

# Comments and Coordination

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Agencies, non-governmental groups, and the public have been engaged throughout the planning process for the Honolulu High-Capacity Transit Corridor Project, as required by Federal and State law. The National Environmental Policy Act (NEPA) (USC 1969) mandates agency and public participation in defining and evaluating the impacts of the project alternatives. The Project has followed Section 6002 of the *Safe, Accountable, Flexible, Efficient, Transportation Equity Act—A Legacy for Users* (SAFETEA-LU) (PL 2005) guidance for federally funded projects. It has also followed U.S. Department of Transportation guidelines for public participation, including Title VI of the Civil Rights Act of 1964 (USC 1964c) and Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (USEO 1994).

The requirements of Chapter 343 of the Hawai‘i Revised Statutes (HRS) (HRS 2008) and implementing regulations contained in Title 11, Chapter 200 (HAR 1996) of the Hawai‘i Administrative Rules (HAR) also include consultation with agencies, citizen groups, and concerned individuals

during the Project. Coordination activities required under the implementing regulations of Section 106 of 36 CFR 800, *Protection of Historic and Cultural Properties*, have also been implemented during the course of the Project.

NEPA and HRS 343 require that a Draft Environmental Impact Statement (EIS) provide full disclosure of the environmental impacts associated with a proposed action. The agencies and the public must be given a reasonable opportunity to comment on that action. In accordance with Federal and State regulations, this Final EIS includes the comments received on the Draft EIS and responses (Appendix A, Comments Received on the Draft Environmental Impact Statement and Responses).

## 8.1 Changes to this Chapter since the Draft Environmental Impact Statement

This chapter has been updated to reflect the current list of cooperating agencies and Section 106 coordinating parties. Section 8.2, Public and Community Outreach, was expanded to detail

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NEPA coordination. Section 8.5, Public Hearings, has been updated, and a new Section 8.6, Draft EIS Comments, has been added to summarize the public comment period on the Draft EIS. Section 8.7, Continuing Public Involvement through Construction, was added to address that public involvement will be ongoing through construction of the Project.

Since the publication of the Draft EIS, the U. S. Department of Defense (U.S. Army Corps of Engineers) and the U.S. Department of Homeland Security (U.S. Coast Guard—14th Coast Guard District) have each requested their status be changed from cooperating agency to participating agency. The U.S. Department of Defense (U.S. Naval Base Pearl Harbor) requested status as a cooperating agency.

## **8.2 Public and Community Outreach**

The Project’s public involvement efforts began with the Project’s Alternatives Analysis phase in December 2005. Opportunities for public comment and information sharing will continue throughout the remainder of the Project, using the now well-established network of existing civic and community groups.

The Public Involvement Plan (PIP) developed for the Alternatives Analysis and Draft EIS phase details public involvement strategies to be used throughout the Project. Its fundamental goal is to engage, inform, and respond to the public. As the Project progresses, the PIP will be updated and revised to reflect changes in the Project and ensure that coordination is thorough, effective, and relevant.

### **8.2.1 Public Outreach Techniques**

To reach as many community members as possible, a wide variety of public involvement tools have been used throughout the Project. Informational materials produced on an ongoing basis include

monthly newsletters, fact sheets, brochures, media releases, public meeting announcements, and other relevant project handouts. At the conclusion of the Alternatives Analysis, a video was produced highlighting the report’s findings. Complementing materials include the project website ([honolulutransit.org](http://honolulutransit.org)), telephone information line (808-566-2299), radio programs, and a monthly show on public access television.

Islandwide community updates were held during the course of the Project to share information and gather input on significant milestone decisions. The Project maintains an active Speakers Bureau to provide informational presentations to community groups, agencies, and organizations. A full list of Speakers Bureau presentations is included in Appendix G, Record of Public and Stakeholder Correspondence and Coordination. To date, more than 2,500 comments on the Project have been submitted through the website, and more than 600 have been received via the project information line.

### **8.2.2 Government and Other Agency Coordination**

Government agencies that have an interest in and/or regulatory authority regarding the Project have been actively engaged. These agencies were sent scoping information and requests to become participating or cooperating agencies during the environmental process.

Feedback was solicited from the following government and other agencies through direct contact:

- Elected officials
- Neighborhood Boards
- The Transit Advisory Committee (formerly the Transit Solutions Advisory Committee)
- Governmental agencies and stakeholders
- Interested organizations

Appendix F, Record of Agency Correspondence and Coordination, includes a list of governments, agencies, and organizations contacted.

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### **Lead, Cooperating, and Participating Agencies**

The Council on Environmental Quality defines *lead agency* as the agency or agencies preparing or taking primary responsibility for preparing an EIS. Lead agencies for the Project include the City and County of Honolulu Department of Transportation Services Rapid Transit Division (RTD) and the Federal Transit Administration (FTA). RTD is the local transit agency, the designated recipient of project funds, and a co-lead agency with the FTA.

The Council on Environmental Quality defines a *cooperating agency* as any Federal agency (other than a lead agency) with jurisdiction by law or special expertise with respect to any environmental impacts that may be involved in a proposed project or project alternative (40 CFR 1508.5). A State or Local agency with similar qualifications may, with agreement from the lead agencies, also become a cooperating agency.

Also, pursuant to 40 CFR 1506.3, “a cooperating agency may adopt without recirculating the Draft EIS of a lead agency when, after an independent review of the statement, the cooperating agency concludes that its comments and suggestions have been satisfied.”

Cooperating agencies for the Project include the following:

- U.S. Department of Defense (U.S. Army Garrison–Hawai‘i)—the Project may require the U.S. Army’s approval related to crossing U.S. Army property
- U.S. Department of Defense (U.S. Naval Base Pearl Harbor)—the Project will require the U.S. Navy’s approval related to a station on U.S. Navy property
- U.S. Department of Transportation, Federal Highway Administration—the Project will require the Federal Highway Administration’s approval related to crossing and accessing the interstate highway system

- State of Hawai‘i Department of Transportation—the Project will require the State of Hawai‘i Department of Transportation’s approval related to using state rights-of-way

*Participating agencies* are those with an interest in the Project. The standard for participating agency status is broader than for cooperating agency status. According to SAFETEA-LU regulations, “any Federal, State, regional, and local government agency that may have an interest in the project should be invited to serve as participating agencies. Nongovernmental organizations and private entities cannot serve as participating agencies.”

For this Project, participating agencies include the following:

- U.S. Department of Defense (U.S. Army Corps of Engineers)—the Project will require the U.S. Army Corps of Engineers’ permits and approval related to stream crossings along the alignment
- U.S. Department of Agriculture (Natural Resource Conservation Service)
- U.S. Department of Homeland Security (U.S. Coast Guard—14th Coast Guard District)
- U.S. Department of the Interior (Fish and Wildlife Service)
- U.S. Department of the Interior (National Park Service)
- U.S. Department of the Interior (U.S. Geological Survey Pacific Island Ecosystems Research Center)
- U.S. Department of Transportation, Federal Aviation Administration
- U.S. Environmental Protection Agency
- U.S. Federal Emergency Management Agency
- State of Hawai‘i Department of Accounting and General Services
- State of Hawai‘i Department of Business, Economic Development and Tourism
- State of Hawai‘i Department of Defense
- State of Hawai‘i Department of Education

- State of Hawai‘i Department of Hawaiian Home Lands
- State of Hawai‘i Department of Health
- State of Hawai‘i Department of Land and Natural Resources
- State of Hawai‘i Department of Land and Natural Resources (State Historic Preservation Division)
- State of Hawai‘i, Hawai‘i Community Development Authority
- State of Hawai‘i Office of Environmental Quality Control
- State of Hawai‘i Office of Hawaiian Affairs
- University of Hawai‘i
- O‘ahu Metropolitan Planning Organization

Participating agencies were identified and invited to participate at the start of the NEPA process. Their participation includes providing input to scoping, development of the Purpose and Need, and identification of potential effects. Project scoping and issuance of the Draft EIS provided official comment periods for the public and participating and cooperating agencies.

The lead, cooperating, and participating agencies have worked cooperatively throughout the

Project’s environmental process, as required by the SAFETEA-LU regulations described in this chapter. During this process, their main goal is to ensure that all agency concerns are satisfactorily addressed and that the permit review and approval process proceeds smoothly and expeditiously.

