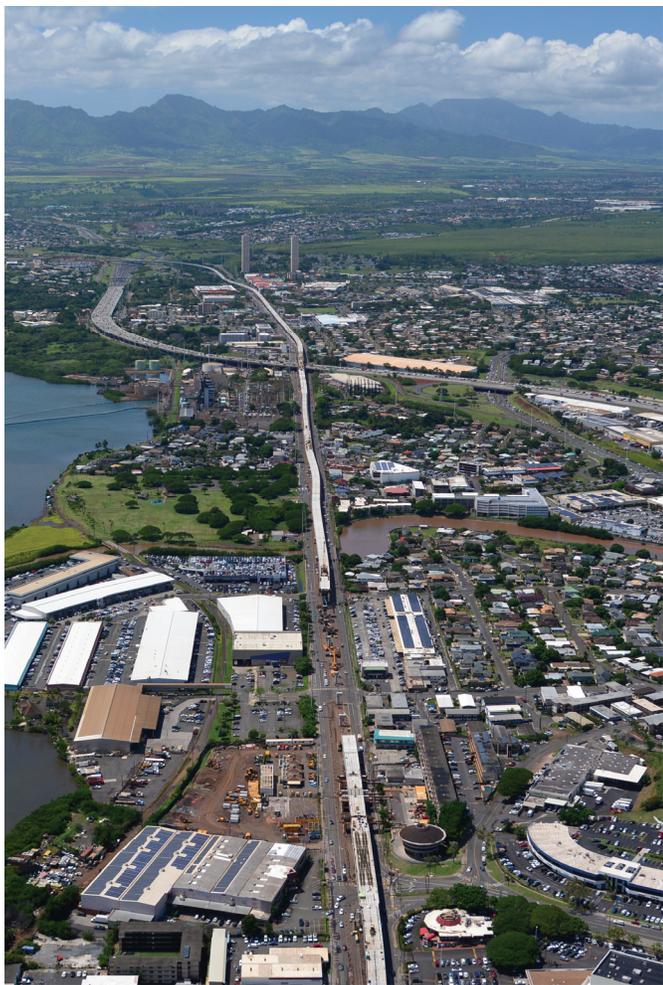


# HONOLULU RAIL TRANSIT PROJECT



## September 2016 MONTHLY PROGRESS REPORT

# HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

[www.HonoluluTransit.org](http://www.HonoluluTransit.org)

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For projects funded through the FTA Full Funding Grant Agreements (FFGAs) program, the FTA and its Project Management Oversight Contractor (PMOC) use a risk-based assessment process to review and validate a project sponsor's budget and schedule. This risk-based assessment process is a tool for analyzing project development and management. Moreover, the assessment process is iterative in nature; any results of an FTA or PMOC risk-based assessment represent a "snapshot in time" for a particular project under the conditions known at that same point in time. The status of any assessment may be altered at any time by new information, changes in circumstances, or further developments in the project, including any specific measures a sponsor may take to mitigate the risks to project costs, budget, and schedule, or the strategy a sponsor may develop for project execution. Therefore, the information in the monthly reports will change from month to month, based on relevant factors for the month and/or previous months.

**REPORT FORMAT AND FOCUS**

This report is submitted in compliance with the terms of FTA Contract No. DTFT60-09-D-00012, Task Order No. 2. Its purpose is to provide information and data to assist the FTA as it continually monitors the grantee's technical capability and capacity to execute a project efficiently and effectively, and hence, whether the grantee continues to be ready to receive federal funds for further project development.

This report covers the project and quality management activities on the Honolulu Rail Transit Project managed by the Honolulu Authority for Rapid Transportation (HART) with HART as the grantee and partially financed by the FTA FFGA.

**ON THE COVER:**

Left: Guideway along Kamehameha Highway looking west bound.

Upper right: Kamehameha Highway Guideway along Kamehameha Highway near Aloha Stadium.

Lower right: Guideway along Kamehameha Highway looking toward Aloha Stadium.

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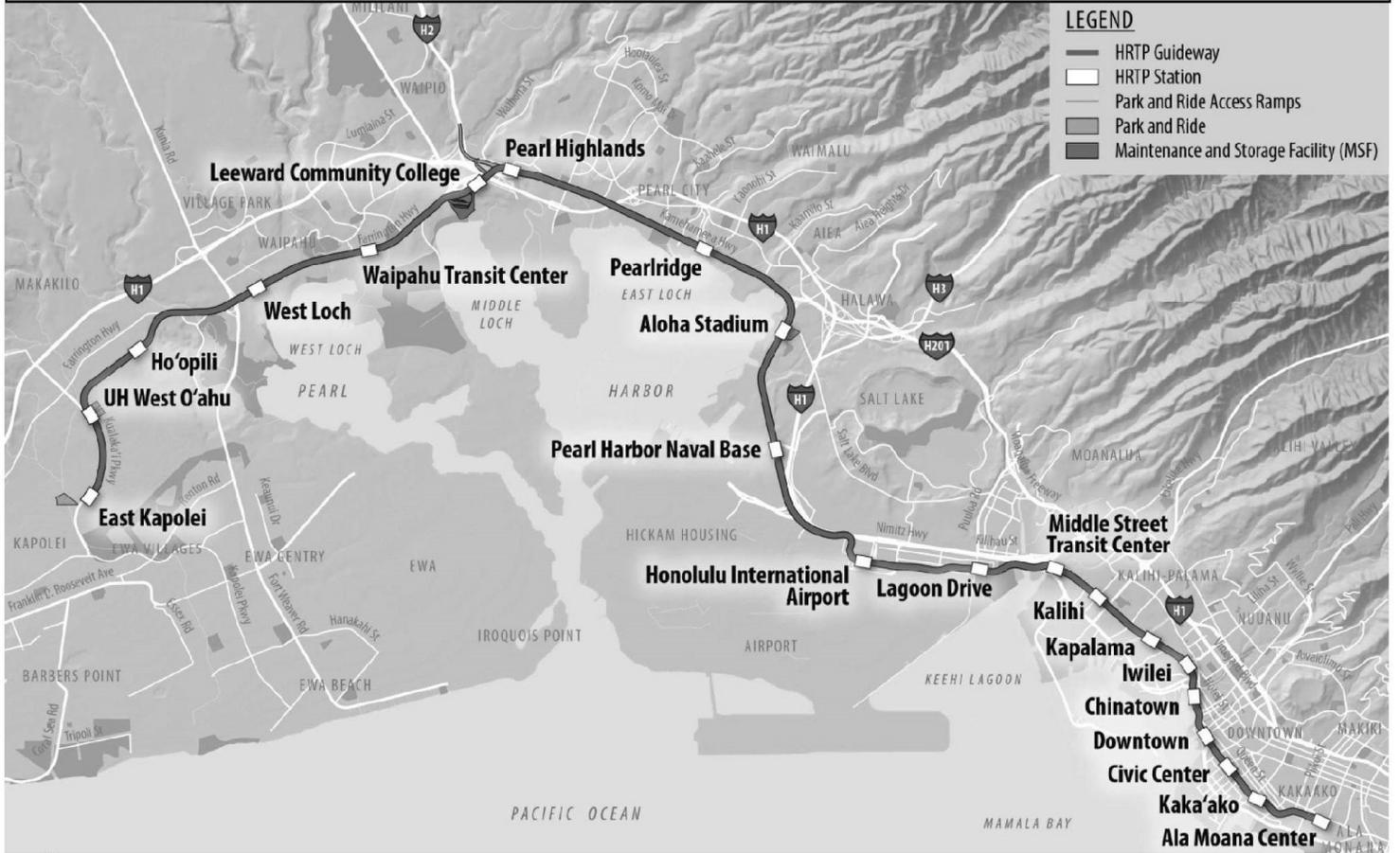
LIST OF ACRONYMS

|        |  |       |  |
|--------|--|-------|--|
| AB     | AnsaldoBreda   | DCCC  | Design Criteria Conformance Checklists               |
| ACHP   | Advisory Council on Historic Preservation                | DCN   | Design Change Notice                                 |
| ACS    | Access Control System                                    | DDC   | Department of Design and Construction                |
| AFE    | Authorized for Expenditure                               | DES   | Department of Environmental Services                 |
| AGS    | Airport Guideway and Stations                            | DFF   | Direct Fixation Fastener                             |
| AHJV   | Ansaldo Honolulu Joint Venture                           | DFIM  | Design Furnish Install Maintain                      |
| AIS    | Archaeological Inventory Survey                          | DFM   | Department of Facility Maintenance                   |
| APTA   | American Public Transportation Association               | DHHL  | Department of Hawaiian Homelands                     |
| ARRA   | American Recovery and Reinvestment Act                   | DHR   | Department of Human Resources                        |
| ASG    | Airport Station Group                                    | DIT   | Department of Information Technology                 |
| ASU    | Airport Section Utilities                                | DKSG  | Dillingham and Kaka'ako Station Group                |
| ATC    | Automated Train Control                                  | DLIR  | Hawai'i Department of Labor and Industrial Relations |
| ATO    | Automated Train Operation                                | DLNR  | Department of Land and Natural Resources             |
| AVA    | Anil Verma Associates, Inc.                              | DOE   | Department of Education                              |
| BA     | Buy America  | DOH   | Department of Health                                 |
| BAC    | Buy America Compliance                                   | DOL   | Department of Labor                                  |
| BACM   | Buy America Compliance Matrix                            | DPM   | Deputy Project Managers                              |
| BAFO   | Best and Final Offer                                     | DPP   | Department of Planning and Permitting                |
| BCS    | Balanced Cantilever System                               | DPR   | Department of Parks and Recreation                   |
| BFS    | Budget and Fiscal Services                               | DPS   | Department of Public Safety                          |
| BLS    | Bureau of Labor Statistics                               | DS    | Downstream   |
| BMP    | Best Management Practice                                 | DTS   | Department of Transportation Services                |
| BOD    | Board of Directors                                       | DVT   | Design Verification Test                             |
| BPS    | Baseline Project Schedule                                | EAC   | Estimate at Completion                               |
| BUE    | Bottom-Up Estimate                                       | ECP   | Environmental Compliance Plan                        |
| BUEG   | Back-up Emergency Generator                              | E/E   | Elevator/Escalator                                   |
| CAM    | Construction Access Milestone                            | EK    | East Kapolei   |
| CAR    | Corrective Actions                                       | EMC   | Electromagnetic Compatibility                        |
| CCGS   | City Center Guideway and Stations                        | EMF   | Electromagnetic Forces                               |
| CCO    | Contract Change Order                                    | EMI   | Electromagnetic Interference                         |
| CCTV   | Closed Circuit Television                                | EMP   | Environmental Management Plan                        |
| CDC    | Compendium of Design Criteria                            | EOR   | Engineer of Record                                   |
| CDL    | Commercial Driver License                                | EOS   | Electrically Operated Switch                         |
| CDR    | Conceptual Design Review                                 | ESA   | Engineering Services Agreement                       |
| CE&I   | Construction Engineering and Inspection                  | FAA   | Federal Aviation Administration                      |
| CEL    | Certifiable Elements List                                | FAI   | First Article Inspection                             |
| CIC    | Communication Interface Cabinet                          | FAT   | Factory Acceptance Tests                             |
| CIL    | Certifiable Items List                                   | FCN   | Field Change Notice                                  |
| CIP    | Cast-in-place  | FD    | Final Design   |
| CJA    | Condon- Johnson & Associates                             | FDAS  | Fire Detection Alarm System                          |
| CM     | Construction Manager                                     | FDC   | Field Design Change                                  |
| CMP    | Corrugated Metal Pipe                                    | FDR   | Final Design Review                                  |
| CMS    | Contract Management System                               | FEIS  | Final Environmental Impact Statement                 |
| CMU    | Concrete Masonry Unit                                    | FFC   | Fixed Facility Contractors                           |
| CNMMP  | Construction Noise Mitigation and Monitoring Plan        | FFGA  | Full Funding Grant Agreement                         |
| CO     | Certificate Occupancy                                    | FHSG  | Farrington Highway Station Group                     |
| COI    | Conflict of Interest                                     | FHWA  | Federal Highway Administration                       |
| COMMS  | Communications   | FISC  | Fleet and Industrial Supply Center                   |
| CONRAC | Consolidated Rental Car Facility                         | FLSWG | Fire Life Safety Working Group                       |
| COR    | Corporation Counsel                                      | FOCN  | Fiber Optic Communication Network                    |
| CP     | Consulting Party   | FPO   | Federal Preservation Officer                         |
| CPM    | Critical Path Method                                     | FTA   | Federal Transit Administration                       |
| CPO    | Chief Procurement Officer                                | FTE   | Full-Time Equivalent                                 |
| CPP    | Contract Packaging Plan                                  | FWS   | Fish and Wildlife Service                            |
| CROE   | Construction Right-of-Entry                              | GAT   | Great Aleutian Tsunami                               |
| CSC    | Core Systems Contract                                    | GBS   | Gap Breaker Station                                  |
| CSCC   | Construction Specification Conformance Checklists        | GDR   | Geotechnical Data Report                             |
| CSL    | Cross Hole Sonic Logging                                 | GEC   | General Engineering Consultant                       |
| CSOC   | Core Systems Oversight Consultant                        | GET   | General Excise Tax                                   |
| CSSP   | Construction Safety & Security Plan                      | GIS   | Geographic Information System                        |
| CTS    | Communications Transmission System                       | GPR   | Ground Penetrating Radar                             |
| CWR    | Continuous Welded Rail                                   | GSA   | General Services Administration                      |
| CWRM   | Commission on Water Resource Management                  | GT    | General Terms  |
| CZM    | Coastal Zone Management                                  | HA    | Hazard Analysis                                      |
| DAGS   | Department of Accounting & General Services              | HABS  | Historic American Buildings Survey                   |
| DB     | Design-Build   | HAER  | Historic American Engineering Record                 |
| DBB    | Design-Bid-Build   | HALS  | Historic American Landscape Survey                   |
| DBE    | Disadvantaged Business Enterprise                        | HART  | Honolulu Authority for Rapid Transportation          |
| DBEDT  | Department of Business, Economic Development and Tourism | HCC   | Honolulu Community College                           |
| DBOM   | Design-Build-Operate-Maintain                            | HCDA  | Hawaii Community Development Authority               |
| DCAB   | Disability and Communication Access Board                | HCSA  | Hawai'i Capital Special District                     |

|        |  |       |  |
|--------|--|-------|--|
| HDCC   | Hawaiian Dredging Construction Company                 | NEPA  | National Environmental Policy Act                      |
| HDOE   | Hawai'i Department of Education                        | NHL   | National Historic Landmark                             |
| HDOH   | Hawai'i Department of Health                           | NOI   | Notice of Intent                                       |
| HDOT   | Hawai'i Department of Transportation                   | NPDES | National Pollutant Discharge Elimination System        |
| HDOT-A | Hawai'i Department of Transportation Airports Division | NPS   | National Park Service                                  |
| HDPE   | High-density polyethylene                              | NR    | National Register                                      |
| HECO   | Hawaiian Electric Company                              | NRHP  | National Register of Historic Places                   |
| HFD    | Honolulu Fire Department                               | NSM   | Negotiation Strategy Memo                              |
| HHF    | Historic Hawai'i Foundation                            | NTP   | Notice to Proceed                                      |
| HHFDC  | Hawaii Housing Finance & Development Corporation       | NTS   | Network Time Server                                    |
| HHPRB  | Hawai'i Historic Places Review Board                   | O&M   | Operations and Maintenance                             |
| HIE    | Hawaii Independent Energy                              | OCC   | Operations Control Center                              |
| HILT   | Hawaiian Islands Land Trust                            | OCIP  | Owner-Controlled Insurance Program                     |
| HIOSH  | Hawaii Occupational Safety and Health Division         | OIBC  | O'ahu Island Burial Council                            |
| HP     | Historic Preservation                                  | OIL   | Open Items List  |
| HPC    | Historic Preservation Committee                        | OMPO  | Oahu Metropolitan Planning Organization                |
| HPCA   | Historic Preservation Certification Application        | ORCC  | Operational Readiness Conformance Checklists           |
| HPD    | Honolulu Police Department                             | OSB   | Operations and Servicing Building                      |
| HPF    | Historic Preservation Fund                             | OSHA  | Occupational Safety and Health Administration          |
| HRHP   | Hawai'i Register of Historic Places                    | OTS   | O'ahu Transit Services                                 |
| HRI    | Hitachi Rail Italy                                     | OTW   | Oceanic Time Warner                                    |
| HRTF   | Honolulu Rail Transit Project                          | OTWC  | Oceanic Time Warner Cable                              |
| HRU    | Hitachi Rail USA, Inc.                                 | P3    | Public-private partnership                             |
| HTI    | Hawaiian Telcom  | PA    | Programmatic Agreement                                 |
| HTL    | Hazard Tracking Log                                    | PAIS  | Programmatic Agreement Implementation Schedule         |
| HVAC   | Heating, Ventilation and Air Conditioning              | PARs  | Preventative Actions                                   |
| I&T    | Inspection & Testing                                   | PB    | Parsons Brinckerhoff, Inc.                             |
| IAMR   | Interstate Access Modification Report                  | PDR   | Preliminary Design Review                              |
| ICCS   | Integrated Communications Control System               | PE    | Preliminary Engineering                                |
| ICD    | Interface Control Documents                            | PGC   | Pacific Guardian Center                                |
| ICE    | Independent Cost Estimate                              | PHA   | Preliminary Hazard Analysis                            |
| ICM    | Interface Control Manual                               | PHPR  | Pearl Highlands Park and Ride                          |
| ICWG   | Interim Certification Working Group                    | PICM  | Project Interface Control Manual                       |
| IDS    | Intrusion Detection System                             | PIG   | Permitted Interaction Group                            |
| IFB    | Issued for Bid   | PIM   | Project Interface Manager                              |
| IFC    | Issued for Construction                                | PLA   | Project Labor Agreement                                |
| IJ     | Isolation Joint  | PLO   | Priority-Listed Offerors                               |
| INMS   | Integrated Network Management System                   | PM    | Project Managers                                       |
| IP     | Implementing Procedures                                | PMC   | Project Management Consultant                          |
| ITP    | Inspection and Test Plan                               | PMIM  | Project Management and Interface Management            |
| ITS    | Intelligent Transportation Systems                     | PMOC  | Project Management Oversight Contractor                |
| IVR    | Interactive Voice Response                             | PMP   | Project Management Plan                                |
| JTMS   | Joint Traffic Management System                        | PMSC  | Program Management Support Consultant                  |
| JU&O   | Joint Use & Occupancy                                  | PPE   | Personal Protective Equipment                          |
| JUOA   | Joint Use and Occupancy Agreement                      | PRTCC | Pre-revenue Testing Conform Checklist                  |
| JV     | Joint Venture  | PSG   | Platform Screen Gate                                   |
| KCDD   | Kaka'ako Community Development District                | PSGS  | Platform Screen Gate System                            |
| KCH    | Kanehili Cultural Hui                                  | PSIT  | Pre-shipment Inspection Test                           |
| KHG    | Kamehameha Highway Guideway                            | PT    | Post Tensioning  |
| KHSG   | Kamehameha Highway Station Group                       | PUP   | Property Utilization Plan                              |
| KIWC   | Kiewit Infrastructure West Company                     | PV    | Passenger Vehicle                                      |
| KKJV   | Kiewit/Kobayashi Joint Venture                         | QA    | Quality Assurance                                      |
| LCC    | Leeward Community College                              | QAM   | Quality Assurance Manager                              |
| LEED   | Leadership in Energy and Environmental Design          | QAP   | Quality Assurance Plan                                 |
| LPR    | License Plate Reader                                   | QC    | Quality Control  |
| LRV    | Light Rail Vehicle                                     | QMP   | Quality Management Plan                                |
| MIM    | Manufacture-Install-Maintain                           | QMS   | Quality Management System                              |
| MITT   | Multimodal Integration Technical Team                  | QTF   | Quality Task Force                                     |
| MMIS   | Maintenance Management Information System              | R&R   | Revise & Re-submit                                     |
| MMP    | Mitigation Monitoring Program                          | RAC   | Rail Activation Committee                              |
| MOS    | Minimum Operable Segment                               | RAMP  | Real Estate Acquisition and Relocation Management Plan |
| MOT    | Maintenance of Traffic                                 | RCMP  | Risk and Contingency Management Plan                   |
| MOU    | Memorandum of Understanding                            | RCP   | Reinforced Concrete Pipe                               |
| MOW    | Maintenance of Way                                     | RE    | Resident Engineer                                      |
| MPS    | Master Project Schedule                                | READ  | Real Estate Acquisition Database                       |
| MPSS   | Master Project Schedule Summary                        | RFC   | Request for Change                                     |
| MPV    | Multiple Purpose Vehicle                               | RFI   | Request for Information                                |
| MS4    | Municipal Separate Storm Sewer System                  | RFID  | Requests for Interface Data                            |
| MSE    | Mechanically Stabilized Earth                          | RFMP  | Rail Fleet Management Plan                             |
| MSF    | Maintenance and Storage Facility                       | RFP   | Request for Proposals                                  |
| MTM    | Modern Track Machineries                               | RFQ   | Request for Qualifications                             |
| NCE    | Non-Conformance Evaluation                             | ROC   | Rail Operations Center                                 |
| NCR    | Non-Conformance Report                                 | ROD   | Record of Decision                                     |
| NDC    | Notice of Design Change                                | ROE   | Right of Entry   |

|       |  |     |                       |
|-------|--|-----|-----------------------|
| ROW   | Right-of-Way   | WYL | West Yard Lead        |
| RR    | Risk Register  | YCB | Yard Control Bungalow |
| RSD   | Revenue Service Date   | YOE | Year of Expenditure   |
| RTM   | Requirements Traceability Matrix                               |     |                       |
| RTSA  | Regional Transit Stabilization Agreement                       |     |                       |
| S&S   | Safety and Security  |     |                       |
| S1    | Segment 1  |     |                       |
| SAIS  | Supplemental Archaeological Inventory Survey                   |     |                       |
| SCADA | Supervisory Control and Data Acquisition                       |     |                       |
| SCAP  | Stream Channel Alteration Permit                               |     |                       |
| SCC   | Standard Cost Category   |     |                       |
| SHPD  | State Historic Preservation Division                           |     |                       |
| SIC   | Sandwich Isle Communications                                   |     |                       |
| SIT   | System Integration Testing                                     |     |                       |
| SLAN  | Station Local Area Network                                     |     |                       |
| SOG   | Slab on Grade  |     |                       |
| SOI   | Secretary of the Interior                                      |     |                       |
| SOW   | Scope of Work  |     |                       |
| SP    | Special Provisions   |     |                       |
| SQP   | Supplemental Quality Plan                                      |     |                       |
| SSC   | Safety Security Certification                                  |     |                       |
| SSCP  | Safety and Security Certification Plan                         |     |                       |
| SSCWG | Safety and Security Certification Working Group                |     |                       |
| SSI   | Sensitive Security Information                                 |     |                       |
| SSMP  | Safety and Security Management Plan                            |     |                       |
| SSRC  | Safety and Security Review Committee                           |     |                       |
| SSSP  | Site Safety Security Plan                                      |     |                       |
| STCC  | Specification/Testing Conform Checklists                       |     |                       |
| SWPPP | Storm Water Pollution Prevention Plan                          |     |                       |
| T&M   | Time and Material  |     |                       |
| TAP   | Transportation Alternatives Program                            |     |                       |
| TC    | Train Control  |     |                       |
| TCCR  | Train Control and Communications Room                          |     |                       |
| TCE   | Temporary Construction Easement                                |     |                       |
| TCO   | Temporary Certificate Occupancy                                |     |                       |
| TCP   | Traffic Control Plan   |     |                       |
| TCS   | Train Control System   |     |                       |
| TES   | Traction Electrification System                                |     |                       |
| TIGER | Transportation Investment Generating Economic Recovery         |     |                       |
| TIP   | Transportation Improvement Program                             |     |                       |
| TOC   | The Outdoor Circle   |     |                       |
| TOD   | Transit-Oriented Development                                   |     |                       |
| TPO   | Thermoplastic Olefin   |     |                       |
| TPSS  | Traction Power Sub-Station                                     |     |                       |
| TSA   | Transportation Security Administration                         |     |                       |
| TSI   | Transportation Safety Institute                                |     |                       |
| TVA   | Threat & Vulnerability Assessments                             |     |                       |
| TVM   | Ticket Vending Machine   |     |                       |
| TWF   | Train Wash Facility  |     |                       |
| UCA   | Utility Construction Agreement                                 |     |                       |
| UFCRA | Utility Facilities Relocation and Cost Reimbursement Agreement |     |                       |
| UH    | University of Hawai'i  |     |                       |
| UHWO  | University of Hawai'i West O'ahu                               |     |                       |
| UL    | Underwriters Laboratories                                      |     |                       |
| UPS   | Uninterrupted Power Supply                                     |     |                       |
| USACE | U.S. Army Corps of Engineers                                   |     |                       |
| USDOT | U.S. Department of Transportation                              |     |                       |
| VAR   | Volt-Ampere Reactive   |     |                       |
| VE    | Value Engineering  |     |                       |
| VECP  | Value Engineering Cost Proposal                                |     |                       |
| VRC   | Vertical Raceway Column  |     |                       |
| VRCS  | Voice Radio Communication System                               |     |                       |
| VRF   | Variable Refrigerant Flow                                      |     |                       |
| WA    | Work Area  |     |                       |
| WHS   | Waipahu High School  |     |                       |
| WL    | West Loch  |     |                       |
| WLO   | West Loch  |     |                       |
| WOEDA | West Oahu Economic Development Association                     |     |                       |
| WOFH  | West O'ahu/Farrington Highway                                  |     |                       |
| WOSG  | West O'ahu Station Group                                       |     |                       |
| WSS   | West Side Stations   |     |                       |
| WSSG  | West Side Station Group  |     |                       |
| WTB   | Wheel Truing Building  |     |                       |
| WTC   | Waipahu Transit Center   |     |                       |

PROJECT MAP



# 1 SUMMARY

## KEY ACTIVITIES THIS MONTH

### Project Overview

The Honolulu Authority for Rapid Transportation (HART) achieved another project milestone in September, with the final concrete pour of the balanced cantilever construction work over the H-1 Freeway in Pearl City near the Sears Distribution Center. Crews also made the final pour for the drilled shaft operations near Aloha Stadium. This is the 186<sup>th</sup> shaft for the Kamehameha Highway section of the project. In total, there are 495 shafts in the first 10 miles from East Kapolei to Aloha Stadium.

### Honolulu Train #1 Community Day

More than 3,000 people attended the first public exhibition of HART’s Honolulu Train #1. Attendees were able to step inside and tour the first high-tech driverless train in the United States, as well as took a brief entry tour of HART’s state-of-the-art Rail Operations Center.

### Transit-Oriented Development

The City and County of Honolulu hosted two community events in September on Transit-Oriented Development (TOD) projects. With a planned rail transit station at Honolulu Community College and new development in the area, a public workshop was held to discuss the design of a linear park to be built along Kapālama Canal. In addition, a community meeting was held for the Chinatown Action Plan. The public provided feedback on wayfinding signage, pedestrian improvements at key intersections, and upgrades to Kekaulike Street.

### Cost:

| Project Costs Summary<br>Through August 26, 2016 |                      |                        |
|--|----------------------|------------------------|
|  | Current Budget (\$M) | Incurred To Date (\$M) |
| Project Budget                                   | \$4,485.1            | \$2,310.9              |
| Project Contingency                              | \$463.5              | \$0.7                  |
| Finance Charges*                                 | \$173.1              | \$0.0                  |
| <b>TOTAL</b>                                     | <b>\$5,121.7</b>     | <b>\$2,311.6</b>       |

\* \$173.1 million represents the project debt financing costs that are federally eligible. The total estimated debt financing costs of the project is \$215 million, per the FFGA Financial Plan.

### Schedule:

| Project Progress*<br>Through August 26, 2016 |        |  |            |           |
|--|--------|--|------------|-----------|
|  | Actual |  | Early Plan | Late Plan |
| Overall Project Progress                     | 52.5%  |  | 83.1%      | 77.7%     |
| Overall Construction Progress                | 46.1%  |  | 78.9%      | 72.2%     |
| Overall Design Progress                      | 90.0%  |  | 100%       | 100%      |
| Overall Utilities Progress                   | 47.1%  |  | 100%       | 100%      |

\* The progress charts reflect early program expectations regarding the type of contract, timing of award, design, and execution of the nine western stations, eastern guideway and stations, and utilities work. These contracts have been repackaged and rescheduled to later dates and once the overall schedule is rebaselined, the cost curves will be revised to reflect the contract approved dates at that time. With the extension of the GET, the curves are under review.

**PROGRESS REPORT SUMMARY OF CHANGES**

HART has revamped the Monthly Progress Report, with changes made throughout the report. The following is a brief summary of major changes that have occurred from the previous month's report. For more information and detail, please refer to the respective pages in the report.

**Summary**

- The Executive Summary section has been changed to a Summary section and now includes the Progress Report Summary of Changes. The contract overviews have been removed as all contract information is in the Contract Status section. Please see pages 8-10.

**Project Progress**

- The incurred amount listed for the Design Progress graph has been corrected. Please see page 12.

**Project Contingency**

- \$0.3M contingency drawdown during August 2016. Please see page 13.
- A table and chart have been removed.

**Project Funding**

- The total amount of cash received has increased by approximately \$19 million. Please see page 14.
- The New Starts drawdown amount received in August 2016 is \$13 million. Please see page 14.
- A chart has been removed.

**Project Revenue and Costs**

- A graph and table have been removed.

**Schedule**

- The Full Revenue Service Date in the Master Project Schedule Summary (MPSS) has shifted from December 2024 to December 2025. Please see pages 15-16.

**Contract Status**

- Contracts in Procurement
  - Dates have been included in the Remaining Contracts table for the UH West Oahu Temporary Park and Ride and UH West Oahu Campus Road "B" contract. Please see page 17.
  - The East Kapolei and UH/West Oahu Park and Ride Lots (Design) contract has been included in the Remaining Contracts table. Please see page 17.
  - The dates for East Kapolei and UH/West Oahu Park and Ride Lots (Construction) have been changed to TBD. Please see page 17.
- Changes have been made to all of the contract pages, including the Project Overview section being removed, the Schedule section removing all graphics and only including bulleted copy, and Critical Path bullets being included with the Key Issues bullets so there is a central location for all contract issues. Please see pages 18-46.
- Core Systems Contract (CSC)
  - The projected substantial completion date has shifted from October 2024 to October 2025. Please see page 18.
  - Two tables under the Quality Management section have been removed.
- Farrington Highway Station Group (FHSG)
  - The current contract value has increased due to a change order. Please see page 30.

- Kamehameha Highway Guideway (KHG)
  - The contract substantial completion date has shifted from September 2016 to May 2017, due to Contract Change Order No. 35 extending the substantial completion date by 238 calendar days for Traffic Signal modification work. Please see page 34.
  - The current contract value has increased due to change orders. Please see page 34.
- Ramp H2R2
  - The contract substantial completion date has shifted from May 2016 to October 2016, due to Contract Change Order CCO-0002 extending the original completion date by 124 days. Please see page 37.
  - The current contract value has increased due to a change order. Please see page 37.
- Kamehameha Highway Station Group (KHSG)
  - The Full Notice to Proceed (NTP) area has been updated to say, “To be issued October 2016.” Please see page 39.
  - The projected substantial completion date has changed from TBD to May 2019. Please see page 39.
- Airport Section Utilities (ASU) Construction
  - The projected substantial completion date has shifted from September 2016 to October 2016. Please see page 42.

**Safety and Security**

- Multiple tables have been removed from the Safety and Security section. Please see pages 61-65.

**Quality Management**

- The Overview section has been removed.
- The Combined Management System Audit Schedule has been removed, and an Audit Look Ahead section has been included. Please see page 66.

**Disadvantaged Business Enterprise (DBE)**

- A table has been removed.

**Risk Management**

- The list of top risks has been removed.

**Community Outreach**

- Multiple sections have been removed.

**Staffing**

- The Project Staffing (Actual vs. Planned) graph has been removed. Bullets addressing target and actual staff numbers are now included. Please see page 69.

**Appendices**

- Multiple tables and graphs have been removed.
- The Project Contingency background write up has been removed, and the Drawdown with Details table was modified to show drawdown details from 2016. Please see pages 72-73.

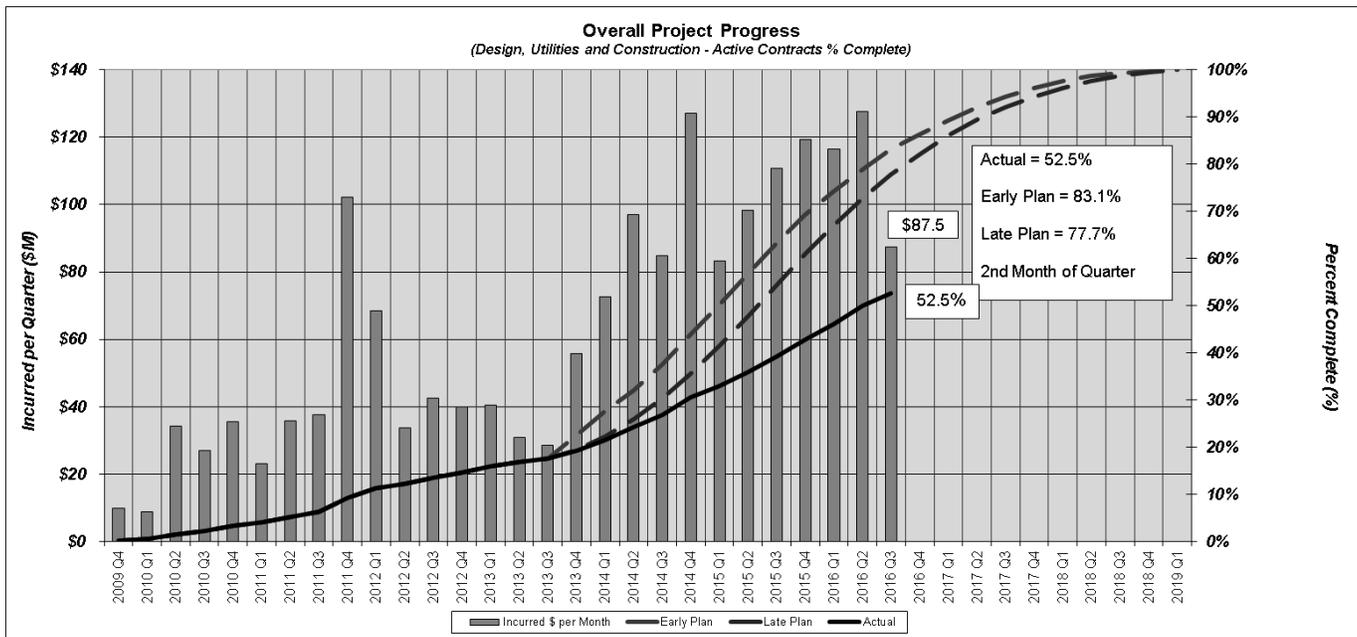
## 2 OVERALL PROJECT PROGRESS AND FINANCIALS

### 2.1 Project Progress (data as of August 26, 2016)

The progress charts reflect early program expectations regarding the type of contract, timing of award, design, and execution of the nine western stations, eastern guideway and stations, and utilities work. These contracts have been repackaged and rescheduled to later dates and once the overall schedule is rebaselined, the cost curves will be revised to reflect the contract approved dates at that time. With the extension of the GET, the curves are under review.

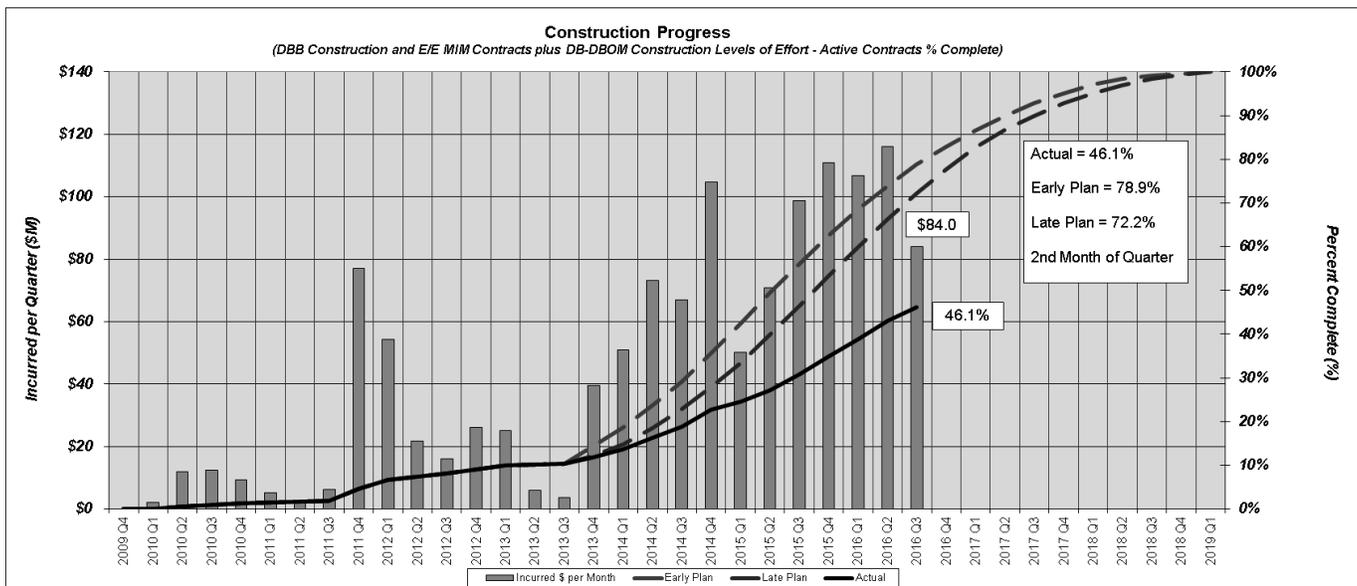
- Note:
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
  - Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
  - Late Plan = Latest dates activities can begin and finish and not have an impact on completion date, based on logic and durations used in the schedule.

Figure 1. Overall Project Progress (% Complete)



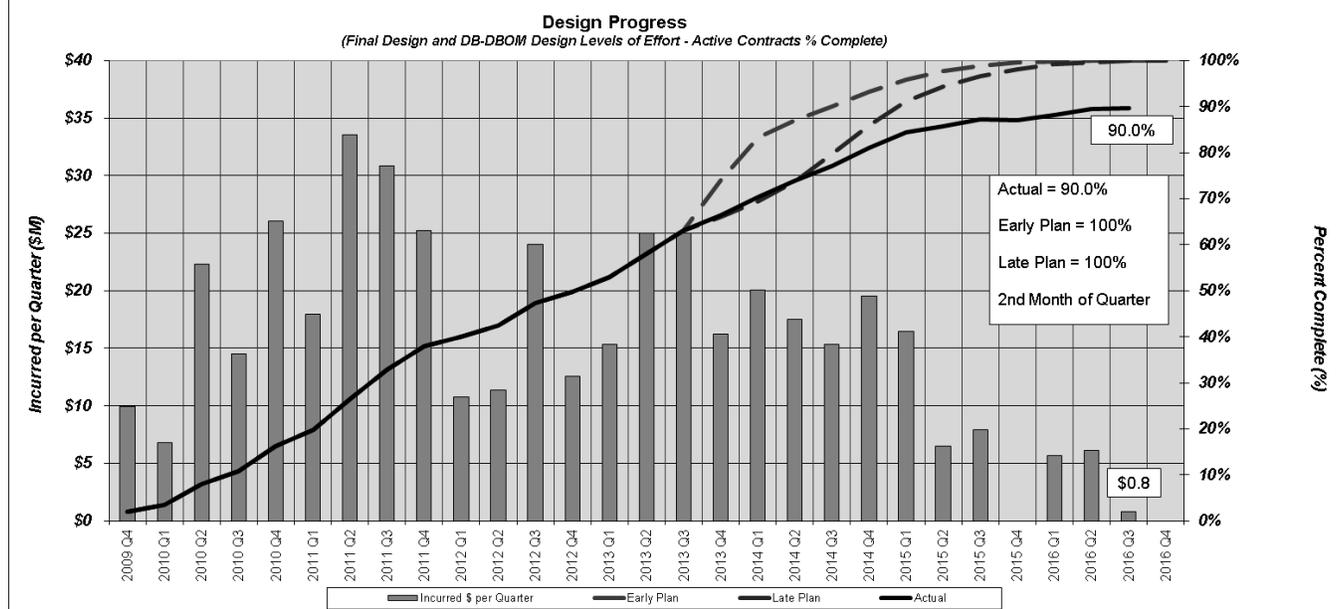
At present “overall” project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM design levels of effort), not including City or non-design consultant labor. Overall Project Progress reflects all project elements as budgeted.

