

PROJECT MANAGEMENT PLAN



HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

Approved By:

A handwritten signature in blue ink, appearing to read "D. Grabauskas", written over a horizontal line.

Daniel A. Grabauskas
Executive Director

A handwritten date "7/17/12" in blue ink, written over a horizontal line.

Date

PROJECT MANAGEMENT PLAN



REVISIONS

Necessary modification to this document will be made to conform to evolving project needs. As major revisions occur, the entire manual will be reproduced, bound, and distributed and prior versions of the manual shall be destroyed. For minor revisions, only the affected pages will be issued. All minor revisions will be dated and signed by the Executive Director or designee, and previous minor revisions of the document shall be destroyed.

Rev. #	Date	Pages	Description
0	5-21-08		Initial
1	11-03-08	Various	Major revision
2	03-01-09	Various	Project description airport route update, schedule, project cost, testing, and various minor changes.
3	1-15-10	Various	Major Revision updating upon FTA PE Approval
4	December 2010	Various	Major Revision updating prior to FTA FD Approval
4 (final)	March 2011	Various	Responds to FTA comments.
4.15	December 2011	Various	Complete revision to incorporate FD items and revise from RTD to HART for Rev. 5
5	June 2012	Various	Major revision updating prior to FTA FFGA Application

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1.0 GENERAL INFORMATION

1.1 Introduction

This Project Management Plan (PMP) describes and documents the overall management approach for the Honolulu Rail Transit Project, East Kapolei to Ala Moana Center (the Project). It is used both as a management tool to guide the Honolulu Authority for Rapid Transportation (HART) and as an informational overview for project participants and interested parties. This plan has three main purposes:

- To identify the Project’s management procedures and organizational structure;
- To provide a guide for the interaction of agencies, organizations, and staff within the Project; and
- To fulfill the Federal Transit Administration’s (FTA’s) requirement for a PMP pursuant to Title 49 Code of Federal Regulations (49 CFR) Part 633 and establish the framework for administering this project in accordance with the requirements of Title 49 U.S.C. §5309(e)(1)(A), FTA’s regulations on Major Capital Investment Projects (49 CFR part 611) and FTA Circular 5200.1A, “Full Funding Grant Agreements (FFGA) Guidance.”

The PMP is a dynamic document, which will be reviewed periodically and revised, as needed, as the Project progresses.

The City and County of Honolulu (City) will continue as the overarching FTA Grantee. The City’s Department of Transportation Services (DTS) and HART have executed a Memorandum of Understanding, which delineates each agency’s roles and responsibilities so as not to jeopardize the City’s standing as an FTA Grantee. HART is responsible for the New Starts grants for the Project and may share responsibilities with DTS for grants using Section 5307 or other FTA funding sources.

Throughout this PMP there are references to “responsibilities” of other entities such as the General Engineering Consultant (GEC) and the various construction contractors. When the term “responsibility” is used in reference to the GEC or contractors to HART, it refers to a contractual assignment. Ultimate responsibility for all matters pertaining to the FTA Full Funding Grant Agreement (FFGA) and related processes rests with HART.

This PMP was initially prepared near the conclusion of the Alternatives Analysis (AA) process and focused on the Preliminary Engineering (PE) / Environmental Impact Statement (EIS) phase of the Project. PMP - Rev. 1, issued on November 3, 2008, described the PMP process for the progression of the Project into PE and subsequently through the Final Design, procurement, construction, and system start-up phases. The second revision of the PMP

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(PMP – Rev. 2) was issued on March 1 2009 and provided an update of the project description for the selected Airport route, master schedule, project cost, and testing. The third revision (PMP – Rev. 3) in November 2009 provided an update of the PMP as of the start of Preliminary Engineering. The fourth revision was prepared for entry into Final Design. This fifth revision is prepared in anticipation of the start of limited construction activities under a Letter of No Prejudice (LONP) and prior to the development of an FFGA application (or the award of an FFGA).

This PMP includes number of stand-alone Reference Documents that provide greater detail on specific project elements, policies and procedures. The Quality Management Plan, Safety and Security Management Plan and the Real Estate Acquisition and Management Plan are examples of these Reference Documents. **Table 1** includes a general description of these project Reference Documents. The project document control staff is responsible for providing Reference Documents and should be consulted to confirm the latest release of each document.

Table 1: PMP Related Project Reference Documents

Number	Document Title	Description
RD-1	Alternatives Analysis	The Alternatives Analysis describes the planning process and decisions undertaken by the City which led up to the decision to implement the Project. See Section 1.2 below.
RD-2	Environmental Impact Statement and Record of Decision	The Environmental Impact Statement describes the environmental consequences involved in implementing the Project and the mitigation measures to be implemented to avoid, minimize or reduce the effects of adverse impacts. The Record of Decision is a documentation of FTA's determination that the requirements of NEPA and the related federal statutes, regulations and executive orders have been satisfied for the project.
RD-3	Contract Packaging Plan (CPP)	The Contract Packaging Plan describes each third party contract which will be undertaken by HART to implement the Project. See Section 1.4 below.
RD-4	Quality Management Plan (QMP)	The Quality Management Plan provides the framework of Quality Control and Quality Assurance which HART will use to ensure that the final Project meets its stated requirements.
RD-5	Safety and Security Management Plan (SSMP)	The Safety and Security Management Plan is part of the PMP and describes how HART addresses safety and security for the Project from initial planning through initial start-up and activation into revenue service.
RD-6	Compendium of Design Criteria	The Design Criteria are instructions to designers on the technical requirements of the Project. Deviations from these criteria, once established are not permitted without a formal project wide approval process.

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Number	Document Title	Description
RD-7	Baseline Project Description	The Baseline Project Description is a description of the intended project. Any design varying from this description requires a formal change review process prior to approval. See Section 1.3 below.
RD-8	Project Master Schedule	The Project Master Schedule is a critical path method (CPM) schedule identifying activities necessary to complete the Project and determining the critical path of activities for which a delay means a delay in overall project delivery unless acceleration can be achieved.
RD-9	Real Estate Acquisition and Management Plan (RAMP)	The Real Estate Acquisition and Management Plan is the document which describes how HART will acquire property for the Project and manage that property once it is obtained.
RD-10	Project Financial Plan	The Project Financial Plan reconciles the Project costs to the planned sources of funds for the Project and the time scale for the receipt and expenditure of these funds.
RD-11	Bus Fleet Management Plan (BFMP)	The Bus Fleet Management Plan describes the plans to ensure that the City's fixed route bus service is not degraded as a result of design and construction of the Project.
RD-12	Rail Fleet Management Plan (RFMP)	The Rail Fleet Management Plan describes HART's long range plans for acquiring and maintaining an adequate rail car fleet meeting the rail ridership demands of the Project.
RD-13	Configuration Management (CFM) Plan	The Configuration Management Plan provides for the control of designs being done by various project designers such that the Project will function as a cohesive whole once it is delivered.
RD-14	Safety and Security Certification Plan (SSCP)	The Safety and Security Certification Plan describes the process used to verify that safety and security related requirements are incorporated into the Project, thereby demonstrating that it is operationally ready for revenue service and safe and secure for passengers, employees, emergency responders, and the general public.
RD-15	Emergency Preparedness Plan (EPP)	The Emergency Preparedness Plan describes HART's policies, objectives, responsibilities, and procedures for emergency preparation and response while in revenue service.
RD-16	Construction Safety and Security Plan (CSSP)	The Construction Safety and Security Plan describe HART's policies, objectives, responsibilities, and procedures to protect Project staff from construction work site injuries. The scope of the plan includes accident/incident notification and investigation, safety and environmental training, and construction safety and security audits.
RD-17	Operational and Maintenance Training Plan	The Operations and Maintenance Training Plan describes HART's policies and procedures for certifying operations and maintenance for safe and secure operation and maintenance of the system.

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Number	Document Title	Description
RD-18	Contract Resident Engineer (CRE) Manual for Design-Build (DB) and Design-Build-Operate-Maintain (DBOM)	The CRE Manual for DB and DBOM indicates procedures and deliverables that are established to oversee construction of DB contracts and the construction of the Core Systems DBOM contract.
RD-19	Systems Integration Test Plan	This Plan describes the responsibilities, procedures and implementation of tests to demonstrate compatibility and functional integration among all subsystems.
RD-20	Operations & Maintenance Plan	The Operations and Maintenance Plan will describe the policies and procedures related to the operation of the system and maintenance of vehicles, systems, and subsystems.
RD-21	Warranty Management Plan	The warranty management plan will describe the required actions and documents to assure that HART receives the warranties to which are identified in the construction and procurement contract documents.
RD-22	Staffing Plan	The Staffing Plan addresses the human resources needed to meet the goals of the organization and to insure that HART has the appropriate technical capacity and capability required during each phase of the Project. Because the Staffing Plan is a dynamic, evolving document, the areas where the majority of changes are anticipated have been incorporated as Appendices.
RD-23	Quality Assurance Plan (QAP)	The Quality Assurance Plan is the Plan to be established for each Contract by the GEC, Consultants, Contractors and Suppliers. The QAP shall meet the FTA QA/QC Guidelines and required review and approval by HART prior to use.
RD-24	Interface Management Plan	The Interface Management Plan describes the role of HART in managing and oversight of the Contractors interfaces and the resolution of conflicts.
RD-25	Construction Management Plan (CMP)	The Construction Management Plan describes in detail how HART will manage construction of the Project. HART will use the CMP to advance the Project to its successful completion.
RD-26	Claims Avoidance Plan	The Claims Avoidance Plan outlines the tools and procedures used by HART to limit the exposure of claims by Contractors.
RD-27	Mitigation Monitoring Plan (MMP)	The Mitigation Monitoring Plan describes the roles and responsibilities for environmental compliance and management during design and construction including documentation of compliance by various contractors, and HART's monitoring during construction.
RD-28	Risk and Contingency Management Plan (RCMP)	The Risk and Contingency Management Plan outlines the planned utilization of contingency throughout the project. This Plan has been developed jointly by HART and FTA through its PMOC upon completion of the Risk Assessment effort undertaken prior to Final Design.

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Number	Document Title	Description
RD-29	1.PP-04 Project Wide Document Control Procedure	The 1.PP-04 Project Wide Document Control Procedure describes the detailed processes used by HART to establish and maintain consistent permanent project records.
RD-30	Contract Resident Engineers (CRE) Manual for Design-Bid-Build (DBB) Contracts	The Contract Resident Engineers Manual for DBB Contracts indicates procedures and deliverables that are established to oversee construction of the Design-Bid-Build contracts.
RD-31	Value Engineering (VE) Report for Stations	This report summarizes the process and results of the station VE study conducted April 19 through April 23, 2010 in Honolulu.
RD-32	Value Engineering Report for Guideway	This report summarizes the process of the guideway value engineering study conducted April 11 through April 15, 2010 as well as the final disposition of the VE alternatives presented therein for the Airport and City Center sections of the Project.
RD-33	Value Enhancement Summary Report	This report summarizes the proposed Alternative Technical Concepts for the West O'ahu/Farrington Highway Guideway, Kamehameha Guideway and Maintenance and Storage Facility Design-Build Contracts received and evaluated during the period April 2009 through June 2010.
RD-34	Arts in Transit Vision Plan	The Art in Transit Vision plan provides a description of the overall program for incorporating artworks into the transit facilities.
RD-35	Rail Activation Plan	The Rail Activation Plan describes the activities necessary to hire, organize, train, and prepare personnel for the opening of revenue operations
RD-36	Pre-Revenue Operations Plan	The Pre-Revenue Operations Plan establishes the schedule and requirements for demonstrating that the contractor can reliably provide the planned service at the required performance levels and availability
RD-37	Rail Maintenance Plan	The Rail Maintenance Plan describes the staffing, training and work requirements for maintaining rail vehicles, project facilities and systems to the level necessary to achieve designated performance requirements.
RD-38	Public Involvement Plan	The Public Involvement Plan describes activities and strategies to keep the media, affected communities, general stakeholders and the public at large aware of project designs and construction works.
RD-39	System Safety Program Plan	The System Safety Program Plan is a document to be developed and adopted by the HART during Final Design. The Plan will describe HART's safety policies, objectives, responsibilities, and procedures.
RD-40	System Security Plan	The System Security Plan will be developed and adopted by HART during Final Design. This Plan will describe HART's security policies, objectives, responsibilities, and procedures.

1.2 Project Management Plan Maintenance

Responsibility for Modifying the PMP – Revisions to the PMP may be initiated at any time by the HART Executive Director or the Chief Operating Officer.

Procedures for Modifying the PMP – Revisions to the PMP are managed by HART’s Document Control Manager or Designee. The revisions are documented in the Revision Record of the Plan and revised pages are then distributed to all recorded holders of the PMP by the Document Control Manager or Designee.

Periodic Updates of the PMP – The PMP will be reviewed annually for potential revisions. These updates may include organizational changes and the status of ridership estimates, project budget, schedule, and financing with input provided by the HART Board of Directors, HART Executive Director and staff, and the Federal Transit Administration.

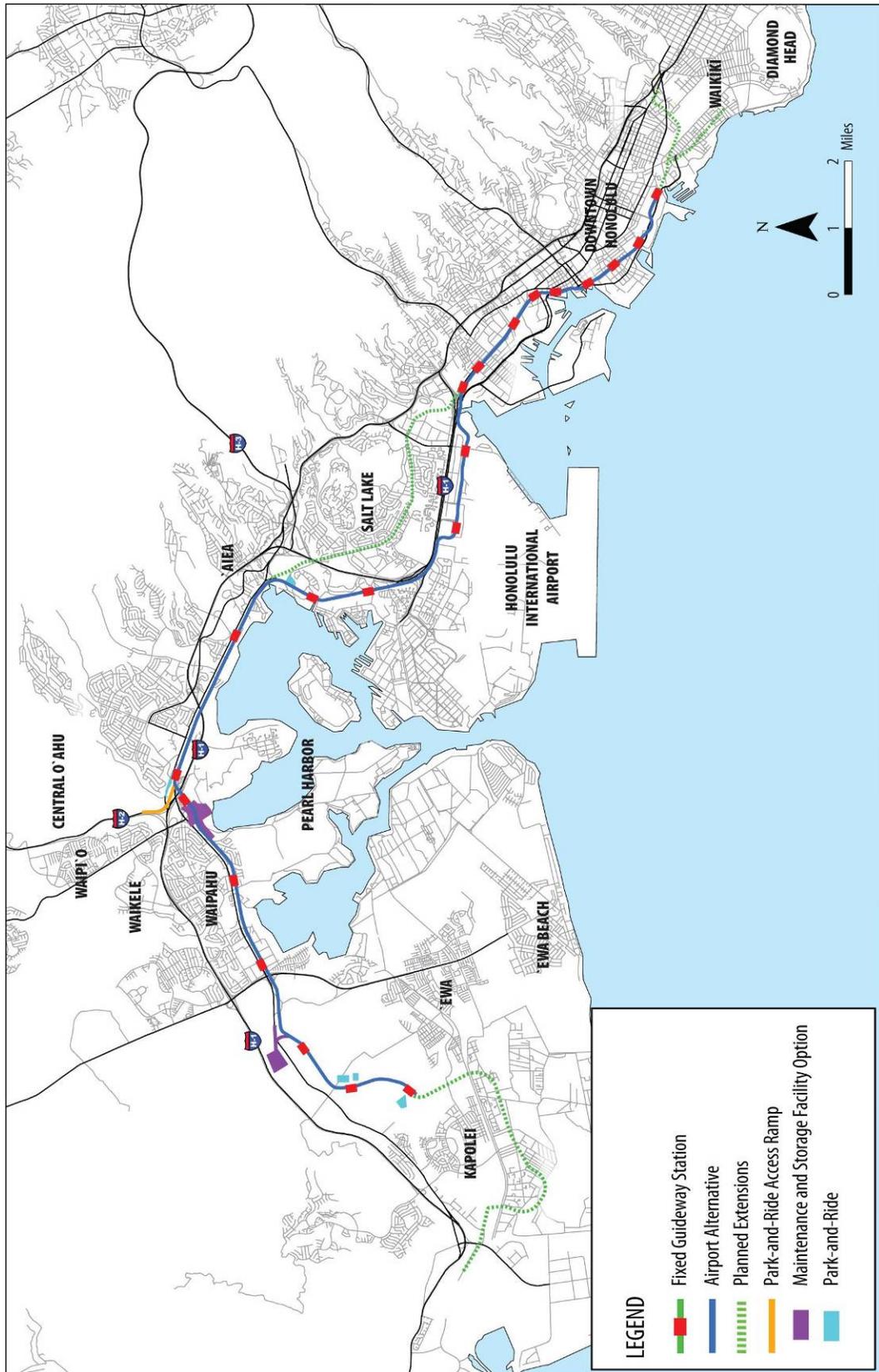
1.3 Project Background and Planning

The AA for the Honolulu High-Capacity Transit Corridor Project (HHCTCP) was initiated in August 2005 and the *Honolulu High-Capacity Transit Corridor Project Alternatives Analysis Report* was presented to the Honolulu City Council in October 2006. The purpose of the report was to provide the City Council with the information necessary to select a mode and general alignment for high-capacity transit service on O‘ahu. The report summarized the results of the AA that was conducted following the FTA’s planning guidance. It also provided information on the costs, benefits, and impacts of four alternatives: No Build Alternative, Transportation Systems Management Alternative, Managed Lane Alternative, and Fixed Guideway Alternative.

During November and December 2006, public meetings were held on the AA. On December 22, 2006, the Honolulu City Council enacted Ordinance No. 07-001, which selected a fixed guideway alternative from Kapolei to the University of Hawai‘i at Mānoa with a connection to Waikīkī as the Locally Preferred Alternative (LPA) for the Project. Ordinance 07-001 identified a specific alignment for the majority of the corridor but left options open in two locations. At the western end of the corridor, the LPA selection identified two alignments (described in the AA Report as Section I – Saratoga Avenue / North-South Road and Kamokila Boulevard), with the notation “*as determined by the city administration before or during preliminary engineering.*” In the center of the corridor, the LPA selection also identified two alignments (described in the AA Report as Section III – Salt Lake Boulevard and Aolele Street), also with the notation “*as determined by the city administration before or during preliminary engineering.*”

The LPA selection was made recognizing that currently-identified revenue sources, including revenues from the 0.5 percent General Excise Tax (GET) surcharge in place from January 1, 2007 through December 31, 2022, and a reasonable expectation of FTA New Starts funds, would not be sufficient to fund the capital cost of the LPA. Thus, a financially feasible project needed to be identified. On February 27, 2007, the Honolulu City Council initially selected a section of the LPA from East Kapolei to Ala Moana Center, via Salt Lake Boulevard (Resolution 07-039, FD1(c)). However, on January 28, 2009, the Honolulu City Council, under Resolution 08-261, recommended replacing the Salt Lake portion of this initial alignment with a route that includes direct service to Pearl Harbor and the Airport. This Phase of the LPA, from East Kapolei to Ala Moana Center, is shown in **Figure 1** and described in Section 1.3, Project Description.

Figure 1: The Project



Following adoption of Resolution 07-039, FD1(c), the City began discussions with FTA concerning the alternatives to be included in the documents to be prepared pursuant to the National Environmental Policy Act of 1969, as amended, and the joint regulations at Title 23 CFR Part 771 and Title 49 CFR Part 622 (collectively, NEPA). These discussions resulted in the decision that the EIS should examine the LPA with emphasis on the Salt Lake route, since it was considered the Project at that point in time. The Draft EIS (DEIS), which was circulated for public comment between November 4, 2008 and February 6, 2009, evaluated both the Salt Lake and Airport Alternatives. However, during the DEIS public comment period, the Honolulu City Council adopted Resolution 08-261 recommending that the initial project directly serve the Airport. On this basis, the City determined that the Final EIS (FEIS) would focus on the Fixed Guideway Alternative via the Airport (Airport Alternative). On January 18, 2011, FTA issued its environmental Record of Decision (ROD) on the HHCTCP's Airport Alternative. Upon entry into Final Design, the HHCTCP was renamed to "Honolulu Rail Transit Project, East Kapolei to Ala Moana Center" (Honolulu Rail Transit Project) and is referred in this PMP as "the Project."

1.4 Project Description

1.4.1 Alignment

The Project is an approximately 20-mile portion of the LPA extending from East Kapolei in the west to Ala Moana Center in the east (**Figure 1**). The alignment is elevated, with the exception of 3,700 linear feet (0.6 mile) that is at-grade at the Leeward Community College station.

The Project is planned to be delivered in four design and construction sections, as described below and discussed more fully in Section 1.5, Project Delivery.

Section I – West O‘ahu / Farrington Highway: East Kapolei to Pearl Highlands

East Kapolei is the western terminus of the Project. The alignment begins at Kualaka‘i Parkway (formerly North-South Road) north of Kapolei Parkway. The alignment follows Kualaka‘i Parkway in a northerly direction to Farrington Highway where it turns east following Farrington Highway and crosses Fort Weaver Road. The alignment is elevated along Kualaka‘i Parkway and along Farrington Highway.

The alignment continues in a north-easterly direction following Farrington Highway as an elevated structure. South of the H-1 Freeway, the guideway descends to grade as it enters the Maintenance & Storage Facility, the former Navy Drum Site. The alignment continues at grade to Leeward Community College and then returns to an elevated configuration to cross over the H-1 Freeway. North of the Freeway, the alignment turns eastward along Kamehameha Highway.

As shown in **Table 2**, Section I includes six stations: East Kapolei, UH West O‘ahu, Ho‘opili, West Loch, Waipahu Transit Center, and Leeward Community College. In addition, it includes one Maintenance & Storage Facility, two park and ride lots, and one bus transit center.

Table 2: Section I Stations – East Kapolei to Pearl Highlands

Station No.	Name / Planned Location	Planned Station Type	Planned Station Features
1.	East Kapolei: North-South Road @ East – West Road	Center Platform Concourse	Park-and-Ride lot: 900 spaces
2.	UH West O‘ahu: North-South Road @ Campus Drive	Side Platform Concourse	Park-and- Ride lot: 1,000 spaces Major bus interface
3.	Ho‘opili: Future street minor east-west street approximately 300’ south of Farrington Highway	Side Platform No Concourse	
4.	West Loch: Farrington Highway @ Leoku Street	Side Platform Concourse	Major bus interface with Bus Transit Center
5.	Waipahu Transit Center: Farrington Highway @ Mokuola Street	Side Platform Concourse	Major bus interface with Bus Transit Center
6.	Leeward Community College (LCC): LCC parking lot	Center Platform At Grade	Community college interface Access from below platform circulation space

Section II – Kamehameha Highway: Pearl Highlands to Aloha Stadium

The alignment continues in an elevated structure and continues in the median of Kamehameha Highway, crossing H-1 and continuing to where the Moanalua Freeway extension joins Kamehameha Highway at Aiea Stream. The route then crosses the westbound land of Kamehameha Highway and continues to the Aloha Stadium Station, followed by a pocket track. Section II includes three stations: Pearl Highlands, Pearlridge and Aloha Stadium and one park and ride structure, one bus transit center and one park-and-ride lot (see **Table 3**).

Table 3: Section II Stations – Pearl Highlands to Aloha Stadium

Station No.	Name / Planned Location	Planned Station Type	Planned Station Features
7.	Pearl Highlands: Kamehameha Highway @ Kuala Street	Side Platform Concourse	Park-and-Ride multi-level structure: 1,600 spaces Major bus interface
8.	Pearlridge: Kamehameha Highway @ Kaonohi Street	Side Platform Concourse	Major bus interface to be provided in the future as a separate project when funds become available
9.	Aloha Stadium: Kamehameha Highway @ Salt Lake Boulevard	Side Platform No Concourse	Major bus interface Park-and-Ride lot: 600 spaces

Section III – Airport: Aloha Stadium to Middle Street Transit Center Station

Past Aloha Stadium station, the elevated route re-enters the median of Kamehameha Highway continuing to its intersection with Nimitz Highway. The route then runs along the Nimitz Highway turning makai into Aolele Street. The route then follows Aolele Street eastward (Koko Head) to reconnect to Nimitz Highway along the makai frontage road and continues to the Middle Street Transit Center, after crossing Nimitz Highway. Section III includes four stations: Pearl Harbor Naval Base, Honolulu International Airport, Lagoon Drive and Middle Street Transit Center.

Table 4: Section III Stations – Airport

Station No.	Name / Planned Location	Planned Station Type	Planned Station Features
10.	Pearl Harbor Naval Base: Kamehameha Highway @ Radford Drive	Side Platform Concourse	
11.	Airport: Aolele Street @ Ala Auana Street	Side Platform No Concourse	Pedestrian walkways to Airport Terminal
12.	Lagoon: Aolele Street @ Lagoon Drive	Side Platform No Concourse	
13.	Middle Street Transit Center: Dillingham Boulevard @ Middle Street	Side Platform Concourse	Major bus interface with Bus Transit Center Pedestrian Bridge to Transit Center

Section IV – City Center: Middle Street Transit Center Station to Ala Moana Center

The elevated alignment continues southeast following Dillingham Boulevard and crosses Kapālama Canal, leaving Dillingham Boulevard at Ka‘aahi Street, and crosses Iwilei Road. After crossing Iwilei Road, the alignment follows the Nimitz Highway to Halekauwila Street and continues southeast along Halekauwila Street past Ward Avenue, where it transitions onto Queen Street. At the end of Queen Street, the alignment crosses Waimanu Street and crosses over to Kona Street. The alignment then goes through Ala Moana Center Station and ends with a tail track along Kona Street.

Section IV includes eight stations: Kalihi, Kapālama, Iwilei, Chinatown, Downtown, Civic Center, Kaka‘ako and Ala Moana Center. There are no park-and-ride lots planned in this section.

Table 5: Section IV Stations – City Center

Station No.	Name / Planned Location	Planned Station Type	Planned Station Features
14.	Kalihi: Dillingham Boulevard @ Middle Street	Side Platform No Concourse	
15.	Kapālama: Dillingham Boulevard @ Kokea Street	Side Platform No Concourse	
16.	Iwilei: Ka‘aahi Street @ Dillingham Boulevard	Side Platform No Concourse	Entry building off transit plaza
17.	Chinatown: Nimitz Highway @ Kekaulike Street	Side Platform Concourse	Entry building off pedestrian plaza
18.	Downtown: Nimitz Highway @ Alakea Street	Side Platform Concourse	Entry off pedestrian urban courtyard
19.	Civic Center: Halekauwila Street @ South Street	Side Platform No Concourse	Passenger plaza adjacent to entry building
20.	Kaka‘ako: Halekauwila Street @ Ward Avenue	Side Platform No Concourse	Entry building adjacent to retail
21.	Ala Moana Center: Kona Street mauka of AMC	Center/Side Platform Adjacent to shopping center	Major bus interface

1.4.2 System-wide Elements

The selected transit technology is electrically powered, industry-standard steel wheel on steel rail powered from a third-rail system. The selected vehicle is to be capable of a top speed of 55 mph. The vehicles will be fully automated and driverless although train attendants are

anticipated to be on the train during an initial burn-in period to provide the possibility of manual intervention in response to malfunctions. The driverless option is possible because the fixed guideway will operate in exclusive right-of-way with no automobile or pedestrian crossings. The system is being designed so that vehicles from more than one supplier could operate on the guideway once they are integrated with the train control system. To this degree, it is intended to be a non-proprietary system.

The traction power distribution system consists of approximately 13 substations and main line track power distribution facilities. The substations are spaced at approximately one and one-half mile intervals along the alignment.

Train signaling uses automatic train control (ATC) and automatic train operations (ATO) technology. The communications and security facilities include emergency phones, closed circuit television (CCTV), and public address and information display systems.

There will be 80 guideway vehicles to accommodate 6,280 passengers per hour per direction in the initial years of full system operations. Additional vehicles will be added to the fleet as passenger demands require in the future. Initial construction will accommodate 80 vehicles at the selected Maintenance and Storage Facility, with the capacity for future expansion to accommodate 120 vehicles.

The Maintenance and Storage Facility will be constructed on 43 acres of land at the Navy Drum site, east of Farrington Highway to the south of Leeward Community College, to service and store the transit vehicles.

1.4.3 Fare Collection

A unified fare structure is planned, which will be integrated with the City's existing bus system, TheBus. The Project is contemplated to be barrier-free. Fare vending machines are to be placed in all stations and continued use of standard fare boxes is assumed for TheBus. Fare-collection for the fixed guideway system involves proof of payment procedures. Under the barrier-free concept, no gate or fare inspection points are to be installed at the stations. Part of the station including the platform is designated by signage and floor markings as a fare paid area. Persons entering fare paid areas will need to have proof of having paid a valid fare. Fare inspectors will ride the system and randomly check to verify that passengers have valid tickets or transfers. Violators will be cited and fined as determined by future policies by City ordinance. As of June 2012, studies have not been completed to determine whether the fare inspectors will be City Police, other City employees or contractor employees. HART, in coordination with appropriate City departments, including the Honolulu Police Department (HPD), will make these decisions at least 18 months prior to initial operations. Stations are also being designed so that fare gates may be installed in the future with little or no disruption if a different fare collection is desired at any time after systems operations have

begun. Conduits and cable raceways are planned to be installed in the system at this time to cover the possibility of future fare gates and related communications (including additional video monitoring, if deemed necessary).

The following assumptions were made for the fixed guideway system:

- Fares for the fixed guideway system will be consistent with the fare structure for TheBus. Pass products will work interchangeably on both modes and transfers between modes will be seamless and at no additional fare.
- Current City policy requires that the bus fares be adjusted so that the farebox recovery ratio does not fall below 27% or exceed 33%. It is assumed that fixed guideway system fares will be consistent with this policy.

The final determination with respect to the type of fare collection system to be employed and the manner in which the system interfaces with TheBus, will ultimately be a policy decision by the HART Board of Directors, supported by the recommendations of the HART Executive Director and data provided by the HART Project staff.

1.4.4 Operating Plan

The Project is planned to operate in revenue service seven days a week. Weekday service will operate between 4 a.m. and midnight. Saturday service will run from 5 a.m. to midnight, and Sunday service will run from 6 a.m. to midnight. Vehicle headways in each direction will range from 3 minutes during peak periods to 10 minutes from 8 p.m. to midnight. A train will arrive in each direction at the station every 6 minutes during base periods. The system is planned to operate with multi-car vehicles with all doors fitting on a platform length of 240 feet with each train able to carry a minimum of 300 passengers. The peak capacity in the opening year will be 6,280 passengers per hour per direction. The system will be expandable to allow for a 50% increase in capacity. For further information refer to the Project's Rail Operations and Maintenance Plan (RD-20).

1.4.5 Ridership Estimates

Current 2030 travel forecasts for the Project anticipate 116,300 daily transit boardings. In the initial year of full operations, the Project anticipates approximately 98,000 daily boardings.

1.5 Project Delivery

1.5.1 Delivery Strategy

HART intends to implement guideway construction for the Project in three sections, in accordance with the Contract Packaging Plan (CPP) (RD-3). While a portion of the Project's

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construction is being procured by the Design-Build (DB) method, most of the Project is to be implemented through the procurement of individual design organizations, under service contracts (SVC) by Engineering Design Consultants (EDCs), who prepare design documents for individual construction packages to be procured using the Design-Bid-Build (DBB) method. The work of these individual package design teams is overseen by the GEC. Vehicles, train control, communications, traction power systems and fare collection systems have been procured in a single Design-Build-Operate-Maintain (DBOM) contract identified as the Core Systems Contract (CSC). Another project-wide contract is to provide Elevators and Escalators on a Manufacture, Install and Maintain basis (MIM).

A total of 49 design and construction packages are currently identified. However, as discussed in the CPP, it should be expected that there will be other contracts added as program definition is further developed. The current breakout of contracts is subject to modification during Final Design. The current breakdown of contract types is shown below in **Table 6** and in **Figure 2** on the following pages.

Table 6: List of Contract Types

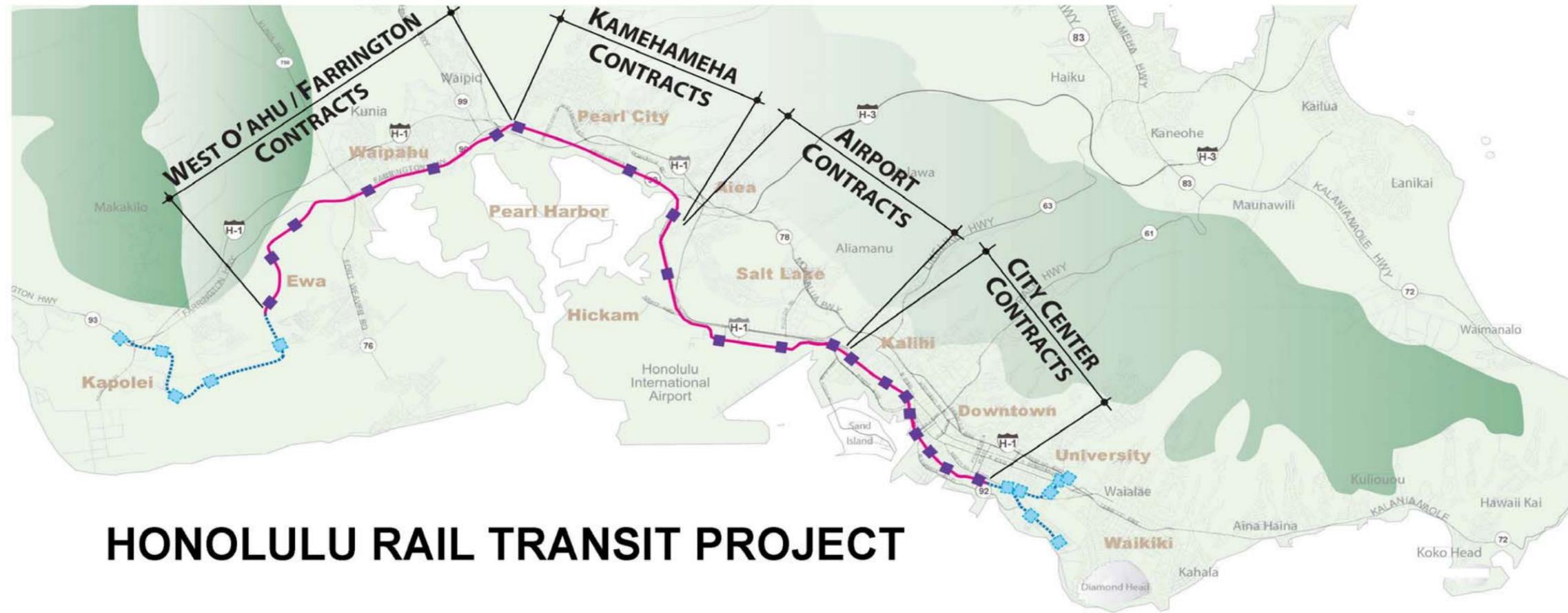
Contract	Number of Contracts	Service
Service	31	<ul style="list-style-type: none"> • Program Management Support (2) • General Engineering (2) • Real Estate (1) • Kako‘o (1) • OCIP (1) • LEED Commissioning(1) • Guideway & Utilities Design Consultant (2) • Stations Design (6) • Parking Structure/Bus Transit Center (1) • Park & Ride/Station Finishes Design (1) • CE&I (8) • HDOT Services (5)
Design-Bid-Build Construction & On-Call Construction	13	<ul style="list-style-type: none"> • Guideway Construction (1) • Utilities Relocation (2) • Station Construction (7) • Parking Structure/Bus Transit Center (1) • On Call Construction & Haz Mat Removal Services (2)
Design-Build Construction	3	<ul style="list-style-type: none"> • Sections I and II Guideway & Utilities (2) • Maintenance & Storage Facility Construction (1)
Design-Build-Operate-Maintain	1	<ul style="list-style-type: none"> • Vehicles/Systems procure, install, test & commission (1)

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Contract	Number of Contracts	Service
Manufacture- Install-Maintain	1	<ul style="list-style-type: none"><li data-bbox="634 317 1170 348">• Project Wide Elevators and Escalators (1)

Section I (WOFH) began construction with utility relocation at the western end of the alignment at East Kapolei. Civil works construction on this Section is anticipated to be sufficiently advanced for the CSC to start systems installation prior to the end of the civil contract.

Figure 2: Contract Packaging Plan



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West O'ahu/Farrington Contracts	Kamehameha Contracts	Airport Contracts	City Center Contracts	Project Wide Contracts
FD-140 West Oahu Station Group Final Design FD-240 Farrington Highway Station Group Final Design FD-600 UH W.Oahu P&R/Ho'opili Station Finishes FD DB-120 West Oahu/Farrington Hwy Guideway DB DB-200 Maintenance & Storage Facility DB DBB-170 West Oahu Station Group Construction DBB-270 Farrington Highway Station Group Construction DBB-600 UH W.Oahu P&R/Ho'opili Sta Finishes Constr MM-180 W. Oahu/Farrington Hwy Station Groups CE&I MM-600 UH W.Oahu P&R/Ho'opili Sta Finishes CE&I MM-975 LEED/MSF Consultant	FD-245 Pearl Highlands Pkg Struct/Bus Transit Ctr FD FD-340 Kamehameha Hwy Station Group Final Design DB-320 Kamehameha Highway Guideway DB DBB-275 Pearl Hi'l'ds Pkg Struct/Bus Trans Ctr Constr DBB-370 Kamehameha Hwy Station Group Constr MM-380 Kamehameha Hwy Station Group CE&I MM-385 Pearl Hi'l'ds Pkg Struct/Bus Transit Ctr CE&I	FD-430 Airport Guideway & Utilities Final Design FD-440 Airport Station Group Final Design DBB-470 Airport Station Group Construction DBB-505 Airport Section Utilities Construction MM-485 DBB-505 Airport Station Group CE&I DBB-520 Airport & City Center Sections Guideway Construction MM-500 Airport & City Center Sections Utilities CE&I MM-525 Airport & City Center Sections Guideway CE&I	FD-530 City Center Guideway & Utilities Final Design FD-540 Dillingham Station Group Final Design FD-545 Kaka'ako Station Group Final Design DBB-570 Dillingham Station Group Construction DBB-575 Kaka'ako Station Group Construction MM-585 Dillingham & Kaka'ako Station Groups CE&I	DBOM-920 Core Systems DBOM MI-930 Elevators & Escalators MM-945 On-Call Construction Contractor MM-946 On-Call HazMat Contractor MM-900/901 Program Management Sppt Consultant MM-905 General Engineering Consultant (EIS/PE) MM-910 General Engineering Consultant (FD/Const) MM-915 HDOT Traffic Management Consultant MM-920 HDOT Design Coord Consultant - WOFH MM-921 HDOT Design Coord Consultant - Kam Hwy MM-922 HDOT Design Coord Consultant - Airport MM-923 HDOT Design Coord Consultant - City Center MM-935 Real Estate Consultant MM-940 Kaka'o Consultant MM-950 OCIP Consultant

Contract Coding :
 FD Final Design Contracts
 DB Design-Build Contracts
 DBB Design-Bid-Build Construction Contracts
 DBOM Design-Build-Operate and Maintain Contract
 MM Management Contracts
 MI Manufacture & Install Contracts

Contract numbers typically 3 digits
 First digit indicates location:
 1xx West Oahu
 2xx Farrington
 3xx Kamehameha
 4xx Airport
 5xx City Center
 9xx Project Wide

Second digit indicates category:
 x2x Design Build
 x3x Design Utility & Guideway
 x4x Station Design
 x5x Utility Relocation
 x6x Guideway Construction
 x7x Station Construction
 x8x Construction, Engineering & Inspection
 Second digit rule does not apply to 9xx series.

This guideway Section and the MSF are being constructed using the DB method of delivery. The Stations are being designed and constructed using the DBB method of delivery.

Section II (Kamehameha) of the Project from Pearl Highlands to Aloha Stadium along Kamehameha Highway also is being delivered using the DB delivery method. The initial opening of the system is planned for 2016 and will cover both Sections I and II reaching from East Kapolei to Aloha Stadium as well as the MSF.

Section III (Airport) from Aloha Stadium to Middle Street Transportation Center Station past Honolulu International Airport is planned to be delivered using the DBB delivery method, in a single guideway contract combined with the City Center. A separate DBB utility relocation contract for this section is also planned. Refer to the Master Project Schedule (RD-8) for the construction and operations phasing of this Section.

Section IV (City Center) from Middle Street Transportation Center Station to Ala Moana Center Station, including 8 stations, also is planned to be delivered using the DBB delivery method. The guideway construction contract for this Section has been combined into a single guideway DBB contract with the Airport Section guideway. A separate DBB utility relocation contract for this section is also planned. Refer to the Master Project Schedule (RD-8) for the construction and operations phasing of this Section. The entire system is planned for completion in 2019.

Vehicles and systems elements are planned to be manufactured, delivered and installed to meet the specific needs of each phase. One contract is planned for all vehicles, train control, communications, fare collection equipment and traction power.

In February 2008, a recommendation was made from a five-member panel appointed by the Honolulu City Council and the Mayor on vehicle technology. The panel's recommendation resulted in the City establishing steel wheel operating on steel rail as the technology for the Project. Vehicles, train control, communications and traction power have been packaged together for the entire Project in a single contract. Supplier selection was completed in December 2011 with the execution of a contract with the CSC. Design, delivery, installation and testing will be completed in a phased program which started in December 2011 and will end with the completion of the Project in 2019. An initial term of operations and maintenance of the system is also planned to be included with this contract which would extend performance to 2024.

The H RTP continues to plan and procure to a March 2019 revenue service date (RSD). The Master Project Schedule (MPS) incorporates ten months of schedule contingency after the H RTP planned RSD which results in a conservative RSD of January for the purposes of the FFGA. This additional ten months of schedule contingency is arrived at through application of the FTA Operating Guidance which is mandated as part of the FFGA process.

1.6 Operations and Maintenance

The structure of the ultimate organization for operations and maintenance of the Project had not been defined during the preliminary engineering phase of the program. However, it has been determined that the CSC will provide for both the maintenance and operations of the system for the period when partial system openings are occurring and for at least the first five years after opening of the full system. HART will oversee these operations and determine the course of future operations after the initial 5-year period. Target Revenue Operations Date (TROD) for the full system is March 2019 with full project closeout and completion planned for 2020.

Further detail on planned Operations and Maintenance may be found in the Rail Operations and Maintenance Plan (RD-20).

1.7 Schedule and Cost

Advanced Conceptual Engineering to support the preparation of the NEPA document commenced in mid-2007. This work was followed by PE, which began after FTA approved entry into PE in October, 2009. Property acquisition and utility relocation activities were initiated with the issuance of the ROD in January 2011. Final Design began in May 2011 on the Section I under an FTA Letter of No Prejudice (LONP) No. 1 and for the remainder of the Project upon receipt of Final Design Approval from FTA in December 2011. Limited construction activities on Sections I and II of the guideway and on the MSF began, using HART funding, with the receipt of LONP No. 2 from FTA in February 2012. Additional details on the schedule are set out in Section 3.3, Schedule Management, and RD-8.

The current baseline capital cost estimate for the Project including finance charges for purposes of an FFGA is \$5,122 million in year of expenditure dollars (YOE \$). The total Project cost is \$5,163 million (YOE \$) and includes \$42 million in finance charges from FY 2021 to FY 2023. Additional details on the estimated cost are set forth in the Project Financial Plan.

1.8 Goals and Objectives

HART's goal for the Project is to provide fast, reliable public transportation services to a rapidly developing area and to ease congestion in the east-west transportation corridor between Kapolei and the University of Hawai'i at Mānoa. The Project is also intended to provide basic mobility in areas with diverse populations. The Project supports the goals of the *City and County of Honolulu's General Plan* and the 2030 O'ahu Regional Transportation Plan by serving areas designated for urban growth. The goals used to select the LPA during the AA included:

- Improve corridor mobility;
- Encourage patterns of smart growth and economic development;
- Provide a cost effective solution;
- Provide feasible solution;
- Minimize community and environmental impacts; and
- Achieve consistency with other planning efforts.

The Project's goals and objectives stated in the EIS are similar to the AA goals, as listed below:

- Improve corridor mobility;
- Improve corridor travel reliability;
- Improve access to planned development to support City policy to develop a second urban center; and
- Improve transportation equity.