Table 8-1 summarizes the roles and responsibilities of the Project’s lead, cooperating, and participating agencies. Appendix F includes agency correspondence.

### 8.2.3 Section 106 and Consulting Party Coordination

The lead agency is responsible for complying with Section 106 of the National Historic Preservation Act. Section 106 requires the lead agency to “accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties...” (36 CFR 800.1(a)). Although other parties are consulted for their input, the Federal agency has the authority to make all decisions.

**Table 8-1** Summary of Agency Roles and Responsibilities

Agency Designation	Role	Responsibility
Lead	Primary responsibility: ensuring compliance with NEPA and preparing the environmental document.	Requests participation from other agencies; provides project information; conducts field reviews; holds scoping meetings; provides pre-draft and pre-final documents; ensures documentation is adequate for project and related decisions; and makes final decisions on key milestones.
Cooperating	Any Federal agency, other than a lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed project or project alternative (may also be a State agency).	Participates early in the NEPA process; participates in developing the Purpose and Need and alternatives and in the scoping process; develops information and analysis; provides staff support; attends joint field reviews; participates in public involvement activities; reviews draft environmental documents; and provides comments.
Participating	Any Federal, State, Regional, or Local government agency that may have an interest in a proposed project. Nongovernmental organizations and private entities cannot serve as participating agencies.	Participates in developing the Purpose and Need and alternatives and identifying potential impacts during scoping and the Draft EIS. Briefed on the Project before issuance of the Draft EIS.

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To comply with Section 106, consultation with the State Historic Preservation Division (SHPD) has been continuous since October 2007. SHPD has agreed on methodologies and definitions of the Area of Potential Effect, eligibility determinations, and effects determinations. Agreement on the significance of properties within the study corridor has been reached. The Project team had consulted with SHPD regarding Memoranda of Agreement for potential impacts to archaeological, cultural, and historic resources. The final results of consultation with the SHPD on assessing effects are included in this Final EIS.

Opportunities for ongoing public input on archaeological, cultural, and historic resources will continue through the remainder of the EIS process. Members of the public have had an opportunity to review and comment on archaeological, cultural, and historic resource findings during the Draft EIS public hearing and public comment period.

Consulting parties who have a demonstrable interest in historic properties that may be affected are invited to participate in a proposed project's Section 106 process. The City sent letters to Section 106 consulting parties inviting them to be consulting parties for the Project's Section 106 process and also to update them on the Archaeological Resources Technical Report (RTD 2008n), Cultural Resources Technical Report (RTD 2008p), and Historic Resources Technical Report (RTD 2008o). The Project also sent follow-up letters requesting confirmation that organizations the Project has been unable to reach still wish to continue their status as a Section 106 consulting party. Project team members have also met with Section 106 consulting parties to refine the technical reports and to also inform them on the Project and upcoming activities. The following organizations are Section 106 consulting parties:

- State of Hawai'i Department of Land and Natural Resources (State Historic Preservation Division)

- U.S. Department of Defense (U.S. Naval Base Pearl Harbor)
- Historic Hawai'i Foundation
- U.S. Department of the Interior, National Park Service
- Advisory Council on Historic Preservation
- National Trust for Historic Preservation
- University of Hawai'i Historic Preservation Certificate Program
- American Institute of Architects
- Hawai'i Community Development Authority (for Kaka'ako and Kalaeloa)
- Office of Hawaiian Affairs
- O'ahu Island Burial Council
- Hui Malama I Na Kupuna O Hawai'i Nei (Group Caring for the Ancestors of Hawai'i)
- Royal Order of Kamehameha
- The Ahahui Ka'ahumanu (civic club formed in 1864 to celebrate the life of Queen Ka'ahumanu)
- The Hale O Na Ali'i O Hawai'i
- The Daughters and Sons of the Hawaiian Warriors
- Association of Hawaiian Civic Clubs
- 15 Individual Hawaiian Civic Clubs

Appendix F includes copies of all Section 106 correspondence.

#### **8.2.4 HRS Chapter 343 Coordination**

The EIS preparation notice for this Project was published in the Hawai'i Office of Environmental Quality Control's (OEQC's) Environmental Notice on December 8, 2005, thus beginning the 30-day comment period under HRS 343 for the Project. Comments received are contained in the *Honolulu High Capacity Transit Corridor Project Scoping Report* (DTS 2006c) located in Appendix G. Written responses were prepared and sent to all commenters who provided either a mailing address or an e-mail address for responses. The Draft EIS addressed comments and issues raised during the EIS preparation notice comment period and issues noted during the NEPA scoping process in 2007.

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HRS 343 and its implementing regulations contained in HAR Title 11, Chapter 200, require that agencies, citizen groups, and concerned individuals be consulted for input. Interested parties may request consulting party status to receive ongoing project and coordination information. Downtown Neighborhood Board No. 13 and the Outdoor Circle requested and were granted consulting party status under HRS 343. Both parties have received periodic updates on the Project, and consultation activities will continue throughout the Project.

### 8.2.5 NEPA Coordination

The Notice of Intent to prepare the EIS appeared in the *Federal Register* on March 15, 2007. The scoping comment period under NEPA officially began on the date of the *Federal Register* publication and closed on April 12, 2007. All interested individuals and organizations and Federal, State, and Local agencies were invited to comment on the Purpose of and Needs to be addressed by the Project; the alternatives, including the modes and technologies to be evaluated and the alignments and termination points to be considered; and the environmental, social, and economic impacts to be analyzed. An opportunity to express a preference for a particular alternative was available after the Draft EIS was released. Comments received are contained in the *Honolulu High Capacity Transit Corridor Project National Environmental Policy Act Scoping Report* (DTS 2007) located in Appendix G.

A Notice of Availability of the Draft EIS was published in the *Federal Register* on November 21, 2008. Notice also appeared in the *Environmental Record* issued by the Hawai'i Office of Environmental Quality Control in its November 24, 2008, edition. The Draft EIS was circulated for a 45-day review and comment period, which was later extended. Information about cooperating and participating agencies under NEPA are included earlier in this chapter.

## 8.3 Community Outreach during the Alternatives Analysis Phase

Federal regulations (40 CFR 1501) require scoping to follow publication of a Notice of Intent to prepare an EIS and take place before the Draft EIS is prepared. A public meeting was held during the scoping process. Notice of this meeting was published in the *Federal Register*, in local newspapers, and through other means of announcing public meetings.

An initial Notice of Intent was published for the Project on December 5, 2005. Two public scoping meetings and one agency scoping meeting were held in December 2005. The first public meeting was on December 13, 2005, at the Neal S. Blaisdell Center Pīkake Room at 777 Ward Avenue in Downtown Honolulu from 5:00 to 8:00 p.m. The second public meeting was on December 14, 2005, at the Kapolei Middle School Cafeteria at 91-5335 Kapolei Parkway in Kapolei, from 7:00 to 9:00 p.m. Agencies, non-governmental groups, and the general public were given the opportunity to comment on the Project's Purpose and Need, alternatives, and other project issues.

The comment period for these scoping meetings ended on January 9, 2006. In all, 528 comments were received via mail, website, telephone, and at the meetings (requests to be placed on the mailing list were not included in this total). Comments were grouped into three categories: Purpose and Need, Alternatives, and Scope of Analysis.

The agency scoping meeting was on December 13, 2005, at the Neal S. Blaisdell Center Pīkake Room at 777 Ward Avenue from 2:00 to 4:00 p.m. Invitation letters were mailed between December 5 and 7, 2005 to 87 Federal, State, and County agencies and to utility companies. This meeting was attended by 20 agencies and utility companies. Comments were received from the following agencies and utilities:

- U.S. Department of Transportation, Federal Aviation Administration
- U.S. Environmental Protection Agency
- U.S. National Park Service
- Hawai‘i Community Development Authority
- State of Hawai‘i Department of Accounting and General Services
- State of Hawai‘i Department of Education
- State of Hawai‘i Department of Hawaiian Home Lands
- State of Hawai‘i Department of Land and Natural Resources
- State of Hawai‘i Office of Environmental Quality Control
- Office of Hawaiian Affairs
- University of Hawai‘i
- City and County of Honolulu Department of Design and Construction
- City and County of Honolulu Fire Department
- Downtown Neighborhood Board No. 13
- Hawaiian Electric Company

Project personnel attended 104 neighborhood board meetings and 204 Speakers Bureau events during the Project’s Alternatives Analysis phase.