Figure 2. Construction Progress (% Complete)



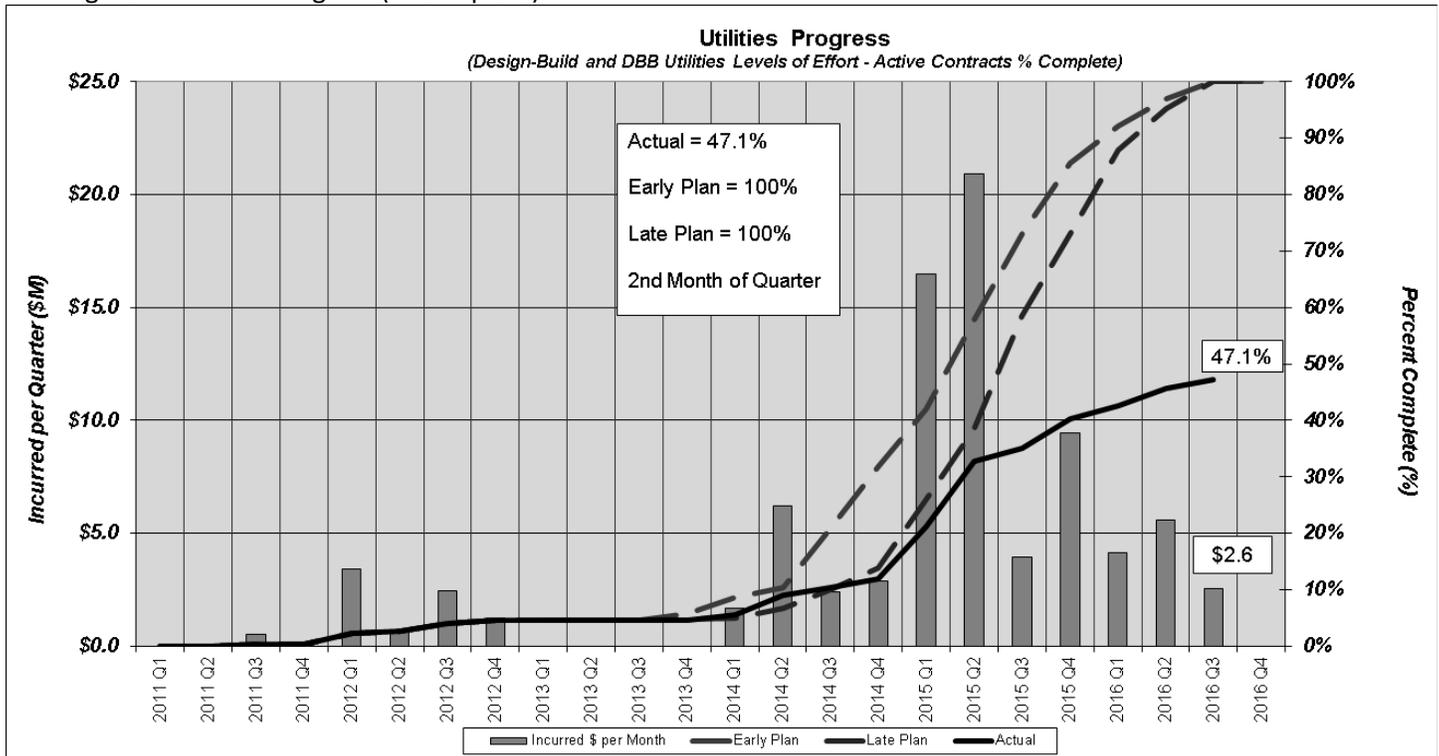
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

Figure 3. Design Progress (% Complete)



Overall design progress is based on the weighted average progress of the individual FD contracts and the design levels of effort of the DB and DBOM construction contracts, not including City or non-design consultant labor.  
 Note: Design responsibility will be transferred to DB, once DB packages are awarded. Deductive change orders will be issued to correct the total contract amount.

Figure 4. Utilities Progress (% Complete)



Overall utilities progress is based on the weighted average progress of the DB and DBB utilities levels of effort.

## 2.2 Project Budget (data as of August 26, 2016)

- FFGA Project Budget = **\$5,121.7M**
  - Current Project Budget - \$4,485.1M
  - Current Project Contingency - \$463.5M
  - Project Finance Charges - \$173.1M
- Total Incurred Cost = **\$2,311.6M** (51.5% of current project budget)
  - August 2016 Incurred Cost = \$41.5M
- The Project Budget is being updated to reflect current program expectations and will be finalized in collaboration with the Federal Transit Administration (FTA). The Project Management Oversight Contractor's (PMOC's) predicted Estimate at Completion (EAC) value, not including finance costs, was \$7.623 billion, based on FTA's Beta Range model.

## 2.3 Project Contingency (data as of August 26, 2016)

*Note: A breakdown of Project contingency drawdowns is discussed in further detail in Appendix A.*

- Current Project Contingency Balance = **\$463.5M**
  - Contingency drawdown to date – \$180.1M (27.9% of baseline project contingency budget)
  - \$0.3M contingency drawdown during August 2016. Please see Appendix A for more details.
- The Draft Cost Contingency Drawdown Chart is being updated to reflect current program forecast needs, and will be included in a future Progress Report.

## 2.4 Project Funding (data as of August 26, 2016)

Figure 5. Planned vs. Received Project Funding

| Planned vs. Received Project Funding                                       |                               |                                |                                 |                                 |
|--|-------------------------------|--------------------------------|---------------------------------|---------------------------------|
| Funding Source   | Pre-FFGA Project <sup>1</sup> | FFGA Project Period            |                                 | Total Project                   |
|  | 2007 - 2009 Actuals Received  | Planned <sup>2</sup> (\$YOE M) | 2009 - Present Actuals Received | 2007 - Present Actuals Received |
|  | [A]                           |                                | [B]                             | [C] = A + B                     |
| Beginning Project Cash Balance <sup>3</sup>                                | 0                             | 298                            | 298                             | n/a                             |
| Interest Income on Cash Balance  | 7                             | 3                              | 2                               | 9                               |
| FTA Section 5309 New Starts Revenue <sup>4</sup>                           | 0                             | 1,550                          | 589                             | 589                             |
| FTA Section 5307 Formula Funds <sup>5</sup>                                | 0                             | 210                            | 0                               | 0                               |
| ARRA Funds   | 0                             | 4                              | 4                               | 4                               |
| Net General Excise Tax (GET) Surcharge revenues FY2010-FY2022 <sup>5</sup> | 378                           | 3,291                          | 1,377                           | 1,755                           |
| <b>Total</b>   | <b>385</b>                    | <b>5,356</b>                   | <b>2,269</b>                    | <b>2,356</b>                    |

<sup>1</sup> GET and Interest Income received during Pre-Preliminary Engineering (pre-PE) phase prior to entry into PE

<sup>2</sup> FFGA Financial Plan, Table A-1 *Capital Plan Cash Flows*.

<sup>3</sup> Beginning Project Cash Balance at Entry into Preliminary Engineering (PE) on October 16, 2009 (the FFGA Project start date) = Pre-PE GET, investment and miscellaneous income minus pre-PE expenditures. The \$298 million is included in the Pre-FFGA actual amounts received between 2007-2009 of \$378 million.

<sup>4</sup> New Starts Funds Obligated Through Federal Fiscal Year 2014 Totals \$806.3 Million

<sup>5</sup> On January 27, 2016 the City Council of Honolulu passed Bill 23 which extended the GET surcharge to December 31, 2027. The planned amounts for funding will be adjusted in a future Monthly Progress Report to reflect the extension of the GET surcharge.

- General Excise Tax (GET) Surcharge
  - \$0 = GET surcharge received in August 2016.
  
- Full Funding Grant Agreement (FFGA)
  - \$6.6M = New Starts drawdown processed in July 2016.
  - \$13M = New Starts drawdown processed in July 2016, but not received until August 2016.
  - \$27K = New Starts drawdown processed and received in August 2016.

Figure 6. New Starts Drawdown by Federal Fiscal Year (data date as of August 29, 2016)

| New Starts Grant Information by Federal Fiscal Year (Amounts in italics are pending) |                        |                                 |                      |                          |
|--|------------------------|---------------------------------|----------------------|--------------------------|
| Federal Fiscal Year Allocation   | FTA Obligated Amounts  | Actual Drawdown Amounts to Date | Available Balance    | FFGA Base Case Cash flow |
| 2008   | \$15,190,000           | \$15,190,000                    | \$0                  |                          |
| 2009   | \$19,800,000           | \$19,800,000                    | \$0                  |                          |
| 2010   | \$30,000,000           | \$30,000,000                    | \$0                  |                          |
| 2011   | \$55,000,000           | \$55,000,000                    | \$0                  | \$20,607,242             |
| 2012   | \$200,000,000          | \$200,000,000                   | \$0                  | \$99,382,758             |
| 2013   | \$236,277,358          | \$236,277,358                   | \$0                  | \$258,280,277            |
| 2014   | \$250,000,000          | \$32,509,008                    | \$217,490,992        | \$441,719,724            |
| <i>2015 (pending award of grant)</i>   | <i>\$250,000,000</i>   | \$0                             | <i>\$250,000,000</i> | \$250,000,000            |
| <i>2016 (pending award of grant)</i>   | <i>\$250,000,000</i>   | \$0                             | <i>\$250,000,000</i> | \$250,000,000            |
| <i>2017 (pending appropriation and award of grant)</i>                               | <i>\$243,732,642</i>   | \$0                             | <i>\$243,732,642</i> | \$230,010,000            |
| <b>Total</b>   | <b>\$1,550,000,000</b> | <b>\$588,776,366</b>            | <b>\$961,223,634</b> | <b>\$1,550,000,000</b>   |

Note: Project Cost Reports can be found in Appendix B.

### 3 SCHEDULE

(data as of Aug. 26, 2016)

#### OVERVIEW and KEY ISSUES

- HART continues to assess the potential construction Notice to Proceed (NTP) date for Kamehameha Highway Stations Group (KHSB), the third western station construction contract. KHSB's construction NTP date is tentative due to access issues with preceding contractor's work. If granted NTP in Fall 2016, the KHSB substantial completion date will be no earlier than second quarter of 2019, which will delay the Core Systems' Interim Opening related contract work.

The deferred KHSB NTP impacts the Interim Opening date to December 2020.

- The Airport Guideway and Stations' (AGS) construction NTP is currently November 2016.
- In this update, RSD has shifted from December 2024 to December 2025 due to the City Center Guideway and Stations (CCGS) construction NTP being forecasted for August 2018 rather than August 2017. This revision defers NTP by one year to allow resolution of current funding issues.
- CCGS options are being evaluated to address the shortfall in revenue needed to construct the full FFGA scope.
- The overall critical path to full Revenue Service is the CCGS guideway and stations' construction, core systems installation, testing and commissioning.
- The following bullets summarize contractors' schedules:
  - West O'ahu/Farrington Highway (WOFH) construction progress is behind the approved schedule for the LCC station area civil and structural work by four months.
  - KHG's latest contractor's schedule reflects guideway construction progress behind approved schedule by 13 months.
  - West O'ahu Station Group (WOSG) construction has begun at UH West O'ahu and Ho'opili Stations. The contractor's schedule reflects progress is behind the approved baseline by five months.
  - Farrington Highway Station Group (FHSB) construction has begun at West Loch Station. The contractor's first progress schedule is being reviewed and reflects several months of delay beyond contract substantial completion.
  - Ramp H2R2 construction progress is behind by six months due to Hawai'i Department of Transportation (HDOT) required soil remediation prior to starting construction.
  - Airport Section Utilities (ASU) construction is behind the approved schedule by three months due to various delays, including differing site conditions.

Figure 7. H RTP Master Project Schedule Summary (MPSS)

The Master Program Summary Schedule reflects currently approved schedule end dates for contracts that have been awarded, and planned dates for future contracts. It is stuated against the FFGA Baseline MPS. Active contracts' end dates will not change, unless a change order is issued. For the contractors' forecasts of active contracts end dates, see Contract Status section (Section 4).

| Activity Name  | Contract Start | Contract Finish | 2016  |    | 2017 |    |    |    | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    | 2022 |    |    |    | 2023 |    |    |    | 2024 |    |    |    | 2025 |    |  |  | 2026 |  |  |  |
|--|----------------|-----------------|---|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|------|--|--|--|
|  |                |                 | Q1  | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |      |  |  |  |
| <b>KEY DATA</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>MILESTONES</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| WOFH / KHG - Interim Revenue Service Date  |                | 31-Dec-20*      | WOFH / KHG - Interim Revenue Service Date ◆         |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| AIRPORT / CITY CENTER - Full Revenue Service Date  |                | 31-Dec-25       | AIRPORT / CITY CENTER - Full Revenue Service Date ◆ |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>WEST OAHU / FARRINGTON HIGHWAY (WOFH) - SECTION 1</b>                                   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>WOFH Guideway &amp; Utilities</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DB-120 - WOFH Guideway - Design & Construction   | 01-Dec-09 A    | 16-Nov-16       | 08-May-17   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>West Oahu Station Group (WOSG)</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| FD-140 - West Oahu Station Group - Including Design Services During Construction           | 15-Jun-12 A    | 12-Mar-18       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBB-171 - West Oahu Station Group - Construction   | 13-Oct-15 A    | 12-Mar-18       | 08-Aug-18   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Farrington Hwy Station Group (FHSG)</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| FD-240 - Farrington Highway Station Group - Including Design Services During Construction  | 30-Sep-13 A    | 16-Jan-18       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBB-271 - Farrington Highway Station Group - Construction                                  | 17-Aug-15 A    | 16-Jan-18       | 16-Jan-18   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>UH West Oahu Park n Ride &amp; Ho'opili Station Finishes</b>                            |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBB-600 - East Kapolei and UH/West Oahu Park and Ride Lots - Bid & Award                   | 14-Nov-16      | 02-Apr-17       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBB-600 - East Kapolei and UH/West Oahu Park and Ride Lots - Construction                  | 03-Apr-17      | 01-Mar-19       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>KAMEHAMEHA HIGHWAY (KH) - SECTION 2</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Kamehameha Highway Guideway &amp; Utilities</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DB-320 - KHG Guideway - Design & Construction  | 12-Jul-11 A    | 16-Sep-16       | 26-Jun-18   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Kamehameha Highway Stations</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| FD-340 - Kamehameha Highway Station Group - Including Design Services During Construction  | 26-Nov-12 A    | 30-Apr-19       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBB-371 - Kamehameha Highway Station Group - Construction (Tentative)                      | 03-Oct-16*     | 02-Jun-19       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Ramp H2R2</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBB-385 - Ramp H2R2 - Construction   | 18-May-15 A    | 02-Oct-16       | 07-Apr-17   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Pearl Highlands Parking Structure &amp; Ramps</b>                                       |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| Pearl Highlands Transit Center and Ramp H2R1 - Design Build Procurement Part 1 (Tentative) | 14-Nov-16*     | 07-Feb-17       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| Pearl Highlands Transit Center and Ramp H2R1 - Design Build Procurement Part 2 (Tentative) | 08-Feb-17      | 06-Oct-17       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| Pearl Highlands Transit Center and Ramp H2R1 - Design and Construction (Tentative)         | 15-Nov-17      | 20-May-20       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>AIRPORT - SECTION 3</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Airport Utility Relocation</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBB-505 - Airport Section Utilities - Construction   | 06-Oct-14 A    | 13-Jul-16 A     | 21-Sep-16   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Airport Guideway &amp; Stations (AGS)</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DB-450 - Airport Guideway & Stations - Design Build Procurement Part 2                     | 01-Sep-15 A    | 05-Apr-16 A     |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DB-450 - Airport Guideway & Stations - Design & Construction                               | 01-Nov-16      | 31-Mar-21       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>CITY CENTER (CC) - SECTION 4</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>City Center Guideway &amp; Stations (CCGS)</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DB-550 - City Center Guideway & Stations - Design Build Procurement Part 2                 | 02-Feb-16 A    | 24-Mar-18       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DB-550 - City Center Guideway & Stations - Construction                                    | 28-Aug-18      | 27-Nov-24       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>PROJECT WIDE - ALL SECTIONS</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Maintenance &amp; Storage Facility (MSF)</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DB-200 - MSF - Design & Construction (Design-Build)  | 25-Jul-11 A    | 02-Jul-16 A     | 02-Jul-16   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Core Systems</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| DBOM-920 - Core Systems - Design & Construction  | 13-Jan-12 A    | 15-Mar-19       | 31-Oct-25   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Elevators &amp; Escalators</b>  |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| MI-930 - Elevators and Escalators - Design, Manufacture, Install, & Test                   | 02-Aug-13 A    | 13-Jun-18       | 29-Jun-18   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>On-Call Construction Contract "III"</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| MM-948 - On-Call Construction Contract "III" - Bid & Award                                 | 23-Feb-16 A    | 09-May-16 A     |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| MM-948 - On-Call Construction Contract "III" - Construction (Duration To Be Determined)    | 16-May-16 A    | 15-May-23       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| <b>Final Testing and Commissioning</b>   |                |                 |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |
| Final Testing and Commissioning  | 07-Apr-25      | 31-Dec-25       |   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |      |  |  |  |

PROGRAM CRITICAL PATH



- Design Build
- Construction
- Design
- Bid/Award
- Milestone
- Contractor's Forecast

Honolulu Rail Transit Project  
As of: 26-Aug-16

MPS Summary  
Design & Construction Contracts

## 4 CONTRACT STATUS

### Contracts in Procurement (For a list of awarded contracts, please see Appendix C)

#### OVERVIEW

- Awarded Contracts:
  - No updates to report this month.
  
- Active Procurements:
  - Art-in-Transit: HART is in negotiations or will commence negotiations with the highest-ranked artists for each of the stations. HART has begun award of the Art-in-Transit contracts.
  - City Center Guideway and Stations (CCGS) Design-Build RFP: RFP Part 2 was issued on Feb. 2, 2016. The solicitation is on hold.
  - Program Management Contractor Contract RFQ: The RFQ was issued on May 9, 2016. Proposals were received on July 14, 2016, and are currently being evaluated.
  
- Upcoming Procurements:
  - Procurements for UH West O’ahu Temporary Park and Ride and UH West O’ahu Campus Road “B” Design-Bid-Build Contract; Pearl Highlands Garage, Transit Center and Ramp H2R1; Core Systems Back-up Generators; and East Kapolei and UH West O’ahu (permanent) Park and Ride are under evaluation.

| Remaining Contracts |   |                |                                    |                               |               |  |
|---------------------|---|----------------|------------------------------------|-------------------------------|---------------|--|
| Contract Code       | Contract Name   | Advertise Date | Bids Due/Part 1 Proposals/BAFO Due | RFP Part 2 Proposals/BAFO Due | Issue NTP     | Projected Contract Substantial Completion Date |
| AP-00               | Art-in-Transit  | May 09 '13     | -                                  | NA                            | TBD/Staggered | TBD  |
| DBB-550             | City Center Guideway and Stations                                     | Aug 04 '15     | Nov 18 '15                         | TBD                           | TBD           | TBD  |
| MM-902              | Program Management Contractor Contract                                | May 09 '16     | Jul 14 '16                         | NA                            | TBD           | Dec 31 '22 + 3 Year Option                     |
| DBB-602             | UH West Oahu Temporary Park and Ride and UH West Oahu Campus Road "B" | Oct 2016       | Jan 2017                           | NA                            | March 2017    |  |
| DBB-275             | Pearl Highlands Transit Center and Ramp H2R1 Design-Build Contract    | TBD            | TBD                                | TBD                           | TBD           | TBD  |
| MI-940              | Core Systems Back-up Generators                                       | TBD            | TBD                                | NA                            | TBD           | TBD  |
|                     | East Kapolei and UH/West Oahu Park and Ride Lots (Design)             | TBD            | TBD                                | TBD                           | TBD           | TBD  |
| DBB-600             | East Kapolei and UH/West Oahu Park and Ride Lots (Construction)       | TBD            | TBD                                | NA                            | TBD           | TBD  |

### 4.1 System-wide

#### A. Core Systems Contract (CSC)

Contract No.: DBOM-920

DBOM Contractor: Ansaldo Honolulu Joint Venture (AHJV)

Contract Start Date: January 2012

Contract Substantial Completion: March 2019

Projected Substantial Completion: October 2025

**Project Description:** Providing rail passenger vehicles, automated train control system, traction electrification system (TES), communication systems, passenger platform screen gates (PSGs), and operation and maintenance of the Project.

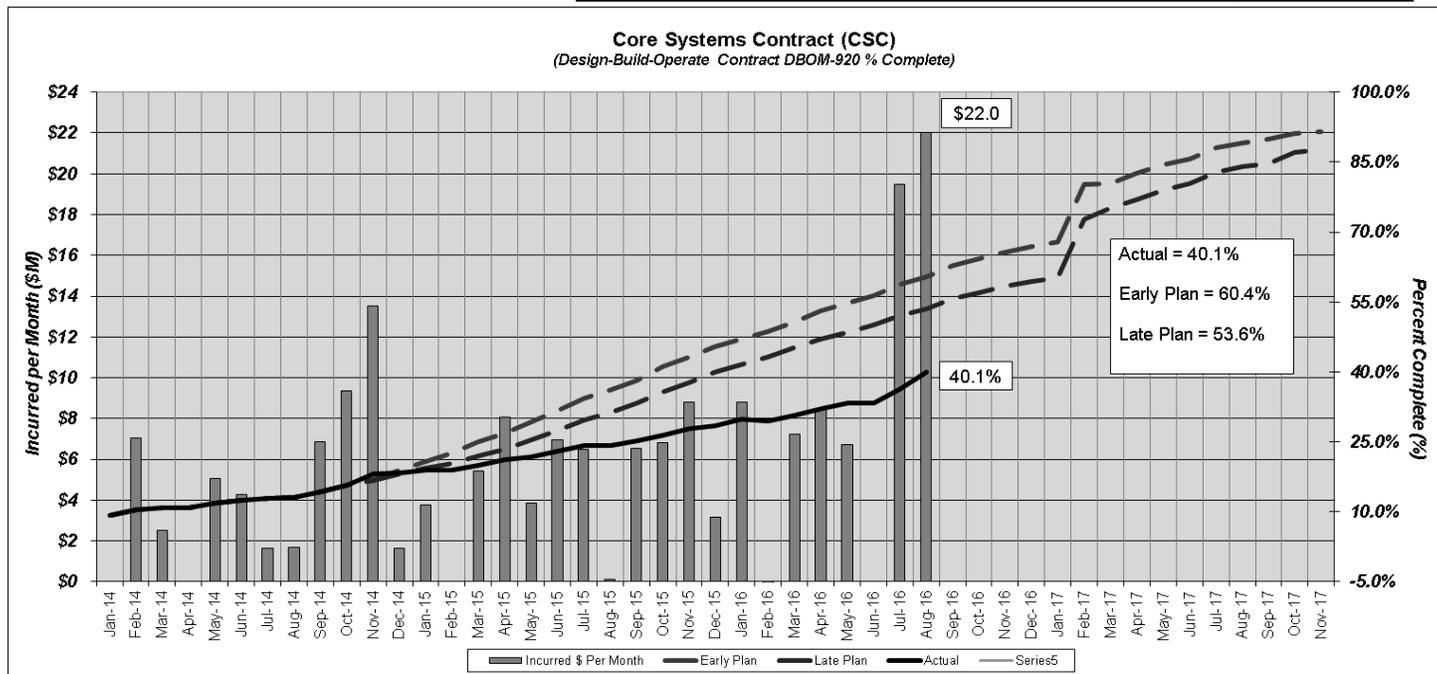
#### COST INFORMATION:

|                                       |               |                     |               |
|---------------------------------------|---------------|---------------------|---------------|
| Original Contract:                    | \$573,782,793 | Incurred-to-Date:   | \$240,705,257 |
| Current Contract Value <sup>1</sup> : | \$600,820,687 | Incurred in August: | \$22,042,303  |

<sup>1</sup>Current Contract Value = Original contract value (excluding \$823.6M O&M budget) + executed Change Orders

| Disadvantaged Business Enterprise (DBE) Participation |           |
|---|-----------|
| Actual DBE Participation:                             | \$129,165 |
| DBE % Attained:                                       | 0.029%    |

| August Change Orders      |             |                     |
|---------------------------|-------------|---------------------|
| Change No.                | Description | Amount (\$)         |
| None                      | ---         | ---                 |
| <b>Cumulative to Date</b> |             | <b>\$27,037,894</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined and Construction Access Milestone dates are revised, the cost curve will be revised.

#### SCHEDULE:

Schedule Status for September 2016

- Guideway installation at SS #8 started this month and will continue from Waipahu to East Kapolei.
- Station installations for TCCR will start in early 2017 at Ho’opili and West Loch.
- Vehicle delivery is ongoing along with testing. The next delivery is scheduled for February 2017.
- Schedule shows Dynamic Testing without ATC starting around February 2017.
- Activation of Third Rail at MSF is scheduled for December 2016.
- TPSS delivery scheduled for early 2017 for West Loch and Ho’opili.

**WORK PROGRESS:**

|                    | Base Design<br>Percent Complete | East Kapolei – Aloha<br>Stadium Design | Aloha Stadium –<br>Middle Street Design |
|--------------------|---------------------------------|--|---|
| Passenger Vehicles | 93%                             |  |   |
| PSGS               | 90.9%                           |  |   |
| Communications     | 69%                             | 59%                                    | 0%                                      |
| Fire Detection     | 100%                            | 79%                                    | 0%                                      |
| ATC / SCADA        | 100%                            | 100%                                   | 100%                                    |
| TES                | 100%                            | 100%                                   | 100%                                    |

Activities this Month:

**Weighted Value:** 38.3% [Total Achieved thru August 2016 (\$219.35 million) + Projected September 2016 Period (\$11 million)]/Total Contract Including Executed Change Orders (\$600.8 million)].

**Design:**

- Review of design submittals is ongoing.

**Manufacturing:**

- Performed oversight of passenger vehicle (PV) assembly activities at Hitachi Rail factory in Pittsburg, CA. Equipment installation work on the second, third, and fourth train is ongoing.
- The first four truck frames from Nuova Comafer arrived in Pittsburg, CA.
- Second set of four (4) truck frames has been shipped from Italy to Pittsburg.
- The routine testing of the DRS fabricated truck frames and bolsters is underway in Pittsburg.
- Pre-shipment inspection and test of Traction Electrification System (TES) Traction Power Sub-Station (TPSS) continues.
- Pre-shipment inspection and test of Supervisory Control and Data Acquisition (SCADA) continues.
- Qualification test on Platform Screen Gate System (PSGS) continues.

**Installation, Testing and Commissioning:**

- Continuity, Meggar, and Hi Potential Test was completed on Train 1 at the MSF.
- Automatic Train Control (ATC) installation in the MSF is 65% complete.
- Access stairs and landings were installed at Waipahu TPSS (System Site 8).
- TES installation in the MSF is 98% complete.
- Coordination with HECO to energize Waipahu TPSS.
- AHJV continues to pull train control cabling in the YCB.
- AHJV performed TES and Train Control cabling installation mock-up on the guideway.
- AHJV performed communication equipment installation mock-up in MSF.
- AHJV conducted installation survey of Operations and Servicing Building (OSB) in MSF.

Look Ahead:

**Design:**

- Continue Final Design of all subsystems.

**Manufacturing:**

- Passenger Vehicle Manufacturing – Continue car shell fabrication in Italy.
- Continue final assembly activities on Train 2, Train 3 and Train 4.
- PV Truck Fabrication – Continue truck frame and bolster fabrication activities in Italy.
- Continue manufacturing of automated train control, traction power, and other subsystems equipment.

**Installation, Testing and Commissioning:**

- Installation and testing of communications system cabling and devices in MSF buildings.
- Installation and testing of communications devices in MSF yard.
- Completion of MSF yard conduit installation.
- Conduct Type and Routine test on first train.
- Continue installation of TES cabling in MSF and guideway.
- Continue installation of Train Control cabling and devices in MSF.
- Installation of Operations Control Center (OCC) technical room equipment.

**KEY ISSUES:**

- Delays in the west side guideway and station contracts have affected the Core Systems Contract. HART issued revised Construction Access Dates in April 2016 with an anticipated shift in project completion from January 2020 to December 2022 (three years). The CSC will submit the revised Baseline Project Schedule (BPS Rev J) and intent to claim in October.
- The deferred NTP for City Center Guideway and Stations delays the Core Systems Contract. Delays to the Revenue Service Date impact the Core Systems Contract. Current projected project completion has shifted from December 2022 to as late as December 2025 (three years).
- Operations and Maintenance (O&M) costs, both Design-Build (DB) portion of the contract and the Full System O&M portion of the contract, are under review as a result of the revised project completion date.
- The CSC’s Communications System design completion is delayed. HART continues to work closely with AHJV to identify key issues and to implement the corrective action plan to bring design and qualification testing to closure.
- Hawaiian Electric provided HART with preliminary results of the power quality study which shows that HART will need to mitigate the voltage variations caused by the operation of the trains leaving the stations. Mitigation measures being reviewed by HART include the installation of Static Volt-Ampere Reactive (VAR) Compensation equipment or other solutions including refining the operation of the trains.

**QUALITY MANAGEMENT:**

- Core Systems Oversight Consultant (CSOC) continues to monitor quality of PV assembly in Pittsburg, and quality of wiring retrofit on Train #1 in the MSF.

| CSC NCR Log  |            |            |            |
|--------------|------------|------------|------------|
|              | TOTAL      | CLOSED     | OPEN       |
| AHJV & Subs  | 33         | 31         | 2          |
| Hitachi Rail | 733        | 561        | 172        |
| <b>TOTAL</b> | <b>766</b> | <b>592</b> | <b>174</b> |

**B. Elevators and Escalators Manufacture-Install-Maintain (MIM)**

**Contract No.:** MI-930

**Contractor:** Schindler Elevator Corporation

**Contract Start Date:** August 2013

**Contract Substantial Completion:** June 2018

**Projected Substantial Completion:** The June 2018 completion date will change to a later date predicated on the award of the DB contracts for the east portion of the guideway.

**Project Description:** Furnish / install / test / maintain all elevator and escalator equipment located at the 21 stations.

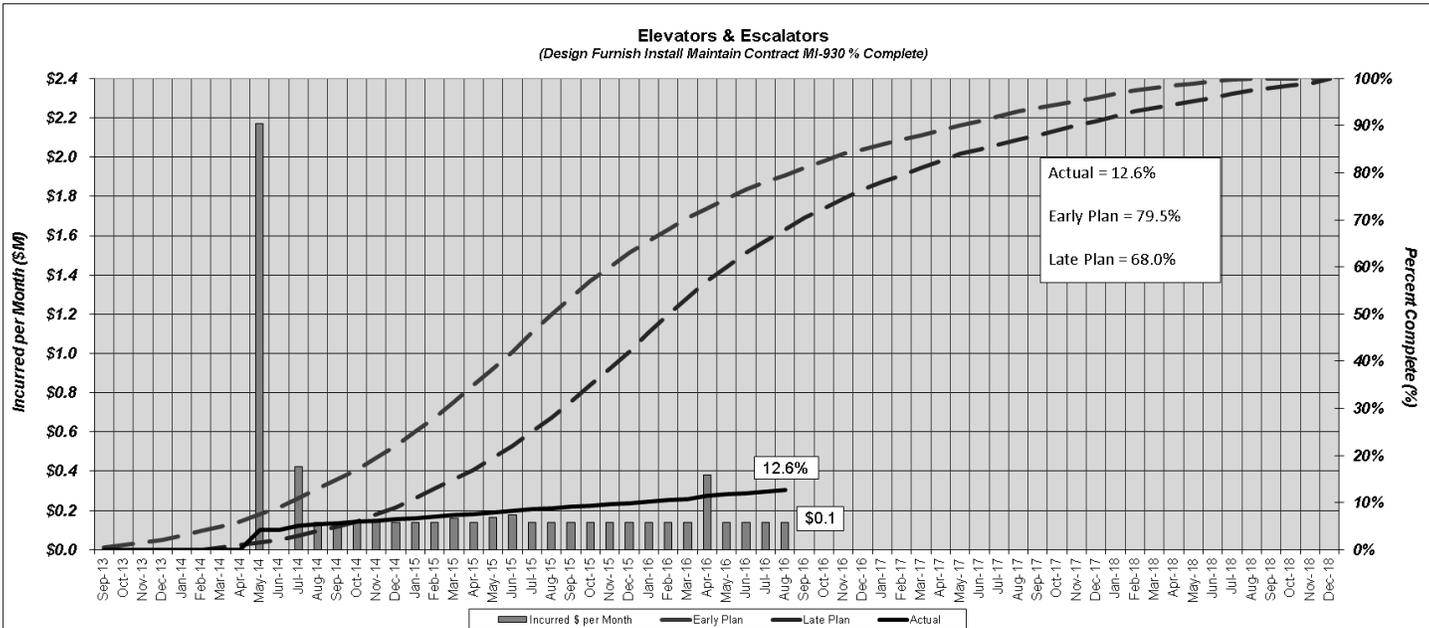
**COST INFORMATION:**

|                                       |              |                     |             |
|---------------------------------------|--------------|---------------------|-------------|
| Original Contract:                    | \$50,982,714 | Incurred-to-Date:   | \$6,431,405 |
| Current Contract Value <sup>1</sup> : | \$51,999,035 | Incurred in August: | \$140,825   |

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

| DBE Participation         |     |
|---------------------------|-----|
| Actual DBE Participation: | \$0 |
| DBE % Attained:           | 0%  |

| August Change Orders      |             |                    |
|---------------------------|-------------|--------------------|
| Change No.                | Description | Amount (\$)        |
| None                      | ---         | ---                |
| <b>Cumulative to Date</b> |             | <b>\$1,016,321</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined and Construction Access Milestone dates are revised, the cost curve will be revised.

**SCHEDULE:**

- Elevators' schedule for the FHSG, WOSG and KHSG stations will be finalized once the respective station baseline schedules are accepted and all access dates are transmitted to Schindler. Elevators' schedule for the remaining 12 eastside stations will be established once these DB contracts are awarded and the DB schedules are accepted.

**WORK PROGRESS:**Activities this Month:**Weighted Value: 12.6%**; Planned Value: 68%

- Final Design is approximately 41% complete, as 9 of the 21 stations are ready to be released for manufacturing once the contractor's schedules are approved.
- All draft equipment drawings for the 21 stations have been submitted for review and have been accepted.
- Design is complete on the three FHSG stations, three WOSG stations, and the three KHSG stations.
- Permits for the installation of all elevators and escalators for the FHSG, KHSG and the WOSG have been issued. These permits are for installation only, not operation.

Look Ahead:

- Release for manufacturing for the Farrington Highway Station Group will occur in October; the West O'ahu Station Group elevators and escalators is expected to occur in November 2016, once the construction schedule is approved by HART. KHSG will be released for construction later this year, once a schedule has been accepted by HART.

**KEY ISSUES:**

- HART, the Elevator/Escalator contractor and the FHSG contractor met in September to discuss the need dates to determine the manufacturing and delivery dates for the FHSG E&E equipment. The actual release for manufacturing the E&E equipment will be coordinated for a 'just in time' delivery. WOSG E&E equipment will be released, once the equipment supplier and the station contractor have met, as was done for the FHSG, and the actual need dates are confirmed. The release of the equipment required for KHSG will be dependent on the Notice to Proceed (NTP) of the KHSG contract. Final completion of the equipment requirements for the four stations included in the DB contract for Airport Guideway and Stations will be subject to the final design of the DB. This work will resume with the issuance of the NTP for this contract. The eight stations included in the City Center Guideway and Stations contract is also on hold pending contract award of the DB contract for this work. Both of the DB solicitation packages contain the size and configuration of the elevators and escalators purchased for these twelve remaining stations.
- Coordination with station contractors on construction interface milestones.
- Re-bidding of the Airport and City Center sections of guideway with stations as Design-Build contracts will impact the completion of the Elevator Escalator contract.

**C. Fare Collection System**

**Contract No.:** MI-900

**Contractor:** INIT, Innovations in Transportation Inc.

**Contract Start Date:** April 2016

**Contract Substantial Completion:** September 2021

**Projected Substantial Completion:** 60 days after full rail revenue service date

**Project Description:** The fare collection system is a joint HART and City and County of Honolulu (DTS, DIT, BFS) project that will consist of a multi-model, closed loop, account based smart card system. The Fare System Vendor will be responsible for design, manufacture, testing, installation and operation of the entire system inclusive of hardware and software.

The rail portion of the project will consist of Ticket Vending Machines (TVMs) and fare gates at stations that accept smart cards which can also be used for payment on board TheBus and facilitate a seamless transfer between modes. Equipment and software to be used by both HART and the City and County will include transaction processing, fare equipment monitoring, and customer service systems, as well as a Data Warehouse. TheBus equipment will consist of stand-alone smart card readers on board.

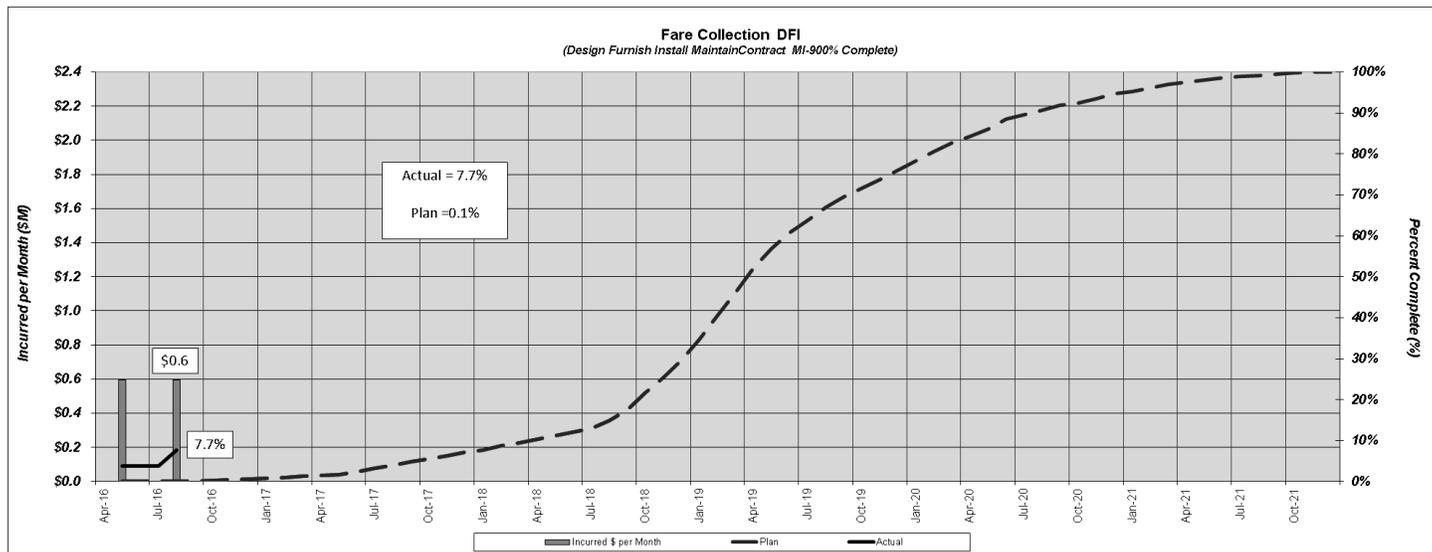
**COST INFORMATION:**

|  |                     |                            |                    |
|--|---------------------|----------------------------|--------------------|
| <u>Original Contract:</u>                  | <u>\$15,464,198</u> | <u>Incurred-to-Date:</u>   | <u>\$1,187,680</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$15,464,198</u> | <u>Incurred in August:</u> | <u>\$593,840</u>   |

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

| DBE Participation         |     |
|---------------------------|-----|
| Actual DBE Participation: | \$0 |
| DBE % Attained:           | 0%  |

| August Change Orders      |             |             |
|---------------------------|-------------|-------------|
| Change No.                | Description | Amount (\$) |
| None                      | ---         | ---         |
| <b>Cumulative to Date</b> |             | <b>\$0</b>  |



**SCHEDULE:**

- The baseline schedule for the fare systems project has the following milestones and is currently tracking to schedule:
  - Conceptual Design Review (CDR), Preliminary Design Review (PDR) and Final Design Review (FDR) completed by March 31, 2017
  - Field Integration testing for Bus and Back Office completed by June 30, 2017
  - Bus and Back Office Pilot is scheduled to begin December 2017 and run through March 2018
  - Final Acceptance Bus and Back Office is scheduled for completion July 20, 2018

**WORK PROGRESS:**Activities this Month:**Weighted Value: 8%**; Planned Value: 8%

- Completed 3 of 8 Preliminary Design Review (PDR), and began review of PDR Package 1 documents.
- Reviewed Interactive Voice Response (IVR) staff and lines requirements model.
- Confirmed baseline fare model and developed draft Fares Model memo.
- Ongoing business rules document development.

