

PMOC MONTHLY REPORT

Honolulu Rail Transit Project
City and County of Honolulu
Honolulu Authority for Rapid Transportation (HART)
Honolulu, HI

March 2014 (FINAL)

PMOC Contract Number: DTFT60-09-D-00012
Task Order No. 2: Honolulu Rail Transit Project
Project No: DC-27-5140
Work Order No. 1
OPs Referenced: OP 1 and 25

Jacobs Engineering Group, Inc., 501 North Broadway, St. Louis, MO63102
Tim Mantych, P.E., (314) 335-4454, tim.mantych@jacobs.com
Length of Time Assigned: Five Years (November 18, 2009 through November 17, 2014)

TABLE OF CONTENTS

| | |
|--|-----------|
| TABLE OF CONTENTS | i |
| LIST OF APPENDICES | i |
| 1.0 EXECUTIVE SUMMARY | 2 |
| 1.1 Project Description..... | 2 |
| 1.2 Project Status | 2 |
| 1.3 PMOC Issues or Concerns | 4 |
| 1.4 Core Accountability Items | 6 |
| 2.0 BODY OF REPORT | 9 |
| 2.1 Grantee’s Capabilities and Approach | 9 |
| 2.1.1 Technical Capacity and Capability (TCC)..... | 9 |
| 2.1.2 Project Controls for Scope, Quality, Schedule, Cost, Risk, and Safety..... | 9 |
| 2.1.3 Compliance with Applicable Statutes, Regulations, Guidance and FTA Agreements | 10 |
| 2.2 Project Scope | 11 |
| 2.2.1 Status of Design/Construction Documents | 11 |
| 2.2.2 Status of Third-Party Agreements | 12 |
| 2.2.3 Delivery Method | 15 |
| 2.2.4 Core Systems and Vehicle Status | 15 |
| 2.3 Project Management Plan and Sub-Plans | 17 |
| 2.4 Project Schedule Status..... | 18 |
| 2.5 Project Cost Status | 19 |
| 2.5.1 Standard Cost Category (SCC)..... | 20 |
| 2.5.2 Contingency | 23 |
| 2.5.3 Funding Sources..... | 23 |
| 2.6 Project Risk..... | 23 |
| 2.7 Action Items..... | 24 |
| APPENDICES | 25 |

LIST OF APPENDICES

- Appendix A: Acronym List
- Appendix B: Contract Status
- Appendix C: Bidding Schedule
- Appendix D: Final Design Approval Letter Requirements
- Appendix E: Core Accountability Items
- Appendix F: Project Overview and Map (Transmitted as a separate file)
- Appendix G: Safety and Security Checklist (Transmitted as a separate file)

1.0 EXECUTIVE SUMMARY

1.1 Project Description

- **General Description:** The Project is a 20-mile-long elevated fixed guideway rail system along Oahu's south shore between East Kapolei and Ala Moana Center. The Project will include 21 stations. The alignment is elevated, except for a 0.6-mile at-grade portion at the Leeward Community College station. The Project is planned to be delivered in four guideway segments.
 - Segment I (West Oahu/Farrington Highway) – East Kapolei to Pearl Highlands (7 miles/7 stations)
 - Segment II (Kamehameha Highway) – Pearl Highlands to Aloha Stadium (4 miles/2 stations)
 - Segment III (Airport) – Aloha Stadium to Middle Street (5 miles/4 stations)
 - Segment IV (City Center) – Middle Street to Ala Moana Center (4 miles/8 stations)
- **Length:** 20 miles
- **No. of Stations:** 21
- **Additional Facilities:** Maintenance and Storage Facility and parking facilities
- **Vehicles:** 80 vehicles
- **Ridership Forecast:** Weekday boardings – 99,800 (2020); 114,300 (2030)

1.2 Project Status

- A final hearing in the Honolulutraffic.com v. FTA case regarding the Supplemental Environmental Impact Statement (EIS) /Amended Record of Decision (ROD) issues was held on February 6, 2014. On February 18, 2014, the Court of Appeals ruled in favor of Department of Transportation (DOT), Federal Transit Administration (FTA) and the City and County of Honolulu on all issues appealed by plaintiffs. Following the Court of Appeals ruling, the District Court ruled in favor of DOT, FTA and the City and County of Honolulu on all pending issues. The injunction on Section 4 was then terminated. Real estate activities have subsequently resumed in City Center.
- Primary construction activities planned for the next 60 days include:
 - West Oahu /Farrington Highway (WOFH) Design-Build (DB) Contract – Utility relocations; construction of drilled shafts and columns; fabrication of precast segments. Precast facility became operational in February 2014. It is anticipated that erection of precast segments will begin in April 2014.
 - Kamehameha Highway Guideway (KHG) DB Contract – Utility relocations; method and test shafts
 - Maintenance and Storage (MSF) DB Contract – Ongoing work includes retaining wall construction; utility installation; and installation of building foundations.
- The following table presents the status of the current design and construction contracts:

| Contract | Contractor | Contract Value | Expended | Status |
|--|---|----------------|----------|---|
| WOFH DB | Kiewit Infrastructure West Company (KIWC) | \$556.7M | \$208.4M | Utility relocations; construction of drilled shafts and columns; design activities are ongoing; precast facility became operational in February 2014. Precast segments are anticipated to start in April 2014. |
| KHG DB | KIWC | \$378.8M | \$89.8M | Utility relocations; method and test shafts; design activities ongoing |
| MSF DB | Kiewit/Kobayashi Joint Venture (KKJV) | \$225.2M | \$72.7M | Retaining wall construction; utility installation; and installation of building foundations. |
| Core Systems Contract (CSC) | Ansaldo Honolulu Joint Venture (AHJV) | \$602.9M | \$55.4M | Interim design activities ongoing. |
| Airport Guideway and Utilities Design | AECOM | \$42.1M | \$29.9M | FD activities ongoing |
| City Center Guideway and Utilities Design | AECOM | \$44.8M | \$19.0M | FD activities ongoing |
| Farrington Station Group Design 1 & 2 | HDR/HPE, Inc. URS | \$12.2M | \$9.4M | HDR submitted final drawings for Farrington Station Group; URS is currently working on Final Design (FD) to combine drawings for West Oahu/Farrington Station Group and Kamehameha Station Groups into one construction contract. |
| West Oahu Station Group | URS | \$7.8M | \$5.7M | FD activities ongoing |
| Kamehameha Station Group Design | Anil Verma Associates, Inc. | \$8.7M | \$7.2M | FD activities ongoing |
| Airport Station Group Design | AECOM | \$10.1M | \$7.1M | FD activities ongoing |
| Dillingham and Kaka'ako Station Group design | Perkins & Will | \$18.3 | \$3.3M | Definitive design activities ongoing |
| Elevators and Escalators | Schindler Elevator Corp | \$50.9 | \$0M | PE activities started for West Loch and Waipahu Stations |

HART has established design review milestones according to the following stages of design development:

- (1) Definitive Design or Preliminary (PE) – Intended to verify that the concepts proposed meet HART Concept Documents (or provide substantiated reason for change), and to verify that design complies with the Contract requirements.
- (2) Interim Designs – Intended to resolve conflicts and unresolved comments from the Definitive Design and prior to Final Design. Workshops, meetings and “over-the-shoulder” reviews facilitate interim design reviews by HART.
- (3) Pre-Final Design (FD) (90% design)
- (4) Final Design (100% design)

The following table provides a summary of Design Percent Complete on all contracts provided for the project:

| Item | Contract Number | Final Design Contracts | Contractor/Consultant | Percent Complete |
|------|-----------------|---|--|------------------|
| 1 | DB-120 | WOFH | KIWC | 96% |
| 2 | DB-320 | KHG | KIWC | 95% |
| 3 | DB-200 | MSF | KKJV | 100% |
| 4 | DBOM-920 | CSC | AHJV | 35% |
| 5 | FD-430 | Airport Segment Guideway and Utilities Final Design | AECOM | 85% |
| 6 | FD-530 | City Center Segment and Utilities Final Design | AECOM | 65% |
| 7 | FD-140 | West Oahu Station Group (WOSG) | URS | 95% |
| 8 | FD-240 | Farrington Highway Station Group (FHSG) 1 & 2 | HDR/URS | 98% |
| 9 | FD-340 | Kamehameha Highway Station Group (KHSG) | Anil Verma | 98% |
| 10 | FD-245 | Pearl Highlands Parking Structure/Bus Transit Center | Pending [Note: GEC 2 completed 10% drawings. HART is to issue a DB contract during which design will be completed.] | 10% |
| 11 | FD-440 | Airport Station Group Design | AECOM | 90% |
| 12 | FD-600 | University of Hawaii (UH) West Oahu Park and Ride/Ho'opili Station Design | URS | 10% |
| 13 | FD-550 | Dillingham & Kaka'ako Station Group Design | Perkins & Will | 30% |
| 14 | MI-930 | Elevators and Escalators | Schindler | 2% |

The Total Design Percent Complete is approximately 63.0% as of January 2014. Final Design work and engineering activities are still proceeding on all other contracts that have been awarded to date.

1.3 PMOC Issues or Concerns

The following key issues or concerns have been identified:

- Project Controls
 - Budget – PMOC met with HART on March 12, 2014 to discuss the cost estimate update. We reviewed the status of all 46 contract packages identified in the Contract Packaging Plan (CPP). The biggest concern is the revised engineer's estimate for the Airport and City Center Guideway and Utilities contract, which is considerably higher than the FFGA budget. The PMOC will review the cost estimate in detail when the revised information is provided.
 - Schedule – HART anticipates submitting an updated Master Project Schedule (MPS) that includes the CSC contract schedule by the end of March 2014 for PMOC review. It will not consist of a re-baseline since some issues with AHJV contract schedule will likely remain unresolved.
 - Contingency – HART's current assessment indicates a balance of uncommitted contingency of \$422.8 million. However, this does not take into account information from the contract package estimates that are under revision.

- The PMOC has emphasized the need for HART to revisit both its primary and secondary mitigation measures. HART engaged their new General Engineering Consultant (GEC) and Construction Engineering and Inspection (CE&I) consultants to see if they have any new ideas that have not been considered for primary or secondary mitigation. PMOC and HART held a breakout session in February 2014 to discuss these measures. HART must still develop robust secondary mitigation strategies. The Risk Refresh workshop is scheduled for April 15, 2014. Based on the PMOC's initial review of the information provided to date, it is possible that a recommendation for HART to develop aggressive cost containment measures may be made.
- HART must execute a license agreement with the Department of Hawaiian Home Lands (DHHL) for the MSF on the Navy Drum Site. A Consent to Construct is in place. The license agreement was approved by City Council in August 2013 and is awaiting final execution. HART is awaiting confirmation from DHHL that license agreement has been executed.
- HART intends to build an interim park-n-ride facility at the University of Hawaii West Oahu Station. This facility will be in use until the developer completes the structure over the Kaloi Channel that allows for access to the permanent location of the park-n-ride facility. HART is evaluating the issue of either using federal funds or local funds to build the interim facility. However, the PMOC has cautioned HART about the use of federal funds to build an interim facility that will be replaced by a permanent facility constructed using federal funds. Clarification by HART on the use of funds for this work is needed. UH-West Oahu intends to use the interim facility for campus parking after HART no longer has need for the facility. However, it is not known how long the interim facility will be in use before the permanent facility can be constructed.
- The Navy and HART continue to meet to discuss the Pearl Harbor Station. New Navy Policy requires monetary compensation for property acquisitions, easements and administrative costs. The Navy is looking for fair market value for all property acquisitions. These additional costs were not anticipated by HART. HART began evaluating potential cost and time impacts. HART indicated that Navy staff is agreeable to considering a waiver regarding the new Navy Policy requiring monetary compensation for property acquisitions, easements and administrative costs. HART sent a letter in December 2013 requesting a waiver regarding the new Navy Policy requiring monetary compensation for property acquisitions, easements and administrative costs. HART estimates the cost would be \$1M if the waiver is not granted. HART has reported that the waiver request has been elevated from the Navy regional office to the Commander in Chief Pacific (CINCPAC), but the agency does not have an indication on how quickly the request will be addressed.
- HART now plans to start revenue service with 4-car trains in place of the initial plan of 2-car trains based on FTA's acceptance in December 2013. There is still a disagreement between HART and AHJV on the magnitude of the cost savings associated with this change to 4-car trains. HART believes there is a \$21M savings, and AHJV believes there

is a \$4M cost associated with the change. At this time, the issue has not been resolved. The PMOC will continue to monitor the progress of discussions to determine the overall impact of this change on the project.

