

# HONOLULU RAIL TRANSIT PROJECT



## December 2015 MONTHLY PROGRESS REPORT



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

**THIRD PARTY DISCLAIMER**

This report and all subsidiary reports are prepared for the Federal Transit Administration (FTA). This report should not be relied upon by any party, except the FTA or HART, in accordance with the purposes as described below.

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: West O'ahu Farrington Highway Guideway along Farrington Highway looking Waianae.

Upper right: West O'ahu Farrington Highway Guideway along Farrington Highway near Waipahu High School.

Lower right: Rail Operations Center (aka Maintenance and Storage Facility) site.

**TABLE OF CONTENTS**

TABLE OF FIGURES ..... 4

LIST OF ACRONYMS ..... 5

PROJECT MAP ..... 8

PROGRESS REPORT SUMMARY OF CHANGES..... 9

1 EXECUTIVE SUMMARY ..... 11

2 OVERALL PROJECT PROGRESS AND FINANCIALS ..... 13

    2.1 Project Progress ..... 13

    2.2 Project Budget ..... 15

    2.3 Project Contingency ..... 15

    2.4 Project Funding ..... 17

    2.5 Project Revenue and Costs ..... 19

3 SCHEDULE..... 20

4 CONTRACT STATUS ..... 23

    4.1 System-Wide ..... 26

    4.2 Section I – West O’ahu/Farrington Highway: East Kapolei to Pearl Highlands ..... 33

    4.3 Section II – Kamehameha Highway: Pearl Highlands to Aloha Stadium ..... 45

    4.4 Section III – Airport: Aloha Stadium to Middle Street Transit Center Station ..... 53

    4.5 Section IV – City Center: Middle Street Transit Center Station to Ala Moana Center..... 61

    4.6 Project-Wide ..... 65

5 OVERALL PROJECT-WIDE ACTIVITIES ..... 72

    5.1 Permits ..... 74

    5.2 Hawai’i Department of Transportation (HDOT) Agreements ..... 74

    5.3 Utility Agreements ..... 75

    5.4 Right-of-Way ..... 77

6 MANAGEMENT AND ADMINISTRATIVE UPDATES ..... 82

    6.1 Safety and Security ..... 85

    6.2 Quality Management ..... 90

    6.3 Buy America Compliance ..... 95

    6.4 Disadvantaged Business Enterprise (DBE) ..... 95

    6.5 Planning and Environment..... 96

    6.6 Risk Management ..... 97

    6.7 Community Outreach ..... 101

    6.8 Staffing ..... 102

APPENDICES..... 104

    A. Action Items ..... 105

    B. Project Contingency Management General Background and Clarifications ..... 106

    C. Project Cost Reports ..... 112

    D. Procurement and Contract Status..... 119

    E. Vehicle Carshell Progress Tracker ..... 121

    F. DBE Participation..... 122

    G. Risk ..... 125

    H. Project Organization Chart ..... 126

    I. Indices on Key Commodities ..... 127

    J. Project Photos ..... 128

**Table of Figures**

Figure 1. Overall Project Progress (% Complete) ..... 13

Figure 2. Construction Progress (% Complete) ..... 13

Figure 3. Design Progress (% Complete) ..... 14

Figure 4. Utilities Progress (% Complete)..... 14

Figure 5. Project Contingency Budget..... 15

Figure 6. Draft Cost Contingency Drawdown Chart ..... 16

Figure 7. Planned vs. Received Project Funding..... 17

Figure 8. Project Funding Sources (YOE \$M)..... 17

Figure 9. New Starts Drawdown by Federal Fiscal Year ..... 18

Figure 10. Project Revenue versus Incurred Costs..... 19

Figure 11. Cash Balance Summary ..... 19

Figure 12. HRTP Master Project Schedule Summary (MPSS)..... 21

Figure 13. Right-of-Way Status for the Parcels ..... 77

Figure 14. Relocation Status for the Occupants..... 79

Figure 15. Third-Party Agreement Status..... 79

Figure 16. DBE Participation this Month ..... 95

Figure 17. Risk Matrix..... 99

Figure 18. Top Project Risks ..... 99

Figure 19. Risks Added ..... 100

Figure 20. Risks Deleted ..... 100

Figure 21. HART shared the most recent photos of its rail cars in production ..... 101

Figure 22. HART’s Shop, Dine & Shuttle launched Sunday, Dec. 13 ..... 101

Figure 23. Staffing Activities..... 102

Figure 24. Project Staffing (Actual vs. Planned) ..... 103

LIST OF ACRONYMS

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

H RTP	Honolulu Rail Transit Project	PICM	Project Interface Control Manual
HTI	Hawaiian Telcom	PIG	Permitted Interaction Group
HTL	Hazard Tracking Log	PIM	Project Interface Manager
HVAC	Heating, Ventilation and Air Conditioning	PLA	Project Labor Agreement
I&T	Inspection & Testing	PLO	Priority-Listed Offerors
IAMR	Interstate Access Modification Report	PM	Project Managers
ICCS	Integrated Communications Control System	PMC	Project Management Consultant
ICD	Interface Control Documents	PMIM	Project Management and Interface Management
ICE	Independent Cost Estimate	PMOC	Project Management Oversight Contractor
ICM	Interface Control Manual	PMSC	Program Management Support Consultant
IDS	Intrusion Detection System	PPE	Personal Protective Equipment
IFC	Issued for Construction	PSG	Platform Screen Gate
IJ	Insolation Joint	PSGS	Platform Screen Gate System
INMS	Integrated Network Management System	PV	Passenger Vehicle
ITP	Inspection and Test Plan	QA	Quality Assurance
ITS	Intelligent Transportation Systems	QAM	Quality Assurance Manager
JTMS	Joint Traffic Management System	QAP	Quality Assurance Plan
JU&O	Joint Use & Occupancy	QC	Quality Control
JUOA	Joint Use and Occupancy Agreement	QMP	Quality Management Plan
KCDD	Kaka'ako Community Development District	QMS	Quality Management System
KCH	Kanehili Cultural Hui	QTF	Quality Task Force
KHG	Kamehameha Highway Guideway	R&R	Revise & Re-submit
KHSG	Kamehameha Highway Station Group	RAC	Rail Activation Committee
KIWC	Kiewit Infrastructure West Company	RAMP	Real Estate Acquisition and Relocation Management Plan
KKJV	Kiewit/Kobayashi Joint Venture	RCMP	Risk and Contingency Management Plan
LCC	Leeward Community College	RCP	Reinforced Concrete Pipe
LEED	Leadership in Energy and Environmental Design	RE	Resident Engineer
LPR	License Plate Reader	READ	Real Estate Acquisition Database
LRV	Light Rail Vehicle	RFC	Request for Change
MIM	Manufacture-Install-Maintain	RFI	Requests for Information
MMIS	Maintenance Management Information System	RFID	Requests for Interface Data
MMP	Mitigation Monitoring Program	RFMP	Rail Fleet Management Plan
MOT	Maintenance of Traffic	RFPP	Request for Proposals
MOU	Memorandum of Understanding	RFQ	Request for Qualifications
MOW	Maintenance of Way	ROC	Rail Operations Center
MPS	Master Project Schedule	ROD	Record of Decision
MPSS	Master Project Schedule Summary	ROE	Right of Entry
MPV	Multiple Purpose Vehicle	ROW	Right-of-Way
MS4	Municipal Separate Storm Sewer System	RR	Risk Register
MSE	Mechanically Stabilized Earth	RSD	Revenue Service Date
MSF	Maintenance and Storage Facility	RTM	Requirements Traceability Matrix
MTM	Modern Track Machineries	RTSA	Regional Transit Stabilization Agreement
NCE	Non-Conformance Evaluation	S1	Segment 1
NCR	Non-Conformance Report	SAIS	Supplemental Archaeological Inventory Survey
NDC	Notice of Design Change	SCADA	Supervisory Control and Data Acquisition
NEPA	National Environmental Policy Act	SCAP	Stream Channel Alteration Permit
NHL	National Historic Landmark	SCC	Standard Cost Category
NOI	Notice of Intent	SHPD	State Historic Preservation Division
NPDES	National Pollutant Discharge Elimination System	SIC	Sandwich Isle Communications
NPS	National Park Service	SIT	System Integration Testing
NR	National Register	SLAN	Station Local Area Network
NRHP	National Register of Historic Places	SOG	Slab on Grade
NSM	Negotiation Strategy Memo	SOI	Secretary of the Interior
NTP	Notice to Proceed	SOW	Scope of Work
NTS	Network Time Server	SP	Special Provisions
O&M	Operations and Maintenance	SQP	Supplemental Quality Plan
OCC	Operations Control Center	SSC	Safety Security Certification
OCIP	Owner-Controlled Insurance Program	SSCP	Safety and Security Certification Plan
OIBC	O'ahu Island Burial Council	SSCWG	Safety and Security Certification Working Group
OIL	Open Items List	SSI	Sensitive Security Information
OMPO	Oahu Metropolitan Planning Organization	SSMP	Safety and Security Management Plan
ORCC	Operational Readiness Conformance Checklists	SSRC	Safety and Security Review Committee
OSB	Operations and Servicing Building	SSSP	Site Safety Security Plan
OSHA	Occupational Safety and Health Administration	STCC	Spec/Testing Conform Checklists
OTS	O'ahu Transit Services	SWPPP	Storm Water Pollution Prevention Plan
OTW	Oceanic Time Warner	T&M	Time and Material
OTWC	Oceanic Time Warner Cable	TCCR	Train Control and Communications Room
PA	Programmatic Agreement	TCP	Traffic Control Plan
PAIS	Programmatic Agreement Implementation Schedule	TCS	Train Control System
PARs	Preventative Actions	TES	Traction Electrification System
PB	Parsons Brinckerhoff, Inc.	TIGER	Transportation Investment Generating Economic Recovery
PE	Preliminary Engineering	TOC	The Outdoor Circle
PGC	Pacific Guardian Center	TOD	Transit-Oriented Development
PHA	Preliminary Hazard Analysis	TPO	Thermoplastic Olefin

TPSS	Traction Power Sub-Station	VRCS	Voice Radio Communication System
TSA	Transportation Security Administration	VRF	Variable Refrigerant Flow
TSI	Transportation Safety Institute	WA	Work Area
TVA	Threat & Vulnerability Assessments	WHS	Waipahu High School
TVM	Ticket Vending Machine	WL	West Loch
TWF	Train Wash Facility	WOEDA	West Oahu Economic Development Association
UCA	Utility Construction Agreement	WOFH	West O'ahu/Farrington Highway
UFCRA	Utility Facilities Relocation and Cost Reimbursement Agreement	WOSG	West O'ahu Station Group
UH	University of Hawai'i	WSS	West Side Stations
UHOWO	University of Hawai'i West O'ahu	WSSG	West Side Station Group
UL	Underwriters Laboratories	WTB	Wheel Truing Building
UPS	Uninterrupted Power Supply	WYL	West Yard Lead
VRCS	Voice Radio Communication System	YCB	Yard Control Bungalow
USACE	U.S. Army Corps of Engineers	YOE	Year of Expenditure
USDOT	U.S. Department of Transportation		
VE	Value Engineering		

### PROJECT MAP



## PROGRESS REPORT SUMMARY OF CHANGES

The following is a brief summary of changes that have occurred from the previous month's report. For more information and detail, please refer to the respective pages in the report.

### Project Contingency

- The current contingency balance has decreased. Please see pages 15-16.

### Project Funding

- The Section 5309 New Starts Revenue amount received has increased. Please see pages 17-18.
- The total amount of cash received has increased. Please see pages 17-18.

### Project Revenue and Costs

- The ending cash balance amount has decreased. Please see page 19.

### Contracts in Procurement

- HART entered into a contract for Section 106 Programmatic Agreement Project Manager (Kāko'o "II"). Please see page 25.
- HART awarded the Design-Bid-Build contract for Kamehameha Highway Stations Group construction and a protest was filed. Please see page 25.
- The City Center Guideway and Stations (CCGS) Design-Build RFP Part 2 issuance date has been extended. Please see page 25.
- Procurements for the Dillingham Utilities and Roadway Design-Bid-Build Contract, UH West O'ahu Temporary Park and Ride and UH West O'ahu Campus Road "B" Design-Bid-Build Contract, and Pearl Highlands Garage, Transit Center and Ramp H2R1 Design-Build Contract are under evaluation. Please see page 25.

### Contract Status

- Core Systems Contract (CSC)
  - An Earned Value percentage for the contract has been included, and the percentages for Project-Wide and Passenger Vehicle completion were removed. Please see page 27.
- Fare Collection System
  - The full roll out on rail date has shifted to a later date. Please see page 32.
- West O'ahu Farrington Highway Guideway (WOFH)
  - The current contract value has increased. Please see page 33.
- Maintenance and Storage Facility (MSF)
  - The current contract value has increased. Please see page 41.
- Kamehameha Highway Guideway (KHG)
  - The current contract value has increased. Please see page 45.
- City Center Section Guideway and Utilities
  - The current contract value has increased. Please see page 61.

**Risk Management**

- The total number of risks in the risk register has decreased. Please see pages 97-100 and 125.
- The City Center Guideway and City Center Stations Group risks were combined in the risk register. Please see pages 97-100 and 125.

**Staffing**

- The total actual number of employees has increased. Please see page 103.

**Appendix D. Procurement and Contract Status**

- The dates for the City Center Guideway and Stations contract, Kamehameha Highway Stations Group Construction contract, and the Dillingham Utilities and Roadway contract are under evaluation, and have been changed to TBD. Please see page 120.