Look Ahead:

- Conduct additional PDR workshops and begin review of first PDR documents package.
- Kick off card branding work.

**KEY ISSUES:**

- Starting and completing three design reviews on time in order to maintain schedule with final design milestone acceptance by May 2017.
- PDR Acceptance by Dec. 31, 2016.

## 4.2 Section I – West O’ahu/Farrington Highway: East Kapolei to Pearl Highlands

### A. West O’ahu/Farrington Highway Guideway (WOFH)

Contract No.: DB-120

DB Contractor: Kiewit Infrastructure West Company (KIWC)

Contract Start Date: December 2009

Contract Substantial Completion: November 2016

Projected Substantial Completion: March 2017

**Project Description:** Design and construction of 6.8 miles of rail alignment, starting at the East Kapolei Station and ending at the Pearl Highlands Station.

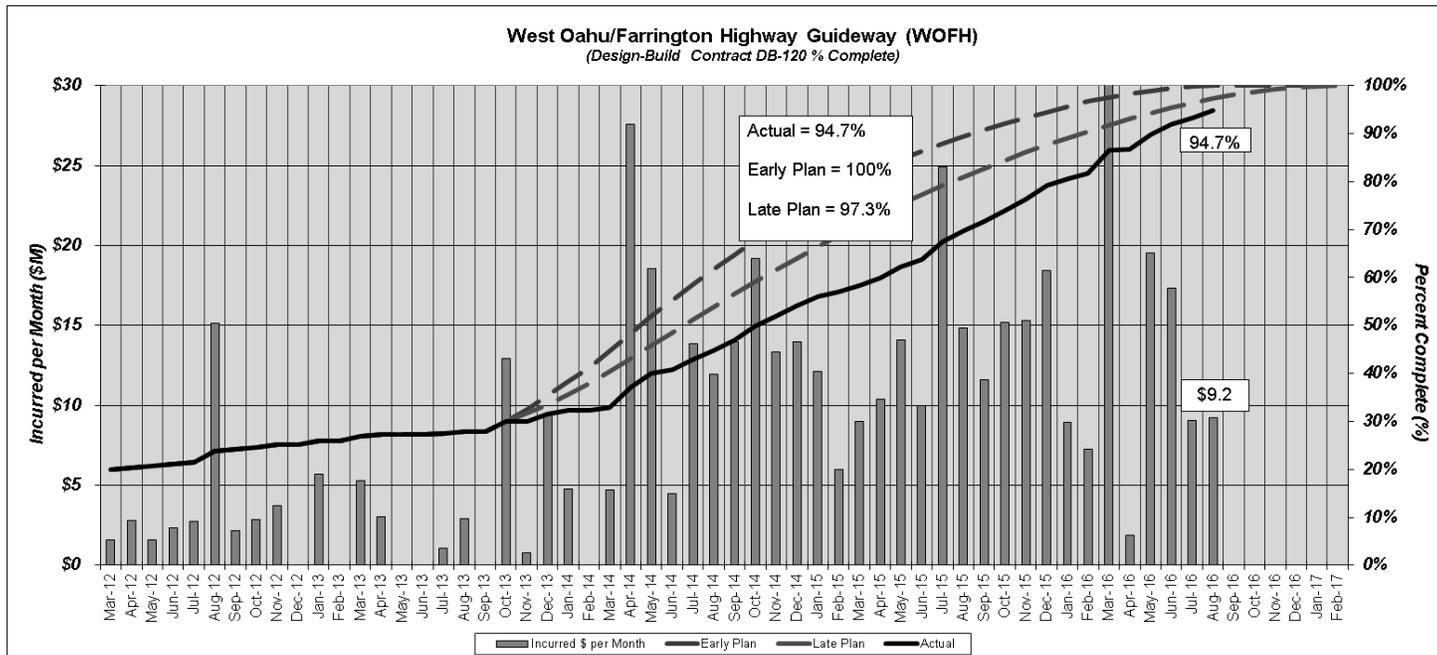
#### COST INFORMATION:

|                                       |               |                     |               |
|---------------------------------------|---------------|---------------------|---------------|
| Original Contract:                    | \$482,924,000 | Incurred-to-Date:   | \$616,164,480 |
| Current Contract Value <sup>1</sup> : | \$650,355,787 | Incurred in August: | \$9,233,762   |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |             |
|---------------------------|-------------|
| Actual DBE Participation: | \$8,541,212 |
| DBE % Attained:           | 1.77%       |

| August Change Orders      |             |                      |
|---------------------------|-------------|----------------------|
| Change No.                | Description | Amount (\$)          |
| None                      | ---         | ---                  |
| <b>Cumulative to Date</b> |             | <b>\$167,431,787</b> |



#### SCHEDULE:

- As of the August 2016 progress update, substantial completion beyond November has been extended to March 2017 due to the work scheduling of all LCC construction activities.

**WORK PROGRESS:**

| WOFH Construction Status as of 9/14/16 |             |           |            |   |                   |                    |                    |           |            |
|--|-------------|-----------|------------|---|-------------------|--------------------|--------------------|-----------|------------|
| Utility Status                         | Qty to Date | Final Qty | % Complete | Structure Element   | *** Total to Date | Planned to Date    |                    | Total Qty | % Complete |
|  |             |           |            |   |                   | Accepted Schedule* | Revised Schedule** |           |            |
| Water Line                             | 9,028       | 9,348     | 97%        | Shafts  | 309               | 309                | 309                | 309       | 100%       |
| Sewer Line                             | 550         | 570       | 96%        | Columns   | 283               | 283                | 283                | 283       | 100%       |
| Fuel Line                              | 340         | 340       | 100%       | Segment Casting   | 3,209             | 3,209              | 3,209              | 3,209     | 100%       |
| Gas line                               | 1,591       | 1,591     | 100%       | Spans Stressed  | 274               | 274                | 274                | 274       | 100%       |
| Drainage Line                          | 4,191       | 5,166     | 81%        | Track work  | 277               | 278                | 278                | 278       | 99.6%      |
| Elec/Telecom                           | 16,889      | 21,374    | 79%        | Third Rail  | 277               | 278                | 278                | 278       | 99.6%      |
| Street Lights                          | 6,335       | 8,357     | 76%        | Mill & Overlay  | 27,353            | N/A                | N/A                | 27,643    | 99.0%      |
| Traffic Sig/ITS Duct bank              | 8,552       | 10,802    | 79%        | * Accepted Schedule was submitted in 2013.  |                   |                    |                    |           |            |
| System Sites                           | 1,683       | 7,046     | 24%        | ** The planned values are based on KIWC's pending July schedule revision dated August 24, 2015. Revised schedule reflects a 6-month delay in completion.    |                   |                    |                    |           |            |
| ITS Systems Devices                    | 821         | 4,121     | 20%        | *** Total quantity for the construction items has been revised to reflect the latest Issued for Construction number of shafts, columns, segments and spans. |                   |                    |                    |           |            |

Activities this Month:

**Weighted Value: 95%** [(Total Achieved to August 2016 (\$609.5 million) + September 2016 Period (\$24.1 million))/Total Contract Including Executed Change Orders (\$658.7 million)]. Planned Value: 98.1%

**Utility Relocation**

- KIWC continues to work with third party utilities to relocate utilities conflicts to facilitate station and traffic signal construction.

**Track Construction**

- KIWC continues to construct concrete plinths, install CWR (Continuous Welded Rail) and third rail from Spans 249 – 266.

**KIWC/Third-Party Coordination**

- HECO and KIWC continued to resolve station and traffic signal utility relocation conflicts.

**Civil Structures**

- KIWC continues with median restoration, constructing curb and gutter, and sidewalks. Installing irrigation valve boxes from Fort Weaver Road to Waipahu High School.

**Station Contractor Interfaces**

- KIWC, FHSG, CSC and WOSG are holding Interface closeout meetings to resolve current design and construction conflicts.

**Traffic Signals**

- KIWC is working on installing the traffic signals improvements along Farrington Highway and the various intersections.

Look Ahead:

**Design Progress**

- KIWC will continue to work toward completing the last design package – Guideway Conflicts.

**Column**

- KIWC will continue work correcting punch list items.

**Guideway Segment Erection**

- KIWC will continue work correcting punch list items.

**Utility Relocation**

- KIWC will continue to relocate utility conflicts to facilitate traffic signal improvements.

**Balanced Cantilever Structure**

- KIWC will continue work to complete concrete plinth construction and correcting punch list items.

**Track Construction**

- KIWC will continue work to complete the construction of concrete plinths, installation of CWR, and third rail.
- Continue to correct punch list items.

**KIWC/Third-Party Coordination**

- Continue to resolve utility conflicts with third parties.

**Civil Structures**

- KIWC will continue with road restoration work.

**Traffic Signals**

- KIWC will continue traffic signal installations.

**LCC Station Access Structure**

- KIWC will continue with the construction of the access structure footings and walls, and pedestrian access tunnel.
- Installing future utility conduits.

**KEY ISSUES:**

- **Closeout and Coordination** – As the project approaches substantial completion, KIWC has continued coordination with station contractors and HART on project closeout documentation requirements, including QA-QC final acceptance checklists. As-built and record drawings are currently being reviewed. Per the contract, written agreements are being executed between HART and KIWC to document partial occupancy requirements where other HART contractors require access to complete their work.
- **Shared Access** – Ansaldo was given access to Site System #8 to start traction power conduit installation.
- In late February/early March 2016, KIWC resumed LCC construction work activities. The portable classroom turnover to the University occurred on May 2, 2016. Demolition of the existing portables started in mid-May. KIWC’s most recent progress schedule shows the project to be completed four months beyond contractual substantial completion.

**SUBSTANTIAL COMPLETION:**

- No progress to report this month.

**QUALITY MANAGEMENT:**

- KIWC continues to follow their established quality processes through quality monitoring and audits.
- **Closing Out NCRs** – KIWC has been working to correct, validate, and close out NCR’s during this period. 0 NCRs were closed this period.
- **NCR 549 – Corroded Longitudinal Post Tensioning (PT) Tendons** – After investigation, KIWC found possible vacuum grouting repair work not applicable to PT tendons at Spans 33, 38, 45 and 51. KIWC’s schedule is three fold. First, they completed the replacement of these tendons with grout mixture issues by the middle of September. Second, they completed sounding all of the tendons by the middle of September, with three issues. These three issues were mitigated by vacuum grout and replacement of the tendons. Lastly, they prepared a full scale tendon mock-up and tested it to failure in the middle of September.
- **NCR 553 – Track Shim Material** – Currently, KIWC is gathering shims to have tested. Both KIWC and HART will test the shims to ensure they are in conformance with the Specifications. KIWC is also contacting the manufacturers to ensure that their certifications are in conformance with the Specifications.

| WOFH NCR LOG              |        |      |
|---------------------------|--------|------|
| Total NCRs Issued To Date | CLOSED | OPEN |
| 555                       | 548    | 7    |

**B. West O’ahu Station Group (WOSG)**

**Contract No.:** DBB-171

**Contractor:** Nan, Inc.

**Contract Start Date:** October 2015

**Contract Substantial Completion:** March 2018

**Projected Substantial Completion:** March 2018

**Project Description:** The West O’ahu Station Group Construction contract includes services to build three (3) transit stations along Kualaka’i Parkway and Farrington Highway. The stations are East Kapolei (EK), UH West O’ahu (UHWO) and Ho’opili Stations. In addition to the transit stations, operational ancillary buildings, traction power substation and adjacent areas are included in this project.

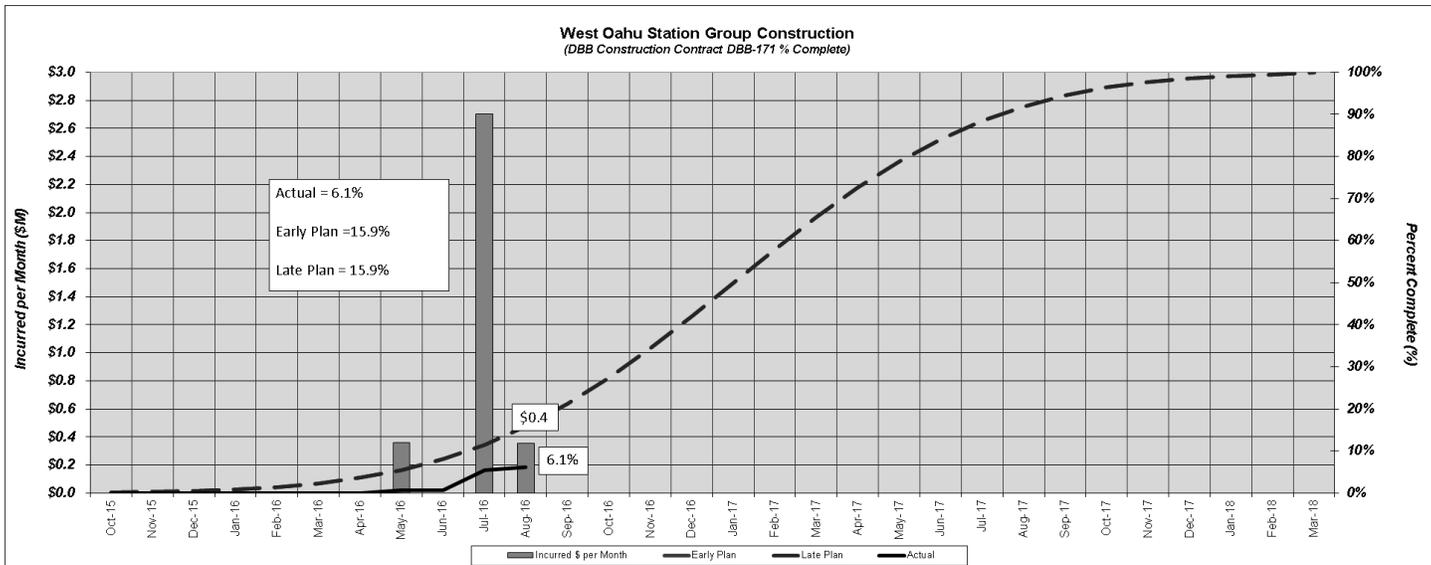
**COST INFORMATION:**

|  |                     |                            |                    |
|--|---------------------|----------------------------|--------------------|
| <u>Original Contract:</u>                  | <u>\$56,088,470</u> | <u>Incurred-to-Date:</u>   | <u>\$3,416,523</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$56,088,470</u> | <u>Incurred in August:</u> | <u>\$352,453</u>   |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |     |
|---------------------------|-----|
| Actual DBE Participation: | \$0 |
| DBE % Attained:           | 0%  |

| August Change Orders/Amendments |             |             |
|---------------------------------|-------------|-------------|
| Change No./Amend                | Description | Amount (\$) |
| None                            | ---         | ---         |
| <b>Cumulative to Date</b>       |             | <b>\$0</b>  |



**SCHEDULE:**

- Baseline schedule has been approved under the condition that the outstanding comment be resolved before any further pay requests be submitted by the contractor.
- The contractor is required to sequence work appropriately to turn over the completed Train Control and Communication Room at Ho’opili, rather than under partial completion, shared access conditions.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 5%;** Planned Value: 5%

- The baseline schedule is conditionally approved, awaiting the contractor to address the comment before any further pay requests will be approved.
- Progress schedule has been updated to the current month.
- Contractor has addressed as-built conditions for the Ho’opili platform girder formwork. Bottom slabs have been poured. Contractor has submitted revisions to their cost proposal and were provided additional information to address negotiable profit percentages.
- Construction of the Ho’opili TCCR/TPSS have been resolved, so the contractor is proceeding with Field Change Notice (FCN) work.
- The contractor has drilled 4 shafts at UH West O’ahu, after the approval of the method shaft.

Look Ahead:

- East Kapolei mobilization at the site to prepare for drilled shaft work.
- Construction of the platform box girder at Ho’opili.
- Remaining 2 drilled shafts to be completed at UH West O’ahu.

**KEY ISSUES:**

- De-energization of the 46kV to accommodate the drilled shaft work. Relocation of the 46kV line at UH West O’ahu Station to be done upon completion of the drilled shaft work.
- Construction of Traction Power Sub-Station (TPSS) foundation and Train Control and Communications Room (TCCR)/Uninterrupted Power Supply (UPS) room to meet the program schedule needs.
- Providing infrastructure for power to Ho’opili.
- De-energization of the 46kV at UH West O’ahu has been pushed back a week, due to HECO required work for redundancy of a fiber line that needs to be moved for this drilled shaft operation; working with the contractor to mitigate any impacts.
- Executing change orders to incorporate the Issued for Construction (IFC) set and other design changes into the contract, as deemed appropriate.

**QUALITY MANAGEMENT:**

| WOSG NCR Log              |          |          |
|---------------------------|----------|----------|
| Total NCRs Issued To Date | CLOSED   | OPEN     |
| <b>3</b>                  | <b>2</b> | <b>1</b> |

**C. Farrington Highway Station Group (FHSG)**

**Contract No.:** DBB-271

**Contractor:** Hawaiian Dredging Construction Company, Inc.

**Contract Start Date:** August 2015

**Contract Substantial Completion:** January 2018

**Projected Substantial Completion:** TBD

**Project Description:** The Farrington Highway Station Group construction contract includes services to build three (3) transit stations along Farrington Highway. The stations are West Loch (WLO), Waipahu Transit Center (WTC) and Leeward Community College (LCC) Station. The station work includes operational ancillary buildings, a traction power substation at WLO, kiss and ride lots, and parking lots.

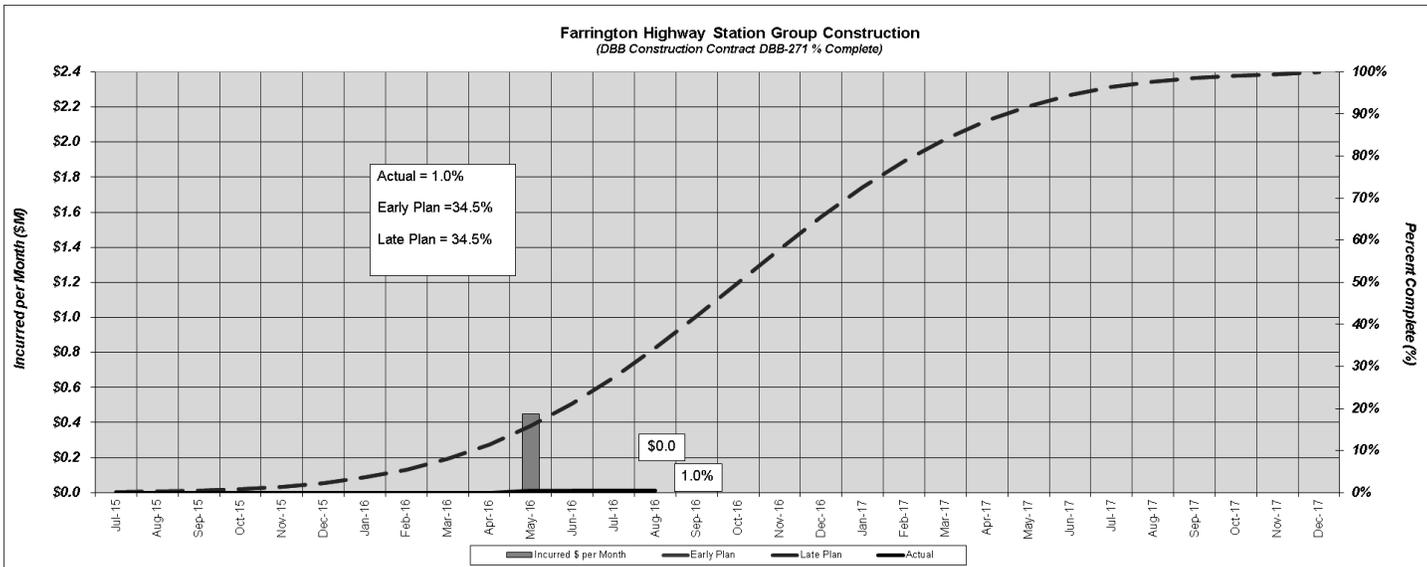
**COST INFORMATION:**

|  |                     |                            |                  |
|--|---------------------|----------------------------|------------------|
| <u>Original Contract:</u>                  | <u>\$78,999,000</u> | <u>Incurred-to-Date:</u>   | <u>\$450,000</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$79,799,174</u> | <u>Incurred in August:</u> | <u>\$0</u>       |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |     |
|---------------------------|-----|
| Actual DBE Participation: | \$0 |
| DBE % Attained:           | 0%  |

| August Change Orders/Amendments |  |                  |
|---------------------------------|--|------------------|
| Change No./Amend                | Description                                | Amount (\$)      |
| 0003                            | Add Mud Jack Tubes at West Loch Station RF | \$14,574         |
| <b>Cumulative to Date</b>       |  | <b>\$800,174</b> |



**SCHEDULE:**

- The July Baseline Project Schedule (BPS) update was received, reviewed, and accepted as noted. HDCC will re-baseline the BPS, based on the revised CAM dates to be provided by HART.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value:** 0.57%; Planned Value: 37%

- HDCC is working on addressing technical comments regarding the VECP. Several scoping meetings have been held to bring cost differences in line.
- HART is working with CE&I staff to quantify additional scope of work added in revisions to the plan sets.
- HDCC is completing drilled shaft work on the makai side of WLO and continues settlement control, waterline and sewer line work, and grounding grid installation and conduit installation at the ancillary building.
- Survey work was performed at the WTC Station.

Look Ahead:

- Drilled shaft work at WLO will commence on the mauka side.
- Underground utility work.
- Quantification of changes from the Bid set and addendum compared to revision sets is ongoing.
- Vertical raceway column (VRC) ductbank installation.
- Installation of waterline at Zippy's.

**KEY ISSUES:**

- Access to LCC - HDCC will need to re-baseline the project schedule when new access dates to LCC are determined. HART is working with HDCC to mitigate cost and time impacts related to the delay in LCC access.
- HDCC delay in providing critical submittals is also impacting the critical path.
- Timing of the VECP and how the work will impact the project schedule and projected substantial completion may affect the critical path if the VECP is incorporated into the contract.
- Quantification of change work included in plan revisions versus Issued for Bid (IFB) plus addendum, and how those changes are incorporated into HDCC's contract.

**QUALITY MANAGEMENT:**

| FHSG NCR Log              |        |      |
|---------------------------|--------|------|
| Total NCRs Issued To Date | CLOSED | OPEN |
| 3                         | 1      | 2    |

**D. Maintenance and Storage Facility (MSF)**

**Contract No.:** DB-200

**Contractor:** Kiewit/Kobayashi Joint Venture (KKJV)

**Contract Start Date:** July 2011

**Contract Substantial Completion:** July 2016

**Project Description:** The MSF contract consists of the Operations and Servicing Building (OSB), Maintenance of Way (MOW), Train Wash Facility (TWF) and Wheel Truing Building (WTB). In addition to the four (4) facility buildings, MSF includes rail procurement, special trackwork, ties, third rail and other track material for the four guideway segments on the project.

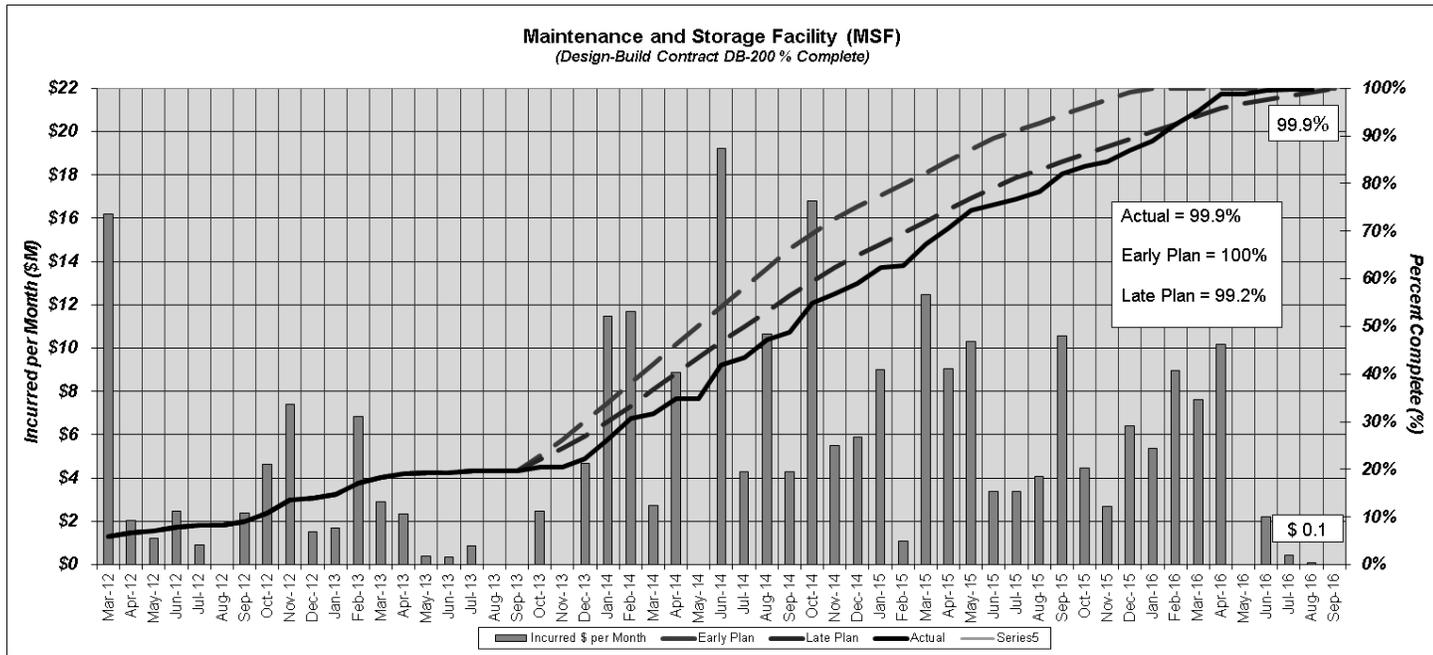
**COST INFORMATION:**

|                                       |               |                     |               |
|---------------------------------------|---------------|---------------------|---------------|
| Original Contract:                    | \$195,258,000 | Incurred-to-Date:   | \$274,281,044 |
| Current Contract Value <sup>1</sup> : | \$274,858,568 | Incurred in August: | \$ 100,214    |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$688,879 |
| DBE % Attained:           | 0.35%     |

| August Change Orders      |             |                     |
|---------------------------|-------------|---------------------|
| Change No.                | Description | Amount (\$)         |
| None                      | ---         | ---                 |
| <b>Cumulative to Date</b> |             | <b>\$79,600,568</b> |



**SCHEDULE:**

- The Maintenance and Storage Facility (MSF) Project is currently in the close-out stage and has a target date of Dec. 1, 2016 for final acceptance.

| MSF Construction Status<br>99.9 % Complete Overall<br>as of 9/15/16 |             |
|---|-------------|
| Element   | % Complete* |
| OSB   | 99.9%       |
| MOW Building  | 99.9%       |
| WTB   | 99.8%       |
| TWF   | 99.9%       |
| Rail  | 99.9%       |
| Paving  | 100%        |

\*Not including testing and commissioning.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 99.88%** [(Total Achieved to August (\$274,302,672.96) + Projected September 2016 Period (\$237,201.00)/Total Contract Including Executed Change Orders (\$274,858,567.96)]. Planned Value: 99.9%

**Yard/Utilities**

- Submitting final documents for training, O&M manuals, etc. for project close-out continued.

**Operations and Servicing Building (OSB)**

- Installation of the hydraulic lifts is complete.

**Maintenance of Way (MOW)**

- Submitting final documents for training, O&M manuals, etc. for project close-out continued.

**Wheel Truing Building (WTB)**

- Submitting final documents for training, O&M manuals, etc. for project close-out continued.

**Train Wash Facility (TWF)**

- Submitting final documents for training, O&M manuals, etc. for project close-out continued.
- Train Wash Facility spare parts were turned over to HART/Ansaldo.

**Rail Procurement and Installation**

- Completed.

**Administration**

- Assisting with the completion of final documents for final acceptance of the MSF project.

Look Ahead:

**Yard/Utilities**

- Submitting final documents for training, O&M manuals, etc. for project close-out.

**OSB**

- Testing of the hydraulic lifts, pending delivery of train bogies by CSC.
- Submitting final documents for training, O&M manuals, etc. for project close-out.

**MOW**

- Submitting final documents for training, O&M manuals, etc. for project close-out.

**WTB**

- Submitting final documents for training, O&M manuals, etc. for project close-out.

**TWF**

- Submitting final documents for training, O&M manuals, etc. for project close-out.

**KEY ISSUES:**

- **Final Acceptance** – Coordination with KKJV has continued for equipment and building commissioning, final punchlist, submittals, training, O&M manuals, spare parts, and equipment turnover for final acceptance. Most of this work has been completed pending final documentation to be submitted; however, the drainage installation at the OSB and testing of the hydraulic lifts once the bogies arrive in November are still pending.
- **Leadership in Energy and Environmental Design (LEED) Commissioning** – KKJV continued to work on punchlist items noted during the LEED commissioning tests of HVAC, domestic water, and building lighting controls.
- **3/16" Direct Fixation Isolation Pads** – KKJV/LB Foster will replace about 165,000 isolation pads for Direct Fixation Fasteners (DFF), which did not meet specifications.

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.

| MSF NCR Log               |        |      |
|---------------------------|--------|------|
| Total NCRs Issued to Date | CLOSED | OPEN |
| 34                        | 32     | 2    |

### 4.3 Section II – Kamehameha Highway: Pearl Highlands to Aloha Stadium

#### A. Kamehameha Highway Guideway (KHG)

**Contract No.:** DB-320  
**Contractor:** Kiewit Infrastructure West Company (KIWC)  
**Contract Start Date:** June 2011  
**Contract Substantial Completion:** May 2017  
**Projected Substantial Completion:** May 2017

**Project Description:** Kamehameha Highway Guideway DB Contract (KHG) consists of 3.9 miles and starts 400 feet east of the Pearl Highlands Station and terminates 1,400 feet beyond the Aloha Stadium Station. KHG work scope is made up of utility relocations, traffic signal improvements, highway widening, drilled shaft foundations, columns and aerial structure.

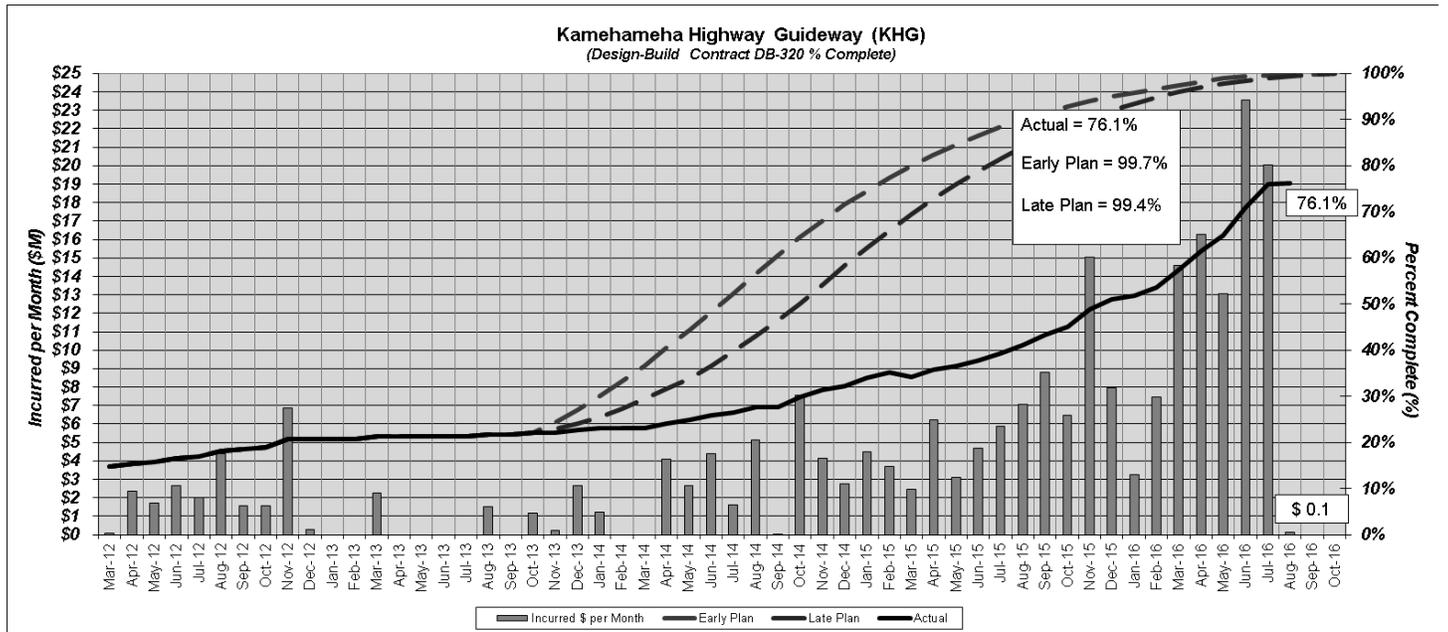
#### COST INFORMATION:

|  |                      |                            |                      |
|--|----------------------|----------------------------|----------------------|
| <u>Original Contract:</u>                  | <u>\$372,150,000</u> | <u>Incurred-to-Date:</u>   | <u>\$296,473,366</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$390,835,185</u> | <u>Incurred in August:</u> | <u>\$124,945</u>     |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$315,013 |
| DBE % Attained:           | 0.08%     |

| August Change Orders      |  |                     |
|---------------------------|--|---------------------|
| Change No.                | Description                                | Amount (\$)         |
| 00033                     | Escalation due to Schedule Impacts         | \$267,817           |
| 00034                     | Bundled KHG RFCC's 60,64,79,90,102 and 105 | \$275,000           |
| <b>Cumulative to Date</b> |  | <b>\$18,685,185</b> |



#### SCHEDULE:

KHG Contract Change Order (CCO) No. 35 has extended the substantial completion date by 238 calendar days to May 12, 2017 for Traffic Signal modification work.

HART is currently investigating options to mitigate delays with the KHG contract. HART’s position with these mitigation actions is that the projected substantial completion will be May 2017, although the current progress schedule shows guideway to be completed in June 2017 and overall project schedule to be completed in June 2018.

KIWC continues to have challenges meeting schedule due to various factors including lower productivity and resource sharing between the KHG and WOFH projects, and self-directed work stoppage for traffic signal and civil work.

**WORK PROGRESS:**

**KHG Construction Status as of 9/14/16**

| Utility Status     | Qty to Date | Final Qty | % Complete | Structure Element      | Total to Date | Planned to Date     |                     | Total Qty | % Complete |
|--------------------|-------------|-----------|------------|------------------------|---------------|---------------------|---------------------|-----------|------------|
|                    |             |           |            |                        |               | Accepted Schedule * | Revised Schedule ** |           |            |
| Water Line         | 4,362       | 4,362     | 100%       | Shafts                 | 185           | 186                 | 186                 | 186       | 99.5%      |
| Gas Line           | 12,641      | 12,641    | 100%       | Columns                | 157           | 169                 | 162                 | 169       | 92.9%      |
| Sewer Line         | 492         | 492       | 100%       | Segment Casting        | 2,029         | 2,029               | 2,029               | 2,029     | 100%       |
| Drainage Line      | 710         | 1,469     | 48%        | Spans Stressed         | 133           | 166                 | 110                 | 166       | 80.1%      |
| Elec/Telecom       | 15,961      | 19,455    | 82%        | Track work             | 31            | 166                 | 31                  | 166       | 18.7%      |
| System Sites       | 15%         | N/A       | 15%        | Third Rail             | 0             | 138                 | 29                  | 166       | 0%         |
| Signals/ITS/Lights | 13,587      | 18,486    | 74%        | Mill & Overlay Roadway | 0             | N/A                 | N/A                 | N/A       | 0%         |

\* Accepted Schedule was submitted in 2013.  
 - Forecasted delays for track work extended the guideway completion by 3 weeks from prior updates.  
 \*\* These quantities are based on KIWC’s pending August 2015 schedule revision dated Sept. 23, 2015. Revised schedule reflects a 12 month delay in completion.

Activities this Month:

**Weighted Value: 78%** [(Total achieved to Aug 2016 (\$296.4 million) + September 2016 projection (\$15.6 million))/Total Contract including executed Change Orders (\$398.7 million)].  
 Planned Value: 99.8%

**Shaft/Column/Segments**

- Balanced Cantilever Structure (BCS) east and west of the H-1 overpass is complete.
- Heading #1 Truss is in production erecting Span 386.
- Heading #3 Truss is in production erecting Span 340.
- Initiate construction of straddle bents 400 and 401 at Aiea Access Rd.

**Utility Relocation Progress**

- The relocation of HECO electrical lines and Hawaiian Telcom, Oceanic Time Warner and Intelligent Transportation Systems (ITS) ductbanks is occurring in various phases along the alignment.
- Systems Site #10 and #24 work is ongoing.

**Roadway Widening**

- Center median construction in Phase 3 continues.
- BCS is complete.

Look Ahead:

**Design Progress**

- KIWC is working to complete final design. To date, 45 of 49 drawing packages have been issued for construction.

**Shaft/Column/Segments**

- Column construction continues eastbound from Honomanu St.
- Initiate construction of straddle bents 400 and 401 at Aiea Access Rd.
- Demobilizing Heading #3 Truss.

**Utility Relocation**

- Acquisition of ROE for utility relocations is being pursued by HART and KIWC jointly, and meetings with property owners are ongoing.
- Construction of Storm Drain Line in Phase 5.

**Roadway Widening**

- KIWC plans to start center median construction in Phase 5.

**Traffic Signals**

- Conduit installation in Phases 8 and 9.

**KEY ISSUES:**

- **HECO/HDOT Utility Priorities** – HECO design for utility conflict 11-920-M1 has been completed and approved by HART. HECO completed this work on September 20, 2016. HART is working with KIWC and HECO to mitigate the delay.
- **Access Coordination between Contracts** – Coordination between contractors is ongoing and requires turnover of guideway work to follow-on station contractors.
- **Civil Roadway Work** – HART is considering removing portions of this work to reduce the extended construction period on the KHG contract.
- KIWC’s latest progress schedules have been forecasting 9 additional months of civil work due to changing Walls 2, 3 and 4 from mechanically stabilized earth (MSE) to cast-in-place (CIP), and longer construction duration. Consequently, HART has removed construction of Walls 2, 3 and 4 from the KHG contract via RFCR 43.

**QUALITY MANAGEMENT:**

- **Quality Process** – KIWC continues to follow an established quality process and have not encountered any significant new findings through quality audits.
- **Longitudinal Tendons** – Due to WOFH NCR 509, longitudinal tendons have been monitored for possible indications of rust. KIWC added two witness points to their Pre-Grout Inspection Checklist for HART to visually inspect the tendon anchorages for corrosion, and witness the removal of the deviator boots to ensure no water had accumulated at the low points of the duct.
- **Drilled Shaft Quality** – KIWC currently has 1 open NCR due to velocity reduction exceeding 20%. KIWC has been reviewing their means and methods for placing concrete to reduce the issue with velocity reduction.

| KHG NCR Log               |            |           |
|---------------------------|------------|-----------|
| Total NCRs Issued to Date | CLOSED     | OPEN      |
| <b>220</b>                | <b>204</b> | <b>16</b> |

**B. Ramp H2R2**

**Contract No.:** DBB-385

**Contractor:** Royal Contracting Co. Ltd.

**Contract Start Date:** May 2015

**Contract Substantial Completion:** October 2016

**Projected Substantial Completion:** May 2017

**Project Description:** Ramp H2R2 is an off-ramp from the H2 Interstate which will connect the north bound H2 Interstate to east bound Kamehameha Highway. The off-ramp terminates just west of the intersection of Kamehameha Highway and Waihona Street.