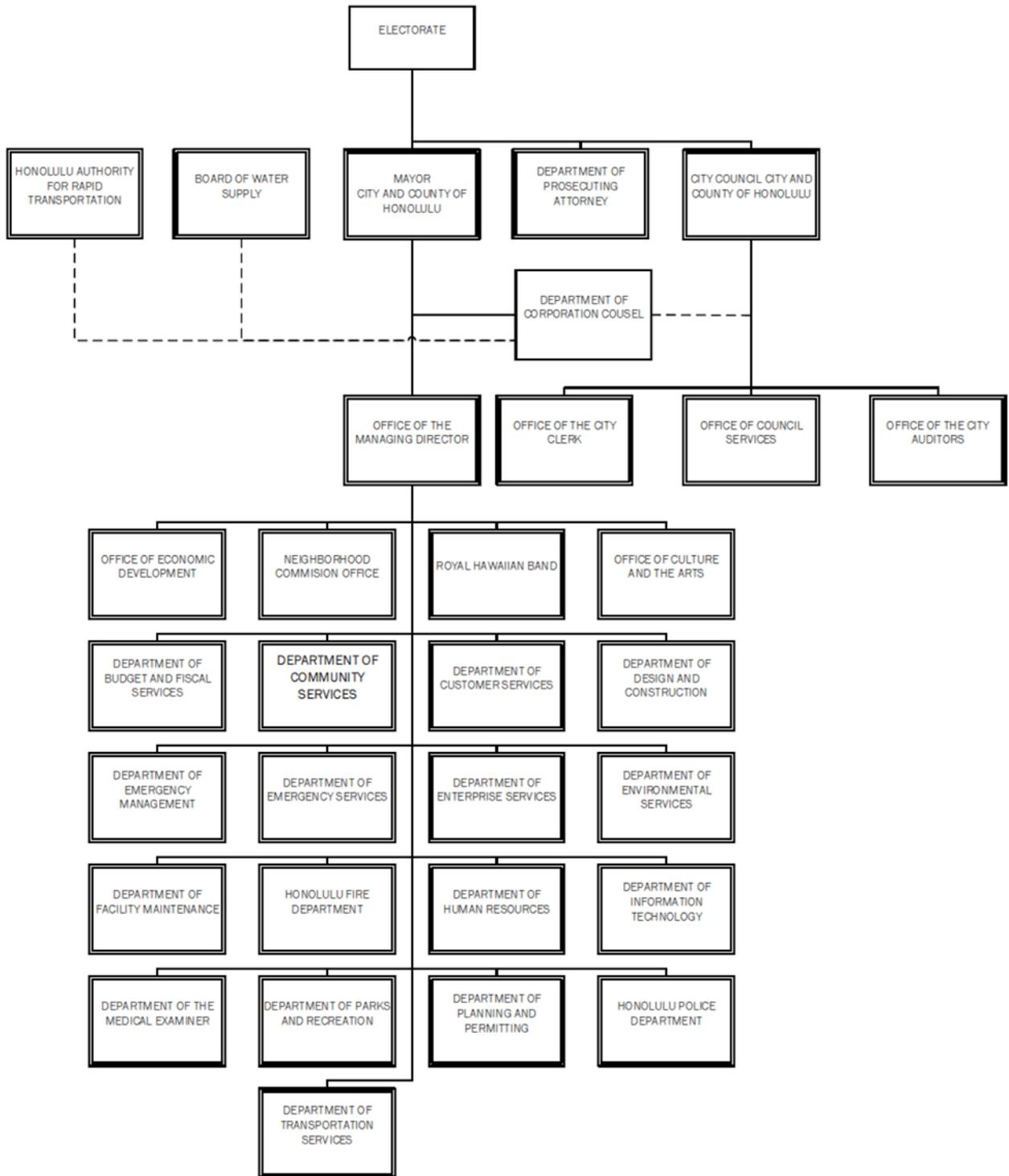
This Project will contribute to moderating the growth in anticipated traffic congestion in the corridor, improve transit linkages within the corridor, and provide an alternative to private automobile usage.

1.9 Legal and Statutory Authority

1.9.1 Agency Background and Overview

The City is a body politic and corporate, as provided in Section 1-101 of the Revised Charter of the City and County of Honolulu 1973 (RCH). The City's structure of government is presented in **Figure 3** on the following page.

Figure 3: Organization Chart – City and County of Honolulu



1.9.2 Statutory Authority

The City is authorized under Chapter 51 of the Hawai‘i Revised Statutes (HRS) to “acquire, condemn, purchase, lease, construct, extend, own, maintain, and operate mass transit systems, including, without being limited to, motor buses, street railroads, fixed rail facilities such as monorails or subways, whether surface, subsurface, or elevated, taxis, and other forms of transportation for hire for passengers and their personal baggage.” This authority may be carried out either directly, jointly, or under contract with private parties.

A Department of Transportation Services (DTS) is authorized under RCH Chapter 17. The DTS consists of a DTS Director who is the administrative head of the department, a transportation commission, and necessary staff. A Rapid Transit Division (RTD) of the DTS was established on July 1, 2007 upon enactment of the City’s Fiscal Year 2008 Executive Operating Budget and Program. RTD was responsible for managing the Project up until the establishment of HART. The RTD was headed by the Second Deputy Director who reported to the DTS Director.

In November, 2010, voters of the City and County of Honolulu passed an amendment to the City Charter following City Council Resolution 09-252, CD1 (Charter Amendment) which set the framework for the creation of a semi-autonomous public transit authority, otherwise referred as the Honolulu Authority for Rapid Transportation (HART), to design, build, operate, maintain and expand the City’s fixed guideway mass transit system. This Charter Amendment (see Appendix D), resulted in a modification of the governing structure of the rapid transit system for Honolulu with the transfer of all RTD staff and functions to HART. HART began operations as a semi-autonomous agency on July 1, 2011.

The Charter Amendment also amended DTS’s powers, duties, and functions by specifying that the DTS Director “shall have no power, duty or function with respect to transportation systems, facilities, or programs which are under the jurisdiction of the public transit authority.”

2.0 PROJECT ORGANIZATION AND STAFFING

This section of the PMP describes the project organization and staffing approach. Topics include organizational approach, organization, staffing, key personnel functions and responsibilities, use of consultants, and interface with other agencies. As implementation of the Project advances, the organization will evolve to maximize the efficient use of personnel and adjust to the changing workload.

2.1 Organizational Approach

Successful implementation of the Project involves a number of entities. As further described in this section, HART is implementing the Project using its own forces and the services of third-party consultants and contractors. A current list of entities involved in managing, overseeing, and/or carrying-out work on the Project includes the following:

- Federal Transit Administration (FTA), lead federal agency;
- FTA's Project Management Oversight Contractor (PMOC);
- FTA's Operating & Maintenance Assessment Contractor (OMC);
- FTA's Financial Management Oversight Contractor (FMOC);
- Hawai'i State Safety Oversight Agency
- City and County of Honolulu (City) – FTA Grantee; and
- The Honolulu Authority for Rapid Transportation (HART), Project Sponsor / Implementing Agency.

The organizational principles established for carrying out the Project are as follows:

- 1) Decision-making and Coordination of Planning:
 - a) The HART Board of Directors will determine overall project policies which are not otherwise established by Ordinance.
 - b) HART staff will coordinate with senior managers from key City departments on a continuing basis.
 - c) HART staff will coordinate with State and Federal cooperating and participating agencies on a continuing basis.
 - d) HART will involve senior managers from City departments when policy and programmatic decisions are made related to their departmental jurisdictions.
- 2) Project Implementation:

- a) The HART Executive Director will be primarily responsible for the Project. The HART Executive Director will retain control of the Project's third-party contracts as the contracts' Officer-in-Charge. HART will control all technical aspects and phases of the work, and will be the primary point of contact for the Project.
- b) HART is supplementing its staff during final design and initial construction phases of project development through a contract with a PMC. The PMC approach permits the immediate mobilization of an experienced project management team and additional staff as needed while HART recruits employees. The current PMC contract is planned to extend to January 2015 and includes two optional one year extensions. HART may procure further services of a PMC as determined by the City's staffing needs at that time.
- c) Work to conduct PE and to prepare the requisite EIS was provided by a single GEC (GEC-1) overseen by the City with oversight responsibility transferred to HART upon its establishment.
- d) The City and HART functioned as an integrated project organization during the PE/EIS phase, with key staff from the City/HART, PMC, and GEC-1 co-located within the project office. This integrated project organization will continue in subsequent phases.
- e) A new GEC (GEC-2) procurement was initiated in October 2009 and was consummated in November 2011 after the GEC-1's work under NEPA was completed.
- f) Procurement of individual Engineering Design Consultant's (EDC) for final design services is ongoing. EDC contract procurement is initiated on a schedule which permits timely completion of Final Design approximately three months prior to the bidding of each construction contract.
- g) Construction Engineering Inspection (CEI) consultants will be procured from an on-call list of providers to perform construction inspection services under the supervision of the GEC-2 for construction packages procured under open competitive bidding.
- h) The Core Systems Contractor (CSC) was selected and a contract executed in December 2011.
- i) DB Guideway Construction Contractors for WOFH, KHG and the MSF were also procured during the PE phase.
- j) DBB Contractors for Stations and the remaining guideway will be procured during the construction phase.
- k) HART will operate and maintain the Project's fixed guideway system through a management services contract with the CSC during the operations periods for the initial sections and for an initial period of 5 years following project completion. The Core Systems Contract also includes an option for an additional five year extension.

2.2 Organization of the City and County of Honolulu

The City and County of Honolulu will continue to be the FTA Grantee for the Honolulu Rail Transit Project. HART will serve as the project sponsoring agency and will be responsible for design, construction, and operation of the project.

The City's governmental structure consists of the Legislative Branch and the Executive Branch. **Figure 3** in Section 1.9.1 depicts the City's organizational structure.

The legislative power of the City is vested in and exercised by an elected nine-member City Council whose terms are staggered and limited to no more than two consecutive four-year terms. Every legislative act of the City Council is made by ordinance. Every proposed ordinance is initiated as a bill and is passed only after three readings on separate days. A public hearing is required for each bill. Non-legislative acts of the City Council are made by resolution, and except as otherwise provided, no resolution has the force or effect of law.

The executive power of the City is vested in and exercised by an elected Mayor, whose term is limited to no more than two consecutive full four-year terms. The executive agencies involved with the Project are further described in this section.

2.2.1 Key City Departments and Entities

This section describes the functions and responsibilities of the key City departments that are involved in the Project.

2.2.1.1 Office of the Mayor and City Council

The Mayor is the chief executive officer of the City. The Mayor directly supervises the Department of the Corporation Counsel (COR), and through the Managing Director, supervises all other executive agencies of the City, except for the Board of Water Supply (BWS) and the Department of the Prosecuting Attorney. The Mayor's powers include:

- Create or abolish positions within the Executive Branch;
- Make temporary transfers of positions between departments or between subdivisions of departments;
- Submit annual operating and capital programs and budgets, and proposed budget ordinances to the City Council;
- Call special sessions of the City Council; and
- Veto ordinances, resolutions authorizing proceedings in eminent domain, and resolutions adopting or amending the general plan.

The Managing Director is the principal administrative aide to the Mayor. The Managing Director is appointed by the Mayor and confirmed by the City Council. All executive departments and agencies of the City report directly to the Managing Director, except for the BWS and the Departments of the Corporation Counsel and Prosecuting Attorney.

The City Council is the lawmaking body of the City and County of Honolulu. The Council is responsible for serving and advancing the general welfare, health, happiness, and safety of the people through exercising its legislative power. Its major duties include:

- Setting city-wide policies by enacting ordinances and adopting resolution related to municipal government;
- Initiating new municipal programs; adopts the annual operating and capital programs and budgets;
- Adopting measure to balance the budget including the setting of property tax rates;
- Adopting a general plan for city and land use laws;
- Confirming department heads and boards and commission members; and
- Fixing fees and charges for all city services and the use of city property.

The Council has seven standing committees. The committees provide council members with an opportunity to seek information from the city administration on new proposals for or proposed changes to existing city policies, programs and services, to discuss budgeting and implementation issues and to reach consensus among committee members on dealing with major problems.

2.2.1.2 City Departments Supporting HART

Following the establishment of HART effective July 1, 2011, HART entered into Memorandum of Understanding (MOU) with several City departments. These MOU outline roles and responsibilities between HART and the various departments that will continue to provide project support. The MOU's are generally effective from July 1, 2011 through June 2016. The MOU's are with:

- Department of Transportation Services (DTS);
- Budget and Fiscal Services (BFS);
- Department of Human Resources (DHR);
- Department of Permitting and Planning (DPP);
- Department of Information Technology (DIT);
- Department of Design and Construction (DDC); and
- Board of Water Supply (BWS).

2.2.1.3 Department of Transportation Services (DTS)

The DTS is the lead City department for coordinating with HART. The DTS plans and designs projects related to streets, highways, and transit systems under the jurisdiction of the City. The department provides for the safe and efficient movement of vehicles, pedestrians, bicycles and other modes of transportation through the city's transportation infrastructure and oversees the provision of public transit on O'ahu.

Following the establishment of HART effective July 1, 2011, HART entered into a Memorandum of Understanding (MOU) with DTS. In this MOU, DTS and HART agreed on a division of duties and responsibilities with respect to the administration of public transportation planning and grant applications to and awards by the U.S. Department of Transportation Federal Transit Administration. DTS and HART agreed this MOU shall take effect on July 1, 2011 through June 30, 2016. DTS and HART are working to amend the MOU to enable the MOU to be in effect in perpetuity.

There are four divisions within the DTS which are:

- 1. Transportation Planning Division (TPD)** - This is responsible for the federally-required statewide and metropolitan transportation planning processes. The TPD supports the Project by applying for and administering any non-FTA New Starts grant funds for the Project; and programming the Project in the metropolitan transportation improvement program (TIP). The TPD is responsible for implementing HART's plans for bus/rail integration.
- 2. Public Transit Division (PTD)** – The PTD is responsible for planning and directing the City's island-wide fixed-route bus system and complementary paratransit services; procuring new buses and paratransit vehicles; overseeing the planning, design, construction and maintenance of transit centers and bus maintenance facilities; installing and maintaining bus shelters and bus stops; and reviewing and determining eligibility for paratransit services in accordance with the Americans with Disabilities Act of 1990, as amended (ADA).

The PTD manages O'ahu Transit Services, Inc., the bus management services contractor responsible for managing and operating TheBus and TheHandi-Van (the City's paratransit service). The PTD supports the Project by providing information relating to TheBus and TheHandi-Van. The PTD will implement the integrated feeder bus system developed by HART.

- 3. Traffic Engineering Division (TED)** - This division provides for the safe, efficient and effective operation of City streets, roadways, and intersections; recommends and implements standards for signs, pavement markings and warning devices; establishes and administers the Traffic Code Ordinance; analyzes and determines warrants for traffic

signals; and represents DTS in legal matters related to traffic engineering issues. The TED provides traffic engineering support to the Project.

- 4. Traffic Signals and Technology Division (TSTD)** – The TSTD operates and maintains the City’s Traffic Management Center and over 782 traffic signals on O‘ahu.

2.2.1.4 Department of Budget and Fiscal Services (BFS)

The MOU with BFS essentially allows for BFS to continue providing certain services to HART effective July 1, 2011 through June 30, 2016, unless extended by the BFS and HART.

The BFS is the City’s central financial agency. It is responsible for all aspects of the City’s finances, including billing; collection; keeping accurate and complete account of receipts and disbursements; and management of the City’s treasury and funds. It provides long-range financial planning; prepares and manages the City’s operating and capital program and budget; provides information pertaining to the financial affairs of the City; and reviews the manner in which public funds are received and expended. The key BFS divisions are described below.

- Administration Division: administers the City’s risk management and insurance program.
- Treasury Division: collects and receives revenues including the 0.5% GET surcharge from the State of Hawai‘i Department of Taxation; manages the monies in the City treasury; prepares and issues warrants for third-party contractor payments; issues, and pays interest on and redeems bonds of the City.
- Accounting Division: responsible for accounting of city funds; reviews the manner in which public funds are received; administers the central preparation of payroll; and ensures that expenditures are in accordance with the city’s budget ordinances and allotment schedules.
- Purchasing Division: acts as the centralized purchasing agency for the City (except for the BWS) by contracting for services of independent contractors and purchasing materials, supplies, and equipment; conducts relocations pursuant to requirements set forth in 49 CFR Part 24; maintains a perpetual inventory of all lands and equipment owned or controlled by the City; disposes of property not needed by any City agency; rents or leases City property (except property controlled by the BWS); and awards concessions.
- Real Property Assessment Division: assesses, for tax purposes, all real property in the City.
- Budgetary Administration Division: provides centralized budgetary services which include the preparation and administration of the annual operating budget; formulates and administers budgetary policies consistent with administration objectives; and provides organizational review and budgetary review of city programs and activities.

- Fiscal/CIP Administration Division: oversees citywide financial planning and analysis; and formulates reviews, prepares, and implements the annual capital program and budget.

2.2.1.5 Department of Human Resources (DHR)

The MOU with DHR was established in an effort to ensure a smooth transition from RTD to HART. In this MOU, DHR agreed to continue providing certain services to HART effective July 1, 2011 through June 30, 2016, unless extended by the DHR and HART.

The DHR is responsible for all City personnel actions related to the Project including overseeing of hiring, classifications and pay, equal opportunity, performance reviews, transfers and terminations. The DHR administers the City's civil service rules and regulations. The DHR also develops, promotes, coordinates and maintains a safety program for the City to comply with the Hawai'i Occupational Safety and Health Law.

- Employment and Personnel Services Division: develops and administers the City's recruitment, examination, and employee services programs; recruits personnel for City jobs; evaluates candidates' qualifications and suitability; develops and administers examinations to establish eligible lists; refers names of qualified candidates to fill departmental personnel requirements; assists departments and coordinates with other personnel management processes in resolving problems regarding recruitment, examinations, selection, placement, personnel transactions, benefits, and related matters.
- Health Services Division: conducts pre-employment and annual medical evaluations of current and prospective employees including examinations mandated under the Hawai'i Occupational Safety and Health Division and U.S. Department of Transportation rules; conducts and oversees programs that are designed to promote health, reduce risks, and prevent injury; and administers a drug screening program for new hires and random testing for selected employees.

2.2.1.6 Department of Design and Construction (DDC)

Before HART's creation, DDC Land Division provided certain services to the Rapid Transit Division of the Department of Transportation Services. The MOU with DDC allows DDC to continue providing certain services to HART effective July 1, 2011 through June 30, 2012, unless extended by the DDC and HART by mutual agreement to June 30, 2016.

The DDC is responsible for planning, design, and CM of the City's CIP. For this project, the DDC is providing support and input to HART, including design review. The DDC's responsibilities include ensuring that all respective divisions participate in design reviews as follows:

- Civil Division: providing civil engineering, environmental services and soils/materials testing oversight support.

- Facilities Division: providing support during the planning, design and construction of facilities related to municipal buildings, parks and park structures.
- Land Division: conducting land and engineering surveys, title searches, real property appraisals, negotiations, and documentation preparation services in connection with the acquisition of lands and easements (temporary or permanent).
- Mechanical/Electrical Division: providing management and monitoring support to the Project.
- Wastewater Division: providing support to the Project related to collection systems.

2.2.1.7 Department of Planning and Permitting (DPP)

In the MOU, DPP agreed to continue providing certain planning and permitting services to HART effective July 1, 2011 through June 30, 2012, unless extended by the DPP and HART by mutual agreement.

The DPP is responsible for the City's long-range and community planning efforts, and for the administration and enforcement of permits required for the development and use of land. It is also responsible for the administration and enforcement of codes pertaining to the construction of buildings, and for the administration and enforcement of City standards and regulations pertaining to infrastructure requirements.

- Building Division:
 - *Mechanical Code Branch: responsible for plumbing code compliance and inspections, building energy efficiency standards, and plumbing code plan review.*
 - *Zoning Plan Review Branch: responsible for building permit review for Land Use Ordinance (LUO) compliance.*
 - *Building Code Branch: responsible for building code compliance and inspections, and issues certificates of occupancy.*
 - *Research Branch: provides approvals on alternative methods and materials.*
 - *Electrical Code Branch: insures electrical code compliance and inspections, and provides electrical code plan review.*
- Planning Division: responsible for preparing, evaluating, and revising the O'ahu General Plan and eight long-range regional development plans; processes applications for public infrastructure map amendments, zone changes and state special use permits; monitors the status of unilateral agreement conditions, including affordable housing program requirements; develops community-based special area plans; prepares an annual report on current status of land use; provides forecasts of population, housing, visitor units, and employment for city and state infrastructure planning, and assistance to the O'ahu Metropolitan Planning Organization with respect to land use and population planning

issues; and assists infrastructure agencies in preparing functional plans to assure that infrastructure plans are consistent with land use plans. The Planning Division is also responsible for developing and implementing Transit-Oriented Development (TOD) guidelines, planning, and procedures related to the Project.

- Land Use Permits Division:
 - *Urban Design Branch: responsible for Special District, Cluster Housing, Planned Development Housing, street trees and Existing Use (Residential) plan review.*
 - *Zoning Regulations and Permits Branch: responsible for LUO amendments, temporary use permits, 201H housing projects, zoning adjustments and waivers, and Conditional Use permits (minor) plan review and compliance.*
 - *Land Use Approval Branch: responsible for Shoreline Management Area (SMA) permits, Conditional Use permits (major), Plan Review Uses, and Existing Use (Non-Residential).*
 - *Other Land Use Permits Processed by Division: responsible for zoning variances.*
- Site Development Division:
 - *Traffic Review Branch: reviews construction plans for compliance with City streets and traffic standards, egress and ingress for park-and-ride lots, and drop-offs at stations; provides plan review and coordination for street lights and traffic signals.*
 - *Wastewater Branch: provides approvals to build over sewer easements, and issues industrial wastewater discharge permits.*
 - *Subdivision Branch: provides land subdivision and street name review, construction plan review for infrastructure, flood hazard districts and park dedication.*
 - *Civil Engineering Branch: provides grading, stockpiling, grubbing, and trenching permits; and provides drain connection and dewatering permits.*

Normally, the DPP Building Code Branch reviews designs for compliance with building codes prior to permit issuance. This would include ADA review. To ensure adequate resources for timely review, the DPP Building Code Branch has requested that HART and its third-party consultants review the designs for building code and ADA compliance as a part of the design review process. DPP will receive reports of such reviews and retain oversight responsibility. The determination of who will perform the plan review and whether City building permits are to be issued will be made jointly by the DPP Director and the HART Executive Director.

2.2.2 Other Key City Departments

Implementing the Project requires assistance and input from other key City departments. The following sections describe other City departments that provide support and on-going coordination with HART.

2.2.2.1 Department of the Corporation Counsel (COR)

The COR serves as the chief legal advisor and legal representative for all agencies, including the City Council, and all officers and employees in matters relating to their official powers and duties. The department represents the City in all legal proceedings and performs all other legal services, including reviewing third-party contracts, issuing legal opinions, and providing guidance. COR also serves as the legal counsel for HART.

2.2.2.2 Department of Customer Services (DCS)

The DCS works closely with the Project's Public Information Officer, described further in Section 2.5.7, in helping meet the requirements of public outreach throughout the Project and, specifically, during legally required hearings and meetings.

2.2.2.3 Department of Parks and Recreation (DPR)

The DPR maintains and operates the City's park system and associated programs and services. When the Project impacts any City park, the DPR assists in coordinating operational issues, especially during the construction phase.

The DPR's Urban Forestry Division manages the botanical garden and horticulture programs, including the Exceptional Trees Program. The horticulture programs plant, prune, trim, water, and maintain shade trees, palms, shrubs, and other plants along public roadways and in parks and malls; keep street lights, power lines, traffic control devices, and rights-of-way free of imposing branches; and grow plants for beautification projects and public flower gardens. This Division reviews plans regarding the tree preservation program and landscaping plans for the Project.

2.2.2.4 Department of Environmental Services (ENV)

The ENV plans, directs, operates and administers the City's wastewater and solid waste programs. This includes operation and maintenance of the wastewater collection, treatment and disposal systems; management, collection, and disposal of solid waste; and management of the storm water program.

The Storm Water Quality Branch within the Environmental Quality Division is responsible for administering the municipal storm water management program. This branch investigates and enforces against illegal discharges, performs water quality monitoring in streams, issues

effluent discharge permits for hydrotesting, well drilling and other sources, and reviews environmental assessments and EIS documents for storm water quality impacts.

2.2.2.5 Honolulu Fire Department (HFD)

The HFD is responsible for providing fire-fighting, search and rescue, emergency medical care, and hazardous materials response for the City. The HFD participates in the Project's Fire/Life Safety Working Group (FLSWG) and is involved in reviewing the design of the system to provide input on station and park-and-ride design, safety walkways, and emergency exiting of trains at stations and along the alignment. The responsibilities and functions of the SSRC are described in Section 15.3 of this PMP as well as in the SSMP document (RD-5).

- The Fire Prevention Bureau reviews and adopts fire codes, rules, and laws; conducts fire code compliance inspections; reviews building construction fire plans; and investigates fires to determine origin and cause.
- The Fire Operations Division provides fire protection, suppression, rescue and emergency services; conducts dwelling and commercial building inspections; and provides commercial and industrial pre-fire planning for the entire island of O'ahu.

2.2.2.6 Honolulu Police Department (HPD)

The HPD is the primary law enforcement agency for the City. The HPD participates in the review of the Project upon request and provides traffic control during the construction phase. The HPD participates in the Project's FLSWG which oversees and assists in the planning for emergency response situations. For more information on the FLSWG, refer to the Project's SSMP (RD-5).

2.2.2.7 Department of Emergency Management (DEM)

The DEM formulates emergency plans and procedures; coordinates the use of all available resources for the protection of life and property in the event of a disaster; provides for the continuity of government operations; coordinates the provision of essential elements of operational capabilities required to sustain operations in an emergency; assesses damage to public and private property; and coordinates recovery activities. The DEM participates in the design review process, commenting on plans and specifications at various stages of completion to ensure the accommodation of emergency procedures. The DEM participates in the Project's FLSWG.

2.2.2.8 Department of Facilities Maintenance (DFM)

The DFM's responsibilities include maintenance of public roads, streets, bridges, and drainage and flood control systems; street lighting and electrical systems of parks and other facilities, traffic signs and markings, public buildings, city vehicles and equipment (except

for BWS, Fire, Police, and public transit). The City is responsible for its facilities over which the Project passes, for example, roads and signs.

2.3 Project Management Organization

2.3.1.1 Honolulu Authority for Rapid Transportation (HART)

In November, 2010, voters of the City and County of Honolulu passed an amendment to the City Charter following City Council Resolution 09-252, CD1 which set the framework for the creation of a semi-autonomous public transit authority, otherwise referred as the Honolulu Authority for Rapid Transportation (HART) to design, build, operate, maintain and expand the City's fixed guideway mass transit system. This Charter Amendment (see Appendix D), resulted in a modification of the governing structure of the rapid transit system for Honolulu with the transfer of all RTD staff and functions to HART. HART began operations as a semi-autonomous agency within the City and County of Honolulu on July 1, 2011.

HART is responsible for planning, managing and implementing the Project including applying for FTA assistance, managing FTA grant awards and overseeing compliance with FTA's programmatic requirements. The Charter also set forth a Board of Directors that is a policy-making body consisting of 10 directors. Of the 10 directors, 9 are voting members, and 1 is a non-voting member. Three HART Board members are appointed by the Mayor and three are appointed by the City Council. Three HART Board members are ex-officio; the Director of the City Department of Transportation Services, the Director of the Hawai'i Department of Transportation and the Director of the City's Department of Planning and Permitting, who serves as a non-voting member. The tenth Board member is selected by the Board members. The Board selects the Chairperson, Vice Chairperson, and committee chairs. The HART Executive Director is appointed by the HART Board of Directors. The HART Board of Directors also enacts policies and procedures for the authority. The current HART Board of Directors, as of June 2012 is:

- Carrie Okinaga, Esq., Board Chairwoman
- Ivan Lui-Kwan, Esq., Board Vice-Chairman
- Don Horner
- William "Buzz" Hong
- Robert "Bobby" Bunda
- Glenn Okimoto
- Damien Kim
- Keslie Hui
- Wayne Yoshioka
- David Tanoue

The Board has adopted Rules and Operating Procedures to carry out its duties and responsibilities. Under Rule 8, “Committees and Subcommittees,” the Board established committees and assigned members as shown in the table below.

Table 7: HART Board Committees

Committees	Chair	Vice Chair	Members	
Audit/Legal Matters <i>(4 members, 3 for quorum)</i>	Ivan Lui-Kwan	Don Horner	Carrie Okinaga Wayne Yoshioka	
Finance <i>(8 members, 5 for quorum)</i>	Don Horner	Keslie Hui	Robert Bunda Ivan Lui-Kwan Glenn Okimoto	Carrie Okinaga David Tanoue Wayne Yoshioka
Human Resources <i>(4 members, 3 for quorum)</i>	Keslie Hui	Robert Bunda	Damien Kim Carrie Okinaga	
Project Oversight <i>(7 members, 4 for quorum)</i>	Damien Kim	William Hong	Don Horner Ivan Lui-Kwan Glenn Okimoto	Carrie Okinaga Wayne Yoshioka
Transit Oriented Development <i>(8 members, 5 for quorum)</i>	William Hong	Ivan Lui-Kwan	Robert Bunda Don Horner Keslie Hui	Glenn Okimoto David Tanoue Wayne Yoshioka

In addition to the Board of Directors meetings, the Committee meetings provide an essential communication vehicle between board members, the HART Executive Director and HART staff.

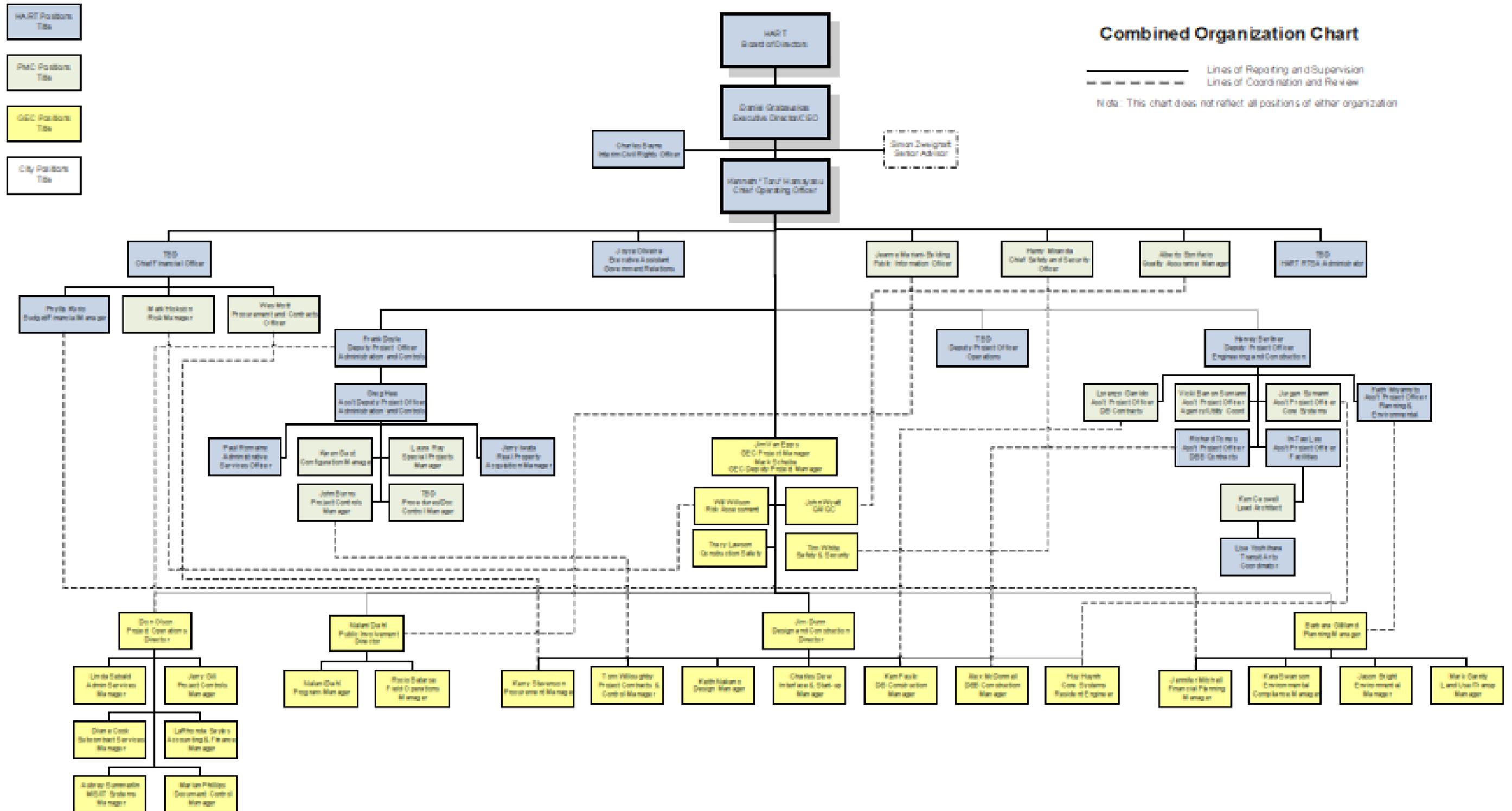
The Board has adopted Financial, Procurement, Ethics, and Transparency policies which will guide and be reflected in HART’s Plans and procedures as referenced in this PMP.

2.3.2 Project Staffing

HART currently has 136 positions authorized and funded through its FY 2012 Executive Operating Budget and Program. HART has also engaged a Project Management Support Consultant (PMC) to act as an extension of HART staff and to supplement the project organization until such time as there are HART personnel to fill the positions. Further details on staffing for the project are contained in the Staffing Plan (RD-22) which includes a description of HART’s long term hiring strategy.

During the Final Design and subsequent phases, HART functions as an integrated project office, with HART employees co-located with the PMC and a select number of GEC staff. The organization chart for the integrated project office is presented in **Figure 4**. The total number of personnel engaged in the Project at any one time will vary with the phase in progress and the specialties required for that particular phase.

Figure 4: Project Organization Chart



2.3.3 Training

HART routinely undertakes training of its staff as needs are identified. Training is undertaken by individual departments to ensure that responsible staff are familiar with the projects processes and procedures related to their assignments. Each individual department is responsible for establishing, organizing, identifying trainers and trainees, and undertaking the training required to meet its identified program needs. The departments also maintain records of who has participated in training and determining the needs and frequency of further training as new staff are added. Training for project staff is conducted according to the following table:

Table 8: Project Staff Training

Subject	Department / Manager Responsible
Construction Safety and Environmental Orientation	Chief Safety and Security Officer
Building Fire Drill	Chief Safety and Security Officer
Environmental Compliance	Construction Safety and Environmental Orientation
Contract Management System	Administration and Control/Senior Project Controls Analyst
Contractor/Designer Selection	Administration and Control/Procurement and Contract Officer
Project Procedures	Administration and Control/Procedures Planner
Ethics	City Ethics Commission/Administrative Services Officer
Prevention of Sexual Harassment Policy	City Department of Human Resources/Administrative Services Officer
Workplace Violence Policy	City Department of Human Resources/Administrative Services Officer
Drug and Alcohol Awareness	City Department of Human Resources/Administrative Services Officer

Additional training will be developed and undertaken as needs are identified.

2.4 Key Position Descriptions and Responsibilities

Management level and other selected key HART position descriptions and responsibilities are summarized in this section. **Figure 5** illustrates a Responsibility Assignment Matrix for the managers of major units within HART. Summary resume information for key personnel is included in Appendix B. The Staffing & Succession Plan (RD-22) addresses the human resources needed to meet the goals for the HART organization and to ensure that HART has the appropriate technical capacity and capability required for implementation of the project.

Figure 5: Project Responsibility Matrix

FUNCTION	Officer in Charge	Legal Counsel	Gov't Relations	RTD Public Information	System Safety and Security	Quality Assurance	GEC/CEI Administration & Eng'g/Const. Support	RTD Engineer & Construction Department	RTD Planning & Environmental	RTD Utility, Agency & Permits	RTD Administration & Controls	RTD Admin. Services	RTD Real Estate Acquisition	RTD Procurement & Contracts	RTD Document Control	RTD Grants & Financial	RTD Project Controls	RTD Configuration Department
Environmental Impact Statement, ROD and Programmatic Agmt	S	S	S	S	S	S	S*	S	R	S	S	S	S	S	S		S	S
Financial and Grants	S	S				S		S						S	S	R	S*	
Transit Planning	S	S	S	S			S*	S	R	S								
Real Estate Acquisition (ROW)	S	S		S		S	S		S				R					
Government Relations	S*	S	R	S														
Quality Assurance & Control	S					R	S*	S	S	S	S	S	S	S	S		S	S
System Security	S	S			R	S	S*	S										
FTA Compliance							S*	S	S	S	R		S	S	S	S	S	S
Public Involvement	S	S		R			S*	S	S	S	S							
Procurement							S*							R				
Contract Administration		S				S	S*				R	S		S	S	S	S	S
Document Control						S	S	S			S*				R			
Configuration Management	S	S			S	S	S*	S			S			S	S		S	R
Changes and Claims	S	S				S	S*	S			S			S	S		S	R
Cost							S*	S	S	S	S		S	S	S	S	R	
Schedule					S		S*	S	S	S	S		S	S	S		R	
Preliminary Engineering					S	S	S*	R	S	S	S				S			
Value Engineering					S	S	S*	R	S	S	S				S			
Final Design Oversight					S	S	S*	R	S	S					S			S
Project Interface					S	S	S*	S	S	S	S				S	S	S	R
Construction Safety	S	S			R	S	S*	S	S	S	S	S	S	S	S	S	S	S
Construction Management					S	S	S*	R	S	S	S		S	S	S	S	S	S
Permits						S	S	S*	S	R			S	S	S		S	
Utilities; Outside Agencies							S	S*	S	R			S		S			
Operations Planning	S			S	S*	S	S	R							S			
Systems Integration					S*	S	S	R							S			
Start Up	S				S*	S	S	R							S			
	R= RESPONSIBLE		S*= PRIMARY SUPPORT			S= SECONDARY SUPPORT												

2.4.1 HART Executive Director

The HART Executive Director is responsible for the performance of the entire HART organization and reports to the HART Board of Directors. The Executive Director's authority includes powers, duties, and functions of planning, operating, and maintaining the rail transit system to meet public transportation needs within the City. The HART Executive Director is the person primarily responsible for coordination with City departments and outside agencies. Unless otherwise delegated, the HART Executive Director is the Officer-in-Charge of HART's third-party contracts.

Other HART Executive Director responsibilities include:

- Formal communications with other City Department Directors, the COR and the Managing Director.
- Formal communications with FTA and other State and Federal agencies.
- Preparation of HART's annual operating and capital budgets and any supplemental budgets for approval by the HART Board of Directors and the City Council.
- Approval of contract contents and recommended execution of change orders.
- Execution of third party agreements as authorized by the HART Board of Directors.
- Approval and formalization of claims settlements.
- Approval and execution of project closeout documents.

2.4.2 HART Chief Operating Officer

The Chief Operating Officer reports to the HART Executive Director and is responsible for the day-to-day coordination and integration functions required to assure the achievement of the overall project objectives. The Chief Operating Officer ensures integration and coordination between HART staff, consultant staff, and supporting agency staff. The Chief Operating Officer's specific responsibilities include:

- Supervising, overseeing and approving the work of HART senior staff to establish management policy;
- Monitoring work plans for all activities needed for successful completion of the Project;
- Managing the administrative and contractual aspects of the PMC's and GEC's work;
- Providing day-to-day oversight of the PMC's work and redirecting the PMC if necessary;
- Overseeing Before and After Study plan implementation;
- Representing the Project to external technical interests, including local jurisdictions' engineering departments, permitting authorities, and the Hawai'i Department of Transportation;

- Ensuring the safety and security requirements of the Project are met;
- Ensuring implementation of the quality assurance plan; and
- Ensuring project compliance with FTA requirements, including New Starts Program requirements.

2.4.3 Chief System Safety and Security Officer (CSSO)

The Chief System Safety and Security Officer (CSSO) reports to the Chief Operating Officer and is primarily responsible for the development, coordination, and implementation of the Project's SSMP (RD-5). The SSMP describes how HART will address safety and security throughout all phases of the Project and is further discussed in Section 15.0. The HART CSSO is supported by the GEC and other project staff as needed to implement the SSMP.

The HART CSSO's responsibilities include:

- Reviewing and approving safety and security program documentation submitted by the GEC, CSC, Engineering Design, and Construction Contractors;
- Participating in design reviews and providing safety and security related inputs to contract packages, technical specifications, operations and maintenance plans, test plans, training plans, and other project documents;
- Chairing and ensuring the submission of safety and security program documentation to the Safety and Security Review Committee (SSRC) for review;
- Managing the Safety and Security Certification Program, developing and implementing the Safety and Security Certification Plan (SSCP), and chairing the Safety and Security Certification Working Group (SSCWG);
- Chairing the Fire/Life Safety Working Group (FLSWG), coordinating activities with emergency response agencies;
- Ensuring the project achieves safety and security certification for all phased start-ups and the completed project, including integration activities;
- Developing and/or reviewing and approving safety and security operating rules and procedures and training programs.
- Overseeing the development and implementation of the following safety and security program documents submitted by the CSC:
 - System Safety Program Plan (SSPP)
 - Construction Safety and Security Plan (CSSP)
 - Emergency Preparedness Plan (EPP)
 - Operational Safety and Security Procedures

- Monitoring construction contractor’s compliance with the requirements of the Construction Safety and Security Program;
- Ensuring compliance with the requirements of the FTA and Hawai‘i Rail Safety and Security Oversight Agency (SOA) upon designation; and
- Coordinating with the Department of Homeland Security (DHS) and other Federal, State, and Local Agencies as required.

The HART CSSO serves as the primary point of contact for all matters related to safety and security. Certain safety and security program will be carried out by the CSC Safety and Security Manager. The HART CSSO will be responsible for overseeing the contractually required safety and security program developed and implemented by the CSC. This division of responsibility is further outlined in the SSMP.

The HART CSSO has independent authority to monitor, audit and evaluate all project activities affecting safety and security to ensure that the full intent of all identified requirements are met. Upon commencement of revenue operations, the HART CSSO will be responsible for continuously monitoring the CSC’s compliance with Federal, State, and Local safety guidelines and evaluating its technical capacity to achieve the highest practical level of safety and security for the system.

2.4.4 Quality Assurance Manager (QA)

The QA Manager reports to the Chief Operating Officer and is responsible for the development of a Project Quality Management Plan (QMP) (RD-4) that meets FTA requirements. This position is responsible for management and ensuring the effective implementation of the Project QMP. The QA Manager reviews and approves all consultant, contractor and supplier required Contract Quality Assurance Plans to assure that they meet the requirements of the QMP, this PMP, and FTA’s *Quality Assurance and Quality Control (QA/QC) Guidelines* (February 2002) at:

http://www.fta.dot.gov/publications/publications_3876.html.

The QA Manager regularly reports on the status and adequacy of the Project’s QA/QC program to the Chief Operating Officer. The QA Manager has independent authority to monitor, audit and evaluate all project activities affecting quality to ensure that the full intent of project requirements are met.

- Additional responsibilities of the QA Manager include:
- Providing quality assurance oversight and monitoring for compliance of project engineering, procurements, construction, inspection and testing activities, and government regulatory requirements with the Project QMP;

- Ensuring follow-up and solutions to quality problems, as identified, through management of the corrective action system;
- Participating in reviews of design, contract, and procurement documents to verify that quality requirements have been satisfied;
- Ensuring that quality activities are conducted as planned;
- Participating in the evaluation and disposition of non-conformances, deviations, and waivers involving the potential changes to design and quality requirements; and
- Ensuring quality audits of project and management activities having an effect or potential effect on project quality are planned, scheduled and performed as defined in the Project QMP.