**Appendix H. Project Organization Chart**

- The organization chart has been updated to reflect personnel changes. There are no major structural changes to the current chart. Please see page 126.

# 1 EXECUTIVE SUMMARY

## KEY ACTIVITIES THIS MONTH

### Project Overview

The Honolulu Authority for Rapid Transportation (HART) is steadily making progress on the construction of the Honolulu rail system. Crews have completed approximately 275 columns and have stressed more than 225 spans for the West O’ahu Farrington Highway and Kamehameha Highway Guideway contracts. At the Maintenance and Storage Facility site, work on the facility is nearing 90% completion. In Pittsburg, CA, passenger vehicle crews continued installation work on the first four carshells at the final assembly facility. Meanwhile, the fifth and sixth carshells are in transit to the final assembly facility.



### HART Launches Shopping Shuttle

HART launched its new “Shop, Dine & Shuttle” program, which is designed to support local businesses along Kamehameha Highway in Pearl City and Aiea that are impacted by construction.

The free circular shuttle program features two vehicles, including an open-air trolley and a mini-bus, to take area residents and visitors to approximately a dozen shopping destinations along Kamehameha Highway.

The “Shop, Dine & Shuttle” program is presented by HART and its transportation partners, which include Move Oahu Forward and E Noa Tours. For more information on the program, please visit [www.ShopAndDineOnTheLine.com](http://www.ShopAndDineOnTheLine.com).

### Cost:

Project Costs Summary Through Nov. 27, 2015		
	Current Budget (\$M)	Incurred To Date (\$M)
Project Budget	\$4,460.4	\$1,833.9
Project Contingency	\$488.2	\$0.5
Finance Charges*	\$173.1	\$0.0
<b>TOTAL</b>	<b>\$5,121.7</b>	<b>\$1,834.4</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* Through Nov. 27, 2015			
	Actual	Early Plan	Late Plan
Overall Project Progress	41.8%	69.2%	61.0%
Overall Construction Progress	33.7%	62.6%	53.4%
Overall Design Progress	87.4%	99.6%	98.2%
Overall Utilities Progress	39.7%	85.6%	73.0%

\*All 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.

HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. Forecasts indicated an increase to project costs and a completion in 2021.

**Overview:**Core Systems Contract (CSC)

The CSC contractor is continuing to progress through Final Design. Qualification and design verification tests are ongoing. Construction interface with the MSF contractor (KKJV) is ongoing. AHJV is on site and has finalized the Yard Control Bungalow (YCB) roof structures. Installation of lighting fixtures and HVAC units are ongoing at the Yard Control Bungalow. AHJV completed the fire detection wiring at the MSF MOW building and is finalizing the wiring operation at the MSF OSB building. Installation activities are ongoing for the first four passenger vehicle carshells. (See Section 4.1.A for details)

Elevators and Escalators Manufacture-Install-Maintain Contract

The Elevator/Escalator contractor has completed final design for the WOSG, FHSG and KHSG stations. The contractors for FHSG and WOSG must provide an acceptable schedule in order for the manufacturing of the equipment to be released. Bid opening for the KHSG contract occurred in November, and NTP is planned for January 2016. (See Section 4.1.B for details)

West O'ahu Farrington Highway (WOFH) Contract

HART and Kiewit Infrastructure West Company (KIWC) continue to work together to ensure that quality and safety are the highest priorities. KIWC submitted a revised baseline schedule dated October 2014 which is progressed monthly and submitted with the progress payment in accordance with the WOFH contractual requirement. The most recent progress schedule, through November 2015, reflects a nearly six month delay to the contractual substantial completion date specific to the LCC portables, parking lot, and access structure construction work activities. This schedule has not yet been accepted by HART and is under review. HART continues to monitor KIWC production rates as it relates to potential schedule impacts, and both parties continue to work together to mitigate the impacts to the critical path activities associated with the LCC construction work. A revised baseline schedule was submitted via contract Request for Change (RFC) by KIWC in August 2015 and it is anticipated that a Contract Change Order will be required to accept the revised baseline schedule and updated substantial completion date. (See Section 4.2.A for details)

Maintenance and Storage Facility (MSF) Contract

The contractor is continuing with preparation for rail car delivery anticipated in spring of 2016. The turnover of Phase 2 Storage Tracks to CSC is complete. Coordinating with the abutting WOFH mainline contractor continues for completion of site access in the east and west yards, including rail, vehicular access, and utility interconnection. Building finishes and mechanical, electrical and plumbing installations are continuing for the Operations and Servicing Building (OSB), Maintenance of Way (MOW) and Wheel Truing Building (WTB). Structural steel erection is complete for the Train Wash Facility (TWF). Installation of rail is continuing for the tracks heading toward the Train Wash Facility. Subballast and ballast installation is ongoing for the West Yard and East Yard Lead tracks. (See Section 4.2.D for details)

Kamehameha Highway Guideway (KHG) Contract

HART and Kiewit Infrastructure West Company (KIWC) continue to work together to ensure that quality and safety are the highest priorities. Per KIWC's progress schedule, as submitted with the application for payment, the contract is twelve months behind schedule, which includes the guideway structure completion in April 2017 and the remaining roadway civil work being completed by September 2017. This schedule has not yet been accepted by HART and is under review. A revised baseline schedule was submitted via contract Request for Change (RFC) by KIWC in September 2015 and it is anticipated that a Contract Change Order will be required to accept the revised baseline schedule and updated substantial completion date. (See Section 4.3.A for details)

Airport Section Utilities (ASU) Construction Contract

The Airport Section Utilities contract continues to be impacted by differing and unforeseen site conditions. In spite of these impediments, work is proceeding along Kamehameha Highway, Airport and the Nimitz Off-Ramp area. On Sept. 2, Nan was notified that work related to the telecom duct bank at Valkenburgh would be deleted from the contract. Nan continues to progress on utility relocation along Kamehameha Highway. (See Section 4.4.B for details)

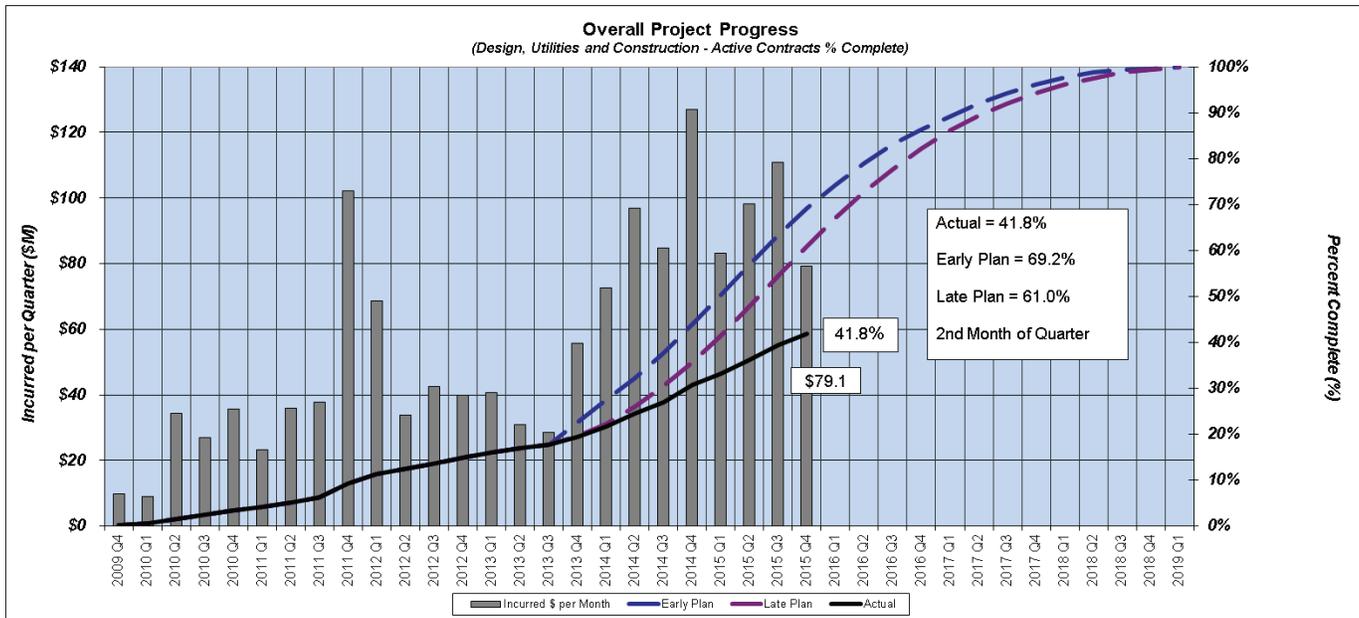
## 2 OVERALL PROJECT PROGRESS AND FINANCIALS

### 2.1 Project Progress (data as of Nov. 27, 2015)

All 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.

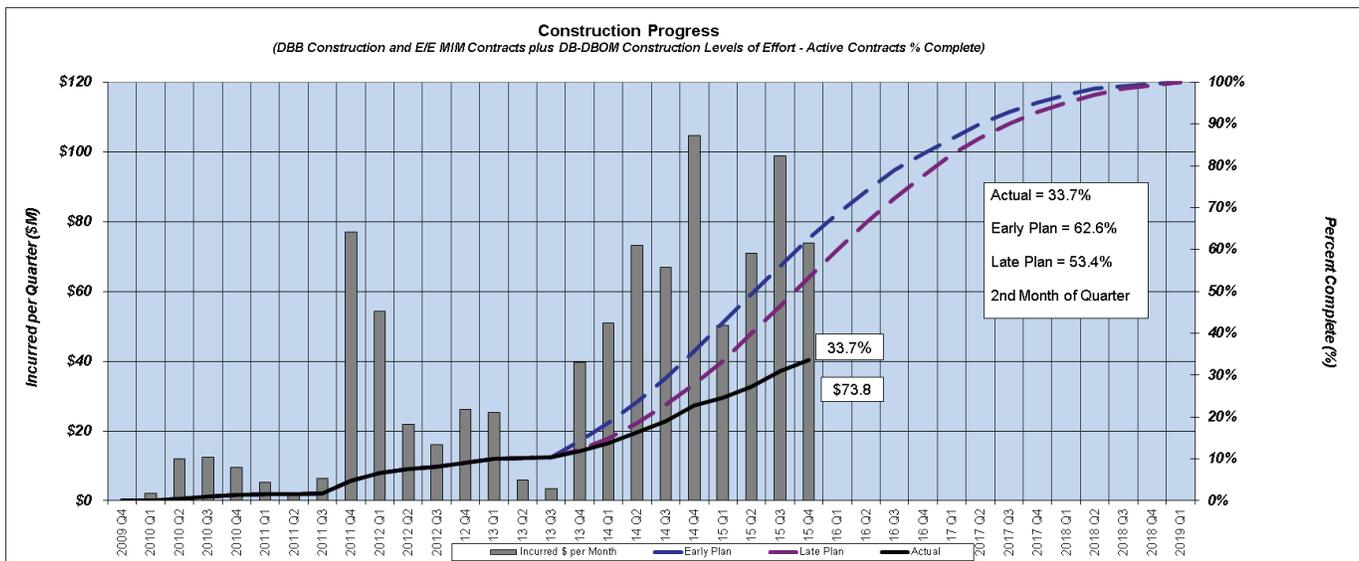
- Note:
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
  - Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
  - Late Plan = Latest dates activities can begin and finish and not have an impact on completion date,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

Figure 1. Overall Project Progress (% Complete)



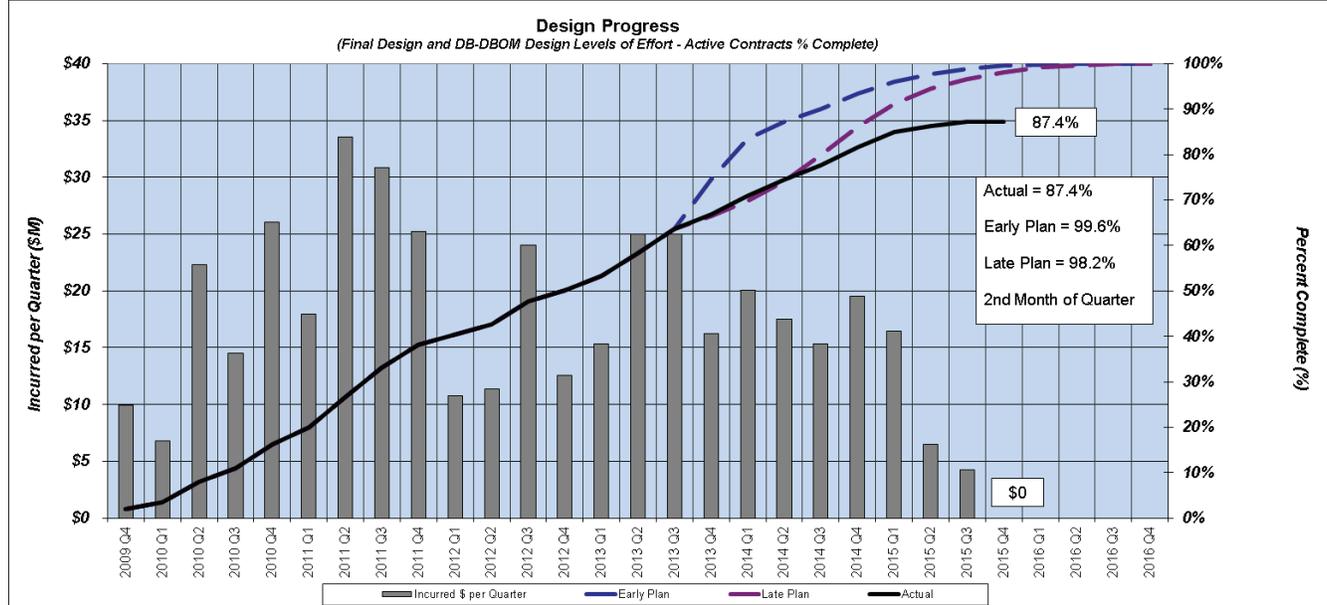
At present “overall” project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM 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)