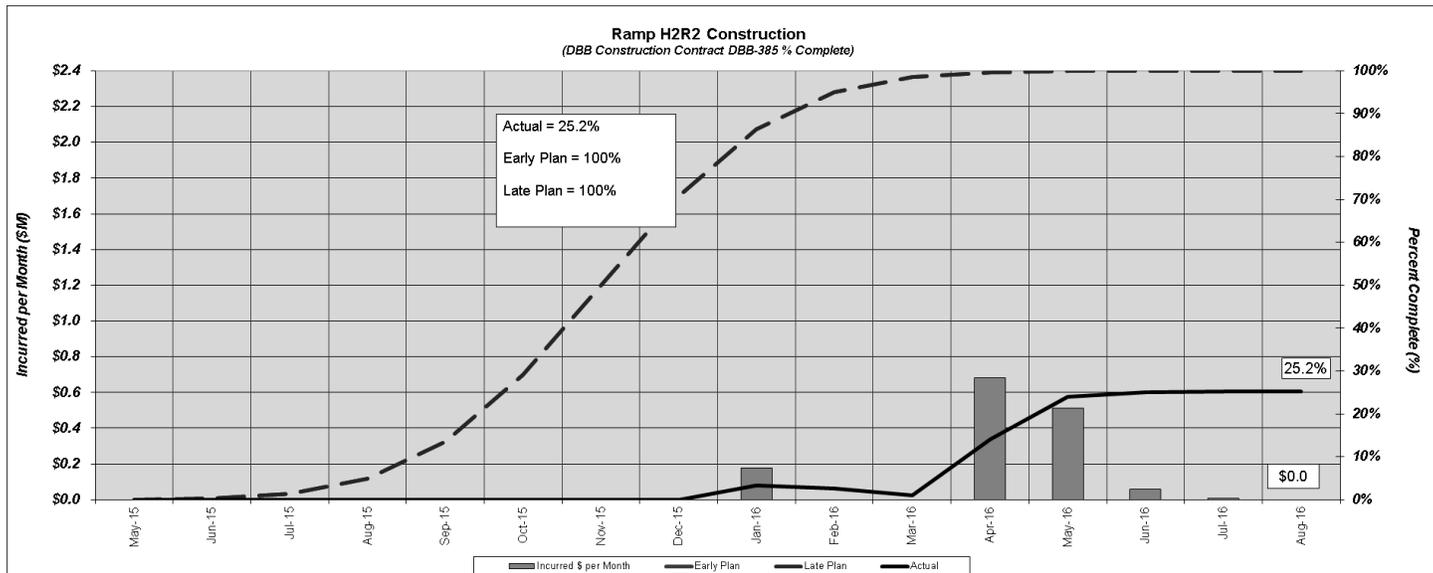
**COST INFORMATION:**

|  |                    |                            |                    |
|--|--------------------|----------------------------|--------------------|
| <u>Original Contract:</u>                  | <u>\$5,203,646</u> | <u>Incurred-to-Date:</u>   | <u>\$1,311,578</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$5,246,168</u> | <u>Incurred in August:</u> | <u>\$0</u>         |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$162,023 |
| DBE % Attained:           | 3.11%     |

| August Change Orders/Amendments |  |                 |
|---------------------------------|--|-----------------|
| Change No./Amend                | Description                                | Amount (\$)     |
| 0002                            | RFCR 0001 IFC Delta 1 Rev to Conformed Set | \$42,522        |
| <b>Cumulative to Date</b>       |  | <b>\$42,522</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

**SCHEDULE:**

- Royal Contracting was awarded this project on May 4, 2015, and issued NTP on May 18, 2015. Start of construction was delayed due to unforeseen HDOT required soil remediation and submittal of required documentation. The contractor has projected a substantial completion of May 2017. Contract Change Order CCO-0002 extended the original completion date by 124 days to Oct. 2, 2016.
- A change order is in process to approve additional delay time that is associated with the unforeseen HDOT required soil remediation that extends beyond the original 124 day extension. There are no anticipated delay claims at this time, since the remediation delays were concurrent with contractor delays.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 26.5%**; Planned Value: 99%

- Royal continues to provide required submittals for review and acceptance.
- Royal continues to provide project baseline schedule updates as the project progresses.
- Retaining wall excavation and stabilization was completed.
- Surcharge settlement monitoring continued.
- Reinforced concrete jacket was placed around the existing 30” CMP.
- Excavation for street light power duct starting at Station 10+22 (beginning of ramp).

Look Ahead:

- Continue earth moving activities.
- Continue surcharge settlement monitoring.
- Installation of reinforcement and placement of concrete for the retaining wall.
- Backfill and mechanical compaction around the 30” CMP stormwater pipe.
- Completion of street light installation at beginning section of ramp.

**KEY ISSUES:**

- No additional time to be added for unforeseen condition at 30-inch corrugated metal pipe (CMP) to extend projected substantial completion to May 2017. HART was able to mitigate delay by choosing an alternative compaction method in one small area adjacent to the CMP.
- A change order is in process to approve additional delay time that is associated with the unforeseen HDOT required soil remediation that extends beyond the original 124 day extension. There are no anticipated delay claims at this time, since the remediation delays were concurrent with contractor delays.
- The Engineer of Record (EOR) has issued a revised design for the storm drain that will need to be modified at Station 13+30. Re-design is with HDOT for final approval.

**QUALITY MANAGEMENT:**

| Ramp H2R2 NCR Log         |          |          |
|---------------------------|----------|----------|
| Total NCRs Issued To Date | CLOSED   | OPEN     |
| <b>2</b>                  | <b>1</b> | <b>1</b> |

**C. Kamehameha Highway Stations Group (KHSG)**

**Contract No.:** DBB-371

**Contractor:** Nan, Inc.

**Contract Start Date:**

Notice to Commence Administrative Work: April 2016

Notice to Commence Investigative/Pre-Construction Work at Pearl Highlands: July 2016

Full Notice to Proceed (NTP): To be issued October 2016

**Contract Substantial Completion:** NTP+32 months

**Projected Substantial Completion:** May 2019

**Project Description:** The Kamehameha Highway Station Group construction contract includes services to build three (3) transit stations along Kamehameha Highway. The stations are Pearl Highlands Station, Pearlridge Station, and Aloha Stadium Station. In addition to the transit stations, operational ancillary buildings, bus stops/transit centers, park-and-ride lots, kiss-and-rides, pedestrian crossing improvements, Train Control and Communications Rooms (TCCRs), and landscaping of the station sites are included.

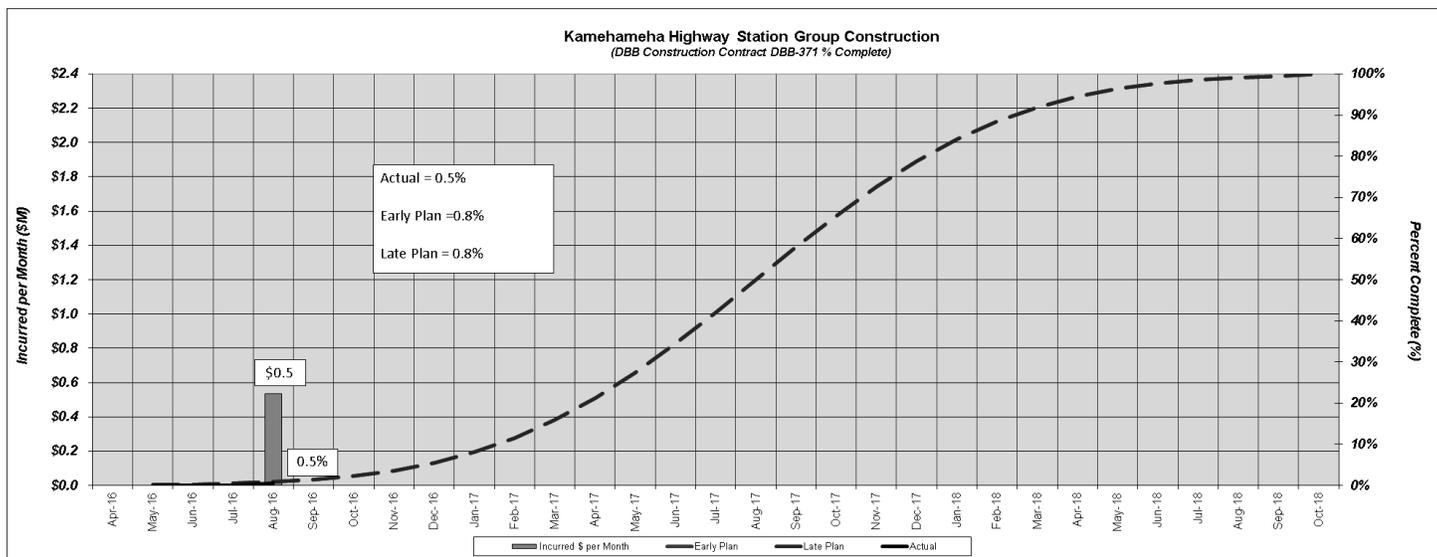
**COST INFORMATION:**

|   |               |                           |           |
|---|---------------|---------------------------|-----------|
| Original Contract: _____                    | \$115,805,845 | Incurred-to-Date: _____   | \$535,771 |
| Current Contract Value <sup>1</sup> : _____ | \$115,805,845 | Incurred in August: _____ | \$535,771 |

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

| DBE Participation         |     |
|---------------------------|-----|
| Actual DBE Participation: | \$0 |
| DBE % Attained:           | 0%  |

| August Change Orders/Amendments |             |             |
|---------------------------------|-------------|-------------|
| Change No./Amend                | Description | Amount (\$) |
| None                            | ---         | ---         |
| <b>Cumulative to Date</b>       |             | <b>\$0</b>  |



**SCHEDULE:**

- HART is working with the contractor to finalize the Baseline Project Schedule.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 0%**, Planned Value: 0%

- Submittals and RFIs are being submitted and are being responded to.
- Held and attended various construction interface meetings with the WOFH and KHG contractors.
- Held various meetings and provided comments to the Baseline Project Schedule.
- Began negotiations for CCO 00001.
- Submitted interface definition points.

Look Ahead:

- Continue coordination with the guideway contractors for shared site access at the Aloha Stadium site. Re-sequencing of work at Aloha Stadium Station may be required.
- Continue interface with existing HART contractors (CSC, E&E, and Fare Collection) as well as with the WOFH and KHG contractors.
- Third party utility coordination with the KHG contractor, Hawaiian Telcom (HTI), Hawaiian Electric Company (HECO), and Oceanic Time Warner (OTW).
- Continue Maintenance of Traffic (MOT) discussions with HART and Hawai'i Department of Transportation (HDOT) for Temporary Traffic Control options at the Pearl Highlands and Pearlridge Station sites.
- Finalize Baseline Project Schedule.

**KEY ISSUES:**

- Guideway contractor completing work and vacating station areas at Pearl Highlands and Pearlridge.
- Submitting and accepting all contractual documents prior to construction.
- Coordinating with the KHG contractor and third party utilities to monitor the installation of new utilities and the completion of utility relocations near the Pearlridge Station site.
- Coordinating with HART ROW for easement acquisition required for relocation of an existing overhead HECO 46kV line near the Pearlridge Station site.
- Issuing full NTP to begin contractor mobilization onto site.
- Working with the KHG contractor to get shared access to Aloha Stadium Station site. Both Pearl Highlands and Pearlridge will be available in October 2016. Access to Aloha Stadium is projected in April 2017.
- Executing a Contractor Change Order to incorporate Issued for Construction drawings and specifications (CCO 00001) into the contract.

**QUALITY MANAGEMENT:**

| KHSG NCR Log              |        |      |
|---------------------------|--------|------|
| Total NCRs Issued To Date | CLOSED | OPEN |
| 0                         | 0      | 0    |

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

**A. Airport Section Guideway and Utilities**

**Contract No.:** FD-430

**Contractor:** AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)

**Contract Start Date:** January 2012

**Currently in Construction:**

- Airport Section Utilities (DBB-505 - Nan Inc.):
  - Contract start date: July 2014

**Construction Completed:**

- Airport 7-Piers (DBB-525 – Hawaiian Dredging):
  - Project acceptance on May 2, 2015; project closed out in April 2016

**Projected Substantial Completion:** April 2017, based on closeout activities of Airport Section Utilities DBB construction contract.

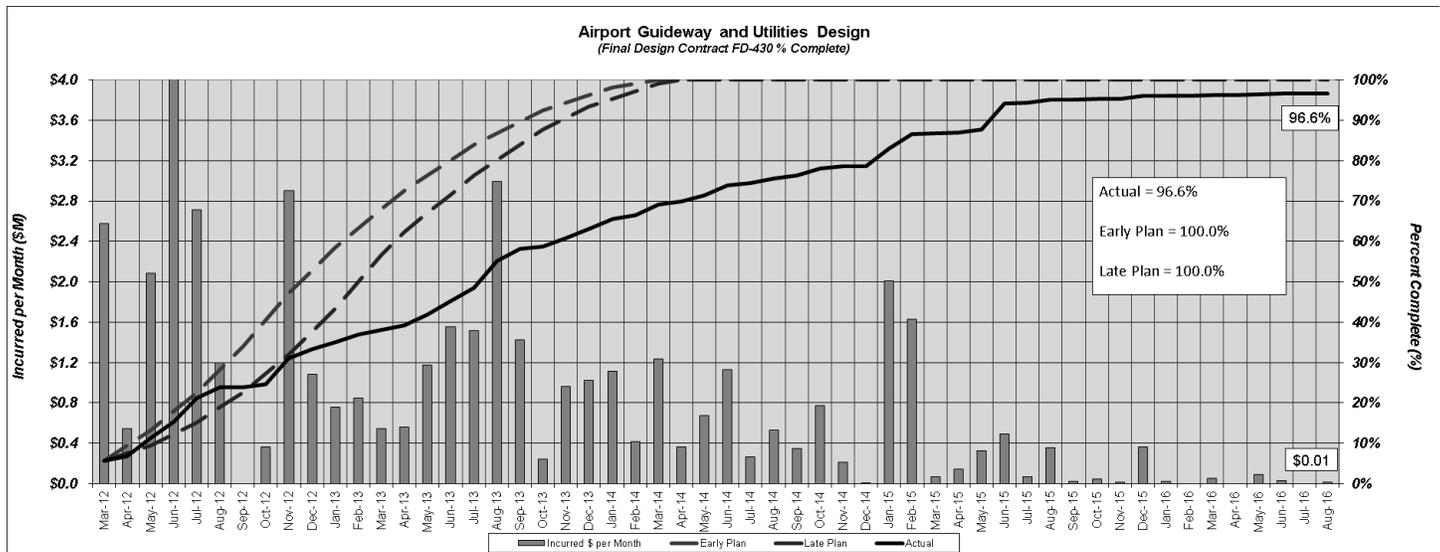
**Project Description:** The Airport Segment Guideway and Utilities contract consists of 5.2 miles of elevated transit guideway serving four (4) passenger stations, in addition to roadway widening, utility relocation, and other improvements to create space for these transit facilities. Two construction contracts have been split out and expedited from the larger Airport Section package. These two contracts are the expedited Airport Section Utilities (ASU) and expedited Airport 7-Piers (A7). For both of these expedited contracts, the design has been completed and construction is in progress (ASU) or completed (A7). The remaining scope of design has been terminated and will be completed under a design-build procurement.

**COST INFORMATION:**

|  |                                       |
|--|---------------------------------------|
| <u>Original Contract:</u> \$38,840,960   | <u>Incurred-to-Date:</u> \$41,660,684 |
| <u>Current Contract Value<sup>1</sup>:</u> \$43,134,472  | <u>Incurred in August:</u> \$13,515   |
| <sup>1</sup> Current Contract Value = Original contract value with Design Allowance + executed Change Orders |                                       |

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$162,813 |
| DBE % Attained:           | 0.42%     |

| August Change Orders/Amendments |             |                    |
|---------------------------------|-------------|--------------------|
| Change No./Amend                | Description | Amount (\$)        |
| None                            | ---         | ---                |
| <b>Cumulative to Date</b>       |             | <b>\$4,293,512</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

**SCHEDULE:**

- The only remaining work under this contract is design services during construction, which are scheduled to conclude as noted above.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 97%.
- Design services concluded with notice of award of AGS DB.
- Supported Airport Section Utilities DBB construction.

Look Ahead:

- Support Airport Section Utilities DBB construction.
- Provide as-needed support for Right-of-Way (ROW) acquisition in the Airport Section.

**KEY ISSUES:**

- N/A.

**B. Airport Section Utilities Construction**

**Contract No.:** DBB-505

**Contractor:** Nan, Inc.

**Contract Start Date:** July 2014

**Contract Substantial Completion:** July 2016

**Projected Substantial Completion:** October 2016

**Project Description:** The Airport Utilities contract consists of relocation of a portion of utilities and some utility facilities that will be impacted by the construction of the HART aerial guideway and associated facilities between Aloha Stadium and Middle Street Transit Center. Specifically, the work involves construction of utility relocations affecting underground and overhead communications lines, Navy-owned electrical lines, fuel lines, gas lines, water lines, storm sewer lines, sanitary sewer lines and street light lines and poles/fixtures; HECO work is excluded from this contract. The work also includes installation of ITS (Intelligent Transportation Systems) facilities, to maintain traffic during construction, and other site improvements. Erosion control measures, temporary planting, permanent irrigation facilities and restoration of existing facilities are also incorporated into the contractor’s scope of work.

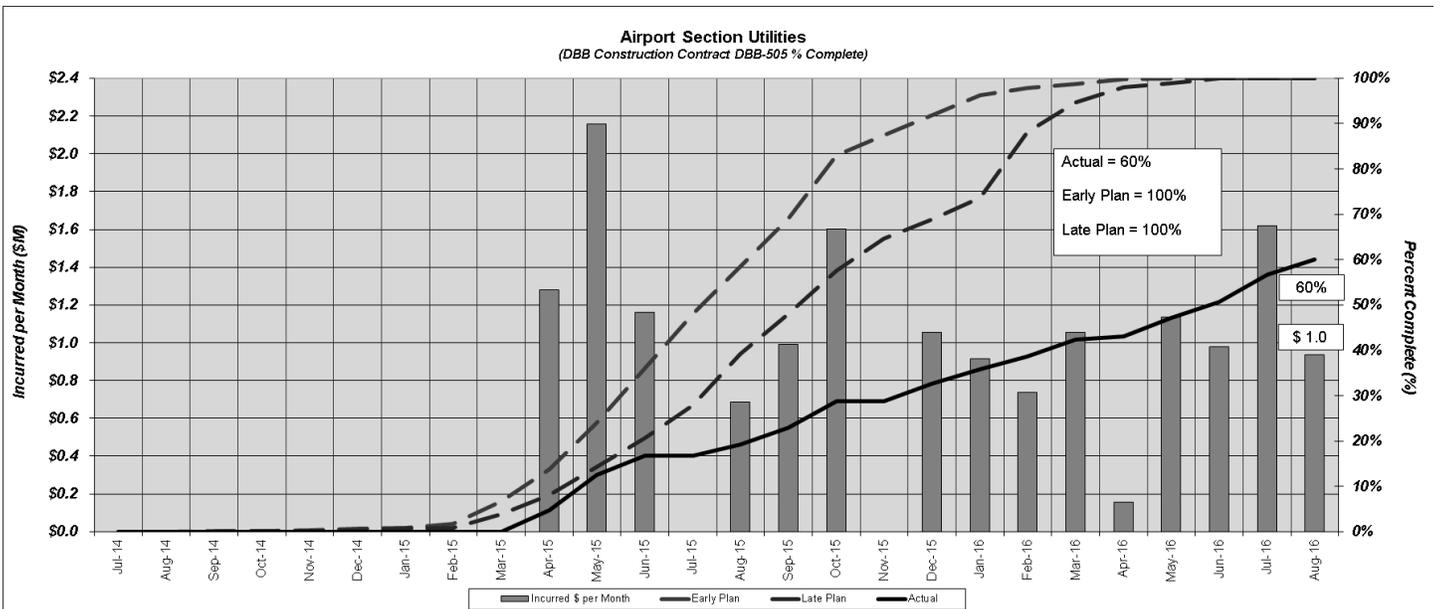
**COST INFORMATION:**

|                                       |              |                     |              |
|---------------------------------------|--------------|---------------------|--------------|
| Original Contract:                    | \$27,993,290 | Incurred-to-Date:   | \$16,468,247 |
| Current Contract Value <sup>1</sup> : | \$27,285,704 | Incurred in August: | \$936,346    |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |          |
|---------------------------|----------|
| Actual DBE Participation: | \$36,094 |
| DBE % Attained:           | 0.13%    |

| August Change Orders      |             |                    |
|---------------------------|-------------|--------------------|
| Change No.                | Description | Amount (\$)        |
| None                      | ---         | ---                |
| <b>Cumulative to Date</b> |             | <b>(\$707,585)</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

**SCHEDULE:**

- Nan, Inc. has completed the underground portion of the utility relocation work along Kamehameha Highway and Aolele Street. Remaining work involves paving, striping and landscaping. Currently, the substantial completion date is July 13, 2016; however the project team is working on a Change Order to revise this date to Oct. 7, 2016, a date which Nan has concurred to be substantially complete with the contract scope. Several work items have also been removed from Nan’s scope of work due to unresolved conflicts resulting in potential cost and schedule impacts. These issues are also being discussed and negotiated into contract change orders.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 65%**; Planned Value: 85%

- Nan’s latest schedule, indicating a substantial completion date of Oct. 7, 2016 which is inclusive of scope adjustments and delay impacts, is under review.
- All underground utility work has been completed, with paving and striping work underway. Paving has been completed in the Nimitz area, while they are completing areas in the Aolele area, followed by sections along Kamehameha Highway.

Look Ahead:

- Complete paving work on Aolele Street.
- Complete paving work on Kamehameha Highway.
- Final documents are being discussed with the contractor for close out.
- CE&I-II team continues to work on completing outstanding change orders.

**KEY ISSUES:**

- HART is currently working on processing a time extension to modify the current contract substantial completion date to Oct. 7, 2016.
- Negotiating outstanding project change orders.

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.

| Airport Utilities NCR Log |        |      |
|---------------------------|--------|------|
| Total NCRs Issued To Date | CLOSED | OPEN |
| 19                        | 19     | 0    |

**C. Airport Station Group (ASG)**

**Contract No.:** FD-440

**Contractor:** AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)

**Contract Start Date:** November 2012

**Construction Docs Bid-Ready:** N/A

**Projected Substantial Completion:** October 2016

**Project Description:** Architectural and engineering services for the design of four (4) transit stations serving the Airport Guideway. The four (4) stations comprising the ASG contract are the Pearl Harbor Naval Base Station, the Honolulu International Airport Station, the Lagoon Drive Station, and the Middle Street Station. These four stations have been combined with the guideway into a single Airport Guideway and Stations Design-Build (DB) package. Due to the change in delivery method from DBB to DB, the design of the Airport Stations Group will not be advanced to completion under this FD-440 contract.

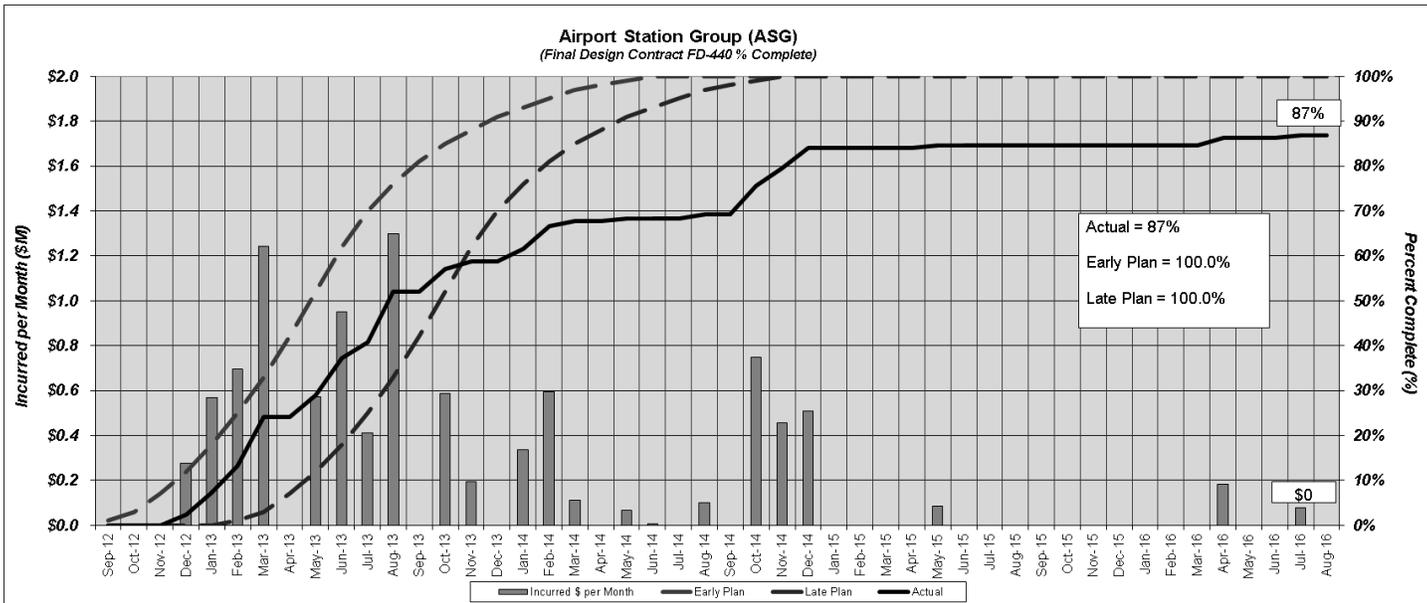
**COST INFORMATION:**

|   |                                       |
|---|---------------------------------------|
| <b>Original Contract:</b> \$10,177,365                  | <b>Incurred-to-Date:</b> \$10,059,820 |
| <b>Current Contract Value<sup>1</sup>:</b> \$11,573,852 | <b>Incurred in August:</b> \$0        |

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$234,762 |
| DBE % Attained:           | 2.31%     |

| August Change Orders      |             |                    |
|---------------------------|-------------|--------------------|
| Change No.                | Description | Amount (\$)        |
| None                      | ---         | ---                |
| <b>Cumulative to Date</b> |             | <b>\$1,396,487</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

**SCHEDULE:**

- There is no work scheduled under this contract.

**WORK PROGRESS:**

Activities this Month:

- Final earned value is at 87%.
- Administrative closeout activities are ongoing.

Look Ahead:

- Future efforts will be administrative only.

**KEY ISSUES:**

- N/A.

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

#### A. City Center Section Guideway and Utilities

**Contract No.:** FD-530

**Contractor:** AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)

**Contract Start Date:** July 2012

**Projected Substantial Completion:** April 2018, based on projected completion of design services for Dillingham Temporary Utilities DBB construction.

**Project Description:** The City Center Guideway and Utilities final design contract consists of 4.2 miles of elevated transit guideway serving eight (8) passenger stations, in addition to roadway widening, utility relocation, and other improvements to facilitate construction of the guideway.

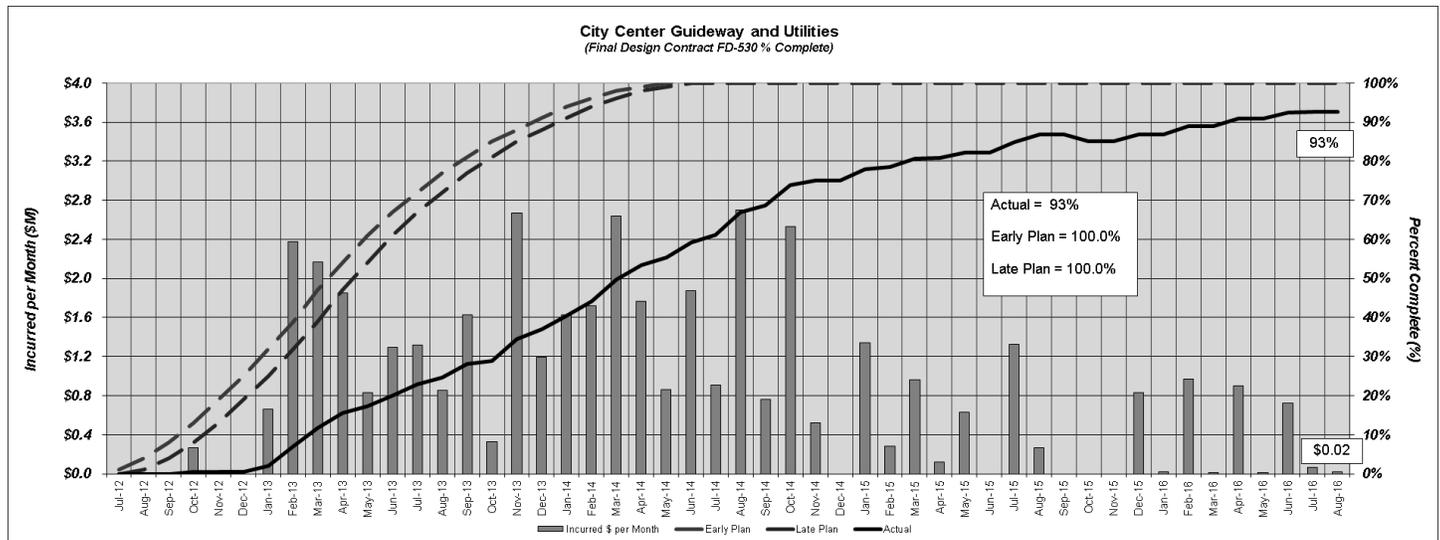
#### COST INFORMATION:

|                                       |              |                     |              |
|---------------------------------------|--------------|---------------------|--------------|
| Original Contract:                    | \$43,948,220 | Incurred-to-Date:   | \$43,624,450 |
| Current Contract Value <sup>1</sup> : | \$47,097,562 | Incurred in August: | \$19,178     |

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$191,227 |
| DBE % Attained:           | 0.44%     |

| August Change Orders/Amendments |             |                    |
|---------------------------------|-------------|--------------------|
| Change No./Amend                | Description | Amount (\$)        |
| None                            | ---         | ---                |
| <b>Cumulative to Date</b>       |             | <b>\$3,149,342</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

#### SCHEDULE:

- Supplemental design services for early utilities are scheduled to conclude as noted above.

#### WORK PROGRESS:

##### Activities this Month:

- Current earned value is approximately 93%.
- Supplemental design services are progressing for early utilities designs.

##### Look Ahead:

- Provide as-needed support for ROW acquisition, when acquisition activities resume in the City Center Section.
- Perform supplemental design services for early utilities.

#### KEY ISSUES:

- N/A.

**B. Dillingham and Kaka’ako Station Group (DKSG)**

**Contract No.:** FD-550

**Contractor:** Perkins+Will (P+W), Final Design Consultant (Engineer of Record)

**Contract Start Date:** August 2013

**Construction Docs Bid-Ready:** N/A

**Projected Substantial Completion:** October 2016

**Project Description:** Design of eight (8) stations for the fourth and final phase of the current project that will connect Dillingham Boulevard to Ala Moana Center. The DKSG stations have been combined with the City Center Guideway into a single City Center Guideway and Stations Design-Build package. Due to the change from a DBB to a DB delivery method, the design for these stations has been suspended and will not be completed under this FD-550 contract.

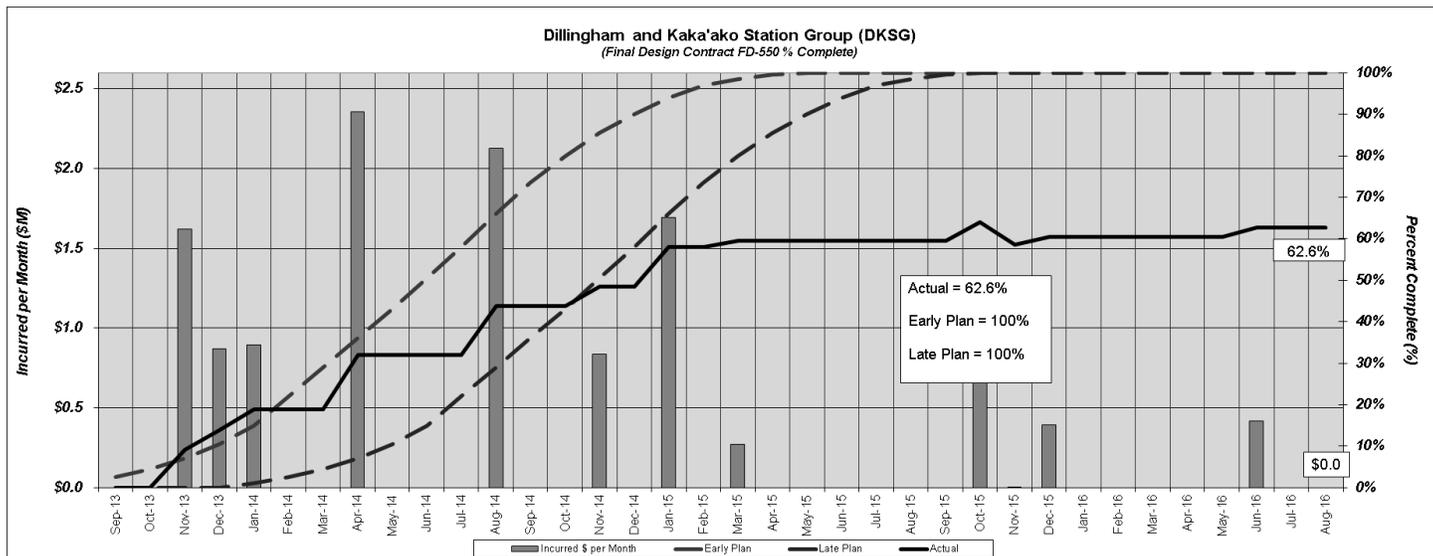
**COST INFORMATION:**

|  |                                |
|--|--------------------------------|
| Original Contract: \$18,321,918                    | Incurred-to-Date: \$12,293,535 |
| Current Contract Value <sup>1</sup> : \$19,631,717 | Incurred in August: \$0        |

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

| DBE Participation         |     |
|---------------------------|-----|
| Actual DBE Participation: | \$0 |
| DBE % Attained:           | 0%  |

| August Change Orders      |             |                    |
|---------------------------|-------------|--------------------|
| Change No.                | Description | Amount (\$)        |
| None                      | ---         | ---                |
| <b>Cumulative to Date</b> |             | <b>\$1,309,799</b> |



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

**SCHEDULE:**

- There is no work scheduled under this contract.

**WORK PROGRESS:**

Activities this Month:

- Final earned value is at 63%.
- Administrative closeout activities are ongoing.

Look Ahead:

- Future efforts will be administrative only.

**KEY ISSUES:**

- N/A.

### 4.6 Project-Wide

#### A. Program Management Support Consultant-2 (PMSC-2)

**Contract No.:** MM-901

**Contractor:** InfraConsult LLC

**Contract Start Date:** March 2012

**Contract Completion:** March 2017

**Project Description:** Provide program management support services in the areas of elevated guideway engineering, rail station design, construction management, project management, environmental planning, federal programmatic requirements, and other services for the Honolulu Rail Transit Project.

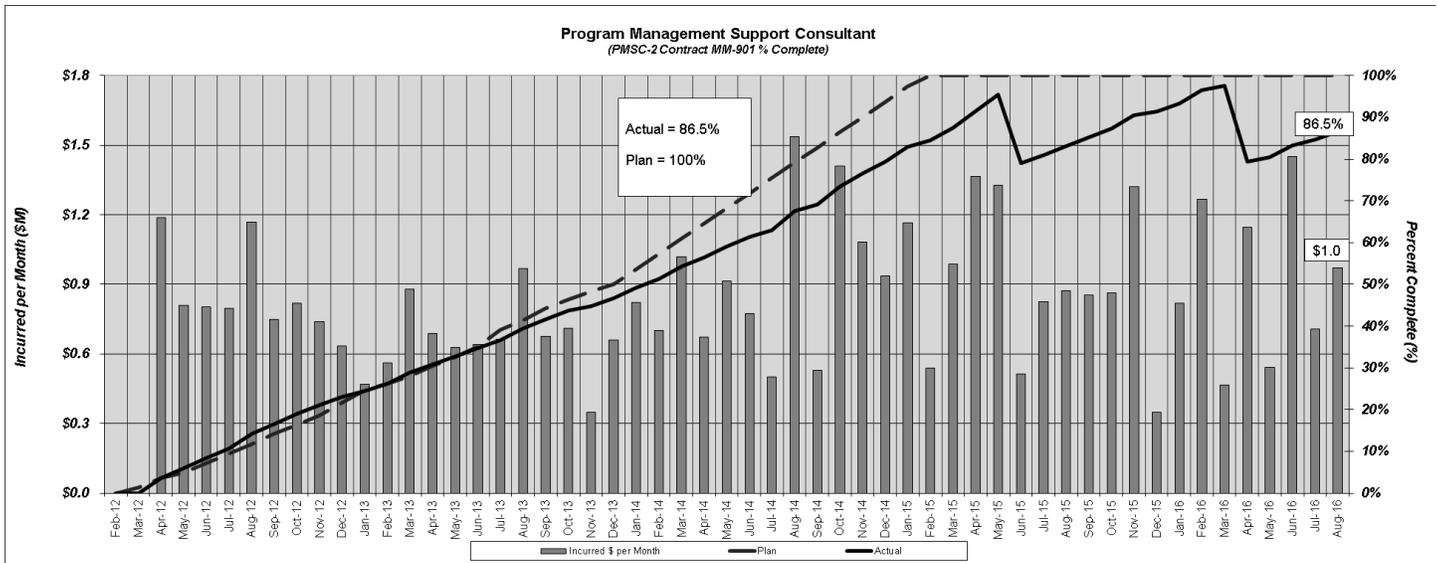
#### COST INFORMATION:

|   |                                       |
|---|---------------------------------------|
| <b>Original Contract:</b> \$33,376,897                  | <b>Incurred-to-Date:</b> \$44,846,463 |
| <b>Current Contract Value<sup>1</sup>:</b> \$51,820,920 | <b>Incurred in August:</b> \$970,747  |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |     |
|---------------------------|-----|
| Actual DBE Participation: | \$0 |
| DBE % Attained:           | 0%  |

| August Change Orders      |             |                     |
|---------------------------|-------------|---------------------|
| Change No.                | Description | Amount (\$)         |
| None                      | ---         | ---                 |
| <b>Cumulative to Date</b> |             | <b>\$18,444,022</b> |



#### KEY ISSUES:

- HART exercised its option to extend the PMSC contract for the remaining option year, effective March 8, 2016. The current contract will terminate upon award of contract to the successful offeror of the new Request for Qualifications or one year from March 8, 2016, whichever is earlier.

**B. General Engineering Consultant III (GEC-3)**

**Contract No.:** MM-913

**Contractor:** CH2M HILL

**Contract Start Date:** December 2013

**Contract Completion:** April 2019, with option to extend for up to three (3) additional years

**Project Description:** HART GEC III support services include: schedule and estimating, interface coordination, environmental and planning, design management support services, and program management (aka GEC III contract project management).

