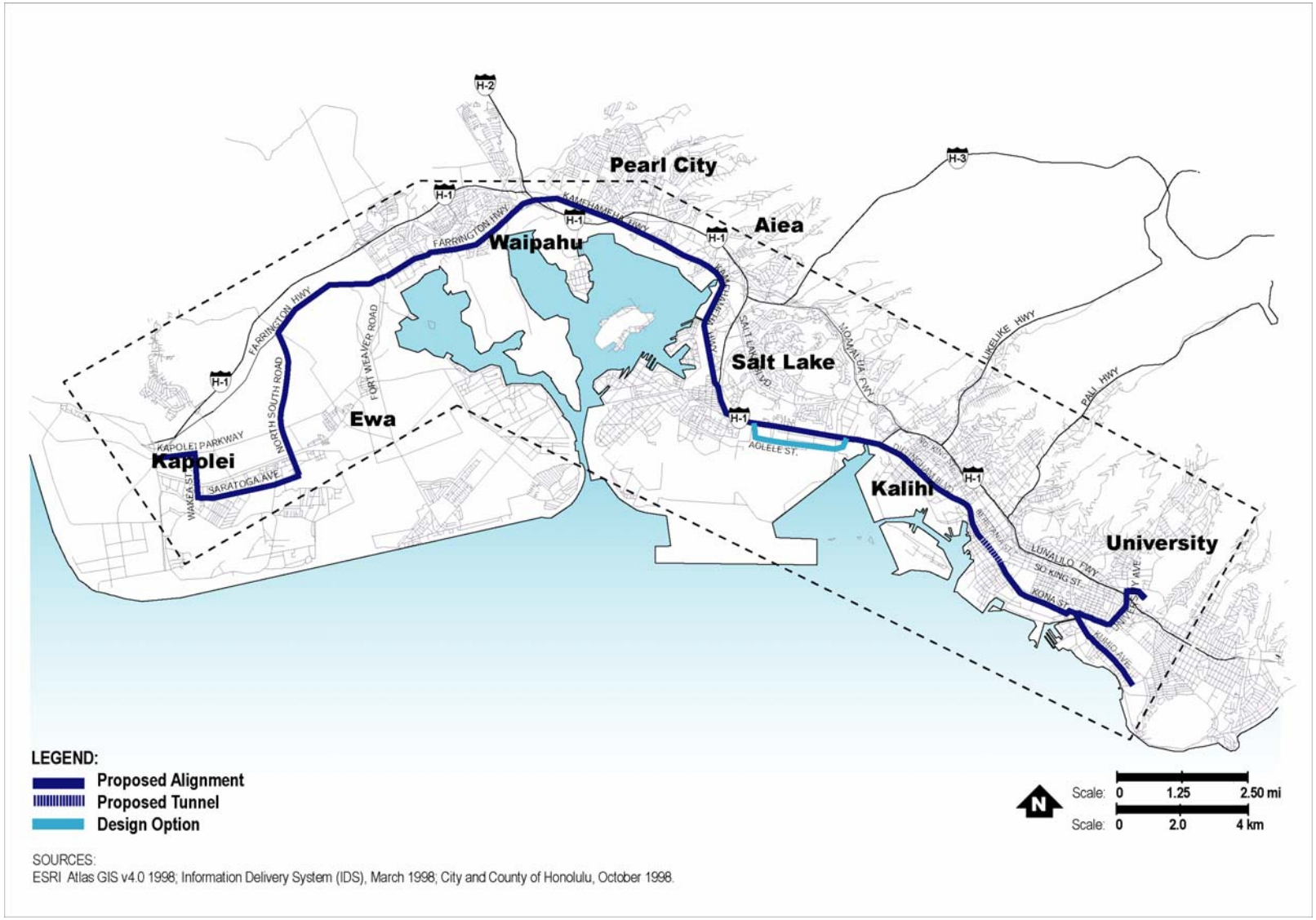

Figure 2-5. Alternative 4d: Fixed-Guideway Alternative – North-South Road/Farrington Highway/Kamehameha Highway/ Airport/Dillingham Boulevard/Hotel Street/Kapiolani Boulevard with Waikiki Spur Alignment

A branch line would extend from a transfer point at Ala Moana Center or the Hawaii Convention Center, into Waikiki following Kalakaua Avenue to Kuhio Avenue, then extend along Kuhio Avenue to the vicinity of Kapahulu Avenue.