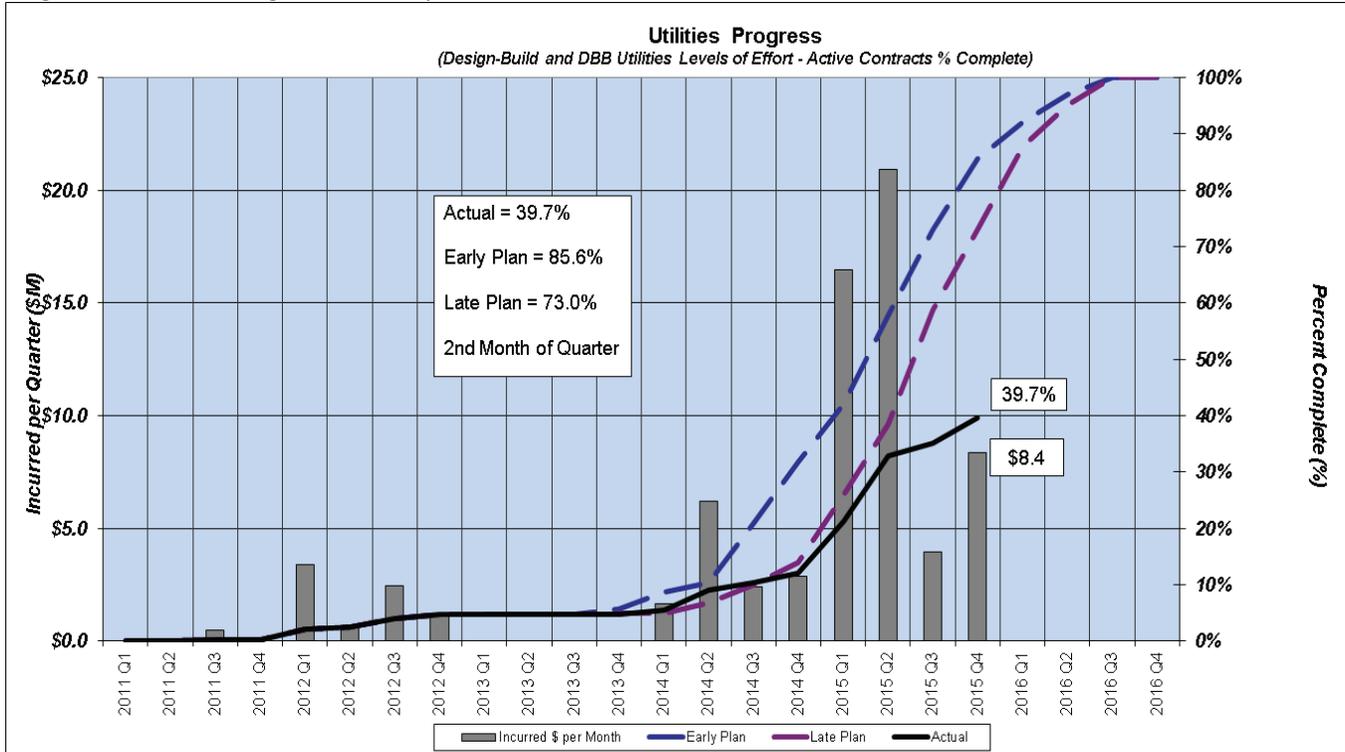
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

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.

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 Nov. 27, 2015)**

*Total Incurred Cost = \$1,834.4M  
(previous report = \$1,773.2M)*

- FFGA Project Budget = **\$5,121.7M**
  - Current Project Budget - \$4,460.4M
  - Current Project Contingency - \$488.2M
  - Project Finance Charges - \$173.1M
  
- HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. Forecasts indicated an increase to project costs and a completion in 2021.
  
- Total Incurred Cost = **\$1,834.4M** (41.1% of current project budget)
  - November 2015 Incurred Cost = \$61M

**2.3 Project Contingency (data as of Nov. 27, 2015)**

*Note: Contingency management and cost contingency details, including a breakdown of Project contingency drawdowns, are discussed in further detail in Appendix B.*

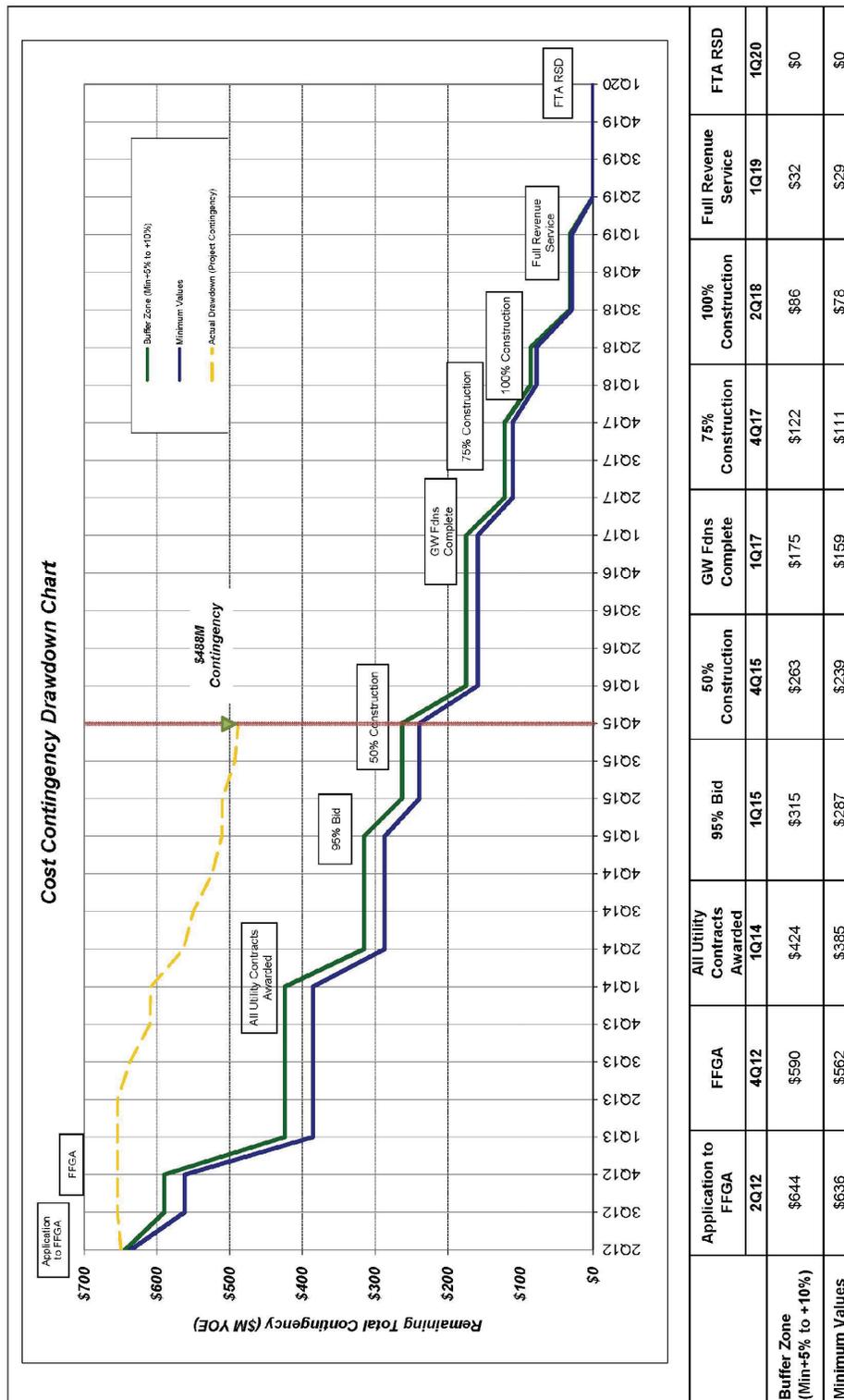
*Current Contingency Balance = \$488.2M  
(previous report = \$489.0M)*

- Current Project Contingency Balance = **\$488.2M**
  - Contingency drawdown to date – \$155.4M (24% of baseline project contingency budget)
  - \$0.8M contingency drawdown during November 2015. Please see Appendix B for more details.

Figure 5. Project Contingency Budget

Project Contingency Budget		
Contingency	SCC Code	Budget (\$M)
Unallocated Contingency	90.01	\$101.9
Allocated Contingency	90.02	\$540.1
Allowances	90.03	\$1.6
<b>Baseline FFGA Project Contingency Budget</b>	<b>90.01 - 90.03</b>	<b>\$643.6</b>
Contingency drawdown through September 2015 Report	90.01 - 90.03	(\$150.7)
Contingency drawdown October 2015 Report	90.01 - 90.03	(\$0.1)
Contingency drawdown November 2015 Report	90.01 - 90.03	(\$3.8)
Contingency drawdown December 2015 Report	90.01 - 90.03	(\$0.8)
Contingency drawdown to date	90.01 - 90.03	(\$155.4)
<b>Current FFGA Project Contingency</b>	<b>90.01 - 90.03</b>	<b>\$488.2</b>

Figure 6. Draft Cost Contingency Drawdown Chart



Data as of 11/27/15 - Nov '15 Reporting Period

Note: Contingency management and cost contingency details, including a breakdown of Project contingency drawdowns, are discussed in further detail in Appendix B.

2.4 Project Funding (data as of Nov. 27, 2015)

Figure 7. 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	473	473
FTA Section 5307 Formula Funds	0	210	0	0
ARRA Funds	0	4	4	4
Net General Excise Tax (GET) Surcharge revenues FY2010-FY2023	378	3,291	1208	1,586
<b>Total</b>	<b>385</b>	<b>5,356</b>	<b>1,985</b>	<b>2,072</b>

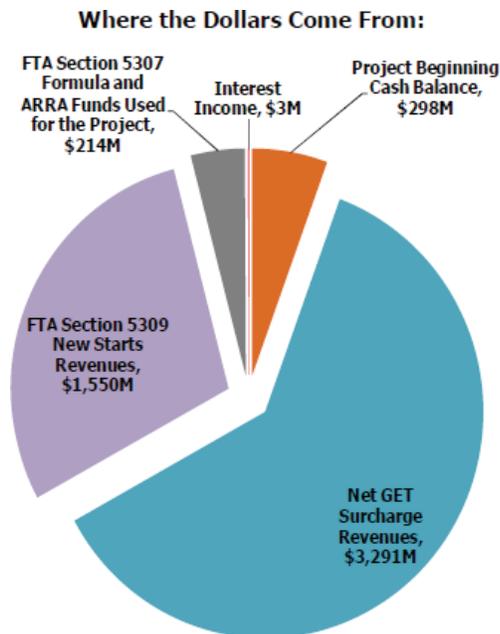
<sup>1</sup> GET and Interest Income received during Pre-Preliminary Engineering (pre-PE) phase prior to entry into PE

<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

Figure 8. Project Funding Sources (YOE \$M)



Source: FFGA Financial Plan, p. 2-1

- General Excise Tax (GET) Surcharge (data as of Nov. 27, 2015)
  - \$1,208M = amount received since the Project’s entry into FTA’s Preliminary Engineering phase of project development.
    - \$1,239M = Projected Net GET Surcharge Revenue for FYs 2010-2Q 2016, as stated in FFGA Financial Plan (Table A-1 *Capital Plan Cash Flows*)
    - GET receipts are currently running 2.5% short of projections to date, or \$31M behind.
    - \$31M shortfall is approximately 0.9% of the total GET surcharge projections per the FFGA Financial Plan of \$3.291B.
  - \$0 = GET surcharge received in November 2015.
- Full Funding Grant Agreement (FFGA)
  - \$25.4M = New Starts drawdown received in November 2015.
- The §5307 funds for the Project, per the Financial Plan, are \$210M.
- HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. Forecasts indicated an increase to project costs and a completion in 2021. The financial plan is currently being updated.