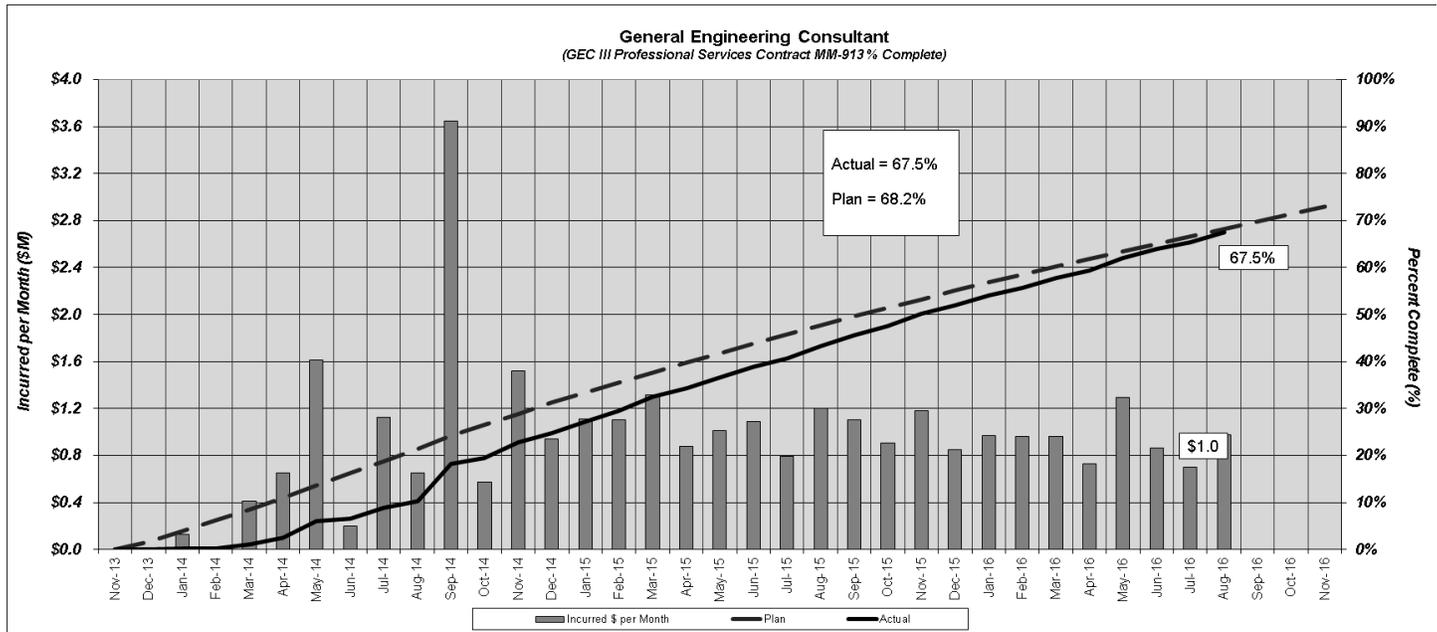
**COST INFORMATION:**

|  |                     |                            |                     |
|--|---------------------|----------------------------|---------------------|
| <u>Original Contract:</u>                  | <u>\$46,143,277</u> | <u>Incurred-to-Date:</u>   | <u>\$31,435,034</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$46,541,728</u> | <u>Incurred in August:</u> | <u>\$974,131</u>    |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |             |
|---------------------------|-------------|
| Actual DBE Participation: | \$3,668,861 |
| DBE % Attained:           | 7.95%       |

| August Change Orders      |             |                  |
|---------------------------|-------------|------------------|
| Change No.                | Description | Amount (\$)      |
| None                      | ---         | ---              |
| <b>Cumulative to Date</b> |             | <b>\$398,451</b> |



**KEY ISSUES:**

- Integrating schedule estimates for interim opening and revenue service opening with financial forecast and estimate to complete of contracted work.
- Participate in task force to develop alternatives to meet clearance requirements for Hawaiian Electric facilities.
- Continue progress on Historic Context Studies and permits.
- Provide support to procurement for City Center Guideway and Stations (CCGS).

**C. Construction Engineering & Inspection West Side Sections**

**Contract No.:** MM-290

**Contractor:** PGH Wong Engineering, Inc.

**Contract Start Date:** January 2014

**Contract Completion:** January 2020

**Project Description:** The West Side Section CE&I (West CE&I) team is providing Construction Engineering and Inspection Services (CE&I) for the West Section, which includes aerial guideway, stations, maintenance & storage facility, and garage & transit center from East Kapolei in West O’ahu to Aloha Stadium, of the 20-mile Honolulu Rail Transit Project (H RTP) for the Honolulu Authority for Rapid Transportation (HART).

The West CE&I team provides HART staff augmentation for construction management and administration services to monitor and observe the design-build and design-bid-build construction work such that the projects are constructed in general conformity with the plans, specifications, and special provisions for the WOFH, KHG, MSF, west section station group’s and PHGT contracts. These CE&I services also include: constructability review, resident engineering, on-site field oversight, project controls, scheduling review, change management, cost control, document controls, contract administration, construction cost estimating, environmental monitoring, surveying, material testing, interface coordination and claims analysis.

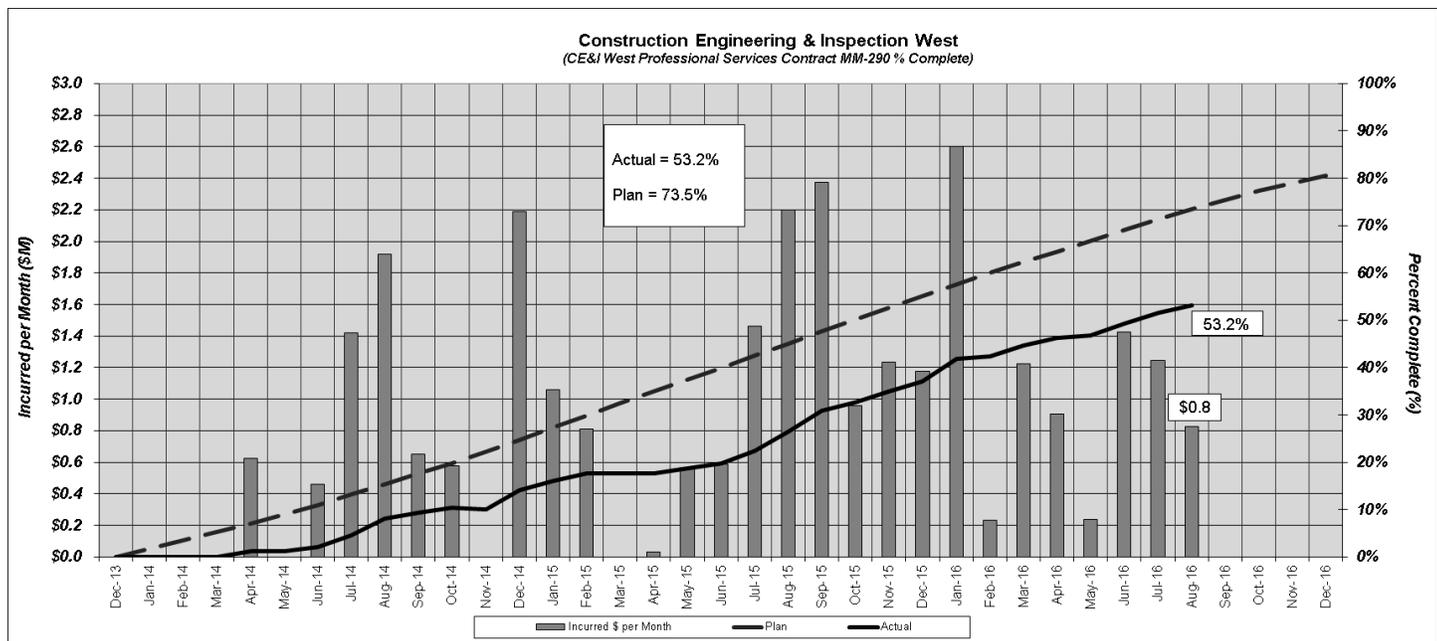
**COST INFORMATION:**

|  |                     |                            |                     |
|--|---------------------|----------------------------|---------------------|
| <u>Original Contract:</u>                  | <u>\$54,232,480</u> | <u>Incurred-to-Date:</u>   | <u>\$28,830,033</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$54,232,480</u> | <u>Incurred in August:</u> | <u>\$826,956</u>    |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |             |
|---------------------------|-------------|
| Actual DBE Participation: | \$3,416,921 |
| DBE % Attained:           | 6.3%        |

| August Change Orders      |             |             |
|---------------------------|-------------|-------------|
| Change No.                | Description | Amount (\$) |
| None                      | ---         | ---         |
| <b>Cumulative to Date</b> |             | <b>\$0</b>  |



**KEY ISSUES:**

- Continued to provide management of and coordination between various west side contracts.
- Shared site access between station construction contractors and the guideway contractor remains an issue.
- Provided additional and extended staffing to support West CE&I efforts. A contract amendment will be required for the additional and extended staffing.

**D. Construction Engineering & Inspection East Side Sections**

**Contract No.:** MM-595

**Contractor:** URS Corporation

**Contract Start Date:** January 2014

**Contract Completion:** December 2015 (MOD no. 1)

**Project Description:** The URS team provided Construction Engineering and Inspection Services (CE&I) for the east section of the Honolulu Rail Transit Project (HRT) for the Honolulu Authority for Rapid Transportation (HART).

CE&I services included: constructability review, resident engineering, construction observation, project controls, scheduling, change management, cost control, document controls, contract administration, estimating, environmental monitoring, surveying, material testing, interface coordination, geographic information system (GIS) support and claims analysis. The primary role of the URS team was to inform the HART project manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the contractor and the corrective action that has been directed by HART to be performed by the contractor.

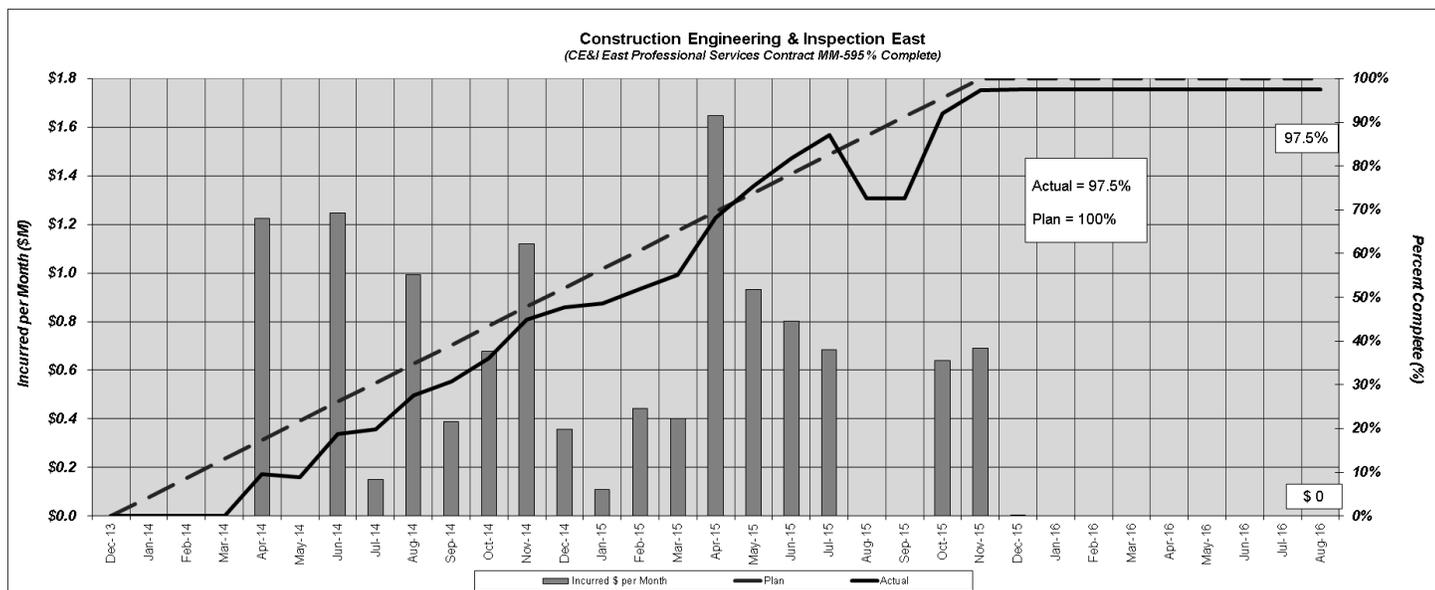
**COST INFORMATION:**

|  |                     |                            |                     |
|--|---------------------|----------------------------|---------------------|
| <u>Original Contract:</u>                  | <u>\$63,083,417</u> | <u>Incurred-to-Date:</u>   | <u>\$12,382,150</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$12,706,100</u> | <u>Incurred in August:</u> | <u>\$0</u>          |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |             |
|---------------------------|-------------|
| Actual DBE Participation: | \$1,580,725 |
| DBE % Attained:           | 10.36%      |

| August Change Orders      |             |                       |
|---------------------------|-------------|-----------------------|
| Change No.                | Description | Amount (\$)           |
| None                      | ---         | ---                   |
| <b>Cumulative to Date</b> |             | <b>(\$50,377,318)</b> |



**KEY ISSUES:**

- The new CE&I consultant for the East Section was issued NTP in September 2015. All URS field staff was successfully transitioned off of the project in October 2015. The URS contract was administratively closed out in April. Final cost information will be reflected in a future Progress Report.

**E. Construction Engineering & Inspection (CE&I) II Contract**

**Contract No.:** MM-596

**Contractor:** Stantec Consulting Services Inc.

**Contract Start Date:** September 2015

**Contract Completion:** December 2019

**Project Description:** The Stantec team is responsible for the Construction, Engineering and Inspection (CE&I) services for the East Section of the Honolulu Rail Transit Project (HRT) for the Honolulu Authority for Rapid Transportation (HART). The Stantec team is providing services from the preconstruction phase through construction closeout. HART East Section CE&I II services include: constructability review, resident engineering, construction observation, project controls, scheduling, change management, cost control, document controls, contract administration, estimating, environmental monitoring, material testing, interface coordination, and claims analysis for the Airport Guideway and Stations design-build contract, City Center Guideway and Stations design-build contract, Airport Section Utilities Construction contract, Elevators and Escalators Design-Furnish-Install-Maintain contract (construction phase only), and construction observation for the On-Call II and III work. The primary role of the Stantec team is to inform the HART Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the contractor and the corrective action that has been directed by HART to be performed by the contractor.

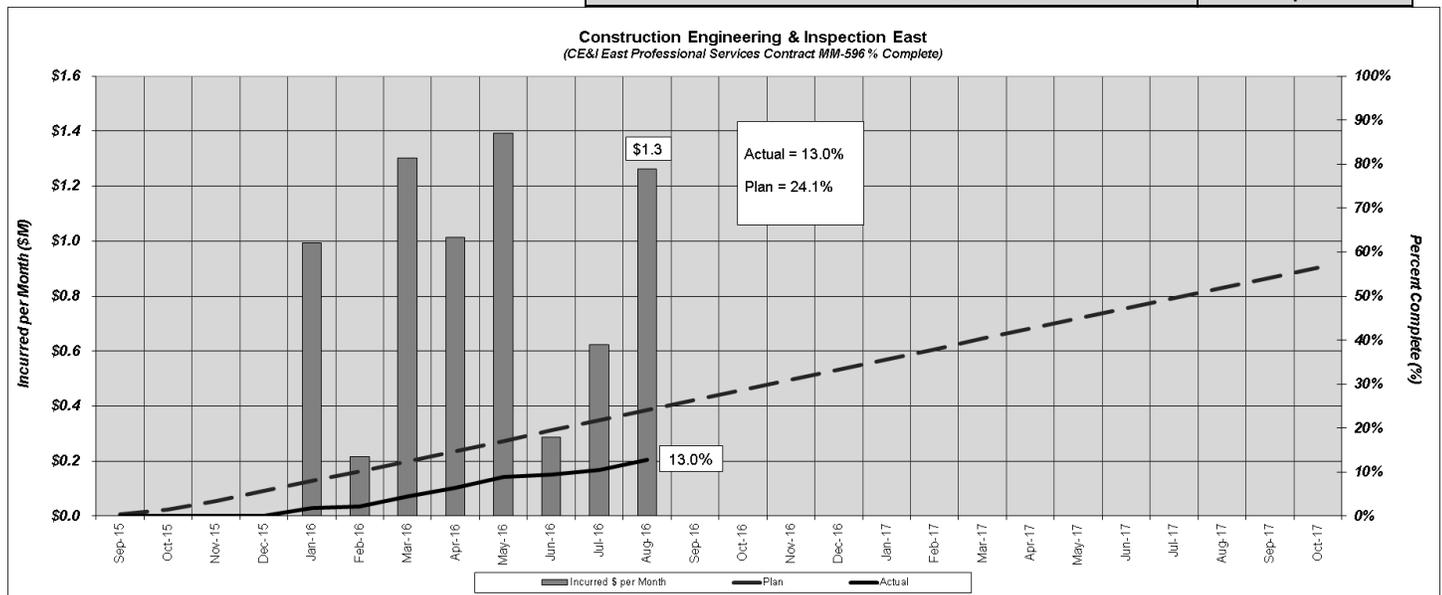
**COST INFORMATION:**

|  |                     |                            |                    |
|--|---------------------|----------------------------|--------------------|
| <u>Original Contract:</u>                  | <u>\$55,036,130</u> | <u>Incurred-to-Date:</u>   | <u>\$7,093,182</u> |
| <u>Current Contract Value<sup>1</sup>:</u> | <u>\$55,036,130</u> | <u>Incurred in August:</u> | <u>\$1,263,132</u> |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |             |
|---------------------------|-------------|
| Actual DBE Participation: | \$1,850,780 |
| DBE % Attained:           | 3.38%       |

| August Change Orders      |             |             |
|---------------------------|-------------|-------------|
| Change No.                | Description | Amount (\$) |
| None                      | ---         | ---         |
| <b>Cumulative to Date</b> |             | <b>\$0</b>  |



**KEY ISSUES:**

- The project team has started the initial pre-construction planning activities and key staffing assignments for the AGS DB in anticipation of HART executing the contract and issuing an NTP prior to the end of 2016. Key staff additions include the Change and Claims Manager, Cost Control Manager, Schedule Manager, and Lead Engineers for Stations, Structures and Civil.
- The East Section CE&I II Construction Manager (CM) has completed an East Section CE&I II project team re-organization based on the latest direction of the overall HRT to maximize efficiencies and focus on overall construction success.
- The project team continues to support HART with review of CCGS DB construction options with budget constraints.

**F. Core Systems Contract Oversight Consultant**

**Contract No.:** MM-962

**Contractor:** Lea+Elliott, Inc.

**Contract Start Date:** February 2014

**Contract Completion:** September 2019

**Project Description:** Provide professional services for design and construction management and testing/commissioning oversight of the Core Systems Design-Build-Operate-Maintain (DBOM) contract. The major systems of the Core Systems DBOM contract are the vehicles, automated train control (ATC) system, traction electrification system, communications system, and platform screen gate system (PSGS). Services include review and approval of design submittals, manufacturing oversight, installation oversight, operation/maintenance design oversight and support, system testing/acceptance, and contract close-out.

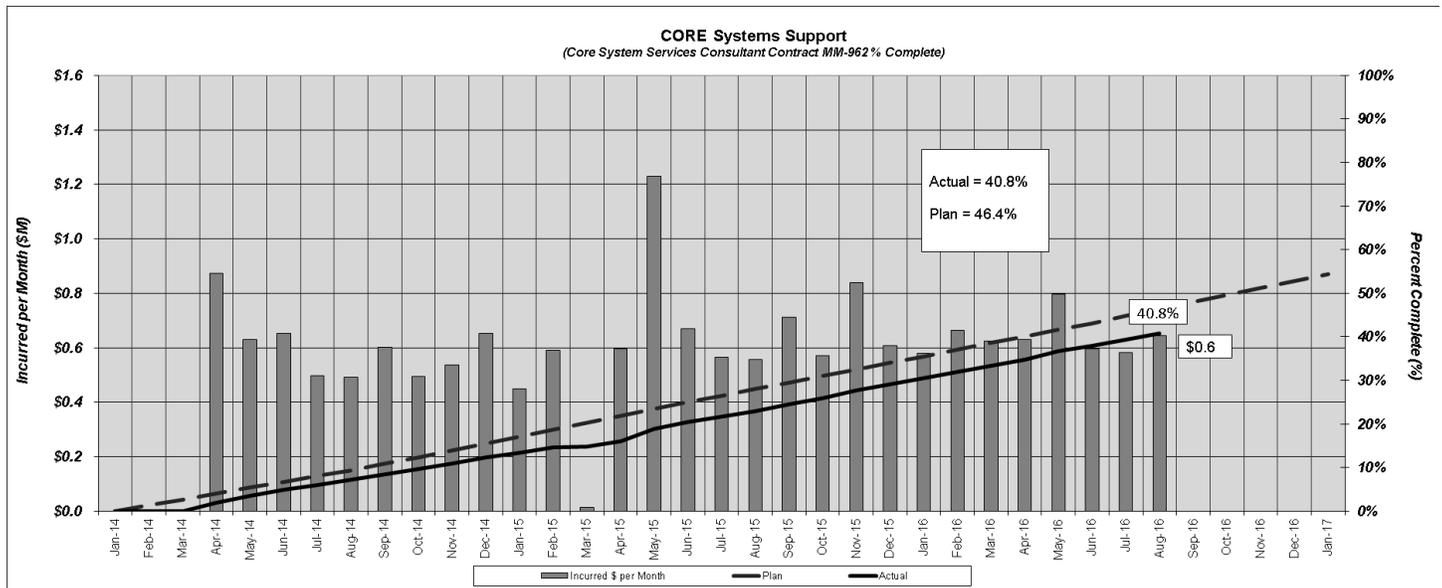
**COST INFORMATION:**

|   |                                       |
|---|---------------------------------------|
| <u>Original Contract:</u> \$43,988,989                  | <u>Incurred-to-Date:</u> \$17,943,863 |
| <u>Current Contract Value<sup>1</sup>:</u> \$43,988,989 | <u>Incurred in August:</u> \$642,658  |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$425,950 |
| DBE % Attained:           | 0.97%     |

| August Change Orders      |             |             |
|---------------------------|-------------|-------------|
| Change No.                | Description | Amount (\$) |
| None                      | ---         | ---         |
| <b>Cumulative to Date</b> |             | <b>\$0</b>  |



**KEY ISSUES:**

- Coordination with other contractors on construction access milestones.
- Review and acceptance of procedures for factory acceptance and system integration tests.
- Design review completion with respect to manufacturing, fabrication and test schedule.

**G. On-Call Construction Contractor**

**Contract No.:** MM-945

**Contractor:** Royal Contracting Co. Ltd.

**Contract Start Date:** August 2014

**Contract Completion:** July 2019

**Projected Substantial Completion:** The On-Call Contract is Task Order based with each Task Order having a specific Substantial Completion date.

**Project Description:** The On-Call Contract performs tasks not generally covered in the general construction contracts. These activities include demolition of structures; repairs to existing HART facilities; relocation of trees and other minor facilities such as bus stops, street lighting, etc.; minor civil/utility work, and repair of third-party facilities such as road repair/patching as requested by HDOT in the HART right-of-way and as allowed by third-party agreements. The intent of the On-Call Contract is to provide HART a contractual tool to address those required work items not easily addressed by the general contractors working to specific scopes.

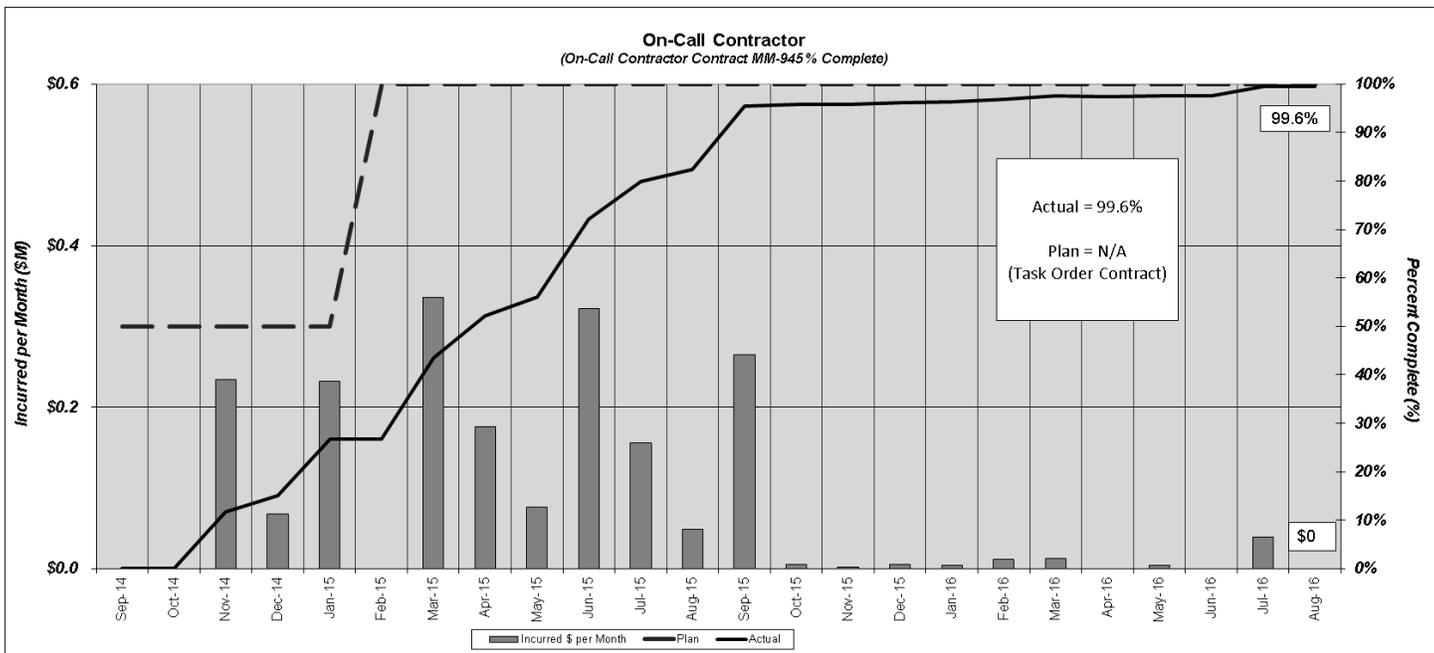
**COST INFORMATION:**

|  |                                      |
|--|--------------------------------------|
| <u>Original Contract:</u> \$1,000,000                  | <u>Incurred-to-Date:</u> \$1,991,790 |
| <u>Current Contract Value<sup>1</sup>:</u> \$2,000,000 | <u>Incurred in August:</u> \$0       |

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

| DBE Participation         |           |
|---------------------------|-----------|
| Actual DBE Participation: | \$460,025 |
| DBE % Attained:           | 23%       |

| August Change Orders      |             |                    |
|---------------------------|-------------|--------------------|
| Change No.                | Description | Amount (\$)        |
| None                      | ---         | ---                |
| <b>Cumulative to Date</b> |             | <b>\$1,000,000</b> |



**KEY ISSUES:**

- The On-Call Contractor has successfully completed all authorized work.
- The On-Call Contractor is in the process of being closed. All required work on this contract was completed in July 2016.

## 5 OVERALL PROJECT-WIDE ACTIVITIES

### 5.1 Permits

- **Permits Submitted and In-Progress**
  - HART submitted the Federal Aviation Administration form 7460-1 application for construction on and near the Honolulu International Airport.
  - HART submitted the Notice of Cessation for the Rail Operation Center's National Pollutant Discharge Elimination System (NPDES) permit for construction.
- **Permits and Approvals Granted**
  - HART received a project-wide Coast Guard Bridge Permit advanced approval for all project stream crossings.
  - HART received the construction permit for the West O'ahu Station Group (WOSG) including East Kapolei, UH West O'ahu, and Ho'opili Stations.
  - HART authorized Kiewit to represent HART under the Kamehameha Highway Guideway NPDES permit for construction and for dewatering and hydrotesting.
- **Look Ahead**
  - Upcoming significant permit activity:
    - HART will prepare the Community Noise Permit continuance application for the West O'ahu Farrington Highway (WOFH) construction activities.
    - HART will prepare the Community Noise Variance application for construction activities in the City Center section.
    - HART will submit a project-wide request for extension of the Nationwide Permit No. 6 to the United States Army Corps of Engineers.

### 5.2 Hawai'i Department of Transportation (HDOT) Agreements

- **Activities this Month**
  - Grant application process started for the FY16 \$3M associated with the Federal Highway Administration (FHWA) fund transfer to FTA for the Hawai'i Department of Transportation requested highway improvements.
  - A draft amendment to the WOFH Master Agreement and Joint Use and Occupancy Agreement (JUOA) has been sent to HDOT for review and comment. The amendment addresses maintenance responsibilities and reimbursements.
  - A draft amendment to the KHG, AGS, CCGS Master Agreement is being developed. Currently, there is an approximate ½ mile gap in the Joint Use and Occupancy area along Kamehameha Highway in the vicinity of Aloha Stadium. The amendment would provide a continuous JUOA segment, allowing HART to take on responsibility for street usage permits and maintenance during the construction of the Aloha Stadium Station and Airport guideway construction.
  - The Airport Section Joint Use and Occupancy Agreement is being routed for signature.
- **Look Ahead**
  - Execution of the Airport and City Center Joint Use and Occupancy Agreements.
  - Execution of the West O'ahu Farrington Highway Master Agreement and Joint Use and Occupancy Agreement Amendment 1.
  - Execution of Amendment 1 to the Master Agreement for the sections to and from: Kamehameha Highway Guideway, Airport Guideway and City Center Guideway.

### 5.3 Utility Agreements

Utility Agreements Status Matrix

| Utility Owner                     | Status                       | WOFH                                 |                                   | KHG                                  |                                   | Airport                     |  | City Center                   |  |  |
|-----------------------------------|------------------------------|--------------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|-----------------------------|--|-------------------------------|--|--|
|                                   |                              | ESA                                  | UCA                               | ESA                                  | UCA                               | UCA                         | COMBINED ESA   | UCA                           |  |  |
| AT&T (Corporation)                | Executed                     | 05/11/11                             | 12/20/11                          | 5/18/12                              | Including with ESA                | Not Required                | 12/26/13   | Draft sent to AT&T            |  |  |
|                                   | NTP                          | 05/12/11                             | 12/21/11                          |                                      |                                   |                             |  |                               |  |  |
|                                   | Amd 01                       | 07/01/11                             | HRS Ch 104                        | Draft sent to AT&T                   |                                   |                             |  |                               |  |  |
| AT&T (Government Solutions)       | Executed                     |                                      |                                   | 12/26/13                             |                                   | Not Required                | 12/26/13   | Combined with AT&T Corp       |  |  |
|                                   | NTP                          |                                      |                                   |                                      |                                   |                             |  |                               |  |  |
| Chevron                           | Executed                     | 12/04/09                             |                                   | 11/04/11                             |                                   |                             |  |                               |  |  |
|                                   | NTP                          | 12/22/09                             |                                   | 11/15/11                             |                                   |                             |  |                               |  |  |
|                                   | Amd 01                       | 07/01/11                             |                                   |                                      |                                   |                             |  |                               |  |  |
| Hawaiian Telcom                   | Executed                     | 05/20/10                             | 11/17/14                          | 05/10/12                             | 12/31/14                          | 05/28/15                    | 09/27/13   | Draft sent to HTI for review  |  |  |
|                                   | NTP                          | 06/14/10                             | 11/18/14                          |                                      |                                   |                             |  |                               |  |  |
|                                   | Amd 01                       | 07/01/11                             |                                   | 04/13/15                             |                                   | Draft sent to HTI           |  |                               |  |  |
|                                   | Amd 02                       | 05/10/12                             |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   | Executed                     |                                      |                                   |                                      |                                   |                             |  | Temp OH Pending Signature     |  |  |
| HECO                              | NTP                          |                                      |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   | Executed                     | Design Services<br>11/20/13          | Construction Services<br>11/29/13 | Design Services<br>11/20/13          | Construction Services<br>11/29/13 | Design Services<br>11/20/13 | Construction Services<br>Draft agreement under review. | Design Services<br>11/25/13   | Construction Services<br>HECO revision to include Temp Poles |  |
|                                   | NTP                          | 11/20/13                             | 11/29/13                          | 11/20/13                             | 11/29/13                          | 11/20/13                    |  |                               |  |  |
|                                   | Amd 01                       |                                      |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   | Memorandums of Understanding | 08/07/14 – Construction Drawings     |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   |                              | 05/01/15 - Access                    |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   |                              | 05/15/15 - Derrick Truck             |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   |                              | 06/23/15 - Master Agreement          |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   |                              | 06/09/15 - MSF Advanced Construction |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   |                              | 09/16/15 - Right of Entry            |                                   |                                      |                                   |                             |  |                               |  |  |
| 10/12/15 – Clearance (West)       |                              |                                      |                                   | 11/10/15 - Dillingham Blvd Materials |                                   |                             |  |                               |  |  |
| 07/13/16 – KHG Vertical Clearance |                              |                                      |                                   |                                      |                                   |                             |  |                               |  |  |
| Power Quality - Pending           |                              |                                      |                                   |                                      |                                   |                             |  |                               |  |  |
| Oceanic Time Warner Cable         | Executed                     | 12/08/09                             | 12/21/11                          | 01/09/12                             | 06/02/14                          | 12/19/14                    | 04/03/13   | Draft sent to OTWC for review |  |  |
|                                   | NTP                          | 12/22/09                             |                                   |                                      |                                   |                             | 04/04/13   |                               |  |  |
|                                   | Amd 01                       | 07/01/11                             | 02/27/14                          |                                      | HRS Ch 104                        | HRS Ch 104                  |  |                               |  |  |
|                                   | Amd 02                       | 10/07/13                             | HRS Ch 104                        |                                      |                                   |                             |  |                               |  |  |
|                                   | Executed                     |                                      |                                   |                                      |                                   |                             |  | 9/22/16                       |  |  |
|                                   | NTP                          |                                      |                                   |                                      |                                   |                             |  | 9/30/16                       |  |  |
| Pacific Lightnet/Wavcom           | Executed                     | 04/28/10                             | 03/12/12                          | 02/15/12                             |                                   |                             |  |                               |  |  |
|                                   | NTP                          | 04/29/10                             | 03/13/12                          | 02/16/12                             |                                   |                             |  |                               |  |  |
|                                   | Amd 01                       | 07/01/11                             | HRS Ch 104                        |                                      |                                   |                             |  |                               |  |  |
| Sandwich Isle Communications      | Executed                     | 05/20/10                             |                                   | 04/20/12                             |                                   |                             |  |                               |  |  |
|                                   | NTP                          | 06/08/10                             |                                   |                                      |                                   |                             |  |                               |  |  |
|                                   | Amd 01                       | 07/01/11                             |                                   |                                      |                                   |                             |  |                               |  |  |
| Hawai'i GAS                       | Executed                     | 12/18/09                             | 06/30/11                          | 06/01/12                             | 04/14/14                          | 08/19/14                    | 09/27/13   | 05/08/15                      |  |  |
|                                   | NTP                          | 12/22/09                             | 07/12/11                          |                                      |                                   | 08/20/14                    |  | 05/11/15                      |  |  |
|                                   | Amd 01                       | 07/01/11                             | 10/17/14                          |                                      | 08/28/14                          | HRS Ch 104                  |  | HRS Ch 104                    |  |  |
|                                   | Amd 02                       |                                      | 05/09/16                          |                                      | 10/23/15                          |                             |  |                               |  |  |
|                                   | Amd 03                       |                                      |                                   |                                      | HRS Ch 104                        |                             |  |                               |  |  |

Utility Agreements Status Matrix

| Utility Owner      | Status   | WOFH     |     | KHG      |                                    | Airport |              | City Center |                          |
|--------------------|----------|----------|-----|----------|------------------------------------|---------|--------------|-------------|--------------------------|
|                    |          | ESA      | UCA | ESA      | UCA                                | UCA     | COMBINED ESA | UCA         |                          |
| Level 3/TW Telecom | Executed | 12/02/09 |     | 02/14/12 | Oceanic to relocate for TW Telecom |         | 10/11/12     |             | Draft sent to TW Telecom |
|                    | NTP      | 12/22/09 |     | 02/16/12 |                                    |         |              |             |                          |
|                    | Amd 01   | 07/01/11 |     |          |                                    |         |              |             |                          |
|                    | Amd 02   |          |     |          |                                    |         |              |             |                          |
| Tesoro             | Executed |          |     | 02/15/12 | 09/12/13                           |         | 08/27/13     |             |                          |
|                    | NTP      |          |     | 02/16/12 |                                    |         | 09/03/13     |             |                          |
|                    | Amd 01   |          |     |          | 09/12/14                           |         |              |             |                          |
|                    | Amd 02   |          |     |          | 05/13/15                           |         |              |             |                          |
|                    | Amd 03   |          |     |          | HRS Ch 104                         |         |              |             |                          |

**Legend:** = Action this month      COR = Corporation Counsel      UCA = Utility Construction Agreement  
 = Not applicable      ESA = Engineering Services Agreement      UFRCA = Combined Engineering and Construction Utility Agreement

General

- Coordinating with Board of Water Supply to provide stray current information and maintenance plans.

HECO

- **Davis-Bacon requirements** – HECO has a collective bargaining agreement that has different wage scales and allows payment to its labor forces bi-weekly, which does not satisfy Davis-Bacon. Based on the State of Hawaii Department of Labor and Industrial Relations correspondence, HECO has begun the process to pay their employees weekly. HECO has submitted a rate conformance request that has so far been denied by the United States Department of Labor (DOL), although HECO has appealed. HECO and HART are still awaiting a final decision from the DOL for the applicable rates.
- **HECO 46kV Substation near MSF area** – HECO indicated a need in the 2019 timeframe for a new dedicated 46kV substation to feed the MSF area due to requirements in the HECO Rule 13 for line extensions and substations. HART is reviewing the various options with HECO.
- **Additional Clearances** – HECO requires the need for additional horizontal working clearances from overhead line conductors to the guideway for their 138kV and 46kV overhead lines along portions of all guideway segments.
- **Horizontal Working Clearances Analysis** – For Airport and City Center, HART and HECO have agreed to underground the overhead 138kV lines. HART’s designers are progressing to a preliminary engineering design with feedback from HECO. For WOFH and KHG, HECO has successfully tested two new bucket trucks (not in their fleet) that can do the 46kV work with less than their required working clearance. This would mitigate the need to relocate 90% of the 46kV poles/lines that do not meet their required working clearances.
- **Alternative Equipment** – For WOFH and KHG, HECO has proposed that HART purchase (9) new Altec bucket trucks to mitigate the 46kV clearance. HART is reviewing this. HECO and HART will continue to look for alternative equipment that could possibly mitigate the 138kV working clearance areas.

**5.4 Right-of-Way (data as of Sept. 1, 2016)**

**BUDGET**

|                        | Baseline Budget  | Expended         | Remaining Budget Balance | Estimate to Completion | Forecast Variance |
|------------------------|------------------|------------------|--------------------------|------------------------|-------------------|
| Acquisition            | \$ 201.70        | \$ 91.90         | \$ 109.80                | \$ 96.70               | \$ 13.10          |
| Relocation             | \$ 20.50         | \$ 14.40         | \$ 6.10                  | \$ 12.10               | \$ (6.00)         |
| <b>Total (Million)</b> | <b>\$ 222.20</b> | <b>\$ 106.30</b> | <b>\$ 115.90</b>         | <b>\$ 108.80</b>       | <b>\$ 7.10</b>    |

Note

- \* Administrative overhead costs aggregated with the Acquisition and Relocation numbers
- \* Estimate to complete based on offers, appraisals or assessed values

**ACQUISITIONS**

Figure 8. Right-of-Way Status for the Parcels [data provided by Real Estate Acquisition database (READ)]

|                     | Current No. of Parcels Needed (a) | Current Square Feet Needed (b) | No. of Completed Acquisitions (c) | Square Feet of Completed Acquisitions (d) | No. of Acquisitions Not Completed & Site Access Obtained (e) | Square Feet of Acquisitions Not Completed & Site Access Obtained (f) |
|---------------------|-----------------------------------|--------------------------------|-----------------------------------|---|--|--|
| W.Oahu/Farrington   | 35                                | 9,808,840                      | 25                                | 7,504,307                                 | 10   | 2,304,533  |
| Kamehameha          | 13                                | 3,027,319                      | 8                                 | 2,623,469                                 | 5  | 403,850  |
| Airport             | 50                                | 1,007,392                      | 13                                | 334,130                                   | 31   | 581,263  |
| City Center         | 125                               | 825,291                        | 33                                | 192,454                                   | 17   | 34,992   |
| <b>Grand Total:</b> | <b>223</b>                        | <b>14,668,842</b>              | <b>79</b>                         | <b>10,654,360</b>                         | <b>63</b>  | <b>3,324,638</b>   |

*During design development, the real estate requirements have been adjusted to accommodate the design refinements. Parcel requirements are adjusted as design is finalized.*

Footnotes:

- (a) & (b) Current No. of Parcels Needed, Square Feet Needed - Parcels identified as needed by the project.
- (c) & (d) No. of Completed Acquisitions, Square Feet of Completed Acquisitions - Acquisitions are closed and the right to access and construct is obtained for 56 private owners and agreements on 23 government parcels.
- (e) & (f) No. of Acquisitions Not Completed & Site Access Obtained, Square Feet of Acquisitions Not Completed & Site Access Obtained - Acquisitions may not be completed, but the right to access and construct has been obtained.

**KAMEHAMEHA**

- Priority:
  - On-going support for negotiations with Aloha Stadium Authority to obtain right of entry for the construction of the station park-and-ride. HART has obtained the right of entry to construct the guideway.

**AIRPORT**

- Priorities:
  - On-going negotiations with TMKs 1-1-002-001, 1-1-004-035, 1-1-004-039, 1-1-016-017, 1-2-013-020 and 1-2-013-021.
  - In order to support the Airport Guideway and Stations Design-Build contract and to maintain the project schedule, eminent domain proceedings were authorized by the HART Board and the Honolulu City Council for several parcels. However, negotiations are still continuing with all private property owners in the Airport section in an attempt to reach mutual agreement.