- HART and KIWC/KKJV have completed workshops to address settlement of NTP Delays and AIS Delays. HART reported that most issues have been resolved, and bi-lateral change orders would be executed. HART provided the PMOC with a summary of all issues that have been resolved, including cost and time impacts. The PMOC is in the process of reviewing the proposed Archaeological Inventory Survey (AIS) and Notice to Proceed (NTP) Delay change order(s) and will provide the FTA with an assessment. One issue that was not included in the settlement agreement is escalation. HART’s estimate of the impact of escalation is not in agreement with the Kiewit’s estimated escalation. HART has requested Kiewit to present its justification for the estimated escalation. In place of a global settlement on escalation, HART has stated that KIWC will be required to submit change requests for all cost components associated with escalation for which KIWC believes HART is responsible. This will be tedious to both parties, but appears to be the only means of resolving the issue. The PMOC will continue to monitor the progress of discussions to determine the overall impact on the project. HART expects Kiewit to submit its first claim for escalation on materials purchased in the next two months. The PMOC will continue to monitor the progress of discussions to determine the overall impact of this change on the project.
- Hawaiian Electric Companies (HECO) has expressed concern over its ability to meet all requirements of Davis-Bacon. Specifically, HECO has a collective bargaining agreement that has different wage scales and allows payment to its labor forces biweekly, which does not satisfy Davis-Bacon. HECO intends to seek a waiver at the state and federal level on this requirement. HART is in discussions with HECO to mitigate this issue. However, if HART is unable to mitigate, then HECO will submit requests to the US Department of Labor and Hawaii Department of Labor and Industrial Relations seeking a waiver of wage rates as well as permission to pay salaries and report payroll records biweekly. If this issue is not resolved, it could impact the schedule since HECO will not perform utility relocation work until the waiver request is submitted.

1.4 Core Accountability Items

| Project Status: FFGA | | Original at FFGA | Current Estimate |
|---------------------------------------|---|----------------------|------------------|
| Cost | Cost Estimate | \$5,122,000,000 | \$5,122,000,000 |
| Contingency | Unallocated Contingency | \$101,900,000 | \$101,900,000 |
| | Total Contingency (Allocated plus Unallocated) | \$643,600,000 | \$422,800,000 |
| Schedule | Revenue Service Date (RSD) | 1/31/2020 | 1/31/2020 |
| Total Project Percent Complete | Based on Expenditures | 19.7% (January 2014) | |
| | Based on Earned Value* | 38.9% | |

*Overall project progress is based on the weighted value progress of the individual construction and design contracts.

| Major Issues | Status | Comments/Planned Action |
|---|---|--|
| <p>Technical Capacity and Capability (TCC) Issues</p> | <p>PMOC had recommended that HART engage a consultant to perform independent cost estimates for the remaining contract packages, including any repackaging efforts.</p> <p>The PMOC is concerned with the recent loss of staff due to retirement or turnover:</p> <ul style="list-style-type: none"> • Grants Administrator • Deputy Director of Construction • Change Order Manager • Risk Manager <p>The PMOC is concerned with the rejection or replacement of AHJV CSC staff:</p> <ul style="list-style-type: none"> • AHJV Project Controls Manager | <p>HART has enlisted a subconsultant under the Program Management Consultant contract to provide these services.</p> <p>HART hired an executive recruitment company to help identify candidates fill the vacant positions. HART’s Risk Manager position is vacant, and no active recruiting is underway to fill this position. PMOC has recommended that HART make this a priority. HART is considering utilizing one of its consultants to fill this void.</p> <p>AHJV has not submitted candidates that were deemed acceptable by HART for the AHJV Project Controls Manager. This position is being filled with interim staff. A permanent replacement is critical to the success of this contract. AHJV filled the Systems Manager and Project Principal positions in February 2014. HART issued a letter to AHJV noting that a permanent replacement must be identified for the Project Controls Manager, but no timeline has been provided by AHJV.</p> |
| <p>Potential Cost & Schedule Delays</p> | <p>HART has experienced delays and has incurred costs as a result of both the state and federal lawsuits.</p> | <p>HART continues to analyze the cost and schedule ramifications resulting from the Hawaii Supreme Court AIS ruling. HART resumed construction on September 16, 2013.</p> <ul style="list-style-type: none"> • Budget – PMOC met with HART on March 12, 2014 to discuss the cost estimate update. We reviewed the status of all 46 contract packages identified in the CPP. The biggest concern is the revised engineer’s estimate for the Airport and City Center Guideway and Utilities contract, which is considerably higher than the FFGA budget. The PMOC will review the cost estimate in detail when the revised information is provided. • Schedule – HART anticipates submitting an updated Master Project Schedule (MPS) that includes the CSC contract schedule by the end of March 2014 for PMOC review. It will not consist of a re-baseline since some issues with AHJV contract schedule will likely remain unresolved. • Contingency – HART’s current assessment indicates a balance of uncommitted contingency of \$422.8 million. This does not take into account information from the contract package estimates that are under revision, which include Airport/City Center Guideway Construction, Airport Station Group, and Dillingham/ Kaka’ako Station Group. |

| Major Issues | Status | Comments/Planned Action |
|---|--|---|
| Remaining Construction Contracts | HART submitted the Contract Packaging Plan in January 2014. Several contract packages have been combined to maximize economies of scale and reduce interface needs between design and construction contractors to achieve both cost and schedule benefits. | HART/PMOC continues to hold monthly breakout sessions to review changes being considered for each contract. Discussions focus on opportunities to reduce costs and accelerate contract-scheduled activities to attain key milestones earlier than targeted. |
| General Excise Tax (GET) | GET receipts continue to be an issue. | HART has requested monthly updates from the state on the GET revenues. HART has been receiving GET revenue quarterly, but the total GET receipts are still lagging the planned amount identified in the Financial Plan. |
| Post-Rod Changes | HART is considering several proposed design changes that may require additional environmental review. | FTA and HART hold bi-weekly meetings to discuss the status of any potential changes. HART has submitted or will submit information on each proposed change for FTA to determine the level of documentation required to assess impacts and subsequent mitigation measures. |
| Safety and Security Support Request for Proposal (RFP) | HART to issue RFP | HART awarded the contract to Lawson & Associates and anticipates issuing NTP in April 2014. |
| CSC Vehicles | Major Vehicle Subcontractors | AHJV has signed some subcontractor agreements with major vehicle suppliers, but several subcontractor agreements are still outstanding. |
| West Oahu / Farrington Highway / Kamehameha Station Groups Construction | HART to issue Invitation for Bids (IFB) | IFB has been postponed until May 2014. This will allow HART to address several components of the package that are not ready including Ho'opili Station and portions of Leeward Community College Station. The constructability review by the CE&I consultant was also only recently completed. Concerns were raised by local stakeholders that architectural treatments have been properly addressed for Aloha Stadium. This added time will allow for HART to address these concerns or move Aloha Stadium Station to a later contract package. |
| Hawaii Electric Company (HECO) | 50 foot offset requirement | HECO has indicated that a 50-foot offset is required from the edge of guideway structure to any transmission lines. This is not possible in many locations, particularly along Dillingham Boulevard. This is not a code requirement but is a HECO preference to minimize issues with line maintenance. If this requirement was enforced, it would be necessary to either relocate high voltage lines underground or acquire significantly more real estate along portions of the corridor. Both options are not viable from a budget standpoint. Although HECO has verbally acknowledged that meeting their clearance request along Dillingham Boulevard is not reasonable, they sent HART a letter reiterating their requirements for this offset. |
| Date of Next Quarterly Meeting: | April 16, 2014 | |

2.0 BODY OF REPORT

2.1 Grantee's Capabilities and Approach

2.1.1 Technical Capacity and Capability (TCC)

HART has gone through a considerable number of organizational changes since the FFGA was executed in December 2012. Project staff has begun reviewing the project's numerous plans and procedures to determine whether updates are required to reflect these changes. The PMOC met with HART to discuss the timing of each plan that will require updating as a result of the organization and procedural changes that have occurred.

Following are some key positions that are vacant and must be filled by HART or through their PMC:

- Change Order Manager – HART has reviewed several candidates, but none were found to be suitable. This position has been filled on an interim basis until a candidate is hired by HART.
- Grants Manager – Candidate has been identified and is scheduled to begin in April 2014.
- Deputy Director of Planning – Candidate has been identified and is scheduled to begin in April 2014.
- Deputy Director of Construction – Search is ongoing for suitable candidates by HART.
- Risk Manager – This position is vacant, and no active recruiting is underway to fill this position. PMOC has recommended that HART make this a priority.

Following is the status of some critical consultant agreements:

- Safety and Security Support Services – HART awarded the contract to Lawson & Associates and anticipates issuing NTP in April 2014.
- CSC Support Services – HART issued NTP to Lea + Elliott on February 15, 2014. No transition is needed since Lea + Elliot was a sub consultant to the former GEC II that is exiting the project.

2.1.2 Project Controls for Scope, Quality, Schedule, Cost, Risk, and Safety

Scope

- As a result of project delays, HART revised the Contract Packaging Plan (CPP). Several contract packages have been combined (Airport/City Center Guideway Construction/City Center Utilities, West Oahu/Farrington/Kamehameha Station Group, Dillingham/Kaka'ako Station Group) to maximize economies of scale and reduce interface needs between design and construction contractors to achieve both cost and schedule benefits.

Schedule

- **Preliminary Engineering (PE):** FTA approved entrance into PE on October 16, 2009
- **Record of Decision (ROD):** ROD was issued on January 18, 2011.
- **Final Design (FD):** FTA approved entrance into FD on December 29, 2011.
- **Full Funding Grant Agreement (FFGA):** Executed on December 19, 2012.

- **Grantee Target Start of Revenue Operations for Full Alignment:** March 2019
- **FFGA Revenue Service Date (RSD):** January 31, 2020
- Despite the AIS delay, HART is implementing measures to maintain the March 30, 2019 full RSD. In addition, the latest update of the MPS does not indicate any delays to the Interim Opening scheduled for June 2017. However, the PMOC had expressed concern that HART has not fully assessed the impacts from delayed activities such as real estate acquisition and final design. HART has reported that workshops are now being held on a regular basis to aid in the update and management of the MPS. The PMOC will review all milestones of the updated MPS.

Cost

- HART and the PMOC continue to hold monthly breakout sessions to review changes for each contract. Breakout session discussions focus on opportunities to reduce costs and accelerate contract-scheduled activities to attain key milestones earlier than targeted.

Quality

Following is a summary of HART Quality Management staff activities:

- HART participated in 12 bi-weekly Quarterly Task Force meetings with contractors and consultants.
- Monitored design and construction activities on all contracts including Inspection Test Plans (ITPs).
- HART reviewed Non Conformance Reports generated at the construction work sites and casting yard.
- Completed the following audits:
 - Reviewing QA Audit Report on Structural Steel Fabrication for MSF (KKJV)
 - Performed Environmental Audit of MSF (KKJV) held on March 4, 2014.
 - HART to perform internal QA Audit and Safety and Security Audits from March 18, 2014 to April 1, 2014.
 - HART to perform Environmental Audit of WOSG & KHG in mid-April 2014.
 - HART to perform QA, EC, and BA Audits per 2014 Audit schedules.

System Safety and Security

- HDOT appointed Brendon Eshenour as the SOA Project Manager (PM). The PMOC met with the new HDOT SOA PM on February 10, 2014.

2.1.3 Compliance with Applicable Statutes, Regulations, Guidance and FTA Agreements

National Environmental Policy Act (NEPA)

- Proposed Design Changes – HART is considering several proposed design changes that may require additional environmental review. FTA and HART hold bi-weekly meetings to discuss the status of any potential changes. HART has submitted or will submit information on each proposed change for FTA to determine the level of documentation required to assess impacts and subsequent mitigation measures.