The Alternatives Analysis was completed in October 2006 and submitted to the City Council for use in its selection of a Locally Preferred Alternative. Agency and public comments on the Alternatives Analysis were generally categorized as either supporting a specific alternative or opposing the Project. Numerous other general comments or questions did not directly support or oppose specific options.

## **8.4 Community Outreach during the Project’s Preliminary Engineering/EIS Phase**

Another series of public and agency scoping meetings was held prior to beginning the Project’s Preliminary Engineering (PE)/EIS phase. A Notice

of Intent was published on March 15, 2007, stating that this notice superseded the previous Notice of Intent published on December 5, 2005.

Agencies, non-governmental groups, and the general public were again given the opportunity to comment on the Project’s Purpose and Need, alternatives, or other project issues. Coordination is currently continuing with cooperating and participating agencies. Meetings with individual agencies have been held to discuss and finalize evaluation methods and project issues and to collect project data.

Three public scoping meetings were held in March and April 2007. The first was on March 28, 2007, at Kapolei Hale at 1000 Uluohia Street from 6:00 to 9:00 p.m. The second was on March 29, 2007, at McKinley High School at 1039 South King Street from 5:00 to 8:00 p.m. The third was on April 3, 2007, at Salt Lake Elementary School at 1131 Ala Liliko‘i Street from 5:00 to 8:00 p.m.

There were 104 comments received via mail, website, telephone, and at scoping meetings. The following types of comments were not included in this total: requests to be placed on the mailing list, comments on alternatives already considered and/or eliminated from further consideration, comments on new alternatives considered previously and eliminated, Council hearing comments from the Alternatives Analysis phase, and taxation comments.

An agency scoping meeting was held on March 28, 2007, at Honolulu Hale, Mission Memorial Auditorium, 550 King Street from 10:00 a.m. to 12:00 p.m. Twenty agencies attended.

The public involvement techniques used during the Alternatives Analysis phase continued throughout the PE/EIS phase. In addition to updating groups and organizations on the Project’s progress, additional presentations have been made to new groups

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and organizations. Public meetings have been held throughout the study corridor in the form of community updates, participation in the Town Hall meetings, and informational displays. Project personnel have also attended Neighborhood Board meetings and have been available via radio call-in shows. The Project website and hotline continue to be updated and maintained. Approximately 20 half-hour information shows about the Project have been produced and broadcast on local Olelo television. The Project also produced an interactive DVD containing the Draft EIS, a 28-minute movie summarizing important points of the Draft EIS, and a flythrough of the Airport and Salt Lake Alternatives that was sent to all recipients of the Draft EIS.

Cooperating agencies have been offered the opportunity to be briefed on the Project and given an opportunity to comment on the Draft EIS. Cooperating agencies were invited to attend the Draft EIS public hearings. Participating agencies received a copy of the Draft EIS for review and comment and were invited to attend the Draft EIS public hearings.

All cooperating agencies received a preliminary copy of the Final EIS for review and comment prior to its distribution. All participating agencies will receive a copy of the Final EIS, and will receive notification when the Record of Decision is issued. The Final EIS is being distributed to everyone who was on the list of recipients for the Draft EIS, along with all those who provided comments on the Draft EIS.

Agencies with permitting authority will continue to be consulted during the permit application process. Permit applications will be submitted, and data will be developed to support the needs identified by permitting agencies.

## 8.5 Public Hearings

As part of the NEPA and HRS 343 process, the Draft EIS was circulated for a 45-day review and comment period, which was later extended. A Notice of Availability of the Draft EIS was published in the *Federal Register* on November 21, 2008. Notice also appeared in the *Environmental Record* issued by the Hawai'i Office of Environmental Quality Control in its November 24, 2008, edition. In December 2008, the review and comment period was extended until February 6, 2009, in response to requests by agencies and members of the public. During this period, the document was made available to interested and concerned parties, including residents, property owners, community groups, the business community, elected officials, and public agencies, for public and agency comment.

A series of five formal public hearings was held during the initial 45-day period. The purpose of the hearings was to give interested parties an opportunity to formally submit comments on the Project and the analysis contained in the Draft EIS. Attendance at the hearings was not required to submit comments. All of the public hearings were held in ADA-compliant locations, and the availability to request special needs materials or personnel was provided. Attendees were provided handouts, including a schedule of the times and locations for all hearings and a project information sheet. Responses to comments received are addressed in this Final EIS.

Public hearings were held at the following times and locations:

- Saturday, December 6, 2008, at Kapolei Hale, 1000 Uluohia Street in Kapolei from 9 a.m. to 11 a.m. This hearing was attended by 33 individuals; 11 testimonies were given and 2 comment forms were placed into comment boxes. A written letter was also handed to a court reporter as a comment.

- Monday, December 8, 2008, at Neil S. Blaisdell Center, Hawai‘i Suite, 777 Ward Avenue in Honolulu from 6 p.m. to 8 p.m. This hearing was attended by 79 individuals; 26 testimonies were given and 10 comment forms were placed into comment boxes.
- Tuesday, December 9, 2008, at Salt Lake District Park, 1159 Ala Liliko‘i Place in Honolulu from 6 p.m. to 8 p.m. This hearing was attended by 59 individuals; 25 testimonies were given and 5 comment forms were placed into comment boxes.
- Wednesday, December 10, 2008, at the Filipino Community Center, 94-428 Mokuola Street in Honolulu from 6 p.m. to 8 p.m. This hearing was attended by 45 individuals; 8 testimonies were given. No comment forms were placed into the comment boxes.
- Thursday, December 11, 2008, at Bishop Museum, 1525 Bernice Street in Honolulu from 6 p.m. to 8 p.m. This hearing was attended by 11 individuals; 3 testimonies were given. No comment forms were placed into the comment boxes.

Two rooms were used for all public hearings. One room contained project information on display boards, multi-media displays, copies of the Draft EIS, and comment boxes. Project staff were on hand to interact with the public. Two secured comment boxes were provided for those who wished to submit written comments. A court reporter was also stationed in this area to transcribe comments from the public.

The other room was the public hearing room where the public was invited to comment on the Project. Stationed in this room were the Public Hearing Officer and a court reporter for transcriptions. Transcripts from all five public hearings is included in Appendix A, Comments Received on the Draft Environmental Impact Statement and Responses. Individuals who wished to com-

ment were provided three minutes to make their statements.

All hearings were open to the public for the full two-hour time for which they were advertised. After the Public Hearing Officer closed the formal comment portion of the public hearing, individuals were still able to provide verbal comments to the court reporter stationed in the project information area or to place written comments into comment boxes. The Public Hearing Officer remained on-site throughout the hearing in case a need arose to reconvene formal testimony.

Public hearings were advertised in major local newspapers, on local radio and television, and in ethnic and cultural newspapers in several languages. The hearings were also announced through the Project’s website, hotline, newsletters, and a postcard mailed to area residents.

## 8.6 Draft EIS Comments

The Draft EIS was placed on the Project’s website on November 1, 2008. Comments received between this date and the issuance of the availability of the Draft EIS in the *Federal Register* on November 21, 2008, were included as Draft EIS comments. In total, 592 comment submissions were received via the following means:

- Project website—276
- Letter—181
- Public hearing testimony—73
- Public hearing comment form—20 (including two that were mailed in)
- E-mail—41
- Fax—1

The majority of the comments received were related to the following topics: alternatives considered, planned extensions, ridership and travel forecasting, parking, traffic analysis, visual, noise, cost and financing, construction phasing, construction effects, and acquisition and relocation (Table 8-2).

**Table 8-2** Common Comment Topics on the Draft EIS

Topic	Issues
Alternatives considered	Re-evaluation of alternatives Grade-separation requirement Steel-wheel technology Selection of the Airport Alternative
Planned extensions	Evaluation of phasing
Ridership and travel forecasting	Modeling process Ridership forecast uncertainty
Parking	Loss of parking Spillover parking
Traffic analysis	Calculations Future conditions
Visual	Visual character Visual integration
Noise	Noise generated by Project
Cost and financing	Capital costs Operating costs Funding
Construction phasing	Order of construction
Construction effects	Traffic Access to businesses
Acquisition and relocation	Residences Businesses

A discussion of the comments received for each of these topics follows in the subsections below.