2.4.5 Civil Rights Officer

This position reports to the Executive Director and is responsible for administering various civil rights and related programs for HART to ensure compliance with applicable Federal, State and City laws, regulations and requirements. The programs include equal employment opportunity, affirmative action, ADA compliance, and the Disadvantaged Business Enterprise program. The position is also responsible for the Prevailing Wage Compliance and Certified Payrolls program. Duties include:

- Administers the equal opportunity/affirmative action programs for HART, including equal employment, affirmative action, Americans with Disabilities Act (ADA) compliance, and the Disadvantaged Business Enterprise (DBE) program.
- Establishes policies and procedures to meet program objectives; makes policy recommendations to the HART Executive Director and monitors agency compliance.
- Advises HART executives, program managers and other staff on issues and concerns pertaining to employment practice discrimination, affirmative action, ADA, DBE, and related civil rights matters; provides advice and assistance to management in interpreting laws, rules, regulations and policies.
- Receives civil rights-related complaints and charges and conducts investigations, including doing research and fact-finding interviews, to determine the facts and make recommendations for appropriate action. Seeks consultation from City EEO Officer, HART or City legal staff, and provides staff support as required. Responds to or advises on complaints filed before Equal Employment Opportunity Commission and the Civil Rights Commission.
- Develops and provides training for management and supervisory staff on various civil rights programs, policies and procedures.
- Keeps abreast of new legislation and developments in equal employment opportunity, affirmative action, ADA, DBE and other civil rights matters and makes program

adjustments to keep current; revises policies and procedures and conducts appropriate training programs to address program changes;

- Maintains effective working relationships with city, state and federal staff who are involved in civil rights programs and oversight.
- Maintains records and statistics pertaining to the program and prepares reports as required by various agencies and to monitor compliance with various requirements.
- Establishes and maintains contact with contractors, community organizations, labor unions and other interest groups to facilitate HART compliance with various civil rights program requirements.
- Implements all aspects of the DBE program to ensure HART compliance with provisions of 49 CFR Part 26. Collects data and maintains records to track HART and sub-recipient's progress toward attaining DBE goals.
- Coordinates and conducts DBE training for field personnel, project managers, contractors, consultants and other stakeholders.
- Insures that bid notices and requests for proposals are available to DBEs in a timely manner; provides outreach to various business organizations to educate them of DBE opportunities and to assist them with contracting opportunities.
- Monitors and oversees HART compliance with state and federal laws pertaining to Prevailing Wage compliance and certified payroll labor standards.
- Reviews bid, contracts and subcontracts for labor standards clauses and correct wage determination; reviews payrolls and conducts employee interviews onsite to ensure compliance.
- Conducts investigations, identifies violations, and makes reports to the Dept. of Labor and Industrial Relations regarding prevailing wage matters.
- May provide training to contractors regarding labor standards compliance.

2.4.6 Deputy Project Officer, Administration and Controls (DAC)

The DAC oversees the duties and responsibilities of the Project Controls Manager (PCM), Real Estate Acquisition Manager (RAM), Procedures/Document Controls Manager (DCM), Administration Service Officer (ASO), and Configuration Manager, described below.

2.4.6.1 Assistant Project Officer, Administration and Control (APO/AC)

The APO/AC assists the DAC in oversight of the PCM, RAM, ASO, and Configuration Manager, and is responsible for management of the GEC and PMC contracts. The APO/AC provides assistance to HART managers in the execution of their duties.

2.4.7 Project Controls Manager (PCM)

The HART PCM is responsible for providing oversight on all project control elements as related to scope, budget and schedule. This includes budget development and monitoring; cost estimating and control; schedule development and progress monitoring; progress assessment and reporting; change management and claims avoidance/mitigation; and the development, training, implementation and maintenance of HART's contract management database system (CMS). The PCM oversees a combined HART-GEC Project Controls Group and utilizes all the available resources to maintain communication, support and coordination with the various project participants in Administration and Controls, Engineering and Construction, and the other entities not directly under the project organization including the City, State and Federal agencies, as well as the HART Board of Directors. The PCM is responsible for the maintenance and quality control of the key project baseline documents – the Project Budget, the Master Project Schedule and the Contract Packaging Plan. The PCM works closely with the Configuration Manager to ensure that all scope, schedule and cost elements are closely reflected in the Current Budget and the Master Project Schedule updates. Similarly, the PCM interfaces with the responsible persons for the Financial Plan, Risk and Contingency Management Plan (RCMP) and document control to maintain accuracy, consistency and reliability. The PCM reports directly to the DAC and provides these functions or other special tasks as requested.

2.4.8 Real Property Acquisition Manager (RAM)

The RAM reports to the DAC and has overall responsibility for planning, directing, integrating and monitoring the joint development, appraisal, acquisition and management of properties, relocation of displaced tenants, and the sale of excess property for the Project. The manager develops and manages the real estate programs for the Project, and is responsible for creating and maintaining the Real Estate Acquisition and Management Plan for the Project. The RAM oversees the coordination with Legal, Engineering and Systems Planning relative to all HART land transactions and planning functions, and is responsible for proper application and compliance with FTA and other applicable federal, state and HART regulations including the Uniform Act.

2.4.9 Procedures / Document Controls Manager (DCM)

The Procedures/Document Controls Manager reports to the DAC and is responsible for developing and maintaining all procedures and document control systems related to management of the Project. In performing this function, the Procedures/Document Controls Manager coordinates with all users of the various procedures to ensure that all appropriate management and document control functions are covered. The project procedures provide details in a consistent manner on a) the chain of command for reporting, b) implementation of covered subject matter, and c) responsibilities for approvals for functions performed by HART.

2.4.10 Administrative Services Officer (ASO)

The ASO manages the internal office functions of HART including clerical staff, office space, office equipment, and coordination with the City Department of Human Resources.

2.4.11 Configuration Manager

The Configuration Manager reports to the DAC and is responsible for establishing and overseeing the CFM Plan for the Project. The CFM Plan includes a description of procedures for maintaining configuration to ensure that all project participants have access to the current Project Baseline information and configuration. Procedures for changing the project baseline are also contained in the CFM Plan. For specifics, refer to the CFM Plan.

2.4.12 Chief Financial Officer (CFO)

The Chief Financial Officer serves as the financial resource to the HART Executive Director through the Chief Operating Officer and provides leadership and management by directing HART's financial planning, auditing, evaluating, accounting, budgeting, revenue, grants administration, financial analysis, and reporting functions. Duties include but are not limited to:

- Structuring policy and procedures for the HART budget and finance accounting and internal controls, procurement and risk management programs.
- Ensures compliance with all pertinent Federal, State, and City financial policies, practices and laws.
- Establishes, implements, and maintains an accounting system of internal controls that accurately reports the financial position, results of operations, and monitors overall performance against the budget.
- Carries out financial management plan of HART operations and capital budgets; outstanding tax-exempt and taxable bonds, investments, and funding of all transportation initiatives.
- Makes suggestions for methods to improve the efficiency and effectiveness of all financial operations.

2.4.13 Budget / Financial Manager (BFM)

The BFM reports to the CFO and is responsible for preparing FTA grant applications and managing grant awards. Except for the Civil Rights requirements, the BFM is responsible for compliance with federal programmatic requirements applicable to the Project, including programming funds for the Project in the Transportation Improvement Program (TIP) and any revisions thereto. The BFM oversees the preparation and management of HART's annual

operating and capital improvement appropriation budgets and the Project's Financial Plan. The BFS also oversees HART's internal control function.

2.4.14 Procurement and Contracts Officer (PCO)

The PCO reports to the CFO and is responsible for all procurements and administration of contracts on behalf of HART and serves as the primary point of contact between BFS and COR on procurement matters. The PCO coordinates the posting of RFPs and IFBs on the City procurement website, assists in the preparation of procurement advertisements, acts as the interface for RFI and ATC receipt and responses, and develops procurement addenda. Once offers are received, the PCO coordinates the evaluation committee and other reviewers leading to a recommendation. Lastly, the PCO is responsible for contract conformance, execution, and change orders with the selected offeror. The PCM oversees HART cost accounting functions including the reporting of the status of procurements, the processing of invoices, and posting of accounts receivable and accounts payable.

2.4.15 Deputy Chief Project Officer, Engineering and Construction (DEC)

The DEC is responsible for overseeing all planning, engineering and construction technical aspects of the Project. The DEC controls the Project's standard documents and oversees design review activities for guideways, stations, vehicles and systems, the maintenance and storage facility and other physical elements of the Project. The DEC is responsible for the conduct of VE on the Project and oversees all construction and manufacturing activities. The DEC is responsible for technical coordination with various utility and cooperating agencies whose facilities are impacted by the Project. The primary units reporting to the DEC are:

- DB and Design-Build-Operate & Maintain Contract Management – The Project has four major contract units managed within these two groups. These include 1) West O'ahu/Farrington Guideway; 2) Kamehameha Highway Guideway; 3) the Maintenance and Storage Facility; and 4) the Core Systems Contract which includes vehicles, train control, communications, power and fare collection equipment.
- DBB Contract Management – All contracts of the Project except the four mentioned in the previous paragraph will be designed and constructed with the DBB procurement method and overseen by this group. These contracts include all stations, utility relocations not included in DB contracts, and two guideway sections.
- Engineering Coordination – This group which includes civil, structural, traffic and architectural is responsible for the technical review and interface of all the design work including that being done by the DB contractors and the final designers for the DBB contracts.
- Utility and Agency Coordination – This group is responsible for interface with all utilities and agencies involved in project construction.

- Planning and Environment – This group manages the environmental documentation and compliance as well as land use and transit planning for the Project. This group’s responsibilities include ongoing compliance of any post ROD changes with NEPA and HRS 343, implementation of the Project MMP, land use planning to include transit oriented development (TOD) coordination with DPP and land use permitting, as well as transit planning activities.

2.4.16 Assistant Project Officer, Design-Build Contracts (APO/DB)

The APO/DB is responsible for overseeing the three DB contracts of the Project, 1) West O‘ahu/Farrington Highway Guideway, 2) Kamehameha Highway Guideway, and 3) the Maintenance and Storage Facility. Each of these contracts has a DB Contract Manager who reports directly to the APO/DB.

2.4.17 Assistant Project Officer, Core Systems (APO/CS)

The APO/CS oversees the DBOM Core Systems Contract. The APO/CS has a counterpart in the GEC who is a Contract Resident Engineer (GEC CRE) responsible for the progress, coordination and reporting of the contract.

2.4.18 Assistant Project Officer, Design-Bid-Build Contracts (APO/DBB)

The APO/DBB Contracts oversees the design and construction of stations, two guideway sections and certain utility relocation contracts undertaken by HART. There are a large number of contracts under the control of the APO/DBB since design and construction are performed separately and each of the DBB guideway contracts has a corresponding utility relocation contract.

The APO/DBB is assisted by Contract Managers to manage the design and construction of each of the DBB contracts. The HART Contract Managers are assisted by the Design and Construction managers provided by either the GEC (design) or the CEI firms selected by HART. The GEC Design Manager or the CEI CRE are responsible for the progress, coordination and reporting of each of these contracts.

2.4.19 Assistant Project Officer, Facilities (APO/F)

The APO/F is responsible for the technical review and coordination of designs by the DB contractor’s designers and the final designers for the DBB Contracts. Technical staff reporting to the APO/F includes the civil, structural and traffic managers and the Chief Architect. The APO/F is considered the HART Chief Engineer.

2.4.20 Assistant Project Officer, Utilities & Agency Coordination (APO/UA)

The APO/UA provides interface and HART oversight of utility designs accomplished by contractors, designers and/or utility agencies. The APO/UA negotiates and administers utility agreements between HART and utility agencies. The APO/UA is also responsible for coordination with some public and private agencies, especially with regard to permits and some land use issues. This position is responsible for managing the acquisition of owner-furnished permits, and coordinates with designers and contractors regarding permits furnished by others. This position is/will be supported by a Lead Agency Coordinator, a Lead Utility Engineer and a Permit Coordinator.

2.4.21 Assistant Project Officer, Planning and Environmental (APO/PE)

The APO/PE is considered the HART Chief Planner and Environmental Compliance Manager. This position supervises a support staff of land use and transportation planners and environmental documentation and compliance specialists. The APO/PE is responsible for ensuring the Project meets relevant FTA New Starts criteria related to planning and environment including, but not limited to FTA New Starts criteria for implementation of the Before and After Study Plan and associated milestone reports; and development of the Operating Plan through the forecasts of system usage; and coordinating a bus system integration plan. This position also ensures compliance with the FEIS and Record of Decision (ROD) and implementation of the Mitigation Monitoring Plan (MMP). The APO/PE oversees and coordinates activities related to interface with other City departments, the OMPO, state and federal agencies, and other stakeholder. The GEC provides environmental and planning services in support of these efforts as detailed further in Section 5.5.

2.5 Use of Consultants

2.5.1 Project Management Support Consultant (PMC)

The PMC provides in-house project management services and functions as an extension of HART staff. Such services include professional, technical, managerial and other support services to advance final design and construction. PMC staff is seconded into HART positions and the PMC personnel are completely integrated into HART. The PMC's overall work is monitored by the Chief Operating Officer and the work of individual seconded staff is monitored according to their responsibilities within the overall organization structure.

2.5.2 Engineering Design Consultants (EDCs)

EDCs provide support to HART for all project elements where final detailed designs are to be used for open competitive bidding on stations and guideways. The EDCs will also provide engineering services during construction for both fixed facilities and system-wide elements. EDCs are not used for the final design portion of the three DB contracts or in the CSC contract since Final Design is a function within the scope of those contracts.

Fixed facilities design includes the design of civil and structural facilities, track-work, utilities, stations, the Pearl Highlands parking structure and access ramps, and landscaping.

2.5.3 Final Design and Construction General Engineering Consultant (GEC)

The GEC's responsibilities are further detailed in the CM information provided in Section 10. In general, the GEC will provide services during the fixed facilities Final Design and construction phases, including Final Design oversight of the EDCs, resident engineering, office engineering, and inspection. This includes such items as performing QA inspections of all EDC and Contractor activities, reviewing all contract document submittals including shop drawings and specifications, reviewing contractor invoices, reviewing requests for information (RFIs), reviewing requests for change (RFCs), conducting inspections, VE, reviewing change order estimates, and other items further described in Section 10.

2.5.4 System Suppliers and Construction Contractors

Construction Contractors and Suppliers are responsible to construct the Project based on the scope provided. The Contract Packaging Plan (RD-3) provides a description of each anticipated Supply and Construction contract.

2.6 Interface with Other Agencies

HART is required to interface with other agencies during the development and implementation of the Project. As part of the planning and initial design process, relationships have been built with affected agencies. This will continue through the life of the Project. Regular meetings occur between project management and staff for both public and private entities throughout the design development process.

The HART Chief Operating Officer is responsible for project level interface between agencies where necessary. Formal technical agreements with some of these agencies have been executed and further agreements may also be required. These agreements are developed by HART, reviewed by the COR and may require adoption of an authorizing resolution by the City Council depending upon the agency involved.

2.6.1 Federal Agencies

Key federal agencies affected by the Project include, but are not limited to, the agencies described below.

- The Federal Highway Administration (FHWA) – The Project requires FHWA approval related to operating the transit system within the state highway system, the crossings of the federal interstate highway system (H-1) and the ramp off the federal interstate system (H-2);
- The Federal Aviation Administration (FAA) – The Project requires FAA approval related to land use and operations at the Honolulu International Airport (HNL). FAA has regulatory oversight jurisdiction at Honolulu International Airport and will need to approve the Airport Layout Plan as a result of the Project, use of airport revenues for the airport portion of the Project, and for the right-of-way request for use of airport property;
- The U.S. Department of Defense (U.S. Army Garrison-Hawai‘i) reviews the planned guideway crossing of U.S. Army property at Fort Shafter;
- The U.S. Department of Defense (U.S. Naval Base Pearl Harbor) reviews issues related to historic, archaeological, and cultural properties on Navy-owned property, including required permits. As such, the U.S. Navy is a signatory on the Project’s Section 106 Programmatic Agreement;
- U.S. Department of Agriculture (Natural Resource Conservation Service), related to the loss of agricultural lands;
- U.S. Department of the Interior (Fish and Wildlife Service), related to Section 7 consultations;
- The U.S. DHS (U.S. Coast Guard-14th Coast Guard District), issues permit approvals related to navigable waters of the U.S. along the alignment as related to new or reconstructed bridges and causeways;
- The U.S. Army Corps of Engineers is involved with issuing permits and approvals related to stream crossings along the alignment;
- U.S. Department of the Interior (National Park Service), related to the Arizona Memorial;
- U.S. Department of the Interior (U.S. Geological Survey Pacific Island Ecosystems Research Center), related to earthquakes;
- U.S. Environmental Protection Agency (EPA), for overall environmental issues; and
- U.S. Federal Emergency Management Agency, related to flooding.

2.6.1.1 Department of Homeland Security (DHS)

DHS provides centralization for the national network of organizations and institutions focused on homeland protection. DHS works to enhance rail and transit security, in

coordination with the U.S. Department of Transportation and other federal agencies, and in partnership with the public and private entities that own and operate the nation's transit and rail systems.

DHS's Transportation Security Administration (TSA) works to advance mass transit and passenger rail security through a comprehensive strategic approach that enhances capabilities to detect, deter, and prevent terrorist attacks and respond to and recover from attacks and security incidents, should they occur. TSA Surface Transportation Security Inspectors, from the TSA Office of Security Operations, conduct on-site inspections of mass transit and passenger rail agencies and maintain collaborative working relationships with industry representatives. They work closely with the TSA Mass Transit Security Division for support and programmatic direction.

2.6.1.2 Federal Transit Administration (FTA)

FTA awards and administers grants and oversees the expenditures of federal funds for mass transit projects. FTA contracts with a PMOC to act as an extension of its project management staff in monitoring an agency's performance on a major capital investment project. The DEC, with support from staff, interfaces with the PMOC and the FTA on a regular basis.

HART understands the importance of maintaining involvement by the PMOC and the FTA at its regional and headquarters offices. The HART Executive Director and Chief Operating Officer will continue to be involved in an on-going relationship with FTA and the PMOC to ensure open communications throughout the Project.

2.6.2 State of Hawai'i

The Project is being developed and constructed within the State of Hawai'i (the State). The Project is required to meet state laws and regulations related to health, safety, security, environment and welfare.

Key state agencies affected by the Project include, but are not limited to, the agencies described below.

- State of Hawai'i's Hawai'i Community Development Authority, related to the Kaka'ako and Kalaeloa communities;
- State of Hawai'i Department of Education, related to potential impacts on schools; including required permits;
- State of Hawai'i Department of Accounting and General Services, related to state projects and buildings;
- State of Hawai'i Department of Defense, for related defense issues;
- State of Hawai'i Department of Hawaiian Home Lands, related to lands in Kapolei and the potential maintenance and storage facility at the Navy Drum Site;

- State of Hawai‘i Office of Environmental Quality Control, related to implementation of Hawai‘i Revised Statutes Chapter 343;
- State of Hawai‘i Office of Hawaiian Affairs, related to Hawaiian and cultural issues; and
- State of Hawai‘i University of Hawai‘i, related to University of Hawai‘i lands.

2.6.2.1 Department of Business, Economic Development & Tourism

HART conducts interface coordination with the State of Hawai‘i Department of Business, Economic Development & Tourism’s Office of Planning in its administration of the Hawai‘i Coastal Zone Management Program.

2.6.2.2 Department of Health

Significant interface and coordination continue to be required with the Department of Health throughout design and construction, related to the implementation of the MMP best management practices and permitting for and not limited to water quality, air quality, noise and hazardous wastes.

2.6.2.3 Department of Land and Natural Resources

HART interfaces with the State of Hawai‘i Department of Land and Natural Resources (DLNR) to ensure compliance with the ESA for protection of the kooloauala (*abutilon menziesii*) as identified in the FEIS/ROD. Continued coordination also occurs with the State Historic Preservation Division as stipulated in the PA. The State Historic Preservation Officer is the head of DLNR.

2.6.2.4 Department of Transportation (HDOT)

Coordination with the HDOT occurs where the Project is in close proximity to or affects a state highway or interstate facility. The Project requires HDOT’s approval related to the Project’s use of state right-of-way, airports and harbors. During design and construction, the Project team will work with HDOT to obtain HDOT approval of plans for work in state right-of-way, including the necessary permits.

2.6.2.5 Hawai‘i State Foundation on Culture and the Arts (FCA)

This Foundation manages the Art in Public Spaces Program which was established in 1967 with the enactment of the Art in State Buildings Law. This Act designates one percent of the construction costs of new buildings for the acquisition of art, either by commission or purchase. This was expanded in 1989 by the State legislature to include having works of art for all state public spaces. The one percent is set aside into a special fund and is not subject to the state’s general operating fund allowing for long term significant art projects to be planned and implemented.

2.6.2.6 Hawai‘i State Oversight Agency (SOA) for Rail Safety and Security

The State of Hawai‘i has designated HDOT as the SOA to manage and implement the provisions of 49 CFR 659; Rail Fixed Guideway Systems, State Safety Oversight; Final Rule. The Governor of Hawai‘i has established HDOT’s authority to implement 49 CFR 659 through the execution of Executive Order 10-05. The SOA is currently developing its System Safety Program Standard (SSPS) as required by 49 CFR 659. The role and responsibility of the SOA are further detailed in the SSMP.

2.6.3 O‘ahu Metropolitan Planning Organization (O‘ahuMPO)

The O‘ahuMPO was formed as mandated per the Federal Surface Transportation Assistance Act of 1973 and State Legislature of 1975 through the passage of Chapter 279E, Hawai‘i Revised Statutes. O‘ahu MPO's function is to coordinate the activities of the “3-C” transportation planning process on O‘ahu. The planning itself is done largely by the City and the State planning and transportation departments, which are O‘ahuMPO’s participating agencies. O‘ahuMPO is involved in the Project as a participating agency, as described earlier in Section 2.7.1.2.

The O‘ahu MPO is responsible for coordinating transportation planning on O‘ahu and has four components:

- Policy Committee;
- Technical Advisory Committee;
- Citizen Advisory Committee (CAC); and
- Staff.

O‘ahuMPO is also responsible for identifying O‘ahu’s future transportation needs and programming the federal funds for such projects and programs. This is achieved primarily through the development of the following documents:

- O‘ahu Regional Transportation Plan (ORTP);
- Overall Work Program (OWP); and
- Transportation Improvement Program (TIP).

O‘ahuMPO is responsible to process project-related amendments and/or modifications to the ORTP and TIP.

2.6.3.1 Policy Committee

The Policy Committee is the “heart” of the O‘ahuMPO planning process. It sets the policy and direction and makes the final approval on O‘ahuMPO matters. The Policy Committee consists of 13 members:

- Five City Council members;
- Three State senators (including the chair of the Senate Transportation Committee);
- Three State representatives (including the chair of the House Transportation Committee);
- HDOT Director; and
- City DTS Director.

2.6.3.2 Technical Advisory Committee (TAC)

The TAC provides advice to the Policy Committee and the O‘ahuMPO’s Executive Director on technical matters, and ensures the technical competence of the planning process.

2.6.3.3 Citizen Advisory Committee (CAC)

The CAC is the foundation of the O‘ahuMPO’s public involvement program. The CAC provides public input to the Policy Committee and the O‘ahuMPO’s Executive Director on transportation planning issues. As such, the CAC is involved early in the process, often meeting face-to-face with agency representatives.

The CAC provides an opportunity for citizens to get involved in the transportation planning process. The CAC members include community organizations, professional associations, neighborhood boards, special interest groups, and transportation providers. The Project’s Public Information Officer coordinates with the CAC as needed.

Any organization can become a member of the CAC by attending four meetings within a 12-month period. All CAC meetings are open to the public; and participation from all citizens is welcome. Meetings are typically held on the third Wednesday of the month at 4:00 p.m. in downtown Honolulu.

2.6.4 Utility Owners

Numerous public and private utility companies maintain facilities that will be affected by construction activities or permanent facilities. During preliminary engineering composite utility base maps were created based on information gathered in meetings with the individual utilities and other means. Preliminary relocation plans and schedules were developed in consultation with the specific utilities.

During Final Design, HART will continue working with the individual utilities to agree on specific details establishing the impacts to the utilities’ facilities. For DB contracts, the Design-Build Contractor(s) are responsible for coordination with the utility owner in order to provide infrastructure (duct banks, poles, manholes, etc.) for the relocated utilities. The DB Contractors, with HART’s oversight, will coordinate with the utilities for design review in

accordance with Section 6 of this PMP to achieve utility approval of infrastructure plans. Unless other arrangements are made for a given utility, each utility shall be responsible to prepare the work plans and relocate their facilities within the relocated infrastructure provided by the Project through the DB contracts. For DBB contracts, the consultant designers will coordinate with the utility owners, and the infrastructure will be constructed by the DBB contractors.

For actual relocation or protection work, HART will execute separate utility agreements for engineering services and for utility construction with each affected private utility owner. Standard agreements will be prepared by HART's APO/UA with the assistance of COR or outside counsel in conjunction with the engineering requirements of the Project.

Utility Construction is managed in accordance with Section 10.1.9 of this PMP.

Key utility owners affected by the Project include, but are not limited to, the agencies described below.

- Hawaiian Electric Company (HECO) – electricity;
- Hawaiian Telcom (HT) – telephone;
- Board of Water Supply – water lines;
- Environmental Services – wastewater lines;
- The Gas Company – gas;
- Department of Transportation Services – traffic signal cables;
- Oceanic Time Warner (TW) – cable lines;
- AT&T – fiber optic cables;
- Sandwich Isles Communications Inc. – fiber optic cables;
- Department of the Navy – various utilities;
- Department of the Army – various utilities
- Chevron Hawai‘i – underground petroleum lines; and
- Tesoro Hawai‘i Corporation – underground petroleum lines.
- Wavecom (fka PLNI) – fiber optic lines;
- tw telecom – fiber optic lines

3.0 MANAGEMENT CONTROL

The controls used to support the management of the Project are described below including: functional and technical control, work breakdown structure (WBS), schedule management, progress reporting, cost control and document control.

Consistent with the integrated project office policy for HART and the PMC, described in the Section 2.0, Project Organization and Staffing, HART and the PMC are jointly referred to as HART hereafter.

3.1 Functional and Technical Control

3.1.1 General

The project control systems and procedures described below provide the functional and technical control tools used to track and control the Project's scope, schedule and cost so as to support project management's objective of delivering a scope that meets project requirements, on schedule and within the budget. Scope, schedule and cost address:

- Scope – The physical, functional scope, and quality of the completed Project to meet the defined requirements, including the work to be performed by all participants; where quality of the completed Project is defined by the quality and life of materials and equipment items and the levels of operational service, efficiency, safety, security and reliability and the degree of maintainability.
- Schedule – The schedule for project development, from planning to the start of revenue operations.
- Cost – All costs for the completed Project such as design, construction, overhead and contingency.

Scope, schedule and cost variables on a project are interdependent, e.g., a change in a scope variable typically results in a change in schedule or cost, or both. The fundamental principles of the control processes used are the same for controlling scope, schedule or cost. They are to:

- Establish a control baseline;
- Track project performance against the baseline;
- Forecast performance at completion and compare to the baseline;
- Identify changes to the Project and assess their impact on performance against the baseline; and

- Take management action to correct adverse forecast and/or change variances.

If a comparison between the baseline and actual conditions forecasts a significant difference, as determined by the PCM, an exception report is produced which is intended to alert management to a variable which is straying from plan. This early warning is intended to give management time to assess the cause of the problem, to evaluate alternative courses of action to restore the Project to the plan and to order the concluded action be taken. When restoration to the original plan or the current baseline is impractical, the baseline is formally revised and updated and the impact of such change on the other baselines recognized.

For the purposes of project control, the baseline was fixed during PE, when all of the basic design definitions were been established. During the PE phase, HART and/or its predecessor RTD approved the preliminary designs and specifications and now HART requires that the follow-on design, construction and procurements follow consistently with the baseline definitions or values for scope, price, and completion schedule unless modified in a manner consistent with the CFM and change control processes described herein.

3.1.2 Technical Baseline / Configuration Control

Technical baseline control is achieved through CFM, design reviews, and the Quality Management Plan (RD-4) adopted for the Project. CFM is discussed in Section 7.0 while the design review process is discussed in Section 6.6, Design Reviews. The CFM Plan is presented in RD-13. The QA/QC program adopted for the Project is described below.

3.1.3 Quality Management

Quality Management is composed of two basic components: QA/QC. The following is a brief summary of the principal quality related concepts and processes as defined and as specifically applied to the Project.

The objective of the HART Quality Management Program is to assure that: track and structures; signals and controllers; communications systems; traction power systems; rolling stock; yard and maintenance facilities; stations, including ADA access provisions and parking lots; and ticket vending machines are designed, procured, and constructed in accordance with established design, engineering, and quality requirements. These requirements provide the controls for design, procurement, construction, inspection and testing, which will enable HART to be assured that the quality necessary for safe and reliable operation of its transit system is achieved.

The HART QA/QC system is established and documented in the Quality Management Plan (QMP) (RD-4). The HART QMP is intended to meet the requirements of the FTA *Quality Assurance and Quality Control Guidelines*, FTA-IT-90-5001-02.1 (February 2002 Edition). The QMP incorporates the fifteen (15) essential Elements of a QA/QC system, which are

stated therein. For each of these elements, the QMP includes statements of purpose, responsibilities, policy, and implementation.

In support of HART, the GEC has established a Quality Assurance Plan (QAP) (RD-23) for the design and construction phases of the Project. During the pre-revenue, operation and maintenance phases of the Project, the Supplier (core system and services) shall establish an autonomous QAP. The GEC and Supplier QAP(s) shall meet the requirements of the QMP and includes the process and control to be used for assuring the quality during: design and construction; and operation and maintenance; respectively. Both QAP(s) shall be reviewed and approved by HART prior to use.

All contractors, consultants, and suppliers shall also be required to establish their own and appropriate QAP for the Project, which will be reviewed and approved by the HART/GEC organization prior to use.

3.1.3.1 Responsibilities

HART performs the function of contracting and obtaining design, engineering, construction, materials, equipment, and services for which HART accepts overall responsibility.

Based on the approved HART-approved QAP(s), the contractors, consultants, and suppliers will be responsible for quality assurance and quality control of all efforts for design, construction, inspection, testing and start-up, operation and maintenance, including training.

The HART/GEC organization shall perform the oversight functions for quality assurance and quality control activities including QA Audits.

The HART Chief Operating Officer and QA Manager shall be responsible for assuring that all phases of implementation of the QMP and QAP(s) for the Project are used for continued compliance with all quality requirements.

3.1.4 HART Quality Management Plan (QMP)

The QA Manager reports directly to the HART Chief Operating Officer and is responsible for administering and controlling the QA/QC system, which is documented in the QMP. The QMP describes the following QA/QC requirements (Elements):

- Introduction
- Management Responsibility
- Documented Quality Management System
- Design Control
- Purchasing
- Instructions, Procedures and Drawings
- Document Control
- Purchased Materials, Machinery, Equipment and Services
- Products Identification and Traceability

- Process Control
- Inspection
- Testing
- Inspection, Measuring and Test Equipment
- Handling, Storage, Shipping and Preservation
- Inspection and Test Status
- Nonconformance
- Corrective Action
- Quality Records
- Quality Audits
- Training

3.1.4.1 Construction / Installation Quality Control

The contractors, consultants and suppliers are required to submit their respective established QAPs in order for HART to verify their compliance with contract documents and specifications. Subcontractors, sub-consultants and sub-suppliers must also meet the quality requirements of the contractors', consultants', and suppliers' QAP(s).

The QAP(s), manuals, and procedures must be submitted to the HART/GEC organization for approval prior to use. Inspection and Test Plans (ITP), procedures, and checklists must also be submitted by the contractors and consultants and suppliers to HART/GEC.

The HART/GEC organization will monitor the construction and other fieldwork to assure the QAP(s) is being effectively implemented. The GEC QA/QC roles also include but not limited to:

- Reviewing results of the sampling and testing of materials;
- The spot checks of field work on-site and fabrication plants (e.g., placing of concrete to embed rebar or duct banks and conduit), as required by the GEC Contract;
- The reporting of deficient quality in workmanship, materials and equipment;
- The witnessing of prescribed tests related to quality; and
- Performing QA Surveillance and Audits.

3.1.4.2 Systems / Equipment Manufacture Quality Control

The contractors and suppliers will obtain and install material, equipment, and services with sufficient specification detail to meet design and contract requirements. Critical suppliers of long lead time equipment (e.g., rolling stock, TVM, etc.) will be required to submit the QAP including QC Procedures for review and acceptance by the HART/GEC organization prior to use.

For items procured by HART directly, QA provisions will be included in all procurement documents. Potential suppliers will be evaluated before awarding of the contract to verify their capability to meet procurement and quality (e.g., ISO 9001, AAR Section J, etc.) requirements. QA/QC requirements are applicable to lower-tier suppliers and will be specified.

When source surveillance or inspection is necessary, requirements will be established and reviewed with the supplier. Names, locations, and inspection requirements for lower-tier suppliers are identified at this time. Initial surveillance/inspection includes a review of fabrication drawings to verify compliance with codes, specifications, and requirements included in the purchase order. Material certificates and procedures for fabrication, welding and testing, as well as personnel qualifications, are reviewed and verified as required. Documented evidence of all surveillance and inspection will be maintained in QA Files.

To provide a higher degree of assurance that quality requirements are met, resident inspections are performed and documented on a daily basis, or as the process occurs at the suppliers' location. Personnel performing these inspections are assigned by the HART/GEC organization. However, such surveillance/inspection will not absolve the contractors or suppliers of the responsibility to provide acceptable work or product, or will it preclude subsequent rejection of unacceptable work or products.

3.1.4.3 Quality Assurance Audits

Comprehensive QA Audits are conducted to verify, by examination and evaluation of objective evidence, that applicable elements of the QMP and HART-approved QAP(s) are suitable and are effectively implemented by HART, GEC, contractors, consultants, and suppliers, respectively. The HART QA Manager schedules the audits to be performed based on the contract duration and magnitude, and assigns the auditor or audit team to perform the audit. Audit results are documented and reviewed by the HART/GEC quality team and management personnel having responsibility in the area being audited. If needed, follow-up audits are conducted to assure that effective corrections were taken. The persons performing the audits must be trained and proficient to perform QA audits.

3.2 Project Controls

3.2.1 General

3.2.1.1 Contract Management System (CMS)

The coordination, monitoring and control of the functional and technical aspects for a project of this magnitude, as described in Section 3.1, require well-defined Project Controls tools and processes. The HART Honolulu Rail Transit Project has made the decision to utilize a

combination of Oracle software packages, primarily the Contract Management database system (CMS) and Primavera Project Manager (P6), as the management information system for the data collection, interactive communication, reporting and retention.

3.2.1.2 Work Breakdown Structure (WBS)

To establish a disciplined means of organizing this data, a Work Breakdown Structure (WBS) has been created. The WBS is a direct representation of the work scope in the project, documenting the hierarchy and description of the tasks to be performed and relationship to the product deliverables. The WBS delineates all authorized work scope into appropriate elements for planning, budgeting, scheduling, cost accounting, measuring progress and management control. The WBS is extended to the level necessary for management action and control based on the complexity of the work. Each item in the WBS is assigned a unique identifier. These identifiers can provide a structure for a hierarchical summation of costs and resources. Below is the WBS alpha-numeric coding utilized for the project:

A. G. ##. ##. ##. ##. ##. ##. ##

A. Level 1 – Section (Project-Wide; West O‘ahu/Farrington; etc.)

G. Level 2 – Location (Project-Wide, Guideway, Station; etc.)

##. Level 3 – Specific Location (West O‘ahu Stations, etc.)

##. Level 4 – CSI General Work Categories (Concrete)

##. ##. Level 5 – CSI Detail (Concrete – Forming, Falsework, Anchors, etc.)

##. Level 6 – SCC (Stations, Stops, Terminals, etc.)

Level 7 – SCC Detail (At-Grade; Aerial; etc.)

3.2.1.3 Expanded Project Controls Organization

To adequately address the significant needs of the project, HART Project Controls, GEC Project Controls and Contract Administration Groups have been re-organized to work as a fully-integrated team, with the core staff in residence at the Project Office. Thus, resources are efficiently allocated, collecting engineering and construction information at the subject work venue and seamlessly communicating to HART/GEC Project Controls Group by way of CMS and telecommunications, as appropriate. The information is disseminated and analyzed for accuracy and reliability. The team collaboratively updates the reporting vehicles and subsequently presents their results for Project Management review and approval prior to transmittal. (See 4.PC-07, Project Scheduling or 4.PC-07, Cost Control.) The expanded Project Controls Organization utilizes the Project Controls Procedures 4.PC-02 to 4.PC-09 and Contract Administration Procedures 5.CA-01 to 5.CA-07 to accomplish its responsibilities. (The expanded and fully-integrated Project Controls organization chart can be found in 4 PC-04 Project Scheduling Procedure, Revision 1, 03-15-12, Exhibit 6; or 4 PC-07 Cost Control Procedure, Revision 1, 03-15-12, Exhibit 1.)

3.2.2 Schedule Management and Progress Monitoring

3.2.2.1 Re-Baselining the Master Project Schedule

With the project goals and milestones reaffirmed during the Preliminary Engineering (PE) Phase, the Master Project Schedule (MPS) must be re-evaluated and, as appropriate, re-baselined as the Project enters significant milestones. It will be the project's obligation to ensure that it is feasible to achieve the FTA Revenue Service Date in accordance with the expectations of the FFGA.

To this end, the Contract Packaging Plan (CPP), which identifies all the individual construction contracts, consultant agreements and various other work packages, is reviewed by all the responsible project groups to confirm or revise the individual work scopes and the targeted start/completion of each.

Once the first pass at an updated CPP has been conducted, a preliminary MPS is generated based on the progress to date and the identified changes or qualifications since the previous baselined MPS. The preliminary CPP and MPS serve as the bases for generating a new Bottoms-Up Cost Estimate (BUCE). As a result of the development of the BUE – and subject to scope re-packaging and/or the shifting of the timing of planned contracts – the preliminary CPP and MPS may be modified several times before a final revision.

In accordance with the Project Management review and approval process – and the subsequent issuance of the key, re-baselined documents for entry into an FFGA – the revised MPS will be the basis against which progress is tracked and all schedule variances are evaluated and reconciled. This MPS revision will not be re-baselined after the FFGA is signed/executed unless HART and FTA explicitly agree upon the necessity of such an adjustment.

3.2.2.2 Updating the Master Project Schedule

In accordance with the Project Scheduling Procedure 4.PC.04, the assigned HART and GEC Project Controls staff members gather the monthly update progress/schedule information, which has been reviewed and validated by the oversight design managers, contract resident engineers and/or responsible managers, and transmit it to the core HART/GEC Project Controls Group at the Project Office. The schedule update information is entered into the P6 database and a preliminary version of the MPS is generated with all the merged input. An analysis is performed and, as part of the quality control process, any questionable results double-checked for data input accuracy from the originator and/or data entry. Once Project Controls is satisfied with the updated MPS product, a presentation will be conducted with Project Management and group managers for their review, concurrence and approval by the HART Executive Director. The approved MPS will be transmitted to the FTA/PMOC and will be the basis for schedule status reporting to the HART Board of Directors.

3.2.2.3 Schedule Contingency Management

In accordance with the re-baselined Risk and Contingency Management plan (RCMP), the project must maintain an appropriate level of schedule contingency over the life of the project. As part of the MPS review process, Project Controls will present the likelihood of meeting the key milestones and provide a status of the available schedule contingency in the form of a Schedule Contingency Drawdown Curve. See Section 13, Risk Management.

3.2.3 Budget Management and Cost Control

3.2.3.1 Re-Baselining the Project Budget

Since the development of the Project Budget during the PE Phase, it is necessary to review the basis for the previous bottoms-up cost estimate (BUE) and re-baseline the Project Budget. Factors taken into account include: the significant delays to the scheduled events; the advancement of many design considerations; continuing changes in an already unstable economy that effect the market conditions and pricing; actual cost elements based on bids and proposals; and organizational modifications and shifting responsibilities. Once the preliminary CPP and MPS are available, the elements of the previous BUE are updated to reflect quantity, pricing, repackaged or different scopes for all the design, construction, consultant or agency line items. All estimated costs are compiled in current (base year) dollars, escalation is applied to reflect the timing of the work being undertaken as scheduled, or in year of expenditure (YOE) dollars. A prescriptive review and approval process involving all key project participants will be employed to ensure that there is an understanding of the basis of the estimates going forward.

In compliance with the required risk processes and procedures (See Section 13. Risk Management), a “risk refresh” workshop will be conducted to weigh the outstanding risks as they might affect work execution and associated costs. It is through this process that a cost buffer, or an allocated contingency, is applied by budget line item to presumably offset possible future risks.

The cost elements of each budgeted contract – or work package – are coded in accordance with the numbering scheme of the WBS, allowing Project Controls to sort and report the scope/costs by work package or the required FTA Standard Cost Category (SCC) format in CMS.

The combination of base costs plus allocated contingencies for each line item in the Project Budget are then totaled to create the sum of all the work in YOE dollars. To cover any other uncertainties or unknowns, there is a bottom line Unallocated Contingency amount projected, based on Project Management evaluations and FTA guidelines.

The final step in the re-baselining process is the generation of the Financial Plan utilizing the approved BUE figures with the allocated contingencies and the applicable projected year of expenditure. The Financial Plan demonstrates that HART has adequate financial resources to fund the agency's operating costs as well as any other non-Rail Transit Project capital expenditures. By this effort the project can not only present the financial health of the sponsoring agency and the commitments of funds from the designated stakeholders, but determine the financing costs over the life of the project when available funds do not meet the expected cash outlays.

Once all the elements are totaled – including the base costs of the contracts/work packages, allocated contingencies, escalation applied in accordance with the year of expenditure, the applicable financing costs and a lump sum unallocated contingency – the result is the proposed Total Project Cost. (Total Project Cost becomes the new “Baseline Project Budget” when it is sanctioned by the FTA and approved by the HART Board of Directors.)

HART then formally issues the five associated re-baselined documents: the Contract Packaging Plan (CPP), the Master Project Schedule (MPS), the Risk and Contingency Management Plan (RCMP), the Financial Plan, and the Project Budget.

3.2.3.2 Tracking and Controlling Costs

Once the Project Budget has been established as the “Baseline Budget,” Project Controls will then track and report pending, actual and forecast costs at the detailed WBS level on a monthly basis. The vehicle for this multi-faceted process is the Project Cost Report, which resides in CMS and incorporates the regular inputs from various sources. Since the data is in the CMS database, the Project Cost Report can be generated in the required formats, including 1) Summary by Contract; 2) Details by Contract; and Project Costs by SCC. (See 4.PC-07, Cost Control.)

The “Commitments” column in the Cost Report reflects the values of construction and equipment/material contracts, consultant and services agreements, interagency memoranda of understanding or cooperative agreements, and approved agency operating budgets when they have been executed or approved and entered into CMS. Additionally, any approved contract changes that have been executed are included as commitments. Generally speaking, the commitments give an indication of how much of the scope of the project is under contract or covered with agency staffing.

While a contract may be executed and “committed” as far as identifying who will do the scope of work with a projected value, the full amount may not be authorized for expenditure (AFE). To control the scope of work within the FTA guidelines, a portion of work may be identified for execution by utilizing a Notice to Proceed (NTP) transmittal tied to the contractor's Schedule of Milestones. Also, to regulate the outlay of available cash and

minimize the financial exposure, the project may decide to incrementally set the limits on contractors or consultants for performing their scope and the associated dollar amounts. These not-to-exceed limitations are generated by the responsible HART contract oversight managers in concurrence with HART's Grants/Finance Group verification of fund availability. The Cost Report tracks the amount of the cumulative AFE ("Authorizations") to reflect the project's obligations as a snapshot for management and Board information purposes. On the designated cut-off date (i.e. the last Friday of the month), Project Controls downloads the "Accounting Statements of Expenditures by Object" Report from the City's "Advantage" Financial Management System. This is a compilation of all project expenditures to-date for contracts, purchase orders and staff costs. These charges are reconciled against the Project Budget elements in accordance with the WBS designations and reflected as "Incurred-to-Date" in the "Actuals" column of the Cost Report. Incurred costs are entered in CMS from three sources: 1) contractors enter their own 'Requests for Payments' following the monthly data cutoff date; 2) miscellaneous Invoices from smaller contractors or vendors (who do not have access to CMS) are entered by Project Controls as received; and 3) reconciling items noted in the Advantage reconciliation process – i.e., City labor and Right-of-Way expenditures – are entered by Project Controls.