*Total Cash Received Since PE = \$1,985M*  
 (previous report = \$1,959M)

*GET Received Since PE = \$1,208M*  
 (previous report = \$1,208M)

*GET Received Since 2007 = \$1,586M*  
 (previous report = \$1,586M)

Figure 9. New Starts Drawdown by Federal Fiscal Year (data date as of Nov. 27, 2015, per the FTA TEAM website)

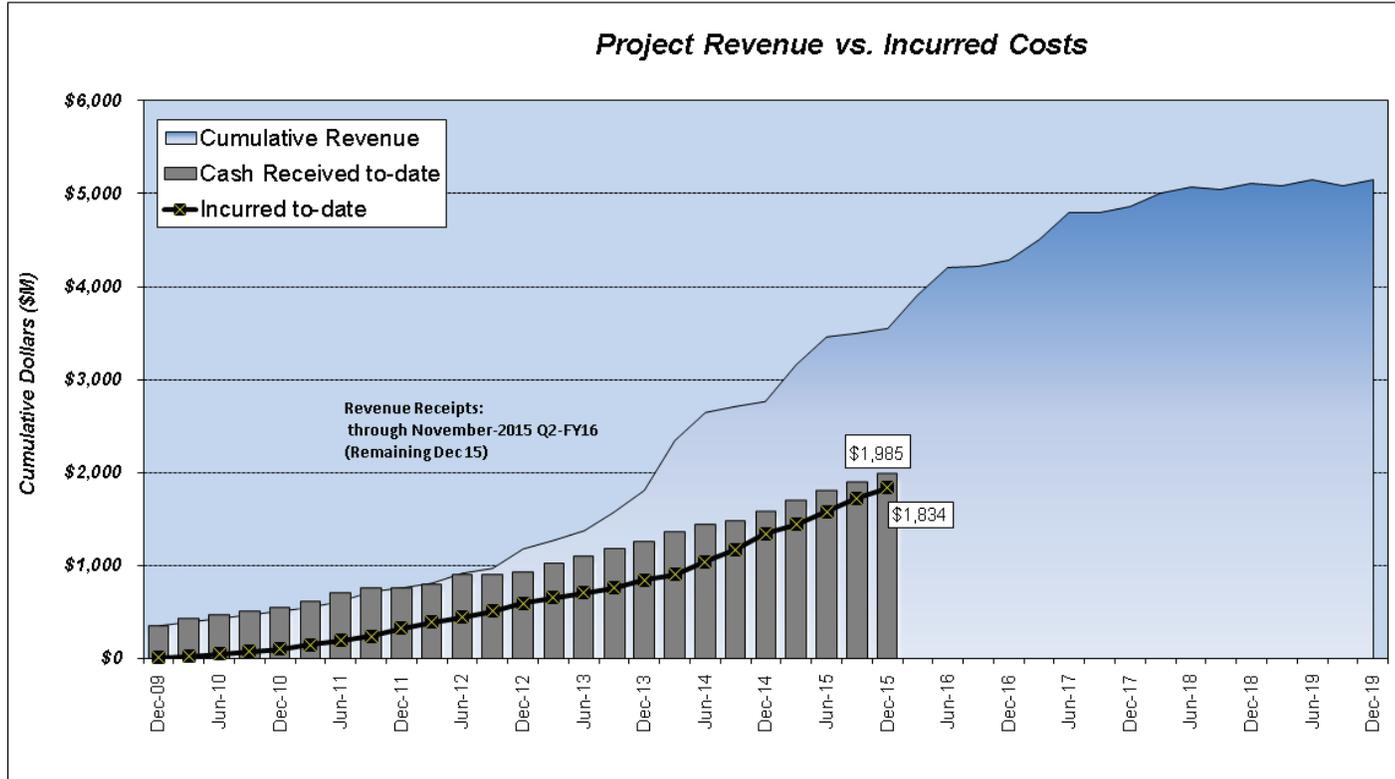
New Starts Grant Information by Federal Fiscal Year (Amounts in italics are pending)				
Federal Fiscal Year Allocation	FTA Obligated Amounts	Actual Drawdown Amounts to Date	Available Balance	FFGA Base Case Cash flow
2008	\$15,190,000	\$15,190,000	\$0	
2009	\$19,800,000	\$19,800,000	\$0	
2010	\$30,000,000	\$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	\$152,519,166	\$83,758,192	\$258,280,277
2014	\$250,000,000	\$0	\$250,000,000	\$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 appropriation and 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>\$472,509,166</b>	<b>\$1,077,490,834</b>	<b>\$1,550,000,000</b>

2.5 Project Revenue and Costs

(data as of Nov. 27, 2015)

Ending Cash Balance 11/30/15 = \$230.2M  
(previous report = \$265.5M)

Figure 10. Project Revenue versus Incurred Costs



Planned Funding levels as per the June 2012 FFGA Finance Plan  
Data date for Revenue & Incurred Cost = Nov. 27, 2015

Figure 11. Cash Balance Summary

NOVEMBER 2015 CASH BALANCE SUMMARY		
	NOVEMBER	FY16 YTD Cumulative
<b>Beginning Cash Balance 11/01/15</b>	265,535,057	293,010,823
Expenditures:		
Operating Expenditures	(949,155)	(5,163,411)
Capital Expenditures	(59,950,595)	(235,993,611)
<b>Expenditures Total:</b>	<b>(60,899,750)</b>	<b>(241,157,021)</b>
Receipts:		
GET Surcharge	0	117,151,246
FTA Drawdown	25,499,487	61,002,535
Interest	27,522	87,727
Other (rental, refunds, copy fees, etc.)	12,900	79,907
<b>Receipts Total:</b>	<b>25,539,909</b>	<b>178,321,414</b>
<b>Ending Cash Balance 11/30/15</b>	<b>230,175,216</b>	<b>230,175,216</b>

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

### 3 SCHEDULE

(data as of Nov. 27, 2015)

#### OVERVIEW

- HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. Forecasts indicated an increase to project costs and a completion in 2021.
- The Master Program Summary Schedule reflects currently approved schedule end dates for contracts that have been awarded, and planned dates for future contracts. The schedules in the Contract Status section (Section 4) reflect current contractor forecast end dates for contracts that have been awarded. The Pearl Highlands Garage, Transit Center and Ramp H2R1 Design-Build Contract schedule continues to be evaluated.
- Ramp H2R2 (DBB-385), WOSG (DBB-171) and FHSG (DBB-271) contractor schedules will be added to this report as soon as baseline schedules are accepted by HART. Until accepted contractor schedules become available, placeholder schedules spanning the contract dates are displayed in the contract sections of this report.
- HART continues to closely monitor, review and manage all active construction packages. Previously reported delays continue to be addressed by the project teams. See contract pages for further details.

#### KEY ISSUES

- WOFH construction contractor progress is behind approved planned schedules for the LCC station area civil and structural work.
- KHG guideway construction contractor progress is behind approved planned schedules.
- Right-of-way acquisition, third-party interface and utility relocations continue to be areas of concern for program completion.

Figure 12. 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 statused 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 ID	Activity Name	Type	Current Start	Current Finish	2013				2014				2015				2016				2017				2018				2019				2020		
					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
<b>KEY DATA</b>																																			
<b>MILESTONES</b>																																			
A1030	WOFH / KHG Section 1 - Interim Revenue Service Date	M		24-Sep-18*	WOFH / KHG Section 1 - Interim Revenue Service Date																														
A1040	Airport / City Center - Full Revenue Service Date	M		31-Dec-19	Airport / City Center - Full Revenue Service Date																														
<b>CONTRACTS - DESIGN &amp; CONSTRUCTION</b>																																			
<b>WEST OAHU / FARRINGTON HIGHWAY (WOFH) - SECTION 1</b>																																			
<b>WOFH Guideway &amp; Utilities</b>																																			
A1050	DB-120 - WOFH Guideway - Design & Construction	DB	01-Dec-09 A	01-Jul-16	[Gantt bar for A1050]																														
<b>West Oahu Station Group (WOSG)</b>																																			
A1430	FD-140 West Oahu Station Group - Including Design Services During Construction	D	10-Sep-14 A	13-Mar-18	[Gantt bar for A1430]																														
A1350	West Oahu Station Group - Bid & Award	A	13-Apr-15 A	01-Jul-15 A	[Gantt bar for A1350]																														
A1360	DBB-171 West Oahu Station Group - Construction	C	13-Oct-15 A	13-Mar-18	[Gantt bar for A1360]																														
<b>Farrington Hwy Station Group (FHSG)</b>																																			
A1370	FD-240 Farrington Highway Station Group - Including Design Services During Construction	D	10-Sep-14 A	16-Jan-18	[Gantt bar for A1370]																														
A1380	Farrington Highway Station Group - Bid & Award	A	19-Dec-14 A	22-Jun-15 A	[Gantt bar for A1380]																														
A1390	DBB-271 Farrington Highway Station Group - Construction	C	17-Aug-15 A	16-Jan-18	[Gantt bar for A1390]																														
<b>UH West Oahu Park n Ride &amp; Ho'opili Station Finishes</b>																																			
A1090	FD-600 UH West Oahu Park and Ride Lots - Procurement	D	20-Jul-15 A	27-Nov-15	[Gantt bar for A1090]																														
A1100	FD-600 UH West Oahu Park and Ride Lots - Design	D	27-Nov-15	01-Dec-16	[Gantt bar for A1100]																														
A1110	UH West Oahu Park and Ride Lots - Bid & Award	A	02-Dec-16	02-Apr-17	[Gantt bar for A1110]																														
A1120	DBB-600 UH West Oahu Park and Ride Lots - Construction	C	03-Apr-17	01-Mar-19	[Gantt bar for A1120]																														
<b>KAMEHAMEHA HIGHWAY (KH) - SECTION 2</b>																																			
<b>Kamehameha Highway Guideway &amp; Utilities</b>																																			
A1130	DB-320 - KHG Guideway - Design & Construction	DB	12-Jun-11 A	16-Sep-16	[Gantt bar for A1130]																														
<b>Kamehameha Highway Stations</b>																																			
A1400	FD-340 Kamehameha Highway Station Group - Including Design Services During Construction	D	10-Sep-14 A	18-Sep-18	[Gantt bar for A1400]																														
A1410	Kamehameha Highway Station Group - Bid & Award	A	18-Aug-15 A	14-Dec-15	[Gantt bar for A1410]																														
A1420	DBB-371 Kamehameha Highway Station Group - Construction	C	19-Jan-16	18-Sep-18	[Gantt bar for A1420]																														
<b>Pearl Highlands Ramp H2R2</b>																																			
A1180	FD-340 Pearl Highlands Ramp H2R2 - Redesign	D	01-Jan-15 A	14-Jan-15 A	[Gantt bar for A1180]																														
A1440	DBB-385 Pearl Highlands Ramp H2R2 - Bid & Award	A	30-Jan-15 A	18-May-15 A	[Gantt bar for A1440]																														
A1450	DBB-385 Pearl Highlands Ramp H2R2 - Construction	C	18-May-15 A	17-Jun-16	[Gantt bar for A1450]																														
<b>AIRPORT - SECTION 3</b>																																			
<b>Airport Utility Relocation</b>																																			
A1190	FD-430 - Airport Utilities - Design	D	05-Jan-12 A	16-Dec-13 A	[Gantt bar for A1190]																														



- FFGA Baseline
- October 2015 Update
- Remaining Work
- Actual Work
- FFGA Baseline Milestone
- October 2015 Update Milestone
- Milestone

Printed: 08-Dec-15 12:38

Page 1 of 2

**Honolulu Rail Transit Project**  
**November 2015 Update**  
 As of: 27-Nov-15

**MPS Summary**  
**Design & Construction Contracts**



## 4 CONTRACT STATUS

### Core Systems Contract (Section 4.1.A)

#### OVERVIEW

- Vehicle Aluminum Carshell Manufacturing continues to move forward in Reggio Calabria, Italy. The fifth and sixth carshells are in transit to Pittsburg, California.
- Final Assembly of Train 1 continues to ramp up with cabling, raceway, and equipment installation work.
- Progressing with sub-system testing and design verification activities.
- Yard Control Bungalow construction is ongoing – Installation of lighting fixtures and HVAC units continues.
- Traction Power Cable installation continues; pre-drilling of contact rail is underway for termination of traction power cable in the storage area of the MSF.

#### KEY ISSUES

- Revisions to the station and guideway Construction Access Milestone (CAM) dates might affect substantial completion of the Core Systems Contractor's work. HART and the CSC will evaluate the full extent of potential impact once we have clarity of the expected CAM dates. This issue is being addressed in CSC RFCR # 18.
- Vehicle Production and Testing is an ongoing monitored risk. Final Assembly of the first train is experiencing delays due to equipment availability. One of the critical elements is the Truck Frame and Bolster assembly production being impacted by subcontractor learning curve. HART and CSC are addressing existing issues and will continue to work together to identify and respond to issues as they arise.

### Fare Collection System (Section 4.1.C)

#### OVERVIEW

- Fare Systems Technical Consultant Contract awarded to CH2M Hill on Sept. 24, 2015, for a term of five years.
- Proposals for the Fare Systems Contract were received on Nov. 13, 2015 and a Priority Offerors List of the top three Offerors was developed. Best and Final Offer (BAFO) discussions are anticipated in early January, with BAFO submission at the end of January 2016. Award is anticipated in February 2016.

#### KEY ISSUES

- Completing legal review of Memorandum of Understanding (MOU) for Operations and Maintenance (O&M) cost sharing between HART and the City.
- Determining the best value proposal for HART and the City for the Fare System.

### West O'ahu Farrington Highway Guideway (Section 4.2.A)

#### OVERVIEW

- Leeward Community College (LCC) Portables, Parking Lot and Station Access Structure Change Order – HART and KIWC have discussed an agreement on the scope and costs associated with the LCC Portables, Parking Lot and Station Access changes. Currently, the change order for this work is in the HART Board Approval process. KIWC has unilaterally halted all LCC construction work activities until the LCC Parking Lot, Portables and Access Structure Construction Change Order is executed by HART. HART continues to have on-going internal meetings to resolve the issues.
- Balanced Cantilever System (BCS) Form Advancement – BCS construction is progressing and all pier tables are complete. Segment casting and stressing is proceeding in both eastward and westward directions from Pier 256. All segments for Pier Table 253, 254 and 255 have been completed.
- Span by Span Advancement – Heading #2 at Waipahu High School, Work Area 4, is currently progressing westbound. Eastbound spans have erected by West Loch Station and are proceeding towards Waipahu Transit Center Station. Heading #3 has assembled all spans to the eastern end of the alignment and is transitioned to the KHG project.