Postcards were mailed to everyone on the Project’s mailing list, and advertisements were placed in local newspapers and City buses concerning the availability of the Draft EIS and how to comment. Individuals were able to provide comments through the Project’s website at [www.honolulutransit.org](http://www.honolulutransit.org), attending a public hearing, or by mailing them to RTD or FTA. A copy of all comments received, as well as copies of all response letters, are included in Appendix A.

### 8.6.1 Alternatives Considered

Several individuals commented on various aspects of the alternatives considered. The most common comments were related to re-evaluating alternatives that were previously considered, specifically

that the system be grade-separated; selection of steel wheel on steel rail technology; and selection of the Airport Alternative as the Project.

#### **Re-evaluation of Alternatives**

Bus-based transit and the Managed Lane Alternative were the topics of a number of comments. Both were evaluated during the Alternatives Analysis process as part of the Transportation System Management (TSM) Alternative and the Managed Lane Alternative. Additional information was added to Section 2.2.2 of this Final EIS to clarify why these alternatives performed poorly and were eliminated from further consideration.

The TSM Alternative, which was essentially the bus-based alternative, did not perform at a level comparable to the Fixed Guideway Alternative. This is because it would be subject to the same roadway congestion as automobiles and would not improve travel reliability. The analyses found that the TSM Alternative would have improved transit travel times somewhat by reducing the amount of time riders would have to wait for a bus to arrive at a bus stop; however, the TSM Alternative would have generated fewer hours of transit-user benefits than the Managed Lane and Fixed Guideway Alternatives because most buses would still operate in mixed traffic.

The Managed Lane Alternative was fully evaluated in the *Honolulu High Capacity Transit Corridor Project Alternatives Analysis Report* (DTS 2006b) and demonstrated to be less effective than a Fixed Guideway Alternative. The Managed Lane facility would have cost \$2.6 billion in 2006 dollars (higher now). Transit reliability would not have been improved except for express bus service operation in the managed lanes. While this alternative would have slightly reduced congestion on parallel highways, systemwide traffic congestion would have been similar to the No Build Alternative as a result of increased traffic on arterials trying to access the facility. As noted in Table 2-2 of

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Chapter 2, Alternatives Considered, of this Final EIS, total islandwide congestion as measured by vehicle hours of delay (VHD) would have increased with the Managed Lane Alternative as compared to the No Build Alternative. A more detailed response related to the Managed Lane Alternative is provided in Section 8.6.12.

### ***Grade-separation Requirement***

At-grade light-rail transit was suggested as an alternative to the Project in several comments. As explained in Section 2.2.2 of this Final EIS, at-grade light-rail transit was considered during the Alternatives Analysis process. An at-grade light-rail transit option did not meet the Project's Purpose and Need. Although the at-grade light-rail system could have reduced the visual impact of the Project and, in some locations, could reduce the cost, it would have reduced the reliability, speed, safety, and expandability of the system. Also, it would have increased the cost of right-of-way acquisition because more land would have been needed to maintain functioning roadways. An at-grade light-rail system would have increased congestion by removing at least two lanes of traffic to place tracks at-grade and most likely would have had a broader effect on sensitive cultural resources and burial sites along the corridor. More detail in response to questions about at-grade operation is presented in Section 8.6.13.

### ***Steel-wheel Technology***

The selection of steel-wheel technology was questioned in several comments. The majority of individuals recommended magnetic levitation technology as an option. As explained in Section 2.2.3 of this Final EIS, technologies other than steel wheel were eliminated because they are proprietary technologies, meaning that selecting one of those technologies would have required all future purchases of vehicles or equipment to be from that same manufacturer. These were eliminated because none of the proprietary technologies offered substantial proven performance, cost, and

reliability benefits compared to steel wheel operating on steel rail, which is a technology that has been in revenue operation around the world for many decades.

Commenters suggested that there are reduced noise, safety, and visual benefits of magnetic levitation relative to steel-wheel technology. However, High Speed Surface Transport, a Japanese magnetic levitation technology, is unproven in general use. There is only a single operating urban High Speed Surface Transport system in the world, with less than five years of operations, on record. The single operating system has a maximum speed of 100 kilometers per hour (62 miles per hour), which is similar to the maximum operating speeds of 50 to 60 miles per hour common for steel-wheel systems. While the system may be quieter, steel-wheel systems can be designed to match the noise level of magnetic levitation when in operation. There is no specific safety improvement from the traction design. The assumed visual benefits for beam-track vehicles would not apply in the United States because of requirements to include an emergency egress walkway. Also, the smaller structures proposed in the comment result in shorter span-lengths, which increases the number of columns required and the number of views blocked by support structures. This would result in higher costs. More details about the elimination of magnetic levitation technologies as an option is presented in Section 2.2.3 of this Final EIS.

### ***Selection of the Airport Alternative***

Section 2.3, Alternatives Considered in the Draft Environmental Impact Statement, of this Final EIS summarizes the alternatives that were evaluated in the Draft EIS, and Section 2.4, Preferred Alternative Identification Process, describes the City's selection of the Airport Alternative as the Preferred Alternative for the Project. This selection was based on consideration of the benefits of each alternative, public input on the Draft EIS, and City Council Resolution 08-261 identifying the Airport

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Alternative. The Salt Lake Alternative is no longer being considered in this study.

### **8.6.2 Planned Extensions**

Comments were received suggesting that the fixed guideway extensions, which are part of the Locally Preferred Alternative selected by the City Council, also should be examined in the EIS. There were also comments asking that the Project be extended to the University of Hawai‘i at Mānoa.

The planned extensions are discussed as future foreseeable projects in the cumulative impacts sections of Chapter 3, Transportation, and Chapter 4, Environmental Analysis, Consequences, and Mitigation, of this Final EIS. The extensions are not part of the Project as evaluated in this Final EIS because no funding has been identified for these segments of the Locally Preferred Alternative. Because there is no identified funding, no engineering design or environmental evaluation could be completed at this time. The FTA will not be granting any New Starts approvals for the extensions of the elevated rail system under the current project.

As soon as funding is identified in the future, engineering design and environmental analysis of the extensions and the appropriate alternatives analysis will be undertaken. The Project, as evaluated in this Final EIS, has logical termini and independent utility from any extensions that may be constructed in the future.

### **8.6.3 Ridership/Travel Forecasting**

Various comments were received concerning the Project’s travel forecasting model. Among the concerns was the uncertainty of the results given the nature of the modeling process, the type of model used in generating ridership information upon which the EIS information is based, and experience with modeling results on other projects around the country.

### **Modeling Process**

In response to the comments, more information about the modeling process has been included in this Final EIS. Regarding the model used for the Project, it is important to note that the FTA determines the type of model, the modeling process, and the manner in which travel forecasting is conducted for large transit projects. The structure and process used in modeling were established by the FTA to ensure all projects submitted for funding consideration under the Federal New Starts Program are presented on an equal footing. The FTA also defines the way travel forecasting is conducted to ensure ridership figures are realistic and to avoid past errors where, in some cases, forecasts exceeded actual ridership performance by a substantial margin in the early years of some systems’ operations.

Ridership forecasting today is much better than it was just 10 years ago. Recent forecasts for new systems using the improved modeling techniques set forth by the FTA have been very accurate (e.g., Phoenix, Salt Lake City). Still, there is also recognition within FTA that forecasting by its nature contains an element of uncertainty. The acknowledgment of uncertainty is presented in Section 3.2, Methodology, of this Final EIS with a reference to the more detailed information available in the *Honolulu High Capacity Transit Corridor Project EIS Travel Forecasting Results and Uncertainties Report* (RTD 2009).