As established by the process described in Section 3.2.3.1, all the line items in the "Baseline" Project Budget are static and displayed in the Cost Report. However, during the life of the project, there will be justifiable deviations from this baseline due to: 1) scope shifts from one work package to another; 2) approved change orders moving budget from Allocated Contract Contingency to Construction-specific budgets; or 3) the approved utilization of Unallocated Project Contingency to offset unanticipated changes or overruns. These actions are documented and identified as "Transfers" with the Project Budget subsequently re-calculated to reflect the "Current Budget," as authorized by Project Management and without changing the Total Project Cost.

Because of the dynamic nature of such a project, it is prudent to track possible or pending costs that could impact the Project Budget. To take this aspect into consideration, the project has set up a network through CMS whereby the expanded HART/GEC Project Controls Group, in conjunction with the HART/CFM staff assigned to the various contracts, will enter potential changes with projected costs based on the results of a detailed estimate and adjusted as warranted during negotiations with the construction contractor or design consultant. Project Controls may identify other potential cost increases or decreases that would affect the cost of a work package and will incorporate such costs with the appropriate justification and/or documentation. The "Estimate at Completion" (EAC) column reflects the total of the original contract value (either as budgeted or the actual contract value if awarded), any executed change orders, pending or potential changes or adjustments with the sanction of Project Management.

Once the Cost Report numbers are compiled, Project Controls will present the summary and details to Project Management and group managers for review, comment and – pending any changes by Project Controls – final approval. Project Controls will then transmit the Project Cost Report for that subject month. During the review session, Project Controls will highlight cost areas of concern which are showing trends significantly impacting e allocated contingency and/or overrunning the Current Budget. In such instances, the responsible managers will be asked to explain the circumstances and present a mitigation or remedial plan of action to control the costs.

3.2.3.3 Cost Contingency Management

Similar to the Schedule Contingency, there are prescribed levels of contingency in the re-baselined RCMP that the project must maintain over the life of the project to stay in compliance with the FTA guidelines. The Total Project Contingency includes all of the Allocated Contingencies that are included with the incremental budget line items (as part of the work packages) plus the Unallocated Contingency. Project Controls will present the Cost Contingency Drawdown Curve during the Cost Report review process, enabling Project Management to assess the overall impact to the project. (See Section 13 – Risk Management.)

3.2.4 Progress Reporting

3.2.4.1 Responsibility

The Project Controls Group is responsible for the generation of regular progress reports, including the Monthly Progress Report that is transmitted to the FTA/PMOC, the FTA Quarterly Review Report, and all progress reports for the HART Board of Directors. Because of the broad distribution of these reports and their contents, a thorough review is conducted to ensure accuracy and consistency. Reviewers include the Chief Operating Officer, Public Information Officer, CFO, DAC, and DEC, with final approval by the Executive Director for transmittal.

Project Controls is also responsible for the development and generation of the progress reports that are issued to the HART Board.

3.2.4.2 Monthly Progress Report

In accordance with FTA standard reporting, Project Controls produces a Monthly Progress Report that includes: an executive summary that highlights achievements; issues with actions being taken; project budget and schedule status; and group reports for safety, quality, real estate, planning and environmental, risk, community outreach, and staffing. (See 4.PC-03, Project Progress Reports.)

3.2.4.3 Changes Report

As potential project changes arise and are identified, they are tracked and managed through the approval process by the CFM procedures described in Section 7.0. The PCM is responsible to provide early identification and reporting of potential cost impacts against the approved project budget that are generated by causes such as project scope changes (adds or deletions), detail design development, Contractor/Consultant proposals and changes, material and equipment pricing trends, labor productivity and project schedule delays or accelerations.

The Changes Report presents in both detail and summary a listing of approved changes, outstanding pending changes and claims, and anticipated changes for the major contracts in the Project. The amounts for approved changes are incorporated into the Project's committed values. The amounts for proposed changes and claims received from consultants and contractors are subject to negotiations. These amounts are quantified as trends within the forecast values. The PCM maintains the changes Report based on information provided to HART by the GED during design and construction.

The purpose of this report is to itemize cost exposures and track outstanding proposed changes and claims to insure timely resolution of pending changes and identify potential cost overruns. All changes to Project baseline documents which include the CCP, MPS, Project Budget, and the Project Plan referenced in the PMP are approved in accordance with Project Procedures 1.PP-05, 5.CA-02.

3.2.5 DBE Program Reports

Pursuant to 49 CFR § 26.45(e)(3), the FTA Administrator has required the establishment of a project-specific DBE Goal. The draft Project DBE Goal, currently calculated at 13% is under reviewed by FTA. The draft Project Goal may be revised based on FTA's comments and further revised based on comments received during the 45-day comment period. HART is developing a Project DBE Program that will be separate from the DBE Program developed by DTS for the City's non-rail projects utilizing USDOT funds. As a condition of payment, contractors must submit a "DBE Participation Report" with each invoice. HART will use the information contained in the report to prepare the required semi-annual report, *Uniform Report of DBE Awards or Commitments and Payments*, pursuant to 49 CFR Part 26.

3.3 Grants

HART has a Grants component under the CFO that is responsible for HART grants management and coordination, HART's budgets and appropriations, and interfacing with Project Controls and Procurement for financial management oversight. HART staff coordinates with the City's BFS department.

3.3.1 Grants Administration

The Project is primarily funded through two sources: FTA Section 5309 New Starts Funds and revenues from the dedicated 0.5 percent GET surcharge. It is the responsibility of the BFM to make certain that expenses incurred against federal grants are appropriately recorded and the Project's financial status is appropriately reported to FTA. FTA funds are drawn by the BFS Fiscal Services Branch using the internet-based Federal Electronic Clearing House Operation system (ECHOWeb) after third-party invoices are approved for payment. The quarterly Milestone/Progress and Financial Status Reports are submitted to the FTA using Transportation Electronic Award and Management Web (TEAM-Web) system.

The TEAM-Web system is a project and financial management application that was designed and developed to fulfill government mandates for increased accessibility by the public to Federal Assistance Programs and the replacement of paper-laden processes with electronic processes. HART with the support of the BFS Fiscal Services Branch maintains all necessary records regarding grant revenues, any program income, and outlays in accordance with the requirements of FTA Circular 5010.1D.

3.3.2 Quarterly Progress Reports for FTA Grants

Once federal funds are provided, HART prepares and submits Quarterly Progress Reports required by FTA Circular 5010.1D to FTA, inclusive of a quarterly report, via FTA's internet-based Transportation Electronic Award and Management system (TEAM-Web) offices. Quarterly progress reports provide the following:

- Narrative comments on each budget line item for the Project;
- Discussion of budget or schedule changes not requiring FTA approvals that were made during the past quarter;
- Comparison of scheduled activities and budgeted expenditures with actual accomplishments during the report period including, status of bid documents completion dates, bid solicitation, resolution of bid protests and contracts awarded;
- Financial Status Report including an analysis of significant project cost variances;
- Discussion of completion and acceptance of construction, procured equipment, and other work, together with a breakdown of costs incurred and costs required to complete the Project;
- Reasons why any scheduled milestones or completion dates were not met, identifying problem areas and discussing how problems will be resolved;
- Discussion of expected impacts of project delays and the steps being implemented to minimize such impacts;

- List of all outstanding claims in excess of \$100,000 and all claims settled in the report period, with a brief description of the claims and their causes;
- Projected activities for the next quarter and steps planned for carrying them out;
- Expected or projected changes in scheduled activities;
- Pertinent graphics and photographs;
- Change Order Status;
- Safety and security; and
- Quality Updates.

3.3.3 Budget Revisions and Amendments

The BFM is responsible to prepare budget revisions or grant amendments, as needed. When necessary, budget revisions are submitted to FTA via TEAM-Web after review by the HART Chief Operating Officer and approval by the ED. HART's Grants Manager and the ED are authorized users of the TEAM-Web system.

3.3.4 Project Closeout

When the Project is completed, the Grants Administrator will assist the HART ED by preparing closeout documents: a final Financial Status Report; a final budget; a final narrative milestone/progress report; a request to de-obligate any unexpended balance of Federal funds; and any other reports required by the FTA. The ED will approve any de-obligation amount prior to submittal of the closeout documents via TEAM-Web. In accordance with the FTA's records retention requirements contained in FTA Circular 5010.1D, all project-related files will be retained for a three-year period, regardless of whether a phase receives FTA assistance. During Final Design, under the direction of the Deputy Project Officer for Administration and Control, HART will prepare a comprehensive Project Closeout Plan to cover financial as well as technical open items and status reporting. Closeout is anticipated to occur in 2020.

Within the FTA grant(s) the account structure includes major expense categories, which correspond to the "Activity Line Item Codes" that are to be used to identify the budget line items.

Each major expense category is further broken down into subcategories (i.e., work orders), which are specific tasks/assignments that are performed by staff or under third party contract within a [grant funded] project. They are identified by unique index codes in accounting system and tied to specific GMIS Activity codes. The HART ED, with the concurrence of the Grants Management and BFS managers, creates these "cost" codes as necessary for control purposes. All grant expenses are recorded at the cost code level and cross-referenced with the capital project.

3.3.4.1 Accounting System

The Office of Management and Budget Circular A-87 is used to determine eligible costs under an FTA grant.

3.4 Processing of Invoices

There are three basic types of payables, which are processed for payment utilizing two different sets of procedures.

3.4.1.1 Purchase Order and Direct Payments

Purchase order payments represent the processing of payments for goods and/or services acquired through the HART purchasing department and purchases made by authorized representatives using Procurement Cards. Direct payments refer to the processing of payment for items such as utilities, petty cash, freight, permits, postage, training materials and publications which are not acquired through the procurement department. Although included in this category, payments related to the acquisition of real estate and/or property relocations follow the procedures for “contract payments.” The amounts of payments for real estate and/or property relocations are determined in accordance with the procedures outlined in the Real Estate Acquisition Management Plan (RAMP).

All payments are to be in compliance with the applicable Hawai‘i Statutes, administrative rules, and departmental procedures. With the exception of real estate items, billing requests for purchase orders and direct payments are submitted to the HART PSO for approval. Billings are verified by HART accounting staff and processed to the ED for approval. Approved invoices are forwarded to the BFS Department for further verification and payment processing.

3.4.1.2 Contract Payment

Contract payments requests are processed similarly to direct payments except that invoices are sent to the PCO who reviews and forwards approved billing requests to the ED. Approved requests are sent to the HART Procurement Manager (PCM) for pre-payment audit. A copy is also provided to the HART PCM. Invoices of the PMC staff are reviewed only by HART staff. The PCM forwards a copy of the approved payment request to the BFS Department for payment. Pursuant to HRS 103-10, payment must be made within thirty (30) calendar days following receipt of the invoice or satisfactory delivery of the goods or performance of the services. HART project procedure 5.CA-03 “Contractor Progress Payments” describes this process in greater detail.

Firm Fixed Price Contracts. Contractor pay requests are reviewed against established payment milestones for the contract line items and whether amount invoiced is approved by HART and is mathematically accurate. The status of change orders and contract modifications are investigated to determine the current contract amount and total payments are reviewed to verify the contract balance.

Cost Plus Fixed Fee Contracts. These contracts require billing for services rendered and typically include direct labor, overhead, subconsultant costs, reimbursable expenses and fixed fee. In addition to the above mentioned procedures the review includes a determination of whether the costs are in compliance with the contract, are allowable and reasonable, and that documentation required by the contract is submitted with the payment request.

Bill Rate Contracts. These contracts require billing for services rendered using the agreed upon bill rates. Processing of bill rate payment requests includes verification that the bill rate specified in the contract documents are correctly applied which is in addition to the procedures described above.

3.4.1.3 Approval / Files

Copies of approved work orders, encumbrance requests and disbursements will be maintained as part of the Project file.

3.4.2 City Labor

“Force Account” is defined in FTA Circular C 5010.D as “the use of a grantee’s own labor force to carry out a capital grant project.” The Circular further states, “Force account work may consist of design, construction, refurbishment, inspection and CM activities, if eligible for reimbursement under the grant. Force account work does not include grant or project administration activities which are otherwise direct project costs.” HART does not intend to seek FTA reimbursement for any force account during FD. If HART or City labor is to be charged to a force account activity line item under an approved FTA grant in the future, a Force Account Plan has been prepared following the requirements in FTA Circular C 5010.1D and submitted to FTA for approval. If the Plan is approved, time sheets will be used to distribute labor charges to appropriate cost codes.

3.4.3 Accounting for Construction Contracts

Review of construction progress is the responsibility of the Resident Engineer for each construction contract. Payment is made only for acceptable work, verified “in-place.” Variations in unit quantities, contract milestones and other contract deliverables are handled in accordance with the contracts’ terms and conditions.

Each contractor monthly invoice subtotals the "payment this period" and "payment to-date" for each contract pay item. The Resident Engineer is responsible for verifying that invoice quantities have been installed in accordance with the contract documents prior to recommending payment. Recommendations for payment are reviewed and audited by HART prior to payment. The process is detailed in HART Project Procedure 5.CA-03 “Contractors Progress Payments.”

3.5 Contingency

The Project’s budget allows for a contingency line item that is calculated based on the forecast costs of outstanding project risks (see Section 13.0, Risk Management) and covers:

- Areas of the budget estimate that have not been fully defined, as well as cost and quantity inaccuracies;
- Unforeseen escalation allowances over and above predicted increases in the cost of materials, labor and services, and the rate of exchange; and
- Overruns in terms of time and cost in critical areas during project execution.

The contingency is recorded in a separate cost account. Drawdown against the contingency is subject to approval by the ED and must be consistent with the Risk and Contingency Management Plan (RCMP) which outlines the planned utilization of contingency throughout the project. The RCMP was developed jointly by HART and FTA through its PMOC upon completion of the Risk Assessment effort undertaken prior to Final Design. During the execution of the Project, the contingency allowance will fluctuate as the total project estimate is continually reviewed and revised; and the risk areas are eliminated, or new risks are identified.

3.6 Funding Sources

Project capital costs will be funded primarily through a combination of FTA Section 5309 New Starts funds (\$1.550 million), FTA Section 5307 Urbanized Area Formula Funds (\$214 million), and revenues from the 0.5 percent county surcharge on the State of Hawai‘i’s General Excise and Use Tax (\$3,388 million). The Honolulu Rail Transit Project’s “Financial Plan for Full Funding Grant Agreement” discusses the resources to fund the Project capital cost as well as the ongoing capital and operating expenditures for the Project and the existing transit system comprised of TheBus and TheHandi-Van, through FY 2030.

3.7 Progress Review Meetings

3.7.1 Coordination Meetings / Progress Meetings

During the life of the Project, management, design, and construction meetings are held either weekly or more frequently as the need arises. Led by the HART Chief Operating Officer, these meetings are an opportunity for the project leadership team to discuss planning, design and coordination issues. An agenda is prepared and distributed in advance of each meeting. Meeting minutes with action items are prepared and distributed at the following week’s meeting. The minutes identify and track issues, actions and responsibilities and identify date, time, location and attendees. Responsibility for preparing meeting minutes rests with the GEC.

3.7.2 FTA Quarterly Project Review Meetings

Throughout the duration of the Project, quarterly project review meetings are to be held to discuss pertinent issues and problems. There is no pre-set date for the meetings, which are scheduled by the FTA through its PMOC. It is assumed that the location for the quarterly meetings will alternate between Honolulu and the FTA's regional office in San Francisco. The PMOC prepares minutes of the meetings and HART tracks action items until their submittal to FTA.

3.7.3 Outside Agencies

Special purpose meetings are held frequently with outside agencies, stakeholders, and designers of facilities that will be close to or in the same space as project facilities. These meetings generally are organized around an agenda, result in conclusions or assignments, and are documented in meeting minutes. Preparation of meeting minutes generally is the responsibility of the GEC or HART as appropriate.

3.7.4 Design Coordination / Progress Meetings

Design coordination/progress meetings are discussed in Section 6.6.3, Weekly Design Coordination/Progress Meetings.

3.8 Document Control

3.8.1 General

HART has established a database with "City DART," the City's electronic document control system. HART is using that software along with Xerox DocuShare and Primavera Contract Manager, which together form the basis for the Project's overall document control system.

Through Final Design and Construction, HART's Oracle Primavera Contract Manager software, also known as "CMS," will be used to file, store, maintain, and backup multimedia project files as provided by HART, its consultant team, GEC, and third parties, within a limited access environment.

The Oracle Primavera Contract Manager Software offers the following features:

- Multi-user, multi-project application that provides a centralized way to store, organize, and track project information, i.e., track contract changes, submittals, request for information, and change orders;
- Flexible reporting which produces reports that summarize when items are due, pending, and approved, as well as number of days for which items are overdue;

- Links documents to issues directly as records are added to the documents;
- Archiving and imaging enabling archive of electronic documents in different formats, including video clips and pictures;
- Document management and collaboration facility to establish collaboration among different workgroups on documents;
- Real-time retrieval and tracking of documents that may address the full spectrum of the Project's scope;
- Email management interface with Microsoft Outlook; and
- Controlled access of information according to defined hierarchy/access rights based on user/group specific rules.

The document control system is accessible through a local area network and the internet. The system is managed by the HART Document Control Group. The document control system allows team members and outside reviewers, whether in the Project office or at a remote location, to share Project information, including drawings and other documentation submitted by the contractor to HART for review.

3.8.2 Responsibility

The Document Control Group is responsible for the following:

- Receipt, routing, processing, storage, and access control of hardcopy and digital data;
- Distribution of approved documents to appropriate individuals and organizations;
- Filing and storage of all physical and electronic documents;
- Manage and maintain various logs, emails and procedures; and
- Elimination of obsolete documents.

Documents will be filed and controlled in accordance with the project Document Control Procedure. The in-depth 1.PP-04 Project Wide Document Control Procedure) is available under separate cover.

All documents will be maintained for the duration of the contract and organized, indexed and filed accordingly.

Each Contractor will establish and maintain its own Document Control System in accordance with its relevant contract requirements.

4.0 PROCUREMENT AND CONTRACTS

4.1 General

HART's procurement approach is designed to foster full and open competition and equitable treatment of all potential sources in the procurement process and to make comprehensive business judgments based upon the application of sound procurement policies and procedures to ensure public funds are expended properly and to protect the integrity of HART's procurement process. Contracts that are integral to the Project are/will be federalized and will contain the applicable federally-required third-party contract clauses. To insure the appropriate third-party contract clauses are incorporated, HART will utilize resource documents such as the FTA Master Agreement, 49 CFR Part 18, and Appendix A of FTA's Best Practices Procurement Manual.

HART complies with the requirements of the Hawai'i Revised Statutes (HRS), the Hawai'i Administrative Rules (HAR), HART policies and procedures, and with Federal Transit Administration (FTA) Circular 4220.1F, Third Party Contracting Guidelines, as amended. The FTA requirements prevail in cases there is a conflict with the HRS and HAR.

4.2 Responsibility

The HART Chief Procurement Officer is responsible for Procurement and Contracts. The responsibility to administer these functions has been assigned to the HART Procurement Manager (PCM) under the supervision of the HART Deputy Project Officer, Administration and Control (DAC).

4.2.1 Organization / Interfaces

There is direct interaction with internal and external groups involved in contract administration aspects for HART contracts. In addition to the, Deputy Project Officer, Engineering and Construction, and the APOs and staff, this also includes the following:

- HART Budget/Financial Manager;
- HART Project Controls Manager;
- Budget and Fiscal Services Manager (City BFS);
- Construction Managers and Project Engineers;
- Consultants and Contractors;
- TPD DBE Liaison Officer (DBELO);
- COR; and

- Other City and County Departments as required.

4.3 Source Selection and Contract Formation (HRS)

Unless otherwise authorized by law, all contracts shall be awarded by competitive sealed bidding pursuant to HRS section 103D-302, except as provided in:

- HRS Section 103D-303 (Competitive sealed proposals);
- HRS Section 103D-304 (Professional services procurement);
- HRS Section 103D-305 (Small purchases);
- HRS Section 103D-306 (Sole source procurement); and
- HRS Section 103D-307 (Emergency procurements).

4.3.1 Competitive Sealed Bidding

Contracts shall be awarded by competitive sealed bidding except as otherwise provided in HRS Section 103D-301. Award of contracts by competitive sealed bidding may be made after single or multi-stop bidding. Competitive sealed bidding does not include negotiations with bidders after the receipt and opening of bids. Award is based on the criteria set forth in the invitation for bids.

An invitation for bids shall be issued, and shall include a purchase description and all contractual terms and conditions applicable to the procurement. If the invitation for bids is for construction, it shall specify that all bids include the name of each person or firm to be engaged by the bidder as a joint contractor or subcontractor in the performance of the contract and the nature and scope of the work to be performed by each.

Adequate public notice of the invitation for bids shall be given a reasonable time before the date set forth in the invitation for the opening of bids.

Bids shall be opened publicly in the presence of one or more witnesses, at the time and place designated in the invitation for bids. The amount of each bid and other relevant information specified by rule, together with the name of each bidder shall be recorded. The record and each bid shall be open to public inspection.

Bids shall be unconditionally accepted without alteration or correction, except as authorized by the HRS.

The contract shall be awarded with reasonable promptness by written notice to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in the invitation for bids. In the event all bids exceed available funds, the HART Chief

Procurement Officer is authorized in situations where time or economic considerations preclude re-solicitation of work of a reduced scope to negotiate an adjustment of the bid price, including changes in the bid requirements, with the low responsible and responsive bidder, in order to bring the bid within the amount of available funds.

4.3.2 Competitive Sealed Proposals

Competitive sealed proposals may be utilized to procure goods, services, or construction designed in rules adopted by the procurement policy board as goods, services, or constructions which are either not practicable or not advantageous to HART to procure by competitive sealed bidding. Competitive sealed proposals may also be utilized when the Chief Procurement Officer determines in writing that the use of competitive sealed bidding is either not practicable or not advantageous to HART.

- A. Proposals shall be solicited through a request for proposals.
- B. Notice of the request for proposals shall be given in the same manner as provided in HRS Section 103D-302(c).
- C. Proposal shall be opened so as to avoid disclosure of contents to competing offerors during the process of negotiation. A register of proposals shall be prepared in accordance with the rules adopted by the procurement policy board and shall be open for public inspection after contract award.
- D. The request for proposals shall state the relative importance of price and other evaluation factors.
- E. Discussions may be conducted with responsible offerors who submit proposals determined to be reasonably susceptible of being selected for award for the purposes of clarifications to assure full understanding of, and responsiveness to, the solicitation requirements. Offerors shall be accorded fair and equal treatment with respect to any opportunity for discussion and revision of proposals, and revisions may be permitted after submissions and prior to award for the purpose of obtaining best and final offerors. In conducting discussions, there shall be no disclosure of any information derived from proposals submitted by competing offerors.
- F. Award shall be made to the responsible offeror whose proposal is determined in writing to be the most advantageous taking into consideration price and the evaluation factors set forth in the request for proposals. No other factors or criteria shall be used in the evaluation. The contract file shall contain the basis on which the award is made.
- G. In cases of awards made under this section, non-selected offerors may submit a written request for debriefing to the Chief Procurement Officer or designee, within three working days after the posting of the award of the contract. Thereafter, the Procurement and Contracts Officer, along with others as deemed appropriate, shall

provide the requester a prompt debriefing in accordance with rules adopted by the policy board. Any protest by the requester pursuant to HRS section 103D-701 following debriefing shall be filed in writing with the Chief Procurement Officer or designee with five working days after the date that the debriefing is completed.

4.3.3 Pre-Bid Conference

At least fifteen days prior to submission of bids pursuant to HRS section 103D-302 for a construction or design-build project with a total estimated contract value of \$500,000 or more, and at least fifteen days prior to submission of proposals pursuant to HRS section 103D-303 for a construction or design-build project with a total estimated contract value of \$100,000 or more, the Procurement and Contracts Officer shall hold a pre-bid conference and shall invite all potential interested bidders, offerors, subcontractors, and union representatives to attend.

4.3.4 Procurement of Professional Services

For HART contract packages related to or leading to construction HART will use the applicable provisions of HRS section 103D-304 that are not in conflict with the qualifications-based procurement procedures contained in 40 U.S.C. Chapter 11 (“Brooks Act” procedures) when contracting for A&E services and other services described in 49 U.S.C. Section 5325(b), which include program management, construction management, feasibility studies, preliminary engineering, design, architectural, engineering, surveying, mapping, or related services. Thus if services, such as program management, feasibility studies, or mapping, are not directly in support of, directly connected to, or directly related to, or lead to construction, alteration, or repair of real property, then the recipient may not use qualifications-based procurement procedures to select the contractor.

Procurement of contracts for which the Brooks Act procedures apply shall be as follows:

- A. HART may issue a notice inviting persons engaged in providing such professional services which HART anticipates needing in the next fiscal year, to submit current statements of qualifications and expressions of interest or may customize an invitation for a specific contract. HART may also use a list to select from prepared by other City and State agencies.
- B. The HART chief procurement officer shall designate a review committee consisting of a minimum of three persons with sufficient education, training and licenses or credential for each type of professional service which may be required. The committee shall review and evaluate all submissions and other pertinent information, including references and reports, and prepare a list of qualified persons to provide these services.

- C. Whenever during the course of the fiscal year HART needs a particular professional services, the chief procurement officer shall designate a selection committee to evaluate the statements of qualifications and performance data of those persons on the list along with any other pertinent information, including references and reports. The selection committee shall be comprised of a minimum of three persons with sufficient education, training, and licenses or credentials in the area of the services required.
- D. The selection criteria employed in descending order of importance shall be:
1. Experience and professional qualifications relevant to the type project;
 2. Past performance on projects of similar scope for public agencies or private industry, including corrective actions and other responses to notices of deficiencies;
 3. Capacity to accomplish the work in the required time; and
 4. Any additional criteria determined in writing by the selection committee to be relevant to HART's needs or necessary and appropriate to ensure full, open, and fair competition for professional services contracts.
- E. The selection committee shall evaluate the submissions of persons on the list and any other pertinent information which may be available to HART, against the selection criteria. The committee may conduct confidential discussions with any person on the list regarding the services which are required and the services they are able to provide. In conducting discussion, there shall be no disclosure of any information derived from the competing professional services offerors.
- F. The selection committee shall rank a minimum of three persons based on the selection criteria and send the ranking to the chief procurement officer. The contract file shall contain a copy of the summary of qualifications for the ranking of each of the persons provided to the chief procurement officer for contract negotiations. The recommendations of the selection committee shall not be overturned without due cause.
- G. The chief procurement officer, or designee, shall negotiate a contract with the first ranked person, including a rate of compensation that is fair and reasonable, established in writing, and based upon the estimated value, scope, complexity, and nature of the services to be rendered. If a satisfactory contract cannot be negotiated with the first ranked person, negotiations with that person shall be formally terminated and negotiations with the second ranked person on the list shall commence. The contract file shall include documentation from the chief procurement officer, or designee, to support selection of other than the first ranked or next ranked person. Negotiations shall be conducted confidentially.

- H. Contracted awarded for \$5,000 or more shall be posted electronically pursuant to HRS 103D-304(i) within seven days of the contract award by the chief procurement officer.

In cases of awards made under this section, non-selected professional services providers may submit a written request for debriefing to the chief procurement officer, or designee, within three working days after the posting of the award of the contract. Any protest by the requester pursuant to HRS Section 103D-701 following debriefing shall be filed in writing with the chief procurement office or designee within five working days after the date that the debriefing is completed.

Procurement of Professional services which are not eligible for qualifications-based procedures as described in FTA C 4220-1F shall be procured in accordance with HRS sections 103D-302, 103D-303, 103D-304, 103D-305, 103D-306, or 103D-307.

Generally, such services will be procured using the competitive sealed proposal process described above, and HRS Section 103D-303.

4.3.5 Small Purchases; Prohibition Against Parceling

- A. Procurement of less than \$100,000 for goods or services, or \$250,000 for construction shall be made in accordance with the procedures set forth in the HAR (3-122 subchapter 8) that are designed to ensure administrative simplicity and as much competition as is practicable; provided that multiple expenditures shall not be created at the inception of a transaction or project so as to evade the requirements of HRS Chapter 103D-305; and provided further that procurement requirements shall not be artificially divided or parceled so as to constitute a small purchase under this section.
- B. Procurements of greater than \$50,000 for construction under subsection (a) shall require security by a performance bond delivered to HART that is;
1. In a form prescribed by the HAR;
 2. Executed by a surety company authorized to do business in the State; and
 3. In amount equal to one hundred per cent of the price specified in the contract, or shall otherwise be secured by a performance bond in a manner satisfactory to HART.
- C. Procurement of \$25,000 to less than \$100,000 shall be made in accordance with small purchases procedures; provided that small purchase procurements through an electronic system shall be required.

4.3.6 Sole Source Procurement

A contract may be awarded for goods, services, or construction without competition when the procurement and contracts officer determines in writing that there is only one source for the required good, services, or construction, the determined is reviewed and approved by the chief procurement officer and the written determination is posted on the Budget and Fiscal Services Purchasing Bulletin Board. The written determination, any objection, and a written summary of the disposition of any objection shall be included in the contract file.

The written determination shall contain such information as required by HAR 3-122-81 and 3-122-82. Persons may file written objections to the issuance of a contract pursuant to this section.

4.3.7 Emergency Procurements

The chief procurement officer or designee may obtain a good, service, or construction essential to meet an emergency by means otherwise described in HRS sections 103D-302, 103D-303, 103D-304, 103D-305 or 103D-306 when the following conditions exist:

- CMA situation of unusual or compelling urgency creates a threat to life, public health, welfare, or safety by reason of major natural disaster, epidemic, riot, fire, or such other reason as may be determined by the chief procurement officer;
- The emergency condition generates an immediate and serious need for goods, services, or construction that cannot be met through normal procurement methods and the government would be seriously injured if the chief procurement officer is not permitted to employ the means it proposes to use to obtain the goods, services, or construction; and
- Without the needed good, service, or construction, the continued functioning of government, the preservation or protection of irreplaceable property, or the health and safety of any person will be seriously threatened.

The emergency procurement shall be made with such competition as is practicable under the circumstances. A written determination of the basis for the emergency and for the selection of the particular contractor shall be included in the contract file.

4.4 Procurement Records and Contract Files

The HART Procurement and Contracts section will maintain a record copy of procurement records and contract files.

4.5 Processing of Change Orders

HART's Management CFM Plan (RD-13) and Change Control Procedures (5.CA-02, 5.CA-05, 6.CM-03 and 6.CM-06) cover the roles of HART, the GEC and the contractors at various stages of the Project. All changes and or contract modifications require the approvals of the HART Chief Procurement Officer. Processing of claims is covered in Section 11.0, Claims Management of this PMP.

5.0 PLANNING, ENVIRONMENTAL ASSESSMENT, AND MITIGATION

5.1 General

In March 2007, the City and FTA issued a Notice of Intent to complete an EIS and completed scoping for the EIS in April 2007. Following FTA's Risk Assessment, on May 4, 2009 HART requested approval from FTA to begin the PE phase of the Project (East Kapolei to Ala Moana Center). On October 16, 2009, HART received approval from FTA to enter into PE. As part of the PE application, HART submitted the Before and After Study Plan for FTA approval. Following FTA's approval to enter PE, HART also submitted the Before and After Study Milestone I Report to FTA on January 25, 2010. In November 2010, HART assumed responsibility for carrying out the commitments of the EIS process.

The Draft EIS evaluated the No Build Alternative and three build alternatives: a fixed guideway transit alternative via Salt Lake Boulevard (Salt Lake Alternative), a fixed guideway transit alternative via the airport (Airport Alternative), and a fixed guideway transit alternative via the Airport & Salt Lake Boulevard (Airport & Salt Lake Alternative). After receipt of public comments to the Draft EIS, the Final EIS was issued in June 2010. The Final EIS identified the Airport Alternative (the Project) as the Preferred Alternative.

The Record of Decision (ROD) was issued by FTA on January 18, 2011 and a notice was placed in the Federal Register on January 24, 2011. The mitigation measures committed to in the ROD have been incorporated into the *Mitigation Monitoring Program for Project Management Oversight of Environmental Compliance* as described in Section 5.6 below. Environmental mitigation measures that were identified during the EIS process are included in this documentation.

5.1.1 Alternatives Analysis/Draft Environmental Impact Statement

The City Council received the AA Report for the Project dated November 1, 2006 that evaluated four alternatives to provide high-capacity transit service in the travel corridor between Kapolei and UH Mānoa. The City Council selected a fixed-guideway transit system extending from Kapolei to UH Mānoa with a connection to Waikīkī as the Locally Preferred Alternative (LPA) on December 22, 2006. The selection of the LPA was signed into law by the Mayor on January 6, 2007, becoming Ordinance 07-001. On February 27, 2007, under Resolution 07-039 FD1(C), the Honolulu City Council approved the first project of the LPA as the portion between the University of Hawai'i – West O'ahu and Ala Moana Center via Salt Lake Blvd. As such, HART was authorized to proceed with the planning, conceptual engineering and preparation of the Draft Environmental Impact Statement DEIS, which

would satisfy the requirements of NEPA and its implementing regulations as well as Chapter 343 of the HRS. Following the NEPA scoping period, HART prepared conceptual design plans to the level necessary to identify impacts and recommend mitigation measures for the alternatives being evaluated.

The Draft EIS was completed and signed by FTA and the DTS Director on October 29, 2008. A Notification of Availability (NOA) was published in the Federal Register by FTA on November 21, 2008 and advertised by RTD through local media to solicit public comment. The Draft EIS was circulated to those agencies with jurisdiction by law, parties that had expressed an interest, either through the scoping process or in response to the NOA, and other entities potentially affected by any of the alternatives. The Draft EIS was circulated for a 75-day public and agency comment period starting in November 2008. Five public hearings were held during this period with at least 15 days prior notice. Public comments were solicited via the project website, written comment forms, oral comments, transcribers available at meetings/hearings, and a telephone hotline. The Project's public involvement team coordinated individual responses to all comments.

5.1.2 Final Environmental Impact Statement

The Final EIS identified the Airport Alternative (the Project) as the Preferred Alternative, as described in Section 1.3 of this PMP. FTA approved distribution of the Final EIS on June 14, 2010 and a NOA was filed with the EPA on June 18, 2010 and published in the Federal Register on June 25, 2010. On July 23, 2010, the NOA was amended and re-published in the Federal Register to extend the review period to August 16, 2010 and to make a correction in the Project title. Subsequently, on August 13, 2010, based on public requests for additional time, the FTA again extended the public review period to August 26, 2010, which resulted in a 63-day review period.

The Final EIS was distributed (hard copy or DVD) to all Hawai'i state libraries, and individuals and/or agencies who made comments to the Draft EIS and was advertised in a major newspaper, television, in ethnic and cultural newspapers, the Project's website, information line, and one newsletter. The document was also available for viewing at DTS and published on FTA's website and e-mail subscriber list.

Comments on the Final EIS were received from 9 governmental agencies and 43 comment letters were received from the public. Although formal response letters were not sent to individual commenter's, major comments were summarized in the ROD and informal response to comments was also prepared for purposes of the Administrative Record.

5.1.3 Post ROD Changes

As the project progresses through Final Design and construction, numerous post ROD changes have been and will continue to be identified. Each project change is reviewed for

potential impact and FTA is notified so they may determine the need for an EA or Supplemental EIS. At a minimum, documentation will provide environmental review materials in compliance with 23 CFR 771.130 (c) regarding supplemental environmental impact statements:

Where the Administration is uncertain of the significance of the new impacts, the applicant will develop appropriate environmental studies or, if the Administration deems appropriate, an EA to assess the impacts of the changes, new information, or new circumstances. If, based upon the studies, the Administration determines that a supplemental EIS is not necessary, the Administration shall so indicate in the project file.

In determining whether the proposed change may have a significant effect on the environment, HART also considers every phase of the proposed change, the expected consequences, both primary and secondary, and the cumulative as well as the short-term and long-term effects of the change and determines if the proposed design change to the project would not meet or exceed the Hawai'i Revised Statute (HRS) 343, Section 11-200-12 Significance Criteria, and do not require evaluation through an EIS under HRS 343.

5.1.4 Record of Decision

The NEPA process for the Project was completed during the PE phase of the Project. As described above, the FTA issued the ROD on January 18, 2011 and filed a *Notice of Limitation on Claims Against Proposed Public Transportation Projects* in the Federal Register on January 24, 2011. This notice advises the public of FTA's decision on the action (Project) and to activate the limitation (180 days) on any claims that may challenge the action. Claims against the Project are barred unless the claim is filed on or before July 25, 2011. The ROD presented a summary of the process, the basis for the decision, and committed to mitigation measures in the form of a Mitigation Monitoring Program (MMP). The ROD contains several attachments which include the: 1) MMP, 2) Section 106 Programmatic Agreement which was executed on January 18, 2011, and 3) relevant correspondence include a letter from USFWS to FTA indicating concurrence regarding Section 7 Endangered Species Act.

5.2 Environmental Coordination

HART will continue to coordinate with various agencies and various stakeholders throughout the project development process. The coordination effort requires conformity with local, state and federal agencies' requirements and includes, for example, coordination with FTA, Hawai'i DOT, US EPA, inter-agency coordination with O'ahu Metropolitan Planning Organization (O'ahuMPO), City and County of Honolulu DPP, State of Hawai'i Department of Health's Office of Environmental Quality Control, Department of Hawaiian Home Lands, Department of Land and Natural Resources, Native Hawaiian organizations, private and local

entities, and the public. The coordination activities include all transportation/ environmental inputs originating with other organizations involved with and/or impacted by the Project.

HART supervises the above-mentioned activities and has weekly meetings with the GEC team involved in ensuring environmental compliance of the MMP. Relevant coordination activities will also include project permitting detailed further in section 6.1.1.

5.3 Codes and Standards

Design, construction and procurement contract documents are being prepared in conformance with the technical requirements, methodology, state-of-the-art analytical procedures and professional best practices, required to ensure compliance with:

- FTA New Starts process;
- National Environmental Policy Act process and implementing regulations; associated environmental regulations including but not limited to the Clean Water Act, the Clean Air Act, the Endangered Species Act and the National Historic Preservation Act;
- Chapter 343, Hawai‘i Revised Statutes process; and
- Federal, State and locally required permits that will be HART or contractor owned.

The MMP has been developed to verify that all required environmental protection and compliance measures are implemented by the Project’s contractors. Each contractor will be instructed to develop and take responsibility for implementation of a contract specific Environmental Compliance Plan (ECP). The ECP will be implemented and monitored as identified in the MMP, Appendix B. The Planning and Environment Department of HART holds responsibility for oversight of the implementation of all mitigation measures identified in the MMP, including implementation of stipulations associated with the Programmatic Agreement.

The MMP has been developed to verify that all required environmental protection and compliance measures are implemented by the Project’s contractors. Each contractor will be instructed to develop and take responsibility for implementation of a contract specific Environmental Compliance Plan (ECP). The ECP will be implemented and monitored as identified in the MMP, Appendix B.

5.4 Study Review and Records Control

The submittals consist of engineering and environmental documents and technical reports documenting all pertinent information, methodology, analytical tools and results at the completion of the major activities listed above in Section 5.1. Reviews by HART have been performed and records of all key communications, decision and actions are maintained by the

GEC and as appropriate by HART. The compendium of documents comprises conformity with FTA, NEPA, and HRS 343 processes. In addition to the Alternatives Analysis Report which identified the LPA, the following major documents have been completed:

- Draft Environmental Impact Statement;
- Final Environmental Impact Statement;
- Technical Reports in support of the EIS;
- Record of Decision;
- Section 106 Programmatic Agreement; and
- Mitigation Monitoring Program
- The Project Administrative Record, containing all documentation referenced above, has been collated and organized and is held by HART, the City of Honolulu Legal Council and FTA as of January 2012. As the project progresses, records are now kept in the CMS database.

5.5 Brief Description of the Role of the General Engineering Consultant Team (GEC)

The GEC-1 scope of services included tasks associated with the preparation and submittal of the Draft EIS, Final EIS and ROD. According to the scope of services, the GEC-1 provided professional and technical services to accomplish the following tasks:

- Transit Analysis and Update;
- Development of the No Build Alternative;
- Traffic Analysis and Update;
- Capital, Operating, and Maintenance Cost Estimates;
- Environmental Analysis / Impacts;
- Air Quality Analysis;
- Noise and Vibration Assessment;
- Contamination;
- Archaeological, Cultural, and Historical Resources (Section 106);
- Travel Demand Modeling/Forecasting;
- Section 4(f) Evaluation
- Prepare Project Draft EIS;
- Meetings and Project Control – Draft EIS/Final EIS;

- Meeting Documentation
- Respond to Comments – Draft EIS;
- Public Meetings and Public Hearings – Draft EIS;
- Prepare Final EIS;
- Respond to Comments – Final EIS;
- Quality Assurance / Quality Control; and
- Supporting Technical Reports as specified in the GEC-1's Scope of Services.

The GEC-2 scope of services includes tasks associated with the implementation of the MMP and the Programmatic Agreement. According to the scope of services, the GEC-2 provides professional and technical services to accomplish the following tasks:

- Environmental Planning Services Providing after ROD NEPA and HRS 343 Support
- Environmental Compliance and MMP Implementation
- General Planning Support, including transportation and land use: including travel forecasting, bus transit planning, TOD and traffic analysis
- Final Design and Construction environmental compliance monitoring
- Archaeological Inventory Survey Coordination
- FTA Before and After Study
- Section 106 Programmatic Agreement and ROD Cultural Resources Commitment Implementation
- Operations and Planning Elements
- Design and Construction Engineering and Oversight Support, etc.

5.6 Mitigation Monitoring Program

The mitigation management process requires close coordination between HART, the GEC, project contractors, and state and federal regulatory/resource agencies. One of the responsibilities of the GEC is to monitor the implementation of environmental mitigation during procurement, design and construction. The GEC utilizes the Environmental Compliance Monitoring Manual (updated version of MMP, Appendix B) to implement this task.

A Mitigation Monitoring Program for Project Management Oversight of Environmental Compliance (MMP) was prepared and submitted to FTA for review on October 29, 2010 and subsequently updated and resubmitted on February 22, 2011. The final version of the MMP, Mitigation Monitoring Program (MMP) for Project Management Oversight of Environmental

and Related Commitments in the Final Environmental Impact Statement (Final EIS), Record of Decision (ROD) and Section 106 Programmatic Agreement (PA) was submitted on June 30, 2011. This MMP describes the roles and responsibilities for compliance, environmental management during design and construction, documentation of compliance by various contractors, and monitoring during Final Design and construction. The MMP contains a summary of all mitigation measures and other commitments contained in the ROD and Section 106 PA and identifies whether the mitigation/stipulation is contract wide or contract specific, the responsible party for implementation, timing of mitigation, monitoring action, responsible party for monitoring and criteria for determining close-out of mitigation. The management process ensures that mitigation measures identified in the environmental documents are effectively incorporated into the design and construction plans and specifications, as appropriate.

5.7 Changes to the Project Subsequent to the ROD

Since the issue of the ROD, HART has identified and will continue to identify project adjustments to reduce costs or otherwise improve project efficiency. Most of these revisions will not result in the need for extensive supplemental environmental documentation and documentation will be provided in compliance with 23 CFR 771.130(c) regarding supplemental environmental impact statements (EISs).

Where the Administration (FTA) is uncertain of the significance of the new impacts, the applicant (HART) will develop appropriate environmental studies or, if the Administration deems appropriate, an EA to assess the impacts of the changes, new information, or new circumstances. If, based on these studies, the Administration determines that a supplemental EIS is not necessary, the Administration shall so indicate in the project file.