2.2 Project Scope

The Project is a 20-mile fixed guideway rail system along Oahu’s south shore between East Kapolei and Ala Moana Center. This Project is based on the Airport Alignment, which includes 21 stations. The alignment is elevated, except for a 0.6-mile at-grade portion at the Leeward Community College Station. The Project is planned to be delivered in four guideway segments:

- Segment I (West Oahu/Farrington Highway) – East Kapolei to Pearl Highlands (7 miles/7 stations)
- Segment II (Kamehameha Highway) – Pearl Highlands to Aloha Stadium (4 miles/2 stations)
- Segment III (Airport) – Aloha Stadium to Middle Street (5 miles/4 stations)
- Segment IV (City Center) – Middle Street to Ala Moana Center (4 miles/8 stations)

The alignment will average a total of 99,800 weekday boardings at the RSD in the year 2020 and 114,300 weekday boardings in the year 2030. It will provide two significant areas with potential for Transit-Oriented Development, one near the Airport and one in the surrounding industrial areas. The initial fleet will include 80 “light metro” rail vehicles.

2.2.1 Status of Design/Construction Documents

The status of all contracts is provided in Appendix B. The Total Design Percent Complete is approximately 63.0%. Final Design work and engineering activities are still proceeding on all other contracts that have been awarded to date. The table in Section 1.2 provides a summary of Design Percent Complete on all contracts provided for the project.

The following table provides a summary of Value Engineering (VE) results provided for the project:

| Source | No. of Proposals Received | Estimated Value (M) | No. of Proposals Accepted | Estimated Value (M) |
|-------------------------------------|---------------------------|---------------------|---------------------------|---------------------|
| VE Workshop for Stations | 30 | \$318.5 | 26 | \$104.1 |
| ATC Proposals – WOFH DB Contract | 29 | \$85.4 | 13 | \$60.5 |
| ATC Proposals – KH DB Contract | 16 | \$29.0 | 7 | \$18.3 |
| ATC Proposals – MSF DB Contract | 11 | \$16.1 | 5 | \$2.7 |
| ATC Proposals – CSC | 41 | \$35.6 | 15 | \$15.5 |
| VE Workshop for Airport & City Ctr. | 27 | \$225.6 | 13 | \$109.2 |
| TOTAL | 154 | \$710.2 | 79 | \$310.3 |

*Total includes “conditionally accepted” Alternate Technical Concept (ATC) proposals

The PMOC continues to monitor the project to confirm that all VE recommendations are reviewed by the grantee and that those that are accepted are implemented accordingly. There are currently 79 VE proposals that have been accepted by HART. These proposals have been incorporated in whole or in part where applicable to the current level of design. In addition, these accepted proposals have already been incorporated into the baseline cost estimate.

2.2.2 Status of Third-Party Agreements

The following table provides the status of Third Party Agreements for the project:

| Agreement | Status | Target | Section | Notes/Remarks | Purpose/Description |
|---|----------|----------------|------------------------|---|---|
| University of Hawaii (UH) Master Agreement | Pending | September 2014 | WOFH, KHG, City Center | Final negotiations are underway. Will secure Right of Construction as not to delay the project. | Needed for columns located on UH property; the master agreement will encompass all campuses that HART project interfaces with |
| UH -West O'ahu (UHWO) Pre-Construction Right of Entry | Executed | | WOFH | | Column construction for the WOFH D/B contract within the West Oahu campus. Sub-agreement will also include the UHWO park-and-ride |
| UH - West O'ahu (UHWO) Construction Right of Entry | Pending | April 2014 | WOFH | In negotiations. | |
| Leeward Community College (LCC) Pre-Construction Right of Entry | Executed | | WOFH | | Column construction for the WOFH D/B contract within the LCC campus |
| Leeward Community College (LCC) Construction Right of Entry | Pending | April 2014 | WOFH | In negotiations. | |
| UH Urban Garden Pre-Construction Right of Entry | Executed | | KHG | | Column construction for the KHG D/B contract |
| UH Urban Garden Construction Right of Entry | Pending | April 2014 | KHG | In negotiations. | |
| DR Horton Agreement for Construction | Executed | | WOFH | Allows for construction to proceed | Column construction for the WOFH D/B contract in the Ho'opili area |
| DR Horton Final Easement Agreement | Pending | December 2014 | WOFH | Document in process with DR Horton | |
| Honolulu Community College (HCC) Pre-Construction Right of Entry | Executed | April 2014 | City Center | | Column construction for the City Center section |
| Honolulu Community College (HCC) Construction Right of Entry | Pending | April 2014 | City Center | In negotiations. | |
| Department of Land and Natural Resources (DLNR) Right of Entry | Executed | | WOFH | Right of entry is in place | Column construction for the WOFH D/B contract |
| Department of Land and Natural Resources (DLNR) Easement | Pending | | WOFH | Easement documents in process | |
| Department of Education Master Agreement and Consent to Construct | Executed | May 2014 | WOFH | ROE is pending to allow entry for work to proceed; Master Agreement is pending | For site improvements related to the construction of the Guideway at Waipahu High School |
| Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry | Executed | | KHG | Limited ROE granted for staging for Kiewit for KHG Contract | Column construction for the KHG D/B contract |

| Agreement | Status | Target | Section | Notes/Remarks | Purpose/Description |
|---|----------|----------------|---------------------------|--|---|
| Aloha Stadium / Department of Accounting & General Services (DAGS) Easement | Pending | September 2014 | KHG | Easement in process | Column construction for the KHG D/B contract and the construction of the park-and-ride lot |
| DHHL Master Agreement | Executed | | WOFH, MSF | | Column construction on the WOFH section and the construction of the Maintenance and Storage Facility |
| DHHL Consent to Construct | Executed | | WOFH, MSF | Consent to construct in place. | |
| DHHL License | Pending | June 2014 | WOFH, MSF | License agreement approved by City Council. Awaiting final execution | |
| HDOT Master Agreement | Executed | | WOFH | | Joint Use & Occupancy for Farrington and Kamehameha Highways for the construction of the Guideway from Kaploei to Pearlridge |
| HDOT Joint Use & Occupancy (JU&O) Sub-agreement | Executed | | WOFH | | |
| HDOT Master Agreement for KHG, Airport and City Center | Executed | | KHG, Airport, City Center | | Joint Use & Occupancy for Kamehameha and Nimitz Highways for the construction of the Guideway from Pearlridge to downtown Honolulu. |
| HDOT JU&O Sub-agreement | Executed | | KHG Airport City Center | | Joint Use & Occupancy for construction of the Guideway for the KHG D/B contract |
| HDOT SOA MOU | Executed | | Program | | Provides funding for HDOT personnel/support to implement the required State Safety Oversight Program |
| OCCC/Hawaii Department of Public Safety Agreement Dillingham Blvd | Pending | July 2014 | City Center | Finalizing requirements. | Required due to parking space reduction at OCCC for roadway widening. |
| HI Community Development Agreement (HCDA) | Pending | Oct 2014 | City Center | Awaiting final design requirements for the guideway. | Required for the column construction for City Center Guideway |
| DAGS | Pending | Oct 2014 | City Center | Awaiting final design requirements for the guideway. | |
| U.S. Navy / General Services Administration (GSA) | Pending | N/A | Airport | Easements and fee taking are being processed by the Navy. Under new directive Navy will charge for all licenses and easements. | For column construction of the Airport section and the Pearl Harbor Station |
| U.S. Post Office Honolulu Processing Center | Pending | April 2014 | Airport | Finalized design. Title Search and mapping have been initiated. | Easement needed for column construction of the Guideway in the Airport |

| Agreement | Status | Target | Section | Notes/Remarks | Purpose/Description |
|---|---------------|---------------|----------------|---|--|
| Federal Court House/GSA | Pending | Oct 2014 | City Center | Awaiting final design requirements for the guideway | Easement needed for column construction of the Guideway in the Airport |
| Pacific Guardian Center | Pending | Jun 2015 | City Center | Awaiting final design requirements for the guideway and Downtown station. | Required for the column construction for City Center Guideway and Downtown station |
| Howard Hughes Corporation – Joint Development Agreement | Pending | Jun 2015 | City Center | Awaiting final design requirements for the guideway and Kakaako station. | Required for the column construction for City Center Guideway and Kakaako station |
| Sam House Development LLC – Joint Development Agreement | Pending | Jun 2015 | City Center | Awaiting final design requirements for the guideway and Ala Moana Center station. | Required for the column construction for City Center Guideway and Ala Moana Center station |
| GGP Ala Moana LLC – Joint Development Agreement | Pending | Jun 2015 | City Center | Awaiting final design requirements for the guideway and Ala Moana station. | Required for the column construction for City Center Guideway and Ala Moana Center station |

*NOTE: ROW – Right of way
ROE – Right of entry*

Pending Third Party Agreements are not currently having an effect on the MPS, but they may become critical if adequate progress is not made.

2.2.3 Delivery Method

HART revised the Contract Packaging Plan (CPP). Several contract packages have been combined (Airport/City Center Guideway Construction/City Center Utilities, West Oahu/Farrington/Kamehameha Station Group, Dillingham/Kaka’ako Station Group) to maximize economies of scale and reduce interface needs between design and construction contractors to achieve both cost and schedule benefits.

Construction of the project guideway is to be implemented in four segments. The method of delivery for the four guideway segments is as follows:

- Segment I – East Kapolei to Pearl Highlands – Design-Build (DB)
- Segment II – Pearl Highlands to Aloha Stadium – DB
- Segment III & IV (Combined) – Aloha Stadium to Middle Street Station to Ala Moana Center – Design-Bid-Build (DBB)

2.2.4 Core Systems and Vehicle Status

AHJV will design, furnish, install, test, and commission passenger vehicles, operating systems, auxiliary vehicles and equipment, and appurtances, in support of incremental opening of the System. The following table provides a status of the Core Systems and Vehicle activities associated with the project:

| Core System Description | Status |
|--|--|
| Core System - General | |
| NTP Delay Claim | AHJV has asserted that it has had a 9-month delay in starting work due to CSC protest. HART has denied this delay. This issue is in dispute. |
| Hawaiian Electric Companies (HECO) Estimated Traction Power Demand | HART to provide HECO with AHJV simulations to estimate power demand based on actual operation scenarios. AHJV finalized consumption estimate. AHJV submitted revised simulations for fail over criteria and discussions with HECO are ongoing. |
| HECO Activation Dates | HART and HECO are coordinating project schedule and HECO activation start dates for power. |
| Fare Collection System | HART is reviewing possibility of installing fare gates |
| System Performance Design | There are some concerns with AHJV's method for calculating headways and round trip times. HART received updated System Performance Documents and continues discussions with AHJV. Alignment changes from Airport and City Center Fixed Facility Contractors may affect system performance. |
| Core System Train Control/SCADA Subsystem | |
| Mixed Fleet Operation | The FTA approved HART's use of 4-car trains in December 2013. HART is evaluating revisions to documents provided by AHJV addressing 4-car consists. |
| Maintenance Of Way (MOW) Vehicle ATC Capabilities | HART considering Automatic Vehicle Indication (AVI)/Automatic Vehicle Location (AVL) |
| Insulated Joints | AHJV is in the process of finalizing insulated joint quantity and locations for the MSF Yard. |
| Core System Traction Electrification | |
| Train Evacuation – Wayside Energy Storage | HART approved the use of Emergency Generators (Diesel) and is in the process of reviewing technical specifications. |
| Traction Power Substations (TPSS) and Gap Breaker Stations (GPS) | Fail safe designs for TPSS and GPS currently in discussion between HART and AHJV. |
| Uninterruptible Power Supply (UPS) | UPS loads under discussion between HART and AHJV. |
| Core System Communication Subsystems | |
| Guideway Walkway/Cableway | AHJV will install cable in the cavity of the concrete guideway where possible and install cable trough on certain sections of the emergency walkway where there is not enough depth in the concrete cavity. AHJV is coordinating with KIWC. |
| Core System O&M Subsystem | |
| MSF Yard Configuration | HART and AHJV are in the process of evaluating Tiger team recommendations. The Tiger team consists of HART/AHJV/KKJV and Lea + Elliot. The Tiger team is evaluating traction electrification system, MOW Vehicles, Train Control, track configuration and interface issues. |
| Core System Vehicle Subsystem | |
| Derailment Mitigation | AHJV claims no responsibility for installing emergency restraining rails (guard rail) to prevent derailments. HART provided AHJV with contract details and updates have been provided by AHJV. There is disagreement by AHJV whether it must provide emergency restraining rail in certain sections of the alignment. AHJV may propose another solution. |
| Vehicle Schedule | AHJV is restructuring baseline schedule to include vehicle related activities, including change to 4-cars trains, Platform Screen Gates, safety activities and revision of Ticket Vending Machines placement. |