Regarding the modeling process for the Project, ridership projections for the forecast year of 2030 have been developed using a travel demand model that is calibrated and validated to current year conditions based on actual traffic counts and bus ridership. The model is based upon a set of realistic input assumptions regarding land use and demographic changes (City policy regarding where growth will be oriented over time and trends based on economic factors and population changes) between now and 2030. The model is

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also based on expected transportation levels-of-service on both the highway and public transit system (based on current conditions and how they are likely to change over time given plans for highway and transit improvement between now and 2030). Based upon the model and these key input assumptions, approximately 116,000 trips per day are expected to use the rapid transit system on an average weekday in 2030. Since the Draft EIS was published, the travel demand model has been refined by adding an updated air passenger model and, under the direction of the FTA, defining more realistic drive access modes to project stations and including a more comprehensive off-peak non-home-based direct demand element based on travel surveys in Honolulu.

### ***Ridership Forecast Uncertainty***

Honolulu is the first project in the country to design and undertake such a detailed uncertainty analysis of this type of forecast. FTA has worked closely with the Project's travel forecasters and provided extensive guidance during this effort. A variety of factors were considered in the uncertainty analysis, including the following variables:

- Variations in assumptions regarding the magnitude and distribution patterns of future growth in the 'Ewa end of the corridor
- The impact of various levels of investment in highway infrastructure
- Expected frequency of service provided by the rapid transit system
- Park-and-ride behavior with the new system in place
- Implications on ridership of vehicle and passenger amenities provided by the new guideway vehicles

The anticipated range for rapid transit system ridership in 2030 is expected to be between 105,000 to 130,000 trips per day bracketing the official forecast of 116,000 riders a day used for all calculations. Even at the low end, the cost-effectiveness of

the Project is within New Starts funding thresholds requirements.

### **8.6.4 Parking**

A number of comments addressed the Project's effects on parking, including the loss of existing on-street and off-street parking supply, removal of freight and/or passenger loading zones, and effects relating to spillover parking near stations.

#### ***Loss of Parking***

Approximately 785 off-street and 105 on-street parking spaces will be removed to accommodate the Project. Off-street parking supply affected by the Project is scattered throughout the corridor and is exclusively on private property. These parking spaces will be acquired to provide additional rights-of-way needed to construct the guideway or stations. Compensation to the affected property owners will comply with the requirements of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act. The City does not plan to generally replace all private, off-street parking removed for construction of the Project. However, the City will work with landowners to replace parking as appropriate.

On-street parking affected by the Project is concentrated in two areas: near the Iwilei Station and in Kaka'ako along Halekauwila Street. Based on the results of parking utilization surveys conducted in June 2008 and April 2009 for the Project, there is available parking nearby to accommodate motorists currently using the 105 on-street parking spaces that will be removed by the Project. Therefore, these on-street parking spaces will generally not be replaced by the City. However, some new on-street parking spaces will be created by the Project in the general locations of lost spaces as streets are rebuilt following project construction.

One freight loading zone and two passenger loading zones will be affected by the Project. The loading zones will be temporarily removed or

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relocated, and new loading zones will be installed once construction is complete.

### **Spillover Parking**

Regarding the potential for spillover parking near stations, ridership forecasts indicate that a small number of passengers will park near stations without designated park-and-ride facilities. Analysis found that spillover parking will not affect traffic in the area. However the existing parking supply could be affected. To address the effects of spillover parking on supply, the City will conduct surveys prior to and again within six months after station opening to determine the extent of spillover parking and then implement mitigation strategies as needed. Mitigation strategies include, but are not limited to, addition of parking supply, implementation of parking restrictions, and development of shared parking arrangements. Follow-up surveys will be conducted by the City to determine if the mitigation strategies are effective, and additional mitigation measures will be implemented by the City as needed.

### **8.6.5 Traffic Analysis**

Comments were received questioning the use of the *Highway Capacity Manual* (HCM) methodology in evaluating traffic conditions under the No Build Alternative or the Project. The concern was that the HCM technique does not perform well under saturated conditions. There were also multiple comments about traffic conditions becoming worse in the future, even with the Project.

### **Calculations**

In response to these comments, the information provided regarding the use of the HCM methodology was expanded and more comprehensively explained. Despite the cited limitations of the HCM methodology, it works well under the conditions present in the Honolulu corridor. The HCM methodology is used as a basic measure of the quality of service on the highway system and as a gauge for where additional analysis is needed.

There are few traffic impacts from the Project itself because traffic conditions are already difficult in some areas. For those locations that presented an identifiable effect based on the Project's implementation, further analysis was completed using more sophisticated modeling tools, such as VISSIM, to develop micro-simulation models of these critical areas. The application of this modeling effort provided insight into a broader area of impact and allowed testing of mitigation options.

### **Future Conditions**

The *Honolulu High Capacity Transit Corridor Project Alternatives Analysis Report* (DTS 2006b) concludes that traffic conditions will worsen in 2030 as a result of planned growth in the future no matter which alternative is built. On the other hand, based on the Alternatives Analysis, the only alternative that improves future traffic conditions to a measurable degree compared to the No Build Alternative is the Fixed Guideway Alternative. It clearly shows superior results in terms of congestion reduction in comparison with other touted alternatives analyzed in the Alternatives Analysis.

The information about the alternatives is presented in more detail in Section 2.2, Alternatives Screening and Selection Process. More information about the performance of the Draft EIS alternatives is presented in Section 2.3 and in Chapter 3, Transportation.

### **8.6.6 Visual**

Throughout the Draft EIS review and comment period, many commented that visual changes associated with the project elements will result in substantial visual effects. Many comments received expressed concern that the elevated fixed guideway transit system will adversely affect O'ahu's unique visual character by creating blight and degrading views. In addition, commenters requested more information on how the project elements will be integrated with their communities, especially in the areas around stations.

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These commenters on view effects are representative of the various viewer groups that have been considered in the visual and aesthetic conditions analysis presented in the Draft EIS and this Final EIS. Inclusion of the viewer group's responses, received during the Draft EIS comment period, resulted in refinement of the visual impact rating for three key views. The refinement resulted in revised ratings from moderate to significant for Views 12, 14, and 15 in the Downtown area. The analysis of protected views and vistas was provided in earlier technical documents, however, this Final EIS more clearly describes the visual effects on these resources.

The Draft EIS used the term "high" to indicate a significant level of visual consequence. For clarification, the terminology has been changed from "high" to "significant" in this Final EIS, based on input received. However, the definition of "significant" is the same as a "high" level of visual consequences and the change in terminology does not change the overall conclusions of the EIS.

The overall conclusions of the Draft EIS have not changed, but, through these refinements, the following clarifications have been made:

- Viewpoint 12—visual impact rating refined to reflect that some views would be blocked and to expressly point out the contrast of project elements with Chinatown's historic character
- Viewpoint 14—visual impact rating refined to reflect the bulk and scale of the guideway and columns being out of character with the pedestrian-oriented environment at this viewpoint.
- Viewpoint 15—visual impact rating refined to reflect the bulk and scale of the station as well as the other elements noted in the Draft EIS.

The Draft EIS described several types of visual effects, and the refinements reflect the same type of

visual effects identified in the Draft EIS and shown in these viewpoints in the Draft EIS. The Draft EIS concluded that changes to some views, including protected views and vistas, would be unavoidable, and the refinements confirmed this conclusion.

Although mitigation measures will minimize many adverse visual effects by providing visual buffers and reducing visual contrasts between the project elements and their surroundings, the Final EIS acknowledges, as concluded in the Draft EIS, that probable unavoidable adverse effects, such as view blockage, cannot be mitigated and will be significant (noted as a "high" level of visual impact in the Draft EIS) in some areas.

### ***Visual Character***

The island's unique visual character and scenic beauty are essential components of the visual and aesthetic assessment presented in the Draft EIS. This Final EIS includes more details on protected views and vistas, as well as potential visual effects and mitigation. This analysis is included in the Technical Report (RTD 2008e); visual effects in the Draft EIS were based on this analysis, and it has been added into the FEIS based on comments on the Draft EIS to expand and clarify the information.

As described in the Draft EIS, the Project will introduce a new linear visual element to the corridor, and changes to some views will be significant (or, a high level of visual impact) and unavoidable. Even with mitigation measures, some obstruction and changes to views will result in a high level of visual impact, or, a significant impact, and changes to some views will be unavoidable. These effects will be most noticeable where the guideway and stations are nearby or in the foreground of views.