Initial environmental review documentation will include location of references and illustrations in the FEIS/ROD regarding the original commitment, the Proposed Change and illustrations, a NEPA Support Analysis section that includes a comprehensive environmental resources checklist with comments, and a conclusion. If the results of the review suggest additional NEPA analysis is required, appropriate next steps for a categorical exclusion or environmental assessment will be considered.

Potential impacts of changes are also considered under Chapter 343, Hawai'i Revised Statutes (HRS) and Chapter 11-200, Hawai'i Administrative Rules (HAR). When proposed changes have not substantively modified the project in size, scope, location, intensity, use or timing, and there is no change to the proposed action as identified in the FEIS that was submitted pursuant to HRS 343 on June 10, 2010, resulting in individual or cumulative impacts not originally disclosed, a supplemental document is not required under HAR 11-200-26 General Provisions.

6.0 DESIGN MANAGEMENT

6.1 General

Design Management is an integral part of the design of every project and is a key to the success of the Project. Design Management involves continuous monitoring of the design process governed by detailed and specific design review procedures. These procedures establish the manner in which design review is to take place as well as the designated control points during the design activities at which these reviews occur. As part of the design review procedures, established methods are set forth to control changes to the Project's scope.

The primary objective of Design Management is the carefully monitored development of a detailed, high quality design that adheres to the Project's budget and schedule while concurrently ensuring regular reviews by all appropriate groups, departments and agencies. The goal is to produce technically precise, comprehensively reviewed contract documents for the bid phase and ultimately the construction phase of the Project. HART is responsible for overseeing this Design Management function of the Project. Within HART, this oversight responsibility is vested in the DEC. As discussed elsewhere in this plan, some contracts within the HART project are making use of Design-Build construction procurement and other contracts utilize the Design-Bid-Build process. For Design-Build contracts the final designer is employed by the construction contractor and for Design-Bid-Build contracts, the final designer is employed directly by HART to prepare detailed designs for contractors to bid. The design review process is similar for both types of design development.

6.2 Design Phases

There are two main phases that make up the design process: Preliminary Engineering and Final Design as described in the following sections.

6.2.1 Preliminary Engineering

The Project follows FTA's definition of the PE phase within the New Starts program expressed as the process of finalizing the project definition/scope, cost and the financial plan such that:

- All environmental impacts are identified, and through collaboration between environmental planners and designers, adequate avoidance, minimization of impacts and/or provisions for mitigation are made in accordance with NEPA, HRS 343 and associated regulations;
- All preliminary engineering plans will be compared with environmental constraints, mapping and the approved MMP;

- All major or critical project elements are designed to a level that no significant unknown impacts relative to their costs will result;
- All cost estimating is complete to a level of confidence necessary for the project sponsor to implement the financing strategy, including establishing the maximum dollar amount of the New Starts financial contribution needed to implement the Project; and
- Potential hazards have been identified through a formal PHA, and threats and vulnerabilities through a formal TVA.

The above definition does not mean that all design must be completed in Preliminary Engineering. Rather, the definition means that engineering and other issues such as third party coordination are advanced such that the cost estimating process can specifically identify the main components of the Project and add sufficient contingencies to cover the remaining design and cost uncertainties that will be addressed in Final Design. Regardless of whether a particular part of the Project is procured under Design-Build or Design-Bid-Build processes, the bulk of preliminary engineering is undertaken by consultants working directly for HART. When the work is procured in a Design-Build Contract, HART requires the construction contractor to confirm the preliminary engineering work as a first step in its design development process. Reference document RD-23, Quality Management Plan describes the design review process in more detail.

6.2.2 Final Design

Once it had addressed all of the items described above, referred to as PE Exit Criteria, and complied with all applicable environmental requirements, HART requested the FTA's approval for entry into Final Design. After FTA approval in December 2011, the Project entered the Final Design Phase, which is the last phase of project development prior to construction. The Final Design work within the New Starts program involves the completion of the Project's definition, including resolution of design and/or market uncertainties through refinement and elimination of minor uncertainties associated with design scope, and through the procurement process with the receipt of bids and the elimination of minor market risk.

During Final Design, final drawings, technical specifications, and contract documents required to obtain a construction contract are being prepared. During this phase, engineer's estimates are prepared for each procurement, an analysis of the construction bids is performed, and real estate acquisitions continue. All plan modifications subsequent to preliminary engineering will comply with environmental requirements identified in 6.2.1 above. The Contract Packaging Plan (RD-3) identifies which portions of the project are being procured through Design-Build procurement processes and which are being procured through Design-Bid-Build Processes. See also RD-4, Quality Management Plan; RD-23, Quality Assurance Plan; and RD-24, Interface Management Plan for further information on the final

design program. Finally, RD-6, Compendium of Design Criteria establishes the detailed requirements of the design.

6.3 Design Management and Coordination

The Design Management and Coordination effort is carried out by HART, which is involved in coordinating the objectives of the Project as defined in the Planning Phase and coordinating with all the project stakeholders, both external agencies and HART staff, as well as the public at large, and supervising and coordinating all day-to-day design activities. The Division work force organization is described in Section 2.0 of this PMP. The HART Chief Operating Officer is responsible for all work conducted by the HART team and reports directly to the ED.

HART manages the above activities by means of weekly meetings with the GEC supplemented by meetings with individuals on specific issues and by design reviews at various control points. Coordination of the design is achieved by joint technical meetings which are intended to resolve conflicts and result in a unified approach to problem resolution. Design reviews are explicitly included in the design schedule and are programmed as described in Section 6.6, Design Reviews.

6.4 Engineering and Design Consultants

The GEC for PE/EIS is organized by discipline with a hierarchy of key personnel responsible for each discipline. The GEC is assisted by subconsultant firms specializing in a full range of disciplines. The GEC produced design documents for Preliminary Engineering and is reviewing detailed designs by DB contractors and DBB designers during Final Design. The GEC's Project Manager and Division Managers work together to coordinate team efforts, to provide direction for various tasks, and to oversee and review work activities and products for compliance with the Project's requirements. Work is being conducted with regular and frequent communication and interaction among the various subconsultant firms, their employees, HART, and City departments. Subconsultants are responsible for conducting their designated work and producing their required work products. The GEC's Project Manager is responsible for all work conducted by the consultant team and reports to the HART Chief Operating Officer.

HART is procuring services of several EDCs for the Final Design phase. The work of these EDC's will be overseen by the GEC and the appropriate managers within the HART engineering and construction organization. Oversight of design quality, safety and security requirements by HART is essential to the proper execution of the work. Each EDC will be required to adhere to the project's QMP and to certify design as it progresses in accordance with the project's Safety and Security Certification Plan.

HART is responsible for the preparation of all required FTA deliverables for the Project in accordance with industry standards and FTA requirements. While holding responsibility, HART may assign some of the document preparation to the GEC or to other consultants yet to be designated.

6.5 Basis for Design

6.5.1 Baseline Documents

6.5.1.1 Baseline Compendium of Design Criteria (CDC)

The Compendium of Design Criteria (CDC) for the Project ensures the Project's design activities proceed in accordance with both local and accepted industry standards. The CDC comprises 26 chapters and is utilized as a key element of the Project's *Basis for Design*. Representative chapters include *Operations, Civil, Utilities, Structural, Architecture and Landscape Architecture, Passenger Vehicles, Maintenance and Storage Facilities Safety and Security, and Sustainability*. The CDC is to be maintained and updated throughout Final Design to reflect approved changes and modifications to the Project's *Basis for Design*.

6.5.1.2 Baseline Plans Standards and CADD Procedures

The Plans Standards establish general drawing requirements, organization, and content of HART detailed design documents. The CADD Procedures document establishes specific procedures for the development of drawings. All designers and construction fabricators are required to follow these standards / procedures. The GEC reviews all drawings for compliance with these criteria.

6.5.1.3 Baseline Standard and Directive Drawings

Standard drawings depict dimensional requirements and clearances of certain features and components, subassemblies, or systems to be incorporated into the Project, for general application and repetitive use in connection with the Project. These drawings are signed and sealed by the GEC and are considered mandatory drawings. These drawings include civil, trackwork, architectural and corrosion control.

Directive drawings convey project information for the purpose of supporting construction. The drawings are considered reference drawings. It is the responsibility of the final designer to develop these drawings into project drawings based on their specific design requirements. These drawings include system sites, trackwork, structural, architectural, mechanical, electrical, traction power, train control and systems integration.

6.5.1.4 Baseline Standard Specifications

The Standard Specifications follow CSI format and were developed for use on mainly facilities contracts. They include a measurement and payment section for use on design – bid – construct type contracts. However, they are modified for DB contracts, as required.

6.5.1.5 Modifications to Baseline Documents

During the Project's design and construction activities, it is the responsibility of the GEC to identify, explain and justify any deviation to the established Baseline Documents and to secure the necessary approvals from HART's Change Control Board prior to proceeding with any Baseline non-compliant design or construction work. The GEC, with oversight by the CFM, coordinates and distributes proposed changes to the appropriate reviewers, receives and documents all review comments, determines the disposition of the proposed change, and distributes the result of that proposed change, including the modification(s) if required, any of to the specific chapters, sections or drawings. Any modifications made to Baseline Documents during the course of an active DB or a Design Contract, the change will be implemented through the Request for Change Procedure, CM.5-03.

6.5.2 Codes and Standards

All Contract Documents are prepared in full compliance with the Project's Compendium of Design Criteria and all applicable codes and standards, including, but not limited to:

- International Building Code (IBC);
- National Fire Protection Association (NFPA);
- National Electric Code (NEC);
- Rules and Regulations of the Americans with Disabilities Act (ADA);
- Federal, State and Local Accessibility Codes and Standards;
- American National Standards Institute (ANSI);
- Manual for Railway Engineering (AREMA);
- Statewide Uniform Design Manual for Streets and Highways (HDOT);
- Standard Plans and Specifications for Road, Bridge and Public Works Construction (HDOT);
- Standard Details, Specifications and General Provisions for Public Works Construction (City);
- American Institute of Steel Construction (AISC);
- Traffic Standards Manual (City);

- Guide Specifications for Design and Construction of Segmental Concrete Bridges (AASHTO); and
- Other codes as administered by the City and County of Honolulu.

6.5.3 Basis of Design Reports

Coincident with the preparation of the Compendium of Design Criteria, the GEC prepared Basis of Design Reports for each facility to be included in the Project. These reports include a listing and proposed size of all spaces to be contained within each facility; stations, station sites, yard and shops facilities, traction power substations, etc.

6.6 Design Reviews

6.6.1 Formal Design Reviews

Design reviews are formal structured systematic and orderly reviews conducted at established milestones for the purpose of assuring that the designs:

- Comply with all project requirements including operating and maintenance requirements;
- Conform to the necessary design criteria, codes, standards and baseline description;
- Meet accepted industry practices;
- Adhere to construction and procurement scheduling requirements including milestones;
- Address appropriate interfaces;
- Provide cost effective solutions;
- Incorporate comments and action items and/or resolve issues raised in previous reviews;
- Include all safety and security certification requirements; and
- Include requirements for maintaining adequate safety and security during construction.

The design review processes also assures that:

- Project participant input and comments are considered and decisive action taken;
- Factors affecting the design are documented;
- Any Buy America issues that are inherent in the design are addressed; and
- All project requirements including operating and maintenance requirements and safety and security requirements are complied with.

At every level of design review, formal written comments are required from reviewers, with formal, written responses also required from document originators. As the design progresses,

team members with special expertise provide their particular review and comments on specific features. Where appropriate, they identify elements worthy of separate in-depth VE efforts.

The design review process also provides the opportunity to evaluate whether the package is appropriate for competitive bidding or whether it includes sole source or restrictive procurement requirements. Overall, the design review process is intended to provide the checks and balances needed to improve the quality of the design documents and provide an additional line of defense against errors and the use of details, which have not been properly coordinated.

Formal Design Reviews are conducted by HART staff, appropriate City and State departments including the HDOT utility companies, Federal agencies whose facilities are impacted and others who have technical input or coordination interests as appropriate. The design reviews allow all parties to:

- Evaluate the design products (i.e., plans, specifications and estimates) as they progress;
- Measure them against applicable design criteria and standards;
- Reassess the design requirements and solutions as the design evolves; and
- Ensure ADA and safety and security requirements are incorporated.

Various City departments participate in the design review process. Their comments are recorded on comment forms and a comment response and disposition noted. If a decision is made not to incorporate an outside departmental comment and the commenting department disagrees, their Director may choose to resolve the issue in consultation with the HART Chief Operating Officer. If the two cannot agree, they may choose to elevate the issue to the City's Managing Director who makes a determination on behalf of the City. City departments that are provided opportunity to review the design include but not be limited to the following:

- Department of Transportation Services (DTS)
- Department of Design and Construction (DDC)
- Department of Planning and Permitting (DPP)
- Honolulu Police Department (HPD)
- Honolulu Fire Department (HFD)
- Department of Emergency Management (DEM)
- Emergency Services Department (ESD)
- Department of Facilities Maintenance (DFM)

Outside agencies review the design from the perspective of permit compliance and compatibility with existing features, facilities or planned development in addition to technical reviews. HART pays special attention to design comments from outside agencies which may indicate potential problems in maintaining the project schedule and/or budget.

Outside agencies include but are not limited to:

- Federal Transit Administration (FTA);
- Hawai‘i State Safety Oversight Agency (SSOA)
- Hawai‘i Department of Health (HDOH);
- Hawai‘i Department of Transportation (HDOT);
- Hawaiian Electric Company (HECO) – electricity;
- Hawaiian Telcom (HT) – telephone;
- Board of Water Supply – water lines;
- Wastewater Branch – wastewater lines;
- The Gas Company – gas;
- Oceanic Time Warner (TW)- cable lines;
- AT&T – fiber optic cables;
- Sandwich Isles Communications Inc. – fiber optic cables;
- Department of the Navy – various utilities;
- Department of the Army – various utilities
- Chevron Hawai‘i – underground petroleum lines; and
- Tesoro Hawai‘i Corporation – underground petroleum lines.

6.6.2 Timing, Purpose and Procedure for Design Reviews

Design reviews are conducted to evaluate and compare the design progress against project requirements, to review the design itself, and to review interfaces among disciplines. If the design is considered acceptable at a design review milestone, and complies with design requirements and criteria applicable to the design at that milestone, the design is allowed to progress to the next review milestone. These design reviews are to be conducted on all contracts at the following Control Points milestone submittals:

- Preliminary Engineering (In-Progress and Final control points);
- Extended (New Starts) Preliminary Engineering;
- Interim Design (65 percent);
- Pre-Final Design Review (90 percent); and

- Final Design Review (100 percent).

The design documents expected at each control point are indicated in the professional service agreements for the Project. The design reviews occur under the supervision of the HART DEC. This effort includes review of design submittals to ensure:

- Adherence to the Project's Baseline Documents
- Satisfaction of the applicable codes and standards;
- Accomplishment of the stated operational and functional requirements;
- That the designs are constructible and maintainable;
- That impact to adjacent facilities and systems has been satisfactorily addressed;
- That the designs adhere to the Project's budget and schedule requirements;
- That the safety and security certification requirements have been met; and
- That the specifications clearly delineate all contractor requirements related to construction safety and security.

A standard review form has been established in CMS for use by all reviewers as part of the review document submittal at each control point and CMS is used to transmit review comments back to the GEC Design Manager and the HART Contract Manager. In addition to the specific design disciplines included in the documents being reviewed, during this form is used by various other staff within HART and the GEC including those responsible for systems assurance, operations and maintenance, system safety and security, systems interface and systems integration.

All comments received are reviewed, verified, consolidated and transmitted to the GEC or ECM for evaluation, discussion and eventual incorporation into the design as warranted. Such evaluations and discussions with the GEC or EDC will be carried out through Comment Resolution Meetings held among the representatives who provided the review comments, the GEC and HART staff. The HART Deputy Project Officer, Engineering and Construction acts as the coordinator for all design input originating from all groups, agencies or departments party to the review process.

6.6.3 Weekly Design Coordination / Progress Meetings

Regular weekly design coordination/progress meetings are held. These coordination meetings ensure efficiency in the design effort by facilitating continuous communications, thereby reducing the time spent on design options and variables. These in progress meetings ultimately facilitate the more formal design review process. These meetings include various disciplines, as appropriate, and focus only on those design aspects of the Project that are undergoing development at that time. As part of the records of these meetings, the Deputy

Project Officer, Engineering and Construction maintains an Action Items list and monitor the progress of the resolution of each of the action items utilizing HART's CMS.

6.6.4 Quality Assurance Audits

In addition to formal design reviews, HART conducts formal QA audits at regular intervals as set forth in the Project's *QMP*. These audits assess compliance with the *QMP* (RD-4). See Section 3.1.3, QA/QC for details.

6.6.5 Safety and Security Reviews

At the Control Point milestone submittals, the HART Chief Safety and Security Officer oversees formal safety and security reviews of the design including written review comments of findings from members of the Safety and Security Review Committee. These reviews are conducted in accordance with HART's *Safety and Security Management Plan and the Safety and Security Certification Plan*. (See Section 15.0) and focus on the safety and security of the completed system as well as assuring contract specifications are included that will require the provision of adequate safety and security during construction. Contracted safety specialists may also be included in the reviews depending on the special features of the design under study.

6.7 Design Change Control

Changes during the design phase are those changes proposed after the Project's *Basis for Design* is established. See Section 7.0, CFM for a description of the processes that control these changes. The changes are reviewed, verified and validated as appropriate and approved before implementation. The review of the design includes the evaluation of the effect of the changes on constituent parts (FTA Guidelines Section 2.2.3 Design Control).

6.8 Principal Design Interface Review

This section lists the primary agencies and entities whose review activities are intended to address the myriad of design interface and co-existence issues with existing fixed facilities and systems along the alignment, at stations and other proposed transit facilities as well as the Project's operational considerations. These reviewers may also include several applicable permitting agencies and the FTA relative to the New Starts Program Guidelines.

6.8.1 Hawai'i Department of Transportation (HDOT)

- HDOT utilizes the services of a support consultant to undertake the majority of its design review effort which includes the following evaluation activities:
- General review of design deliverables;

- Impacts on state roads such as joint utilization, crossings and rerouting;
- Granting of air rights, real estate easements and permits;
- Bridge construction and inspection requirements;
- Soils and foundations investigation and design requirements; and
- Traffic Management.

6.8.2 Federal Highway Administration (FHWA)

- FHWA works through Hawai'i DOT to cover their interests on the Project which include:
- General review of design deliverables;
- Impacts on federal highways such as crossings and rerouting;
- Granting of air rights, real estate easements and permits;
- Bridge construction and inspection requirements; and
- Soils and foundations investigation and design requirements.

6.8.3 Utilities

Several utility company's facilities and lines are affected by the Project. The construction of the guideway and stations requires the rerouting, relocation and/or encasing of many utility duct banks, cables, pipes or other facilities. The utility companies affected are listed in section 2.7.4.

6.8.4 DTS – Public Transit Division (PTD), Operations Review and Input

The PTD has been responsible for overseeing TheBus since the City established its fixed-route bus system. O'ahu Transit Services, Inc. (OTS) has been the City's bus management services contractor since January 1, 1992. As such, PTD and OTS personnel have extensive institutional knowledge of TheBus. This extensive knowledge is applied to the Project for the following reasons:

- Implementation of the Project benefits from lessons learned by TheBus operations and maintenance staff;
- The Project's facilities must coordinate with those already in place to support coordinated bus-rail operations; and
- Rail and bus operations will comprise a coordinated system, with many rail passengers using connecting bus lines.

The PTD and OTS staff review and provide input to the Project's design and the compatibility of bus-rail passenger transfer facilities.

6.9 Value Engineering

Value Engineering (VE), as defined in FTA C5010.1D, is “the systematic application of recognized techniques that identify the function of a product or service, establish a value for that function, and provide the necessary function reliably at the lowest overall cost. In all instances, the required function should be achieved at the lowest possible life-cycle cost consistent with requirements for performance, maintainability, safety, security, and aesthetics.”

The greatest potential savings are usually to be found in the formative period of design for any project element, i.e., during Preliminary Engineering and specification of systems. Once Preliminary Engineering has been completed and approved for Final Design, further changes may occur as the design team identifies new VE topics for evaluation.

VE efforts for the Project were performed during the Preliminary Engineering phase of the Project. HART conducted sessions utilizing a Certified Value Specialist (CVS) to organize and conduct these sessions as the team leader. The VE sessions were performed by a multi-disciplined team of professionals specifically assigned to this effort and not part of the Design Team. The goal of this VE exercise was the development of recommendations to reduce costs and to improve the effectiveness of the proposed Project without compromising either safety or security of patrons, employees, or the public. The results of Preliminary Engineering VE workshops for the stations and Airport and City Center sections of the Guideway are compiled in the Value Engineering Study Report for Stations dated September, 2010 (RD-31) and the Value Engineering Study Report for the Guideway dated August 31, 2011 (RD-32).

Since several contract packages have been bid as DB contracts, the VE effort for those packages takes place during the bid process through the use of Alternate Technical Concepts (ATC) proposed by the offerors. The ATCs are reviewed by the GEC and HART staff and if acceptable can be used by the offeror in the preparation of their technical and price proposal. ATC proposals and dispositions are summarized in the Value Enhancement Study Report dated September 2010 (RD-33).

Some of the actions in the Report have been adopted. As Final Design progresses, it is anticipated that other VE proposals from the Report will be reviewed by HART and the GEC with resulting recommendations being developed jointly as to the disposition of each proposal. The HART ED will have final authority in regard to the acceptance or rejection of each proposal. The ED will also be responsible to ensure that all agreed upon VE proposals are incorporated into the design documents.

Contractor VE proposals are another form of VE. In this case, the Project's construction and supply and installation contractors are invited by specification to conceive of and propose changes to their work that will produce cost savings to be shared between the contractor and HART. HART may also permit VE change proposals via the contracts' special provisions, and, if such changes are proposed, will become involved in their evaluations, along with the GEC. Contract Resident Engineers are responsible for the administration of VE work during construction.

6.10 Peer Review

Peer reviews are conducted as the need arises for specialized independent input to a particular issue that presents a unique problem or if an independent critique is desired. The need for Peer Reviews, during design, will be identified by HART's senior staff and appropriate members of the GEC team.

6.11 Permits

The permitting effort began during the Preliminary Engineering design phase and is to be carried through Final Design and Construction. The GEC and/ or the Contractor is responsible for determining which permits are required for the Project and coordinating their provisions with HART while providing all necessary efforts to facilitate the process. Three types of permitting actions may occur: GEC/HART applications, signed by HART; Contractor applications signed by HART; and Contractor applications signed by Contractor. The various permitting responsibilities are identified in the appropriate contract documents during the bid period.

Examples of HART furnished permits are Special Management Area (City and County of Honolulu), Community Noise Permit and Variance (State of Hawai'i Department of Health), Clean Water Act Section 404 / Section 10 (US Army Corps of Engineers), and Section 401 Water Quality Certification (State of Hawai'i Department of Health).

All HART signed contracts are delimited by HART for compliance monitoring by the GEC or assigned HART staff, identifying MMP elements by ID and for special conditions. Permitting agency general conditions are attached.

6.12 Contract Document Preparation

HART's construction and procurement documents for civil works have been developed for contractor selection generally using traditional U.S. public works contracting practices, including award to the lowest responsible, responsive bidder for DBB assignments. HART

recognizes the FTA's Third-Party Contracting Requirement (Circular 4220.1E), its own Procurement Policies and Procedures and Hawai'i Public Procurement Code (HRS 103D) Administrative Rules as governing documents. Refer to Section 4.0, Procurement and Contracts for additional details.

The City has established general contract provisions for the following types of contracts: Professional Services; DB; Construction; and Goods, Services, and Concessions and HART makes use of these documents. The general terms and conditions for each type of contract are posted on the BFS Purchasing Division's website: <http://www.honolulu.gov/pur/index.htm>. However, there have been particular aspects of some of the project contracts that required amending the general terms and conditions. HART reviews the City's General Conditions and other bidding contract documents for omissions and inappropriate coverage and prepares a set of project-oriented *Special Provisions* as necessary. It is HART's objective to use as much of the City's established contract clauses as possible.

7.0 CONFIGURATION MANAGEMENT

7.1 Reference Documents

- Configuration Management Plan (RD-13)
- Interface Management Plan (RD-24)
- Claims Avoidance Plan (RD-26)
- Procedure 5.CA-02 Contract Change Management
- Procedure 5.CA-05 Contract Change Orders
- Procedure 5.CA-04 Dispute Resolution
- Procedure 6.CM-05 Interface Management and Coordination

Configuration management (CFM) is a management process for defining, evaluating, identifying, controlling and recording the status of a project. It provides technical coordination processes for the development of complex systems with multiple designers and ensures maintaining consistency with the Project's performance, function and physical attributes with its requirements, design and operational information. This technical coordination is achieved by establishing a baseline description of the system and controlling changes to this baseline as the design and construction progresses. In this manner overall accountability for the Project is achieved.

The CFM process is intended to provide the project team with the methods and tools to identify baseline documentation developed, establish configuration items, establish formal configuration control changes, record and track status, and audits the deliverables.

The CFM process is composed of four distinct disciplines. These disciplines are carried out as policies and procedures for establishing baselines and performing standard change management process. They are:

1. Configuration Identification
2. Configuration Control
3. Configuration Status Accounting
4. Configuration Verification and Audit

7.2 Configuration Management Plan and Policy

The CFM control process defines, identifies, controls, and records status of the project baseline. Control of all documents is managed to maintain an accurate historical record, thereby providing support and up-to-date information to all involved parties as work proceeds and issues arise in subsequent phases.

Furthermore, the CFM plan addresses the interface among the project team members during implementation and the orderly transition of all controlled project documentation to the City of Honolulu at the appropriate time.

7.3 Responsibility

The overall responsibility for the CFM of the Project is assigned to the Configuration Control Group headed by the Configuration Manager. The group develops specific CFM procedures as part of the Project Procedures. Functional responsibility for complying with these procedures is delegated to the appropriate staff and consultants.

7.4 Program Components

7.4.1 Baseline Management

The initial baseline management activity is to define the elements and documents which constitute the project baseline. The Project Management staff has established the project baseline and approved an initial Baseline Document List of those documents that are subject to baseline management. Collectively these documents comprise the Configuration Identification. This list will evolve and expand as the Project progresses. The Baseline Document List is included in the *CFM Plan*.

All baseline documents are subject to a thorough review process by all impacted disciplines prior to baseline issuance. This process is intended to ensure that all impacts to other documents and processes as well as costs and schedule impacts are identified and resolved prior to approval.

Baseline documents are also subject to a controlled distribution process to ensure that all project participants have access to the current revision of baseline documents. This is accomplished through electronic distribution to the maximum extent feasible. Hard copies of the current revision of the baseline documents are maintained in the Document Control Center. Electronic files in bookmarked .pdf format are also posted to the Project's database.

7.4.2 Configuration Change Control

Configuration Change Control is the process of identifying, documenting, coordinating, approving and implementing changes to the project baseline through a set of open and rigorous procedures that include establishing an approval mechanism and only accepting changes that have been authorized through that approval mechanism. All Project Baseline documents are subject to the change control process. The Change Control Procedures (Baseline Documents Revision and Control, 1.PP-04 and Contract Change Management, 5.CA-02) define the change control processes and requirements for the identification and development of a Request for Change (RFC), the evaluation of change impacts, and the roles and responsibilities of change approval. All change requests must be made in writing, using CMS and the Request for Change Procedure (5.CM-03). This change procedure is to be followed when any change or modification to the baseline documents or contract documents are made. See the CFM Plan (RD-13) for a more comprehensive description of change control process.

7.4.3 Interface Management

Interface management is a separate element of the CFM process which determines and manages the design and construction interfaces by which separate elements of the Project which have been designed and constructed by different organizations all fit and work together in a harmonious fashion. Various elements on a project are interdependent and that adequate design and construction of each element independently is not enough to produce a functioning whole. Interface management focuses on physical interfaces and should not be confused with systems integration which focuses on the functional integration of various subsystems.

The Project Interface Manager (PIM) coordinates with HART engineering staff, the GEC, the EDCs, and others to manage project interfaces controlled by the Contractors.

The Interface Management Plan (RD-24) also describes methods to facilitate interface control for the Project including:

- Developing criteria for the interface management requirements necessary to assure interfaces are properly addressed by all contracts;
- Developing and maintaining identification of all design and performance interfaces between interdependent systems/subsystems - the product of this effort will become the criteria for establishment of combined systems verification requirements;
- Actively participating in all design reviews to assess compliance of design elements with interface management requirements, verifying interface integrity across contract limits and assisting in resolution of interface problems that cross contract boundaries;

- Reviewing project specifications and other documentation for adequacy and correctness in treatment of interfaces, resolving conflicts arising as a result of inadequate or erroneous interface treatment; and
- Developing a Design Review Procedure for the contract monitoring strategy and checklist to provide a systematic approach to review of contract documents for interface requirements compliance - the checklist will be used for review and will be furnished with comments to project management indicating areas of documentation checked and level of interface involvement.

7.4.4 Design Review Management

Refer to Section 6.6 of this PMP.

7.4.5 Document Control

Document Control provides for receiving project documents, controlling the distribution of documents and approved changes, and retaining the master copies in storage for control and safekeeping. Document Control shall implement the 2.PA-04 Project Wide Document Control Procedure.

HART has established an electronic document control system named “Contract Management System” and also the HART Oracle Primavera document management system and contract control software for the Project.

Control of the documents and data shall be in accordance with the HART Quality Management Plan (QMP) and HART Approved Quality Assurance Plan (QAP) submitted by the consultants, contractors, and/or supplier. For control of Baseline documents, see 1.PP-04 Baseline Document Revision and Control Procedure.

7.4.6 Change Status Accounting

The effectiveness of the Project’s CFM and Document Control functions will be closely linked to the flow and availability of configuration information about the Project. Change status accounting (CSA) gathers, correlates, stores, maintains, and provides readily available views/reports of this organized collection of information. CSA will involve the storage and maintenance of:

- Information about the configuration documentation (such as identifying numbers/titles and release/revision dates).
- Information about the product's configuration (such as part numbers or changes installed in a given unit or end-item).

- Information about the product's documentation (such as the documents affected by each change and their update status).
- Information about the CFM process (such as the status, of in-work changes).

The following CSA tasks will be accomplished:

- Record the current approved configuration documentation and identifying numbers/titles associated with the HHCTCP (system-wide) and unique to each project and line section.
- Record and report the status of proposed engineering changes from initiation to final approval and contractual implementation.
- Record and report the status of all critical and major Requests for Changes.
- Record and report the results of configuration audits to include the status and final disposition of identified discrepancies and action items.
- Record and report implementation status of authorized changes.

This process is captured in the Baseline Document Revision and Control Procedure, 1.PP-04 and is implemented through the use of CMS.

7.4.7 Configuration Verification Audits

Configuration verification and audit is the process of analyzing configuration items and their respective documentation to ensure that the documentation reflects the current situation. Essentially, while change control ensures that the change is being carried out in adherence with the CFM plan, configuration audits ensure that the change was appropriately carried out.

The most important goal of this process is to prevent lost time of future changes due to inaccurate documentation. The benefits of configuration audits are that they verify that changes were carried out as approved by the relevant administrative body and that documentation about an item reflects the current configuration.

The Configuration Manager or designee(s) is responsible for implementing and closing the Change Control Board (CCB) approved changes. (Refer to the CFM Plan Table 1 (RD-13) for the membership of the Change Control Board.) The approved Request for Change (RFC) or CCB Record of Decision, if necessary, serves as notice that a document change has been implemented and verified. The verification of baseline changes is reported through CMS to HART's Document Control. In this manner, all changes can be tracked to completion and easily audited.

The appropriate personnel as chosen by the CCB conduct configuration audits on a regular basis in order to ensure that the adopted CFM policies are being used. The auditor is responsible for documenting and findings and initiating the necessary changes.

8.0 PROJECT COMMUNICATIONS

HART is responsible for developing and initiating the Communication and Community Relations Program for the Project. HART handles outreach activities to build partnerships with the public. Specifically, HART organizes meetings and public hearings; conducts community outreach and participate in community events and workshops; recruits, organizes and facilitates community advisory groups; and produces publications and mailings. These activities are all targeted at providing the community and other stakeholders with current information about the Project.

8.1 Communications/Media Relations

The benefits of involving the public in a participatory process are multifold. First, it increases the prospects for agreement on a solution, and the chances for implementation of a project. It enables identification of community issues early in the project development process so that those issues may be adequately addressed. Public involvement also greatly reduces the probability of project delays and litigation. Finally, it enhances the legitimacy of a project and that project's sponsoring agency(ies). Ultimately, a public involvement program committed to involving the public and taking action on their input yields a significantly more popular and sustainable result. In addition, federal requirements necessitate meaningful citizen participation as a significant element in this Project.

8.1.1 External Communications

8.1.1.1 Mission

The mission is to inform the community about the Project's progress and to actively seek and incorporate input from the public into the decision-making process, to assure that the Project meets the needs of the community, based on the following guiding principles:

- Public involvement activities directly linked to project milestones, technical activities, and decision-making;
- Adequate opportunities for public involvement and time for public review and comment;
- Reasonable access to technical and policy information;
- Demonstration of explicit consideration and response to public input obtained, by responding to comments received and consideration in the planning and design of the Project;
- Consideration of the needs of those traditionally underserved by existing transportation systems to ensure their involvement in decision-making, help prevent disproportionately high and adverse impacts upon these stakeholders. Traditionally underserved populations

include, but are not limited to, low income households, minority households, and ADA populations;

- Periodic reviews by the HART ED on the effectiveness of the public involvement program to ensure full and open access is being provided to all who are interested or who could be interested in the Project;
- Coordination of the program with associated third-party agencies to avoid conflicts and misinformation about the Project;
- Provision of timely information to many agencies and individuals, including those representing other local jurisdiction concerns.

8.1.1.2 Goals

The goals and the objectives to achieve the mission are as follows:

Develop public understanding of project.

Objectives:

- Inform the public about Project issues through public workshops, newsletters, factsheets, website, exhibits, and other techniques; and
- Solicit feedback on level of understanding through activity comment cards, feedback forms, and informal interviews.

Provide opportunities for early and continuing public participation in the decision-making process and encourage participation.

Objectives:

- Develop comprehensive list of stakeholders, categorize list, evaluate categories, and obtain information from stakeholders to determine the best method of communication/participation for each; and
- Provide timely and regular notice of public involvement activities and Project developments.

Maintain accountability, credibility, and accessibility of the Project team.

Objectives:

- Implement documentation and response process to include “action taken” feedback on specific comments received from the public;
- Provide regular opportunities for information exchange with agency representatives, stakeholder groups, and others interested in the Project; and

- Coordinate within HART and other agencies to ensure consistency of message and non-duplication of communication efforts.

Obtain input from a broad range of citizenry.

Objectives:

- Utilize non-traditional methods of soliciting participation and input (e.g., online information, displays at malls/special events, use of cultural media, language interpreters);
- Regularly monitor HART participation in local public events and evaluate for range of citizen representation;
- Present information in the most direct and appropriate way possible to overcome potential language, economic, or cultural barriers; and
- Anticipate and provide for the needs of persons with hearing, sight, and mobility disabilities.

Inform and involve the news media to maximize the potential for informed coverage.

Objectives:

- Develop relationships with key media personnel to generate significant, accurate and balanced coverage of the Project;
- Respond to media inquiries in a timely, consistent manner;
- Proactively provide information to the media; and
- Designate a central point of contact to be consistently responsible for distributing information to the media, both proactively and reactively.

8.1.1.3 Strategy

The strategy is to create a communications policy that:

- Maintains continuity with and improves upon outreach efforts from earlier Project phases;
- Ties outreach activities to Project milestones;
- Identifies stakeholders/target audiences and tailors communications efforts to meet the needs of those groups;
- Provides opportunities to communicate regularly with all stakeholders through various methods, such as news releases, news conferences, publications, website, presentations, etc.; and
- Provides procedures for appropriate review and/or approval of:
 - *Key messages/talking points;*

- *Media releases; and*
- *Collateral materials.*

8.1.2 Internal Communications

8.1.2.1 Mission

The mission for internal communication is to:

- Ensure all employees and related HART staff members are informed of the latest Project developments, policies and the “official position” in order to avoid conflicts and misunderstandings, as well as misinformation about the Project;

8.1.2.2 Goals

The goal of internal communication is to:

- Inform employees of major Project developments, policies and facts about the Project; and
- Keep HART staff informed about input – issues, questions, concerns, support, and opposition – resulting from the communications program.

8.1.2.3 Strategy

The strategy for improving internal communication is to:

- Inform HART staff of major Project developments, policies and facts about the Project through consistent, reliable reporting procedures.

8.2 Public Involvement

8.2.1 General

HART is responsible for the public involvement functions for the Project. Responsibilities include development and implementation of a comprehensive and inclusive public involvement program to apprise the public and media of Project plans and developments.

The Public Information Officer, under direction of the HART ED, is responsible for ensuring that public involvement activities support the goals and objectives of the Public Involvement Program and are closely linked and integrated with Project milestones, and that stakeholder contacts are thoroughly documented in the Project files. Support of the Project goals and objectives and integration with Project milestones is implemented through coordination with the GEC. The *CommentSense* database is used to document all comments received from the public and agencies, including response to comments during the PE/EIS phase of the Project.

After the PE/EIS phase, *CommentSense* or a related data base will be used to continue documentation of comments received from the public through various mediums of communication (e.g., written, website, hotline, etc.).

The goal of public involvement is to provide information to the public about the Project's progress and to actively seek and incorporate input from the public into the PE/EIS phase of the Project, to assure that the Project meets the needs of the community.

8.2.2 The Public Involvement Plan

Early and effective community input can reduce or even eliminate any potential negative impacts of the Project. A Public Involvement Plan (PIP) has been developed by the GEC. The PIP is done in accordance with HART and HART will approve and oversee the PIP and its implementation. The PIP includes activities and strategies that are consistent with previous project phase efforts and that are directly linked to Project milestones, technical activities, and decision-making.

The primary objectives of the Public Involvement Plan are to:

- Keep the community aware of the Project status;
- Establish and maintain contact with residents and businesses within the Project area and the community at large;
- Maintain continual opportunities for public input;
- Provide media interface; and
- Develop and maintain consistent communication between the Project Team and the public and other stakeholders and other agencies.

The overall desired outcome is a project that meets the transportation need, is fully considerate of public and stakeholder input, respects budget constraints, and is technically feasible. The PIP helps to achieve this outcome by facilitating meaningful information and idea exchange among the agency staff, property owners, business owners, and residents, and the project technical staff. The PIP includes activities and strategies consistent with previous project phase efforts that are directly linked to project milestones, decision-making, technical activities and safety and security

9.0 RIGHT-OF-WAY ACQUISITION

The Real Estate Acquisition Management Plan (RAMP) has been developed as a separate stand-alone document, with the intention for its use as the guiding plan for real estate acquisition, relocation activities and property management for the Honolulu Rail Transit Project.

9.1 Overview

The RAMP has been developed to outline the policies and procedures that HART follows to comply with Federal and State requirements relating to Right of Way identification, appraisal, land acquisition, relocation, and property management activities. Any agency utilizing Federal funds to finance a public project that requires the acquisition of private property or causes displacement must comply with policies and procedures which conform to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (Uniform Act), and the applicable implementing guidelines. The policies and procedures also incorporate compliance requirements of State statutes and guidelines.

The Overall goal and focus of the RAMP is to assist the Real Estate Team members, and other Project personnel, in directing a common effort to secure real property in support of the Project. The property to be acquired is necessary for the construction and operation of a rail system, including stations, transit guideways, and ancillary facilities such as traction power substations, system appurtenances, maintenance and storage facility, transit centers and park-and-ride lots, and utility relocation. The RAMP is identified as a requirement of this HRTTP PMP (PMP). Reference is made within the RAMP to the PMP, and other documents guiding the Project as a whole.

The intent of the RAMP is to:

- Provide an overview of the Acquisition Process;
- Define the roles HART personnel, consultants, or subconsultants involved in title reports, appraisal and appraisal review, acquisition and/or relocation services, property management services and environmental assessment services;
- Outline acquisition strategies and decision-making processes;
- Identify coordination requirements and processes;
- Define tasks and assign responsibility for those tasks;
- Establish project controls in order to monitor acquisition schedule, costs, and quality controls; and

- Provide for monitoring progress to completion and adherence to laws, regulations, and procedures.

The RAMP contains the policies and procedures that City utilizes to comply with the Federal and State requirements.

- Section 1 of the plan describes the purpose, RAMP goals, policy and procedures and interdepartmental issues resolution process;
- Section 2 describes the FTA Compliance; summary of the Uniform Act, requirements, FTA Circulators and FTA concurrence;
- Sections 3, 4, 5, 6, 7 and 8 contain information relating to appraisal, acquisition, relocation, condemnation procedures, intra-and intergovernmental transfers and property management functions. This information has consolidated and integrated the Federal Laws and regulations and provides the basic parameters for the development and operation of the real estate program.
- Section 9 includes the processes used to track, schedule, and budget for the real estate acquisition for the Project;
- Section 10 documents project organization and staffing.

HART has selected a Real Estate Consultant (REC) to augment the current staffing and provide acquisition, appraisal, relocation and property management support to the Real Estate Management Team. A City advisory team, consisting of DDC, Budget and Fiscal Services, and Corporation Counsel, will advise the Real Estate Manager on any Right-of-Way issues and procedures. HART will be the primary agency that oversees the Consultant to ensure the proper rules and procedures are followed and that all activities are conducted in accordance with the Uniform Act, as well as state and local requirements.

9.2 Outline of the RAMP

The Real Estate Acquisition Management Plan (RAMP) contains the following component sections:

1. GENERAL INFORMATION
2. FTA COMPLIANCE
3. REAL ESTATE NEED
4. REAL ESTATE PROCESS
5. COMDEMNATION PROCEDURES
6. INTRA- AND INTER-GOVERNMENTAL TRANSFERS
7. RELOCATION ASSISTANCE PROGRAM
8. REAL PROPERTY MANAGEMENT
9. RIGHT-OF-WAY PROCESS TRACKING

10. PROJECT ORGANIZATION AND STAFFING

11. FIGURES

- a. Interdepartmental Issues Resolution Process
- b. Right-of-Way Acquisition Organization Chart

12. APPENDICES

- a. Acronyms
- b. Glossary
- c. 49 CFR Part 24
- d. FTA Circular 5010 (1D)
- e. Real Estate Acquisition Process, Tracking and Reporting Tools
- f. FHWA Relocation Brochure
- g. Real Estate Staffing Resumes
- h. FHWA Acquisition Brochure
- i. Relocation Notices and Development
- j. Appraisal Realty and Personal Determination Procedures
- k. Relocation Plan
- l. Real Property Transaction Procedures
- m. Lease and Rental Procedures
- n. Relocation Policy and Procedures
- o. Project Parcel Listing
- p. Project Parcel Plans
- q. Real Property Acquisition Modes and Methods
- r. Appraiser Requirements, Scope of Work, Certification
- s. Condemnation Policy and Procedures
- t. Title Search Requirements, Scope of Work, Certification
- u. RESERVED
- v. Real Property Qualified Appraisers List FY 2007/2008
- w. Real Property Acquisition Policy and Procedures
- x. RESERVED
- y. Relocation City-Wide Roles and Responsibilities
- z. Fee Simple and Leasehold Determination Procedures

10.0 CONSTRUCTION MANAGEMENT

10.1 Responsibility

The Construction Management Plan (CMP) (RD-25) is the primary controlling document for the construction process. Together with the two Contract Resident Engineer Manuals (RD-18 and RD-30), the Quality Management Plan (RD-4) and the CSSP (RD-16), the CMP describes the responsibilities, processes and procedures for controlling construction. The

overall responsibility for CM is assigned to the GEC, with oversight by HART. The GEC is currently responsible for construction planning.