**CITY CENTER**

At the direction of the HART Board in executive session at its regular June 16, 2016 meeting, the Right-of-Way Section is temporarily suspending certain acquisition transactions beyond the planned Middle Street Station, including any new eminent domain actions and negotiations that have not resulted in a signed agreement amongst the parties. The following status is as of Sept. 1, 2016.

- Priority:
  - On-going support for negotiations with UH Honolulu Community College to secure construction right of entry.

**RELOCATIONS**

Figure 9. Relocation Status for the Occupants (data provided by READ)

|                     | Active Relocations | Relocations Completed | Total Relocations |
|---------------------|--------------------|-----------------------|-------------------|
| W.Oahu/Farrington   | 0                  | 25                    | 25                |
| Kamehameha          | 1                  | 4                     | 5                 |
| Airport             | 3                  | 9                     | 12                |
| City Center         | 12                 | 59                    | 71                |
| <b>Grand Total:</b> | <b>16</b>          | <b>97</b>             | <b>113</b>        |

- Relocations are pursuant to the Uniform Relocation Act.
- Relocations are reported by the number of displacees.
- During design development, the relocation requirements have been adjusted to accommodate the design refinements. Relocation requirements are adjusted as design is finalized.

AIRPORT

- Priority:
  - Monitoring on-going relocation for TMKs 1-1-016-016 and 1-1-016-006.

CITY CENTER

At the direction of the HART Board in executive session at its regular June 16, 2016 meeting, the Right-of-Way Section is temporarily suspending certain acquisition transactions beyond the planned Middle Street Station, including any new eminent domain actions and negotiations that have not resulted in a signed agreement amongst the parties. However, relocations are continuing at the option of the displacee, if the suspended relocation will result in harm to the displacee. The following status is as of Sept. 1, 2016.

- Priority:
  - Continuing to vacate TMK 2-3-007-045 through the judicial process.
- Look Ahead:
  - Anticipate completion of relocation for TMK 2-1-050-062.

**STATUS OF INTER-GOVERNMENTAL AGREEMENTS / THIRD-PARTY AGREEMENTS**

Figure 10. Inter-Governmental Agreement / Third-Party Agreement Status – These are agreements between HART and other government entities, with the exception of D.R. Horton. Completed agreements are in grey, agreements to be executed are in white.

| Inter-Governmental Agreements / Third-Party Agreements                                   |          |          |                        |   |
|--|----------|----------|------------------------|---|
| Agreement  | Status   | Target   | Section                | Notes/Remarks   |
| <b>City Agreements</b>   |          |          |                        |   |
| DFM – Dept. of Facility & Maintenance (Kamehameha Hwy/Makalapa Manor)                    | Executed |          | Airport                | Jurisdictional transfer from DFM to HART in place.  |
| DPR - Dept. of Parks & Recreation (MSF drainage)   | Executed |          | WOFH                   | Consent to construct in place.  |
| <b>State Agreements</b>  |          |          |                        |   |
| UH - University of Hawai'i Master Agreement  | On Hold  |          | WOFH, KHG, City Center | Construction is not impacted as the ROE for right to access and construct will be executed for each campus. |
| UH – University of Hawaii Pre-Construction Right of Entry and Amendment                  | Executed |          | WOFH, KHG, City Center | Consent to construct in place.  |
| UH - West O'ahu (UHWO) Construction Right of Entry for Station                           | Executed |          | WOFH                   | Consent to construct in place.  |
| UH - Leeward Community College (LCC) Construction Right of Entry for Guideway            | Executed |          | WOFH                   | Consent to construct in place.  |
| UH - Leeward Community College (LCC) Construction Right of Entry for Station             | Executed |          | WOFH                   | Consent to construct in place.  |
| UH - Urban Gardens Construction Right of Entry   | Executed |          | KHG                    | Consent to construct in place.  |
| UH – Urban Gardens Conveyance to HDOT(H)   | Pending  | Jan 2017 | KHG                    | In process. Consent to construct in place.  |
| UH - Honolulu Community College (HCC) Construction Right of Entry for Guideway & Station | Pending  | May 2017 | City Center            | In negotiations. Concerted effort is being made to finalize.  |
| DLNR – Dept. of Land and Natural Resources Kapolei Right of Entry                        | Executed |          | WOFH                   | Consent to construct in place to be followed by execution of the easement agreement.                        |
| DLNR - Dept. of Land & Natural Resources Kapolei Easement Agreement                      | Pending  | Jan 2017 | WOFH                   | Easement agreement in process. Construction not impacted.   |
| DLNR – Keehi Lagoon Right of Entry   | Executed |          | Airport                | Consent to construct in place to be followed by execution of the easement agreement.                        |
| DLNR – Keehi Lagoon Easement Agreement   | Pending  | Jan 2017 | Airport                | Easement Agreement in process. Construction not impacted.   |
| DLNR – City Center Right of Entry  | Pending  | May 2017 | City Center            | In process.   |

| Inter-Governmental Agreements / Third-Party Agreements   |          |          |                           |  |
|--|----------|----------|---------------------------|--|
| Agreement  | Status   | Target   | Section                   | Notes/Remarks  |
| DLNR – City Center Easement Agreement  | Pending  | May 2017 | City Center               | In process.  |
| DOE – Dept. of Education Master/Construction Agreement for Waipahu H.S.  | Executed |          | WOFH                      | Set-aside from DLNR to HART in process.  |
| DOE/DLNR Right of Entry for Waipahu High School  | Executed |          | WOFH                      | DLNR Consent to construct in place with DOE concurrence.                             |
| Aloha Stadium / Department of Accounting & General Services (DAGS) MOU for guideway & station                      | Executed |          | KHG                       | MOU in place.  |
| Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for guideway                     | Executed |          | KHG                       | Consent to construct in place to be followed by execution of the easement agreement. |
| Aloha Stadium / Department of Accounting & General Services (DAGS) Easement for guideway                           | Pending  | Jan 2017 | KHG                       | Easement Agreement in process.   |
| Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for station park and ride        | Pending  | Oct 2016 | KHG                       | In negotiations. Awaiting results of 9/29/16 Aloha Stadium Board meeting.            |
| Aloha Stadium / Department of Accounting & General Services (DAGS) Easement for station park and ride              | Pending  | Jan 2017 | KHG                       | Process Easement Agreement.  |
| HDOT(H) – Dept. of Transportation Highways Master Agreement  | Executed |          | WOFH                      | Master Agreement in place.   |
| HDOT(H) – Dept. of Transportation Highways Master Agreement Amendment  | Pending  | Oct 2016 | WOFH                      | In review.   |
| HDOT(H) (A) - Master Agreement for KHG, Airport and City Center and Amendment                                      | Executed |          | KHG, Airport, City Center | Master Agreement in place.   |
| HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement   | Executed |          | WOFH                      | Consent to construct in place.   |
| HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement   | Executed |          | KHG                       | Consent to construct in place.   |
| HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement   | Pending  | Jan 2017 | Airport                   | In process.  |
| HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement   | Pending  | May 2017 | City Center               | In process.  |
| HDOT(A) – Dept. of Transportation Airports Joint Use & Occupancy (JU&O) Sub-agreement for Airport Division parcels | Executed |          | Airport                   | Consent to construct in place.   |
| HDOT(A) - Easement Agreement for Airport Division parcel   | Pending  | Jan 2017 | Airport                   | Process Easement Agreement.  |
| HDOT(Har) – Dept. of Transportation Harbors Easement Agreement / DLNR  | Pending  | May 2017 | City Center               | In process.  |
| HDOT(Har) – Dept. of Transportation Harbors Right of Entry / DLNR  | Pending  | May 2017 | City Center               | In process.  |
| DHHL - Dept. of Hawaiian Home Lands Master Agreement   | Executed |          | WOFH, MSF                 | Master Agreement in place.   |
| DHHL – Dept. of Hawaiian Home Lands License  | Executed |          | WOFH, MSF                 | Consent to construct in place.   |
| OCCC - Dept. of Public Safety, Oahu Community Correctional Center, Easement Agreement                              | Pending  | May 2017 | City Center               | In process.  |

| Inter-Governmental Agreements / Third-Party Agreements  |          |          |                    |  |
|---|----------|----------|--------------------|--|
| Agreement   | Status   | Target   | Section            | Notes/Remarks  |
| OCCC - Dept. of Public Safety, Oahu Community Correctional Center, Right of Entry   | Pending  | May 2017 | City Center        | Draft Right of entry under review.   |
| HCDA -HI Community Development Authority Pre-construction Right of Entry  | Approved |          | City Center        | Verbal approval granted by the HCDA Board in 6/2016.                                   |
| HCDA -HI Community Development Construction ROE & License Agreement, & Final Disposition                                  | Pending  | May 2017 | City Center        | Coordination is ongoing.   |
| DAGS – Dept. of Accounting & General Services / Hi Housing Finance & Development Corp (HHFDC) Right of Entry              | Pending  | May 2017 | City Center        | Consent to construct in process to be followed by execution of the Easement Agreement. |
| DAGS / HHFDC Easement Agreement   | Pending  | May 2017 | City Center        | Process Easement Agreement.  |
| DAGS – City Center Right of Entry   | Pending  | May 2017 | City Center        | To be processed.   |
| DAGS – City Center Easement Agreement   | Pending  | May 2017 | City Center        | To be processed.   |
| <b>Federal Agreements</b>   |          |          |                    |  |
| U.S. Navy Licenses  | Executed |          | WOFH, KHG, Airport | Consent to construct in place.   |
| U.S. Navy Easement Agreements   | Executed |          | WOFH, KHG, Airport | Grant of Easement executed.  |
| U.S. Navy Pearl Harbor Station Acquisition of Fee Transfer  | Executed |          | Airport            | Quitclaim deed executed.   |
| U.S. Post Office (USPS) Honolulu Processing Center acquisition  | Pending  | Jan 2017 | Airport            | Requesting USPS to finalize & execute access agreements                                |
| U.S. Gov't/General Services Administration (GSA)/Federal Courthouse Master Agreement to include Security & Landscape Plan | Pending  | May 2017 | City Center        | Master agreement under review.   |
| U.S. Gov't/GSA/Federal Courthouse License (Right of Entry) & Temporary Construction Easement (TCE) Agreements             | Pending  | May 2017 | City Center        | In final review.   |
| U.S. Gov't/GSA/Federal Courthouse Quitclaim Easement Document   | Pending  | May 2017 | City Center        | Easement document under review.  |
| <b>Other Agreements</b>   |          |          |                    |  |
| D.R. Horton Agreement for Construction  | Executed |          | WOFH               | Consent to construct in place to be followed by execution of the easement agreement.   |
| D.R. Horton Final Easement Agreement  | Pending  | Jan 2018 | WOFH               | Easement Agreement in process and subject to owner's development plans.                |

## 6 MANAGEMENT AND ADMINISTRATIVE UPDATES

### 6.1 Safety and Security (S&S)

#### KEY ISSUES

- Core Systems lost their full-time Ansaldo/H-JV Safety and Security Certification point of contact in Honolulu that poses a concern of certification expertise and experience at the Core Systems contactor level, and will impose a hardship to the HART Safety and Security Department efforts until a full-time, qualified/certified replacement is on AHJV staff. Discussions are underway on the status of the replacement manager.
- Ansaldo/H-JV’s deliverable schedule for the MOW Vehicles DCCC “Means of verification” has significantly slipped as communicated at the weekly CSC certification coordination meetings. HART S&S has received and performed verification on 4 of the 8 DCCC checklists. All 8 MOW vehicles are on island and undergoing STCC verification efforts, since March 2016.
- The rail shims remain an outstanding issue. An extensive number of the 3/16” shims along WOFH Guideway are cracking and shim heights are exceeding the 2” allowable height. An investigation is underway and HART requested an analysis of why the shims are cracking. In addition, Ansaldo is performing a 3rd party independent review to identify any track construction concerns and potential long term maintenance issues.
- Rusting and/or failing tendons in WOFH span segments have been identified. KIWC has been put on notice. The condition is being investigated to avoid impacting the loading capacity of the spans.
- The specification and testing conformance checklist verification effort (% verified) lags behind construction completion percentage due to the fact that a significant percentage of the needed submittals are submitted at the end of the project; such as test reports, O&M manuals, training, and as-built drawings.
- Safety and Security is presently lacking one (1) position (Safety Specialist, OSHA).

#### 6.1.1 S&S Certification Documents

| <i>Key HART S&amp;S Certification Documents</i>                              |          |               |  |
|--|----------|---------------|--|
| <b>S&amp;S Project Plans, PHAs, Core Systems SSHA and O&amp;SHA, and TVA</b> |          |               |  |
| Documents  | REV #    | Date Approved | Comments   |
| <b>Documents Pending Approval</b>  |          |               |  |
| <b>HART SAFETY AND SECURITY</b>  |          |               |  |
| 1. Project Preliminary Hazard Analysis (PHAs)                                | Rev 2. A |               | Rev 2A - DRAFT annual update completed 9/3/2015                |
| a. Traction Power  | Rev 2. A |               | Update on-hold - pending approval of TES SSHA and O&SHA        |
| b. Train Control   | Rev 2. A |               | Update on-hold - pending approval of ATC SSHA & O&SHA          |
| c. Vehicles  | Rev 2. A |               | Update on-hold - pending approval of PT SSHA & O&SHA           |
| d. Communications  | Rev 2. A |               | Update on-hold - pending approval of Comms SSHA and O&SHA      |
| 2. Elevator/Escalators System HA   | Rev A    |               | Under Development  |
| 3. Project OHAs  | Rev A    |               | Under development  |
| <b>HART CORE SYSTEMS</b>   |          |               |  |
| 4. Technologies PHAs   | Rev D    |               | 7/12/2016 – CSC R&R (CMS # 545)                                |
| 5. Passenger Train ATC System HA   | Rev C    |               | 3/18/2016 HART Accepted - pending SSRC Approval (CMS # 751)    |
| 6. Passenger Train Fire Hazard Analysis (FHA)                                | Rev C    |               | 6/22/2016 – CSC R&R (CMS# 749)                                 |
| 7. Passenger Train SSHA  | Rev A    |               | 8/31/2015 - CSC R&R (CMS # 1273)                               |
| 8. Passenger Train O&SHA   | Rev A    |               | 10/26/2015 - CSC R&R (CMS # 1320)                              |
| 9. TES SSHA  | Rev B    |               | 11/03/2015 - CSC R&R (CMS # 884)                               |
| 10. TES O&SHA  | Rev B    |               | 9/21/2016 - HART Accepted – pending SSRC approval (CMS # 1099) |
| 11. PSGS SSHA  | Rev C    |               | 9/28/2016 - CSC R&R (CMS # 938)                                |
| 12. PSGS O&SHA   | Rev B    |               | 3/3/2016 - AAN Re-submit, (CMS # 880)                          |
| 13. Communications SSHA  | Rev C    |               | 9/28/2016 - CSC R&R, (CMS # 1205)                              |
| 14. Communications O&SHA   | Rec C    |               | 1/27/2016 - CSC R&R (CMS # 1206)                               |
| 15. MOW Support Vehicles O&SHA   | Rev A    |               | Under development  |

6.1.2 S&S Certification “Open Items List”

| <b>“Open Items List”</b>  |                |                     |                       |                         |                          |                          |
|---|----------------|---------------------|-----------------------|-------------------------|--------------------------|--------------------------|
| <b>“Open Items” - Design/Construction and Verification Issues</b> |                |                     |                       |                         |                          |                          |
| <b>Month - 2016</b>   | <b>Total #</b> | <b>Total # Open</b> | <b>Total # Closed</b> | <b>% Closed Overall</b> | <b># Closed In Month</b> | <b>% Closed In Month</b> |
| June  | 248            | 41                  | 207                   | 84%                     | 12                       | 5%                       |
| July  | 249            | 42                  | 207                   | 84%                     | 1                        | 1%                       |
| Aug   | 250            | 39                  | 211                   | 84%                     | 4                        | 2%                       |
| Sept  | 251            | 39                  | 212                   | 85%                     | 1                        | 1%                       |

6.1.3 S&S Construction Specification Conformance Checklists (CSCC) - Civil Contracts

| <b>Construction Specification Conformance Checklists (CSCC)</b>           |                   |                       |  |
|---|-------------------|-----------------------|--|
| <b>Civil - Contracts</b>  |                   |                       |  |
| <b>CSCC Verification Status</b>   |                   |                       |  |
| <b>Construction - Installation – Start-up &amp; Testing Phases</b>        |                   |                       |  |
| <b>Contracts</b>  | <b>% Verified</b> | <b>+ / - % Change</b> | <b>Comments</b>                                  |
| <b>WOFH / KHG Interim Revenue Service Date (2020)</b>                     |                   |                       |  |
| <b>Civil Contracts Under Construction</b>                                 |                   |                       |  |
| DB-200, MSF and Rail Yard   | 92%               | +4%                   | Verification underway – IC Certificate issued    |
| DB-120, WOFH Guideway   | 80%               | +3%                   | Verification underway                            |
| DB-320, KHG Guideway  | 48%               | +1%                   | Verification underway                            |
| DBB-385, H2R2 Ramps   | 27%               |                       | Verification underway                            |
| DBB-171, West O’ahu Station Group (WOSG)                                  |                   |                       | Pre-construction activities                      |
| DBB-271, Farrington Hwy Station Group (FHSG)                              |                   |                       | Pre-construction activities                      |
| DBB-371, Kamehameha Hwy Stations Grp (KHSG)                               |                   |                       | Pre-construction activities                      |
| MI-930, Elevators & Escalators, WOSG                                      |                   |                       | Pre-install activities                           |
| MI-930, Elevators & Escalators, FHSG                                      |                   |                       | Pre-install activities                           |
| MI-930, Elevators & Escalators, KHSG                                      |                   |                       | Pre-install activities                           |
| <b>Civil Contracts Under Design or in Pre-bidding or Pre-Award Phases</b> |                   |                       |  |
| AP00 Art-in-Transit, 12 Artists/contracts                                 |                   |                       | Draft Base CSCC under PM review                  |
| DB-275, Pearl Highlands PS/ Bus Transit Center                            |                   |                       | TBD – waiting for 100% conformed specifications  |
| MI-900 Fare Collection System   |                   |                       | Base CSCC SSRC approved 4/27/2016                |
| DBB-600, West O’ahu Park & Ride   |                   |                       | TBD – waiting for 100% conformed specifications  |
| <b>Airport / City Center Final Revenue Service Date (2025)</b>            |                   |                       |  |
| <b>Civil Contracts Under Construction</b>                                 |                   |                       |  |
| DBB-525, Airport Section, 7 - Drilled Shafts                              | 100%              | N/A                   | 8/26/2015 SSRC approved –Certification Completed |
| DBB-505, Airport Utilities - Construction                                 | 63%               |                       | Verification underway                            |
| <b>Civil Contracts Under Design or in Pre-bidding or Pre-Award Phases</b> |                   |                       |  |
| DBB-511, Dillingham Utilities & Road Widening                             |                   |                       | Draft Base CSCC update - pending re-design       |
| DB-450, Airport Guideway  |                   |                       | Draft Base CSCC update - pending re-design       |
| DB-450, Airport Stations  |                   |                       | Draft Base CSCC update - pending re-design       |
| DB-550, City Center Guideway  |                   |                       | Draft Base CSCC update - pending re-design       |
| DB-550, City Center Stations  |                   |                       | Draft Base CSCC update - pending re-design       |
| MI-930, Elevators & Escalators, Airport Stations                          |                   |                       | Base CSCC - SSRC approved, 8/26/2015             |
| MI-930, Elevators & Escalators, City Center Stations                      |                   |                       | Base CSCC - SSRC approved, 8/26/2015             |
| AP00 Art-in-Transit, 11 Artists/contracts                                 |                   |                       | Draft Base CSCC under PM review                  |
| MI-900 Fare Collection System   |                   |                       | Base CSCC SSRC approved 4/27/2016                |

6.1.4 S&S Specification / Testing Conformance Checklists (STCC) - Core Systems

| <i>Specification / Testing Conformance Checklists (STCC)</i>  |            |                |   |
|---|------------|----------------|---|
| <i>Core Systems – Contracts</i>   |            |                |   |
| <i>STCC Verification Status</i>   |            |                |   |
| <b>Procurement - Production - Manufacture - Installation - Start-up &amp; Testing Phases</b>                      |            |                |   |
| Contracts   | % Verified | + / - % Change | Comments  |
| <b>WOFH / KHG Interim Revenue Service Date (2020)</b>   |            |                |   |
| <b>DBOM-920 Core System Contracts under Design / Procurement - Production - Manufacture - Installation - STCC</b> |            |                |   |
| <b>Yard Control Bungalow (YCB) CSC Civil - Contract</b>   | <b>59%</b> |                | Verification underway                                       |
| <b>MOW Vehicles (8-support vehicles)</b>  | <b>75%</b> | <b>+16%</b>    | Verification underway                                       |
| 1) Rail car mover   | 43%        |                |   |
| 2) Multipurpose Vehicle   | 71%        |                |   |
| 3) Enclosed trailer containing re-railing equip   | 71%        | +28%           |   |
| 4) Rail 15-ton flatbed trailer  | 71%        | +15%           |   |
| 5) Rail grinder   | 86%        | +15%           |   |
| 6) Tamper   | 86%        | +15%           |   |
| 7) Sperry (Geometry) car  | 86%        | +15%           |   |
| 8) Hi-reach lift truck  | 86%        | +15%           |   |
| <b>Passenger Trains (PT)/Cars</b>   |            |                |   |
| 1) General Requirements - Applies to all PTs  | 7%         |                | Verification underway                                       |
| 2) PT-001- Certification (E-1, E-2, M-1, M-2 Cars)  |            |                | Verification on hold pending delivery of trucks             |
| 3) PT-001- Interim Cert - for Dynamic Testing   |            |                |   |
| 4) PT-002 – Certification (E-1, E-2, M-1, M-2 Cars)   |            |                |   |
| 5) PT-002- Interim Cert – for Dynamic Testing   |            |                |   |
| 6) PT Certification for Pre-Revenue Service (STCC)  |            |                | Base STCC under development                                 |
| <b>Traction Electrification System (TES)</b>  |            |                |   |
| 1) General Requirements TES - Project Wide  | 51%        | +14%           | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 2) MSF - Rail Yard  | 29%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 3) Functional Track - WOFH Guideway   | 19%        | +19%           | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 4) WOFH and KHG Guideways   | 7%         | +7%            | Base STCC SSRC Approved 9/28/2016, verification underway    |
| <b>Uninterrupted Power Supply (UPS)</b>   |            |                |   |
| 1) General Requirements UPS -Project Wide   | 62%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 2) MSF-UPS  | 50%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 3) Segment 1 - UPS, WOFH & KHG  | 23%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| <b>Communication Systems</b>  |            |                |   |
| 1) General Requirements Comm- Project Wide  | 52%        | +2%            | SSRC approved 6/22/2016, verification underway              |
| 2) MSF and Rail Yard Communications   |            |                | SSRC approved 6/22/2016                                     |
| 3) KHG and WOFH Communications  |            |                | SSRC approved 6/22/2016                                     |
| <b>Fire Detection Alarm System (FDAS)</b>   |            |                |   |
| 1) General Requirements FDAS - Project Wide   | 61%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 2) MSF - FDAS   | 59%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 3) Segment 1 – FDAS, WOFH & KHG   | 15%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| <b>Platform Screen Gate System (PSGS)</b>   |            |                |   |
| 1) General Requirements PSGS -Project Wide  | 30%        |                | Base STCC SSRC Approved 9/28/2016, verification underway    |
| 2) Segment 1 – PSGS, WOFH & KHG   |            |                | Base STCC SSRC Approved 9/28/2016                           |
| <b>Traction Power Generators Back-up System</b>   |            |                |   |
|   |            |                | SSRC approved 3/23/2016                                     |
| <b>ATC / SCADA</b>  |            |                |   |
| 1) ATC / SCADA General Requirements - Project Wide  | 58%        | +58%           | Base ATC/SCADA STCCs under review pending final Test Plan   |
| 2) MSF / ROC - ATC / SCADA  | 26%        | +26%           | Base ATC/SCADA STCCs under review pending final Test Plan   |
| 3) Segment 1 WOFH & KHG Guideways & Stations  | 4%         | +4%            | Base ATC/SCADA STCCs under review pending final Test Plan   |
| 4) PT – ACT - Initial Revenue Service Date (7-PTs)  | 15%        | +15%           | Base ATC/SCADA STCCs under review pending final Test Plan   |
| <b>System Integration Testing (SIT)</b>   |            |                |   |
| 1) General Requirements (SIT) Project Wide  | 15%        | +15%           | Base SIT STCCs under review pending final SIT Plan          |
| 2) MSF SIT  | 21%        | +21%           | Base SIT STCCs under review pending final SIT Plan          |
| 3) Functional Track SIT   |            |                | Base SIT STCCs under review pending final SIT Plan          |
| 4) WOFH & KHG Guideways SIT   |            |                | Base SIT STCCs under review pending final SIT Plan          |
| <b>Operational Requirements</b>   |            |                |   |
| <b>Ops Readiness Conform Checklists (ORCC)</b>  | <b>30%</b> | <b>+3%</b>     | Base ORCC - SSRC approved 12/09/2015, verification underway |
| <b>Pre-revenue Testing Conform Checklist (PRTCC)</b>  |            |                | TBD   |

| <b>Specification / Testing Conformance Checklists (STCC)</b>                                 |            |                |   |
|--|------------|----------------|---|
| <b>Core Systems – Contracts</b>  |            |                |   |
| <b>STCC Verification Status</b>  |            |                |   |
| <b>Procurement - Production - Manufacture - Installation - Start-up &amp; Testing Phases</b> |            |                |   |
| Contracts  | % Verified | + / - % Change | Comments  |
| <b>Airport &amp; City Center Final Revenue Service Date (2025)</b>                           |            |                |   |
| <b>Passenger Trains (PT)/Cars</b>  |            |                |   |
| 1) PT-008-20 Certification (E-1, E-2, M-1, M-2 Cars)   |            |                | Base STCC - SSRC approved 12/09/2015                      |
| 2) PT-008-20- Interim Cert - for Dynamic Testing   |            |                | Base STCC - SSRC approved 12/09/2015                      |
| 3) PT-011-20 Cert for Pre-Revenue Service  |            |                | Base STCC under development                               |
| <b>Traction Electrification System (TES)</b>   |            |                |   |
| 1) Airport and City Center Guideways   |            |                | Base STCC SSRC Approved 9/28/2016                         |
| <b>Uninterrupted Power Supply (UPS)</b>  |            |                |   |
| 1) Segment 2 – UPS, Airport  | 47%        | +27%           | Base STCC SSRC Approved 9/28/2016, verification underway  |
| 2) Segment 3 – UPS, City Center  | 48%        | +31%           | Base STCC SSRC Approved 9/28/2016, verification underway  |
| <b>Communication Systems</b>   |            |                |   |
| 1) Airport Communications  |            |                | Base STCC SSRC approved 6/22/2016                         |
| 2) City Center Communications  |            |                | Base STCC SSRC approved 6/22/2016                         |
| <b>Fire Detection Alarm System (FDAS)</b>  |            |                |   |
| 1) Segment 2 – FDAS, Airport   |            |                | Base STCC SSRC Approved 9/28/2016                         |
| 2) Segment 3 – FDAS, City Center   |            |                | Base STCC SSRC Approved 9/28/2016                         |
| <b>Platform Screen Gate System (PSGS)</b>  |            |                |   |
| 1) Segment 2 – PSGS, Airport   |            |                | Base STCC SSRC Approved 9/28/2016                         |
| 2) Segment 3 – PSGS, City Center   |            |                | Base STCC SSRC Approved 9/28/2016                         |
| <b>ATC / SCADA</b>   |            |                |   |
| 1) Segment 2 Airport Guideways & Stations  |            |                | Base ATC/SCADA STCCs under review pending final Test Plan |
| 2) Segment 3 City Center & Stations  |            |                | Base ATC/SCADA STCCs under review pending final Test Plan |
| 3) PT – ACT Final Revenue Service Date (13-PTs)  |            |                | Base ATC/SCADA STCCs under review pending final Test Plan |
| <b>System Integration Testing (SIT)</b>  |            |                |   |
| 1) Airport & City Center Guideways SIT   |            |                | Base SIT STCCs under review pending final SIT Plan        |
| <b>Operational Requirements</b>  |            |                |   |
| Ops Readiness Conform Checklists (ORCC)  |            |                | Base ORCC - SSRC approved 12/09/2015                      |
| Pre-revenue Testing Conform Checklist (PRTCC)  |            |                | Base PRTCC under development                              |

6.1.5 Twelve (12) Month Certification Projected Milestones and Work Priority:

| <b>12 Month Certification Projected Milestones</b>         |                        |          |          |                         |          |          |                          |          |          |                          |          |           |
|--|------------------------|----------|----------|-------------------------|----------|----------|--------------------------|----------|----------|--------------------------|----------|-----------|
| <b>Contract and Interim Certification (IC)</b>             | <b>Next 30-90 days</b> |          |          | <b>Next 90-180 days</b> |          |          | <b>Next 180-270 days</b> |          |          | <b>Next 270-365 days</b> |          |           |
|  | Oct 2016               | Nov 2016 | Dec 2016 | Jan 2017                | Feb 2017 | Mar 2017 | Apr 2017                 | May 2017 | Jun 2017 | July 2017                | Aug 2017 | Sept 2017 |
| 1. YCB Civil Certification (CSC)                           | X                      |          |          |                         |          |          |                          |          |          |                          |          |           |
| 2. FD-430 & DBB-505, Airport Utilities Civil Certification | X                      |          |          |                         |          |          |                          |          |          |                          |          |           |
| 3. PT-001 Truck (Bogies) Delivery - IC                     |                        | X        |          |                         |          |          |                          |          |          |                          |          |           |
| 4. MSF TES Certification                                   |                        |          | X        |                         |          |          |                          |          |          |                          |          |           |
| 5. PT-002 Delivery – IC                                    |                        |          |          | X                       |          |          |                          |          |          |                          |          |           |
| 6. PT-001, IC to enter Dynamic Testing                     |                        |          |          |                         | X        |          |                          |          |          |                          |          |           |
| 7. Test Track – Rail Yard – TES IC                         |                        |          |          |                         | X        |          |                          |          |          |                          |          |           |
| 8. DB-120, WOFH Guideway Civil Certification               |                        |          |          |                         |          | X        |                          |          |          |                          |          |           |
| 9. PT-002, IC to enter Dynamic Testing                     |                        |          |          |                         |          |          | X                        |          |          |                          |          |           |
| 10. Eight (8) MOW Vehicles Final Certification             |                        |          |          |                         |          |          | X                        |          |          |                          |          |           |
| 11. Functional Track – IC Test Track                       |                        |          |          |                         |          |          |                          | X        |          |                          |          |           |
| 12. DB-320, KHG Guideway Civil Certification               |                        |          |          |                         |          |          |                          | X        |          |                          |          |           |
| 13. FD-340 & DBB-385 Ramp H2R2 Civil Certification         |                        |          |          |                         |          |          |                          |          | X        |                          |          |           |

6.1.6 S&S Certification Certificates Issued to Date

| <i>S&amp;S Certification Certificates Issued to Date</i>                         |                    |                 |
|--|--------------------|-----------------|
| <i>Contracts / Interim Certification (IC) Certificates Issued</i>                | <i>Date Signed</i> | <i>Comments</i> |
| 1. FD-430 / DBB-525 Airport 7-Piers Civil Cert Certificate                       | 9/21/2015          | SSRC approved   |
| 2. Three (3) – MOW Vehicles Delivery & M-7, M-2, M-1 MSF Tracks – IC Certificate | 2/4/2016           | SSRC approved   |
| 3. MSF Yard M-4 and M-6 Tracks – IC Certificate                                  | 3/10/2016          | SSRC approved   |
| 4. PT-001 Delivery, OSB, M-5/M-4 Tracks, ORCC, MOW MPV - IC Certificate          | 3/29/2016          | SSRC approved   |
| 5. Five (5) – MOW Vehicles Delivery – IC Certificate (Vehicles Only)             | 5/20/2016          | SSRC approved   |
| 6. MOW Facility Early Occupancy – IC Certificate (Administrative Areas Only)     | 5/23/2016          | SSRC approved   |
| 7. MSF Civil IC Certificate - Tracks and Facilities                              | 7/6/2016           | SSRC approved   |

6.1.7 Construction Safety and Security  
Safety and Security Incidents

Incidents for Aug. 25, 2016-Sept. 30, 2016:

- **FHSG:** When closing the door to a drill rig, the mounted window shattered. No injuries reported.
- **FHSG:** The trailer slid off the back of a semi-truck, during a load tug test. No injuries. There was minor damage to the semi-truck.
- **FHSG:** A wheel on the West Loch Station site gate was damaged and a welder was stolen from a cone truck that was not secured overnight.
- **KHG:** A work crew member was threatened by an unknown female with a knife. No injuries reported.
- **FHSG:** A contractor truck driver reversed into the site ice shed at West Loch Station site. There was minor damage to the shed.

|  | 2014           |                   |                  | 2015             |                   |                  | 2016             |                   |                  |
|--|----------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|
|  | Hours worked   | No. of Recordable | No. of Loss Time | Hours worked     | No. of Recordable | No. of Loss Time | Hours worked     | No. of Recordable | No. of Loss Time |
| January  |                |                   |                  | 145,806          | 1                 | 0                | 172,799          | 0                 | 0                |
| February   |                |                   |                  | 126,526          | 1                 | 0                | 172,950          | 1                 | 0                |
| March  |                |                   |                  | 139,422          | 3                 | 1                | 183,147          | 0                 | 0                |
| April  |                |                   |                  | 71,856           | 1                 | 0                | 230,808          | 2                 | 0                |
| May  |                |                   |                  | 167,204          | 0                 | 0                | 181,979          | 1                 | 0                |
| June   |                |                   |                  | 123,391          | 2                 | 1                | 165,737          | 0                 | 0                |
| July   |                |                   |                  | 130,954          | 0                 | 0                | 167,039          | 0                 | 0                |
| August   | 52,834         | 1                 | 0                | 154,381          | 1                 | 1                |                  |                   |                  |
| September  | 108,337        | 1                 | 1                | 102,224          | 1                 | 0                |                  |                   |                  |
| October  | 126,351        | 0                 | 0                | 172,845          | 0                 | 0                |                  |                   |                  |
| November   | 116,929        | 3                 | 3                | 45,913           | 0                 | 0                |                  |                   |                  |
| December   | 102,942        | 1                 | 0                | 154,215          | 0                 | 0                |                  |                   |                  |
| <b>Total</b>   | <b>507,393</b> | <b>6</b>          | <b>4</b>         | <b>1,534,735</b> | <b>10</b>         | <b>3</b>         | <b>1,274,459</b> | <b>4</b>          | <b>0</b>         |
| OSHA Annual Incident Rate  |                |                   |                  | 1.3              |                   |                  |                  |                   |                  |
| Work Hours for WOFH, KHG, MSF, Airport, CORE System as reported to OCIP and certified. |                |                   |                  |                  |                   |                  |                  |                   |                  |

6.2 Quality Management

- Key Issues

| HART NCR Log              |           |          |
|---------------------------|-----------|----------|
| Total NCRs Issued To Date | CLOSED    | OPEN     |
| <b>46 (Audits)</b>        | <b>38</b> | <b>8</b> |
| <b>1 (Construction)</b>   | <b>1</b>  | <b>0</b> |

- Resolution of two (2) major WOFH NCRs that needs to be addressed and corrected to prevent recurrence and to mitigate impact on the overall progress of the project. The major NCRs are described below:
  - **Tendons:** Grouting of six (6) tendons on Spans 33, 38, 45 and 51 were found defective. KIWC's disposition is to remove and replace the affected tendons, then stress and grout. A pre-activity meeting was held on this work discussing the removal procedure, which includes safety, quality and environmental activities. Removal and replacement work began in late July and is scheduled to finish by mid-October 2016.
  - **Shims:** Direct Fixation Fastener (DFF) high-density polyethylene (HDPE) Shims.
- Resolution of one (1) major KHG NCR that needs to be addressed and corrected to prevent recurrence and to mitigate impact to the overall progress of the project. The major NCR is described below:
  - **NCR 207:** To date, there is one (1) Open NCR which is related to the CSL Report. All 186 Drilled Shafts were completed.
- **Audit Look Ahead**
  - Perform Combined QA, Buy America and Environmental Compliance Audit of Nan, Inc. on the WOSG contract, on Oct. 12-13, 2016.
  - Perform Combined QA, Buy America and Environmental Compliance Audit of Royal Contracting on the Ramp H2R2 contract, on Oct. 18-20, 2016.
  - Perform QA Audit of PGH Wong on the CE&I (West) contract.

### 6.3 Buy America Compliance (49 CFR 661 and 49 CFR 663)

- **Overview and Key Issues**
  - On Feb. 8, 2016, HART submitted a request for waiver of Buy America requirements for the variable refrigerant flow (VRF) HVAC system for the train control and communications rooms at the stations. On Sept. 8, 2016, the FTA confirmed that VRF units are components of the train control and communications equipment and are therefore subject to the "rolling stock" domestic content requirements under Buy America. As a result, the FTA understood that HART's unavailability waiver request was no longer needed and considered HART's request withdrawn. HART is currently evaluating its options regarding implementation of the FTA's determination.
  - Vehicles: In accordance with FTA clarification on the definition of "post-delivery audit period" as the "time period in the procurement process when the rolling stock' (first vehicle) 'is delivered to the recipient until title to the rolling stock' (last vehicle) 'is transferred to the recipient or the rolling stock' (last vehicle) 'is put into revenue service, whichever is first,'" HART intends to conduct a post-delivery audit during the defined "post-delivery audit period," when actual costs can be verified. We anticipate this to occur on or around first quarter of 2017.

### 6.4 Disadvantaged Business Enterprise (DBE)

- **Activities this Month**
  - \$41,129,753 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 9/30/16
    - 6.94% = DBE utilization on total disbursed FTA funds received to date (\$41,129,753 divided by \$592,776,366)
    - 2.33% = DBE utilization to date on total Project FTA funds (\$41,129,753 divided by \$1,763,903,901)

### 6.5 Planning and Environment

- **Activities this Month**
  - Programmatic Agreement Activities:
    - HART's Programmatic Agreement (PA) team met with the Hawai'i State Historic Preservation Division (SHPD) on Tuesday, Sept. 13, 2016, as part of ongoing consultation with the division.
    - HART continued coordination with the Navy's Federal Preservation Officer (FPO), and completed and transmitted final submittals of Big Makalapa and Little Makalapa National Register nominations to the FPO on Sept. 23, 2016.

- HART met with the Kākoʻo to discuss better management of Consulting Party (CP) concerns on Wednesday, Aug. 24, 2016.
- The August PA report was finalized and sent to the Kākoʻo for distribution to CPs.
- HART initiated implementation of PA Stipulation VII (“Educational and Interpretive Programs, Materials, and Signage”). A strategic plan is being prepared that will identify timelines, goals, defining goals and objectives, and public/community outreach programs. Future consultation with PA Consulting Parties will occur.
- Planning, Environmental, and Cultural Activities:
  - HART will continue coordination with stakeholder agencies regarding street tree transplanting and mitigation efforts.
  - HART established preliminary mitigation monitoring measures for the recently awarded Airport Guideway and Stations (AGS) contract, and continued work establishing AGS environmental requirements and plan review.
  - HART submitted Tree Relocation Activities Status Update #9 to Honolulu City Council.
  - HART staff continued coordination with Department of Transportation Services (DTS) regarding a proposal to use Federal Transportation Alternatives Program (TAP) funds for multimodal access improvements around the East Kapolei Station.
  - HART staff continued coordination with the Department of Parks and Recreation (DPR) on the Middle Loch Connector project.
  - HART Planning continued participation in the Multimodal Integration Technical Team (MITT) consisting of HART, DTS, and Oʻahu Transit Services (OTS) planners to work on technical issues supporting bus-rail systems integration planning.
  - HART Planning staff is managing the refinement of the travel demand forecasting model being used in the fare options study.
  - HART environmental staff continued working on the WOFH contract closeout.
  - HART environmental staff is drafting a Project Wide Environmental Compliance Plan.
  - HART submitted revised draft text of FTA letter to FTA for SHPD concurrence of no additional adverse impacts for the proposed potential Airport and City Center Segments’ casting yards.
  - HART is coordinating planning and design of Kekaulike Street access to Chinatown Station, and Pearlridge Bus Transit Center interface to Pearlridge Station with DTS.
  - HART staff conducted environmental audits of Nan, Inc. for the Airport Section Utilities (ASU) contract on Sept. 15-16, 2016.
  - HART staff conducted Environmental audits of Hawaiian Dredging for the Farrington Highway Station Group (FHSG) construction on Sept. 27-28, 2016.
  - HART staff completed drafting the HART Permitting and Environmental Review Procedure.