2.3 Project Management Plan and Sub-Plans

The following table presents the status of each of the grantee's management deliverables.

| Sub-Plan | Revision No. | Date | Notes |
|--|--------------|-----------|--|
| Project Management Plan (PMP) | 5.0 | 29-Jun-12 | Approved; HART is in the process of updating |
| Quality Management Plan (QMP) | 2A | 31-Jan-14 | PMOC provided review comments on March 4, 2014. HART is in the process of updating. |
| Real Estate Acquisition and Management Plan (RAMP) | 5 | 01-Jun-12 | Accepted; HART is in the process of updating |
| Bus Fleet Management Plan (BFMP) | 3 | Mar-12 | Accepted |
| Rail Fleet Management Plan (RFMP) | 0.1 | Mar-12 | Accepted; HART is in the process of updating |
| Safety and Security Management Plan (SSMP) | 4 | 05-Jun-13 | Accepted |
| Safety and Security Certification Plan (SSCP) | 3 | 28-Jun-13 | Accepted |
| Configuration Management Plan | 2A | 07-Mar-14 | Under PMOC review |
| Staffing and Succession Plan | 6A | 31-Jan-14 | PMOC provided review comments on March 5, 2014; HART is in the process of updating. |
| Risk and Contingency Management Plan (RCMP) | 0 | 29-Jun-12 | Accepted; has been routed for signature by HART |
| Operating Plan | 0.2 | 29-Jun-12 | Accepted |
| Force Account Plan | 0.3 | 05-Jan-12 | Accepted |
| Mitigation Monitoring Program | 0 | 15-Mar-12 | Accepted |
| Interface Management Plan | 0.1 | 17-Jan-12 | Accepted |
| Contract Packaging Plan | 4B | 28-Jan-14 | Under PMOC review; comments will be provided to HART after the Risk Refresh on April 15, 2014. |
| Claims Avoidance Plan | 0.1 | 24-Jan-12 | Accepted |
| Construction Management Plan (CMP) | 2A | 07-Mar-14 | Under PMOC review |
| Contract Resident Engineer Manuals (DB & DBOM) | 2 | 26-Jul-13 | PMOC provided review comments on March 5, 2014; HART is in the process of updating. |
| Contract Resident Engineer Manuals (DBB) | 1.0 | 28-Jan-14 | PMOC provided review comments on March 6, 2014; HART is in the process of updating. |
| Project Procedures | | | HART is in the process of updating several procedures based on management deliverable updates in 2014. |

HART is in the process of updating several of its procedures and management plans including the PMP. These updates are necessary due to the organizational changes enacted by the Executive Director and the contract packaging changes that are being planned. HART submitted DRAFT updates of the, SSMP, SSCP, RAMP, CMP, CPP, Staffing and Succession Plan, QMP, RE Manual for DB and DBOM, RE Manual for DBB and two change order procedures to date. HART is in the process of finalizing these management plans based on the PMOC comments they have received. The PMOC is concerned that HART has several new consultants that have

started or are about to start, although HART’s procedures and management plans are outdated. It is critical for HART to update these plans and procedures immediately.

2.4 Project Schedule Status

HART has consistently transmitted monthly updates of their Master Project Schedule (MPS) since January 2013. The MPS continues to improve as HART further evaluates the contract packaging plan and related schedule mitigation adjustments in response delays encountered from the construction suspension period due to the state and federal court case. HART resumed construction in September 2013 after satisfying all requirements stipulated by the Hawaii State Supreme Court regarding completion of the AIS.

HART has directed the construction contractors (WOFH, KHG, MSF, and CSC) to re-baseline/revise their Critical Path Method (CPM) schedules. The HART MPS include summary activities and milestones extracted from each of the construction contractor schedules. So far HART has accepted the WOFH, KHG and MSF construction contractor “re-baseline/revise” schedules and the new dates have been incorporated into the latest MPS progress update. The CSC contractor has had difficulty developing and maintaining an acceptable contract schedule primarily due to technical capability and capacity issues with its internal management and scheduler positions. The PMOC has consistently recommended since July 2013 that HART work closely with the CSC scheduler and management team during the re-baseline/ revision CPM schedule development process. HART received the CSC re-baseline/revision schedule on February 17, 2014. HART submitted an updated MPS on March 26, 2014 that incorporates the CSC schedule.

The PMOC has stressed the importance of validating all major interface logic connections between the individual contractor schedules. The PMOC has recommended that HART should get in front of the schedule review process to ensure that the HART management team “manages” the schedule and not allow the schedule to manage them. HART has engaged the new GEC III consultant and the new CE&I consultants during the MPS refinement process and has received valuable input and validation thus far. Furthermore, the PMOC provided HART a forensic schedule analysis report that indicated various errors, warnings, and general “housekeeping” corrections needing correction. The PMOC discussed the report output during the February 2014 site visit, and HART project control staff stated that they had addressed most of the comments.

The RSD identified in the FFGA is January 30, 2020. HART’s current MPS identifies the target date for the start of interim revenue service as June 2017 and revenue service as March 2019. The table below provides a comparison of key milestone dates at time of FFGA application and the current MPS.

| Milestone Description | Activity ID | Finish Date | | Variance (Days) |
|---------------------------------|-------------|---------------------------|-------------|-----------------|
| | | FFGA Application Baseline | Current MPS | |
| Interim Revenue Service | MM-0100 | 29-Jun-16 | 20-Jun-17 | (356) |
| Target for Full Revenue Service | DBOM-9270 | 12-Mar-19 | 30-Mar-19 | (18) |

The MPS update includes a construction suspension actual finish date of September 16, 2013. The suspension period began August 24, 2012 when the court halted all ground-disturbing activities.

The table below includes anticipated start dates for the remaining contracts yet to bid:

| Contract No. | Description | Early Start (Feb 2014 Update) |
|---------------------|--|---|
| DBB505-45 | Airport Utilities Relocation (Issue NTP) | 11-Apr-14 |
| DBB170-2020 | West Oahu, Farrington Highway, Kamehameha Station Groups (NTP) | 29-May-14 |
| DBB510-85 | City Center Segment Utilities (Construction NTP) | 20-Dec-14 |
| DBB520-2020gw | Airport and City Center Guideway (Construction NTP) | 15-Dec-14 |
| DBB470-2020 | Airport Station Group (Construction NTP) | 11-Apr-15 |
| DBB570-2020 | Dillingham Station Group | 19-Jan-16 |
| DBB575-2020 | Kaka'ako Station Group | 14-Nov-15 |
| PHPS-1020 | Pearl Highlands Parking Struct. & H2 Ramps (Design-Build NTP) | 26-Jan-15 |
| DBB600-2620 | UH West Oahu Park-n-Ride & Ho'opili Station Finishes (NTP) | 19-Nov-16 |

The following is a look ahead for important activities associated with the Project:

| Period: April 2014 – June 2014 | | |
|---------------------------------------|-------------------------|----------------|
| Activity | Responsibility | Date |
| Risk Refresh Workshop | FTA, HART, PMC and PMOC | April 15, 2014 |
| Quarterly Progress Meeting | FTA, HART, PMC and PMOC | April 16, 2014 |
| Monthly Progress Meeting | FTA, HART, PMC and PMOC | May 14, 2014 |
| Monthly Progress Meeting | FTA, HART, PMC and PMOC | June 11, 2014 |

2.5 Project Cost Status

The grantee's Base Cost Estimate (BCE) dated March 19, 2012 is \$5.122 billion in Year-of-Expenditure (YOE) dollars, including \$644 million in allocated and unallocated contingency (or 15.0% of the BCE) and \$173 million in financing costs. Of the \$644 million in total contingency, \$101 million is unallocated. The current Project Budget is as follows:

| Source | Amount |
|---------------------------|------------------------|
| Base Cost Estimate | \$4,305 billion |
| Total Contingency | \$0.644 billion |
| Finance Charges | \$0.173 billion |
| Total Project Cost | \$5.122 billion |

Total Expenditures to Date – \$0.849 billion (through January 2014)

2.5.1 Standard Cost Category (SCC)

The FFGA SCC Workbook is submitted as a separate electronic file. The following table presents the FFGA budget, expenditures to date, and Estimate at Completion (EAC) for each SCC.

| SCC | SCC Description | FFGA Budget | Base Cost | Allocated Cont. | Incurred | EAC |
|--|---|----------------------|----------------------|--------------------|--------------------|----------------------|
| 10 | GUIDEWAY & TRACK ELEMENTS | 1,275,328,962 | 1,114,305,144 | 161,023,818 | 36,752,674 | 1,137,642,296 |
| 10.04 | Guideway: Aerial structure | 1,175,328,184 | 1,022,380,670 | 152,947,514 | 14,476,716 | 1,042,413,896 |
| 10.08 | Guideway: Retained cut or fill | 8,077,393 | 7,492,943 | 584,450 | 0 | 6,436,256 |
| 10.09 | Track: Direct fixation | 86,332,027 | 79,437,204 | 6,894,823 | 22,275,958 | 82,862,790 |
| 10.11 | Track: Ballasted | 3,550,634 | 3,293,724 | 256,910 | 0 | 2,697,875 |
| 10.12 | Track: Special (switches, turnouts) | 2,040,724 | 1,700,603 | 340,121 | 0 | 3,231,479 |
| 20 | STATIONS, STOPS, TERMINALS, INTERMODA | 506,165,689 | 421,804,742 | 84,360,947 | 0 | 396,666,268 |
| 20.01 | At-grade station, stop, shelter, mall, terminal, platform | 7,333,599 | 6,111,333 | 1,222,266 | 0 | 6,111,332 |
| 20.02 | Aerial station, stop, shelter, mall, terminal, platform | 353,476,148 | 294,563,457 | 58,912,691 | 0 | 273,163,457 |
| 20.06 | Automobile parking multi-story structure | 79,690,518 | 66,408,765 | 13,281,753 | 0 | 66,408,765 |
| 20.07 | Elevators, escalators | 65,665,424 | 54,721,187 | 10,944,237 | 0 | 50,982,714 |
| 30 | SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS | 99,425,456 | 92,535,013 | 6,890,443 | 16,301,567 | 104,357,057 |
| 30.02 | Light Maintenance Facility | 8,161,279 | 7,591,887 | 569,392 | 180,000 | 7,586,793 |
| 30.03 | Heavy Maintenance Facility | 40,906,889 | 38,099,138 | 2,807,751 | 2,723,874 | 39,222,563 |
| 30.04 | Storage or Maintenance of Way Building | 8,382,270 | 7,797,460 | 584,810 | 127,606 | 7,886,032 |
| 30.05 | Yard and Yard Track | 41,975,018 | 39,046,528 | 2,928,490 | 13,270,087 | 49,661,669 |
| 40 | SITWORK & SPECIAL CONDITIONS | 1,103,867,264 | 980,569,426 | 123,297,838 | 263,047,217 | 958,898,165 |
| 40.01 | Demolition, Clearing, Earthwork | 34,695,802 | 29,980,157 | 4,715,645 | 241,537 | 27,672,011 |
| 40.02 | Site Utilities, Utility Relocation | 350,694,801 | 299,449,755 | 51,245,046 | 10,429,930 | 303,893,943 |
| 40.03 | Haz. mat'l, contam'd soil removal/mitigation, ground water treatments | 7,228,935 | 6,590,542 | 638,393 | 609,972 | 3,777,603 |
| 40.04 | Environmental mitigation, e.g. wetlands, historic/archeologic, parks | 30,841,906 | 26,979,122 | 3,862,784 | 4,282,105 | 31,955,923 |
| 40.05 | Site structures including retaining walls, sound walls | 8,637,582 | 7,998,960 | 638,622 | 575,338 | 9,061,374 |
| 40.06 | Pedestrian / bike access and accommodation, landscaping | 48,262,816 | 41,073,897 | 7,188,919 | 0 | 41,873,040 |
| 40.07 | Automobile, bus, van accessways including roads, parking lots | 212,536,181 | 181,979,369 | 30,556,812 | 2,089,938 | 170,399,360 |
| 40.08 | Temporary Facilities and other indirect costs during construction | 410,969,241 | 386,517,624 | 24,451,617 | 244,818,397 | 370,264,911 |
| 50 | SYSTEMS | 247,460,781 | 221,284,483 | 26,176,298 | 0 | 245,681,123 |
| 50.01 | Train control and signals | 91,492,532 | 81,982,556 | 9,509,976 | 0 | 105,218,696 |
| 50.02 | Traffic signals and crossing protection | 12,524,011 | 10,458,227 | 2,065,784 | 0 | 10,251,336 |
| 50.03 | Traction power supply: substations | 32,873,934 | 29,500,927 | 3,373,007 | 0 | 31,027,311 |
| 50.04 | Traction power distribution: catenary and third rail | 36,426,286 | 32,878,150 | 3,548,136 | 0 | 31,718,447 |
| 50.05 | Communications | 59,889,234 | 53,691,339 | 6,197,895 | 0 | 54,793,443 |
| 50.06 | Fare collection system and equipment | 10,221,753 | 9,159,277 | 1,062,476 | 0 | 9,218,099 |
| 50.07 | Central Control | 4,033,031 | 3,614,007 | 419,024 | 0 | 3,453,791 |
| Construction Subtotal (10 - 50) | | 3,232,248,152 | 2,830,498,808 | 401,749,344 | 316,101,458 | 2,843,244,909 |