10.1.1 Organization

The GEC employs a core staff of experienced professional management and field representatives. For the DB contracts, the GEC directly manages these contracts through its assigned Contract Resident Engineer (CRE). For the DBB contracts, the GEC oversees a CEI workforce. CEI consultants are selected and contracted by HART. Although the contractor firms are responsible for controlling the quality of their work, the GEC and CEI firms are responsible for the QA inspection of the construction. In addition, the HART QA Manager is responsible for conducting formal QA audits at regular intervals. These audits assess compliance with the Project QMP. See Section 3 of this PMP and the Project QMP (RD-4) for a more in-depth discussion of QA/QC.

10.1.2 Safety and Security

The HART CSSP establishes its process and procedures for overseeing construction safety and security for the Project. Elements covered in the CSSP include, but are not limited to the following: responsibilities of HART management for construction safety and security; procedures for incident notification, investigation, and reporting; contractor training; and submittal requirements. HART is implementing an owner controlled insurance program, and the selected project insurance administrator will have an opportunity to recommend revisions to the CCSP once that program is underway. The CSSP is included in all construction contract documents. The CSSP, along with any Special Conditions added to the specifications to identify construction safety and security requirements unique to an individual contract, details the requirements for a Site-Specific Safety and Security Plan (SSSP) that must be submitted by each contractor and accepted by HART prior to the start of any physical work activities at the job site.

Although the SSSP must be accepted by HART its execution and provision of construction safety and security is the sole responsibility of the Contractor. The GEC will monitor the Contractor's adherence to its SSSP and report to the Contractors and HART any observed non-compliance.

The CSSP is incorporated into every construction contract and requires that Contractors provide a Construction Safety and Security Manager as key personnel. Final designers must submit an SSSP and designate a safety and security representative to ensure safety and security during its field activities. Additionally, construction contractors must hold regular "tool-box" safety meetings and follow the requirements of OSHA Construction Industry Standards 29 CFR Parts 1910 and 1926. Each individual contractor or designer's SSSP must comply with any unique construction safety or security requirements added to the special conditions of a contract during that contract's final design. Construction contractors are also required to prepare monthly safety and security reports including but not limited to safety-

related and security-related incidents, accidents, and a log of lost time due to accidents or security-related incidents.

Contractor Safety and Security Certification Managers are responsible for the overall safety and security certification of system elements in accordance with the Safety and Security Certification Plan (SSCP). The Contractor Safety and Security Certification Manager is responsible for ensuring all contractor activities required to achieve safety and security certification have been completed prior to commencement of revenue operations.

The role of the HDOT SOA in the Project's achievement of safety and security certification will be described in its Safety and Security Program Standard. It is anticipated that HDOT will prepare and receive FTA approval of its SSPS during construction. The roles and responsibilities of the CSSO, as well as the safety and security responsibilities of all other project personnel, are described in the Project SSMP.

10.1.3 Construction Management Guidelines

The conduct of the day-to-day management of the construction are governed by the policies and procedures of this PMP, and as supplemented by the two Contract Resident Engineer Manuals prepared by the GEC and approved by HART.

10.1.4 Construction Inspection Services

For DBB contracts, construction inspection and testing services are performed by the CEI consultants under direct contract to HART. The GEC oversees this work on behalf of HART. On DB contracts the GEC performs oversight services to verify that the contractors' programs are being fulfilled. The primary functions are to:

- Perform QA inspections of all Contractor activities to assure compliance with the contract documents;
- Review all Contractor contract document transmittals (CDTs/shop drawings) prior to incorporation into the work by the Contractor in conjunction with the Engineer of Record (EOR);
- Participate weekly progress review meetings with the Contractor to ascertain job progress and identify and resolve problems;
- Review and approval of Contractor cost-loaded CPMs initially and monthly prior to recommending payment of monthly invoices;
- Review monthly Contractor invoices and recommend payment;
- Respond to all Contractor Requests for Information (RFI);
- Coordinate any Contractor issues with the original designers of the facilities;

- Support negotiation of changes with the Contractor and perform control estimates prior to such negotiations. The GEC and HART shall participate in all change order negotiations;
- Maintain an accurate and up-to-date record of the daily construction progress. Such record shall include: inspector daily reports (IDRs), extensive use of photographs, minutes of all meetings and correspondence files (including all e-mails);
- Maintain CDT logs including date submitted by the Contractor, date returned to the Contractor and disposition code;
- Support HART in responding to every Contractor notice-of-potential claim and take all steps necessary to mitigate delays and damages;
- Analyze all Contractor claims and make recommendations to the GEC and HART as to possible resolutions;
- Supervise original designers in performance of remedial or additional designs as may be necessary to resolve conflicts or problems arising out of the work;
- Monitor Contractor adherence to the approved SSSP, monthly safety and security meetings, and accident and incident reporting; and
- Utilize HART's CMS for all correspondence.

10.1.5 Inspecting Guidelines

The GEC and CEI construction teams are required to use only experienced, qualified inspectors in the performance of their duties. However, as a guide to inspectors, HART uses the two Contract Resident Engineer Manuals to establish minimum standards.

10.1.6 Change Order Estimating

Whenever possible, change order negotiations are to take place prior to the commencement of the change work. If a change order cannot be executed prior to initiating the work, Force Account records are to be maintained by the Contractor and monitored and approved by the GEC and/or CE&I firm as appropriate to the contract. As mentioned above, all change order negotiations are to be preceded by the preparation of a control estimate by the GEC, analysis of the Contractor's Proposed Costs and submission of a Negotiation Strategy Memo to HART for review. The control estimates shall be in sufficient detail to allow the negotiations to take place on an item-by-item basis. HART may choose to participate in change order negotiations. Change orders are subject to the approval of the HART CCB if they exceed \$100,000 or impact a Baseline Document. In all change order negotiations, all the direct costs and the time costs for each change notice shall be discussed and agreed to as per the Contract documents.

10.1.7 Value Engineering During Construction

Value Engineering during construction is governed by the relevant Article of the Contract General Conditions and Special Provisions. Briefly, the DBB Contractor is able to propose changes to the work for HART review. Any net savings resulting from adopted changes are shared between the Contractor and HART. Sharing formulae are determined during Final Design prior to issuance of the contract. This Article sets out the procedure for the preparation of the proposals and generally states that adopted changes not alter the “. . . essential function or characteristic of the Work . . .”

10.1.8 Other Construction Management Activities

The CM program also includes other construction activities such as a procedure for regular meetings with Contractors and other involved parties, a procedure for reviewing and approving as-built documentation, a correspondence control procedure, and other related functions. For further information, refer to the CMP (RD-25).

10.1.9 Utility Relocation

Unless other arrangements are made for a given utility, each utility shall be responsible to prepare the work plans and relocate their facilities within the relocated infrastructure provided by the Project through the construction contracts.

For actual relocation of the utilities' facilities within the relocated infrastructure provided, HART will execute separate utility agreements for utility construction with each affected private utility owner. While the utility construction agreement will provide the means for reimbursement to the utility for its efforts to relocate its facilities into the relocated infrastructure, the coordination of the actual relocation effort in the field will be the responsibility of the construction contractor(s).

Further detail on the management of utility relocation construction can be found in the Contract Resident Engineers Manuals for Design-Build (DB) and for Design-Bid-Build (DBB).

11.0 CLAIMS MANAGEMENT

Construction claims principally are caused by unforeseen or changed project conditions; changes in the scope of work; late provision of drawings, access, permits, equipment or materials; inadequate drawings or specifications; systems interface issues and interference in the work. The goal of effective claims management is to minimize HART's claims exposure and fully resolve and document all claims.

11.1 Claims Prevention

11.1.1 Design

Claims may result from inadequate drawings and specifications. To minimize the potential of claims in this area, HART retains experienced professional EDCs to develop the detailed design of the Project for DBB contracts. The design is also subjected to VE and constructability reviews. The design management program for the Project is covered in Section 6.0 of this PMP.

The end result of these well-coordinated and reviewed documents will be to minimize claims exposure to HART.

11.1.2 Contract Clauses

Another step taken to minimize HART's claims exposure is to utilize specific contract clauses designed to minimize risks and clearly establish the responsibilities of the parties. The following list of contract clauses is meant as a guide to allow the reader to understand the steps taken during contract document preparation to minimize the claims exposure but is not intended to be all-inclusive.

General Conditions

- Interpretations
- Liability and Indemnification
- Contractual Relationships
- Coordination and Access
- Warranty of Work
- Inspection
- Progress Schedules and Requirements for Maintaining Progress
- Contaminated soils
- Environmental mitigation
- Differing Site Conditions
- Contractor Proposals
- Extension of Time
- Notice of Potential Claims
- Submittal of Claims

- Suspension of Work
- Final Inspection and Acceptance
- Progress Payments
- Changes
- Disputes
- Force Account Work
- Termination
- Liquidated Damages

In addition to these clauses, there is additional language in the General Conditions of the Contract pertaining to milestone dates and liquidated damages; all designed to minimize claims. All liquidated damages amounts are set after a calculation of the potential damages that HART could suffer from the Contractor delay. This calculation is performed by the GEC and is intended to take into account potential consequences to interfacing and follow-on contracts as well as the additional HART/GEC costs in overseeing a delayed project.

HART's use of a cost-loaded CPM schedule during construction is a key component of HART's claims management program. The application of these techniques, explained in detail in Section 3.0 of this PMP, document the as-built conditions of the work through contractually required monthly CPM updates. As the CPM update forms the basis for the monthly progress payment, the Contractor is required to accurately update the schedule monthly. All time related claims are required to be documented with CPM reports as specified in the "Construction Schedule" of HART's Technical Specification and the "Submittal of Claims" provision of the General Conditions of the Contract.

The review of Contractor CDT has been grounds for possible claims in the past. To minimize this possibility, the time allowed for shop drawing reviews is specified in the contract and the Contractor is required to schedule the shop drawing production/review cycle on his CPM. The GEC or CEI firm maintains a computerized CDT log to ensure prompt review of all shop drawings. HART spot checks the shop drawing review process to ensure that Consultants are not masking potential errors during the shop drawing review process. This has also been the basis for past Contractor claims.

Contractor Requests for Information (RFIs) have been used by Contractors in the past to fabricate claims. However, most RFIs are valid and merit expeditious response. Timelines for responding to RFIs and other Contractor submittals are described in the CMP (RD-25). To formalize the RFI process, an RFI Procedure (5.CM-02) has been developed, including a form which the Contractor must use to ensure quick resolution to all such requests. The procedure allows HART a certain period of time to review and respond to the request. This minimizes the potential for delays caused by last minute Contractor demands for information.

11.2 Claims Avoidance During Design and Construction

The Master Project Schedule is developed with the goal of having all rights-of-way available and cleared of utility conflicts prior to the start of construction of the civil line section contracts. This area has historically been the basis for delays. Claims avoidance during construction is directly related to the quality of HART's field representatives and the quality of the contract documents. The GEC and CEI employees are selected on the basis of qualifications and appropriate related experience, subject to HART's approval. HART has the right to remove any consultant employee from the work for nonperformance.

There are three types of disposition of an RFI: 1) further information is provided to the contractor to address the concerns/issues stated in the RFI; 2) the engineer recognizes a problem with the design, resulting in a directed change order; 3) the Contractor disagrees with the RFI response and notifies the GEC that he considers it to be a changed condition via a notice of intent to claim. Detailed procedures to address these possibilities are included in the CMP.

The role of the GEC is explained in Section 10.0, but with respect to claims management, the GEC and/or CEI representatives are to:

- Document the work using HART's CMS system as it progresses using photographs, audio/video taping, IDRs, Contract Resident Engineer's letters and e-mails, reviewing and verifying the dates in the Contractor's CPM updates prior to processing monthly invoices, CDT log, RFI log, and minutes of all meetings;
- Respond in writing to all Contractor notice of potential claims within the time frame set forth in the contract;
- Promptly analyze all Contractor claims and recommend to HART a possible course of action;
- Support HART in negotiating the claim and preparing any subsequent change order support documentation as necessary;
- Mitigate damages and delays by suggesting solutions to the Contractor;
- Review all CDTs and RFIs in accordance with the time frames set forth in the contract;
- Comply with the Claims Management and Change Order procedures; and
- In the event the Contractor fails to submit a time and/or cost claim on a timely basis as specified, HART may make its own determination based on the facts.

Some of these steps could be considered claims review, not claims avoidance; however, the quick resolution of a minor claim can often minimize the potential for the claim festering into a much more serious one. Therefore, some of these actions are also considered prudent

claims avoidance. A full description of HART's Claim Avoidance process can be found in the Claims Avoidance Plan (RD-26).

The GEC and all consultants and Contractors are subjected to QA audits by the Quality Assurance Manager to ensure compliance with this process.

11.3 Claims Resolution and Administration

The goal of the claims resolution process is the prompt settlement of all claims after a careful and fair analysis of the facts. The owner is always better served by quickly resolving claims while the facts are fresh.

Specific contractual language is used to define the time limitations for notifying HART of a potential claim and for submitting the completely documented claim. The contract also specifies the documentation required with each claim for it to be considered. The documentation process is meant to minimize frivolous claims and isolate the issues.

The GEC is responsible for analyzing the claim and recommending to HART a negotiating strategy in coordination with the EOR as applicable. As part of the claims analysis process, the Contractor's claim is subjected to an audit conducted by HART's Internal Audit Group, upon their receipt of a full and complete claim from the contractor. Upon approval of the ED, this audit may be waived. HART reviews the GEC analysis prior to the start of negotiations. HART will be involved in all claims negotiations. Any dispute between the Contractor and a determination or interpretation by Engineer shall be resolved in accordance with the Disputes of the General Conditions provisions of the Contract. This contractual provision is considered an alternative dispute resolution technique designed to eliminate frivolous claims and litigation. In consultation with the COR, a decision will be made whether to develop a dispute review process or to simply proceed to litigation. For further information refer to project Procedure 5.CA-07, Claims and Dispute Resolution.

11.4 Change Orders

Details on the processing of change orders are contained in Project Procedure CA-02 Contract Change Management Procedure and CA-05 Contract Change Orders.

All claims negotiations are subsequently reduced to writing in the form of a change order. After HART's approval that a change is required, the GEC prepares a control estimate. This control estimate is submitted to HART prior to receiving the Contractor's proposal. Any change involving time must include a schedule analysis by the GEC and approved by the PCM. Every attempt will be made to negotiate the issue of time as the direct costs of changes are negotiated. HART is placed at a disadvantage by leaving the time elements of changes to

be resolved at the end of the contract. Any changes, which effect the approved baseline configuration of the system, are subject to the change request process.

After negotiations, the GEC drafts the change order for HART approval prior to sending it to the Contractor for signature. After HART approval of the draft, the change order is finalized and signed by the Contractor. If agreement is not reached with the Contractor, HART may direct the Contractor to proceed under force account.

The change order is reviewed and concurred to by the Project team prior to submittal to the HART ED (or his designee) for concurrence.

All Project change orders are processed in accordance with the requirements of 49 CFR Part 18.30 – Changes, and are expected to be fully consistent with FTA’s Third Party Contracting Requirements as set forth in the latest version of FTA Circular 4220.1E.

The GEC reviews all changes to determine whether they have resulted from an error or omission on the part of the EDCs. The GEC reports its findings to the HART ED, along with an assessment of the cost impacts associated with the error or omission. The HART ED makes a final determination whether to make a claim through the design consultant’s errors and omissions (E&O) insurance. When a change is required due to an error or omission in plans and specifications and has a substantial monetary impact, HART may seek compensation through the design consultants’ E&O insurance, while reserving the right to proceed to litigation should such claim for compensation through the E&O insurance be denied. Once a claim proceeds into litigation, the Corporation Counsel takes over management of the claim on behalf of HART and is responsible for further disposition. Settlement of a claim during litigation is the decision of Executive Director. Refer to the Risk Management Section 13 for a discussion of HART’s E&O insurance requirements for the Project.

Summary of Requests for Change, Contract Change Management, Contract Change Order Procedures:

- A change may be initiated by either HART or a Contractor.
- Changes are evaluated by both HART and GEC to determine need and to author a justification
- GEC provides HART with independent cost and schedule estimates
- The Contractor provides independent cost and schedule estimates
- The GEC reviews both estimates and presents HART with a Negotiation Strategy for review and authorization to negotiate

- If the change is valued above \$100,000, impacts the baseline documents, impacts another Contractor or impacts the Baseline Schedule; the change will be reviewed by HART's Change Control Board
- If a change involves multiple contracts and the cumulative effect of the change is valued above \$100,000, the change will be reviewed by HART's Change Control Board
- A Contract Change Order is developed upon processing and approval of the Request for Change to an agreed amount summarized in the Record of Negotiations and approved within the appropriate levels of authority as follows:
 - The CRE and the CM: < \$50,000
 - The DAC and the DEC: < \$100,000
 - The CCB: > \$100,000
 - The Chairs of the Finance and Oversight Committees of the HART Board of Directors or their designees and the CCB: > \$1,000,000
- All pricing documentation from the Contractor(s) Proposed Costs (CPC) will be in accordance with HAR Chapter 3-125, HAR Chapter 3-122, subchapter 5, and HRS Chapter 103D-312.
- When the Change is approved HART prepares the Contract Change Order to be signed by the Executive Director in Section 1 (3 total sections)
- The Signed Contract Change Order is sent to the Contractor for signature.
- The Signed Contract Change Order is sent through BFS for finalization.
- All Project change orders are processed in accordance with the requirements of 49 CFR Part 18.30 – Changes, and are expected to be fully consistent with FTA's Third Party Contracting Requirements as set forth in the latest version of FTA Circular 4220.1E.

Reference specific Procedures for full details and use of CMS to facilitate the process.

12.0 LABOR RELATIONS AND POLICY

12.1 Statutory and Regulatory Requirements

HART is responsible for complying with all labor relations related statutory and regulatory requirements that constrain, control or otherwise impact the Project. Significant requirements are described in the following sections.

12.2 Federal Requirements

As a recipient of federal funds, HART and its contractors are required to comply with all required federal regulations. In executing the Project, HART intends to conform to federal requirements in the personnel/labor area and will meet other applicable federal regulations.

12.2.1 Civil Rights Requirements

HART will comply with all civil rights program requirements that apply to transit projects and identified in the FTA Master Agreement. All required civil rights program submissions are to be approved by the FTA and periodically updated in accordance with guidelines. Applicable Civil Rights Programs include the following:

- 49 USC §5332;
- Section 19 of the Surface Transportation Assistance Act of 1978;
- Title VI of the Civil Rights Act of 1964, as amended, 42 USC §§ 2000d *et seq.*, and with the USDOT regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act," 49 CFR Part 21;
- Title VII of the Civil Rights Act of 1964, as amended, 42 USC § 2000e, and all applicable equal employment opportunity (EEO) requirements of U.S. Department of Labor regulations, "Office of Federal Contract Compliance Programs, EEO, Department of Labor," 41 CFR Parts 60 *et seq.*, which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order No. 11246 Relating to Equal Employment Opportunity," 42 USC § 2000e note;
- Section 1101(b) of SAFETEA-LU, 23 USC § 101 note, and USDOT regulations, "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs," 49 CFR Part 26;

- Title IX of the Education Amendments of 1972, as amended, 20 USC §§ 1681 *et seq.*, and with implementing Federal regulations that prohibit discrimination on the basis of sex that may be applicable;
- The Age Discrimination Act of 1975, as amended, 42 USC §§ 6101 *et seq.*, and with implementing U.S. Health and Human Services regulations, “Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance,” 45 CFR Part 90;
- The Age Discrimination in Employment Act, 29 USC §§ 621 through 634 and with implementing U.S. EEO Commission regulations, “Age Discrimination in Employment Act,” 29 CFR Part 1625; and
- All laws relating to access for individuals with disabilities.

12.2.1.1 Non-Discrimination

In planning, constructing and implementing the Project, HART will conform with the nondiscrimination provisions of Section 19 of the Surface Transportation Act of 1978 that provide that no person will be excluded from participation in, be denied the benefits of, or be subjected to discrimination on the basis of race, color, creed, national origin, sex, or age on any project, program, or activity funded in whole or in part through FTA financial assistance. This nondiscrimination provision will apply to employment and business opportunities and is to be in addition to the provisions of Title VI of the Civil Rights Act of 1964.

FTA ensures non-discrimination through oversight of grantee implementation of required civil rights regulations and policy. HART is subject to FTA compliance reviews and assessments under Title VI of the Civil Rights Act of 1964, (including aspects of Environmental Justice), EEO program, DBE program, and ADA requirements. HART conducts its own compliance reviews not less than semiannually. Such reviews are conducted by the HART labor compliance officer and include an examination of each contractor’s labor records and potentially interviews with employers and employees.

12.2.1.2 Title VI (Service Delivery/Benefits)

HART will adhere to Title VI requirements. The City DTS Public Transit Division is currently responsible to prepare and submit the Title VI program required by FTA Circular 4702.1A once every three years unless otherwise requested by the FTA. As a recipient of Federal funds, the DTS will be responsible for ensuring that the information described in **Table 10** is submitted to the FTA as part of their Title VI Program.

Table 9: Title VI Requirements

Provision	Circular 4702.1A	Citation/ or Reference	Reporting Requirement
Title VI Complaint Procedures	Chapter IV, part 2	49 CFR 21.9(b)	A copy of procedures for filing a Title VI complaint.
Record of Title VI investigations, complaints, or lawsuits	Chapter IV part 3	48 CFR 21.9(b)	A list of any Title VI investigations, complaints, or lawsuits filed with the agency since the time of the last submittal.
Access to Services by Persons with LEP	Chapter IV, part 4	49 CFR 21.5(b) and the DOT LEP Guidelines	Either a copy of the DTS's plan for providing access to meaningful activities and programs for persons with limited English proficiency which was based on the DOT LEP guidance or a copy of an alternative framework for providing access to activities and programs.
Notifying beneficiaries of their rights under Title VI	Chapter IV part 5	49 CFR 21.9(d)	A notice that DTS complies with Title VI and procedures the public may follow to file a discrimination complaint.
Inclusive public participation	Chapter IV part 9	DOT Order 5610	A summary of public outreach and involvement activities undertaken since the last submission and a description of steps taken to ensure that minority persons had meaningful access to these activities.

12.2.1.3 EEO/Affirmative Action

HART provides equal opportunity for employees and applicants for employment. It promotes equal access to users of HART facilities and services and works to eliminate discrimination in all aspects of employment, services, and public accommodations. The City's Equal Opportunity Program provides leadership and guidance in areas of civil rights and equal opportunity, develops anti-discriminatory programs and policies, enhances awareness through education and training and embraces a vision for our workforce that reflects the diversity of Hawai'i at all levels.

Both the City and HART are committed to ensuring that the work force on the Project reflects the diversity of the local area and that businesses, including DBE firms and small businesses are able to participate in the Project to the greatest extent feasible. HART and its consultants, contractors and suppliers will comply with Federal regulations dealing with equal employment opportunities, prevailing wages and other elements of affirmative action. The Federal laws prohibiting job discrimination include the following:

- **Title VII of the Civil Rights Act of 1964 (Title VII):** prohibits employment discrimination based on race, color, religion, sex, or national origin;
- **The Equal Pay Act of 1963 (EPA):** protects employees who perform substantially equal work in the same establishment from sex-based wage discrimination;
- **The Age Discrimination in Employment Act of 1967 (ADEA):** protects individuals who are 40 years of age or older;
- **Title I and Title V of the Americans with Disabilities Act of 1990 (ADA):** prohibits employment discrimination against qualified individuals with disabilities;
- **Sections 501 and 505 of the Rehabilitation Act of 1973:** prohibits discrimination against qualified individuals with disabilities who work in the federal government; and
- **The Civil Rights Act of 1991:** provides monetary damages in cases of intentional employment discrimination.

12.2.1.4 Disadvantaged Business Enterprises Administration

The Civil Rights Officer (CRO) of HART is responsible for assuring compliance with DBE regulations and policy. These include 49 CFR Part 26, FTA Circular 4220.1E, and the Project's DBE program. The DBE functions of the CRO are presented in Section 2.4.5. In complying with 49 CFR Section 26.39, Fostering Small Business Participation, HART will review the feasibility of initiating a mentor-protégé program and to act as a liaison between the primes, subcontractors, DBEs and small business to develop mutually beneficial business relationships.

HART will search out small businesses in the minority community, encourage and assist them in the DBE certification process to ensure as many as possible eligible DBEs are participating. As contracting opportunities become available on a contract and sub-contracting level, HART will inform DBEs and small businesses and offer whatever assistance is needed.

HART will conduct an extensive outreach program directed to the minority small business community through their leaders and organizations. HART will be conducting periodic pre-bid conferences, seminars, workshops and business fairs to inform and encourage participation. HART will be readily available to address and satisfy whatever special assistance needs that arise.

The major functions of the CRO include:

- Setting DBE goals as appropriate for each contract utilizing USDOT funds;
- Ensuring subcontractors identified as DBE firms are certified as such by the HDOT;
- Ensuring DBE firms perform commercially useful functions and the work committed to a DBE firm at contract award is actually performed by a DBE firm;
- Ensuring prompt payment by prime contractors (including retainage) to subcontractors;
- Maintaining the contractual clauses to ensure third-party contractors' compliance with the DBE requirements, including "flow-down" contractual provisions to subcontracts;
- Issuing information on upcoming contracting opportunities to enable DBE firms to participate as contractors or subcontractors;
- Submitting to FTA the semi-annual DBE reports; and
- Acting as liaison and advocate as necessary in disputes between contractors and DBE subcontractors.

12.2.1.5 Americans with Disabilities Act

HART complies with the ADA that protects qualified individuals with disabilities. A qualified individual with a disability is a person who can perform the essential functions of a job with or without a reasonable accommodation. The ADA also prohibits making inquiries into the existence, nature or severity of a job applicant's or employee's disability; and requiring medical examinations of job applicants before a conditional offer of employment has been made.

HART and its contractors will comply with all applicable requirements of the ADA; Section 2004 of the Rehabilitation Act of 1973, as amended; Section 16 of the Federal Transit Act, as amended; and the following regulations and amendments:

- USDOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," (49 CFR Part 37).
- USDOT regulations, "Nondiscrimination of the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance" (49 CFR Part 27).
- USDOT regulations, "Americans with Disabilities Accessibility Specifications for Transportation Vehicles," (49 CFR Part 38).
- Department of Justice regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," (28 CFR Part 320).
- USDOT regulations, "Nondiscrimination on the Basis of Disability in Public Accommodations and in Commercial Facilities," (28 CFR Part 36).

- General Service Administration regulations, "Accommodations for the Physically Handicapped," (41 CFR Subpart 101-19).
- EEO Commission "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," (29 CFR Part 1630).
- Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," (47 CFR Part 64, Subpart F) FTA regulations, "Transportation for Elderly and Handicapped Persons," (49 CFR Part 609).

12.2.2 Wage and Hour Requirements

HART will comply with all federally decreed wage and hour requirements, including but not limited to the Davis-Bacon Act, 40 USC; the Copeland Act, 18 USC Section 874, et. seq. as supplemented by Department of Labor regulations set forth in 29 CFR Parts 1, 3, 5, 6, and 7.

12.2.3 Contract and Wage Rates Compliance

The RTSA Administrator (see PMP Section 12.4.1.3) is responsible to assure that construction contractors comply with the City's Fair Employment and Labor Practice requirements. In addition to his function to administer the RTSA, the RTSA Administrator is responsible for the performance of the following activities:

- Not less than quarterly review of Contractor-submitted Certified Payrolls for Davis-Bacon compliance;
- Interview Contractor/subcontractor employees, at least quarterly, to verify accuracy of Certified Payrolls;
- Administer/resolve any contractor Department of Labor violations in accordance with applicable regulations and laws;
- Prepare reports as necessary to record and monitor contractor compliance; and
- Otherwise monitor the contractor(s)' activities to ensure compliance with all applicable regulations and laws.

HART's approach to the resolution of disputes between labor unions and construction contractors is described in Section 12.0 – Labor Relations and Policy.

HRS Chapter 104 (Wage & Hours for Employees on Public Works Law) applies to any State and county public works construction project even if Federal assistance is received for the Project. Generally speaking, HRS 104 has a higher standard than Davis Bacon. For example, there are more holidays under HRS 104. HART utilizes the City's General Conditions (July, 1999) for construction contract which states: "Federally funded or federally assisted projects. On federally funded or federally assisted projects, the current federal wage rate determination

in effect at the time of advertising for bids is incorporated as part of the contract, and both Federal and State wage rates shall apply. Where rates for any class of laborers and mechanics differ, the higher rates shall prevail. The minimum federal wage rates shall be those in the U. S. Department of Labor Wage Determination Decision and Modifications in effect ten days prior to the bid opening date.

A copy of the wage rate determination, (including any additional classification and wage rate conformed under 29 CFR 5.5a (1)(ii)) and Davis-Bacon poster (WH-1321) shall be posted at all times at the site of work in a prominent and accessible place where it can be easily seen by the workers.”

Detailed information on Davis-Bacon rules, including rates, can be found at <http://www.gpo.gov/davisbacon/index.html>. Detailed information on HRS Chapter 104 rules, including rates, can be found at <http://Hawaii.gov/labor/rs/>.

12.3 State and Local Requirements

The Project’s participants, including the consultants and contractors must identify and comply with all relevant State and local employment laws and regulations. Relevant local laws include:

- HRS Chapter 378, Hawai‘i Employment Practices, provides protection for employees in the State by defining unlawful discriminatory practices;
- HRS Chapter 104, Wage and Hours of Employees on Public Works, relates to wages and hours of work for employees on public works projects;
- HRS Chapter 386, Workers’ Compensation Law;
- HRS Chapter 396, Hawai‘i Occupational Safety and Health Law;
- HRS Chapter 378, Hawai‘i Employment Practice Act: This act protects the rights of employees to express breast milk during any meal or break time required by law; and
- ROH Section 1-18 requires that a contractor have and enforce a policy prohibiting sexual harassment.

12.4 Local Labor Conditions

12.4.1 Existing Labor Agreements for City and OTS Employees

12.4.1.1 City Employees

City employees in white collar positions are represented by the Hawai‘i Government Employees Association; American Federation of State, County and Municipal Employees

(AFSCME) Local 152. City employees in blue collar positions are represented by the United Public Workers, AFSCME Local 646. Firefighters are represented by the Hawai'i Fire Fighters Association Local 1463 and police officers are represented by the State of Hawai'i Organization of Police Officers.

12.4.1.2 OTS Employees

OTS, as the employer of record, negotiates with the Hawai'i Teamsters Local 996, the exclusive bargaining representative of bus personnel.

12.4.1.3 Rapid Transit Stabilization Agreement

The City entered into a Rapid Transit Stabilization Agreement (RTSA) with several construction labor unions. The requirements of this RTSA were transferred to HART upon its establishment. The purpose of the RTSA is to promote the following goals:

- Construction of the Project without disruption due to labor disputes;
- Minimization of friction between Union and open shop employees of different contractors which may be working on the same construction site;
- Enhancement of the supply of skilled workers necessary to complete the Project;
- Provision of training opportunities for craft workers; and
- Promotion of workplace safety and security.

The RTSA is managed by the HART RTSA Administrator who serves as HART's point of contact with both the Unions and Contractor-Employers on labor matters and who has duties as described in the RTSA Agreement. HART's procurement documents specify that all construction proposers must agree to be bound by its terms and execute a Letter of Assent as a part of their proposal submittals.

12.4.2 In-State Construction

A directory of labor unions in the state of Hawai'i is available online at: <http://clear.uhwo.Hawai'i.edu/UnionDirectory.html#U>. HRS Chapter 104 is the wage and hour law on State and county public works construction. Every public works construction project over \$2,000 is covered. The use of Federal funds also imposes certain requirements, including those regulatory requirements of the U.S. Secretary of Labor.

All HART contracts carry the Federal and locally mandated clauses pertaining to employment and human relations. Where there are differences between the Federal and local requirements, the more stringent requirement apply. In the case of wage determination rates for construction contracts, the higher of the Federal or local wage rate(s) prevails.

12.4.3 Out-of-State Manufacture/Assembly within the United States

Some elements of the Project are manufactured and/or assembled at out-of-state locations, within the United States. The labor conditions and any bargaining unit representation at out-of-state manufacturing plants are matters of fact which are not subject to Hawai‘i regulations. Nonetheless, contract terms can be developed to address specific issues that may pertain to this project and out-of-state manufacturers may choose whether or not to participate based on those terms. Additionally, all HART contracts, including those for equipment manufacture and assembly out-of-state, carry the federally-mandated clauses listed above.

13.0 RISK MANAGEMENT PROGRAM

HART's Risk Management Program contains multiple components that are integrated but are also distinct elements within the project. These risk components are:

- The Project Risk Assessment
- The Risk Management Insurance Program
- The Risk and Contingency Management Plan

HART's integrated Risk Management Program is overseen by HART's Risk Manager who is a direct report to HART's CFO. The Risk Management Insurance Program is administered by the City and County of Honolulu BFS department and overseen by HART's Risk Manager. The Risk and Contingency Management Plan (RCMP) addresses the projects risk program implementation and is monitored by the Project's GEC and overseen by HART's Risk Manager. The duties of the GEC Risk Analyst(s) and their interface with HART's Risk Manager is described in 4 PC-08 Risk Management Procedure. Risks associated with the financing of the Project have been identified, assessed, and addressed by HART's ED in the Project Financial Plan.

13.1 Overview - Major Sources of Risk

The following describe the types of content that the Project Risk Assessment addresses in the RCMP. The major sources of Project risk are as follows:

- Design Risks
- Construction Risks
- External Political and Social Risks
- Financing and Economic Risks

Some risks have impacts that are less severe than others, however all must be considered in order to reduce cost overruns and schedule delay.

13.1.1 Design Risks

Risks during design on the Project may include the following:

- Scope of work
- Constructability
- Schedule
- Site conditions
- Environmental mitigation
- Construction methods

- Design criteria
- Design standards
- Data reliability
- Design complexity
- Design completeness
- Accountability for design
- Engineering competence
- Construction plans
- Materials supplies and deliveries
- Safety and security program
- Quality & performance
- Real Estate Acquisitions
- Regulatory requirements
- External relations
- Cost estimating

Many of these potential design risks can be avoided or reduced through effective planning and attention to detail during the design process. HART has taken care to ensure a level of qualification and experience in its design team that is appropriate to the level of work being undertaken.

13.1.2 Construction Risks

Potential risks related to the construction phase of the Project might include the following:

- Faulty workmanship
- Weather, floods and fires
- Contractor competence
- Permitting delays
- Unforeseen site conditions
- Contract disputes
- Accidents
- Hazardous materials on site
- Unidentified utilities
- Delays related to real estate or right of way acquisitions
- Interferences
- Other utility-related delays
- Lack of materials or equipment
- Design errors or omissions
- Security related issues
- Archeological delays
- Subcontract problems
- Third party litigation
- Endangered species on site
- Design or scope changes

Many of these potential construction risks can be avoided or reduced through effective planning and other pre-construction measures. Of particular concern are tasks and activities on the Project critical path, which can delay the entire Project if they are at risk. HART takes well-determined steps to share or transfer construction risks via appropriate contract terms or insurance policies.

13.1.3 External Political and Social Risks

External political and social risks affecting the Project during design and construction may be associated with the following:

- Relations with local municipalities;
- Relations with public and private utilities;
- Community relations in neighborhoods near the Project;
- Master agreements with utilities;
- Public interferences due to construction activities;
- Public response to accidents or incidents during construction;
- Relations with governing board members;
- Relations with the City, FTA, HDOT, and other State and Federal Agencies;
- Changing environmental regulation; and
- Changes in laws affecting the construction or transit industries.

These and other similar risks can have an impact on Project costs, schedules and operations.

13.1.4 Financing and Economic Risks

Financing Risks associated with the financing of the Project have been identified, assessed, and addressed by the HART ED in the projects Financial Plan. Financing risks are associated with potential shortfalls in funding from the various sources of finance. In addition, HART's funding is addressed on an annual basis in HART's and BFS's annual Executive Program and Budget to the City Council. A potential risk associated with Project financing may occur if additional funds are needed to cover cost growth, additional scope, problems or delays encountered during construction of the Project.

Economic Risks are associated with multiple revenue sources, and there are several public revenue sources for the Project. Tax revenues are often the most difficult to assess. With respect to construction costs, however, HART is considering the following potential risks:

- Potential contractor bankruptcies;
- Local labor costs and availability;
- Productivity changes;
- Number of bidders on contracts;
- Lack of competition;
- Higher costs of materials/material availability;

- Equipment costs and availability;
- Inflation;
- Workload of local contractors; and
- Pricing by HART contractors.

Economic risks are addressed by HART during both the capital cost estimating process performed during design and during the contracting process at which time bids are received and evaluated by HART. The construction program is continually evaluated by both HART and GEC procurement organizations during final design and construction to assess identified concerns about labor, equipment and material availability. Appropriate contract clauses and insurance programs have been established to cover many economic risks during the contracting process, while some economic risks have been accepted and borne by HART.

13.2 Risk Management Process

All Project personnel are part of the risk management process. Although key project personnel may be the only project members invited to committees or workshops, all personnel should be kept informed and encouraged to participate in the process so that risks are properly identified, assessed, evaluated and managed.

Procedures used to develop the Risk and Contingency Management Plan (RCMP):

- FTA Operating Procedure 40 (OP40) Risk and Contingency Review Rev 2 May 2010;
- FTA Operating Procedure 51 (OP51) Readiness to Enter Final Design Rev 2 March 2010;
- HART's Risk Management Procedure 4.PC-08, Rev.0, 12-22-10; and
- HART's Contingency Management Procedure 4.PC-09, Rev.0, 03-16-11.

The Risk Management Process generally involves the following actions. HART's Risk Manager with GEC's Risk Management team facilitates the process and manages the development and maintenance of the Risk Management Plan, Risk Mitigation Plan, and Risk Register. The Risk Management Procedure 4.PC-08 defines the detail steps of this process

A Risk Assessment Committee (RAC) was established by and comprises of Senior HART personnel. The RAC reviews monthly risk management reports, approves entry and deletion of risks from the projects risk register, agrees changes to the ranking of a risk and determines when secondary mitigation should be implemented to ensure contingency remains above the minimum levels set out in the RCMP. The RAC evaluates the mitigation efforts outlined in the Risk Mitigation Plans, focuses the Risk Management effort, and sets priorities and goals.

In addition the RAC co-ordinates responses from the FTA-PMOC with respect to all aspects of risk and contingency management on the project.

The success of the Risk Program is significantly influenced by the performance of the RAC owing to the makeup of the Committee and the scope of their charter. The degree to which the RAC drives the process and the commitment they demonstrate greatly influences the development of a risk culture and, in turn, the success of the Risk Management Program. The RAC is the only entity that can change a risk's likelihood and consequence values as a result of judging the effectiveness of the mitigation implementation work.

Mitigation measures must be established for each identified Project risk categorized under the risk rating system as 'High' together with any lower rated risks which the RAC deems appropriate. Mitigation plans will be developed by the assigned individual risk owner. Each risk mitigation plan will be supported by some simple measurable action tasks to deliver the plans. Actions will be tracked and analysis may be performed, performance records evaluated, or other appropriate methods used to monitor and report on the status of individual risks and the success of the risk mitigation program as a whole.

13.3 Risk Assessment

Risks are systematically assessed during the design process, corresponding to design review milestones and updates to the cost estimates for each capital project. During the design review process, each element of a project is subjected to comprehensive technical and peer reviews for completeness, accuracy, and other questions. An updated capital cost estimate is prepared, corresponding to the design review milestones, during which each element is assessed for uncertainty.

Contingency factors are then assigned to the cost estimate for each element; resulting in a contingency reserve based on the risks and uncertainties associated with the status of a project. Prior to award of construction contracts, all aspects are again reviewed as a basis for establishing contract terms and conditions. At this time, appropriate insurance coverage will be determined for the contract, based on risk sharing and mitigation strategies.

During construction, each contract is subjected to technical, safety and quality reviews to prevent accidents, mistakes and other problems which might lead to cost growth or schedule delays.

The objective of risk assessment is to establish an overall rating for each risk by assigning probability (or likelihood) of the risk happening together with the cost and/or time impacts to the project if the risk does happen. The cost and/or time impact/s to the project are assessed based on a 'most likely' scenario. Although the risk could have significantly greater and/or lesser impact/s, the 'most likely' scenario is used as a basis for risk assessment and measure of change, and hopeful reduction, achieved through mitigation over time.

13.4 Risk Mitigation Plans

The Primary Risk Mitigation Plan addresses risks that include avoidance, transfer, reduction of the likelihood and/or the magnitude of the consequence, or the issuance of insurance when appropriate. Decisions made with regard to risk allocation are reviewed and approved by HART's senior management.

All risks rated as high will have a formal risk mitigation plan developed. The RAC may identify additional lesser rated risks that in their opinion warrant the development of a formal risk mitigation plan.

The Secondary Risk Mitigation Plan is used in the event that the project's contingency reserve has been depleted more than planned. When implemented it provides significant cost reductions without the actual reduction to project scope.

13.5 Contingency Management

HART's Contingency Management Plan as described in the RCMP follows industry best practices and FTA's guideline in assigning and monitoring the utilization of cost and schedule contingency. HART utilizes trend analysis to agreed-to schedule hold points to monitor contingency usage. If the trend exceeds the acceptable buffer then the implementation of secondary mitigations will be required to keep the project on budget and schedule.

13.6 The Risk Management Insurance Program

The Risk Management Insurance Program is administered by the City and County of Honolulu BFS department and overseen by HART's Risk Manager. The RCMP outlines policy coverage amounts to be used as a policy reference.

The City's program, established under Section 2-5 of the Revised Ordinance, covers all City departments and agencies except the BWS and O'ahu Transit Services, and excludes workers' compensation and employee benefits. The program focuses on insurance and self-insurance to minimize the adverse financial impact of losses, as well as claims management, loss prevention and other activities.

Principal responsibilities related to risk management insurance by BFS include:

- Identify and evaluate the exposures to accidental loss associated with the Project;
- Determine the appropriate amounts of insurance to adequately protect the Project financing, including both the liability and property exposure areas;

- Prepare and present risk management insurance budget requirement for the Project;
- Assist HART's Safety & Security Chief in the development and implementation of public/occupational safety and security loss control programs to reduce the ultimate costs and liabilities associated with the Project. Assist in establishing safety and security goals and standards, and development of policies and procedures for construction site safety, insurance and claims, industrial safety and their administrative practices;
- Develop and implement a coordinated claims program to track the Project's loss experience, including frequency, severity, incident rates, and cause and type of loss;
- Develop financial security and solvency standards required for insurers and underwriters that will provide property and casualty insurance or surety bonds to the City, contractors, suppliers, or other parties associated with the Project;
- Review and approve certificates of insurance, evidences of property insurance, and surety bonds presented by outside contractors/suppliers; and
- Evaluate various insurance options including owner-controlled insurance programs.

The City is primarily self-insured for all risks of loss or damage, and purchases excess insurance above the self-insurance program to provide additional financial resources to cover the City's liabilities. In addition, commercial insurance is purchased to address unique risks or to satisfy statutory or contractual obligations. A mix of insurance options to be utilized includes those listed and described below:

- Owner Controlled Insurance Program (OCIP). Under OCIP, one party (generally the owner) purchases most of the insurance coverage for the Project on a blanket basis. This project coverage is then available for the benefit of all the Contractors and Subcontractors as well as for the benefit of the owner and the construction manager;
- Contractor Controlled Insurance Program (CCIP). Since the OCIP procurement will not be completed until after certain construction contracts have been awarded, an interim step CCIP is structured similarly to the OCIP program, but requires the affected Contractor to purchase the insurance and oversee the program. The same coverage, as outlined under the OCIP, may also apply; and
- Traditional Insurance Program. With a traditional insurance program, each entity is required to procure and maintain separate insurance for its respective legal liability. The contractors will be required to secure and maintain various types of insurance throughout the duration of the contract for the protection of the contractor, the Council, and other entities as appropriate.

Selection from the above list insurance options is made for each construction and procurement contract following coordination between HART's Risk Manager, HART's DAC, the BFS Risk Manager and the technical staff developing the contract. The selection is

based on the status and scope of the OCIP and the location and scope of the work being undertaken. For further information refer to the BFS OCIP Feasibility Study for the Project.