- **Looking Ahead**

- HART will develop a recommended approach in response to the City Council’s request and funding for project extension studies which will be presented to the HART Board.
- HART will provide preliminary options analysis to inform the Board on further project public-private partnership (P3) potential activities.
- Ongoing coordination with DTS to ensure consistent planning of seamless bus and rail services focusing on rail’s interim opening date.
- Refine and develop bus-rail integration needs for Lagoon Drive, Waimanu Street and Ala Moana locations.
- The next consultation meeting with HART/SHPD is scheduled for Tuesday, Oct. 11, 2016.
- Continue Hawaiian Station Naming Working Group efforts to provide primary Hawaiian station names for 21 stations.
- Continue coordination with DPP, the State, and Hawaii Community Development Authority (HCDA) regarding transit-oriented development.
- Continue to review and meet with contractors regarding proper environmental submittals.
- HART will coordinate the closeout of environmental items related to the KHG contract.

- Prepare and submit final Post-ROD Documentation to FTA for approval:
  - Emergency Backup Generators, 4<sup>th</sup> quarter 2016
  - Airport Casting Yard, 4<sup>th</sup> quarter 2016
  - City Center Casting Yard, 4<sup>th</sup> quarter 2016
  - Additional Right-of-Way, on hold
  - City Center Alignment, on hold
  - Hōlau Market/Ai-Goto, on hold
  - West O'ahu Park & Ride Lots, on hold
  - Phased System Openings, 1<sup>st</sup> quarter 2017
  - Final System Opening, 1<sup>st</sup> quarter 2020
- Continue development of HART's sustainability program.

## 6.6 Risk Management

The primary goal of risk management is to maintain a reserved contingency balance throughout the life of the Project that is acceptable to HART and the FTA. Effective management of project risks is necessary to significantly increase the likelihood of delivering a successful project. Risk management is the systematic process of identifying, analyzing, and responding to risk in a timely manner. Risk management is integral to all phases leading up to revenue service opening including: planning, design, construction, systems testing, system operation start up, safety and security certification, and ultimately to project construction closeout.

The HART program is implementing a new Risk Management System that focuses on mitigation strategies to assist the project teams in project delivery. The program has recently performed bottoms up risk assessment for every project in the program. A network model was then developed to evaluate the cost and schedule contingencies of the program, including relationships between each of the individual projects and contracts. This data is then updated monthly by the project teams and modelled periodically. Risk assessment discussions with the project teams are held on a regular basis to identify, assess, prioritize, manage and mitigate risk exposure, and develop prudent contingency plans. The Project Risk Register (RR) is the depository for all risks identified for the Project. Every month, risks contained in the RR are reviewed to confirm risks are appropriately identified, identify new risks, and close out risks that no longer pose an issue. HART has been training the project managers to use the risk management system. There has since been 8 individual project register updates since training has begun. These updates are verified and reviewed by the risk manager prior to being incorporated into the master Risk Database.

The new risk management system quantifies the risk as schedule impact or direct cost impact independently. The schedule impact is then monetized based in the model and based upon the contracts impacted. The top risks to the program are then evaluated on both schedule and cost.

As HART implements the risk management system focused on mitigation, monitoring, and control, the PMOC has requested to work with HART to possibly develop a new tracking mechanism or data reporting set to better assist in the oversight of the program.

### **NOTES OF SIGNIFICANCE**

- HART is currently going through an exercise in developing a recovery plan to manage the funding gap.
- Intensive focus continues to be placed on issues involving Hawaiian Electric Co. (HECO) coordination and clearance issue resolution; this includes alternative equipment studies.
- On-call contractor is verifying the Ground Penetrating Radar (GPR) results of the utilities in the City Center section.
- Specifications are being developed for the City Center project to assist the design-builder in pricing unidentified and misidentified utilities.
- Developing agreements with landowners and utilities for access during construction is mitigating potential construction schedule delays.
- Award of the AGS contract.

**AREAS OF FOCUS**

**A) Market Conditions** – The construction market in Hawai'i continues to outpace other major metropolitan US cities. The years 2015 and 2016 are expected to set new records for construction in the state. This translates to increased escalation of about 1% per month from late 2014 through the end of 2016, according to the Rider Levett Bucknall, Quarterly Construction Cost Report. These conditions may impact the supply of experienced craft labor which will in turn affect contractor productivity rates and traffic mobility issues.

Mitigation Progress:

- HART's continuous improvement in estimating methodology has led to more confidence in the likely construction pricing, but continued pricing pressures in the market could still lead to higher than expected price proposals and bids.
- The combined guideway and station packages on the City Center Guideway and Stations contract are still in active procurement.

**B) Utilities** – Utilities continue to be an issue for the project, as they are for most Transit and Rail projects.

Mitigation Progress:

- Resources to relocate HECO facilities are now keeping up with scheduled requests to resolve utility conflicts through improved coordination efforts between agencies at all levels from project management to executive levels.
- Identifying existing utilities along the City Center corridor.

**C) Right-of-Way** – There are parcels on the east and west segments that are still in an active acquisition process. The goal is to provide site access to the contractors on the east to avoid associated inefficiencies related to re-sequencing the work plan which would have a negative impact to the revenue service date.

Mitigation Progress:

- Nearly all west side property transactions have been accomplished.
- East side – there are a number of third-party agreements needed on the Airport Section and private parcels on the City Center Section. Cost-to-cure partial property improvement impacts have now been mostly resolved.

## 6.7 Community Outreach

- **Overview**

- Since the inception of HART, the outreach team has participated in:
  - 1,010 Presentations and Events
    - 6 Presentations and Events in September 2016
  - 568 Neighborhood Board Meetings
    - 8 Neighborhood Board Meetings in September 2016

- **Community Input**

- HART's public outreach team responded to more than 100 public inquiries and comments this month. Inquiries were related to project construction plans, and a majority of the comments urged that the project not stop at Middle Street but continue on to Ala Moana Center. In addition, some callers to the project hotline ask about how to go about filing a claim.

## 6.8 Staffing

- **Overview**

- Project Staffing:
  - Target: 139 Full-Time Equivalent (FTE)
  - Actual: 127 FTE (reflects employees hired during this period as well as employees who left the project from both HART and the PMC staffs)
    - City Staff: 110
    - PMC Staff: 17

- The candidate for the Deputy Director of Operations and Maintenance position has accepted the formal offer and all clearances have been obtained. The official start date is Oct. 26, 2016.
- The Core Systems Electrical Engineer responsible for oversight of vehicles started in September.
- The West O’ahu Station Group construction Project Manager has been moved to Engineering and Design. Recruitment for a replacement construction Project Manager has commenced.
- The Project Controls Manager (PMSC) resigned and recruitment for a replacement has commenced.
- Two new positions have been added: an Accountant for the Finance group and a Secretary for the Operations and Maintenance Division.
- An Accountant performing Budget Analyst duties departed in September and recruiting has commenced for a replacement.
- One Procurement and Specifications Specialist departed in September, and another announced their departure in October.

Figure 11. Staffing Activities

| Staffing Activities                         |                          |  |                              |             |
|---|--------------------------|--|------------------------------|-------------|
| Title                                       | Group                    | New/Existing HART position (City or PMC) | Position Status              | Start Month |
| <b>Design and Construction</b>              |                          |  |                              |             |
| Project Manager (WOSG)                      | Construction             | Existing (City)                          | Recruiting                   |             |
| Mechanical/Electrical Engineer              | Core Systems             | Existing (City)                          | Filled                       | Sept        |
| Secretary                                   | Core Systems             | Existing (City)                          | Recruiting                   |             |
| <b>Budget and Finance</b>                   |                          |  |                              |             |
| Financial Analyst                           | Budget and Finance       | Existing (City)                          | Recruiting                   |             |
| Accountant (Budget Analyst)                 | Budget and Finance       | Existing (City)                          | Recruiting                   |             |
| Accountant                                  | Budget and Finance       | New (City)                               | Recruiting                   |             |
| <b>Quality Assurance</b>                    |                          |  |                              |             |
| Quality Assurance Engineer * (Civil)        | Quality Assurance        | Existing (City)                          | Recruiting/Interviewing      |             |
| <b>Administrative Services</b>              |                          |  |                              |             |
| Information Technology Support Technician   | Administrative Services  | Existing (City)                          | Recruiting/Interviewing      |             |
| Personnel Clerk                             | Administrative Services  | Existing (City)                          | Recruiting via Civil Service |             |
| <b>Public Information</b>                   |                          |  |                              |             |
| Information Specialist                      | Public Information       | Existing (City)                          | Recruiting via Civil Service |             |
| <b>Project Controls</b>                     |                          |  |                              |             |
| Scheduler                                   | Project Controls         | Existing (City)                          | Recruiting/Interviewing      |             |
| CMS Trainer                                 | Project Controls         | Existing (City)                          | Recruiting                   |             |
| Project Controls Manager                    | Project Controls         | Existing (PMSC)                          | Recruiting                   |             |
| <b>Procurement &amp; Contracts</b>          |                          |  |                              |             |
| Procurement & Specifications Specialist (2) | Procurement              | Existing (City)                          | Recruiting                   |             |
| <b>Safety</b>                               |                          |  |                              |             |
| Safety Specialist                           | Safety                   | Existing (City)                          | Recruiting/Interviewing      |             |
| <b>Operations &amp; Maintenance</b>         |                          |  |                              |             |
| Deputy Director                             | Operations & Maintenance | New (City)                               | Selected                     | Oct         |
| Secretary                                   | Operations & Maintenance | New (City)                               | Recruiting                   |             |
| <b>Planning, Permitting &amp; ROW</b>       |                          |  |                              |             |
| Planner VI (Land Use/Sustainability)        | Planning                 | Existing (City)                          | Recruiting                   |             |
| Right-of-Way Agent IV                       | Right-of-Way             | New (City)                               | Recruiting                   |             |
| <b>Executive Management</b>                 |                          |  |                              |             |
| Board Staff Assistant                       | HART Board               | New (City)                               | Recruiting/Interviewing      |             |
| Board Clerk                                 | HART Board               | New (City)                               | Recruiting/Interviewing      |             |

\*Actual hiring level will be commensurate with candidate’s qualifications.

For the latest project organization chart, see Appendix E.

# APPENDICES

Appendix A. Project Contingency Management

**HART Project Contingency Drawdown with Details**

Data as of 8/26/16

| #                                   | Project No. | Project Desc.                                | Budget Transfer/Change Description  | Contingency Drawdown (#) | Contingency Code        |
|-------------------------------------|-------------|--|---|--------------------------|-------------------------|
| <b>Jan '16</b>                      |             |  |   |                          |                         |
| 1)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 070 - Equipment Escalation   | \$487.3                  | Unallocated Contingency |
| 2)                                  | DB-200      | Maintenance & Storage Facility DB            | Executed Contract Change Order No. 040 - Layout Direct Fly/Balanced Turnout                               |                          | Unallocated Contingency |
| 3)                                  | DB-200      | Maintenance & Storage Facility DB            | Executed Contract Change Order No. 042 - Mainline Rail Material Quantities                                |                          | Unallocated Contingency |
| 4)                                  | DBB-505     | Airport Section Guideway 7 Pier Construction | Executed Change Order No. 004 - Adjustment for Unused Allowances  |                          | Unallocated Contingency |
| 5)                                  | DBB-505     | Airport Section Guideway 7 Pier Construction | Executed Change Order No. 005 - CHIP Elevation Change, AAS to Pier 5/40-551R                              |                          | Unallocated Contingency |
| <b>Jan '16 Contingency Drawdown</b> |             |  |   |                          |                         |
|                                     |             |  |   | <b>\$487.4</b>           |                         |
| <b>Feb '16</b>                      |             |  |   |                          |                         |
| 1)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 073 - Escal Due to Schedule Impacts P12                                |                          | Unallocated Contingency |
| 2)                                  | DBOM-920    | Core Systems Contract Design Build O/M       | Executed Change Order No. 020 - Airport-City Center Alignment   |                          | Unallocated Contingency |
| 3)                                  | DBOM-920    | Core Systems Contract Design Build O/M       | Executed Change Order No. 021 - FOC Peairidge To DTS Patch Panel  |                          | Unallocated Contingency |
| <b>Feb '16 Contingency Drawdown</b> |             |  |   |                          |                         |
|                                     |             |  |   | <b>\$475.1</b>           |                         |
| <b>Mar '16</b>                      |             |  |   |                          |                         |
| 1)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 078 - Additional Demo of Existing Structures                           |                          | Unallocated Contingency |
| 2)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 077 - Pre-Cast Yard Extended Lease                                     |                          | Unallocated Contingency |
| 3)                                  | DB-200      | Maintenance & Storage Facility DB            | Executed Contract Change Order No. 034 - Credit of COO 18 Rail Material Storage                           |                          | Unallocated Contingency |
| 4)                                  | DB-320      | Kamehameha Highway Guideway DB               | Executed Contract Change Order No. 021 - HDOT Fence in Roadway Median - Transite Pipe at TS Ductbank      |                          | Unallocated Contingency |
| 5)                                  | DB-320      | Kamehameha Highway Guideway DB               | Executed Contract Change Order No. 022 - HECO Single Line Diagrams  |                          | Unallocated Contingency |
| 6)                                  | DBB-505     | Airport Section Utilities                    | Executed Change Order No. 001 - Added Stub for future Downspout at Valkenburgh Street and Nimitz Highway  |                          | Contract Allowance      |
| 7)                                  | DBB-505     | Airport Section Utilities                    | Executed Change Order No. 002 - Patching at Water Line JM1012 conflict                                    |                          | Contract Allowance      |
| 8)                                  | DBB-505     | Airport Section Utilities                    | Executed Change Order No. 004 - R/PCP 00009 - OCIP and Builder's Risk Credit                              |                          | Contract Allowance      |
| 9)                                  | DBOM-920    | Core Systems Contract Design Build O/M       | Executed Change Order No. 022 - Obstruction Detection   |                          | Contract Allowance      |
| 10)                                 | DBOM-920    | Core Systems Contract Design Build O/M       | Executed Change Order No. 004 - R/PCP 00009 - OCIP and Builder's Risk Credit                              |                          | Contract Allowance      |
| 11)                                 | FD-140      | West Oahu Stations Group PD                  | Executed Change Order No. 023 - Removal of Station Fire Sprinklers  |                          | Contract Allowance      |
| 12)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Amendment No. 020 - Elevator Modifications  |                          | Contract Allowance      |
| 13)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 097 - RFCC 00084 Additional Drainage Requirements                      |                          | Contract Allowance      |
| <b>Mar '16 Contingency Drawdown</b> |             |  |   |                          |                         |
|                                     |             |  |   | <b>\$1,600.14</b>        |                         |
| <b>Apr '16</b>                      |             |  |   |                          |                         |
| 1)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 079 - 86 Horiz clearance at Conflict 3-605-E1                          |                          | Unallocated Contingency |
| 2)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 080 - Unknown Utility 2 inch Gas Line                                  |                          | Unallocated Contingency |
| 3)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 081 - AT1 Ductbank in 705-M1   |                          | Unallocated Contingency |
| 4)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 082 - RFCC 00118 Transite Pipe Removal at Sta 616+61                   |                          | Unallocated Contingency |
| 5)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 083 - Guy Wire Mobilizations (RFCC 00121)                              |                          | Unallocated Contingency |
| 6)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 084 - HTI Issue at Utility Conflict 602-T1 (RFCC 00125)                |                          | Unallocated Contingency |
| 7)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 085 - LCC Campus Construction Impacts (RFCC 149)                       |                          | Unallocated Contingency |
| 8)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 086 - LCC Station Access Construction Impacts (RFCC# 149)              |                          | Unallocated Contingency |
| 9)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 087 - RFCC 00130 Hazardous Material at Custer Building                 |                          | Unallocated Contingency |
| 10)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 088 - RFCC 00133 Debris at Shaft 268                                   |                          | Unallocated Contingency |
| 11)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 089 - RFCC 00134 Shaft 211 650-E1 Conflict                             |                          | Unallocated Contingency |
| 12)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 090 - RFCC 00136 Unknown Irrigation Lines at VHS                       |                          | Unallocated Contingency |
| 13)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 091 - Issue 00319 AIS Provisional Sum Reconciliation                   |                          | Unallocated Contingency |
| 14)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 092 - RFCC 00028 East Kapolei/UHWO Vertical Clearance Provisions       |                          | Unallocated Contingency |
| 15)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 093 - RFCC 00084 Delete HECO Transformer Pads @ 5 Stations             |                          | Unallocated Contingency |
| 16)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 095 - RFCC 00037 Emergency Walkway - Guideway Areas                    |                          | Unallocated Contingency |
| 17)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 096 - RFCC 00029 Unforeseen 24" Storm Drain Line                       |                          | Unallocated Contingency |
| 18)                                 | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 098 - WOFH Precast Yard Lease Extension to Jun16                       |                          | Unallocated Contingency |
| 19)                                 | DB-200      | Maintenance & Storage Facility DB            | Executed Contract Change Order No. 044 - Extend Rail Storage Yard Lease                                   |                          | Unallocated Contingency |
| 20)                                 | DB-200      | Maintenance & Storage Facility DB            | Executed Contract Change Order No. 045 - Patented Keys - Deletion of Rail Progression System              |                          | Unallocated Contingency |
| 21)                                 | DBOM-920    | Core Systems Contract Design Build O/M       | Executed Change Order No. 004 - TO Design for Future Platform T&E   |                          | Contract Allowance      |
| 22)                                 | DBOM-920    | Core Systems Contract Design Build O/M       | Executed Change Order No. 025 - UPS Transformer Winding Temperature                                       |                          | Contract Allowance      |
| 23)                                 | DBB-505     | Airport Section Utilities                    | Executed Change Order No. 005 - RFCC 00006 - Impacts Due to New ROE Delay                                 |                          | Contract Allowance      |
| 24)                                 | MH-975      | EED Commissioning Services                   | Executed Change Order No. 008 - Post Construction Services  |                          | Contract Allowance      |
| 25)                                 | MH-930      | Elevators & Escalators Installation          | Executed Change Order No. 002 Elevator Battery Lowering Systems   |                          | Contract Allowance      |
| <b>Apr '16 Contingency Drawdown</b> |             |  |   |                          |                         |
|                                     |             |  |   | <b>\$469.5</b>           |                         |
| <b>May '16</b>                      |             |  |   |                          |                         |
| 1)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 078 - Left Turn Farrington Hwy at Lanikas                              |                          | Unallocated Contingency |
| 2)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 099 - Deletion of Station Platform Grinders (RFCC00080)                |                          | Unallocated Contingency |
| 3)                                  | DB-120      | West Oahu Farrington Highway Guideway DB     | Executed Contract Change Order No. 100 - RFCC 00126 - Hazmat Transite Pipe Removal at STA                 |                          | Unallocated Contingency |
| 4)                                  | DB-320      | Kamehameha Highway Guideway DB               | Executed Contract Change Order No. 023 - Provisional Sum - HECO Utility Conflict                          |                          | Unallocated Contingency |
| 5)                                  | DB-320      | Kamehameha Highway Guideway DB               | Executed Contract Change Order No. 024 - Issue 225 HECO Conflict 12-343 E1 Ductbank Constr                |                          | Unallocated Contingency |
| 6)                                  | DB-320      | Kamehameha Highway Guideway DB               | Executed Contract Change Order No. 027 - RFCC 00077 Station Lease and Contribution Changes - Construction |                          | Unallocated Contingency |
| 7)                                  | DB-320      | Kamehameha Highway Guideway DB               | Executed Contract Change Order No. 029 - AIS Provisional Sum Reconciliation Issue 00133                   |                          | Unallocated Contingency |
| 8)                                  | DBB-505     | Airport Section Utilities                    | Executed Change Order No. 006 - RFCC 0002-HTI Scope Revision - Kamehameha Hwy                             |                          | Contract Allowance      |
| <b>May '16 Contingency Drawdown</b> |             |  |   |                          |                         |
|                                     |             |  |   | <b>\$469.5</b>           |                         |

# HART Project Contingency Drawdown with Details

Data as of 8/26/16

| #  | Project No. | Project Desc.                            | Budget Transfer/Change Description   | Contingency Drawdown (#)     | Contingency Code              |
|--|-------------|--|--|------------------------------|-------------------------------|
| 0)   | FD-530      | City Center Guideway Utilities FD        | Executed Change Amend No. 008 - Impact Associated with HECO<br>May '16 Contingency Drawdown                | \$300,000<br>-\$216,946      | 90.02 - Allocated Contingency |
| <b>May'16 - Ending Contingency Balance</b> |             |  |  | <b>\$469.7</b>               |                               |
| <b>Jun '16</b>                             |             |  |  |                              |                               |
| 1)   | DB-120      | West Oahu Farmington Highway Guideway DB | Executed Contract Change Order No. 102 - Hazardous Materials at Cutter Property                            | (\$182,289)                  | 90.02 - Allocated Contingency |
| 2)   | DB-120      | West Oahu Farmington Highway Guideway DB | Executed Contract Change Order No. 103 - Ho'opi'i Station Relocation                                       | (\$832,414)                  | 90.02 - Allocated Contingency |
| 3)   | DB-120      | West Oahu Farmington Highway Guideway DB | Executed Contract Change Order No. 104 - Contaminated Material at Median                                   | (\$1,875,000)                | 90.02 - Allocated Contingency |
| 4)   | DBE-271     | Farmington Highway Station Group         | Executed Change Order No. 004 - Install TPSS Foundation & Switchgear<br>June '16 Contingency Drawdown      | (\$785,600)<br>(\$3,675,313) | 90.02 - Allocated Contingency |
| <b>Jun'16 - Ending Contingency Balance</b> |             |  |  | <b>\$466.0</b>               |                               |
| <b>Jul '16</b>                             |             |  |  |                              |                               |
| 1)   | DB-120      | West Oahu Farmington Highway Guideway DB | Executed Change Order No. 101 - RTD Standoff & Directive Dwg's Rev. 1.0                                    | (\$47,745)                   | 90.02 - Allocated Contingency |
| 2)   | DB-200      | Maintenance & Storage Facility DB        | Executed Change Order No. 046 - Relocate Chain-link Fence at OSB   | (\$7,792)                    | 90.02 - Allocated Contingency |
| 3)   | DBOM-920    | Core Systems Contract Design Build O/M   | Executed Change Order No. 026 - TPSS at Civic Center   | (\$727,000)                  | 90.02 - Allocated Contingency |
| 4)   | DBOM-920    | Core Systems Contract Design Build O/M   | Executed Change Order No. 027 - Additional Minor field work  | (\$250,000)                  | 90.02 - Allocated Contingency |
| 5)   | DBE-505     | Airport Section Utilities                | Executed Change Order No. 008 - Delete Sewer Relocation at First Hawaiian Bank                             | \$142,106                    | 90.03 - Contract Allowance    |
| 6)   | DBE-505     | Airport Section Utilities                | Executed Change Order No. 009 - Potrolling at 1059-45 for Pier 476   | (\$12,103)                   | 90.03 - Contract Allowance    |
| 7)   | DBE-505     | Airport Section Utilities                | Executed Change Order No. 010 - Delete HDOT Airport Division Utility Relocation                            | \$106,119                    | 90.03 - Contract Allowance    |
| 8)   | DBE-505     | Airport Section Utilities                | Executed Change Order No. 011 - Added Potrolling at Piers 434L & 434R                                      | (\$7,014)                    | 90.03 - Contract Allowance    |
| 9)   | MI-930      | Elevators & Escalators Install/Maint     | Executed Change Order No. 002 - Counterweight safeties for 8 machine Room less(MRL) Station Elevators      | (\$853,963)                  | 90.02 - Allocated Contingency |
| 10)  | FD-140      | West Oahu Stations Group FD              | Executed Contract Amendment No. 021 - WOSG Ala Moana Canopy Design   | \$5,202                      | 90.02 - Allocated Contingency |
| 11)  | FD-140      | West Oahu Stations Group FD              | Executed Contract Amendment No. 022 - Extension of WOSG-FMIM Services                                      | (\$132,660)                  | 90.02 - Allocated Contingency |
| 12)  | FD-140      | West Oahu Stations Group FD              | Executed Contract Amendment No. 033 - Hoopi'i Septic System  | (\$8,654)                    | 90.02 - Allocated Contingency |
| 13)  | FD-340      | Kamehameha Highway Stations Group FD     | Executed Contract Amendment No. 010 - Misc. RFIDs Items and Revise Stairs/Common Dwg's for Elev            | (\$100,938)                  | 90.02 - Allocated Contingency |
| 14)  | FD-340      | Kamehameha Highway Stations Group FD     | Executed Contract Amendment No. 011 - Redesign/overing HBR2 Ramp   | (\$11,938)                   | 90.02 - Allocated Contingency |
| 15)  | FD-550      | Dillingham Kaka'ako Stations Group FD    | Executed Contract Amendment No. 006 - EB Compliance<br>July '16 Contingency Drawdown                       | (\$329,676)<br>(\$2,280,274) | 90.02 - Allocated Contingency |
| <b>Jul'16 - Ending Contingency Balance</b> |             |  |  | <b>\$463.8</b>               |                               |
| <b>Aug '16</b>                             |             |  |  |                              |                               |
| 1)   | DB-320      | Kamehameha Highway Guideway DB           | Executed Contract Change Order No. 033 - Escalation due to schedule Impact<br>Aug '16 Contingency Drawdown | (\$267,817)<br>(\$267,817)   | 90.02 - Allocated Contingency |
| <b>Aug'16 - Ending Contingency Balance</b> |             |  |  | <b>\$463.5</b>               |                               |

**Appendix B. Project Cost Reports** (data as of Aug. 26, 2016)

Cost reports are run from the HART Contract Management System (CMS)

**Project Costs by Contract**



Costs Reported as of Month Ending: August 2016

**Project Monthly Cost Report by Contract - One Line Summary**  
8/26/16

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| CPP No    | Title                                  | T&M | A           |             | B           |             | C=A+B       |             | D           |                  | E           |         | F |  |
|-----------|--|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|---------|---|--|
|           |  |     | Original    | Changes     | COMMITTED   | Current *   | AFE         | AFE**       | INCURRED    | Incurred To Date | PERCENT     | PERCENT |   |  |
| ART       | A.R.T. Contracts                       |     | 245,000     | 0           | 245,000     | 245,000     | 0           | 245,000     | 0           | 0                | 12,250      | 5%      |   |  |
| CCH-100   | Inactive Hart/Qty.CCH                  |     | 15,348,443  | 0           | 15,348,443  | 15,348,443  | 0           | 15,348,443  | 0           | 0                | 14,925,228  | 97%     |   |  |
| CCH-101   | HART/Qty Dept of BFs                   |     | 105,092     | 0           | 105,092     | 105,092     | 0           | 105,092     | 0           | 0                | 0           | 0%      |   |  |
| CCH-102   | HART/Qty DDC Land Division             |     | 256,201     | 0           | 256,201     | 256,201     | 0           | 256,201     | 0           | 0                | 173,182     | 68%     |   |  |
| CCH-107   | HART/Qty Corporation Counsel (CO.R)    |     | 1,616,253   | 250,000     | 1,866,253   | 1,866,253   | 250,000     | 2,116,253   | 250,000     | 0                | 265,616     | 14%     |   |  |
| CCH-108   | HART / Board of Water Supply (BWS)     |     | 928,325     | 0           | 928,325     | 928,325     | 0           | 928,325     | 0           | 0                | 928,325     | 100%    |   |  |
| DB-120    | West Oahu/Farrington Hwy Guideway DB   | SOM | 482,924,000 | 167,431,787 | 650,355,787 | 650,355,787 | 647,863,074 | 647,863,074 | 207,889,302 | 616,164,480      | 274,281,044 | 95%     |   |  |
| DB-200    | Maintenance & Storage Facility DB      | SOM | 195,258,000 | 79,600,568  | 274,858,568 | 274,858,568 | 274,858,568 | 274,858,568 | 389,299,185 | 296,473,366      | 76%         |         |   |  |
| DBB-171   | Kamehameha Hwy Guideway DB             | SOM | 372,150,000 | 18,685,185  | 390,835,185 | 390,835,185 | 389,299,185 | 389,299,185 | 56,088,470  | 3,416,523        | 6%          |         |   |  |
| DBB-185   | West Oahu Station Group DBB            | SOM | 56,088,470  | 0           | 56,088,470  | 56,088,470  | 56,088,470  | 56,088,470  | 0           | 0                | 0           | 0%      |   |  |
| DBB-271   | SPCD - West Side S.G. Construction     | SOM | 78,999,000  | 0           | 78,999,000  | 78,999,000  | 78,999,000  | 78,999,000  | 0           | 0                | 450,000     | 1%      |   |  |
| DBB-275   | Farrington Highway Station Group DBB   | SOM | 800,174     | 0           | 800,174     | 800,174     | 800,174     | 800,174     | 0           | 0                | 0           | 0%      |   |  |
| DBB-371   | SPCD-Pearl Highlands Pkg. Str. Constr. | SOM | 115,805,845 | 0           | 115,805,845 | 115,805,845 | 115,805,845 | 115,805,845 | 0           | 0                | 535,771     | 0%      |   |  |
| DBB-385   | Ramp H2R2                              | SOM | 5,203,646   | 42,522      | 5,246,168   | 5,246,168   | 5,246,168   | 5,246,168   | 0           | 0                | 1,311,578   | 25%     |   |  |
| DBB-470   | SPCD-Airport Station Group Constr.     | SOM | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0                | 0           | 0%      |   |  |
| DBB-505   | Airport Section Utilities Constr. DBB  | SOM | 27,993,290  | -707,536    | 27,285,754  | 27,285,754  | 27,285,754  | 27,285,754  | 27,706,438  | 16,468,247       | 60%         |         |   |  |
| DBB-510   | City Ctr. Section Util. Constr. DBB    | SOM | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0                | 0           | 0%      |   |  |
| DBB-520   | SPCD-Airport-City Center Gateway Cntr. | SOM | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0                | 0           | 0%      |   |  |
| DBB-525   | Airport Section Guideway 7 Pier DBB    | SOM | 3,973,000   | 54,843      | 4,027,843   | 4,027,843   | 4,027,843   | 4,027,843   | 4,027,843   | 4,027,843        | 4,027,843   | 100%    |   |  |
| DBB-580   | SPCD-Dillingham/Kaka'ako S.G. Cntr.    | SOM | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0                | 0           | 0%      |   |  |
| DBB-600   | Park-and-Ride Lots Construction        | SOM | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0                | 0           | 0%      |   |  |
| DBO M-920 | Core Systems Design Build D/M          | SOM | 573,782,793 | 27,037,894  | 600,820,687 | 600,820,687 | 584,905,675 | 584,905,675 | 240,705,257 | 240,705,257      | 40%         |         |   |  |
| FD-140    | West Oahu Station Group FD             | SOM | 7,789,000   | 2,411,643   | 10,200,643  | 10,200,643  | 10,062,649  | 10,062,649  | 9,489,489   | 9,489,489        | 93%         |         |   |  |
| FD-240    | Farrington Highway Stations Group FD   | SOM | 9,300,696   | 4,994,235   | 14,294,931  | 14,294,931  | 13,952,279  | 13,952,279  | 12,706,448  | 12,706,448       | 89%         |         |   |  |
| FD-245    | SPCD-Pearl Highlands Pkg. Str. FD      | SOM | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0                | 0           | 0%      |   |  |
| FD-340    | Kamehameha Hwy Station Group FD        | SOM | 8,702,592   | 1,257,636   | 9,960,228   | 9,960,228   | 9,960,228   | 9,960,228   | 9,317,068   | 9,317,068        | 94%         |         |   |  |
| FD-480    | SPCD-Airport Sect. Guideway/Util. FD   | SOM | 38,840,960  | 4,289,512   | 43,130,472  | 43,130,472  | 43,130,472  | 43,130,472  | 41,860,684  | 41,860,684       | 97%         |         |   |  |
| FD-440    | SPCD-Airport Station Group FD          | SOM | 10,177,365  | 1,396,487   | 11,573,852  | 11,573,852  | 10,635,793  | 10,635,793  | 10,059,820  | 10,059,820       | 87%         |         |   |  |
| FD-530    | SPCD - City Center Guideway/Util. FD   | SOM | 43,948,220  | 3,149,342   | 47,097,562  | 47,097,562  | 44,481,241  | 44,481,241  | 49,624,450  | 49,624,450       | 93%         |         |   |  |
| FD-550    | SPCD - Dillingham and Kaka'ako S.G. FD | SOM | 18,321,918  | 1,309,799   | 19,631,717  | 19,631,717  | 16,056,412  | 16,056,412  | 12,299,535  | 12,299,535       | 63%         |         |   |  |
| FD-600    | Park-and-Ride Lots Final Design        | SOM | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0                | 0           | 0%      |   |  |
| HRT-200   | HART Labor                             |     | 54,451,942  | 0           | 54,451,942  | 54,451,942  | 54,451,942  | 54,451,942  | 0           | 0                | 52,582,531  | 97%     |   |  |

\* Current Committed = Original Contract + CCO/Amendment

\*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)

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Costs Reported as of Month Ending: August 2016

**Project Monthly Cost Report by Contract - One Line Summary**  
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| CPP No  | Title                                 | A           |                   | B           |              | C=A+B       |                  | D         |  | E |  | F |  |
|---------|---------------------------------------|-------------|-------------------|-------------|--------------|-------------|------------------|-----------|--|---|--|---|--|
|         |                                       | Original    | COMMITTED Changes | Current *   | AFE**        | AFE**       | Incurred To Date | PERCENT % |  |   |  |   |  |
| HRT-201 | HART ODC Contracts                    | 23,443,584  | 82,122            | 23,525,706  | 503,132      | 23,525,706  |                  | 101%      |  |   |  |   |  |
| MM-300  | Fare Collection DFI                   | 15,464,198  | 0                 | 15,464,198  | 15,464,198   | 1,187,580   |                  | 8%        |  |   |  |   |  |
| MM-330  | Elevators & Escalators Install/Maint  | 50,982,714  | 1,016,321         | 51,999,035  | 6,511,316    | 6,431,405   |                  | 12%       |  |   |  |   |  |
| MM-280  | SPCD-WOFH/KHSG CE&I(REPA CK A GED)    | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-290  | Construction Engg & Insp CEI West     | 54,232,480  | 0                 | 54,232,480  | 16,650,000   | 28,830,033  |                  | 53%       |  |   |  |   |  |
| MM-385  | SPCD-Pearl Highlands Garage Rmpps CEI | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-500  | SPCD-By MM939 CEI East                | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-525  | SPCD-By MM939 CEI East                | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-580  | SPCD-By MM939 CEI East                | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-595  | SPCD - Const. Engng & Insp. CEI East  | 63,083,417  | -50,377,317       | 12,706,100  | (35,120,317) | 12,382,150  |                  | 97%       |  |   |  |   |  |
| MM-596  | Construction Engg & Insp CEI East 2   | 55,036,130  | 0                 | 55,036,130  | 55,036,130   | 7,093,182   |                  | 13%       |  |   |  |   |  |
| MM-600  | SPCD-UHWO Pkg-Hooplii Stn Frsh. CEI   | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-900  | Program Mgt Support Constt (PM SC-1)  | 15,952,569  | 0                 | 15,952,569  | 20,700,000   | 0           |                  | 0%        |  |   |  |   |  |
| MM-901  | Program Mgt Support Constt (PM SC-2)  | 33,376,897  | 19,444,023        | 51,820,920  | 45,124,813   | 44,846,463  |                  | 87%       |  |   |  |   |  |
| MM-905  | MM-905 Gen Engng Constt EIS/PE        | 0           | 78,564,942        | 78,564,942  | 78,564,942   | 74,157,822  |                  | 94%       |  |   |  |   |  |
| MM-910  | MM-910 Gen Engng Constt FD-Construct  | 150,000,000 | 0                 | 150,000,000 | 150,000,000  | 149,446,962 |                  | 100%      |  |   |  |   |  |
| MM-913  | MM-913 Gen Engng Recomplete           | 46,143,277  | 388,451           | 46,541,728  | 31,344,951   | 31,435,034  |                  | 68%       |  |   |  |   |  |
| MM-915  | HDOOT Traffic Mgmt. Consult.          | 1,600,000   | 2,400,000         | 4,000,000   | 7,000,000    | 3,541,700   |                  | 89%       |  |   |  |   |  |
| MM-920  | HDOOT Coordination Constt WOFH        | 3,000,000   | 6,500,000         | 9,500,000   | 10,750,000   | 7,438,359   |                  | 78%       |  |   |  |   |  |
| MM-921  | HDOOT Coordination Constt KHG         | 10,000,000  | -1,400,000        | 8,600,000   | 7,600,000    | 4,631,768   |                  | 54%       |  |   |  |   |  |
| MM-922  | HDOOT Coordination Constt Airport     | 12,000,000  | -5,600,000        | 6,400,000   | 4,400,000    | 2,941,585   |                  | 46%       |  |   |  |   |  |
| MM-923  | HDOOT Coordination Constt City Center | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-925  | HDOOT Labor - WOFH/KHSG Agreements    | 550,000     | 2,865,633         | 3,415,633   | 4,681,266    | 1,882,842   |                  | 55%       |  |   |  |   |  |
| MM-926  | HDOOT Labor - Airport Agreements      | 0           | 0                 | 0           | 0            | 0           |                  | 0%        |  |   |  |   |  |
| MM-930  | HDOOT State SOA Manager & Consultant  | 1,272,400   | 583,142           | 1,855,542   | 843,167      | 921,092     |                  | 50%       |  |   |  |   |  |
| MM-935  | Real Estate Consultant                | 3,000,000   | 5,077,665         | 8,077,665   | 8,077,165    | 7,179,131   |                  | 89%       |  |   |  |   |  |
| MM-937  | Real Estate Consultant - Maps/Surv.   | 2,998,000   | 0                 | 2,998,000   | 1,500,000    | 1,199,969   |                  | 40%       |  |   |  |   |  |
| MM-940  | Kako'o Consultant                     | 1,000,000   | 0                 | 1,000,000   | 500,000      | 526,643     |                  | 53%       |  |   |  |   |  |
| MM-941  | Kako'o Consultant II                  | 200,000     | 0                 | 200,000     | 200,000      | 50,000      |                  | 25%       |  |   |  |   |  |
| MM-945  | On-Call Contractor                    | 1,000,000   | 1,000,000         | 2,000,000   | 1,800,000    | 1,991,790   |                  | 100%      |  |   |  |   |  |
| MM-946  | On-Call Hazmat Removal Contractor     | 3,075,000   | 2,075,000         | 5,150,000   | 6,575,000    | 3,305,924   |                  | 64%       |  |   |  |   |  |
| MM-947  | On-Call Contractor 2                  | 7,500,000   | 0                 | 7,500,000   | 4,500,000    | 5,722,547   |                  | 76%       |  |   |  |   |  |
| MM-948  | On-call Contractor 3                  | 20,000,000  | 0                 | 20,000,000  | 0            | 38,245      |                  | 0%        |  |   |  |   |  |

\* Current Committed = Original Contract + CCO /Amendment

\*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)