| SCC | SCC Description | FFGA Budget | Base Cost | Allocated Cont. | Incurred | EAC |
|------------|---|----------------------|----------------------|--------------------|--------------------|----------------------|
| 60 | ROW, LAND, EXISTING IMPROVEMENTS | 222,188,386 | 197,397,947 | 24,790,439 | 46,095,384 | 197,675,747 |
| 60.01 | Purchase or lease of real estate | 201,658,907 | 179,360,664 | 22,298,243 | 42,758,148 | 179,360,664 |
| 60.02 | Relocation of existing households and businesses | 20,529,479 | 18,037,283 | 2,492,196 | 3,337,236 | 18,315,083 |
| 70 | VEHICLES | 208,501,186 | 186,829,020 | 21,672,166 | 6,191,924 | 191,543,017 |
| 70.02 | Heavy Rail | 186,061,066 | 166,721,385 | 19,339,681 | 5,979,024 | 172,637,073 |
| 70.06 | Non-revenue vehicles | 16,011,166 | 14,346,923 | 1,664,243 | 212,900 | 13,026,548 |
| 70.07 | Spare parts | 6,428,954 | 5,760,712 | 668,242 | 0 | 5,879,396 |
| 80 | PROFESSIONAL SERVICES | 1,183,826,026 | 1,090,438,814 | 93,387,212 | 480,754,283 | 1,075,384,533 |
| 80.01 | Preliminary Engineering | 95,120,484 | 94,055,262 | 1,065,222 | 97,526,588 | 118,329,880 |
| 80.02 | Final Design | 257,934,908 | 228,321,632 | 29,613,276 | 89,101,919 | 200,283,391 |
| 80.03 | Project Management for Design and Construction | 385,825,694 | 366,458,463 | 19,367,231 | 224,038,419 | 360,985,570 |
| 80.04 | Construction Administration & Management | 218,155,752 | 199,656,728 | 18,499,024 | 40,865,831 | 161,825,681 |
| 80.05 | Professional Liability and other Non-Construction Insurance | 52,138,030 | 46,549,724 | 5,588,306 | 2,439,527 | 37,216,316 |
| 80.06 | Legal; Permits; Review Fees by other agencies, cities, etc. | 76,135,125 | 67,641,006 | 8,494,119 | 11,269,870 | 67,717,310 |
| 80.07 | Surveys, Testing, Investigation, Inspection | 24,955,327 | 21,759,335 | 3,195,992 | 9,792,781 | 64,222,314 |
| 80.08 | Start up | 73,560,706 | 65,996,664 | 7,564,042 | 5,719,348 | 64,804,071 |
| 90 | Subtotal (10 - 80) | 4,846,763,750 | 4,305,164,589 | 541,599,161 | 849,143,049 | 4,307,848,206 |
| | UNALLOCATED CONTINGENCY | 101,871,170 | 0 | 101,871,170 | 0 | 101,871,170 |
| 100 | Subtotal (10 - 90) | 4,948,634,920 | 4,305,164,589 | 643,470,331 | 849,143,049 | 4,409,719,376 |
| | FINANCE CHARGES | 173,058,242 | | | 0 | 173,058,243 |
| | Total Project Cost (10 - 100) | 5,121,693,162 | 4,305,164,589 | 643,470,331 | 849,143,049 | 4,582,777,619 |

2.5.2 Contingency

HART has developed a detailed methodology for capturing all potential costs. Any potential changes are entered into HART's online contract management system by the Contract Managers. Project Controls reviews this information and meets weekly with the Contract Managers to agree on a range of potential exposure for each issue. The PMOC is of the opinion that this approach is reasonable for determining a range of exposure.

HART's forecast indicates a balance of uncommitted contingency of \$422.8 million (\$60.8 million in unallocated contingency and \$362.0 million in allocated contingency). However, this does not take into account information from the contract package estimates that are under revision.

2.5.3 Funding Sources

The following are the project capital revenue (funding) sources:

| Source | Amount |
|---|------------------------|
| General Excise Tax (GET) | \$3.358 billion |
| Section 5309 | \$1.550 billion |
| Section 5307 | \$0.210 billion |
| American Recovery and Reinvestment Act (ARRA) | \$0.004 billion |
| Total | \$5.122 billion |

The GET surcharge receipts received to date are approximately \$1.18 billion. The Financial Plan indicates projected GET receipts to be approximately \$1.30 billion at point in the project.

2.6 Project Risk

A Risk Refresh Workshop was performed the week of April 11, 2012 to address the Preliminary PMOC findings from a scope, schedule, and cost review, Risk Register and Action Items, and Path Forward.

A second Risk Refresh Workshop is scheduled on April 15, 2014. Based on the PMOC's initial review of the information provided to date, it is possible that a recommendation for HART to develop aggressive cost containment measures may be made.

The PMOC has emphasized the need for HART to revisit both its primary and secondary mitigation measures. HART engaged its new GEC and CE&I consultants to see if they have any new ideas that have not been considered for primary or secondary mitigation. PMOC and HART held a breakout session in February 2014 to discuss these measures. HART must still develop robust secondary mitigation strategies.

2.7 Action Items

| Item No. | Item | Responsible Party | Date Identified | Date Due | Date Completed | Status |
|---------------------------------|---|-------------------|-----------------|----------|----------------|--|
| Monthly Progress Meeting | | | | | | |
| 1 | Provide technical specification on opaque wall panels for Federal Courthouse | HART | Oct-13 | Apr-14 | | Open |
| 2 | PMOC to schedule PMP & QMP compliance audit | PMOC | Nov-13 | May-14 | | Open – HART to conduct an internal audit in advance during March/April |
| 3 | HART requested a waiver from Navy related to fair market value compensation for easements/licenses/acquisition. | HART | Nov-13 | May-14 | | Open – Navy waiver request moving through the process. |
| 4 | HART to provide summaries of bidability/constructability reviews performed by GEC and CE&I | HART | Dec-13 | Mar-14 | | Open – In progress |
| 5 | HART to add major development agreements to MPS | HART | Feb-14 | Apr-14 | | Open |
| 6 | HART to provide CSC Monthly Buy America Report | HART | Feb-14 | Feb-14 | 3/14/14 | Closed – provided to PMOC/FTA |
| 7 | Resolve HECO 50-foot offset requirement | HART | Mar-14 | May-14 | | Open |
| 8 | Render decision on interim park-n-ride facility at UH West Oahu Station | HART/FTA | Mar-14 | May-14 | | Open |
| 9 | Process Kiewit submission of first claim for materials escalation due to AIS/NTP delay | HART | Mar-14 | May-14 | | Open |
| 10 | Receive confirmation that license agreement with DHHL has been executed | HART | Mar-14 | Jun-14 | | Open |
| 11 | Resolve issue with AHJV regarding cost savings associated with change to 4-car trains | HART | Mar-14 | Jun-14 | | Open |
| 12 | Resolve HECO issue with Davis-Bacon requirements | HART/FTA | Mar-14 | May-14 | | Open |
| Project Controls Meeting | | | | | | |
| 1 | Update primary and secondary mitigation measures | HART | May-13 | Apr-14 | | Open – In progress |
| 2 | Update MPS that includes realistic schedule for MPS to include City Center ROW issues | HART | Jun-13 | Apr-14 | | Open – In progress |
| 3 | Revisit Hold Points when after MPS is updated | HART/PMOC | Sept-13 | Apr-14 | | Open – will occur during Risk Refresh |
| 4 | Update Project Cost Estimate | HART | Sept-13 | Apr-14 | | Open – In progress |
| 5 | PMOC to schedule Risk Workshop | PMOC | Feb-14 | Apr-14 | | Closed – Risk Refresh scheduled on April 15, 2014. |

APPENDICES

Appendix A: Acronym List

| | |
|------|---|
| AHJV | ▪ Ansaldo Honolulu Joint Venture |
| AIS | ▪ Archeological Inventory Survey |
| APS | ▪ Adjusted Project Schedule |
| ARRA | ▪ American Recovery and Reinvestment Act |
| ASG | ▪ Airport Station Group |
| ATC | ▪ Alternative Technical Concept |
| AUG | ▪ Airport Utilities Group |
| AVI | ▪ Automatic Vehicle Indication |
| AVL | ▪ Automatic Vehicle Location |
| BAFO | ▪ Best and Final Offers |
| BCE | ▪ Base Cost Estimate |
| BFMP | ▪ Bus Fleet Management Plan |
| CCUG | ▪ City Center Utilities Group |
| CE&I | ▪ Construction Engineering and Inspection |
| CMP | ▪ Construction Management Plan |
| CPM | ▪ Critical Path Method |
| CPP | ▪ Contract Packaging Plan |
| CSC | ▪ Core Systems Contract |
| CSSO | ▪ Chief Safety and Security Officer |
| DAGS | ▪ Department of Accounting & General Services |
| DB | ▪ Design-Build |
| DBB | ▪ Design-Bid-Build |
| DBOM | ▪ Design-Build-Operate-Maintain |
| DCCA | ▪ Department of Commerce and Consumer Affairs |
| DHHL | ▪ Department of Hawaiian Home Lands |
| DLNR | ▪ Department of Land and Natural Resources |
| DOE | ▪ Department of Education |
| DOT | ▪ Department of Transportation |
| EAC | ▪ Estimate at Completion |
| EIS | ▪ Environmental Impact Statement |
| FD | ▪ Final Design |
| FEIS | ▪ Final Environmental Impact Statement |
| FFGA | ▪ Full Funding Grant Agreement |
| FHSG | ▪ Farrington Highway Station Group |
| FHWA | ▪ Federal Highway Administration |
| FTA | ▪ Federal Transit Administration |
| FY | ▪ Fiscal Year |
| GEC | ▪ General Engineering Consultant |
| GET | ▪ General Excise Tax |
| GSA | ▪ General Services Administration |
| HART | ▪ Honolulu Authority for Rapid Transportation |
| HCC | ▪ Honolulu Community College |
| HCDA | ▪ Hawaii Community Development Authority |
| HDOT | ▪ Hawaii Department of Transportation |
| HECO | ▪ Hawaiian Electric Company |
| HNTB | ▪ Howard, Needles, Tammen & Bergendoff |
| IFB | ▪ Invitation to Bid |
| ITP | ▪ Inspection Test Plans |
| JU&O | ▪ Joint Use & Occupancy |
| KHG | ▪ Kamehameha Highway Guideway |
| KHSG | ▪ Kamehameha Highway Stations Group |