Design Option

- In the vicinity of Honolulu International Airport, the alignment would turn makai onto Aolele Street towards the airport and then follow Aolele Street to reconnect to Nimitz Highway near Keehi Interchange.

3.0 Environmental Setting and Proposed Impact Studies

This section provides a brief overview of the existing environmental conditions in the study corridor. Implementation of the proposed action would produce both adverse and beneficial impacts to the environment, and this section will briefly describe the current understanding of potential impacts to be analyzed in the upcoming DEIS.

3.1 TRANSPORTATION SYSTEM

Effects of each project alternative on the transportation system will be addressed in the DEIS, including traffic, transit, non-motorized transportation, and parking.

3.2 PHYSICAL ENVIRONMENT

Air Quality

Section 107 of the 1977 Clean Air Act requires the EPA to publish a list of all geographic areas that do not comply with the National Ambient Air Quality Standards (NAAQS). Areas not in compliance with the NAAQS are termed "non-attainment" areas. Hawaii is an attainment area for all regulated air pollutants.

Construction would cause localized, short-term air quality impacts. Particulate matter (dust) would be generated and localized carbon monoxide (CO) levels may increase because of traffic congestion around construction sites. Some of the alternatives may adversely affect traffic operations at certain intersections. The DEIS will evaluate the potential effects of each alternative on air quality.

Noise and Vibration

Vehicles are major noise sources affecting street-level ambient noise; therefore, alternatives that minimize vehicle noise are highly desirable. Construction would cause localized, short-term noise impacts on sensitive receptors adjacent to construction sites. When completed, some of the alternatives could increase noise levels at certain locations, and some could generate more vibration than at present. Therefore, noise and vibration analyses will be conducted to determine potential impacts on sensitive receptors.

Water Resources

Streams

There are several intermittent and perennial streams running mauka from the coastline within the corridor *ahupuaas* (mountain to ocean land divisions of the valleys), to Central Oahu and the Koolau Mountains. Major streams include

Waikele, Waimalu, Pearl City, Halawa, Moanalua, Kalihi, Kapalama, Nuuanu, and Manoa.

Water Bodies

Major water bodies along the coastline are Barbers Point Harbor, Pearl Harbor, Keehi Lagoon, Honolulu Harbor, Kewalo Basin, Ala Wai Boat Harbor, and Ala Wai Canal.

Wetlands

Wetlands exist within the corridor in low-lying areas around Pearl Harbor and along streams. Floodplains are located in the vicinity of Pearl City Peninsula, Aiea near Pearl Harbor, Puuloa-Kapalama, Ala Moana, and Waikiki.

Aquifers

Underlying all of southern Oahu is a basal aquifer containing large supplies of fresh groundwater. The Southern Oahu Basal Aquifer (SOBA) was designated a sole or principal source aquifer by the U.S. EPA in November 1987.

Regulatory Compliance

None of the alternatives are anticipated to cause adverse effects on surface waters, wetlands or floodplains in the corridor. In accordance with construction permits, Best Management Practices (BMPs) would be used to minimize the detrimental effects of storm water runoff during construction. Consistency with the State Coastal Zone Management and the City and County of Honolulu Special Management Area programs would be evaluated in the DEIS. Coordination with the U.S. Army Corps of Engineers would be initiated to determine their permitting requirements. Since the project will overlie the SOBA, a water quality assessment will be prepared in accordance with Section 1424(e) of the federal Safe Drinking Water Act.

Ecosystem

Flora

Vegetation in the corridor consists of street trees (including some exceptional trees recognized under City Revised Ordinance 78-91), landscape treatments, other plantings, a watercress farm, and weedy patches.

The endangered Abutilon menziesii, common names “ko‘oloa‘ula” and “red ‘ilima,” may occur on public right-of-way in the corridor. A botanical survey has located specimens in the vicinity of the proposed Kapolei Parkway Extension that will connect the proposed North-South Road with the OR&L right-of-way (ROW) where the existing Kapolei Parkway currently ends. In the first section of Kapolei Parkway, from the proposed intersection with

North-South Road to the proposed intersection with Renton Road, "Abutilon menziesii is known to occur on the adjacent State-owned lands; some Abutilon have also been recorded on the City and County-owned lands" (Ohashi and PBR Hawaii 2003).

Fauna

Faunal habitats in the corridor are generally modified and populated with introduced species. Streams and coastal waters within the corridor provide habitat for introduced and indigenous fish and shrimp and migrating shorebirds. Some of these species (Fairy Terns and Shearwater) are classified as threatened or endangered, and may frequent the study area.