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Costs Reported as of Month Ending: August 2016  
**Project Monthly Cost Report by Contract - One Line Summary**  
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| CPP No                | Title                                | A                    |                    | B                    |                      | C-A+B                |                   | D         |  | E |  | F |  |
|-----------------------|--------------------------------------|----------------------|--------------------|----------------------|----------------------|----------------------|-------------------|-----------|--|---|--|---|--|
|                       |                                      | Original             | COMMITTED Changes  | Current*             | AFE**                | AFE**                | Incurring To Date | PERCENT % |  |   |  |   |  |
| MM-950                | OCIP Consultant                      | 1,250,000            | 0                  | 1,250,000            | 1,250,000            | 0                    | 1,111,250         | 89%       |  |   |  |   |  |
| MM-951                | Owner-Controlled Insurance Program   | 41,000,000           | 0                  | 41,000,000           | 0                    | 33,483,433           | 82%               |           |  |   |  |   |  |
| MM-960                | Archaeological & Cultural Monitoring | 1,658,474            | 0                  | 1,658,474            | 1,658,474            | 1,498,404            | 90%               |           |  |   |  |   |  |
| MM-962                | Core Systems Support                 | 43,988,989           | 0                  | 43,988,989           | 3,600,000            | 17,943,863           | 41%               |           |  |   |  |   |  |
| MM-964                | Safety and Security Consultant       | 4,689,573            | 112,751            | 4,802,324            | 4,012,751            | 3,901,437            | 81%               |           |  |   |  |   |  |
| MM-970                | Fare Collection Consultant           | 1,178,300            | 0                  | 1,178,300            | 1,178,300            | 84,543               | 7%                |           |  |   |  |   |  |
| MM-975                | LEED Commissioning Services for MS F | 278,630              | 39,900             | 318,530              | 318,530              | 216,555              | 68%               |           |  |   |  |   |  |
| MM-982                | On Call Appraiser                    | 1,000,000            | 0                  | 1,000,000            | 0                    | 0                    | 0%                |           |  |   |  |   |  |
| OTHER                 | All Project Wide Documents           | 0                    | 0                  | 0                    | 0                    | 0                    | 0%                |           |  |   |  |   |  |
| PA-101                | Programmatic Agreement Humanities    | 0                    | 0                  | 0                    | 0                    | 0                    | 0%                |           |  |   |  |   |  |
| PA-102                | Programmatic Agreement HPC           | 400,000              | 0                  | 400,000              | 200,000              | 197,716              | 49%               |           |  |   |  |   |  |
| PA-103                | Programmatic Agreement HPC Park Impr | 0                    | 0                  | 0                    | 0                    | 0                    | 0%                |           |  |   |  |   |  |
| ROW                   | Real Estate / Right-of-Way           | 115,885,511          | 0                  | 115,885,511          | 121,992              | 114,060,267          | 98%               |           |  |   |  |   |  |
| UTIL                  | Utility Company Contracts            | 95,637,272           | -1,920,761         | 93,716,512           | 71,714,192           | 56,402,287           | 60%               |           |  |   |  |   |  |
| <b>Total Project:</b> |                                      | <b>3,004,097,465</b> | <b>371,869,963</b> | <b>3,375,967,428</b> | <b>2,678,599,125</b> | <b>2,311,615,419</b> |                   |           |  |   |  |   |  |

\* Current Committed = Original Contract + CCO/Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)

Project Costs by SCC – Level 2



Costs Reported as of Month Ending: August 2016  
**Project Monthly Cost Report by SCC Details**

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| SCC                                  | Title                                   | A             |              | B             |             | C-A+B       |             | D             |         | E           |       | F               |                        | G        |                  | H=C-G  |   | INCURRED |             |
|--------------------------------------|---|---------------|--------------|---------------|-------------|-------------|-------------|---------------|---------|-------------|-------|-----------------|------------------------|----------|------------------|--------|---|----------|-------------|
|                                      |   | Baseline      | Transfers    | BUDGET        | Transfers   | COMMITTED   | Current     | COMMITTED     | Current | AFE         | AFE** | Changes ID'd*** | Est. At Completion**** | Variance | Incurred To Date |        |   |          |             |
| <b>1. Subtotal 10 - 80 SCC Costs</b> |   |               |              |               |             |             |             |               |         |             |       |                 |                        |          |                  |        |   |          |             |
| 10.00                                | Guideway & Track Elements               | 1,114,215,747 | 45,723,923   | 1,159,938,476 | 550,778,923 | 35,382,261  | (368,443)   | 1,159,938,476 | 0       | 456,915,225 | 0     | 456,915,225     | 0                      | 17,378   | 0                | 17,378 | 0 | 17,378   |             |
| 10.02                                | Guideway: A-grade semi-exclusive        | 0             | 17,378       | 17,378        | 17,378      | 17,378      | 0           | 17,378        | 0       | 17,378      | 0     | 17,378          | 0                      | 0        | 0                | 0      | 0 | 0        | 17,378      |
| 10.04                                | Guideway: Aerial Structure              | 1,022,380,671 | 43,163,252   | 1,065,543,923 | 465,892,169 | 26,136,718  | (368,443)   | 1,065,543,923 | 0       | 385,591,008 | 0     | 385,591,008     | 0                      | 0        | 0                | 0      | 0 | 0        | 385,591,008 |
| 10.05                                | Guideway: Built-up fill                 | 0             | 0            | 0             | 0           | 0           | 0           | 0             | 0       | 4,588,992   | 0     | 4,588,992       | 0                      | 0        | 0                | 0      | 0 | 0        | 4,588,992   |
| 10.08                                | Guideway: Retained Cut or Fill          | 7,492,944     | (1,055,688)  | 6,436,256     | 6,436,256   | 0           | 0           | 6,436,256     | 0       | 0           | 0     | 6,436,256       | 0                      | 0        | 0                | 0      | 0 | 0        | 6,436,256   |
| 10.09                                | Track: Direct Fixation                  | 79,347,205    | 2,664,360    | 82,011,565    | 74,204,369  | 9,197,389   | 0           | 82,011,565    | 0       | 66,886,971  | 0     | 66,886,971      | 0                      | 0        | 0                | 0      | 0 | 0        | 66,886,971  |
| 10.11                                | Track: Ballasted                        | 3,293,724     | (595,849)    | 2,697,875     | 2,697,875   | 0           | 0           | 2,697,875     | 0       | 0           | 0     | 2,697,875       | 0                      | 0        | 0                | 0      | 0 | 0        | 2,697,875   |
| 10.12                                | Track: Special (Switches, turnouts)     | 1,700,803     | 1,530,876    | 3,231,479     | 1,530,876   | 30,876      | 0           | 3,231,479     | 0       | 30,876      | 0     | 3,231,479       | 0                      | 0        | 0                | 0      | 0 | 0        | 30,876      |
| 20.00                                | Stations: Terminals, Intermodal         | 421,804,740   | (1,404,030)  | 420,400,710   | 303,677,950 | 1,854,808   | 261,478     | 420,400,710   | 0       | 7,976,277   | 0     | 7,976,277       | 0                      | 0        | 0                | 0      | 0 | 0        | 7,976,277   |
| 20.01                                | A-grade station, shelter,...            | 6,111,332     | (6,111,332)  | 0             | 0           | 0           | 0           | 0             | 0       | 0           | 0     | 0               | 0                      | 0        | 0                | 0      | 0 | 0        | 0           |
| 20.02                                | Aerial Station, shelter, mail           | 294,563,457   | 7,429,453    | 301,992,910   | 251,678,915 | 785,600     | 0           | 301,992,910   | 0       | 1,544,873   | 0     | 1,544,873       | 0                      | 0        | 0                | 0      | 0 | 0        | 1,544,873   |
| 20.06                                | Automobile parking multi-story str      | 66,408,765    | 0            | 66,408,765    | 0           | 0           | 0           | 66,408,765    | 0       | 0           | 0     | 66,408,765      | 0                      | 0        | 0                | 0      | 0 | 0        | 66,408,765  |
| 20.07                                | Elevators, Escalators                   | 54,721,186    | (2,722,151)  | 51,999,035    | 51,999,035  | 1,069,208   | 261,478     | 51,999,035    | 0       | 6,431,405   | 0     | 6,431,405       | 0                      | 0        | 0                | 0      | 0 | 0        | 6,431,405   |
| 30.00                                | Support Facilities: Yards, Shops, Admin | 92,535,015    | 22,875,559   | 115,410,574   | 115,410,574 | 19,066,910  | 0           | 115,410,574   | 0       | 118,317,264 | 0     | 118,317,264     | 0                      | 0        | 0                | 0      | 0 | 0        | 118,317,264 |
| 30.01                                | Administration Bldg, Office, sales      | 0             | 231,250      | 231,250       | 231,250     | 231,250     | 0           | 231,250       | 0       | 231,250     | 0     | 231,250         | 0                      | 0        | 0                | 0      | 0 | 0        | 231,250     |
| 30.02                                | Light Maintenance Facility              | 7,591,888     | (9,184)      | 7,582,704     | 7,582,704   | (4,083)     | 0           | 7,582,704     | 0       | 7,582,704   | 0     | 7,582,704       | 0                      | 0        | 0                | 0      | 0 | 0        | 7,582,704   |
| 30.03                                | Heavy Maintenance Facility              | 38,099,138    | 5,108,668    | 43,207,806    | 43,207,806  | 5,950,776   | 0           | 43,207,806    | 0       | 45,285,178  | 0     | 45,285,178      | 0                      | 0        | 0                | 0      | 0 | 0        | 45,285,178  |
| 30.04                                | Storage or Maintenance of Way Buil      | 7,797,460     | 955,782      | 8,753,242     | 8,753,242   | 1,017,332   | 0           | 8,753,242     | 0       | 8,826,848   | 0     | 8,826,848       | 0                      | 0        | 0                | 0      | 0 | 0        | 8,826,848   |
| 30.05                                | Yard and Yard Track                     | 39,046,529    | 16,569,043   | 55,635,572    | 55,635,572  | 12,471,641  | 0           | 55,635,572    | 0       | 56,991,284  | 0     | 56,991,284      | 0                      | 0        | 0                | 0      | 0 | 0        | 56,991,284  |
| 40.00                                | Site work & Special Conditions          | 983,178,121   | 40,047,626   | 1,023,225,747 | 738,214,866 | 168,519,979 | (2,145,883) | 1,023,225,747 | 0       | 614,744,013 | 0     | 614,744,013     | 0                      | 0        | 0                | 0      | 0 | 0        | 614,744,013 |
| 40.01                                | Demolition, Clearing, Earthwork         | 29,380,158    | (9,065,868)  | 20,314,290    | 10,804,041  | 1,505,797   | (155,082)   | 20,314,290    | 0       | 5,264,374   | 0     | 5,264,374       | 0                      | 0        | 0                | 0      | 0 | 0        | 5,264,374   |
| 40.02                                | Site Utilities, Utility Relocation      | 299,449,756   | (515,106)    | 298,934,650   | 196,954,927 | 49,704,442  | 607,162     | 298,934,650   | 0       | 138,811,883 | 0     | 138,811,883     | 0                      | 0        | 0                | 0      | 0 | 0        | 138,811,883 |
| 40.03                                | Haz. mat'l, contain'd soil removal      | 9,199,237     | (3,184,433)  | 6,014,804     | 7,625,286   | 43,402,886  | (248,750)   | 6,014,804     | 0       | 4,609,151   | 0     | 4,609,151       | 0                      | 0        | 0                | 0      | 0 | 0        | 4,609,151   |
| 40.04                                | Environmental Mitigation                | 26,379,122    | 4,990,976    | 31,370,098    | 16,557,672  | 16,864      | 0           | 31,370,098    | 0       | 11,391,864  | 0     | 11,391,864      | 0                      | 0        | 0                | 0      | 0 | 0        | 11,391,864  |
| 40.05                                | Site structures, retaining walls,       | 7,998,960     | 11,000,743   | 18,999,703    | 14,896,105  | 4,749,257   | 0           | 18,999,703    | 0       | 8,421,047   | 0     | 8,421,047       | 0                      | 0        | 0                | 0      | 0 | 0        | 8,421,047   |
| 40.06                                | Pedestrian/bike access/landscaping      | 41,073,897    | (5,627,874)  | 35,446,023    | 5,818,888   | (2,019,259) | (2,349,213) | 35,446,023    | 0       | 2,511,704   | 0     | 2,511,704       | 0                      | 0        | 0                | 0      | 0 | 0        | 2,511,704   |
| 40.07                                | Auto, bus, van accessways               | 181,979,367   | (17,592,167) | 164,387,200   | 38,548,873  | 2,481,357   | 0           | 164,387,200   | 0       | 22,329,292  | 0     | 22,329,292      | 0                      | 0        | 0                | 0      | 0 | 0        | 22,329,292  |
| 40.08                                | Temporary Facilities/Indirect Cost      | 386,517,624   | 60,042,355   | 446,559,979   | 447,208,575 | 152,475,234 | 0           | 446,559,979   | 0       | 421,349,698 | 0     | 421,349,698     | 0                      | 0        | 0                | 0      | 0 | 0        | 421,349,698 |
| 50.00                                | Surveys, Testing, Investigation, I      | 0             | 0            | 0             | 0           | 0           | 0           | 0             | 0       | 55,000      | 0     | 55,000          | 0                      | 0        | 0                | 0      | 0 | 0        | 55,000      |
| 50.01                                | Systems                                 | 221,284,301   | 27,911,531   | 249,195,832   | 249,499,816 | 27,475,099  | 0           | 249,195,832   | 0       | 70,312,604  | 0     | 70,312,604      | 0                      | 0        | 0                | 0      | 0 | 0        | 70,312,604  |
| 50.02                                | Train control and signals               | 81,382,556    | 24,381,140   | 105,763,696   | 106,363,696 | 23,961,050  | 0           | 105,763,696   | 0       | 17,704,714  | 0     | 17,704,714      | 0                      | 0        | 0                | 0      | 0 | 0        | 17,704,714  |

Report: M\_C00\_pm\_00\_months\_V\_S00\_of\_00 - No. 23

Print Date: 9/9/16 13:46

\* Current Committed = Original Contract + CCO/Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)  
 \*\*\* Changes Identified= Pending + Probable + Potential Changes  
 \*\*\*\* Est. At Completion = Original Contract + CCO/Amendments + Changes Identified



Costs Reported as of Month Ending: August 2016  
**Project Monthly Cost Report by SCC Details**  
 8/26/16

| SCC                                  | Title                              | BUDGET             |                      | COMMITTED            | AFE                  | ESTIMATE AT COMPLETION | INURRED              |                 |                        |          |
|--------------------------------------|------------------------------------|--------------------|----------------------|----------------------|----------------------|------------------------|----------------------|-----------------|------------------------|----------|
|                                      |                                    | Transfers          | Current              |                      |                      |                        |                      | Changes ID'd*** | Est. At Completion**** | Variance |
|                                      |                                    | A                  | B                    | C=A+B                | D                    | E                      | F                    | G               | H=C-G                  | I        |
| <b>1. Subtotal 10 - 80 SCC Costs</b> |                                    |                    |                      |                      |                      |                        |                      |                 |                        |          |
| 50. Systems                          | 221,284,301                        | 27,911,531         | 249,195,832          | 249,499,816          | 27,475,099           | 0                      | 249,195,832          | 0               | 70,312,604             | 0        |
| 50.02                                | Traffic signals and crossing prot. | 10,459,226         | (206,890)            | 10,251,336           | 0                    | 0                      | 10,251,336           | 0               | 0                      | 0        |
| 50.03                                | Traction power supply: substation  | 29,500,926         | 1,816,880            | 31,317,806           | 3,495,115            | 0                      | 31,317,806           | 0               | 6,114,252              | 0        |
| 50.04                                | Traction power distribution: cat   | 32,876,150         | 5,059,938            | 37,937,988           | 7,941,115            | 0                      | 37,937,988           | 0               | 24,764,174             | 0        |
| 50.05                                | Communications                     | 59,691,339         | 6,139,477            | 59,824,816           | 5,573,419            | 0                      | 59,824,816           | 0               | 21,589,142             | 0        |
| 50.06                                | Fare collection system and equipm  | 9,159,277          | (9,112,878)          | 46,399               | 15,510,597           | (10,350,000)           | 46,399               | 0               | 140,322                | 0        |
| 50.07                                | Central Control                    | 3,613,827          | (160,036)            | 3,453,791            | 0                    | 0                      | 3,453,791            | 0               | 0                      | 0        |
| 60. ROW, Land, Existing Improvements | 197,397,947                        | 515,616            | 197,913,563          | 120,952,326          | 2,066,815            | 5,000,000              | 197,913,563          | 0               | 121,556,212            | 0        |
| 60.01                                | Purchase or lease of real estate   | 179,360,664        | 237,816              | 179,598,480          | 100,256,849          | 39,015                 | 179,598,480          | 0               | 106,621,736            | 0        |
| 60.02                                | Relocation of existing households  | 18,037,283         | 277,800              | 18,315,083           | 20,695,477           | 2,027,800              | 18,315,083           | 0               | 14,934,477             | 0        |
| 70. Vehicles                         | 186,829,020                        | 4,645,501          | 191,474,521          | 191,474,521          | 1,446,224            | 40,000                 | 191,474,521          | 0               | 51,075,860             | 0        |
| 70.01                                | Light Rail                         | 166,721,386        | 5,847,191            | 172,568,577          | 172,568,577          | 1,446,224              | 172,568,577          | 0               | 40,117,914             | 0        |
| 70.06                                | Non-revenue vehicles               | 14,346,923         | (1,320,375)          | 13,026,548           | 13,026,548           | 0                      | 13,026,548           | 0               | 10,957,946             | 0        |
| 70.07                                | Spare parts                        | 5,760,711          | 119,685              | 5,879,396            | 5,879,396            | 0                      | 5,879,396            | 0               | 0                      | 0        |
| 80. Professional Services            | 1,087,830,119                      | 39,741,540         | 1,127,571,659        | 1,099,301,873        | 113,591,046          | (26,631,584)           | 1,127,571,659        | 0               | 858,426,509            | 0        |
| 80.01                                | Preliminary Engineering            | 94,055,262         | 24,644,185           | 118,699,447          | 109,567,127          | 20,905,882             | 118,699,447          | 0               | 104,287,410            | 0        |
| 80.02                                | Final Design                       | 229,321,632        | (3,709,368)          | 224,612,264          | 208,598,909          | 33,659,483             | 224,612,264          | 0               | 175,878,619            | 0        |
| 80.03                                | Project Management Design & Cons   | 363,849,768        | (28,315,655)         | 335,534,113          | 407,718,547          | 84,939,428             | 335,534,113          | 0               | 343,645,427            | 0        |
| 80.04                                | Constr. Admin. & Management        | 199,656,728        | (34,420,307)         | 165,236,421          | 131,252,384          | (44,789,988)           | 165,236,421          | 0               | 99,264,962             | 0        |
| 80.05                                | Professional Liability & other Ins | 46,549,724         | 28,781,938           | 75,331,662           | 43,174,657           | 7,000,500              | 75,331,662           | 0               | 35,563,982             | 0        |
| 80.06                                | Legal: Permits Review Fees et al.  | 67,641,005         | (3,206,464)          | 64,434,541           | 39,894,525           | 6,832,053              | 64,434,541           | 0               | 24,278,617             | 0        |
| 80.07                                | Surveys, Testing, Investigation, I | 21,759,336         | 47,250,396           | 69,009,732           | 101,279,246          | 1,574,480              | 69,009,732           | 0               | 36,840,244             | 0        |
| 80.08                                | Start up                           | 65,396,664         | 8,716,816            | 74,713,480           | 57,816,477           | (775,809)              | 74,713,480           | 0               | 38,667,247             | 0        |
| A.C. Provisional Pay Requests        | 0                                  | 0                  | 0                    | 0                    | 0                    | 0                      | 0                    | 0               | 11,000,000             | 0        |
| ACR: Provisional Request For Payment | 0                                  | 0                  | 0                    | 0                    | 0                    | 0                      | 0                    | 0               | 11,000,000             | 0        |
| <b>Subtotal:</b>                     | <b>4,305,074,410</b>               | <b>180,056,673</b> | <b>4,485,131,083</b> | <b>3,369,310,350</b> | <b>369,343,242</b>   | <b>(24,444,432)</b>    | <b>4,485,131,083</b> | <b>0</b>        | <b>2,310,923,964</b>   | <b>0</b> |
| <b>2. NTP</b>                        |                                    |                    |                      |                      |                      |                        |                      |                 |                        |          |
| NTP Authorized For Expenditure       | 0                                  | 0                  | 0                    | 0                    | 2,306,224,661        | 0                      | 0                    | 0               | 0                      | 0        |
| NTP Notice To Proceed                | 0                                  | 0                  | 0                    | 0                    | 2,306,224,661        | 0                      | 0                    | 0               | 0                      | 0        |
| <b>Subtotal:</b>                     | <b>0</b>                           | <b>0</b>           | <b>0</b>             | <b>0</b>             | <b>2,306,224,661</b> | <b>0</b>               | <b>0</b>             | <b>0</b>        | <b>0</b>               | <b>0</b> |

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 Print Date: 9/9/16 13:46

\* Current Committed = Original Contract + CCO/Amendment  
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 \*\*\*\* Est. At Completion = Original Contract + CCO/Amendments + Changes Identified



Costs Reported as of Month Ending: August 2016  
**Project Monthly Cost Report by SCC Details**  
 8/26/16

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| SCC  | Title                            | A                    |               | B      |                      | C-A+B                |                    | D                    | E                  | F                    | G                      | H=C-G                |                  |
|--|----------------------------------|----------------------|---------------|--------|----------------------|----------------------|--------------------|----------------------|--------------------|----------------------|------------------------|----------------------|------------------|
|  |                                  | Baseline             | Transfers     | BUDGET | Transfers            | Current              | COMMITTED          | Current *            | AFE**              | Changes ID'd***      | ESTIMATE AT COMPLETION | Variance             | Incurred To Date |
| <b>3. Contingency</b>                        |                                  |                      |               |        |                      |                      |                    |                      |                    |                      |                        |                      |                  |
| CNTR   | Allocated Contingency            | 541,689,343          | (104,081,959) |        | 6,657,078            | 437,607,384          | 328,297,557        | 3,031,222            | 328,297,557        | 437,607,384          | 0                      | 681,455              |                  |
| 90.02  | Allocated Contract Contingency   | 540,101,329          | (106,891,281) |        | 4,031,222            | 433,209,948          | 328,330,869        | 3,031,222            | 328,330,869        | 433,209,948          | 0                      | 681,455              |                  |
| 90.03  | Allowances                       | 1,588,014            | 2,809,422     |        | 2,625,855            | 4,397,436            | (33,302)           | 0                    | (33,302)           | 4,397,436            | 0                      | 0                    |                  |
| 90.07  | Known Change Contingency         | 0                    | 0             |        | 0                    | 0                    | 0                  | 0                    | 0                  | 0                    | 0                      | 0                    |                  |
| PRJ  | Unallocated Contingency          | 101,871,170          | (75,974,714)  |        | 25,896,456           | 25,896,456           | 0                  | 0                    | 0                  | 25,896,456           | 0                      | 0                    |                  |
| 90.01  | Unallocated Project Contingency  | 101,871,170          | (75,974,714)  |        | 25,896,456           | 25,896,456           | 0                  | 0                    | 0                  | 25,896,456           | 0                      | 0                    |                  |
| <b>Subtotal:</b>                             |                                  | 643,560,513          | (180,056,673) |        | 6,657,078            | 463,503,840          | 328,297,557        | 3,031,222            | 328,297,557        | 463,503,840          | 0                      | 681,455              |                  |
| <b>4. Finance Charges - Eligible</b>         |                                  |                      |               |        |                      |                      |                    |                      |                    |                      |                        |                      |                  |
| OTH  | Finance Charges                  | 173,058,243          | 0             |        | 0                    | 173,058,243          | 0                  | 0                    | 0                  | 173,058,243          | 0                      | 0                    |                  |
| 100.1  | Finance Charges:Project-Eligible | 173,058,243          | 0             |        | 0                    | 173,058,243          | 0                  | 0                    | 0                  | 173,058,243          | 0                      | 0                    |                  |
| <b>Subtotal:</b>                             |                                  | 173,058,243          | 0             |        | 0                    | 173,058,243          | 0                  | 0                    | 0                  | 173,058,243          | 0                      | 0                    |                  |
| <b>FTA TOTAL PROJECT COSTS</b>               |                                  | <b>5,121,693,166</b> | <b>(0)</b>    |        | <b>3,375,967,428</b> | <b>5,121,693,166</b> | <b>303,853,125</b> | <b>2,678,599,125</b> | <b>303,853,125</b> | <b>5,121,693,166</b> | <b>0</b>               | <b>2,311,615,419</b> |                  |
| <b>4. Finance Charges - Ineligible Costs</b> |                                  |                      |               |        |                      |                      |                    |                      |                    |                      |                        |                      |                  |
| FINC   | Finance Charges                  | 42,000,000           | 0             |        | 0                    | 42,000,000           | 0                  | 0                    | 0                  | 42,000,000           | 0                      | 0                    |                  |
| 100.2  | FTA Non-Eligible Costs           | 42,000,000           | 0             |        | 0                    | 42,000,000           | 0                  | 0                    | 0                  | 42,000,000           | 0                      | 0                    |                  |
| <b>Subtotal:</b>                             |                                  | 42,000,000           | 0             |        | 0                    | 42,000,000           | 0                  | 0                    | 0                  | 42,000,000           | 0                      | 0                    |                  |
| <b>INELIGIBLE COSTS</b>                      |                                  |                      |               |        |                      |                      |                    |                      |                    |                      |                        |                      |                  |
|  |                                  | <b>42,000,000</b>    | <b>0</b>      |        | <b>0</b>             | <b>42,000,000</b>    | <b>0</b>           | <b>0</b>             | <b>0</b>           | <b>42,000,000</b>    | <b>0</b>               | <b>0</b>             |                  |
| <b>Total Project:</b>                        |                                  | <b>5,163,693,166</b> | <b>(0)</b>    |        | <b>3,375,967,428</b> | <b>5,163,693,166</b> | <b>303,853,125</b> | <b>2,678,599,125</b> | <b>303,853,125</b> | <b>5,163,693,166</b> | <b>0</b>               | <b>2,311,615,419</b> |                  |

\* Current Committed = Original Contract + CCO/Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)  
 \*\*\* Changes Identified= Pending + Probable + Potential Changes  
 \*\*\*\* Est. At Completion = Original Contract + CCO/Amendments + Changes Identified

Appendix C. Procurement and Contract Status

| Awarded Contracts |  |   |                |               |            |                                      |  |
|-------------------|--|---|----------------|---------------|------------|--------------------------------------|--|
| Contract Code     | Contract Name  | Contractor Name                           | Advertise Date | Contract Date | Issue NTP  | Contract Substantial Completion Date |  |
| DB-120            | West Oahu/Farrington Highway Guideway (WOFH)   | Kiewit Infrastructure West Company (KIWC) | Apr 03 '09     | Nov 11 '09    | Dec 01 '09 | Nov 16 '16                           |  |
| DB-200            | Maintenance and Storage Facility (MSF)   | Kiewit / Kobayashi Joint Venture (KKJV)   | Jul 24 '09     | June 30 '11   | Jul 25 '11 | Jul 02 '16                           |  |
| DB-320            | Kamehameha Guideway (KHG)  | Kiewit Infrastructure West Company (KIWC) | Mar 19 '10     | June 30 '11   | Jul 12 '11 | May 12 '17                           |  |
| DB-460            | Airport Guideway and Stations  | Shimmick/Taylor/Granite, JV               | Apr 07 '15     | TBD           | TBD        | NTP + 53 months                      |  |
| DBOM-920          | Core Systems Contract  | Ansaldò Honolulu JV                       | Aug 17 '09     | Nov 28 '11    | Jan 13 '12 | Mar 15 '19                           |  |
| MI-930            | Elevators and Escalators   | Schindler Elevator Corporation            | Dec 18 '12     | Jul 31 '13    | Aug 02 '13 | Jun 13 '18                           |  |
| FD-140            | West Oahu Station Group Final Design and Support                                     | URS Corporation                           | Jun 14 '10     | Jun 14 '12    | Jun 15 '12 | Jun 21 '17                           |  |
| FD-240            | Farrington Highway Station Group Final Design and Support - 2                        | URS Corporation                           | Jun 10 '13     | Sep 27 '13    | Sep 30 '13 | Nov 14 '16                           |  |
| FD-340            | Kamehameha Highway Station Group Final Design (includes H2/R2 Ramp) and Support      | Anli Verma Associates, Inc.               | Jun 28 '11     | Nov 15 '12    | Nov 26 '12 | Jun 14 '17                           |  |
| FD-430            | Airport Section Guideway and Utilities Final Design and Support                      | AECOM Technical Services, Inc.            | Jan 26 '11     | Dec 22 '11    | Jan 05 '12 | Jun 30 '17                           |  |
| FD-530            | City Center Section Guideway and Utilities Final Design and Support                  | AECOM Technical Services, Inc.            | Dec 16 '11     | Jul 30 '12    | Jul 31 '12 | Apr 30 '18                           |  |
| FD-440            | Airport Station Group Final Design and Support                                       | AECOM Technical Services, Inc.            | Mar 30 '12     | Nov 7 '12     | Nov 14 '12 | Jun 30 '17                           |  |
| FD-560            | Dillingham and Kaka'ako Station Groups "East Side Stations" Final Design and Support | Perkins+Will                              | Nov 16 '12     | Aug 15 '13    | Aug 19 '13 | Jul 30 '18                           |  |
| MM-290            | Construction Engineering & Inspection West Side Sections                             | PGH Wong Engineering, Inc.                | Jul 26 '13     | Jan 9 '14     | Jan 09 '14 | Jan 09 '20                           |  |
| MM-595            | Construction Engineering & Inspection East Side Sections                             | URS Corporation                           | Jul 26 '13     | Jan 07 '14    | Jan 09 '14 | Oct 09 '15                           |  |
| MM-301            | Program Management Support Consultant - 2 (PMSC-2)                                   | InfraConsult LLC                          | Aug 03 '11     | Feb 28 '12    | Mar 08 '12 | Mar 07 '17                           |  |
| MM-910            | General Engineering Consultant II (GEC-2) (Final Design and Construction)            | Parsons Brinckerhoff                      | Sep 03 '09     | Jun 30 '11    | Aug 02 '11 | Dec 31 '14                           |  |
| MM-913            | General Engineering Consultant III (GEC-3)   | CH2M HILL                                 | Jul 26 '13     | Dec 5 '13     | Dec 05 '13 | Apr 04 '19                           |  |
| MM-935            | Real Estate Consultant   | Paragon Partners, Ltd.                    | Apr 01 '11     | Mar 14 '12    | Mar 14 '12 | Mar 13 '17                           |  |
| MM-937            | Real Estate Mapping & Surveying  | R.M. Towill Corporation                   | Nov 15 '13     | May 22 '14    | May 23 '14 | May 21 '17                           |  |
| MM-940            | Kāko'o Consultant  | Pacific Legacy, Inc.                      | May 20 '11     | Mar 29 '12    | Mar 30 '12 | Feb 14 '17                           |  |
| MM-941            | Section 106 Programmatic Agreement Project Manager/Kāko'o II                         | Honus Consulting                          | Jun 26 '15     | Dec 08 '15    | Jan 04 '16 | Jan 03 '18                           |  |
| MM-950            | Owner-Controlled Insurance Program (OCIP) Consultant                                 | Marsh USA, Inc.                           | Jan 31 '12     | May 10 '12    | Jun 05 '12 | May 09 '17                           |  |
| MM-951            | Owner-Controlled Insurance Program (OCIP) Brokerage Services                         | Aon Risk Services, Inc., of Hawaii        | Jun 04 '13     | Apr 09 '14    | Apr 09 '14 | Mar 30 '19                           |  |
| MM-960            | Archaeological & Cultural Monitoring   | Cultural Surveys Hawai'i                  | Sep 10 '13     | Jan 15 '14    | Jan 15 '14 | Sep 10 '19                           |  |
| MM-962            | CORE Systems Support   | Lea-Elliott, Inc.                         | Sep 13 '13     | Feb 10 '14    | Feb 11 '14 | Sep 10 '19                           |  |
| MM-964            | Safety / Security Support  | Lawson & Associates, Inc.                 | Oct 23 '13     | Apr 23 '14    | May 01 '14 | Dec 14 '17                           |  |
| MM-975            | LEED Commissioning Services for the Maintenance and Storage Facility (MSF)           | Enovity, Inc.                             |                | Oct 6 '10     | Oct 07 '10 | Aug 31 '17                           |  |
| PA-102            | Historic Architecture Design Services  | Fung Associates, Inc.                     | Mar 15 '13     | Aug 1 '13     | Aug 01 '13 | Oct 28 '16                           |  |
| MM-915            | HDOT Traffic Management Coordination Consultant                                      | ICX Transportation Group, Inc.            | Aug 15 '11     | Jun 5 '12     | Jun 12 '12 | Jun 11 '17                           |  |
| MM-920            | HDOT Design Coordination Consultant - West Oahu/Farrington Highway Guideway Section  | AECOM Technical Services, Inc.            |                | Jun 7 '11     | Jun 08 '11 | Jun 07 '18                           |  |
| MM-921            | HDOT Design Coordination Consultant - Kamehameha Highway Guideway Section            | AECOM Technical Services, Inc.            |                | Jun 28 '12    | Jun 29 '12 | Jun 30 '17                           |  |
| MM-922            | HDOT Design Coordination Consultant - Airport and City Center Guideway Sections      | SSFM International, Inc.                  |                | Jun 8 '12     | Jun 12 '12 | Jun 13 '17                           |  |

| Awarded Contracts |  |  |                |               |            |                                      |  |
|-------------------|--|--|----------------|---------------|------------|--------------------------------------|--|
| Contract Code     | Contract Name  | Contractor Name                                  | Advertise Date | Contract Date | Issue NTP  | Contract Substantial Completion Date |  |
| MM-925            | HDOT Labor Master Agreement WOFH                                   | HDOT   |                | Oct 27 '10    | Oct 27 '10 | Oct 27 '19                           |  |
| MM-936            | Real Estate Contractor Contract "II"                               | Colliers International HI, LLC                   | Mar 04 '16     | Sep 13 '16    | Sep 13 '16 | NTP + 48 months                      |  |
| MM-945            | On-Call Construction Contractor                                    | Royal Contracting Co. Ltd.                       | Jun 02 '14     | Aug 6 '14     | Aug 14 '14 | Jul 06 '19                           |  |
| MM-946            | On-Call Hazardous Materials (HazMat) Removal Contractor            | CH2M HILL  |                | Aug 23 '12    | Sep 07 '12 | Aug 22 '19                           |  |
| MM-947            | On-Call Construction Contractor II                                 | Royal Contracting Co. Ltd.                       | Mar 17 '15     | May 21 '15    | May 21 '15 | May 21 '20                           |  |
| MM-948            | On-Call Construction Contract "III"                                | Royal Contracting Co. Ltd.                       | Feb 23 '16     | May 09 '16    | May 16 '16 | NTP + 84 months                      |  |
| MM-956            | Construction Engineering and Inspection (CE&I) "II" Contract       | Stantec Consulting Services                      | Mar 25 '15     | Sep 10 '15    | Sep 14 '15 | Dec 31 '19                           |  |
| MM-970            | Fare Collection System Technical Support Consultant                | CH2M HILL  | Mar 24 '15     | Oct 22 '15    | Oct 23 '15 | Dec 31 '19                           |  |
| MM-980            | Complex Construction Claims Negotiation and Litigation Services    | Arcadis U.S., Inc.                               | Apr 27 '16     | Jun 29 '16    | TEO        | NTP + 60 months + 3 year option      |  |
| MM-980            | Complex Construction Claims Negotiation and Litigation Services    | Hill International Consulting, Inc.              | Apr 27 '16     | Jun 29 '16    | Aug 30 '16 | NTP + 60 months + 3 year option      |  |
| MM-980            | Complex Construction Claims Negotiation and Litigation Services    | Kobayashi Sugita & Goda, LLP                     | Apr 27 '16     | Jun 29 '16    | TEO        | NTP + 60 months + 3 year option      |  |
| MM-981            | Complex Real Property Negotiations and Litigation Support Contract | Shann O'Toole Marcus & Fisher, A Law Corporation | Feb 23 '16     | Sep 09 '16    | Sep 09 '16 | NTP + 24 months + 2 year option      |  |
| MM-982            | On Call Appraisers   | ACM Consultants, Inc.                            | Mar 18 '16     | Jun 23 '16    | Jun 23 '16 | NTP + 48 months                      |  |
| MM-983            | Outside Counsel for Land Court Petition Services                   | Imanaka Asato                                    | May 13 '16     | TEO           | TEO        | NTP + 36 months                      |  |
| MI-900            | Fare Systems Contract  | NIT Innovations in Transportation, Inc.          | Aug 11 '15     | Apr 14 '16    | Apr 18 '16 | Apr 17 '26                           |  |
| DBB-386           | Ramp H2R2  | Royal Contracting Co. Ltd.                       | Jan 30 '15     | May 18 '15    | May 18 '15 | Oct 02 '16                           |  |
| DBB-505           | Airport Section Utilities Construction                             | Nan, Inc.  | Dec 17 '13     | Jun 30 '14    | Oct 6 '14  | Jul 13 '16                           |  |
| DBB-525           | Airport Section Guideway Seven (7) Pier Construction Contract      | HDCC / CJA JV                                    | Jul 08 '14     | Sep 18 '14    | Sep 18 '14 | Apr 22 '15                           |  |
| DBB-271           | Farrington Hwy Stations Group Construction                         | Hawaiian Dredging Construction Company, Inc.     | Dec 19 '14     | Jun 22 '15    | Aug 17 '15 | NTP + 29 months                      |  |
| DBB-171           | West O'ahu Stations Group Construction                             | Nan, Inc.  | Apr 13 '15     | Jul 20 '15    | Oct 13 '15 | NTP + 29 months                      |  |
| DBB-371           | Kamehameha Hwy Stations Group Construction                         | Nan, Inc.  | Aug 18 '15     | Nov 17 '15    | TEO        | NTP + 32 months                      |  |
|                   | Independent Financial Auditor "II" Contract                        | KMH LLP  | Oct 26 '15     | Mar 15 '16    | Mar 23 '16 | Mar 22 '18                           |  |

Appendix D. Vehicle Car Shell Progress Tracker

HONOLULU AB R.C. FABRICATION TRACKER

| TRAIN NUMBER | CAR SHELL SERIAL NUMBER | CENTER ROOF ASSY & WELDING | CENTER FLOOR MACHINING (2 PANEL SET) | CENTER ROOF MACHINING (2 PANEL SET) | ROOF ASSY & WELDING | ROOF WELDING PARTS | FINAL ROOF INSPECTION | UNDER FRAME ASSY & WELDING | UNDER FRAME WELDING PARTS | UNDERFRAME INSPECTION | UNDER FRAME CLEANING AND PAINTING | CAR SHELL ASSY & WELDING Station #7 | CAR SHELL CALIBRATION & TESTING | WATER TEST | PAINTING | INSULATION | FLOORING | FRONT MASK (E CAR ONLY) | CAR SHELL FINAL INSPECTION | COMPLETED CAR SHELL | FAI | CRADLES INSTALLED | DATE SHIPPED FROM RC | DATE OF PORT DEPARTURE | DATE OF ETA TO PITTSBURG |
|--------------|-------------------------|----------------------------|--------------------------------------|-------------------------------------|---------------------|--------------------|-----------------------|----------------------------|---------------------------|-----------------------|-----------------------------------|-------------------------------------|---------------------------------|------------|----------|------------|----------|-------------------------|----------------------------|---------------------|-----|-------------------|----------------------|------------------------|--------------------------|
| #1           | M1001 (CAR 31)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1002 (CAR 32)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1003 (CAR 33)          | E1003                      |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1004 (CAR 34)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #2           | M1005 (CAR 35)          | USED FOR E/Z               |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1006 (CAR 36)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1007 (CAR 37)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1008 (CAR 38)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #3           | M1009 (CAR 39)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1010 (CAR 40)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1011 (CAR 41)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1012 (CAR 42)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #4           | M1013 (CAR 43)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1014 (CAR 44)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1015 (CAR 45)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1016 (CAR 46)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #5           | M1017 (CAR 47)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1018 (CAR 48)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1019 (CAR 49)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1020 (CAR 50)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #6           | M1021 (CAR 51)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1022 (CAR 52)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1023 (CAR 53)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1024 (CAR 54)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #7           | M1025 (CAR 55)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1026 (CAR 56)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1027 (CAR 57)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1028 (CAR 58)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #8           | M1029 (CAR 59)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1030 (CAR 60)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1031 (CAR 61)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1032 (CAR 62)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #9           | M1033 (CAR 63)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1034 (CAR 64)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1035 (CAR 65)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1036 (CAR 66)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
| #10          | M1037 (CAR 67)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1038 (CAR 68)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1039 (CAR 69)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |
|              | M1040 (CAR 70)          |                            |                                      |                                     |                     |                    |                       |                            |                           |                       |                                   |                                     |                                 | N/A        |          |            |          |                         |                            |                     |     |                   |                      |                        |                          |

Date: 09/19/2016

\* - None  
 \* - None  
 rec2 welding part HVAC

COMPLETE  
 IN PROGRESS  
 NEXT STATION  
 CHANGED  
 TEST UNIT  
 DATES  
 ESTIMATED COMPLETION OR SHIPPING

Appendix E. Project Organization Chart

June 27, 2016

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

Prepared by:  
 [Signature] Administrative Specialist  
 Date: 6/22/16

Concur:  
 [Signature] Director of Administrative Services  
 Date: 6/22/16

Approved:  
 [Signature] Executive Director & CEO  
 Date: 6/23/16