Although changes in visual resources or view planes and the viewer response will be high or significant in some areas, view changes are not likely to be obtrusive in wider vistas or regional

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panoramic views where the project elements serve as smaller components of the larger landscape

### **Visual Quality**

A viewer's response to changes in view may vary with exposure and sensitivity and depend on the alignment orientation and the height of the guideway, stations, surrounding trees, and buildings. Overall, the Project will be set in an urban context where visual change is expected and differences in scales of structures are typical. However, through the Draft EIS review and comment processes, many reviewers commented that the visual changes associated with the Project will be substantial. These comments have been acknowledged in this Final EIS. Even with mitigation measures, some obstruction and changes to views will result in a high level of visual impact, or, a significant impact, and changes to some views will be unavoidable. These effects will be most noticeable where the guideway and stations are nearby or in the foreground of views.

Although changes in visual resources or view planes and the viewer response will be high or significant in some areas, view changes are not likely to be obtrusive in wider vistas or regional panoramic views where the project elements serve as smaller components of the larger landscape.

### **8.6.7 Noise**

Operational noise from the Project was a concern to several commenters. The most common concern was operating noise from the rail vehicles.

Section 4.10, Noise and Vibration, of this Final EIS provides a detailed noise analysis for the Project, including additional evaluation completed in response to comments on the Draft EIS and implementation of recommended mitigation measures in portions of the corridor that would experience noise impacts in the absence of such mitigation.

The noise analysis follows current FTA guidance to use Ldn or Leq to evaluate noise impacts. Figure 4-51 in Chapter 4, Environmental Analysis, Consequences, and Mitigation, of this Final EIS, however, does generally compare the Lmax noise levels. The project design includes a parapet wall that will reduce noise along the guideway. No noise impacts are predicted for any schools along the study corridor. Wheel skirts will reduce noise levels to below impact criteria in several locations. In three locations in the corridor, sound-absorptive material will be placed in the track bed to reduce noise levels at nearby high-rise buildings.

### **8.6.8 Project Cost and Financing**

Many comments questioned the cost of the Project (both capital and operating costs) and the City's ability to fund the Project and obtain the anticipated Federal share of the funding. There were concerns about the economy and the drop in the 0.5 percent GET surcharge collections that are dedicated to fund the Project.

The funding of the Project relies on a combination of Federal and Local funds. Costs have held relatively steady over the past year as the economy has slowed the rate of inflation of some of the key cost drivers, such as steel and cement. The overall cost of the Project has not changed substantially in year-of-expenditure (inflation-adjusted) dollars since the Draft EIS was published.

While there has been a reduction in the rate of GET surcharge collections, the financial plan continues to be balanced despite the reduction in revenues. This has been accomplished using a higher Section 5309 New Starts allocation than shown in the Draft EIS (from \$1.4 billion to \$1.55 billion) and allocating to the Project some of the anticipated increases in Section 5307 formula funds that will come to the City as a result of the Project. Section 6.3, Capital Plan, addresses the way capital costs have been covered in the Project's financial analysis.

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The responses also reference how the financial analysis addresses the uncertainties of the funding forecast and provides for alternative funding options should they be needed to offset any additional shortfall in the primary revenue sources. These uncertainties and alternative funding options are presented in more detail in Section 6.6, Risks and Uncertainties.

Regarding operating and maintenance costs, the daily operation of the rapid transit system will come from the same City sources currently used to pay for TheBus and other elements of the public transportation system. The rapid transit system will represent about 25 percent of the total transit system's annual cost and will add between 2 percent and 3 percent to the City's annual operating budget. This amount is within annual variability in budgeting and will not, by itself, cause a need to increase property taxes or other fees.

### **8.6.9 Construction Phasing**

Many comments were received that questioned the phasing plan to begin construction toward the 'Ewa end of the line when most of the ridership is likely to be closer to Downtown. There was also a concern that if the Project began in Kapolei and funding was insufficient, the Project would never realize the anticipated benefit or would require an increase in local funding to reach Downtown. Downtown is the primary activity center in the study corridor and getting to Downtown is of great interest among those who commented.

There are a number of reasons for starting construction at the 'Ewa end of the line even though it is acknowledged that ridership will not achieve its full potential until the Project reaches Downtown. The Project starts at the 'Ewa end for the following key reasons: access to the maintenance and storage facility, the ability to start the Project sooner saving on costs, and improved ability to obtain the needed rights-of-way.

As described in Chapter 2, the Project will be constructed in four segments over a nine-year period. To support phased openings, the first construction segment must have access to the maintenance and storage facility, which requires more than 40 acres of dedicated space. In addition to maintenance and storage of vehicles, the facility will serve as the location of the main operations center for the entire system. No location has been identified closer to Downtown with sufficient available space to construct a maintenance and storage facility. The Project is not a series of individual projects, but a single project that consists of a series of construction segments that will accomplish the following:

- Match the anticipated schedule for right-of-way acquisition and utility relocations
- Reduce the time that each area will experience traffic and community disturbances
- Allow for multiple construction contracts with smaller contract size to promote more competitive bidding
- Match the rate of construction to what can be maintained with the local workforce and available financial resources
- Balance expenditure of funds to minimize borrowing

The portion of the corridor in the 'Ewa direction of Pearl Highlands is less developed than the areas in the Koko Head direction. Right-of-way can be obtained more quickly at the 'Ewa end of the Project; therefore, overall project construction can begin earlier, resulting in lower total construction costs. Construction is planned to continue uninterrupted in the Koko Head direction from Pearl Highlands to Aloha Stadium, Kalihi, and finally to Ala Moana Center.

### **8.6.10 Construction**

A number of comments addressed the effects of construction on traffic and access to businesses.

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### ***Construction-phase Traffic***

Construction of the Project will affect traffic with temporary lane closures occurring throughout the day, including peak periods and at night. Both through lanes and turning lanes will be affected by these closures. In some cases, up to two travel lanes will be closed at a time. Construction-related effects on transportation will be mitigated through the implementation of a Maintenance of Traffic (MOT) Plan and a Transit Mitigation Program to be prepared prior to construction. The construction contractor will develop the MOT Plan using parameters developed by, and with approval of, the City or HDOT. The MOT Plan will address all phases of construction, and the construction contractor will submit any proposed changes to the MOT Plan to the City for approval.

### ***Access to Businesses***

Access to businesses in the Project area will be maintained throughout construction, although there could be temporary changes to access and movement during construction. In some locations, left-turn lanes will be closed during construction, restricting access to right-turns only. Other streets may temporarily become one-way movements or eliminate parking altogether during construction. Existing passenger or freight loading zones could be relocated for the duration of construction.

The MOT Plan will address temporary effects on access to businesses during construction. Mitigation to reduce adverse economic hardships for existing businesses may include, but is not limited to, the following:

- Coordinate with nearby property owners and businesses
- Develop a public involvement plan prior to construction
- Provide public information to inform customers that businesses are open during construction
- Minimize extent and duration of effects to business access

- Provide signage, lighting, and information to indicate businesses are open
- Provide public information on construction activity using print, television, and radio media
- Phase construction to minimize traffic disruption and maintain access to businesses
- Provide advance notice of utility relocation

### **8.6.11 Acquisitions and Relocations**

Various commenters inquired about acquisition of individual property or the acquisition and relocation process in general. Appendix C, Conceptual Right-of-Way Plan, of this Final EIS includes a map and tables of all parcels from which the Project would acquire property.

The City has been coordinating with potentially affected property owners since October 2008. The City will continue to work with individual property owners to provide relocation services. As stated in Section 4.4.3 of this Final EIS, relocation services will be provided to all affected business and residential property owners and tenants without discrimination; and persons, businesses, or organizations that are displaced as part of the Project will be treated fairly and equitably.

Those from whom property is to be acquired will be treated according to the requirements of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act. It provides for purchase at fair market value and includes relocation assistance to those affected. The Act requires that those in need of relocation must be placed in comparable quarters.

### **8.6.12 Managed Lane Alternative**

A number of commenters stated that the alternatives studied did not properly address other options for the corridor. In particular, there was a concern that the Managed Lane Alternative was not included in the Draft EIS as an alternative.