13.7 Design Risk Coverage

HART develops and enforces insurance requirements for design professionals of every tier. All consultants and Contractors engaged by HART to perform detailed or final design are required to have, at a minimum, professional liability insurance coverage (sometimes called “errors and omissions” or E&O insurance). The primary design entity is required to have and maintain E&O coverage for the benefit of HART and all subconsultants. The limits of liability are determined by HART in consultation with BFS after a review of the contract scope of services. E&O coverages are to be provided by an insurer licensed to do business in the State of Hawai‘i. HART’s professional services contracts (and consultants’ subcontracts) stipulate the minimum terms of coverage required. Design team members must provide such coverage over the duration of the contract. They are required to disclose the terms of the coverage, including deductibles and limits. They are required to certify that such insurance is in place. In addition to E&O coverage, all design consultants and Contractors are required to carry:

- Workers’ Compensation Insurance for all employees;
- Third Party Liability Insurance, on a comprehensive basis; and
- Automobile Liability Insurance for bodily injury and property damage.

HART’s Procurement and Contracts Officer is responsible for maintaining up to date certificates of insurance on file in HART’s CMS file management system in accordance with contract requirements for all contracted activities on the Project.

13.8 Construction/Installation Risk Coverage

13.8.1 Insurance

With the advice and counsel of BFS, HART develops and enforces insurance requirements for General Contractors. These requirements balance competitive interests of effectiveness, availability, cost, and third party requirements. At a minimum or unless specifically covered by OCIP, General Contractors are required to maintain coverage for general liability, automobile liability, property/builders’ risk/course of construction coverage, workers’ compensation, and performance and payment bonds. The contractors will be required to submit a copy of their insurance certificate to BFS prior to the start of their work including subcontractors’ insurance certificates prior to the start of the subcontractor’s work. The contractor and subcontractors are required to submit renewal certificates prior to expiration.

The insurance companies providing coverage are required to name HART as an additional insured on the liability policies and loss payee on the property policies. Waivers of subrogation are also required. It is the responsibility of the General Contractors to require and verify that subcontractors maintain appropriate insurance.

13.8.2 Bonding Requirements

A five percent bid bond, a 100 percent performance bond, and a payment bond in an amount in accordance with the FTA regulations, are required for all construction contracts. The only exception to this rule was the WOFH Guideway Contract, where a 50 percent performance bond was deemed acceptable due to the very large size of this contract. Approval of the payment and performance bonds, by the Corporation Counsel and BFS, is a pre-requisite to issuing notice-to-proceed.

14.0 ART IN TRANSIT PROGRAM

14.1 General

The Honolulu Authority for Rapid Transportation (HART) Art in Transit Program promotes the value of arts and culture throughout the project, particularly at the stations and areas that are frequented by transit patrons and the community. HART is committed to the incorporation of “integrated” artworks into the Project and station construction, where quality artwork is an integral part of the design, rather than added after the design is completed. The objective of the program is to embrace the history, culture and character of the surrounding community where stations and other facilities are located and to aesthetically enhance the experiences of transit patrons.

Art opportunities will be identified at each of the 21 stations along the 20 mile system and at public areas within the Maintenance and Storage Facility (MSF). HART will commission artists to work with facility architectural design teams to create artwork in the entry structures, lobbies, landscape plazas, pedestrian bridges, concourses, on the boarding platform and other areas that experience high levels of pedestrian traffic or are viewed by the community.

14.2 Administration and Selection of Artists

The Art in Transit will be managed by a full-time Transit Arts Program Administrator (APA) who reports to the Chief Architect for the Project. The APA will be responsible for developing and overseeing the entire program for the system. Along with planning, developing, coordinating and supervising the integration of artwork, the APA will develop procedures and processes to procure the services of qualified artists. Calls for artists will be issued through HART’s procurement process in accordance with the State of Hawai‘i Public Procurement Code, Revised Ordinances of Honolulu, FTA Circular 9400.1A and FTA Circular 4220.1F. The APA will ensure that contracts are issued in a timely manner and schedules and budgets are in accordance with station design and construction criteria.

HART will issue a call for artists with experience in public art and with evidence of past performance in the particular art opportunity identified at each station or facility. An evaluation and selection committee will be composed of HART staff, representatives of the Mayor’s Office of Culture and the Arts, community members where the facility is located and/or art and design professionals as appropriate for the particular art opportunity. Artists will be selected based on their qualifications, as demonstrated by materials submitted in response to the call, the appropriateness of the artwork medium and their ability to develop concepts that relate to project goals and setting. Their experience with collaborating with

architects, other design professionals and the community will also be a consideration. Where appropriate, experience with artistic interpretation of the culture and history of Hawai'i may be a criteria for selection.

14.3 Vision Plan and Program Guidelines

The overall program is described in the Art in Transit Vision Plan (RD-34). This document provides a background for artists, architects and planners to gain an understanding of the context of the station or facility sites, along with a narrative on the history, cultural, traditions and unique character of the communities served. Objectives, goals and potential themes are discussed in the Vision Plans to provide tools for artists, in collaboration with the station architect, to use in developing concepts and themes for the artwork, medium and locations. The plan promotes the idea of utilizing art to thematically unify the stations and create a consistent identity for the system.

The Art in Transit Program Guidelines describe the criteria for eligible artwork, the goals of the selection process and provides guidance for selection of qualified artists. The document establishes the procedures for the conservation and maintenance of artwork. The guidelines further recognize that public information and education are primary to the program and that success is enhanced if the public feels ownership of the artwork. In conjunction with the HART Public Involvement Team the program will produce brochures, digital media and other materials that provide orientation of system artworks and engender exposure to the community. Other activities may include conferences, symposia, tours, special media programming, cooperative activities with education and art institutions and other events coincident with station openings.

14.4 Budget and Funding

HART has allocated an amount of 1% of the cost of the stations construction contract and 1% of the Operations and Service Building construction contract at the MSF. The funds will be all-inclusive and applied to costs associated with artists completing public art projects, including architectural integration activity, artwork design, fabrication, installation and observation of installation.

14.5 Maintenance of Artwork

A maintenance program for project artwork will be developed and implemented by the APA, in conjunction with the Operations and Maintenance Plan for the system. The maintenance program will ensure regular inspection and upkeep of artworks, effect necessary repairs and identify any restoration required. Funds will be provided from the annual operating budget to accomplish this work.

15.0 SAFETY AND SECURITY

15.1 General

HART is committed to achieving the highest practical level of transit safety and security for the Project. To reach this goal, a SSMP has been prepared to ensure that system safety and security principles are applied throughout each phase of the Project.

15.2 Safety and Security Management Plan (SSMP)

The SSMP was prepared in full compliance with the provisions of FTA Circular 5800.1 – Safety and Security Management Guidance for Major Capital Projects. The SSMP formalizes the technical and management strategies for determining safety and security risk acceptance for the HHCTCP. It describes the integration of system safety and security activities for each phase of the HHCTCP and establishes responsibilities and accountabilities for these activities. Specifically, the SSMP:

- Describes HART’s policy, commitment, and philosophy to achieve the highest practical level of safety and security for the Project;
- Establishes the purpose, scope, goals, and objectives of the Project Safety and Security Program;
- Identifies the management structure and activities to be performed to integrate safety and security throughout all phases of the Project;
- Identifies delegated authority to project staff, consultants, contractors, stakeholders, and committees carrying out safety and security program activities;
- Describes the technical approach for identifying, evaluating, resolving, tracking, and providing notification for identified safety hazards and security vulnerabilities;
- Describes the risk assessment methodology for categorizing and prioritizing identified safety hazards and security vulnerabilities;
- Describes the approach for verifying that safety and security design criteria have been addressed in project specifications and contract requirements, and that all required inspections and tests have been incorporated into test plans and start-up activities;
- Describes the elements of the certification program required to demonstrate the safety and security operational readiness of the Project;
- Evaluates activities to assure continued development and advancement of safety and security throughout phase of the HHCTCP; and

- Describes the management approach, procurement processes, and technical requirements of the Project Construction Safety and Security Program.
- Describes the Project approach for verifying that documentation conveying the safety, security, and emergency preparedness procedures established for project staff, contractors, and the HDOT SOA have been developed and accepted. Acceptance of Safety and Security certification by the SOA is a prerequisite for the start of revenue operations. This includes revenue service operations safety and security documentation such as the System Safety Program Plan (SSPP), System Security Plan (SSP), Emergency Preparedness Plan (EPP), and applicable sections of operations and maintenance plans and rule books.

The HART ED ensures that resources are allocated to meet the SSMP goals and objectives. The ED is supported by the HART CSSO who manages and coordinates the day-to-day activities described in the SSMP. However, ultimately execution of the SSMP rests with the ED. All project staff, consultants, and contractors are required to support the provisions of the SSMP and to fully cooperate in achieving its goals and objectives.

The SSMP will be reviewed just prior to the initiation of each phase of the Project. It will be updated, as required, to ensure that it continues to be effective in achieving the highest level of practical safety and security. Refer to the latest version of the SSMP, which is a standalone part of the PMP, for particulars.

15.3 Safety and Security Certification

A key element of the SSMP and an SOA requirement in accordance with 49 CFR Part 659, is development and implementation of a project specific Safety and Security Certification Plan (SSCP) against which to certify all safety and security certifiable elements of the Project. The purpose of the SSCP is to establish the formal management and processes by which the safety and security readiness of the Project will be verified prior to revenue service. The HART SSCP was developed using the guidelines provided in the *FTA Handbook for Transit Safety and Security Certification, November 2002*. The SSCP covers and fully details the certification process for all phases of the Project from preliminary engineering to the start of revenue operations.

HART has established a Safety and Security Certification Working Group (SSCWG) to support facilitation of certification activities and to address any technical issues that may arise. The SSCWG is chaired by the HART CSSO and includes membership from primarily HART, the GEC. Engineering Design Contractors, Construction Contractors, and other project staff will participate on an as needed basis. The full membership of the SSCWG is provided in the SSCP.

As the project progresses, Engineering Design and Construction Contractors will certify Project elements based on the requirements of their respective contracts. Contractors will develop and complete design criteria and construction specification checklists to demonstrate their conformance to national, state, and local regulations such as National Fire Protection Agency (NFPA) 130: Standard for Fixed Guideway Transit and Passenger Rail Systems. The HART CSSO determines the frequency of SSCRC meetings depending on the phase of the Project and activities to be completed. The HART CSSO and GEC will facilitate the submission of safety and security certification documentation to the SSRC for review and acceptance.

15.4 Committees and Working Groups

Committees and working groups will be established throughout the life of the Project to support safety and security activities. The majority of these groups are formed and chaired by the HART CSSO. However, some are formed by other Project team members. The Change Control Board (CCB) and Rail Activation Committee play an essential role in the safety and security program but hold additional responsibilities. The following groups have been established for the Project:

- Executive Safety and Security Committee (ESSC)
- Safety and Security Review Committee (SSRC)
- Fire/Life Safety Working Group (FLSWG)
- Safety and Security Certification Working Group (SSCWG)
- Operational Readiness Working Group (ORWG)
- Rail Activation Committee
- Change Control Board (CCB)

A detailed description of the organization, responsibilities, and membership of these entities is provided in SSMP. Members have been selected based on their technical discipline, department and/or affiliation with the Project.

15.5 Safety and Security Review Committee

The SSRC will serve as the principal forum for managing and resolving safety and security management issues. The SSRC holds the following responsibilities:

- Overseeing the implementation of all SSMP elements and providing a status of the plan to the HART ED;
- Assessing the overall status of the safety and security plan prior to each project phase including activation and start-up;

- Reviewing and evaluating safety hazards and security vulnerabilities identified through analyses, assessments, and other methods;
- Recommending measures to eliminate or reduce identified safety hazards and security vulnerabilities to an acceptable level of risk;
- Analyzing major safety and security design trade-offs, deviations, and modifications. This responsibility includes analysis of the hazard risk index, proposed corrective actions, and their effect, and current status;
- Supporting the identification and development of safety and security design criteria and participating in design reviews;
- Reviewing and approving safety and security certification documentation submitted by the SSCWG; and
- Ensuring coordination among project stakeholders for all safety and security related issues.

The SSRC will be comprised of HART senior Project staff and other consultant staff as necessary. The full membership of the SSRC is provided in the SSMP.

16.0 TESTING AND START-UP

The Testing and Start-Up period of a project is the transition and linkage between the Construction and Revenue Service periods. The purpose of Testing and Start-Up is to accept the newly constructed project. Acceptance follows verification that the Project meets the contractual specifications by conducting systems performance and integration testing. The CSC will develop the System Integration Test Plan (SITP) (RD-19) with oversight by HART. The SITP will also include emergency preparedness drills to be performed during the Testing and Start-Up period, as well as the procedures for the respective tests and emergency drills. In addition, a period of pre-revenue service will follow the testing period to familiarize management, and train operations and maintenance personnel with the new system prior to beginning revenue service.

The CSC will develop the Test Plans and respective tests. The functional responsibility for complying with these procedures will be delegated to CSC, with oversight by HART.

The Core Systems Contractor (CSC) will perform the Testing and Start-up activities with oversight by HART. A detailed org chart for the Testing and Start-up program will be developed by the CSC.

16.1 Start-Up Preparations

The CSC will develop a Rail Activation Plan (RD-35) (RAP) sufficiently in advance of the revenue operations date and will also commence preparations for commissioning the new rail service and planning all start-up events at that time. The RAP, combined with the Systems Integration Test Plan and Pre-Revenue Operations Plan (RD-36), will describe all activities beyond the tasks of construction and installation completion, contract acceptance testing and integration testing. As part of the planning effort, the CSC will prepare and submit to HART for approval Systems Integration Test Plan and the RAP.

16.2 System Integration Test Plan

Each construction, supply, or installations contract for the Project will require the Contractor to demonstrate that the scope of contract has, in fact, been provided. This demonstration will be provided by tests, specifically, “contract acceptance tests.” This requirement is especially true of systems, systems components, rail vehicles, and other electrical-mechanical equipment items within the scope of the CSC or facilities contractors. The CSC is responsible to conduct integration testing with all sub-systems to provide a fully tested integrated system with oversight by HART.

Where a system component of a Contractor interfaces with a facility or system component of another Contractor, the CSC will conduct an overall series of tests to be assured the two elements are compatible and perform jointly as intended. Contract boundaries must incrementally be tested until the integrated system has been demonstrated to be ready to run. The CSC will draft and adopt the System Integration Test Plan, and then implement the plan according to the project schedule. Before any Contractor is awarded Final Acceptance, such Contractor must assist in the implementation of the System Integration Test Plan by the CSC with oversight by HART. The Systems Integration Test Plan will be subdivided into two parts, the first concerning management of the plan and the second defining specific integrated tests to be performed.

16.3 Activation Planning

Beyond the integration test program described above, there are many other activities the CSC must perform to help assure that the Project is ready on the scheduled revenue operations date. The CSC will prepare a written Rail Activation Plan for review and approval by HART that will be combined with the integration test program, describing all activities beyond the tasks of construction and installation completion, contract acceptance testing and integration testing.

Development of the Project Rail Activation Plan will commence prior to end of Final Design. The Plan will be prepared by the CSC with oversight by HART.

A Rail Activation Group formed of appropriate staff members of the CSC, HART, and the GEC, will guide the preparation of the Rail Activation Plan.

16.4 Systems Testing Procedures, Analysis and Results

This section describes the objectives, methodology, management controls, and major milestones in the conduct of a test program intended to verify the Project's readiness for revenue operations.

16.4.1 Objectives

The objectives of the testing program are:

- Verification of contract compliance;
- Validation and demonstration of system performance; and
- Demonstration of safety and security characteristics, including emergency response scenarios.

16.4.2 Types of Tests

Five types of tests will be required under the System Testing and Start-Up Program. The following definitions include examples to distinguish the general uses of each of these types of tests.

16.4.2.1 Qualification or Design Verification Testing

Design verification tests are performed to prove that designs meet specification requirements. They will usually be performed on pre-production units or on the first unit of a production run. Examples are, rail car body structure tests, and rail car water-tightness and climate room tests. Tests will be performed by the CSC and observed by HART and the GEC.

16.4.2.2 Manufacturing Tests

Manufacturing tests are a general category of tests that will be performed on a sampling basis or routine basis to verify adequate quality control and manufacturing process. They may represent milestones for continued assembly or construction activities. Tests will be performed by the CSC and observed by HART and the GEC.

16.4.2.3 Acceptance Tests

Acceptance tests will be performed on individual items, to verify performance at the equipment level, subsystem level, and complete system level, after installation or assembly. On equipment contracts, these tests will normally be identified as advanced milestones and are linked to contract progress payments. At the system level (e.g., vehicle acceptance), these tests require interface validation with other system elements (e.g., traction power system). Tests will be performed by the CSC and observed by HART and the GEC.

16.4.2.4 System Integration Tests

System Integration Tests are individual tests or series of tests that require the interface of more than one system or facilities element. They will be designed to verify the integration and compatibility between or among individual elements. A number of these tests will be contractually required tests of individual subcontractors to the CSC. Examples of these include the train control dynamic tests that integrate vehicles, traction power and train control. The tests that are beyond the contractually required tests of individual subcontractors will be planned, performed, witnessed, reported, and documented by the CSC and witnessed by HART and the GEC. Individual systems contracts will provide additional support during Final Integration Testing and the CSC will hold each subcontractor accountable for the integration systems tests of their respective components. The tests are conducted to validate total system performance. Tests will be performed by the CSC and observed by HART and the GEC.

16.4.2.5 Pre-Revenue Tests

Pre-revenue tests are the series of tests that use the complete functional capabilities of all system elements. Performance of these tests shall be completed prior to initiation of revenue service. They evaluate representative system schedules, personnel, procedures, and equipment. These tests commence after system elements relating to systems operations are complete and accepted. Tests will be performed by the CSC and observed by HART and the GEC.

16.4.2.6 Test Management Approach

The management of the test program is divided into two categories. The first category consists of design verification, manufacturing and acceptance tests that will generally be managed by the CSC with oversight from HART and the GEC. Any on-site acceptance test not in the category of equipment installation verification will be the responsibility of the CSC with oversight from HART and the GEC. The second category of tests, systems integration and pre-revenue, also will be the responsibility of the CSC.

16.4.2.7 Modifications or Retrofits

During system or pre-revenue testing, necessary changes to various project elements may be identified. Any such change will take the form of a modification or retrofit. Determination of the need for any modifications or retrofits will be based on the results of the system testing and start-up program, and must be carefully coordinated with the management of change orders and warranties. After any modification or retrofit, retesting and sign-off is required similar to the original acceptance requirements. Agreement on the scope of and assignment of financial responsibility for modifications and/or retrofits will be negotiated and administered by the Resident Engineer, or through the claims resolution process described in Claims Management Section 11.0 of this Project Management Plan.

16.5 Start-Up Planning

Start-Up of the Project is an inherently complex process requiring exceptional intra-agency coordination and planning. In the case of the HHCTCP it is anticipated that operations will start-up on a phase-by-phase basis. As the Project approaches revenue service, a confluence of coordination challenges brings multiple pressures. Among the anticipated challenges are:

- For the phase where operations is to be initiated, the construction and integration testing period will be nearing completion, a point in the overall process that is often exceptionally time sensitive and for which few “workarounds” are available to deal with unresolved issues.
- New CSC operations and maintenance personnel are needed to operate and maintain the new-start line.

In advance of revenue operations, the CSC will designate a Manager of Rail Activation and his function will reside throughout each successive start-up process with the CSC. The Manager of Rail Activation will be responsible for coordinating the identification of critical path scheduling, interdepartmental coordination, development and acceptance of the Rail Activation Plan, and progress reporting to HART and supporting the commencement of revenue operations. An initial task will involve assuring that a coordinated training program is implemented. Each division involved will be accountable for its respective responsibilities during start-up. The most heavily involved divisions will include HART and GEC Project staff, HART Systems Safety and Security Manager, and HART Community Relations. Close coordination with TheBus will be important. The HART Quality Assurance Manager will also be involved in these activities.

16.5.1 Start-Up Plan

The Manager of Rail Activation will convene an Integrated Test Team (ITT) to oversee each start-up effort. The first priority of the ITT will be to guide the development of a comprehensive Rail Activation Plan (RAP) for the phase. The plan will outline the requirements and tasks necessary to activate and operate the phase and the key steps and timetable required.

Preparation of each Rail Activation Plan will be a responsibility of the CSC and subject to HART review and approval. The Rail Activation Plan will be used as a guide during the activation of the rail line and as a reference manual in future operation. Progress reports on the entire scope of start-up activities will be issued monthly. The start-up activities program will continue past the date of commencement of revenue operations until all identified open items in the program have been closed.

16.5.2 Start-Up Schedules

Schedule for implementation of the plan will be prepared as a separate document, referred to as the “Phase Start-Up Schedule.” The CSC manager is responsible for performance of the various functions and will prepare the sequence and timing of activities in this schedule subject to HART approval. The stated sequence and timing of events will be followed closely to meet the established date for the start of revenue service. A program of regular coordination meetings will be held during this period. The frequency and content of the meetings will be determined during the start-up planning process.

16.5.3 Start-Up Target Date

Progress toward the start-up dates will be continually evaluated during the testing and start-up periods. The ultimate decision on the start-up date will be made by HART’s Executive Director only after assurance of the system’s safety, security and reliability is made. A

fundamental requirement for determining the opening date for each phase will be the availability of the relevant length of the line, vehicles, and system elements for a period of at least two months for purposes of testing, training, and simulated operation. Each revenue rail start-up will be integrated with the existing bus service. The project plan calls for the following dates for opening sections of the project:

- Section 1: East Kapolei to Aloha Stadium – June 2016
- Section 2: Aloha Stadium to Ala Moana Center – March 2019

16.6 Operations Planning

16.6.1 Basic Operating Plan

The basic information as to line operations, the location of stations, the headways required to carry the expected passengers and other similar information is set forth by HART Rail Operations and Maintenance Plan with input from the CSC. The plan contains the assumed timing of peak headways and non-peak headways. Critical information on the means of achieving the service level is also contained in the Rail Operations and Maintenance Plan.

The plan has been prepared by HART and the GEC and will be updated and maintained by the CSC as the program progresses through Final Design and implementation. The CSC Manager of Operations with the support of his Engineering staff will ultimately assume responsibility for completion and ongoing maintenance of the plan.

In a later version, the plan will define the work requirements and will set forth the personnel and training needs required to accomplish the Project objectives. Changes in the basic operating plan are expected to be made from time to time as additional information becomes available as to ridership levels, vehicle characteristics, legal and regulatory directions, and other factors which may affect the operation.

16.6.2 Rail Transportation Plan

Subsequent versions of the Basic Operating plan will incorporate the Rail Transportation Plan, which will define the operating requirements and hiring needs by time periods, including considerations of training and qualifications. This plan will take into account the demands for project operation and other capital and operating charges.

The plan will be prepared by the CSC and approved by HART.

16.6.3 Rail Maintenance Plan

A Rail Maintenance Plan (RD-37) (RMP) will be prepared by the CSC and approved by HART. The CSC Manager of Maintenance will own the plan and be responsible for plan updates as necessary. The RMP will describe the work requirements, by year, for rail maintenance. The maintenance items addressed include: rail vehicle maintenance, maintenance of way and systems maintenance. The CSC will hire both rail operations and maintenance staff.

16.6.4 Other Relevant Plans

Other reference documents and sub-plans of this PMP are relevant to, and will be used in the development of, the Operations and Maintenance Plans above. Two examples are described below.

16.6.4.1 Rail Fleet Management Plan

The Rail Fleet Management Plan (RFMP) describes HART's long range plans for acquiring and maintaining an adequate rail car fleet meeting the rail ridership demands of the Project. The RFMP was updated by HART for the Full Funding Grant Application, but will be further refined by the Core Systems Contractor who will have the responsibility for plan updates, with oversight by HART.

16.6.4.2 Bus Fleet Management Plan

The Bus Fleet Management Plan (BFMP) describes the plans to ensure that the City's fixed bus route service is not degraded as a result of design and construction of the Project. The BFMP was updated by HART for the Full Funding Grant Application. HART has the responsibility for plan updates, with participation by the City's Department of Transportation Services.

16.7 Operations Staffing

The staffing of functions for train operators, rail vehicle maintenance, and plant/right-of-way maintenance will reside in the Rail Operations and Rail Maintenance divisions of the CSC. Personnel requirements for the start-up and operational periods have been developed as part of the Core Systems Contract. New personnel will be brought in and training programs will be developed.

The entire Operations staffing program will be described in detail in a subsequent version the Rail Operations and Maintenance Plan, which will be updated to adjust to any operational changes. Increases in numbers of non-operational positions (e.g., accounting, revenue collection, community relations) will be considered early in the start-up period. Rail

Operations and Rail Maintenance staff will work to ensure the timely hiring and training of all personnel.

16.8 Training

The CSC will train, test, and certify all operations and maintenance personnel in the proper operation and maintenance of the System. This includes the development of specific training course geared towards HART, other project stakeholders, and emergency responders. All course requirements, lesson plans, and detailed training materials will be created by the CSC training staff with support from engineering staff, equipment suppliers and Contractors, and engineering consultants and submitted to HART for review and acceptance. Prior to the start-up period for the first phase, the education and training program for the Rail Operations staff will be developed by the CSC through a combined effort of suppliers, vendors, consultants, and training staff.

The training program will be finalized near the completion of construction of the first phase to be ready to support the testing and start-up efforts. HART will verify the completion of required safety, security, emergency preparedness training program through its safety and security certification activities.

Operations control center personnel and other operations personnel shall be given operational readiness test by the CSC to verify their knowledge of the proper failure management responses. As part of these tests, it shall be possible for the CSC to create test situations to which the person being tested must respond. These tests shall take the form of interviews and tests in which the employee's knowledge of proper operational procedures including failure management and emergency situation recovery, and troubleshooting activities is determined in a real-time, interactive situation.

All maintenance personnel whose duties involve responding to failure situations affecting passenger service shall be given operational readiness tests to verify their knowledge of the proper failure management responses. These tests shall take the form of interviews and tests in which the employee's knowledge of proper procedures is determined in a real-time, interactive situation. As part of this testing, the CSC shall also create test situations to which the person being tested must respond. These tests shall include all aspects of failure response, including communications, physical response to different locations throughout the System, proper diagnosis/response procedures, and proper deployment of equipment.

16.9 Spare Parts and Inventory Control

CSC will establish strict procedures for the receipt and storage of all spare parts and material directly procured and managed by CSC. Receiving inspections will be conducted on all

incoming material and supplies. Once spare parts are delivered and accepted, the material will be securely stored and issued in accordance with CSC inventory procedures.

All capital assets procured by the CSC will be controlled and managed in accordance with management and budget requirements. The CSC will develop a parts database that will provide automated materials management with the capability for tracking receipt of goods, inventory accounting, and procurement forecasting.

HART will request the CSC to identify its inventory control procedures within the terms of its operations and maintenance contract.

16.10 Pre-Revenue Operations

The operational testing program, including simulation of regular operations and a variety of special and emergency situations, will be scheduled prior to the start of revenue service for each phase.

All CSC rail operation and maintenance personnel will participate in the operational testing program with HART and GEC personnel to witness all Pre-revenue Operations. Some of the tests will call upon fire, police, and rescue agencies, as well as utility personnel. The CSC will coordinate and conduct full scale emergency drills to train and test emergency and operations personnel on equipment, evaluate response procedures, and make improvements as necessary. Various operating situations will be simulated, and the adequacy of response relative to safety and security of people, protection of property, and maintenance of service will be measured. The CSC is will conduct emergency drills at least annually once partial or full revenue service commences to maintain continuous preparedness for operations and maintenance personnel. Pre-revenue testing and simulated revenue operations will be performed in accordance with the requirements specified under the System Testing Procedures section of this Project Management Plan. In analyzing pre-revenue performance and results specific attention will be given to emergency preparedness and response procedures

16.11 State Safety Oversight Agency

HDOT has been designated as the SOA and is authorized by the State of Hawai'i to implement the provisions of 49 CFR 659. The SOA is currently developing its SSPS, as required by this regulation. The SSPS will describe SOA requirements and activities for safety and security certification, system start-up, and activation. HART will comply with all requirements of the SSPS as it pertains to these activities.

16.12 Final Project Safety and Security Certification

The GEC Safety and Security Manager will support the development of and submit to the SSORC for review and acceptance a Safety and Security Certification Verification Report (SSCVR) for each incremental start-up phase of the alignment. HART will formally submit the SSCVR to the SOA in accordance with the safety and security certification requirements of the SSPS. As described in the Project SSCP, this report will include completed and signed conformance checklists, signed Certificates of Conformance for each certifiable element, supporting documentation, an Open Items List, and the Project Safety and Security Certificate. Upon acceptance by the SSORC, the HART Safety and Security Manager will submit the SSCVR to the CSC GM and HART ED for review, approval, and signature of the Project Safety and Security Certificate. All required signatories must sign the Project Safety and Security Certificate prior to the commencement of revenue service for each start-up phase. The ultimate responsibility for safety and security certification and authorization to initiate revenue operations is vested with the HART ED.

16.13 Warranty Management

Warranty management procedures will be established during Final Design by the CSC and approved by HART.

17.0 JOINT DEVELOPMENT PROGRAM

The definition of joint development provided by FTA’s website states that “Joint development involves the common use of property for transit and non-transit purposes.” This generally takes the form of ground or air-rights leases of transit agency-owned property with the lease revenue stream accruing to the transit agency and the costs of development falling on the developer. Terms of development vary widely from project to project and from transit system to transit system, and may be quite unique.

Joint development is a product, but it is also a process which precedes the product and continues after the product is constructed. As used for the Project, some commonly accepted characteristics of joint development will include the following:

- Land and related interests in real property owned or controlled by the transit entity at or near stations (and possibly other transit facilities);
- Capacity for the incremental use of the real property beyond the direct operation of the transit system;
- Physical and functional integration of transit with development;
- Construction and ownership of improvements to real property by others than the transit entity; and
- The long-term leasing of the incremental rights in real property to others than transit with transit entity retaining ownership of the land.

Actual joint development does not refer to other related initiatives, which include more limited integration of adjacent private property developments with the transit property. In these cases, private development does not actually occur on transit-owned property, but may involve connection-fee agreement programs, with fees accruing to the transit agency. Coordination of adjacent construction, interim leasing of transit-owned land and sale of excess property are other initiatives which may be administered in some way by or on behalf of the transit entity.

Additionally, the FTA has issued Final Agency Guidance on the Eligibility of Joint Development Improvements Under Federal Transit Law (FR/Vol. 72, No.25/Wednesday, February 7, 2007/Notices), which modifies the underlying policy of joint development improvements: “FTA encourages incidental uses of real property that can raise additional revenues for the transit system or, at a reasonable cost, enhance system ridership. FTA approval is required for these incidental uses of real property which must be compatible with the original purposes of the grant.” This provision has been interpreted to mean that transit agencies can sell or lease land holdings financed by federal grants without having to return proceeds, as long as the grantee retains control over projects, and funds are used to shape

communities being served by transit (i.e., for transit-oriented development and joint development). It is recognized that property acquired with federal funds cannot be sold by the City without FTA prior approval.

17.1 Honolulu Rail Transit Project Joint Development Program

HART is responsible for the Project's real estate-related decisions and joint development activities (refer to "HRTP Joint Development Policy and Guidelines"). HART anticipates that it will acquire a limited number of land parcels at Project stations and other Project facilities as part of the right-of-way acquisition process. Some of these parcels may, in addition to accommodating the requisite transit functions, also be appropriate for transit-oriented or joint development and could form the basis of a developer offering. Where appropriate, joint development will enable a higher, denser use of land parcels than what could be accomplished solely by transit system uses.

Although no specific plans have been formulated, HART anticipates that a developer(s) could act in partnership with HART and the City to develop such sites in ways that support transit activity, increase ridership and provide enhanced quality of life benefits to the community. The selected developer(s) would assemble resources and teams that could design, finance, and construct mixed-use, transit-oriented developments that are acceptable to HART and the surrounding communities as well as the various City departments and regulatory agencies. HART envisions that the developer(s) would ultimately own, operate and maintain all building and site improvements, with lease revenues accruing to the transit entity/City; or, alternatively, that developer(s) would purchase and develop parcels determined by HART to be appropriate for sale.

APPENDIX A: GLOSSARY OF ACRONYMS AND DEFINITIONS

Acronyms

AA	Alternatives Analysis
AAR	American Association of Railroads
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act of 1990, as amended
ANSI	American National Standards Institute
APO/DB	Assistant Project Officer, DB Contracts
APO/DBB	Assistant Project Officer, DBB Contracts
APO/PE	Assistant Project Officer, Planning and Environment
APO/UA	Assistant Project Officer, Utility and Agency Coordination
AREMA	American Railway Engineering and Maintenance of Way Association
ASO	Administrative Services Officer
ATC	Automatic Train Control
BASC	Before & After Study Consultant
BCS	Baseline Control Survey
BFM	Budget/Financial Manager
BFS	Budget and Fiscal Services
BWS	Board of Water Supply
CAC	Citizen Advisory Committee
CCR	Cost Control Report
CCTV	Closed Circuit Television
CDT	Contract Document Transmittals
CEI	Construction Engineering and Inspection
CFM	Configuration Management
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CM	Construction Management
CMP	Construction Management Plan
CMS	Contract Management System
CO	Contracting Officer

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COR	Department of the Corporation Counsel
COTR	Contracting Officer's Technical Representative
CPM	Critical Path Method
CSC	Core Systems Contractor
CSI	Construction Specifications Institute
CSSO	Chief Safety and Security Officer
CSSP	Construction Safety and Security Plan
CTS	Cable Transmission System
CVS	Certified Value Specialist
DAC	Deputy Project Officer, Administration and Control
DB	Design-Build
DBB	Design-Bid-Build
DBE	Disadvantaged Business Enterprise
DBELO	Disadvantaged Business Enterprise Liaison Officer
DDC	Department of Design and Construction
DEC	Deputy Chief Project Officer, Engineering and Construction
DEIS	Draft Environmental Impact Statement
DEM	Department of Emergency Management
DFM	Department of Facilities Maintenance
DHS	Department of Homeland Security
DPP	Department of Planning and Permitting
DPR	Department of Parks and Recreation
DTS	Department of Transportation Services
E&O	Errors and Omissions
ECHO	Electronic Clearing House Operation
EDC	Engineering Design Consultant
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
ENV	Department of Environmental Services
EOR	Engineer of Record
EP&D	Engineering, Planning and Development
EPA	Environmental Protection Agency
EV	Earned Value

EVM	Earned Value Methodologies
FCA	Hawai‘i State Foundation on Culture and the Arts
FEIS	Final Environmental Impact Statement
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GEC	General Engineering Consultant
GET	General Excise Tax
HAR	Hawai‘i Administrative Rules
HBC	Hawai‘i Building Code
HDOT	Hawai‘i Department of Transportation
HFD	Honolulu Fire Department
HHCTCP	Honolulu High Capacity Transit Corridor Project
HMTV	Honolulu Municipal Television
HPD	Honolulu Police Department
HRS	Hawai‘i Revised Statutes
IDR	Inspector Daily Report
ITT	Integrated Test Team
JPA	Joint Participation Agreement
LPA	Locally Preferred Alternative
LRV	Light Rail Vehicles
LUO	Land Use Ordinance
MIS	Major Investment Study
MOCA	Mayor’s Office of Culture and the Arts
MOS	Minimum Operable Segment
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NOA	Notification of Availability
NTP	Notice to Proceed
O&M	Operations and Maintenance
O‘ahu MPO	O‘ahu Metropolitan Planning Organization
OCIP	Owner Controlled Insurance Programs

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ORTP	O‘ahu Regional Transportation Plan (ORTP)
OTS	O‘ahu Transit Services, Inc.
OWC	Overall Work Program
PCM	Project Controls Manager
PCO	Procurement and Contracts Officer
PE/EIS	Preliminary Engineering/Environmental Impact Statement
PMC	Program Management Consultant
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
PO	Purchase Order
PS&E	Plans Specification & Estimate
PSA	Professional Services Agreement
PTD	Public Transit Division
PV	Planned Value
QA	Quality Assurance
QA/QC	Quality Assurance and Quality Control
QC	Quality Control
RAM	Real Estate Acquisition Manager
RAMP	Real Estate Acquisition and Relocation Management Plan
RAP	Rail Activation Plan
RCH	Revised Charter of the City and County of Honolulu 1973
RCMP	Risk and Contingency Management Plan
RFI	Request for Information
RFP	Request for Proposal
ROD	Record of Decision
ROW	Right-of-Way
RTD	Rapid Transit Division
SCADA	Supervisory Control and Data Acquisition
SITP	System Integration Test Plan
SMA	Special Management Area
SOA	State Oversight Agency
SSCP	Safety and Security Certification Plan
SSEPP	System Security and Emergency Preparedness Plan
SSMP	Safety and Security Management Plan

SSRC	Safety and Security Review Committee
SSSP	Site Safety and Security Plan
TAC	Technical Advisory Committee
TED	Traffic Engineering Division
TIP	Transportation Improvement Program
TOD	Transit Oriented Development
TPD	Transportation Planning Division
TSA	Transportation Security Administration
TSTD	Traffic Signals and Technology Division
USC	United States Code
USDOT	United States Department of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure

Definitions

Change Order: A formal modification to the scope of work of the Project, often involving cost or schedule adjustments.

Cost-Loaded CPM: A technique using the CPM in which activities in the schedule are assigned discrete dollar amounts. Payment of these amounts is made upon the completion of said activities.

Contracting Officer (CO): The HART Executive Director.

Contracting Officer's Technical Representative (COTR): The person or persons designated by the CO to act on his behalf in the administration of the contract within the limits of their respective authorization.

Full Funding Grant Agreement (FFGA): Agreement between the federal government FTA and the City and County of Honolulu that sets forth the scope, schedule, and budget of the Project that will be constructed; establishes a financial ceiling with respect to FTA's participation in the Project; establishes a time for completion; and specifies the mutual understandings, terms and conditions relating to the design, construction and management of the Project.

Master Project Schedule: The primary schedule developed by the Project team which includes and coordinates the work of the various project phases and contractors.

Milestone: A discrete segment of the Project which when complete, represents identifiable and important progress.

Project Controls: The project management staff assisting the ED in all aspects of cost, schedule, contract administration, and CFM.

Project Management: The set of functions which implement a project, safeguarding quality, time, and cost.

Project Management Team: The ED and first line managers collectively responsible for ROW, engineering, planning & environmental, construction, administration and finance, quality assurance and project control for the Project.

Project Management Plan (PMP): The dynamic document, which establishes the framework for administering implementation of the Project.

Punch List: List of items to be completed by a contractor to meet closeout quality control standards.

Resident Engineer: The person responsible for the field administration of each civil and systems construction contract.

Schedule: The tool for managing and tracking of Project activities. It includes the Master Project Schedule, which governs all aspects of project work, detail schedules and individual phase schedules.

Quality Management Plan: The Quality Management Plan defines applicable quality policy for the Project and applicable quality procedures. Quality Management Plans are developed consistent with all other requirements of a grantee's quality management system. Contractors need to comply with the Quality Management Plan and applicable sections of the Quality Procedures. Vendors, consultants, and contractors of the organization are required to develop, implement and maintain that plan.

Note: Additional terms are defined in the applicable sections of this PMP and in respective contracts.

APPENDIX B: QUALIFICATIONS OF KEY STAFF

This appendix of the PMP presents the qualifications and experience of the key HART and PMC staff responsible for managing the Project. This material is presented to demonstrate the technical capacity of the staff assigned to the Project.

Daniel Grabauskas, Executive Director and CEO

Daniel Grabauskas has over 20 years of executive-level transportation management experience. Most recently serving as chairman and senior strategic adviser of the Bronner Center for Transportation Management, Mr. Grabauskas' experience also includes oversight of the Massachusetts Bay Transportation Authority (MBTA), and Secretary of Transportation for the Commonwealth of Massachusetts.

As general manager of MBTA, Mr. Grabauskas was responsible for over 6,100 employees, 28 unions and 11 collective bargaining units; an annual operating budget of \$1.4 billion; and an annual capital budget of \$500 million. He led the agency to pursue and complete several multi-modal transportation construction projects, and advanced a number of transit oriented development projects including mixed-use housing units and mixed-use commercial and retail office space. In addition, Mr. Grabauskas has a keen focus on customer service and improved the customer experience in the areas of customer communication, fare collection improvements and accessibility.

For the over two years he served as Secretary of Transportation for the Commonwealth of Massachusetts, Mr. Grabauskas concurrently served as the Chairman of the MBTA Board of Directors and the state's 13 metropolitan planning organizations. He was responsible for over 8,600 employees and an administrative budget of \$1.4 billion. He advised the Governor and other stakeholders on statewide transportation policies, planning, management and multi-modal integration with the state highway department.

Before being appointed as Massachusetts transportation secretary, Mr. Grabauskas was appointed as the chief executive of the Massachusetts Registry of Motor Vehicles, where he focused specifically on customer service improvements.

Mr. Grabauskas is a graduate of the College of the Holy Cross and received his MBA degree from Cornell University.

Kenneth Toru Hamayasu, P.E. – Chief Operating Officer

Kenneth Hamayasu has worked for the City and County of Honolulu's DTS for 34 years; the last 17 years as the DTS Chief Planner. Mr. Hamayasu is currently the Project Manager for the Honolulu High-Capacity Transit Corridor Project (HHCTCP). In addition to the HHCTCP, Mr. Hamayasu has managed, administered, and participated in other major rapid transit development projects and studies since 1972.

2007 to present: Project Manager, HHCTCP - Preliminary Engineering (PE) and Environmental Impact Statement (EIS).

2005-2006: Project Manager, HHCTCP - AA (FTA assisted).

1998 – 2004: Project Manager, Primary Corridor Transportation Project (FTA assisted). Responsible for preparing the federal and state environmental disclosure statements; preparing the final engineering plans and construction bid documents; CM oversight; and administration of contracts.

1988 – 1994: Planning Manager, Honolulu Rapid Transit Program (FTA assisted). Responsible for preparing alternative analysis, draft and final EISs; overseeing patronage forecasting and traffic mitigation plan during construction; and FTA grants management activities.

1978 – 1982: Patronage Forecaster, Honolulu Area Rapid Transit (FTA assisted). Responsible for overseeing the transit ridership and traffic volume forecasting to support the preparation of the FEIS.

1972 – 1976: Patronage Forecaster, Preliminary Engineering and Evaluation Program (FTA assisted). Responsible for transit ridership and traffic volume forecasting.

In addition to his work with FTA-assisted major capital projects, Mr. Hamayasu's experience includes developing and updating island-wide long and short range transportation plans; directing or participating in numerous traffic engineering studies and designs, such as intersections and traffic calming; and directing or participating in bus operation plans and studies, including those relating to bus fare structure, new routes, and facilities.

Mr. Hamayasu is a civil engineer registered in the State of Hawai'i.

Simon Zweighaft, P.E. – Senior Advisor

Simon Zweighaft is a senior project manager with 42 years of experience in virtually every element of transit program management and project implementation. His experience

managing large programs is solidly supported by many years of technical experience including preliminary design, oversight of environmental impact studies, planning, design criteria, consultant selection, contract management, final design, and construction administration for major automated guideway transit, light rail, and heavy rail transit projects. During his career, Simon has served as project manager, director of engineering, manager of project development, chief of planning, and in several other key roles.

Mr. Zweighaft is a civil engineer holding active or prior registration in seven states. He has been a project manager for the design of several very large mass transportation projects including the Miami Metrorail and People Mover Systems, the Los Angeles Blue Line Light Rail System, the Baltimore Central Line, the London Docklands Light Railway and the Hudson Bergen Light Rail line. Additionally, he has provided senior consulting advisory services on many other transit projects both domestically and internationally.

From 1994 through 1996, Simon held the position of president of TY Lin International, a major worldwide bridge engineering firm headquartered in San Francisco. Among the many projects accomplished by his firm were detailed design roles in all of the viaduct structures for the H-3 Expressway.