KEY ISSUES

- LCC Portables, Parking Lot and Station Access Structure Change Order (for additional detail, see 4.2.A Key Issues)
- Construction Production/Baseline Schedule (for additional detail, see 4.2.A Key Issues)
- Night Noise Variance (for additional detail, see 4.2.A Key Issues)
- Intersection Closure for Span by Span (for additional detail, see 4.2.A Key Issues)
- Design Completion Schedule (for additional detail, see 4.2.A Key Issues)
- Closeout and Coordination (for additional detail, see 4.2.A Key Issues)

**Maintenance and Storage Facility (Section 4.2.D)**OVERVIEW

- Power distribution is complete within the Maintenance of Way (MOW), and ongoing at the Operations and Servicing Building (OSB) and Wheel Truing Building (WTB).
- The contractor completed structural steel at the Train Wash Facility (TWF) and commenced with roofing.
- Traction power, signal, and train control conduit installation continues in the yard.
- Installation of rail is continuing for the tracks heading toward the Train Wash Facility and MOW as well as the East Yard Lead and West Yard Lead tracks.
- HVAC installation is complete for the MOW, and continuing at the OSB and WTB.

KEY ISSUES

- Coordination with the abutting WOFH main line contract for completion of site access in the east and west yards, including rail, vehicular access and utility interconnection.
- Preparation for the receipt of rail car delivery is underway including completion of an unloading area on the maintenance track adjacent to the OSB.
- Orderly completion of traction power, train control and building services raceways for turnover to Core Systems Contractor.
- Establish telephone service, as necessary, for building occupancy (elevator and fire alarm).

**Kamehameha Highway Guideway (Section 4.3.A)**OVERVIEW

- Construction of Drilled Shafts – KIWC currently has 2 drill spreads working on KHG. Over 49% of the KHG shafts have been completed and drilled shafts are being constructed ahead of the planned production rates in the September 2015 Schedule, which KIWC has submitted with an RFC to revise the contract substantial completion date.
- Utility Relocation – Relocation of utility pole 51 at TMK 9-8-008-029 is pending finalization of the ROE with the property owners and utility companies.
- HDOT Betterments – KIWC has been issued RFCRs to incorporate HDOT's betterments into the design and construction. HART has received the cost proposal for RFCR 30 (Replace CMP with RCP), has finalized the ICE, received HDOT concurrence, and is waiting for NSM approval for negotiation. HART has negotiated the cost for RFCR 32 (Traffic Signals), which is currently in the HART approval and execution process. The remainder of the betterment RFCR is still pending receipt of cost proposals from KIWC.
- Balanced Cantilever System (BCS) – KIWC continues working on Columns 307 up and down station east of the H-1 overpass and has started pier table construction at pier 306 this month.
- Span-by-span – KIWC began span-by-span erection this month at Span 266, which is between WOFH shaft 266 and KHG shaft 267.

KEY ISSUES

- Night Noise Variance (for additional detail, see 4.3.A Key Issues)
- HDOT Betterments (for additional detail, see 4.3.A Key Issues)
- Third Party Utility Impacts (for additional detail, see 4.3.A Key Issues)
- KIWC Resource Allocations (for additional detail, see 4.3.A Key Issues)
- Maintenance of Traffic (MOT) Approvals (for additional detail, see 4.3.A Key Issues)

**Airport Section Utilities (ASU) (Section 4.4.B)**OVERVIEW

- The contractual Substantial Completion milestone for ASU is Feb. 6, 2016, and was intended to ensure completion of this work prior to the contractor for the Airport guideway beginning construction. Delays, in particular the Navy right of entry issue, have extended the projected ASU milestone date to August/September 2016. However, the Airport Segment Guideway and Stations contract has also been delayed and will not be in construction prior to the forecast completion of the ASU contract. Finalizing the descoped work at Valkenburgh could lessen the delay.

KEY ISSUES

- Resolving ongoing change including delay claims.
- Nan's Noise Mitigation Plan was returned with comments.

**Contracts in Procurement**OVERVIEW

- Awarded Contracts:
  - HART entered into a contract with Honua Consulting on Dec. 8, 2015 for Section 106 Programmatic Agreement Project Manager (Kāko'o "II").
  - On Dec. 22, 2015, HART awarded the Design-Bid-Build contract for the Kamehameha Highway Stations Group construction contract to Nan, Inc., in the amount of \$115,805,845.
- Active Procurements:
  - Art-in-Transit: HART is in negotiations with the highest-ranked artist for each of the stations.
  - Airport Guideway and Stations Design-Build RFP: HART is on schedule with the Part 2 solicitation timeline.
  - City Center Guideway and Stations (CCGS) Design-Build RFP: The Qualifications proposals were received on Nov. 18, 2015. The RFP Part 2 issuance date has been extended to Feb. 2, 2016.
  - The Fare Systems Contract RFP: Proposals were received on Nov. 13, 2015. A determination on the priority-listed offerors was made on Dec. 17, 2015, which allowed HART to enter into discussions with the priority-listed offerors.
  - Independent Financial Auditor "II" Contract RFP: Proposals were received on Dec. 1, 2015 and are currently under evaluation.
- Upcoming Procurements:
  - Procurements for the Dillingham Utilities and Roadway Design-Bid-Build Contract, UH West O'ahu Temporary Park and Ride and UH West O'ahu Campus Road "B" Design-Bid-Build Contract, and Pearl Highlands Garage, Transit Center and Ramp H2R1 Design-Build Contract are under evaluation.

KEY ISSUES

- Kamehameha Highway Stations Group Construction Contract: The bid submitted by the apparent low bidder, Watts Constructors LLC ("Watts"), was determined to be non-responsive. FTA Headquarters denied Watts' request to correct its deficient Buy America certificates. (The FTA also determined that based on the information provided by Watts that Watts, as the general contractor, could not certify compliance with Buy America.) On Dec. 30, 2015, a protest was filed by Watts, which effectively placed a stay on the award of the contract. HART is currently reviewing the protest and, upon completion, will issue its determination.

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: December 2019

**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.



**Project Overview:** The CSC contractor is continuing to progress through Final Design. Qualification and design verification tests are ongoing. Construction interface with the MSF contractor (KKJV) is ongoing. AHJV is on site and has finalized the Yard Control Bungalow (YCB) roof structures. Installation of lighting fixtures and HVAC units are ongoing at the YCB. AHJV completed the fire detection wiring at the MSF MOW building and is finalizing the wiring operation at the MSF OSB building. Installation activities are ongoing for the first four passenger vehicle carshells.

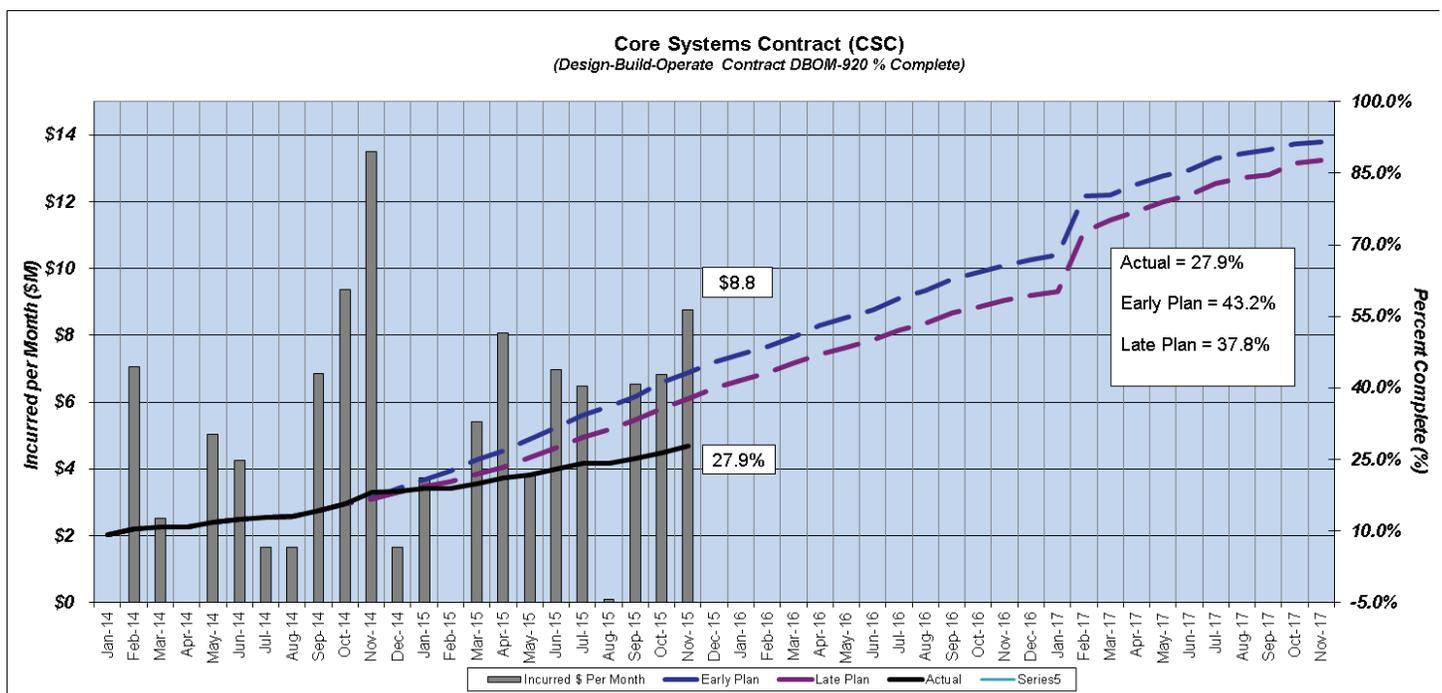
**COST INFORMATION:**

Original Contract:	\$573,782,793	Incurred-to-Date:	\$165,783,508
Current Contract Value <sup>1</sup> :	\$598,563,687	Incurred in November:	\$8,778,249

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

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

November Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$24,780,894</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:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 08-Dec-15																							
Activity Name	Start	Finish	2014				2015				2016				2017				2018				2019			
			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>Core Systems &amp; Vehicles (DBOM) Contract</b>	17-Jan-12 A	31-Mar-19	[Gantt chart showing project duration from 2014 Q1 to 2019 Q3]																							
Core Systems Design	17-Jan-12 A	30-Nov-15	[Gantt bar from 2014 Q1 to 2015 Q4]																							
Core Systems Maintenance & Storage Facility Install	27-Mar-15 A	27-May-16	[Gantt bar from 2015 Q2 to 2016 Q1]																							
Core Systems Guideway Install	30-Nov-15	27-Feb-19	[Gantt bar from 2015 Q4 to 2019 Q2]																							
Core Systems Stations Install	17-Dec-15	28-Feb-19	[Gantt bar from 2015 Q4 to 2019 Q2]																							
Core Systems Vehicles	15-Jul-14 A	28-Sep-18	[Gantt bar from 2014 Q3 to 2018 Q3]																							
Core Systems Local and Integrated Testing	13-Oct-16	31-Mar-19	[Gantt bar from 2016 Q4 to 2019 Q3]																							

	Interim Design Submitted Documents	Final Design Submitted Documents	Target Completion Date
Passenger Vehicles	100%	74%	1 <sup>st</sup> Q 2016
Communications	100%	44%	1 <sup>st</sup> Q 2016
ATC/SCADA	88%	94%	1 <sup>st</sup> Q 2016
TES	100%	100%	Completed
Fire Detection	100%	56%	1 <sup>st</sup> Q 2016
PSG, UPS, MOW, YCB	N/A	78%	1 <sup>st</sup> Q 2016

**CRITICAL PATH SUMMARY:**

- Continue to oversee construction activities with the MSF contractor, the CSC installation subcontractor and the On-Call Contractor.
- Passenger Vehicle crews continued installation work on the first four carshells at the final assembly facility in Pittsburg, CA. This work is being monitored closely.
- Due to the modified CAM dates, the equipment installation at Pearl Highlands and Pearlridge Stations is driving the critical path.

**WORK PROGRESS:**

Activities this Month:

**Earned Value:** 27.7% [(Total Achieved to November 2015 (\$157 million) + Projected December 2015 Period (\$8.8 million))/Total Contract Including Executed Change Orders (\$599 million)].

**Design:**

- ATC/SCADA – Documents Received: 9, Documents Returned: 13.
- Communications – Documents Received: 12, Documents Returned: 10.
- Traction Power – Documents Received: 14, Documents Returned: 13.
- Fire Detection – Documents Received: 1, Documents Returned: 1.
- Platform Screen Gates – Documents Received: 7, Returned: 6.
- Passenger Vehicles – Documents Received: 0, Documents Returned: 12.

**Manufacturing:**

- Performed manufacturing oversight work at Hitachi Rail factories. (For additional details, please see the Vehicle Carshell Progress Tracker in Appendix E.)
- Performed final assembly oversight work at Pittsburg, CA. Equipment installation work on the first train is ongoing.
- Performed Truck Frame and Bolster Production oversight at Hitachi Rail Italy (HRI) supplier, DRS, in West Plains, Missouri.

Look Ahead:

**Design:**

- Completion of ATC/SCADA Final Design for Segment 1.