| | |
|-------|--|
| KIWC | ▪ Kiewit Infrastructure West Company |
| KKJV | ▪ Kiewit Kobayashi Joint Venture |
| LCC | ▪ Leeward Community College |
| LEED | ▪ Leadership in Energy and Environmental Design (LEED) |
| MMP | ▪ Mitigation Monitoring Program |
| MOA | ▪ Memorandum of Agreement |
| MOT | ▪ Maintenance of Traffic |
| MOW | ▪ Maintenance of Way |
| MPS | ▪ Master Project Schedule |
| MSF | ▪ Maintenance and Storage Facility |
| NCR | ▪ Non-Compliance Report |
| NEPA | ▪ National Environmental Policy Act |
| NTP | ▪ Notice to Proceed |
| OCCC | ▪ Oahu Community Correctional Center |
| OCIP | ▪ Owner Controlled Insurance Program |
| OP | ▪ Oversight Procedure |
| PA | ▪ Programmatic Agreement |
| PE | ▪ Preliminary Engineering |
| PM | ▪ Project Manager |
| PMC | ▪ Project Management Consultant |
| PMOC | ▪ Project Management Oversight Contractor |
| PMP | ▪ Project Management Plan |
| PSG | ▪ Platform Screen Gate |
| PW | ▪ Project-wide |
| QA | ▪ Quality Assurance |
| QAM | ▪ Quality Assurance Manager |
| QAP | ▪ Quality Assurance Plan |
| QMP | ▪ Quality Management Plan |
| RAMP | ▪ Real Estate Acquisition and Management Plan |
| RCMP | ▪ Risk and Contingency Management Plan |
| RFMP | ▪ Rail Fleet Management Plan |
| RFP | ▪ Request for Proposals |
| RFQ | ▪ Request for Qualifications |
| ROD | ▪ Record of Decision |
| ROE | ▪ Right of Entry |
| ROW | ▪ Right of Way |
| RSD | ▪ Revenue Service Date |
| SCC | ▪ Standard Cost Category |
| SHPD | ▪ State Historic Preservation Division |
| SOA | ▪ State Oversight Agency |
| SS | ▪ Safety and Security |
| SSCM | ▪ Safety and Security Certification Manager |
| SSCP | ▪ Safety and Security Certification Plan |
| SSMP | ▪ Safety and Security Management Plan |
| SSPP | ▪ System Safety Program Plan |
| SSSPS | ▪ System Safety and Security Program Standards |
| TCC | ▪ Technical Capacity and Capability |
| UH | ▪ University of Hawaii |
| UPS | ▪ Uninterruptible Power Supply |
| VE | ▪ Value Engineering |
| WOFH | ▪ West Oahu/Farrington Highway |
| WOSG | ▪ West Oahu Stations Group |
| YOE | ▪ Year of Expenditure |

Appendix B: Contract Status

The following sections provide the status of various ongoing contracts associated with this Project.

| | | |
|------------------------------|--|--------------|
| Contract No. | MM-901 | |
| Contract Description: | Program Management Support Consultant (PMSC-2) | |
| Status: | Grantee executed a contract with InfraConsult LLC to provide PMC services. NTP was issued February 23, 2012. | |
| Cost: | Original Contract Value | \$33,000,000 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$33,000,000 |
| | Expended to Date | \$14,600,000 |
| | % Expended | 43.7% |
| | DBE Participation | 0% |
| Schedule: | Contract duration is approximately 36 months from NTP. | |
| Issues or Concerns: | None | |

| | | |
|------------------------------|---|---------------|
| Contract No. | MM-910 | |
| Contract Description: | General Engineering Consultant (GEC II) Contract | |
| Status: | Grantee executed contract with Parsons Brinkerhoff on June 30, 2011. The contract amount is \$300 million (\$150 million base amount plus \$150 million allowance amount). It is anticipated that the \$150 million allowance for additional work will be used after the initial three-year term of the contract. However, it is possible with a contract amendment to expend a portion of the allowance amount any time during the term of the contract. NTP 1 was issued on August 2, 2011. | |
| Cost: | Original Contract Value | \$300,000,000 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$300,000,000 |
| | Expended to Date | \$132,000,000 |
| | % Expended | 42.6% |
| | DBE Participation | 0% |
| Schedule: | The contract duration is approximately 36 months from NTP with an option for an additional 36 months. | |
| Issues or Concerns: | HART issued a Request for Proposals for a new GEC contract in July 2013. The scope or work for the new GEC would be modified significantly from that for the current GEC contract and would be developed to fit within the project budget more effectively. HART issued NTP to the new GEC in December 2013. The GEC II is in the process of transitioning the new GEC III consultant and this transition period will be completed by April 2014. | |

| | | |
|------------------------------|--|--|
| Contract No. | DB-120 | |
| Contract Description: | West Oahu/Farrington Highway (WOFH) DB Contract | |
| Status: | KIWC was awarded a contract on November 18, 2009. The following NTPs have been issued: <ul style="list-style-type: none"> • NTP 1 – Issued December 1, 2009, authorizing \$27 million to complete elements of PE whose principal purpose is | |

| | | |
|----------------------------|--|---------------|
| | <p>refinement and validation of information supporting the NEPA process.</p> <ul style="list-style-type: none"> • NTP 1A – Issued March 11, 2010, authorizing \$25.8 million for PE activities to be completed. • NTP 1B - Issued March 23, 2010, authorizing \$21.2 million for interim design activities. • NTP 1C – Issued June 7, 2010, authorizing \$3.5 million for test and demonstration drilled shafts to complete the deep foundations interim design. • NTP 1D – Issued January 6, 2011, authorizing \$8.7 for continued administrative costs through June 2011 including project management, quality management, safety plan administration, coordination with local agencies, design management, and public information. • NTP 2 – Issued March 3, 2011, authorizing \$62 million for work activities related to the relocation of utilities, in accordance with the grantee’s pre-award authority associated with the FTA’s issuance of a ROD. • NTP 3 – Issued June 2011, authorizing \$4.7 million for Final Design activities to allow contractor to submit drawings to the City’s Department of Permit and Planning for permit approval. • NTP 4A – Issued February 6, 2012, authorizing construction activities, excluding activities associated with the precast yard under the LONP 2 authority. The contractor began installation of the guideway piers in May 2012. • NTP 4B – Issued May 17, 2012, authorizing limited construction activities associated with the precast yard. | |
| Cost: | Original Contract Value | \$482,924,000 |
| | Approved Change Orders | \$54,800,000 |
| | Current Contract Value | \$556,771,464 |
| | Expended to Date | \$208,408,472 |
| | % Expended | 36.1% |
| | DBE Participation | 0.48% |
| Schedule: | <ul style="list-style-type: none"> • Original contract duration was approximately 43 months from NTP. Grantee has approved the baseline schedule submittal. The contractor is preparing a schedule analysis for NTP delays. • Substantial completion is now scheduled for July 2016. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • The executed agreement called for issuance of all four NTPs within 120 calendar days of December 1, 2009. Since that requirement was not met, the grantee has been coordinating with KIWC to determine the extent of any impact to the approved baseline schedule. • Contractor submitted a revised baseline schedule that reflected AIS delays. • HART instructed KIWC to remove their Project Manager from the WOFH Guideway project. He was also serving as the Project Manager for the KHG contract. KIWC identified a replacement Project Manager that HART approved. • Construction resumed on September 16, 2013. • HART and KIWC/KKJV have completed workshops to address settlement of NTP Delays and AIS Delays. HART reported that most issues have been resolved, and bi-lateral change orders would be executed. HART provided the PMOC with a summary of all issues that have been resolved, including cost and time impacts. The PMOC will review the proposed change order(s) and provide the FTA with an assessment. | |

| | | |
|------------------------------|--|---------------|
| Contract No. | DB-320 | |
| Contract Description: | Kamehameha Highway Guideway DB Contract | |
| Status: | <p>Kiewit was awarded a contract on June 30, 2011. Following NTPs have been issued:</p> <ul style="list-style-type: none"> • NTP 1 – Issued July 12, 2011, authorizing \$102 million to perform PE including interim/definitive design submittals and coordinating with other contracts. • NTP 1(Rev 2) - Issued December 23, 2011 for approximately \$107 million (net increase of \$5 million) to allow for a three month extension of monthly management activities. • NTP 2 - Issued January 10, 2012 for approximately \$22 million and authorizes FD work activities. The grantee anticipates issuing multiple NTPs for limited construction activities associated with LONP 2 and full construction activities once it receives the appropriate authorizations from FTA. • NTP 3A – Issued February 7, 2012 authorizing construction activities, excluding activities associated with the precast yard under the LONP 2 authority. • NTP 3B – Issued on May 22, 2012 authorizing limited construction activities associated with the precast yard. | |
| Cost: | Original Contract Value | \$372,150,000 |
| | Approved Change Orders | \$4,200,000 |
| | Current Contract Value | \$378,860,981 |
| | Expended to Date | \$89,867,143 |
| | % Expended | 23.7% |
| | DBE Participation | 0.08% |
| Schedule: | <ul style="list-style-type: none"> • Contract duration is approximately 48 months from NTP. • Substantial completion is now scheduled for September 2016. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • Contractor submitted a revised baseline schedule that reflected AIS delays. • HART instructed KIWC to remove their Project Manager from the WOFH Guideway project. He was also serving as the Project Manager for the WOFH contract. KIWC identified a replacement Project Manager that HART approved. • Construction resumed on September 16, 2013. • HART and KIWC/KKJV have completed workshops to address settlement of NTP Delays and AIS Delays. HART reported that most issues have been resolved, and bi-lateral change orders would be executed. HART provided the PMOC with a summary of all issues that have been resolved, including cost and time impacts. The PMOC will review the proposed change order(s) and provide the FTA with an assessment. | |

| | | |
|------------------------------|--|--|
| Contract No. | DB-200 | |
| Contract Description: | Maintenance and Storage Facility DB Contract | |
| Status: | <p>KKJV was awarded a contract on June 30, 2011. Following NTPs have been issued:</p> <ul style="list-style-type: none"> • NTP 1 – Issued July 25, 2011, authorizing \$16.8 million to perform PE, associated site investigations and coordinating with other contractors. • NTP 2 - Issued January 10, 2012 for approximately \$66 million and authorizes FD work activities and procurement of long lead items (rail). The grantee anticipates issuing multiple Notices to Proceed (NTP) for limited construction activities | |

| | | |
|----------------------------|---|---------------|
| | <p>associated with LONP 2 and full construction activities once it receives the appropriate authorizations from the Federal Transit Administration (FTA).</p> <ul style="list-style-type: none"> NTP 3 – Issued February 7, 2012 authorizing construction activities under the LONP 2 authority. | |
| Cost: | Original Contract Value | \$195,258,000 |
| | Approved Change Orders | \$19,597,737 |
| | Current Contract Value | \$225,268,244 |
| | Expended to Date | \$72,714,998 |
| | % Expended | 32.9% |
| | DBE Participation | 0.12% |
| Schedule: | <ul style="list-style-type: none"> Contract duration is approximately 36 months from NTP. Completion is anticipated in December 2015. | |
| Issues or Concerns: | <ul style="list-style-type: none"> The grantee must execute a license agreement with DHHL. A Request for Right of Entry (ROE) for construction was approved by the DHHL Board. The ROE allows access to Navy Drum Site for construction until the property acquisition occurs or the License Agreement is finalized. Contractor submitted a revised baseline schedule that reflected AIS delays. Construction resumed on September 16, 2013. HART and KIWC/KKJV have completed workshops to address settlement of NTP Delays and AIS Delays. HART reported that most issues have been resolved, and bi-lateral change orders would be executed. HART provided the PMOC with a summary of all issues that have been resolved, including cost and time impacts. The PMOC will review the proposed change order(s) and provide the FTA with an assessment. | |