Frank Doyle – Deputy Project Officer, Administration and Controls

Frank Doyle is a Professional Engineer with over 50 years of broad and diversified engineering experience in project management, planning, design and construction. Mr. Doyle has been employed by the City and County of Honolulu since 1977 and served in a number of positions. As Chief of the Division of Refuse Collection and Disposal from 1977 to 1993, he was responsible for 400 employees and an operating budget of approximately \$90 million. He directed the planning, design, construction and operation of the Division's solid waste programs including the design/build/operate contract for the \$180 million waste to energy facility.

From 1991-93 Mr. Doyle served as Manager and Chief Engineer for the Office of Rapid Transit, DTS and was responsible for direction of the City's \$2.0 billion, 16-mile, fixed guideway rapid transit system, managing a staff of over 150 City employees and consultants. The project did not go forward and Mr. Doyle returned to his position a Chief of Refuse.

From 2001-04, Mr. Doyle was appointed as the Deputy Director for the ENV and subsequently appointed as Director in May 2003. In these positions he was responsible for all waste water and solid waste programs and managed the Department's \$150 million operating budget and \$500 million CIP.

Mr. Doyle subsequently resumed his duties as Chief of Refuse and was responsible for the design/build/operate contracts for the \$30 million Sludge Recycling Facility at the Sand

Island Waste Water Treatment Plant and the \$ 400 million upgraded air pollution control equipment on the waste to energy facility and the third boiler expansion.

Mr. Doyle rejoined the Rapid Transit Division of the DTS in 2009 and presently serves as the Deputy Project Officer for Administration and Controls.

He is a life member of the American Society of Civil Engineers, a Registered Professional Engineer in the State of Hawai‘i, and a member of the American Public Works Association.

Henry Miranda – Chief Safety and Security Officer

Henry Miranda has worked in the systems safety and security area of the transportation industry for over 30 years. He has worked as a consultant to, and has been directly employed by, transportation agencies in the US and abroad. He is knowledgeable in industry standards and is well known in the safety community. In addition, Mr. Miranda is an associate (instructor) for the Transportation Safety Institute (TSI) and the National Safety Institute (NTI); he assists in courses for Volpe Institute; and works with the State Department’s Anti-Terrorist Task Force (ATTF). Mr. Miranda teaches safety, system safety, emergency management, rail transit safety, and transit security.

Albert Bonifacio – Quality Assurance Manager

Albert Bonifacio has 40 years of management and engineering experience in the fields of licensing, architecture, structural/civil design, building services (M&E), transportation including rolling stock, equipment and product manufacturing, construction, QA/QC, and estimating. His experience includes supervising and managing multi-million dollar (\$500 million plus) contracts with private and government customers and subcontractors from planning phase, preliminary engineering, final design, construction, testing and start-up, commissioning, safety certification, operation and maintenance.

Prior to joining the Honolulu Rail Transit Project, Albert served as the QA/QC Manager for the South Florida Regional Transportation Authority. In that capacity he was responsible for administrating and managing that agency’s quality assurance system with responsibility to assure that all SFRTA projects were designed, constructed, tested and operated in accordance with regulatory requirements, specifications, applicable Codes, design and contract documents.

Charles Bayne – Interim Civil Rights Officer

Charles Bayne has over 39 years experience in business operations, human resource management, civil rights, customer service, training and development, dispute resolution, internal investigations and business management in both private and public sectors. Mr. Bayne is an experienced arbitrator and mediator. He has been acknowledged for his

dedication and ability to conduct hearings and render decisions that were orderly, fair and impartial. Mr. Bayne has served the people of Hawai‘i for the last 18 plus years and looks forward to the opportunity to continue to serve and contribute to the success of the rail project.

Joyce Oliveira—Executive Assistant Government Relations

Joyce Oliveira has been employed by the City and County of Honolulu for 18 years, all of which has been in the development of policies involving local legislative and regulatory initiatives, and the communication of these initiatives to legislators and government officials. Most recently, Ms. Oliveira worked as a liaison and representative of former Honolulu Mayor Mufi Hannemann at internal and external meetings and at hearings with the City Council, State legislative staff, and public and private sector organizations. Prior to joining the City, Ms. Oliveira was a legal assistant with the law firms of Ashford & Wriston and Bays, Deaver, Hiatt, Kawachika & Lezak in Honolulu.

Jerry Iwata – Real Property Acquisition Manager

Jerry Iwata has 23 years of experience working with the State of Hawai‘i Department of Transportation, Right-of-Way Branch. As the Right-of-Way Manager and section head, he performed and directed work in real property appraisal, acquisition, relocation assistance, and property management. He later transferred to the City and County of Honolulu where he served as the Chief of Land Division for six years. He directed the Right-of-Way staff on acquisition and relocation assistance for three major Interstate projects. His work also involved primary Federal Aid projects on all the major islands of the State of Hawai‘i, where he gained extensive knowledge and experience in the requirements of the Uniform Relocation Act and CFR. Mr. Iwata also has four years experience as a Real Property Appraiser with the City’s Department of Finance.

Laura Ray – Special Projects Manager

Laura Ray has over 24 years of experience managing a wide variety of urban transportation and infrastructure initiatives. As associate vice president for transportation and parking at Emory University, she oversaw the implementation of the Clifton Corridor Transportation Plan to address local and regional transportation needs. Ms Ray has worked for the Metropolitan Rapid Transit Authority (MARTA) in several capacities, including being responsible for MARTA’s operations and maintenance of its infrastructure and rolling stock and was responsible for both the long- and short-range planning efforts. She developed and implemented MARTA’s Capital Program, which included property acquisition in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act). In addition, as the senior director of capital planning and administration for

Amtrak in Philadelphia, she managed the interdepartmental capital program for the Northeast Corridor (NEC).

Ms. Ray began her career with the Metropolitan Transportation Authority in New York City and was responsible both operating and capital budgeting and program oversight. She has worked extensively with governmental agencies, local groups, organizations, union officials and professional associations.

Jeanne Mariani-Belding –Public Information Officer

Jeanne Mariani-Belding has more than 24 years of media and communications experience working on projects in Hawai‘i, California, and Asia. Prior to joining the transit team, Jeanne led strategic communications and community engagement efforts as a senior-level executive for the University of Hawai‘i’s 10-campus system, working directly with the university’s president. She is also principal, president and CEO of Group 8 Global Media and Communications Corp., a communications company focusing on community engagement, media, and public affairs strategies.

Jeanne also has extensive writing and editing experience, most recently as editorial page editor for Hawai‘i’s largest daily newspaper. She has also worked as a writer, columnist and editor for several major newspapers, including the San Jose Mercury News and the Los Angeles Daily News, and specialized in government, transportation, education, urban affairs, and race and demographics.

Wes Mott – Procurement and Contract Officer

Wes Mott’s 30 years of experience and qualifications as Chief Administrative Officer have focused exclusively on the engineering and planning industry and have included the following positions:

- Financial Business Manager;
- Contracts Manager;
- Operations Manager;
- Administrative and Controls Manager;
- Financial Advisor to Joint Venture Boards (EMC, LA TIMED, Eastside Light Rail Transit, Mission Valley East Light Rail Transit); and
- Chief Financial Officer, CTV, Inc., SR 125 Project.

His areas of expertise are as follows:

- Development, administration, financial, controls and reporting of joint ventures, limited partnerships and privatization projects;
- Understanding of risks and how to evaluate and price alternatives;
- Knowledge of the Federal Acquisition Regulations (FAR), Generally Accepted Accounting Principles (GCFRP), Financial Accounting Standards (FASB) and Government Accounting Standards (GASB); and
- Mergers & acquisitions, including financial due diligence and integration of acquired firms and disaggregating of units sold to others.

Harvey L. Berliner, P.E. – Deputy Project Officer, Engineering and Construction

Harvey Berliner has 35 years of experience providing engineering/project management for major transit systems. He served as director of facilities engineering for the Taipei Metropolitan Area Rapid Transit System, where he managed the preparation of preliminary engineering documents; assisted in negotiations with detail design firms; reviewed detail design documents; assisted with the coordination of outside agencies; and assisted with system wide electrical/mechanical engineering. Mr. Berliner was responsible for the development of system wide detail designs such as trackwork; elevators and escalators; signage and graphics; and station furniture, fixtures, and equipment; as well as some architectural finishes and the design of one storage and maintenance yard. As project manager for the No. 7 Line Subway Extension in New York City, he and his team produced design documents for a \$1.3 billion tunneling, excavation, and structural construction contract. Mr. Berliner also served as project manager for the Newark City Subway Extension and the Hudson-Bergen Light Rail Transit system in New Jersey; and as senior supervising civil engineer for the Metropolitan Atlanta Rapid Transit Authority (MARTA) system in Georgia.

Mr. Berliner is a registered engineer in the State of Hawai‘i.

Lorenzo Garrido – Assistant Project Officer, Design-Build Contracts

Lorenzo Garrido has over 20 years of experience in engineering and construction on major transportation and infrastructure projects including rail transit, highways and buildings. Mr. Garrido’s transit experience includes design management on light rail transit projects for San Diego’s Metropolitan Transit Development Board (now the San Diego Association of Governments), including the Mission Valley East Line extension involving both at-grade and elevated guideway and stations. His design/build experience includes serving as the construction manager on an \$800 million design/build toll road that involved precast segmental bridge construction. As construction manager he was responsible for overall contract compliance and oversight of the design/build contractor’s quality program including

design reviews, independent inspection and testing, OCIP, safety and environmental compliance. He also served as the owner representative involved in all aspects of dispute resolution including change order negotiations, partnering, dispute resolution boards, mediation, arbitration and litigation. His building experience includes construction of a multi-story office building and retail center while working for a general contractor, as well as his CM of a toll road operations and maintenance center. Mr. Garrido is a registered civil engineer in California.

Richard Torres – Assistant Project Officer, Design-Bid-Build Contracts

Richard Torres has more than 35 years of engineering experience from working at the United States Army Corps of Engineers, Bechtel International, the City & County of Honolulu, and the County of Maui. His areas of expertise are in life cycle project management from planning, design, and construction; contract negotiations process for design and construction; A-E selection process for various major and minor projects; design of power plant mechanical process systems, water treatment and wastewater treatment and distribution systems; and broad knowledge of international project execution (Japan and Korea).

Various positions throughout his career are as follows:

- Former Deputy Director, City and County of Honolulu, DTS
- Deputy District Engineer for Program and Project Management
- Program and Project Manager
- CO Representative
- Resident and Design-Process Engineer
- Chairman of the Architect-Engineer(A-E) Selection and Contract Review Boards

In-Tae Lee – Assistant Project Officer, Facilities

In Tae is a professional civil and structural engineer with 23 years of experience in managing, designing, and inspecting transportation related structural projects. He has extensive experience in the area of prestressed concrete, post-tensioned concrete, reinforced concrete, timber, and steel structures.

For the last 10 years, In Tae has managed multi-disciplinary project teams to develop transportation projects from scoping, alternative analysis, preliminary design, final design, preparation of final plans, specifications, estimates (PS&E) to include in bid documents, and provided assistance during construction including preparation of as-constructed drawings and other project closeout activities. In Tae managed the Perry Arch Bridge Rehabilitation which received the International Concrete Repair Institute's 2010 Project of the Year award.

In Tae served as Structural Managing Engineer for the Oregon Department of Transportation, responsible for developing, monitoring and controlling the state and local bridge projects on

the State TIP, managing a structural design team of 15 engineers and technicians including contract management on outsourced projects.

Vicki Barron Sumann – Assistant Project Officer, Utility, Agency & Permit Coordination

Vicki Barron Sumann has over 26 years of experience in the design and construction of large infrastructure projects, the last 11 of which are in the transit industry. As a project manager for the Minnesota DOT, Ms. Barron Sumann built large highway projects for 15 years before joining the Hiawatha LRT project in Minneapolis. Initially working as the Utility Engineer and Construction Manager for Mn/DOT, Ms. Barron eventually became the Deputy Project Manager and later the Project Manager of the \$300M design/build contract on the Hiawatha project. Moving on to Valley Metro as the Director of Design and Construction, she was responsible for all aspects of the design and construction of the \$1.4B, 20-mile light rail starter system in Phoenix. Most recently in Portland, Ms. Barron Sumann worked as the Program Construction Director for TriMet, responsible for real property, quality assurance, construction safety, safety certification and program scheduling for TriMet's recent \$150M commuter rail project, its \$575M South Corridor light rail extension, and its planned \$1.5B Portland to Milwaukie LRT extension. At TriMet, she also served as the agency's liaison with the FTA's Project Management Oversight Consultant (PMOC) and, as such, has a broad understanding of federal requirements and expected coordination efforts necessary for FTA projects. Ms. Barron Sumann is a registered civil engineer in Minnesota.

Jurgen Sumann – Assistant Project Officer, Core Systems

Jurgen Sumann is a systems engineering manager with 40 years of experience in transit - particularly rail transit - project development and implementation. He was project manager for the North County Transit District's Sprinter 22-mile DMU light rail system in Oceanside, CA and systems design manager for several projects of the Northstar Commuter Rail in Minneapolis, MN. Mr. Sumann served in several positions for the Hiawatha Light Rail Transit in Minneapolis, MN: design/construction manager, assistant general manager of rail operations, and assistant general manager of design and construction.

Mark Hickson – Risk Manager

Mark Hickson has over 25 years of Project Management and Controls experience in the construction, theme park, aerospace, and computer software industries. As a Senior Project Controls Analyst at the project management services firm Analytical Planning Services he specialized in representing GSA, state, and local governments in capital expansion projects. Major clients included: Alameda Corridor Transportation Authority & Engineering Team (ACTA/ACET). He provided project controls oversight of Rail, Infrastructure, & Highway contracts valued at over \$900 million. Project controls owner representative for the

University of California - Irvine for DB construction projects Cal IT2, Arroyo Vista housing complex and Terminal Radial Road infrastructure program. As President of MSHConsulting, major projects included: program strategy development and master planning for ‘Magic World’, a \$1.2 billion theme park in Dubai, U.A.E.; master planning and constructability analysis for Landmark Entertainment’s Yangtze Adventure Theme Park in Wuhan, China. Mr. Hickson was also a Senior Planner at Walt Disney Imagineering, responsible for planning and managing the development and construction of new attractions for Walt Disney theme parks, worldwide.

John Burns—Project Controls Manager

John Burns brings over 40 years of experience in project and construction management, focusing primarily on large, complex, domestic and international capital programs. Over the past twenty-five years he has worked almost exclusively on FTA rail transit projects. As the Deputy Project Director for the Hiawatha Light Rail Project, a \$715 million, 12-mile starter line and Minnesota’s largest-ever public project undertaking, he led a team providing professional project management and design/construction oversight services, including project scheduling, project controls system implementation and maintenance, progress evaluation and reporting, estimating, constructability reviews, value engineering, change order evaluation, contract administration and technical oversight of the \$330 million design/build contract, and the design, fabrication and testing of light rail vehicles. The Hiawatha Project was selected as the 2005 American Public Works Association’s “Public Works Project of the Year” for transportation.

He served in a similar capacity on the Tasman West Light Rail Project, a \$328 million, 7.6-mile extension in California’s Silicon Valley. The Tasman West Project was completed within budget and a year ahead of schedule, receiving not only the American Public Works Association’s “Public Works Project of the Year” award and the California Transportation Foundation’s “Project of the Year” award for 2000, but was recognized by *Engineering News-Record* as one of the year’s best projects. Mr. Burns has been the Project Controls Manager for the Santa Clara Valley Transportation Authority’s Guadalupe starter line (San Jose, CA) and the San Francisco Municipal Transportation Agency’s Central Subway Project, and served as the Principal-in-Charge for the construction management of Sound Transit’s Commuter Rail Stations Projects. He has also served as an expert witness, representing the Sacramento Regional Transit Authority in the settlement of an \$8 million construction delay claim. Mr. Burns is active in the American Public Transportation Association (APTA) and currently serves on the APTA Capital Projects Subcommittee.

Karen Gast—Configuration Manager

Karen Gast has over 10 years of General Construction and 15 years of Project Management experience, specializing in Transit Rail Projects. As a Program Manager for Jacobs

Engineering, Karen was responsible for the management and oversight of both LACMTA and BART project Improvement Contracts. In addition, she was tasked with the Resident Engineer responsibilities for several large projects including retrofitting LACMTA for ADA Compliance and upgrading Maintenance and Storage Facilities while in operation. During her tenure, Karen has been responsible for the oversight of direct construction field operations, CM operations and sub-consultants, partnering and reporting ‘lessons learned’ to clients.

Faith Miyamoto – Assistant Project Officer, Planning and Environment

Faith Miyamoto has 23 years of experience working with Federal and State environmental impact documents. Ms. Miyamoto has been employed by the City and County of Honolulu for 19 years, of which 18 have been with the City’s DTS as an environmental planner. Ms. Miyamoto worked on the NEPA and State of Hawai‘i environmental impact documents for the Honolulu Rapid Transit Program (1989 to 1994), and the Primary Corridor Transportation Project (1998 to 2004), and the AA for the Honolulu High-Capacity Transit Corridor Project (2005 to 2006). Prior to joining the City, Ms. Miyamoto was a planner with the State of Hawai‘i Office of Environmental Quality Control, the office responsible for implementing Hawai‘i’s EIS law.

APPENDIX C: CHARTER AMENDMENT



CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

No. 09-252, CD1

RESOLUTION

INITIATING AMENDMENTS TO THE REVISED CHARTER OF THE CITY AND COUNTY OF HONOLULU 1973, AS AMENDED, RELATING TO THE CREATION OF A PUBLIC TRANSIT AUTHORITY.

WHEREAS, the City and County of Honolulu has begun work on the Honolulu High-Capacity Transit Corridor Project, the purpose of which is to design and build a fixed guideway mass transit system for the City; and

WHEREAS, in studying other jurisdictions that have built fixed guideway mass transit systems, these jurisdictions have established public transit authorities to plan, build, operate, and maintain their fixed guideway mass transit systems; and

WHEREAS, it is prudent and in the best interest of the City to establish a semi-autonomous public transit authority in order to timely and efficiently manage the planning, construction, operation, maintenance, and expansion of the City's fixed guideway mass transit system; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu:

1. That it propose, and it is hereby proposed, that the following question be placed on the 2010 general election ballot:

"Shall the revised City Charter be amended to create a semi-autonomous public transit authority responsible for the planning, construction, operation, maintenance, and expansion of the City's fixed guideway mass transit system?"

2. That it propose and it is hereby proposed, that a new Article be added to the Revised Charter of the City and County of Honolulu 1973, as amended, to read as follows:

**"ARTICLE _____
PUBLIC TRANSIT AUTHORITY**

Section __-101. Organization --

There shall be a public transit authority, to be known as the "Honolulu Authority for Rapid Transportation," consisting of a board of directors, executive director, and the necessary staff.



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Section __-102. Definitions --

For the purposes of this article:

“Authority” shall mean the governmental unit known as the “Honolulu Authority for Rapid Transportation.”

“Board” shall mean the policy-making body, consisting of ten members of the board of directors, nine voting members and one non-voting member.

“Executive director” shall mean the executive director of the public transit authority.

Section ___-103. Powers, Duties, and Functions --

1. The public transit authority shall have authority to develop, operate, maintain and expand the city fixed guideway system as provided in this article.

2. To perform its duties and functions, the transit authority shall have the following general powers:

(a) To make and execute contracts, project labor agreements and other instruments requiring execution by the authority on such terms as the authority may deem necessary and convenient or desirable with any person or entity in the execution and performance of its powers, duties and functions.

(b) To acquire by eminent domain, purchase, lease or otherwise, in the name of the city, all real property or any interest therein necessary for the construction, maintenance, repair, extension or operation of the fixed guideway system; provided, however that prior to commencing such action, the authority shall submit to the council, in writing, a list of the parcels and areas to be acquired. The authority shall have the right to proceed with such condemnation action so long as the council does not adopt a resolution objecting to the condemnation within 45 days of such notification. Alternatively, after receipt of the notice from the authority, the council may approve, upon a single reading of a resolution, such acquisition by eminent domain.

(c) To recommend to the council the sale, exchange or transfer of real property or any interest therein which is under the control of the



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authority. The council shall take no action to dispose of such property without the written approval of the authority, and all proceeds from the disposition shall be deposited into funds of the authority or fixed guideway system.

(d) To direct the planning, design, and construction of the fixed guideway system and operate and maintain the system thereafter.

(e) To establish all fares, fees, and charges for the fixed guideway system.

(f) To maintain proper accounts in such manner as to show the true and complete financial status of the authority and the results of management and operation thereof.

(g) To prepare annual operating and capital budgets for the fixed guideway system and the authority.

(h) To make and alter policies for its organization and internal administration.

(i) To create or abolish positions within the authority and establish a pay plan for those persons holding positions in the position classification plan in accordance with Section 6-1109 of this charter.

(j) To make temporary transfers of positions between subdivisions of the authority.

(k) To adopt rules in accordance with state law, when necessary, to effectuate its functions and duties.

(l) To enter into agreements with any public agency or private entity as it deems proper, including agreements for the joint use or operation of transit facilities with agencies of the city.

(m) To have full and complete control of all real and personal property used or useful in connection with the fixed guideway system, including all materials, supplies, and equipment.

(n) To promote, create and assist transit oriented development projects near fixed guideway system stations that promote transit



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ridership, and are consistent with the intent of the adopted community plans and zoning.

(o) To apply for and receive and accept grants of property, money and services and other assistance offered or made available to it by any person, government or entity, which it may use to meet capital or operating expenses and for any other use within the scope of its powers, and to negotiate for the same upon such terms and conditions as the authority may determine to be necessary, convenient or desirable.

(p) In addition to the general powers under this subsection, other general or specific powers may be conferred upon the authority by ordinance, so long as the powers are consistent with this article of the charter.

3. The board shall:

(a) Have the authority to issue revenue bonds under the name of "Honolulu Authority for Rapid Transportation" in accordance with HRS Chapter 49, subject to council approval.

(b) Review, modify as necessary, and adopt annual operating and capital budgets submitted by the executive director of the authority.

(c) Appoint and may remove an executive director, who shall be the chief executive officer of the public transit authority. The qualifications, powers, duties, functions, and compensation of the executive director shall be established by the board.

(d) Evaluate the performance of the executive director at least annually; and submit a report thereon to the mayor and the council.

(e) Review, modify as necessary, and adopt a six-year capital program within six months of the creation of the authority and annually update the six-year capital program, provided that such capital programs shall be submitted by the executive director.

(f) Have the authority to enter into such arrangements and agreements for the joint, coordinated or common use with any other public entity or utility owning or having jurisdiction over rights-of-way, tracks,



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structures, subways, tunnels, stations, terminals, depots, maintenance facilities, and transit electrical power facilities.

(g) Determine the policy for the planning, construction, operation, maintenance, and expansion of the fixed guideway system. Except for purposes of inquiry or as otherwise provided in this article, neither the board nor its members shall interfere in anyway with the administrative affairs of the authority.

(h) Prescribe and enforce rules and regulations having the force and effect of law to carry out the provisions of this article of the charter.

(i) Submit an annual report to the mayor and council on its activities.

(j) In addition to the general powers under this subsection, other general or specific powers may be conferred by ordinance upon the board, so long as the powers are consistent with this article of the charter.

Section __-104. Powers, Duties and Functions of the Executive Director --

The executive director shall:

(a) Administer all affairs of the authority, including the rules, regulations and standards adopted by the board.

(b) Have at least five years of fixed guideway system experience.

(c) Sign all necessary contracts for the authority, unless otherwise provided by this article.

(d) Recommend to the board the creation or abolishment of positions.

(e) Enforce the collection of fares, tolls, rentals, rates, charges and other fees.

(f) Prepare payrolls and pension rolls.



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- (g) Maintain proper accounts in such manner as to show the true and complete financial status of the authority and the results of management and operation thereof.
- (h) Prepare annual operating and capital budgets.
- (i) Prepare and maintain a six-year capital program.
- (j) Prescribe rules and regulations as are necessary for the organization and internal management of the authority.
- (k) Recommend rules and regulations for adoption by the board.
- (l) Request, and accept appropriations from the city, and request and accept grants, loans and gifts from other persons and entities.
- (m) Administer programs promoting appropriate developments near transit stations, including compilation of city incentive programs.
- (n) Review development projects having significant impact on the operation of the fixed guideway system.
- (o) Plan, administer and coordinate programs and projects of the fixed guideway system that are proposed to be funded, wholly or partially, under federal or state law and required to be transmitted to the Oahu metropolitan planning organization.
- (p) Attend all meetings of the board unless excused.
- (q) In addition to the general powers under this section, other general or specific powers may be conferred upon the executive director by ordinance, so long as the powers are consistent with this article of the charter.

Section ___-105. Board of Directors --

- 1. The board shall:
 - (a) Be the policy making body of the authority;



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(b) Be responsible for establishing policies for the development, operation, and maintenance of the public transit system; and

(c) Perform other duties and functions assigned to it or to the authority by ordinance in accordance with Section ___-103.3(j).

The board shall consist of ten members, nine voting members and one non-voting member. All members shall serve part-time. The board shall be governed by the provisions of Section 13-103 of this charter, except that subsections (b) and (e) shall not apply and as otherwise provided herein.

2. Appointed members. There shall be seven appointed members. The mayor shall appoint three members. The council shall appoint three members. The six appointed and two ex officio voting members shall appoint, by majority vote, a ninth member.

The initial appointments of the seven appointed members shall be as follows: One member from each mayoral or council appointment shall be designated to serve a five-, four-, and three-year term. The ninth member appointed by the voting members shall serve a two-year term.

3. Ex officio members. The state director of transportation and the city director of transportation services shall be ex officio voting members of the board. The director of the department of planning and permitting shall be the ex officio non-voting member of the board. The ex officio members of the board shall not be subject to any term limit.

Section ___-106. Rates, Revenues and Appropriations --

The board shall fix and adjust reasonable rates and charges for the fixed guideway system so that the revenues derived therefrom, in conjunction with revenues received from the general excise and use tax surcharge, from the federal government, and from the revenue-generating properties of the authority, shall be sufficient or as nearly sufficient as possible, to support the fixed guideway system and the authority. The authority shall submit a line-item appropriation request for each of its proposed operating and capital budgets for the ensuing fiscal year to the council through the office of the mayor by December 1st of each year. The office of the mayor shall submit the authority's line-item appropriation requests without alteration or amendment. The council shall, with or without amendments, approve the authority's appropriation requests.



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Section ___-107. Public Hearings --

The board shall hold public hearings prior to fixing and adjusting rates and adopting a proposed budget.

Section ___-108. Receipt and Disbursement of Funds --

The authority shall make its own collections, but all receipts shall be paid daily into the city treasury and maintained in a fund separate and apart from any other funds of the city.

All moneys expended by the authority shall be disbursed with the written approval of the authority according to the procedures prescribed by the director of budget and fiscal services.

The authority shall have management and control over the moneys made available to the authority in the special transit fund established to receive the county surcharge on state tax.

The authority shall have the authority to receive and expend federal funds authorized for the planning, construction, and operation and maintenance of fixed guideway system projects.

Section ___-109. Bond Sales --

All bond sales shall be subject to council approval. At the request of the authority, the council may, by resolution, approve and the director of budget and fiscal services, when so directed by the board, shall sell such bonds for the acquisition, construction, replacement, rehabilitation, approved extensions or completion of the fixed guideway system in accordance with the procedures prescribed by law for such sales. The proceeds from such sales shall be kept by the director of budget and fiscal services in a separate fund to be used only for the purposes for which the bonds are sold.

Section ___-110. Personnel; Purchasing --

1. Subject to the availability of funds and the creation of positions by and authorization from the board, the executive director may hire personnel necessary to perform the duties and functions of the public transit authority.



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- 2. The authority shall be subject to the civil service provisions of this charter.
- 3. The authority shall be subject to the centralized purchasing and disposal of personal property provisions of this charter.
- 4. Pensions for officers and employees shall be governed by law.

Section ___-111. Audits --

- 1. The accounts and financial status of the authority shall be examined annually by a certified public accountant whose services shall be contracted for by the board and whose fees shall be paid as an expense of the authority. The result of such examination shall be reported to the board, the council and the mayor.
- 2. The authority shall come within the purview of the performance audit conducted by the managing director and such audits as may be required by the council or conducted by the city auditor.

Section ___-112. Legal Counsel --

The corporation counsel of the city shall be the legal adviser of the authority and shall institute and defend, as the board may require, any and all actions involving matters under the jurisdiction of the authority. The corporation counsel may, with the prior approval of the board, compromise, settle or dismiss any claim or litigation, for or against the authority.

The compensation for such legal work shall be as agreed upon by the board and the council and shall be paid from the revenues of the authority.

The authority may employ an attorney to act as its legal adviser and to represent the authority in any litigation to which the authority is a party.

Section ___-113. Service of Process; Claims --

The authority may sue and be sued under the name of the "Honolulu Authority For Rapid Transportation, City and County of Honolulu." Service of process in all matters affecting the authority or any property under its jurisdiction may be made by service upon any member of the board or on the executive director. Any action commenced or prosecuted for the recovery of damages for



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any injury to persons or property by reason of negligence of the board or of any agents or employees of the authority, shall be commenced and prosecuted against the authority. No action shall be maintained for the recovery of damages unless a written statement verified by oath of claimant, setting forth the nature and items of the claim and the time and place where the alleged injury occurred, has been filed with the authority within two years after the date of sustaining the injury.

Section ___-114. Transit Fund --

There shall be established a special fund into which shall be transferred the county surcharge on state tax and all revenues generated by the fixed guideway system, including interest earned on the deposits and all other receipts dedicated for the fixed guideway system. All moneys collected from the county surcharge on state excise and use tax and received by the city shall be promptly deposited into the special fund. Expenditures from the special fund shall be for the operating or capital costs of the fixed guideway system and for expenses in complying with the Americans with Disabilities Act of 1990 as it may be amended.

Section ___-115. Reserve Funds --

The board may provide for the accumulation of funds for the purpose of financing major replacements, or extensions and additions to the fixed guideway system, the average estimated annual increment to which, for a period of ten years, shall not exceed fifteen percent of the gross revenues of the fixed guideway system of the authority in any fiscal year.

Section ___-116. Performance Bonds --

The board may require an individual or blanket bond in such amount as it shall deem proper for any or all employees, which bond shall be duly conditioned for the faithful performance of duties, and the board may provide that the premium on the bond be paid out of the revenues of the authority.

Section ___-117. Personnel --

The mayor may transfer a civil service position existing on July 1, 2011 within any department to the authority, if the position is necessary for the administration or operation of the authority or the performance of another duty or function assigned to the authority. The civil service employee holding a



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permanent appointment in a position that is to be transferred shall suffer no loss of vacation allowance, sick leave, service credits, retirement benefits, or other rights and privileges because of the transfer. Nothing in this section, however, shall be construed as preventing future changes in status pursuant to the civil service provisions of this charter.

Section __-118. Standards of Conduct --

Article XI of the charter shall be applicable to the authority.

Section __-119. Fixed Guideway Alignments, Extensions and Additions --

The authority shall adhere to the fixed guideway system alignment of the locally preferred alternative approved by the council. Any new alignment, extension or addition to the fixed guideway system alignment shall be subject to council approval by ordinance, except that any adjustment of the alignment necessitated by the impact mitigation shall not constitute a new alignment for purposes of this section.

Section __-120. Applicability of Charter Provisions --

Except as otherwise provided, no provision of this charter, other than those set forth in this article of the charter, shall be applicable to the authority.”

3. That it propose and it is hereby proposed, that Section 6-203, Revised Charter of the City and County of Honolulu 1973, as amended, be amended to read as follows:

“Section 6-203. Powers, Duties and Functions --

The director of budget and fiscal services shall be the chief accounting officer of the city and shall:

- (a) Prepare bills for the collection of moneys due the city or authorize the preparation thereof by other executive agencies of the city government under the director’s general supervision.
- (b) Collect and receive moneys due to or receivable by the city and issue receipts therefor or authorize other executive agencies to do so under conditions prescribed by the director of budget and fiscal services.



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- (c) Keep accurate and complete account of receipts and disbursements.
- (d) Maintain the treasury and, with the approval of the mayor, deposit moneys belonging to the city in depositories authorized by law which fulfill all conditions prescribed for them by law.
- (e) Contract for services of independent contractors, purchase materials, supplies and equipment and permit disbursements to be made only pursuant to rules and regulations adopted under the terms of this charter.
- (f) Have the responsibility for issuing, selling, paying interest on and redeeming bonds of the city.
- (g) Prepare and issue warrants.
- (h) Prepare payrolls and pension rolls.
- (i) Be responsible for the management of city funds.
- (j) Sell real property upon which improvement assessments are not paid within the period prescribed and dispose of personal property not needed by any agency of the city, pursuant to policies established by the council.
- (k) Rent or lease city property, except property controlled by the board of water supply[,] and the public transit authority, and award concessions, pursuant to law and to policies established by the council.
- (l) Prepare and maintain a perpetual inventory of all lands owned, leased, rented or controlled by the city.
- (m) Prepare and maintain a perpetual inventory of equipment owned or controlled by the city and materials and supplies in central city storerooms.
- (n) Review assessment rolls for assessable public improvements prior to approval by the council and issue bills therefor after such approval has been given.



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- (o) Have custody of all official bonds, except the bond of the budget and fiscal services director, which shall be in the custody of the mayor.
- (p) Review the manner in which public funds are received and expended and report to the mayor on the integrity with which said funds are accounted for and on the financial responsibility of officers and employees administering said funds.
- (q) Provide information pertaining to the financial affairs of the city and make financial reports at least quarterly to the mayor and the council.
- (r) Prepare the operating and capital program and budget and necessary budget ordinances and amendments or supplements thereto under the direction of the mayor.
- (s) Review the operating and capital budget program schedules of each executive agency and make budgetary allotments for their [accomplishments] accomplishment with the approval of the mayor.
- (t) Review all executive agency requests for the creation of new positions.”

4. That it propose and it is hereby proposed, that Section 6-1103, Revised Charter of the City and County of Honolulu 1973, as amended, be amended to read as follows:

“Section 6-1103. Civil Service and Executive Branch Exemptions --

The provisions of this chapter of the charter shall apply to all positions in the service of the executive branch. This section shall apply to semi-autonomous agencies as though they are departments of the executive branch. The following positions shall be exempt from the provisions of this chapter of the charter:

- (a) Positions of officers elected by public vote; positions of heads of departments; the position of the band director of the Royal Hawaiian Band; the position of the manager and chief engineer of the board of water supply and the manager of any semi-autonomous agency created by ordinance.



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(b) Positions in the office of the mayor, but such positions shall be included in the position classification plan. Employees of the civil defense agency and Royal Hawaiian Band, other than the band director, shall not be exempted from civil service.

(c) Positions of deputies of the corporation counsel, deputies and administrative or executive assistants of the prosecuting attorney and law clerks.

(d) Positions of members of any board, commission or equivalent body.

(e) Positions of a temporary nature filled by students.

(f) Personal services obtained by contract where the director has certified that the service is special or unique, is essential to the public interest and that, because of circumstances surrounding its fulfillment, personnel to perform such service cannot be obtained through normal civil service recruitment procedures. Any such contract may be for any period not exceeding one year.

(g) Personal services of a temporary nature needed in the public interest where the need for the same does not exceed one year, but before any person may be employed to render such temporary service, the director of human resources shall certify that the service is of a temporary nature and that recruitment through normal civil service recruitment procedures is not practicable.

(h) Personal services performed on a fee, contract or piecework basis by persons who may lawfully perform their duties concurrently with their private business or profession or other private employment, if any, and whose duties require only a portion of their time, where it is impracticable to ascertain or anticipate the portion of time devoted to the service of the city and when such fact is certified to by the director of human resources.

(i) Positions of one first deputy; and for the Honolulu Police Department one additional deputy; private secretaries to heads of departments and their deputies; and the position of managing director, one first deputy and private secretaries to each; but private secretarial positions shall be included in the position classification plan. The first



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deputy in the department of human resources, however, shall not be exempt from civil service.

(j) Positions or personal services in demonstration programs and joint participation and special projects which serve the community; provided that such exemptions are required by federal law or rules and regulations and then in accordance with procedures established by ordinance.

(k) The following positions of the public transit authority:

(1) The executive director, deputy director(s), private secretaries to the executive director and deputy director(s); and

(2) Positions certified by the director of human resources that require specialized knowledge and experience in fixed guideway system planning, development, operations, maintenance, and management, or transit-oriented development;

provided that, except for private secretarial positions, such positions shall not be included in the position classification plan and salaries for such positions shall be set by the public transit authority.

The director of human resources shall determine the applicability of this section of the charter to specific employment or services in the executive branch.”

5. That it propose and it is hereby proposed, that Section 6-1703, Revised Charter of the City and County of Honolulu 1973, as amended, be amended to read as follows:

“Section 6-1703. Powers, Duties and Functions --

1. The director of transportation services shall:

(a) Plan, operate and maintain transportation[, including transit and bikeway,] systems, including bikeways, except for activities relating to the fixed guideway system as defined in Section -102, to meet public transportation needs, in accordance with the general plan and development plans, and advise on the design and construction thereof.



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(b) Locate, select, install and maintain traffic control facilities and devices.

(c) Provide educational programs to promote traffic safety.

(d) Establish a steel wheel on steel rail transit system, provided that nothing in this subsection shall preclude the director from utilizing technologies other than steel wheel on steel rail technology to complement or extend the rail transit system.

(e) Promulgate rules and regulations pursuant to standards established by law.

2. The director of transportation services shall have no power, duty, or function with respect to transportation systems, facilities, or programs which are under the jurisdiction of the public transit authority."

6. That it propose and it is hereby proposed, that a new section be added to the Revised Charter of the City and County of Honolulu 1973, as amended, to read as follows:

"Section 16- . Transition Provisions Concerning the Establishment of the Honolulu Authority for Rapid Transportation --

1. All civil service officers and employees holding positions with the rapid transit division, department of transportation services, on June 30, 2011, shall be transferred to the Honolulu Authority for Rapid Transportation on July 1, 2011. The civil service officers and employees shall suffer no loss of vacation allowance, sick leave, service credits, retirement benefits, or other rights and privileges because of the transfer. Nothing in this subsection, however, shall be construed as preventing future changes in status pursuant to the civil service provisions of this charter.

2. All lawful obligations and liabilities owed by or to the City and County of Honolulu relating to the fixed guideway system as defined in Section -102 of this charter on June 30, 2011 shall remain in effect on July 1, 2011. The obligations and liabilities shall be assumed by the authority.

3. All records, property, and equipment whatsoever of any office, division, department, board, commission, authority, or agency, the functions of



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which, or some of the functions of which, are assigned to any other agency by the amendments to this charter approved on November 2, 2010, shall be transferred and delivered to the agency to which such functions are assigned.”

7. In Sections 3 to 6 of this resolution, charter material to be repealed is bracketed; new charter material is underscored. When revising, compiling, or printing these charter provisions for inclusion in the Revised Charter of the City and County of Honolulu 1973, as amended, the revisor of the Charter need not include the brackets, the bracketed material, or the underscoring.
8. That if these Charter provisions are amended by any other Charter amendment approved by the electors in the 2010 general election, the revisor of the Charter, in revising, compiling or printing the Charter: (1) may designate or redesignate articles, chapters, sections or parts of sections, and rearrange references thereto; and (2) shall, except as otherwise expressly provided in this resolution or in the other resolution(s) amending these Charter provisions, give effect, to the extent possible, to all of the amendments approved. The revisor of the Charter may also change capitalization or the forms of numbers and monetary sums for the sake of uniformity.
9. That the City Clerk be and is hereby directed:
 - A. To prepare the necessary ballots with the question contained in this resolution and with spaces for “yes” and “no” votes on the question for presentation to the electors at the 2010 general election. The City Clerk may make technical and non-substantive changes to the form of the question presented in order to conform it to the form of other Charter amendment questions presented to the electors at the same election; and
 - B. To publish the above-proposed Charter amendments at length in a daily newspaper of general circulation in the City and County of Honolulu at least 45 days prior to their submission to the electors at the 2010 general election.



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- 10. That upon approval of the Charter amendment question posed in this resolution by a majority of electors voting thereon, as duly certified, the Charter amendments proposed in this resolution shall take effect on July 1, 2011.

INTRODUCED BY:

Charles Djou

Todd Apo

Ikaika Anderson

DATE OF INTRODUCTION:

August 20, 2009
Honolulu, Hawaii

Councilmembers

Project Management Plan – Rev. 5.0 July 17, 2012

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII
C E R T I F I C A T E

RESOLUTION 09-252, CD1

Introduced: 08/20/09 By: CHARLES DJOU

Committee: EXECUTIVE MATTERS
AND LEGAL AFFAIRS

Title: RESOLUTION INITIATING AMENDMENTS TO THE REVISED CHARTER OF THE CITY AND COUNTY OF HONOLULU 1973, AS AMENDED, RELATING TO THE CREATION OF A PUBLIC TRANSIT AUTHORITY.

Links: [RES09-252](#)
[RES09-252, CD1](#)
[CR-305](#)
[CR-398](#)

NOTE: COUNCILMEMBER DUKE BAINUM PASSED AWAY ON TUESDAY, JUNE 9, 2009. ALTHOUGH THERE IS A VACANCY, THE COUNCIL CONTINUES TO OPERATE IN ACCORDANCE WITH THE 9 MEMBERS IT IS ENTITLED TO PURSUANT TO SECTION 3-102, REVISED CHARTER OF THE CITY AND COUNTY OF HONOLULU 1973, AS AMENDED. HOWEVER, THE CERTIFICATE WILL NOT REFLECT THE VACANCY ON THE VOTE RECORDED FOR THIS ITEM.

COUNCIL	08/26/09	RESOLUTION PASSED FIRST READING AND REFERRED TO THE COMMITTEE ON EXECUTIVE MATTERS AND LEGAL AFFAIRS.							
ANDERSON	Y	APO	Y	CACHOLA	Y	DELA CRUZ	Y	DJOU	Y
GARCIA	Y	OKINO	Y	TAM	Y				

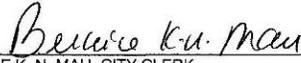
NOTE: ANN KOBAYASHI WAS SWORN IN AND TOOK OFFICE AS A MEMBER OF THE HONOLULU CITY COUNCIL ON FRIDAY, AUGUST 28, 2009 REPRESENTING DISTRICT V.

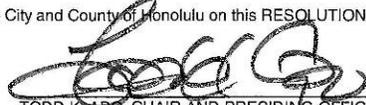
EXECUTIVE MATTERS AND LEGAL AFFAIRS	09/02/09	CR-305 – RESOLUTION REPORTED OUT OF COMMITTEE FOR PASSAGE ON SECOND READING AND SCHEDULING OF A PUBLIC HEARING.							
PUBLISH	09/05/09	PUBLIC HEARING NOTICE PUBLISHED IN THE HONOLULU STAR BULLETIN.							
COUNCIL/PUBLIC HEARING	09/16/09	CR-305 ADOPTED. RESOLUTION 09-252 PASSED SECOND READING, PUBLIC HEARING CLOSED AND REFERRED TO EXECUTIVE MATTERS AND LEGAL AFFAIRS COMMITTEE.							
ANDERSON	Y	APO	Y	CACHOLA	Y	DELA CRUZ	Y	DJOU	Y
GARCIA	Y	KOBAYASHI	Y	OKINO	Y	TAM	Y		

PUBLISH	09/24/09	SECOND READING NOTICE PUBLISHED IN THE HONOLULU STAR BULLETIN.				
EXECUTIVE MATTERS AND LEGAL AFFAIRS	12/02/09	CR-398 – RESOLUTION REPORTED OUT OF COMMITTEE FOR PASSAGE ON THIRD READING AS AMENDED IN CD1 FORM.				

COUNCIL	12/16/09	CR-398 ADOPTED AND RESOLUTION 09-252, CD1 PASSED THIRD READING, AS AMENDED.							
ANDERSON	Y	APO	Y	CACHOLA	A	DELA CRUZ	Y	DJOU	Y
GARCIA	Y	KOBAYASHI	Y	OKINO	Y	TAM	Y		

I hereby certify that the above is a true record of action by the Council of the City and County of Honolulu on this RESOLUTION.


BERNICE K. N. MAU, CITY CLERK


TODD K. APO, CHAIR AND PRESIDING OFFICER