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The process of alternatives screening and selection is discussed in Chapter 2 and in Section 8.6.1. As discussed, alternatives were developed through three general phases: (1) the FTA Alternatives Analysis process; (2) the selection of a Locally Preferred Alternative; and (3) the NEPA scoping and Draft EIS process. The initial screening of alternatives is documented in the *Honolulu High-Capacity Transit Corridor Project Alternatives Screening Memorandum* (DTS, 2006a) (Screening Memorandum). The subsequent FTA Alternatives Analysis process is provided in the *Honolulu High-Capacity Transit Corridor Project Alternatives Analysis Report* (DTS 2006b) (Alternatives Analysis).

The initial screening process considered a wide range of alternatives, including “construction of a ‘managed’ two-lane elevated structure for transit vehicles and potentially carpools, as well as single occupant vehicles willing to pay a congestion-based toll,” as described on page S-2 of the Screening Memorandum. The screening results for the Managed Lane Alternative are discussed on pages C-4 through C-5 of this report. The analysis found that the transit mode share under the Managed Lane Alternative would hold constant with the No Build Alternative; the automobile mode share would increase; and the bike and walk mode share would decrease. Vehicle hours traveled would decrease, while vehicle miles traveled would increase slightly.

This initial screening process identified four alternatives that were presented at scoping meetings held to obtain public input. As described on page 5-2 of the Screening Memorandum, one of the alternatives recommended for further evaluation was the Managed Lane Alternative. The Managed Lane Alternative originally was described as follows:

“The Managed Lane Alternative would include construction of a two-lane grade-separated facility between Waiawa Interchange and Iwilei for use by buses, para-transit vehicles and vanpool vehicles

(see Figure 5-1). 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 to use the Managed Lane and enhanced to provide additional service between Kapolei and other points ‘Ewa of Downtown, through to the University of Hawai‘i at Mānoa.”

The scoping process resulted in the revision of this proposed alternative. As discussed on page 6-1 of the Screening Memorandum:

“Based on scoping comments, a second operational option was included under the Managed Lane Alternative. The initial option proposed a two-lane grade-separated facility between Waiawa Interchange and Iwilei which would operate as one lane in each direction at all times of the day. The second option proposes similar infrastructure, but it would operate as a reversible facility with two lanes traveling Koko Head during the morning peak period, and then reversing to travel ‘Ewa in the PM peak period. Both operational options would include restructured and enhanced bus operations by utilizing the managed lanes to provide additional service between Kapolei and other points ‘Ewa of Downtown, and both would be managed to maintain free-flow speeds for buses. Provided enough capacity exists, High-Occupancy Vehicles (HOVs) and toll-paying single-occupant vehicles would also be allowed to use the facility under either scenario; however, it is possible that under the initial option (one lane in each direction), there would not be enough excess capacity to allow toll-paying single occupant vehicles and still maintain reasonable speeds. Intermediate access points would be provided in the vicinity of Aloha Stadium and the Ke‘ehi Interchange.”

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This alternative was further developed in the Alternatives Analysis Report, with additional features added to maximize the performance of the alternative, as discussed on page 2-4:

“The Two-direction Option would serve express buses operating in both directions during the entire day. The Reversible Option would serve peak-direction bus service, while reverse-direction service would use H-1. Twenty-nine bus routes, with approximately 93 buses per hour, would use the managed lane facility during peak hours for either option. One limited-stop route and one local route would continually operate in the managed lane. A total of 27 peak-period express routes would operate in the peak direction using the managed lane facility. Of these, three are new express routes serving developing areas and nine are new routes developed for exclusive use of the managed lane. The nine new managed lane express bus system routes originate from Kalaeloa, Kapolei, or Central O‘ahu and terminate at the Alapa‘i Transit Center, Waikiki, or UH Mānoa. Other peak-period, local and limited-stop routes follow a route similar to the current structure but will use the managed lane for the line-haul portion of the route.

“A toll structure has been developed that ensures that the managed lane facility would operate to maintain free-flow speeds for buses. To maintain free-flow speeds in the Two-direction Option, it may be necessary to charge tolls to manage the number of HOVs using the facility. For the Reversible Option, three-person HOVs would be allowed to use the facility for free, while single-occupant and two-person HOVs would have to pay a toll.”

As discussed on page 3-8 of the Alternatives Analysis Report, the enhanced bus system would include an increased fleet size, estimated at 321 buses beyond the existing fleet for the two-direction managed lane facility and 381 buses for the reversible managed lane facility, to provide a

sufficient fleet to ensure that the alternative would function as planned.

The Alternatives Analysis Report estimated total capital and operating costs for the Managed Lane Alternative. As discussed on page 2-16, capital costs for the Managed Lane Alternative were estimated to range between \$3.6 and \$4.7 billion, of which \$2.6 to \$3.8 billion would be for construction of the managed lanes. Transit operating costs for the Managed Lane Alternative would range between approximately \$251 and \$261 million as a result of additional buses that would be put in service under that alternative. These costs do not include the cost of maintaining the managed lane facility. Capital costs for the Fixed Guideway Alternative, including bus system costs, would range between \$5.2 and \$6.1 billion for the Full-corridor Alignments, of which \$4.6 to \$5.5 billion would be for the fixed guideway system. The costs would be \$4.2 billion for the 20-mile Alignment, of which \$3.6 billion would be for the fixed guideway system. Operating costs for the Fixed Guideway Alternative in 2030, in 2006 dollars, would be approximately \$192 million. The total operating costs for the Fixed Guideway Alternative, including the bus and fixed guideway, would range between approximately \$248 and \$256 million.

The capital cost of the Managed Lane Alternative thus is potentially somewhat lower than the 20-mile Fixed Guideway Alternative and significantly lower than the Full-corridor Alternative. Operating costs would be slightly higher. These cost factors were considered in conjunction with other project goals in evaluating the alternatives.

With respect to transit travel time benefit, the Managed Lane Alternative options would improve some trips that were particularly well-served by the managed lanes. In general, the Managed Lane Alternative would increase transit travel times by increasing traffic on the overall roadway system and creating more delay for buses. The H-1

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Freeway leading up to the managed lanes would become more congested because cars accessing the managed lanes would increase traffic volumes. Significant congestion would occur where the managed lanes connect to Nimitz Highway at Pacific Street near Downtown. Much of the time saved in the managed lane itself would be negated by the time spent in congestion leading up to the managed lane, as well as exiting the lanes at their downtown terminus. Furthermore, areas that are not directly served by the managed lane would not experience much positive change from the No Build Alternative. As discussed on page 3-14, the Alternatives Analysis Report found that, “although the Managed Lane Alternative would provide some travel-time improvement for certain areas, it has significant limitations with regard to improving travel times or transit service for a broader customer base.”

As discussed on page 3-17, transit ridership would increase only 5.3 to 6.4 percent over the No Build Alternative, a small increase compared both to the cost of the Managed Lane Alternative and the increase that would result from the Fixed Guideway Alternative, which would increase transit ridership by 21 percent for the 20-mile alignment.

The volume of peak-hour vehicles in key areas would actually increase under the Managed Lane Alternative compared to the No Build Alternative. As discussed on page 3-27, the Fixed Guideway Alternative would reduce the number of vehicles by 3 to 12 percent.

With respect to the goal of providing equitable transportation solutions that meet the needs of lower-income transit-dependent communities, the Alternatives Analysis Report observed that the Managed Lane Alternative, “would not substantially improve service or access to transit for transit-dependent communities, as buses that

use existing HOV facilities would be routed to the managed lane facility but would continue to be affected by congestion in other parts of their routes. Arterial congestion would increase in the study corridor with the Managed Lane Alternative, making bus access to the managed lanes less reliable” (page 6-8).

The Alternatives Analysis Report also considered consistency with existing land use planning and regional transportation planning. On page 6-13, the report concluded that the Fixed Guideway Alternative, “best serves the areas of O‘ahu that are designated for future growth and development. It is also the only alternative that is consistent with regional transportation system planning defined in the 2030 O‘ahu Regional Transportation Plan (OMPO 2006a).”

The evaluation of alternatives inevitably involves trade-offs. As stated on page 6-13 of the Alternatives Analysis Report, the “greatest trade-off among the alternatives is between the transportation benefit provided and the cost to implement alternatives. . . . The Managed Lane Alternative provides slightly more benefit [than the Transportation System Management (TSM) alternative, which had little effect on traffic], but at a substantial cost. While the Fixed Guideway Alternative would have the highest cost, it is also the only alternative that would provide a substantial transportation benefit, measured both by the benefit to transit users and in the reduction in congestion compared to the No Build Alternative.”