**Manufacturing:**

- Passenger Vehicle Manufacturing – Continue carshell assembly for the first ten carshells (first three trains).
- Continue installation of cable bundles, raceways, windows and vehicle equipment of the first train.

**Testing:**

- Traction Power – Design Verification of TPSS Temperature Rise – Fontana, CA (January 2016).
- Traction Power – Pre-shipment Inspection and Test Leeward Community College Gap Breaker Station (GBS) – Fontana, CA (February 2016).
- Communication Systems – Pre-Shipping Inspection and Test for Passenger Information System – Plano, TX (February 2016).
- Communication Systems - Pre-Shipping Inspection and Test for On-Board Systems – Plano, TX (January 2016).

Activities this Month (continued):

**Testing:**

- Witnessed Train Control System – Pre-Shipping Inspection and Test for LCC Station SCADA Hardware in Batesburg, South Carolina.
- Witnessed Train Control Systems – Pre-Shipping Inspection and Test for Waipahu Station SCADA Hardware in Batesburg, South Carolina.
- Witnessed Train Control Systems – Pre-Shipping Inspection and Test for West Loch Station SCADA Hardware in Batesburg, South Carolina.
- Train Control Systems – Pre-Shipping Inspection and Test for Ho’opili Station Train Control Communications Room (TCCR) Equipment in Batesburg, SC.
- Traction Power – Pre-Shipping Inspection and Test East Kapolei TPSS in Fontana, CA.

**MSF:**

- Yard conduit installation: On-Call Contractor installation of yard conduit extensions is ongoing.
- Yard Control Bungalow - Installation of lighting and HVAC unit are ongoing. Fire Detection Alarm System (FDAS) cable wiring is underway.
- AHJV continues walk through activities with KKJV for shared access for the Wheel Truing Building (WTB), Operations and Servicing Building (OSB) and Maintenance of Way (MOW) building.
- TES Cable Installation is completed at the MSF Traction Power Sub-Station.
- TES feeder cable installation is completed in storage track area.
- Construction of foundations for the Closed Circuit Television Cameras poles at the MSF perimeter is ongoing.
- Started foundation work for 16 Communication Interface Cabinets (CIC) in the yard.

Look Ahead (continued):

- Communication Systems - Design Verification of Integrated Network Management System (INMS) – Plano, TX (January 2016).
- Communication Systems - Design Verification of Integrated Communications Control System (ICCS) – Levane, Arezzo (Italy) (February 2016).
- Communication Systems - Pre-Shipping Inspection and Test for Integrated Communications Control System (ICCS) – Rieti, Italy (March 2016).
- Communication System- Pre-Shipping Inspection and Test for Telephone System – Plano TX, (January 2016).
- Communication System - Pre-Shipping Inspection and Test for Voice Radio Communication System (VRCS) – Plano TX, (February 2016).

**MSF:**

- Installation of Traction Power cabling in Storage Track and OSB feeder track areas.
- Construction of the foundations and conduits for Communication Interface Cabinets at the MSF Yard.
- Installation of Train Control and COMMs cables in the track areas will begin in January 2016.
- Construction of Communication Interface Cabinet foundations in the yard and CCTV poles at the MSF perimeter.
- Pulling COMMs cables in the OSB and MOW.

**KEY ISSUES:**

- Revisions to the station and guideway Construction Access Milestone (CAM) dates might affect substantial completion of the Core Systems Contractor’s work. HART and the CSC will evaluate the full extent of potential impact once we have clarity of the expected CAM dates. This issue is being addressed in RFCR # 18.
- Vehicle Production and Testing is an ongoing monitored risk. HART and CSC identified and are responding to challenges with final assembly of the first train. A critical element to the challenges is the Truck Frame and Bolster assembly production which is impacted by subcontractor learning curve. HART and CSC are addressing the issues and will continue to work together to identify and respond to issues as they arise.

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.

Design Verifications & System Testing		
Subsystem	Test Completed	Date Completed
PASSENGER VEHICLES	First Article Inspection Test for Wheel Axle Set in Philadelphia, Pennsylvania.	Dec. 15, 2015
TRACTION ELECTRIFICATION	Pre-Shipping Inspection and Test for East Kapolei Station TPSS in Fontana, California.	Dec. 11, 2015
TRAIN CONTROL	Pre-Shipping Inspection and Test for LCC, Waipahu, and West Loch Station SCADA Hardware in Batesburg, South Carolina.	Dec. 9, 2015
TRAIN CONTROL	Pre-Shipping Inspection and Test for Ho’opili Station Train Control Communications Room Equipment – Batesburg, South Carolina.	Nov. 23, 2015

Passenger Vehicle - Oversight		
Facility	Activity	Date Completed
Pittsburg, CA	On-site inspector in place to oversee and report on Hitachi Rail Final Assembly activities. Equipment installation work is ongoing on the first train. Fifth and sixth carshells are in transit to the Final Assembly Facility.	Ongoing

CSC NCR Log			
	TOTAL	CLOSED	OPEN
AHJV & Subs	24	23	1
Hitachi Rail	308	232	76
<b>TOTAL</b>	<b>332</b>	<b>255</b>	<b>77</b>

- Hitachi Rail Italy had previously generated NCRs for each aluminum carshell element with manufacturing issues found during carshell production; primarily at the subassembly supplier (CMC). Corrective actions have been taken for future production, and adjustments are being made to current assembled parts.

**PROJECT PICTURES:**



Installation of contact rail coverboard at the MSF Yard.



Installing HVAC unit at the Yard Control Bungalow.



Roof installation of Car E2 at Hitachi Rail USA, Inc. Final Assembly Site in Pittsburg, CA.

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

**Contract No.:** MI-930

**Contractor:** Schindler Elevator Corporation

**Contract Start Date:** August 2013

**Contract Substantial Completion:** May 2018

**Projected Substantial Completion:** The May 2018 completion date will change to a later date predicated on the award of the DB contracts for the east portion of the guideway. The Airport Guideway and Stations DB contract is on schedule with the Part 2 solicitation timeline. The City Center Guideway and Stations DB contract part 2 issuance date has been extended to February 2016.



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

**Project Overview:** The release to begin manufacturing of the FHSG and WOSG equipment will be scheduled once an approved construction schedule with the respective contractors has been completed.

**COST INFORMATION:**

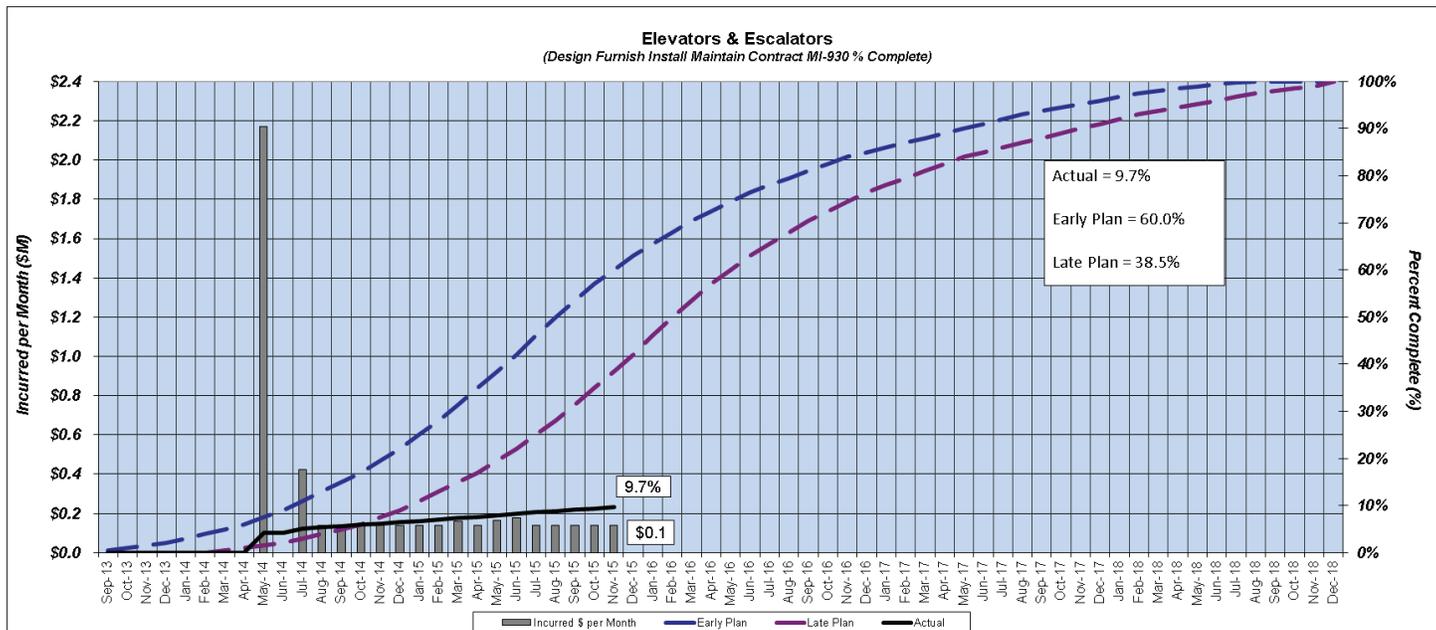
Original Contract: \$50,982,714  
 Current Contract Value<sup>1</sup>: \$50,982,714

Incurred-to-Date: \$4,925,631  
 Incurred in November: \$140,824

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

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

November 2015 Update			Data Date: 27-Nov-15, Printed On: 08-Dec-15															
Activity Name	Start	Finish	2015		2016				2017				2018				2019	
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>W. Oahu/Farrington Highway (WOFH) - Section 1</b>	16-Jun-16	17-Apr-17																
<b>W. Oahu Station Group</b>	16-Jun-16	17-Apr-17																
Construction - W. Oahu Station Group	16-Jun-16	17-Apr-17																
East Kapolei Station E&E Installation	04-Jan-17	17-Apr-17																
UH West Oahu Station E&E Installation	26-Sep-16	09-Jan-17																
Ho'opili Station E&E Installation	16-Jun-16	03-Oct-16																
<b>Farrington Highway Station Group</b>	12-Sep-16	26-Dec-16																
Construction - Farrington Highway Station Group	12-Sep-16	26-Dec-16																
West Loch Station E&E Installation	12-Sep-16	26-Dec-16																
Waipahu Transit Station E&E Installation	12-Sep-16	02-Nov-16																
<b>Kamehameha Highway (KH) - Section 2</b>	14-Dec-16	09-Nov-17																
<b>Kamehameha Highway Station Group</b>	14-Dec-16	09-Nov-17																
Construction - Kamehameha Highway Station Group	14-Dec-16	09-Nov-17																
Pearl Highlands Station E&E Installation	22-Jun-17	09-Nov-17																
Pearl Ridge Station E&E Installation	14-Jul-17	31-Oct-17																
Aloha Stadium Station E&E Installation	14-Dec-16	02-Apr-17																
<b>Airport - Section 3</b>	30-Nov-16	17-Dec-17																
<b>Airport Station Group</b>	30-Nov-16	17-Dec-17																
Construction - Airport Station Group	30-Nov-16	17-Dec-17																
Pearl Harbor Station E&E Installation	30-Nov-16	16-Mar-17																
HNL Airport Station E&E Installation	19-Jun-17	02-Oct-17																
Lagoon Drive Station E&E Installation	01-Dec-16	19-Mar-17																
Middle Street Station E&E Installation	31-Aug-17	17-Dec-17																
<b>City Center (CC) - Section 4</b>	15-Dec-16	05-Jul-18																
<b>Dillingham Station Group</b>	15-Dec-16	05-Dec-17																
Construction - Dillingham Station Group	15-Dec-16	05-Dec-17																
Kalihi Station E&E Installation	15-Dec-16	03-Apr-17																
Kapalama Station E&E Installation	18-Apr-17	01-Aug-17																
Iwilei Station E&E Installation	09-Mar-17	25-Jun-17																
Chinatown Station E&E Installation	21-Aug-17	05-Dec-17																
<b>Kaka'ako Station Group</b>	06-Jun-17	05-Jul-18																
Construction - Kaka'ako Station Group	06-Jun-17	05-Jul-18																
Downtown Station E&E Installation	06-Jun-17	20-Sep-17																
Civic Center Station E&E Installation	18-Jul-17	30-Oct-17																
Kaka'ako Station E&E Installation	15-Aug-17	30-Nov-17																
Ala Moana Center Station E&E Installation	21-Dec-17	05-Jul-18																

**CRITICAL PATH ISSUES:**

- 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.

**WORK PROGRESS:**

Activities this Month:

Earned Value: 9.7%; Planned Value: 38.5%

- Final Design is approximately 40% 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.

**Look Ahead:**

- Release for manufacturing for the Farrington Highway Station Group and the West O'ahu Station Group elevators and escalators will be scheduled once the respective contractor's schedule has been approved and issued.

**KEY ISSUES:**

- The release to allow manufacturing for FHSG, WOSG and KHSG will be dependent on the acceptance of an approved schedule for each of these contracts. Final completion of the equipment requirements for the four stations included in the DB contract for Airport Guideway and Stations is on hold pending contract award. 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.

**C. Fare Collection System**

**Contract No.:** TBD

**Contractor:** TBD

**Contract Start Date:** TBD

**Contract Substantial Completion:** TBD

**Projected Substantial Completion:** TBD

**Project Description:** The fare 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 and installation 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 the transaction processing, fare equipment monitoring, customer service systems, as well as a Data Warehouse. TheBus equipment will consist of stand-alone smart card readers on board.