| | | |
|------------------------------|---|---------------|
| Contract No. | DBOM-920 | |
| Contract Description: | Core Systems Contract (CSC) | |
| Status: | <p>AHJV was awarded a contract on November 28, 2011. The following NTPs have been issued:</p> <ul style="list-style-type: none"> NTP 1 – Issued on January 13, 2012, authorizing \$20,285,221 million to support the design efforts of fixed facilities by providing interface management and coordination. In addition, NTP 1 includes work required to advance all Core Systems to final design. | |
| Cost: | Original Contract Value | \$573,782,793 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$602,950,143 |
| | Expended to Date | \$55,442,234 |
| | % Expended | 9.7% |
| | DBE Participation | 0.24% |
| Schedule: | <ul style="list-style-type: none"> Contract duration is approximately 88 months from NTP. Completion is anticipated in April 2019. | |
| Issues or Concerns: | <ul style="list-style-type: none"> AHJV is restructuring baseline schedule to include vehicle related activities, including change to 4-car trains. AHJV has signed a few contracts with major vehicle subcontractors | |

| | | |
|------------------------------|--|--------------|
| Contract No. | FD-430 | |
| Contract Description: | Airport Section Guideway and Utilities Final Design | |
| Status: | AECOM was awarded a contract on December 15, 2011. The following NTPs have been issued: <ul style="list-style-type: none"> • NTP 1A – Issued on January 5, 2012 for a design workshop and to develop a schedule of milestones and activities. • NTP 1B – Issued on February 22, 2012 to advance design. | |
| Cost: | Original Contract Value | \$38,840,960 |
| | Approved Change Orders | \$275,000 |
| | Current Contract Value | \$39,829,032 |
| | Expended to Date | \$29,965,147 |
| | % Expended | 79.8% |
| | DBE Participation | 0.39% |
| Schedule: | <ul style="list-style-type: none"> • Contract duration is approximately 61 months from NTP 1A. • Completion is anticipated in January 2017. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • HART is proposing additional value engineering design changes to reduce airport guideway costs to previous FD estimate. HART will also incorporate these value engineering design changes to the City Center Guideway design contract. • Revised engineer’s estimate exceeds the FFGA budget. | |

| | | |
|------------------------------|--|--------------|
| Contract No. | FD-530 | |
| Contract Description: | City Center Section Guideway and Utilities Final Design | |
| Status: | AECOM was awarded a contract on July 30, 2012. The following NTPs have been issued: <ul style="list-style-type: none"> • NTP 1A – Issued on July 31, 2012 for a design workshop and to develop a schedule of milestones and activities. • NTP 1B – Issued on October 25, 2012 for preliminary engineering revisions. | |
| Cost: | Original Contract Value | \$43,948,220 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$44,481,020 |
| | Expended to Date | \$19,058,037 |
| | % Expended | 45.0% |
| | DBE Participation | 0.34% |
| Schedule: | <ul style="list-style-type: none"> • Contract duration is approximately 61 months from NTP 1A. • Completion is anticipated in January 2017. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • Airport and City Center Guideway Construction Packages will be combined. • Revised engineer’s estimate exceeds the FFGA budget. | |

| | | |
|------------------------------|---|--------------|
| Contract No. | FD-240 | |
| Contract Description: | Farrington Highway Station Group Final Design 1 & 2 | |
| Status: | HDR/HPE, Inc. was awarded a contract on April 15, 2010. The following NTPs have been issued: <ul style="list-style-type: none"> • NTP 1 – Issued on January 14, 2011 to begin PE. • NTP 2 – Issued on February 13, 2012 to begin Interim Design. • NTP 3 – Issued on January 28, 2012 to begin Final Design. | |
| Cost: | Original Contract Value | \$5,500,000 |
| | Approved Change Orders | \$2,508,045 |
| | Current Contract Value | \$12,208,045 |
| | Expended to Date | \$9,397,901 |
| | % Expended | 85.0% |
| | DBE Participation | 4.63% |
| Schedule: | <ul style="list-style-type: none"> • Contract duration is approximately 55 months from NTP 1. • Contract closeout in November 2013. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • HART issued a letter to HDR and InfraConsult LLC (HART’s Program Management Consultant) on November 8, 2013 for contract closeout and there is no longer a conflict of interest. HART selected URS, Inc. to combine station design packages and complete construction administration. • Revised engineer’s estimate exceeds the FFGA budget. HART and its consultants are reviewing these estimates, developing mitigation strategies, and will be revising the estimates accordingly. | |

| | | |
|------------------------------|---|-------------|
| Contract No. | FD-140 | |
| Contract Description: | West Oahu Station Group Construction Final Design | |
| Status: | URS, Inc. was awarded a contract on June 14, 2012. The following NTPs have been issued: <ul style="list-style-type: none"> • NTP 1A – Issued on June 15m, 2012 to prepare statement of work and mobilize. • NTP 1B – Issued on September 6, 2012 to begin advanced PE. • NTP 1C – Issued on January 4, 2013 to begin Interim Design. | |
| Cost: | Original Contract Value | \$7,789,000 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$7,789,000 |
| | Expended to Date | \$5,628,396 |
| | % Expended | 92.7% |
| | DBE Participation | 0% |
| Schedule: | <ul style="list-style-type: none"> • Contract duration is approximately 55 months from NTP 1A. • Completion is anticipated in October 2015. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • Revised engineer’s estimate exceeds the FFGA budget. HART and its consultants are reviewing these estimates, developing mitigation strategies, and will be revising the estimates accordingly. | |

| | | |
|------------------------------|--|-------------|
| Contract No. | FD-340 | |
| Contract Description: | Kamehameha Highway Station Group Construction Final Design | |
| Status: | Anil Verma, Inc. was awarded a contract on November 26, 2012. The following NTPs have been issued: <ul style="list-style-type: none"> • NTP 1A – Issued on November 26, 2012 to prepare statement of work and mobilization. | |
| Cost: | Original Contract Value | \$8,500,000 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$8,702,592 |
| | Expended to Date | \$7,286,739 |
| | % Expended | 85.7% |
| | DBE Participation | 33.97% |
| Schedule: | <ul style="list-style-type: none"> • Contract duration is approximately 33 months from NTP 1A. • Completion is anticipated in August 2015. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • Revised engineer’s estimate exceeds the FFGA budget. HART and its consultants are reviewing these estimates, developing mitigation strategies, and will be revising the estimates accordingly. | |

| | | |
|------------------------------|---|--------------|
| Contract No. | FD-440 | |
| Contract Description: | Airport Station Group Construction Final Design | |
| Status: | AECOM was awarded a contract on November 7, 2012. The following NTPs have been issued: <ul style="list-style-type: none"> • NTP 1A – Issued on November 14, 2012 to prepare statement of work and advanced activities. • NTP 1B – Issued on January 4, 2013 to begin advanced PE. | |
| Cost: | Original Contract Value | \$10,177,365 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$10,177,365 |
| | Expended to Date | \$7,126,570 |
| | % Expended | 71.6% |
| | DBE Participation | 2.30% |
| Schedule: | <ul style="list-style-type: none"> • Contract duration is approximately 57 months from NTP 1A. • Completion is anticipated in July 2017. | |
| Issues or Concerns: | <ul style="list-style-type: none"> • None at this time | |

| | | |
|------------------------------|--|--------------|
| Contract No. | FD-550 | |
| Contract Description: | Dillingham and Kaka’ako Station Group Construction Final Design | |
| Status: | Perkins & Will was awarded a contract on August 31, 2013. | |
| Cost: | Original Contract Value | \$18,321,918 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$18,321,918 |

| | | |
|----------------------------|---|-------------|
| | Expended to Date | \$3,384,031 |
| | % Expended | 15.9% |
| | DBE Participation | 0% |
| Schedule: | <ul style="list-style-type: none"> Completion is anticipated in July 2018. | |
| Issues or Concerns: | <ul style="list-style-type: none"> None at this time | |

| | | |
|------------------------------|--|--------------|
| Contract No. | MI-930 | |
| Contract Description: | Elevators and Escalators Install & Maintain | |
| Status: | Schindler Elevator Corporation was awarded a contract on August 2, 2013. | |
| Cost: | Original Contract Value | \$50,982,714 |
| | Approved Change Orders | \$0 |
| | Current Contract Value | \$50,982,714 |
| | Expended to Date | \$0.00 |
| | % Expended | 0% |
| | DBE Participation | 0% |
| Schedule: | <ul style="list-style-type: none"> Completion is anticipated in May 2018. | |
| Issues or Concerns: | <ul style="list-style-type: none"> None at this time | |

Appendix C: Procurement Schedule

| Contract No. | Segment | Type Svc | Status | Description | Advertise | NTP | Bid Ready | Complete |
|--------------|-------------------|--------------|--------|---|------------|------------|------------|------------|
| DFIM | Project-wide (PW) | Design/Const | | Elevators and Escalators | 8/17/2012 | 8/2/2013 | N/A | 3/15/2018 |
| FD-550 | City Cen | Design | Active | Dillingham Station Group/Kaka'ako Station Group | 11/16/2012 | 8/19/2013 | 5/1/2015 | 7/30/2018 |
| MM-951 | PW | Services | Active | Owner Controlled Insurance (OCIP) Brokerage Services | 6/4/2013 | 7/26/2013 | N/A | 7/31/2014 |
| ART Prg | PW | Art | Active | Art-in-Transit (Call for Artists) | 5/14/2013 | TBD | | 3/1/2019 |
| MM-945 | PW | Services | Future | On-Call Construction Contractor | 4/7/2014 | TBD | N/A | 3/3/2019 |
| | WOFH | Design | | Farrington Highway Station Group Design Support | 6/10/2013 | 9/30/2013 | N/A | 11/14/2016 |
| FD-245 | KHG | Design | Future | Pearl Highlands Parking Structure/Bus Transit Center | 3/1/2014 | 12/28/14 | 12/30/2013 | 4/29/2018 |
| | PW | Prof Svcs | Active | General Engineering Consultant Re-compete | 7/26/2013 | 12/5/2013 | N/A | 3/1/2019 |
| | PW West | Prof Svcs | Active | Construction Engineering & Inspection West | 7/26/2013 | 1/9/2014 | N/A | 3/1/2019 |
| | PW East | Prof Svcs | Active | Construction Engineering & Inspection East | 7/26/2013 | 1/9/2014 | N/A | 3/1/2019 |
| | PW | Prof Svcs | Future | Core Systems Support – Re-compete | 9/13/2013 | 2/7/2014 | N/A | 3/1/2019 |
| DBB-505 | Airport | Construction | Future | Airport Section Utilities | 12/16/2013 | 3/28/2013 | N/A | 12/22/2015 |
| DBB-185 | WOFH/KHG | Construction | Future | West Oahu / Farrington Highway and Kamehameha Station Groups Construction | 3/18/2014 | 6/1/2014 | N/A | 11/14/2016 |
| DBB-520 | Airport | Construction | Future | Airport and City Center Guide Guideway Construction/City Center Utilities | 7/1/2014 | 12/15/2014 | N/A | 4/29/2018 |
| FD-600 | WOFH | Design | Future | UH West Oahu Park-and-Ride and Ho'opili Station Finishes | 9/10/2014 | 3/12/2015 | 2/15/2016 | 9/29/2018 |
| DBB-470 | Airport | Construction | Future | Airport Station Group | 11/1/2014 | 3/1/2015 | N/A | 7/15/2017 |
| DBB-580 | City Cen | Construction | Future | Dillingham / Kaka'ako Station Group | 8/15/2015 | 12/15/2015 | N/A | 8/14/2018 |
| DBB-275 | KHG | Construction | Future | Pearl Highlands Parking Structure/Bus Transit Center | 3/1/2014 | 12/28/2014 | 12/30/2014 | 4/29/2018 |
| DBB-600 | WOFH | Construction | Future | UH West Oahu Park-and-Ride and Ho'opili Station Finishes | 3/15/2016 | 9/15/2016 | N/A | 8/15/2018 |
| PA-102 | PW | Pro Svcs | Active | Historic Architectural Design Consultant | 3/15/2013 | 8/1/2013 | N/A | 5/1/2016 |
| | PW | Pro Svcs | Future | Professional Recruiting Services | 10/18/2013 | 12/30/2013 | N/A | 9/30/2014 |

| Contract No. | Segment | Type Svc | Status | Description | Advertise | NTP | Bid Ready | Complete |
|---------------------|----------------|-----------------|---------------|-------------------------------------|------------------|------------|------------------|-----------------|
| | PW | Pro Svcs | Active | Archeological & Cultural Monitoring | 9/10/2013 | 12/30/2013 | N/A | 5/30/18 |
| MM-960 | PW | Pro Svcs | Future | Safety and Security Support | 9/30/2013 | 4/11/2014 | N/A | 12/14/2017 |
| MM-937 | PW | Pro Svcs | Future | Real Estate Mapping and Surveying | 10/4/2013 | 4/11/2014 | N/A | 12/30/2017 |
| MM-966 | PW | Pro Svcs | Future | Financial Support Services | 9/30/2013 | 11/1/2013 | N/A | 12/30/2015 |

Note: PW indicates "Project Wide".