The Alternatives Analysis findings are summarized in Table 2-2 in Chapter 2 of this Final EIS. The Managed Lane Alternative is discussed in Section 2.2.2 of this Final EIS. As stated in the Final EIS and supported by the lengthy analysis that preceded the preparation of the Draft EIS, the Managed Lane Alternative was not pursued because the Managed Lane Alternative would not

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have achieved project goals and objectives, would not result in substantially fewer environmental impacts, and would not be financially feasible. For all of these reasons, it was not advanced to consideration in the EIS.

Comments received about the Managed Lane Alternative referenced in the Draft EIS suggested there were significant differences between the alternative studied in the Alternatives Analysis and an ideal managed lane option. However, there was no substantial difference between the alternatives proposed in comments and those studied in the Alternatives Analysis that would have resulted in a different outcome. The primary concern raised about the Alternatives Analysis alternatives was that they did not allow access other than at the beginning and end of the facility. That is a misunderstanding of the Alternatives Analysis alternatives. Both provided access at Aloha Stadium and Middle Street to allow connections to intermediate points along the corridor. Any additional access points would substantially increase the cost of the facility because of right-of-way and structure costs and would affect the level-of-service provided by the investment.

Also questioned in the comments was the provision of a congestion pricing system that would make the facility available to single occupant vehicles or those with two occupants at a cost that would rise during periods of high demand. In both cases, the Managed Lane Alternative evaluated a pricing option, and the two-lane reversible alternative description stated that, “A toll structure has been developed that ensures that the managed lane facility would operate to maintain free-flow speeds for buses” (Alternatives Analysis Report, page 2-4). While there may be some minor details of the proposed alternatives that differ from the Alternatives Analysis alternatives, the evaluation assesses the concept fairly in the context of the Project’s Purpose and Need.

### **8.6.13 At-Grade Alternatives**

Several comments have suggested that an at-grade alternative could reduce visual impacts, particularly Downtown. This response addresses the reasons why an at-grade alternative was not included in the EIS. It may also be helpful to refer to Section 2.2 of this Final EIS.

The Screening Memorandum (DTS 2006a) recognized the visually sensitive areas in Kaka’ako and Downtown, including the Chinatown, Hawai’i Capital, and the Thomas Square/Academy of Arts Special Design Districts. To minimize impacts on historic resources, visual aesthetics, and surface traffic, the screening process considered 15 different combinations of tunnel, at-grade, and elevated alignments between Iwilei and Ward Avenue. Four different alignments through Downtown were advanced for further analysis in the Alternatives Analysis, including an at-grade portion along Hotel Street, a tunnel under King Street, and elevated guideways along Nimitz Highway and Queen Street.

The Alternatives Analysis Report evaluated the alignment alternatives based on transportation benefits, environmental and social impacts, and overall benefits and cost considerations. The report found that an at-grade alignment along Hotel Street would require the acquisition of more parcels and affect more burials than any of the other alternatives. The alignment with at-grade operation Downtown and a tunnel through the Capital Historic District, in addition to the environmental effects such as impacts to cultural resources, reduction of street capacity, and property acquisition requirements of the at-grade and tunnel sections, would cost more than \$300 million more than the least expensive alternative. Of the remaining elevated alignments that were studied, the Alternatives Analysis concluded that an elevated alignment along Nimitz Highway would have less visual impacts than one along Queen Street because of

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its much wider right-of-way and location along the edge of the Hawai‘i Capital District.

The Project’s purpose is “to provide high-capacity rapid transit” in the congested east-west travel corridor. The need for the Project includes improving corridor mobility and reliability. The at-grade alignment would not meet the Project’s Purpose and Need because it could not satisfy the mobility and reliability objectives of the Project. Some of the technical considerations associated with an at-grade versus elevated alignment through Downtown include the following:

- **System Capacity and Speed**—the short 200-foot blocks Downtown would permanently limit the system to two-car trains so that stopped trains do not block vehicular traffic on cross-streets. Even with transit signal priority, the at-grade speeds would be slower and less-reliable than an elevated guideway. Under ideal circumstances, the capacity of an at-grade system could reach 6,000 passengers per hour per direction as it does in places like Calgary, Alberta. Based on travel forecasts, the Project will need to carry over 9,000 by the early 2020s. Moreover, the system can be readily expanded to carry over 25,000 in each direction by reducing the interval between trains (headway) to 90 seconds during the peak period. To preserve the system speed and reliability, an at-grade alignment would require a fenced, segregated right-of-way with no crossings throughout Downtown.
- **Mixed-Traffic Conflicts**—with the planned three-minute intervals between trains in each direction (headways), the short cycle of traffic lights would affect traffic flows and capacity on cross-streets. Furthermore, there would be no option to increase the capacity of the system by reducing the headway to 90 seconds.
- **Construction Impacts and Cost**—an at-grade system would also consume two or

more lanes of existing roadways, resulting in increased congestion or requiring that additional businesses or homes be taken to widen the roadway through Downtown. This would also result in greater construction impacts and potentially affect cultural practices and burials to a greater extent than the placement of discrete column foundations for an elevated structure.

Because it is not feasible for an at-grade system through Downtown to move passengers rapidly and reliably without a significant detrimental effect on other elements of the transportation system (e.g., highway and pedestrian systems, safety, reliability), an at-grade system would have a negative system-wide impact that would reduce ridership throughout the system. The at-grade system would not meet the Project’s Purpose and Need and does not, therefore, require additional analysis.

## 8.7 Continuing Public Involvement through Construction

Public involvement activities will continue throughout the construction period. The City will work with businesses and residents prior to and during construction to provide information and address concerns about the construction process. The City will also continue the use of the Speakers Bureau, the project website ([www.honolulutransit.org](http://www.honolulutransit.org)), and the hotline. The City will also work with the community throughout the acquisition and relocation process.

The City will continue educational outreach to all segments of the island. Cultural and ethnic groups, youth, elderly, special needs, and the accessibility challenged will be specially targeted. Lastly, RTD will actively engage the public in areas where community input could shape the rail system, including station design where appropriate.

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## 8.8 Accommodations for Minority, Low-Income, and Persons with Disabilities

All meetings were held in handicapped-accessible facilities in compliance with the Americans with Disabilities Act. Every effort has been made to respond to members of the public who require a sign language interpreter, an assistive learning system, a translator, or any other accommodations to facilitate participation in the transit planning process. Every reasonable effort was made to accommodate individuals requiring assistance.

Executive Order 12898 requires that, as part of the environmental evaluation of the alternatives, the Project must address environmental justice issues. To comply with this requirement, community demographics and socioeconomic impacts were carefully considered in analyzing the alternatives. The public participation process ensures “full and fair participation by potentially affected communities” throughout the duration of the Project.

Particular attention has been paid to reaching low-income and minority populations that are traditionally underserved and underrepresented in the public involvement process. Materials have been prepared in the major languages used on O‘ahu, and translators have been available upon request at meetings. Information has been distributed through cultural organizations, ethnic associations, housing associations, community development groups, and similar organizations. Community issues brought forth in community meetings, during stakeholder interviews, and at public workshops have been addressed as part of evaluating the project alternatives.

The use of public involvement techniques to engage communities of concern consists of public information materials offered via the project website, handed out at meetings or other community events, and provided through the Speakers Bureau program. To reach populations who do not speak

and/or read English, information on how to obtain reading materials in their native languages has been provided. An informational flyer has been developed in 12 languages (Chuukese, Chinese, English, Hawaiian, Ilocano, Japanese, Korean, Laotian, Samoan, Spanish, Tagalog, and Vietnamese) and is continually updated as new project information is available. For these translated materials, the major languages spoken on the Island were selected. These flyers have been mailed to potential environmental justice neighborhoods, handed out in person, and provided to churches and community service organizations.

As the Project has progressed, over 100 community service organizations have been included on the project mailing list. These organizations have also been provided with appropriate translated flyers to distribute to their communities.

Through the Speakers Bureau and literature deliveries, a concerted effort has been made to reach out to local churches, elderly care facilities, and community organizations that cater to these populations. All organizations that previously received presentations were contacted with requests to conduct new presentations to provide updates on the Project’s progress. This effort will continue throughout construction of the Project.