**Project Overview:** The Fare Systems RFP was released on Aug. 11, 2015. As a result of potential Offeror requests, the deadline for proposals was again extended to Nov. 13, 2015. Best and Final Offer (BAFO) is now anticipated in early January 2016 with a recommended best value proposal selected by the evaluation team by February 2016. An MOU for capital cost sharing with the City has been executed and an MOU for Operations and Maintenance has been drafted and the technical review is complete. The document is currently with COR for legal review. A Fare Systems technical consultant contract was awarded on Sept. 24, 2015, to CH2M Hill to support design review, testing and installation. The selected DBOM contractor is anticipated to start design in April 2016.

**COST INFORMATION:** TBD

**SCHEDULE:**

- RFP released Aug. 11, 2015. Award anticipated in February 2016. System design anticipated to start in spring 2016.
- Manufacture in first quarter 2017.
- System testing for the back office functions and TheBus anticipated in second quarter 2017.
- Anticipated system pilot launch on TheBus in third quarter 2017, with full roll out on TheBus (including all central systems) in first quarter 2018.
- Interim roll out for rail in late 2018.
- Full roll out on rail in 2021.

**CRITICAL PATH ISSUES:**

- MOU for O&M cost sharing between HART and the City.

**WORK PROGRESS:**

Activities this Month:

- Review and evaluation of the proposals.
- Development of a Priority-Listed Offerors (PLO) list and questions for the top three BAFO teams.
- Additional reviews with COR on the terms of the Operations and Maintenance MOU.
- Conforming the Technical Specification for the BAFO.
- Brief the Board on the Fare System project.

Look Ahead:

- Revise, as necessary, procurement documents for BAFO and issue in the beginning of January 2016.
- Conduct BAFO interviews with PLO list.
- Review BAFO submissions.

**KEY ISSUES:**

- Completing legal review of MOU for O&M cost sharing between HART and the City.
- Determining the best value proposal for HART and the City for the Fare System.

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: July 2016

Projected Substantial Completion: December 2016



**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.

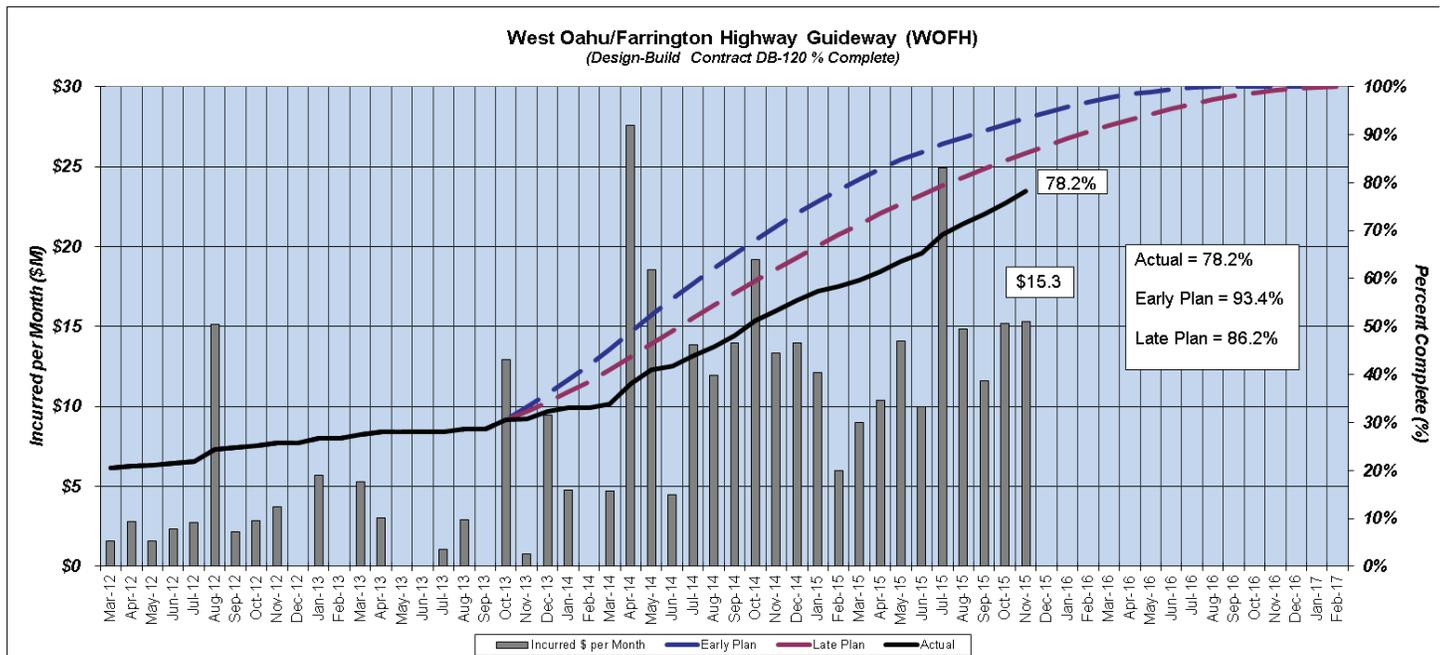
**Project Overview:** In December, progress continues for utilities, dilled shafts, columns, segment casting, and span stressing. Segment erection from West Loch Station through East Kapolei Station has been completed. Headings #1 and #2 are erecting segments from West Loch Station and Waipahu High School (WHS), respectively, to progress towards Waipahu Transit Center Station. Heading #3 completed erecting segments at the eastern end of the alignment. The Project’s Key Quality Issues continue to focus on segment repairs, in addition to the repairs of Span 17.

**COST INFORMATION:**

Original Contract:	\$482,924,000	Incurred-to-Date:	\$493,585,870
Current Contract Value <sup>1</sup> :	\$631,406,384	Incurred in November:	\$15,306,640
<sup>1</sup> Current Contract Value = Original contract value (not including contingency) + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$6,812,966
DBE % Attained:	1.41%

November Change Orders		
Change No.	Description	Amount (\$)
CCO069	Utility Relocation at Waipahu Depot Rd	\$200,000
<b>Cumulative to Date</b>		<b>\$148,482,384</b>



In December, KIWC submitted Pay Application #74 for Releasing Retainage billing and Pay Application #75 for the November 2015 billing. They are currently being reviewed by HART. Pay Application #73 for October 2015 has been approved and closed. HART executive management has released retention for all progress above 50% completion and will proceed with releasing retainage on future pay applications.

**SCHEDULE:**

- KIWC has notified HART that a 6 month time extension beyond substantial completion is needed due to the changes and impacts due to the lack of access to the LCC work area. KIWC has submitted a revised baseline schedule via contract Request for Change (RFC) in August 2015 and it is anticipated that a Contract Change Order will be required to accept the revised baseline schedule and updated substantial completion date. HART is currently reviewing the contract time extension request for merit as well as preparing a negotiations position, while working with KIWC to mitigate any further delays to the contract surrounding the LCC construction work activities.

On Dec. 10, 2015, KIWC formally notified HART of a unilateral work stoppage of all LCC construction work activities, currently being performed at risk by KIWC, until the LCC Parking Lot, Portables and Access Structure Construction Change Order is executed by HART.

November 2015 Update		Data Date: 27-Nov-15, Printed On: 18-Nov-15 11:00									
Activity Name	Start	Finish	2015				2016				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
<b>Total</b>	08-Mar-12 A	21-Dec-16									Contractor Forecast Dates: Dates Not Approved until HART Signoff.....
<b>West Guideways &amp; Structures</b>	08-Mar-12 A	19-Oct-16									
<b>W. Oahu/Farrington Highway (WOFH) - Section 1</b>	08-Mar-12 A	19-Oct-16									
<b>W. Oahu/Farrington Highway Guideway</b>	08-Mar-12 A	19-Oct-16									
<b>Kiewit WOFH Summary</b>	08-Mar-12 A	19-Oct-16									
<b>Foundations</b>	08-Mar-12 A	02-Sep-16									
Drilled Shafts	23-Apr-12 A	17-Dec-15									
Columns	21-May-12 A	18-Feb-16									
At Grade	08-Mar-12 A	02-Sep-16									
<b>Guideway</b>	02-May-14 A	05-May-16									
Precast Segment Erection	02-May-14 A	05-May-16									
Balanced Cantilever Segments	10-Sep-14 A	18-Apr-16									
<b>Trackwork</b>	20-Oct-14 A	19-Oct-16									
Direct Fixation Trackwork	20-Oct-14 A	07-Jul-16									
Third Rail	06-Nov-15 A	19-Oct-16									
<b>WOFH Project Finish Work, Demob, Punchlist</b>	03-Nov-16	21-Dec-16									
WOFH Project Finish Work, Demob, PunchList	03-Nov-16	21-Dec-16									
WOFH Substantial Completion		21-Dec-16*									

**CRITICAL PATH ISSUES:**

- The execution of the HART/UH/LCC Construction Right-of-Entry (CROE), the lead time for new modular buildings, and delays with procurement authorization change for new modular buildings have had an impact to this area of the project. KIWC proceeded in August 2015 with construction activities including all scope changes in an effort to mitigate further schedule delays. The modular buildings arrived on site in October 2015 and are in the installation phase as of December 2015. Due to the lack of contract change order for the increased scope of the construction work associated with the LCC Station, KIWC formally notified HART of a unilateral work stoppage of all LCC construction work activities.
- Work at the Balanced Cantilever System (BCS) area has slipped from the October 2014 schedule and resides near the critical path with minimal total float days available. The HART project team continues to monitor the BCS work closely.

**WORK PROGRESS:**

WOFH Construction Status as of 12/11/15									
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	8,918	9,348	95%	Shafts	307	309	301	309	99%
Sewer Line	550	570	96%	Columns	254	262	232	283	90%
Fuel Line	340	340	100%	Segment Casting	3,199	3,209	2,889	3,209	99%
Gas line	1,498	1,591	94%	Spans Stressed	227	231	195	274	83%
Drainage Line	3,525	5,166	68%	* Accepted Schedule was submitted in 2013.					
Elec/Telecom	16,689	21,374	78%	** 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.					
Street Lights	6,335	8,357	76%	*** Total quantity for the construction items has been revised to reflect the latest Issued for Construction number of shafts, columns, segments and spans.					
Traffic Sig/ITS Duct bank	8,552	10,802	79%						
System Sites	1,475	7,046	21%						
ITS Systems Devices	821	4,121	20%						

Activities this Month:

**Earned Value: 81%** [(Total Achieved to November 2015 (\$490.9 million) + Projected December 2015 Period (\$18.5 million))/Total Contract Including Executed Change Orders (\$631 million)]. Planned Value: 87.8%

**Shaft/Column**

- Performed drilled shaft construction, drilling, and placing of concrete for a total of 2 drill shafts. Set rebar and placed concrete for 14 columns.

**Guideway Segment Erection**

- Eastbound Heading #1 segments were erected from Span 189 through Span 192. Westbound Heading #2 segments were erected from Span 240 through 238. Heading #3 has completed erection to the eastern end of the alignment.

**Utility Relocation**

- KIWC continues to relocate third party utilities. All shaft conflict relocation has been completed on the project. Only guideway utility conflicts and traffic signals are outstanding.

**Balanced Cantilever Structure**

- Cast the closure segment for Pier 252. Cast the closure segment for Pier 254. Cast two segments downstream and three segments upstream at Pier 256.

**Track Construction**

- KIWC continues with thermite welding activities and mobilizing special tracks to the BCS Area 6. KIWC is also installing track plates and concrete plinth forms east of West Loch Station as well as continuing to lay track between Ho'opili and West Loch station.

**Precast Yard**

- Precast Yard performed daily segment and sound wall casting.

**KIWC/Third-Party Coordination**

- HECO and KIWC continue to resolve conflicts with utility relocations.

**Civil Structures**

- Mechanically Stabilized Earth (MSE) Block Wall by Pier 251 continues to progress with the abutment wall poured and formwork stripped at the end of the year.

Look Ahead:**Design Progress**

- KIWC continues to work toward completing final design. Additional submittals are expected to be issued for construction, pending coordination with other parties and contracts.

**Shaft/Column**

- Continue with column production along Farrington between Work Area 3 Phase 6 and 7 (Mukuola St.) continuing towards Work Area 3 Phase 9. Column production is proceeding from Work Area 3 Phase 9 (Kahuali'i St.) westward.

**Guideway Segment Erection**

- Segment span erection will continue from Span 238 westbound towards Waipahu Transit Center, and from Span 192 eastbound along Farrington Highway to intersect Heading #2 at Waipahu Transit Center Station.

**Utility Relocation**

- Work to relocate the remaining wet utilities (sewer/water) and traffic signals along Farrington Highway.

**Balanced Cantilever Structure**

- Segments will be cast downstream and upstream for Pier 256.

**Track Construction**

- Align and final set of the rail will be performed by Ho'opili Station. Welding operations will continue in the BCS area. Concrete plinth forms to be installed east of East Kapolei Station.

**Precast Yard**

- KIWC will continue to cast the remaining segments and continue with segment repair work.

**KIWC/Third-Party Coordination**

- Continue to resolve conflict construction and traffic issues with third-parties.

**Civil Structures**

- MSE Block Walls A, C and D will continue to progress by Pier 251.