Threatened or Endangered Species Consultation

The U.S. Fish and Wildlife Service will be consulted on the presence of threatened or endangered floral and faunal species in the corridor.

DEIS Disclosure of Potential Impacts and Mitigations

The proposed action has the potential to adversely affect ecosystems, threatened and endangered species, and exceptional trees that may require mitigation, and the DEIS will endeavor to fully disclose those anticipated impacts and proposed mitigations.

Hazardous Materials

Certain areas may contain contaminated media (soil and groundwater). For example, there have been reports of leaking underground storage tanks in the corridor. The DEIS will contain a hazardous materials study, including a database search of potential sources of contamination and assessments of whether the proposed action would trigger releases of contamination.

3.3 SOCIAL ENVIRONMENT

Land Use

The Primary Urban Center (PUC)--the area from Pearl City to Kahala--is the most urbanized area within both Oahu and the State. High-density residential areas include Waipahu, Pearl City, Salt Lake, Kalihi, downtown Honolulu, Makiki, Moiliili, and Waikiki. Since Ewa's residential communities are single-family or low-density apartments, and large tracts of land are being used for agriculture, this region is less densely populated than the PUC. Commercial areas are spread throughout the corridor.

Use of Prime Agricultural Lands

The Ewa Plain was once a major agricultural area primarily used to cultivate sugarcane. However, sugarcane has not been cultivated in Ewa since 1995. Despite recent rapid urbanization, much of the Ewa Plain is still classified and zoned for agricultural use by the State of Hawaii and City and County of Honolulu, respectively. In addition, much of Ewa that is not urbanized is classified as "Prime Agricultural Land" according to the Agricultural Lands of Importance to the State of Hawaii (ALISH) land classification system (1977). Construction of the proposed project may impact farmlands. FPPA requires the federal agency to identify and consider the adverse effects of their programs on the preservation of farmland; consider alternative actions that could lessen adverse effects; and ensure that their programs, to the extent practicable, are compatible with State, local government, and private programs and policies to protect farmland. The proposed project will be evaluated as per the requirements of the federal Farmland Protection Policy Act (FPPA).

Employment Centers

Major employment centers in the corridor include Campbell Industrial Park, Waipahu, Pearl City, Pearl Harbor Naval Complex, Honolulu International Airport, Kalihi-Palama, downtown Honolulu, Kakaako, Waikiki, and the University of Hawaii at Manoa. Kapolei is developing into a major employment center.

The proposed action would likely influence long-term land use development in the corridor, and is intended to encourage Transit-Oriented Development (TOD) in the Primary Urban Center. Potential land use impacts and development opportunities will be explored in the DEIS.

Social and Economic Conditions

Demographics

The study area contains the full range of social groups (e.g., low-, medium-, and high-income) that reside on Oahu. In accordance with the Executive Order on Environmental Justice (E.O. 12898), the DEIS will include information on the location of and project effects on minority and low-income populations. The DEIS will also include measures to avoid disproportionately high and adverse effects on minority and low-income populations' health or environment.

Employment

The discussion under Land Use lists major employment centers in the corridor. The DEIS will include analyses of potential impacts to commercial and business districts, as well as tax revenue impacts on the City and County of Honolulu.

Parks and Recreation Areas

Major parks and recreational areas in the corridor include Neal S. Blaisdell Park, Keehi Lagoon Park, Ala Moana Regional Park, Aala Park, Kapiolani Regional Park, and Waikiki. Potential direct and indirect impacts on these resources and on smaller parks and recreational areas will be evaluated in the DEIS. If the proposed action uses land from a public park or recreational area, a Section 4(f) evaluation would be conducted in accordance with the requirements of the U.S. Department of Transportation (DOT) Act.

Historic Resources

Major historic areas in the corridor include Pearl Harbor Historic District, Merchant Street Historic District, Chinatown Historic District, and the Hawaii Capitol Historic District. Potential direct and indirect impacts on these and other historic resources in the corridor will be evaluated in the DEIS. The DEIS will document compliance with Section 106 of the National Historic Preservation Act and Section 4(f) of the U.S. DOT Act.

Visual and Aesthetic

Visual and aesthetic resources in the corridor include mauka-makai view planes of the Koolau and Waianae Mountain ranges, the ocean, and views of certain buildings, monuments, and landmarks. The DEIS will identify these visual resources and determine whether the proposed action will adversely affect them. Additionally, the visual impact of the alternatives on neighborhood and streetscape views will be determined.