Appendix D: Open Final Design Approval Letter Requirements

| No. | Item | Completion Date | Comments |
|----------------------------|---|-----------------|---|
| Safety and Security | | | |
| 1 | The Hawaii Department of Transportation (HDOT) should accelerate the hiring process and select a qualified State Oversight Agency (SSOA) project manager. | Jan-14 | Closed – HDOT appointed Brendon Eshenour as the SOA Project Manager |
| Civil Rights | | | |
| 2 | Title VI program must be submitted to FTA at least 30 calendar days prior to June 10, 2013 which is the expiration of the current Title VI approval. | May-13 | Open |
| 3 | The City will need to perform a Title VI service and fare equity analysis six months prior to revenue operations of the Project. | Jun-14 | Open |

Appendix F: Project Overview and Map

Date: March 2014
Project Name: Honolulu Rail Transit Project
Grantee: City and County of Honolulu
FTA Regional contact: Catherine Luu
FTA HQ contact: Kim Nguyen

SCOPE

Description The proposed Project is an approximately 20-mile rail alignment extending from East Kapolei to Ala Moana Center.

Guideway The majority of the Project is to be built on aerial structure, but the Project also includes a short at-grade section (0.6 miles).

Stations 21 stations (20 aerial and 1 at-grade)

Support Facility Maintenance and Storage Facility (located near Leeward Community College)

Vehicles 80 light metro rail

Ridership 99,800 weekday boardings in 2019; 114,300 weekday boardings in 2030

SCHEDULE

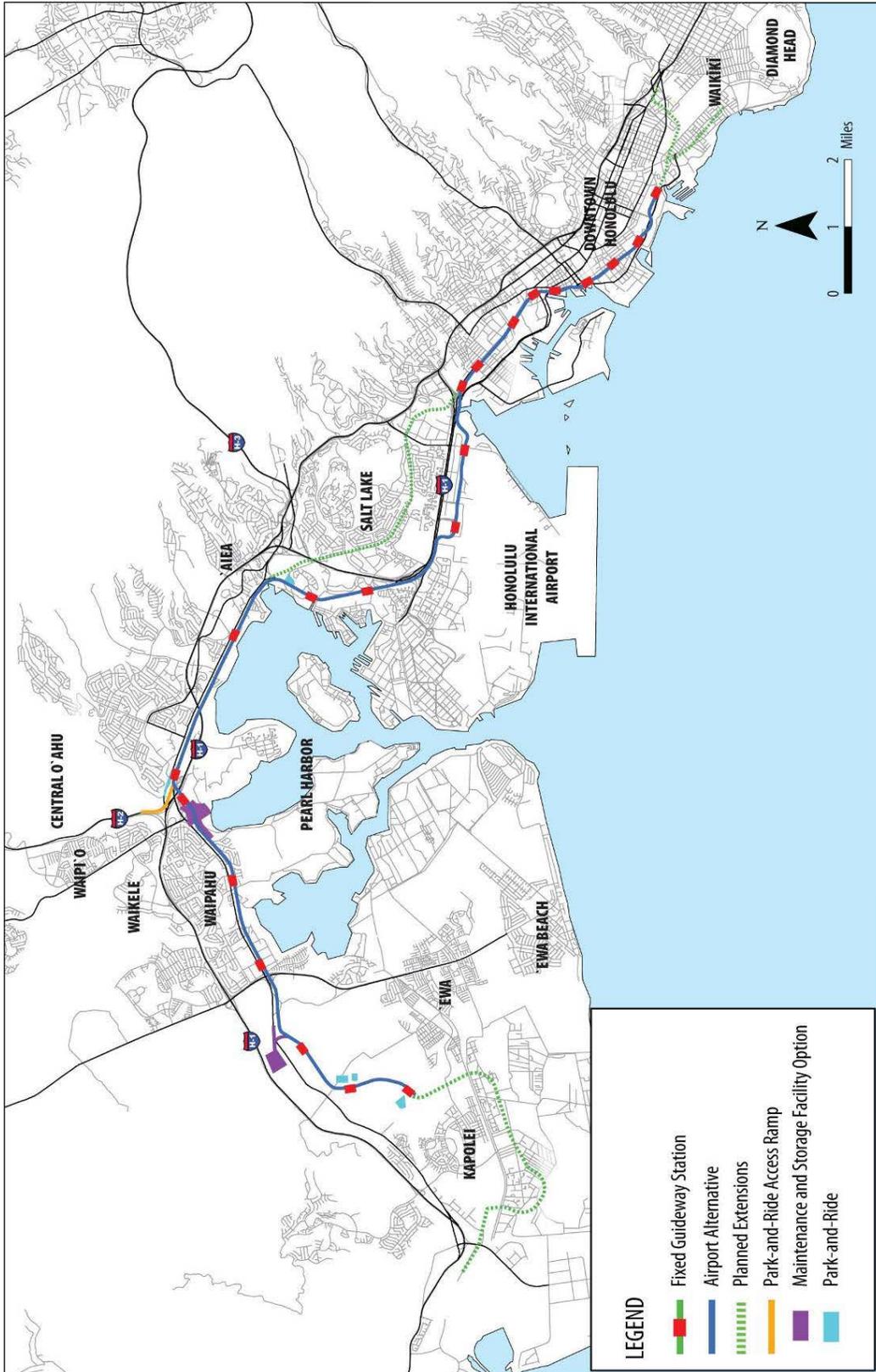
| | |
|----------------------------|---|
| 10/09 Approval Entry to PE | 03/19 Estimated RSD at Entry to PE |
| 12/11 Approval Entry to FD | 03/19 Estimated RSD at Entry to FD |
| 06/12 Request for FFGA | 03/19 Estimated RSD at Request for FFGA |
| 12/12 FFGA | 01/20 RSD at FFGA |

COST

\$5.348 B Total Project Cost (\$YOE) at Approval Entry to PE
\$5.126 B Total Project Cost (\$YOE) at Approval Entry to FD
\$5.122 B Total Project Cost (\$YOE) at request for an FFGA
\$5.122 B Total Project Cost (\$YOE) at FFGA

\$849M Amount of Expenditures at date of this report
19.7% complete (Total Project Expenditures/Total Project Cost)

Honolulu Rail Transit Project Map



Appendix G: Safety and Security Checklist

| Project Overview | | | |
|---|-------------------------------|---|-----------------------|
| Project Name | Honolulu Rail Transit Project | | |
| Project mode (Rail, Bus, BRT, Multimode) | Rail | | |
| Project phase (Preliminary Engineering, Final Design, Construction, or Start-up) | FD | | |
| Project Delivery Method (Design/Build, Design/Build/Operate Maintain, CMGC, etc) | DB, DBB and DBOM | | |
| Project Plans | Version | Review by FTA | Status |
| Safety and Security Management Plan | 3.0 | Y | Complete |
| Safety and Security Certification Plan | 2.0 | Y | Complete |
| System Safety Program Plan | | | Submittal date Mar-13 |
| System Security Plan or Security and Emergency Preparedness Plan (SSEPP) | | | Submittal date Jul-13 |
| Construction Safety and Security Plan | 1.0 | Jun-11 | Submitted in Mar-11 |
| Safety and Security Authority | Y/N | Status | |
| Is the grantee subject to 49 CFR Part 659 state safety oversight requirements? | Y | | |
| Has the state designated an oversight agency as per Part 659.9 | Y | Executive Order 10-04 effective April 6, 2010 | |
| Has the oversight agency reviewed and approved the grantee's SSPP as per Part 659.17? | N | Submission/Approval in 2013 | |
| Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21? | N | Submission/Approval in 2013 | |
| Did the oversight agency participate in the last Quarterly Program Review Meeting? | N | SOA information | |
| Has the grantee submitted its safety certification plan to the oversight agency? | N | SOA information | |
| Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration? | N | None issued to date | |
| SSMP Monitoring | | | |
| Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project? | Y | | |
| Grantee reviews the SSMP and related project plans to determine if updates are necessary? | Y | | |
| Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify. | Y | | |
| Does the grantee maintain a regularly scheduled report on the status of safety and security activities? | Y | Reported Monthly | |
| Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases? | Y | | |
| Does the grantee update the safety and security responsibility matrix/organization chart as necessary? | Y | | |
| Has the grantee allocated sufficient resources to oversee or carry out safety and security activities? | Y | | |
| Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases? | Y | | |

| | | |
|--|-----|--|
| Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities? | Y | |
| Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly. | Y | |
| Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted. | Y | |
| Has the grantee ensured the development of safety design criteria? | Y | |
| Has the grantee ensured the development of security design criteria? | Y | |
| Has the grantee verified conformance with the safety and security requirements in the design? | N | Will be done during FD/Construction |
| Has the grantee identified conformance with safety and security requirements in equipment and materials procurement? | N | Will be done during FD/Construction |
| Has the grantee verified construction specification conformance? | N | Will be done during construction |
| Has the grantee identified safety and security critical tests to be performed prior to passenger operations? | N | Will be done during Rail Activation phase |
| Has the grantee verified conformance with safety and security requirements during testing, inspection and start up phases? | N | Will be done during Rail Activation phase |
| Does the grantee evaluate change orders, design waivers, or test variances for potential hazards and/or vulnerabilities? | N | Will be done during FD/Construction |
| Has the grantee ensured the performance of safety and security analyses for proposed work-arounds? | N | Will be done during Rail Activation phase |
| Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: <ul style="list-style-type: none"> • Activation Plan and Procedures • Integrated Test Plan and Procedures • Operations and Maintenance Plan • Emergency Operations Plan | N | Will be done during Rail Activation phase |
| Has the grantee issued final safety and security certification? | N | Will be done after completion of Rail Activation phase |
| Has the grantee issued the final safety and security verification report? | N | Will be done during Rail Activation phase |
| Construction Safety | | |
| Does the grantee have a documented/implementation Contractor Safety Program with which it expects contractors to comply? | Y | CSP development is included in construction contracts |
| Does the grantee's contractor(s) have a documented company-wide safety and security program plan? | TBD | Is a requirement of CSSP |
| Does the grantee's contractor(s) have a site-specific safety and security program plan? | TBD | Is a requirement of CSSP |
| Provide the grantee's OSHA statistics compared to the national average for the same type of work? | TBD | None developed yet |
| If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record? | TBD | None developed yet |
| Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures? | Y | Audit required in CSSP |

| Federal Railroad Administration | | |
|--|----|--|
| If the shared track: has the grantee submitted its waiver request application to FRA? (Please identify any specific regulations for which waivers are being requested) | NA | |
| If the shared corridor: has grantee specified specific measures to address shared corridor safety concerns? | NA | |
| Is the Collision Hazard Analysis underway? | NA | |
| Other FRA required Hazard Analysis – fencing, etc? | NA | |
| Does the project have Quiet Zones? | NA | |
| Does FRA attend Quarterly Review Meetings? | NA | |