3.4 FINANCE AND COST-EFFECTIVENESS

Information on capital costs, operating and maintenance costs, and revenue sources will be included in the DEIS. Using this and other information, such as ridership projections, the DEIS will include analyses of cost-effectiveness and financial feasibility.

3.5 PERMITS AND APPROVALS

The following permits and approvals may be required for the proposed action. Specific permits needed will be identified during development of the EIS.

Federal

- Army Corps of Engineers Permit under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act
- Coast Guard Advance Bridge Approval
- Environmental Protection Agency Section 1424(e) Approval (Sole Source Aquifer)
- FHWA Approval of Modifications with Limits of Interstate Highways

State

- Department of Land and Natural Resources (DLNR) Permit to Alter Stream Channels
- DLNR Historic Sites Review
- Department of Transportation Permit to Perform Work Upon a State Highway
- Department of Business, Economic Development and Tourism Coastal Zone Management Consistency Determination
- Department of Health (DOH) Noise Permit
- DOH National Pollutant Discharge Elimination System Permit
- DOH Water Quality Certification

City and County of Honolulu

- Department of Design and Construction (DDC) Building Permit
- DDC Grubbing, Grading, Excavation, and Stockpiling Permit
- Department of Transportation Services Street Usage Permit
- Department of Planning and Permitting (DPP) Special Management Area Permit
- DPP Floodway/Floodplain Variances
- DPP Development Application in Flood Hazard Districts
- DPP Special Design District Permit

4.0 Planned Scoping Activities

Public scoping meetings will be held at the Neal S. Blaisdell Center, Pikake Room, at 777 Ward Avenue, on December 13, 2005, from 5:00 p.m. to 8:00 p.m.; and at Kapolei Middle School Cafeteria, at 91-5335 Kapolei Parkway, on December 14, 2005, from 7:00 p.m. to 9:00 p.m. The public is invited to comment on the purpose and need to be addressed by the project, the alternatives, the modes and technologies to be evaluated, the alignments and termination points to be considered, and the environmental, social, and economic impacts to be analyzed. Written comments on the project alternatives, scope of the EIS, and purpose and need to be addressed by the project, should be forwarded to: Department of Transportation Services, City and County of Honolulu, 650 South King Street, 3rd Floor, Honolulu, HI, 96813, Attention: Honolulu High-Capacity Transit Corridor Project or by the internet at www.honolulutransit.org.

The following Federal, State of Hawaii, and City and County of Honolulu agencies will receive a copy of this EISPN. It will also be posted at www.honolulutransit.org.

Federal Agencies

Department of Agriculture, Natural Resources Conservation Service

Department of Defense

- Army Corps of Engineers
- U.S. Naval Base Pearl Harbor
- U.S. Army Garrison-Hawaii
- 15th CES - Hickam AFB

Department of the Interior

- Fish and Wildlife Service
- Geological Survey
- National Park Service

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 and Tourism

- Office of Planning
- Land Use Commission
- Energy, Resources and Technology Division

Department of Defense

Department of Education

Department of Hawaiian Home Lands

Department of Health

- Clean Water Branch
- Clean Air Branch
- Solid and Hazardous Waste Branch
- Noise and Radiation Branch

Department of Land and Natural Resources

- Commission on Water Resource Management
- Land Division
- State Historic Preservation Division
- State Parks Division

Department of Transportation

- Airports Division
- Harbors Division
- Highways Division

Hawaii Community Development Authority

Legislative Reference Bureau

Legislators representing districts within the corridor

State Main Library and all libraries within the corridor

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

City Council members

Department of Design and Construction

Department of Environmental Services

Department of Facility Maintenance

Department of Parks and Recreation

Department of Planning and Permitting

Fire Department

Honolulu Municipal Reference and Records Center

Neighborhood boards within the corridor

Police Department

The EISPN will also be sent to other environmental, community, civic, and business organizations as well as the following:

Hawaiian Electric Company

Hawaiian Telephone Company

Honolulu Advertiser

Honolulu Star-Bulletin

Leeward Oahu Transportation Management Association

Oahu Metropolitan Planning Organization

The Gas Company

REFERENCE

Ohashi, Y. and PBR Hawaii. 2003. Habitat Conservation Plan for Abutilon menziesii at Kapolei. Prepared for Parsons Brinckerhoff and State of Hawaii, Department of Transportation. November 2003.