**KEY ISSUES:**

- Leeward Community College (LCC) Portables and Parking Lot Change Order** – KIWC elected to halt all construction work activities at the LCC Station area until a change order for the work in this area is executed.
- Construction Production/Baseline Schedule** – A re-sequenced October 2014 baseline schedule was submitted to HART in December 2014, showing more realistic construction durations, which is being used to track progress against schedule of payment milestones. KIWC submitted an updated schedule in August 2015 via an RFC containing significant changes in durations, logic, as well as activity modifications, which are currently under review by HART and will be negotiated as part of the contract time extension change order.
- Night Noise Variance** – HART was notified by the Department of Health that backhoes and excavators will no longer be allowed for nighttime work due to the contractor's improper use of equipment and receipt of complaints. HART has requested reconsideration on behalf of the contractor and is awaiting a state DOH response.
- Intersection Closure for Span by Span** – KIWC has successfully completed span erection and post tensioning at multiple intersections, and temporary intersection closures continued through December to support span operations. KIWC and HART will continue to evaluate opportunities for minimizing full closures at intersections during span by span operations over intersections along Farrington Highway.

- **Design Completion Schedule** – As of mid-December, 127 of 134 design submittals have been accepted. Department of Transportation Services (DTS) traffic signal design packages account for a majority of the remainder of the design, which is not impacting construction.
- **Closeout and Coordination** – As the project approaches substantial completion, KIWC has begun coordination with oncoming station contractors, as well as discussions between HART and KIWC on project closeout documentation requirements.

**QUALITY MANAGEMENT:**

- KIWC continues to follow their established quality processes. There have not been any significant findings through quality monitoring and audits.
- **Span 17 Damage and Repair** – During the erection process of Span 17, segments 17-1, 17-2, 17-11 and 17-12 were damaged due to unbalanced support from the temporary bearings. NCR 00314 was opened to address this issue. This issue has been technically resolved and the repair is ongoing.
- **Pre-Cast Segment Progress/Quality** – 135 of the total 491 NCRs (27.5%) have been related to segmental casting issues like damaged shear keys, concrete voids, and spalls. Proper correction procedures have already been developed and are being implemented, and these issues are currently being resolved.
- **Closing Out NCRs** – Both KIWC and HART have been working together to promptly correct, validate, and close out NCR’s during this period. A total of 21 NCRs have been closed since last month.
- **Maintenance of Traffic (MOT) Concerns** – HART and KIWC continue to work together through joint site meetings to ensure that the MOT is in place and in conformance with KIWC’s approved plans. KIWC performed an independent audit on their MOT, and recommendations were discussed and implemented.
- **Track Construction Operations** – HART and KIWC continue to have discussions on Direct Fixation Shim Tolerances. KIWC is working to resolve outstanding technical issues on the shim tolerances.

WOFH NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
491	441	50

**PROJECT PICTURES:**



**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:** TBD

**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.



**Project Overview:** The contractor was issued Notice-to-Proceed (NTP) on Oct. 13, 2015.

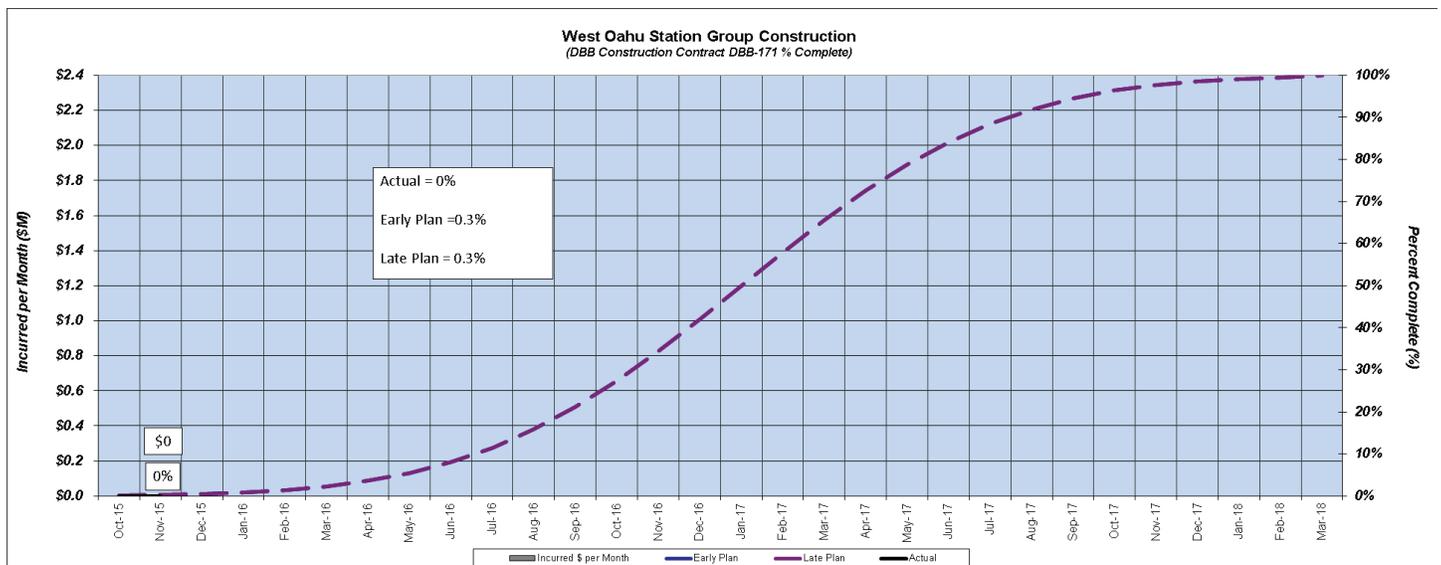
**COST INFORMATION:**

Original Contract:	\$56,088,470	Incurred-to-Date:	\$0
Current Contract Value <sup>1</sup> :	\$56,088,470	Incurred in November:	\$0

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



**SCHEDULE:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 03-Dec-15											
Activity Name	Start	Finish	2015		2016				2017				2018	
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
<b>W. Oahu/Farrington Highway (WOFH) - Section 1</b>	28-May-13 A	13-Mar-18												
<b>W. Oahu Station Group</b>	28-May-13 A	13-Mar-18												
Design - W. Oahu Station Group	28-May-13 A	30-Oct-17												
Design - Bid Support	28-May-13 A	13-Oct-15 A												
Design - Construction Support	13-Oct-15 A	30-Oct-17												
Construction - W. Oahu Station Group	02-Nov-15 A	13-Mar-18												
East Kapolei Station	15-Jan-16	29-Sep-17												
UH West Oahu Station	02-Nov-15 A	31-Aug-17												
Ho'opili Station	01-Dec-15	31-Jul-17												
Substantial Completion - W. Oahu Station Group	13-Mar-18	13-Mar-18												

**CRITICAL PATH ISSUES:**

- Baseline Schedule approval.
- Review and approval of the contractor’s administrative plans and procedures are required by the contract.

**WORK PROGRESS:**

Activities this Month:

Earned Value: 0%; Planned Value: 0%

- Draft Baseline Schedule has been submitted; revisions have been made, based on overall comments. Further review is being conducted.
- Draft plans and procedures are being submitted.
- Right of Entry documents for UH West O’ahu is with UH for signature.
- Ho’opili Right of Entry – Certificate of Insurance to be submitted to fulfill Right of Entry agreement.
- Grading Permit has been received.

Look Ahead:

- Right of Entry documents from Ho’opili and UH West O’ahu.
- Baseline Schedule approval.
- Incorporating the final conformed set into the contract document, upon receipt from design.

**KEY ISSUES:**

- Baseline Schedule.
- Right of Entry to UH West O’ahu and Ho’opili.

**QUALITY MANAGEMENT:**

WOSG NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
0	0	0

**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 (WL), Waipahu Transit and Leeward Community College (LCC) Station. In addition to the transit stations, operational ancillary buildings, kiss and ride lots, and parking lots servicing the West Loch and LCC stations and adjacent areas are included in this project.

**Project Overview:** The contractor was issued Notice-to-Proceed (NTP) on Aug. 17, 2015. Hawaiian Dredging Construction Company (HDCC) introduced one (1) Value Engineering (VE) concept– Augercast piles at the Waipahu Transit Station. HDCC has received HART’s feedback regarding the concepts and intends to submit an official VE proposal to HART. HDCC is currently working on the project plans, baseline schedule and contractual submittals.

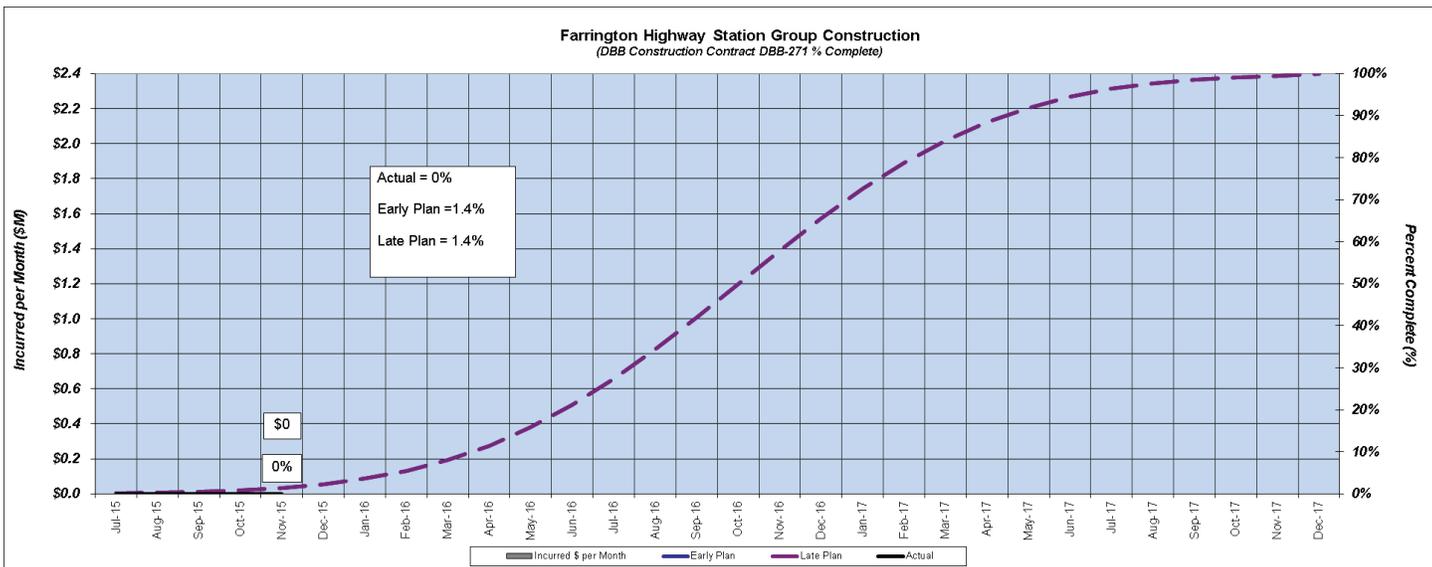
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$78,999,000</u>	<u>Incurred-to-Date:</u>	<u>\$0</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$78,999,000</u>	<u>Incurred in November:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



**SCHEDULE:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 03-Dec-15														
Activity Name	Start	Finish	2015			2016				2017				2018			
			Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1			
<b>W. Oahu/Farrington Highway (WOFH) - Section 1</b>	28-Jan-13 A	05-Feb-18															
<b>Farrington Highway Station Group</b>	28-Jan-13 A	05-Feb-18															
Design - Farrington Highway Station Group	28-Jan-13 A	05-Feb-18															
Design - Bid Support	28-Jan-13 A	17-Aug-15 A	█														
Design - Construction Support	17-Aug-15 A	05-Feb-18				█	█	█	█	█	█	█	█	█	█	█	█
Construction - Farrington Highway Station Group	17-Aug-15 A	16-Jan-18															
West Loch Station	17-Aug-15 A	31-Jul-17				█	█	█	█	█	█	█	█	█	█	█	█
Waipahu Transit Station	17-Aug-15 A	31-Jul-17				█	█	█	█	█	█	█	█	█	█	█	█
Leeward Community College Station	01-Jun-16	16-Jan-18															
Substantial Completion - Farrington Highway Station Group	16-Jan-18	16-Jan-18															

**CRITICAL PATH ISSUES:**

- Obtaining NPDES permit.
- Baseline Schedule approval.
- Review and approval of contractor’s administrative plans and procedures as required by the contract.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 0%; Planned Value: 0%**

- Revised draft Baseline Schedule to be submitted; HART will review.
- HDCC’s Draft Quality Assurance Plan – comments have been returned to HDCC; HDCC to resubmit.
- Submission of required contractual documents, such as resumes and personnel directory.
- HDCC has submitted a Public Involvement Manager’s resume.

Look Ahead:

- Value Engineering proposals.
- Baseline Schedule approval.
- Incorporating the final conformed set into the contract document, upon receipt from design.
- Transmittal of the Issue for Construction set of plans to HDCC.
- HDCC to plan mobilization to the West Loch site in anticipation of the start of construction.
- Groundbreaking to occur in mid to late January.

**KEY ISSUES:**

- Transmittal of the Issue for Construction set of plans.
- Baseline Schedule.

**QUALITY MANAGEMENT:**

FHSG NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
0	0	0

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

**Contract No.:** DB-200  
**Contractor:** Kiewit/Kobayashi Joint Venture (KKJV)  
**Contract Start Date:** July 2011  
**Contract Substantial Completion:** April 2016  
**Projected Substantial Completion:** April 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.

**Project Overview:** MSF substantial completion is April 21, 2016. The MSF-HART team is evaluating a two week time extension requested by KKJV due to weather events to date in 2015.

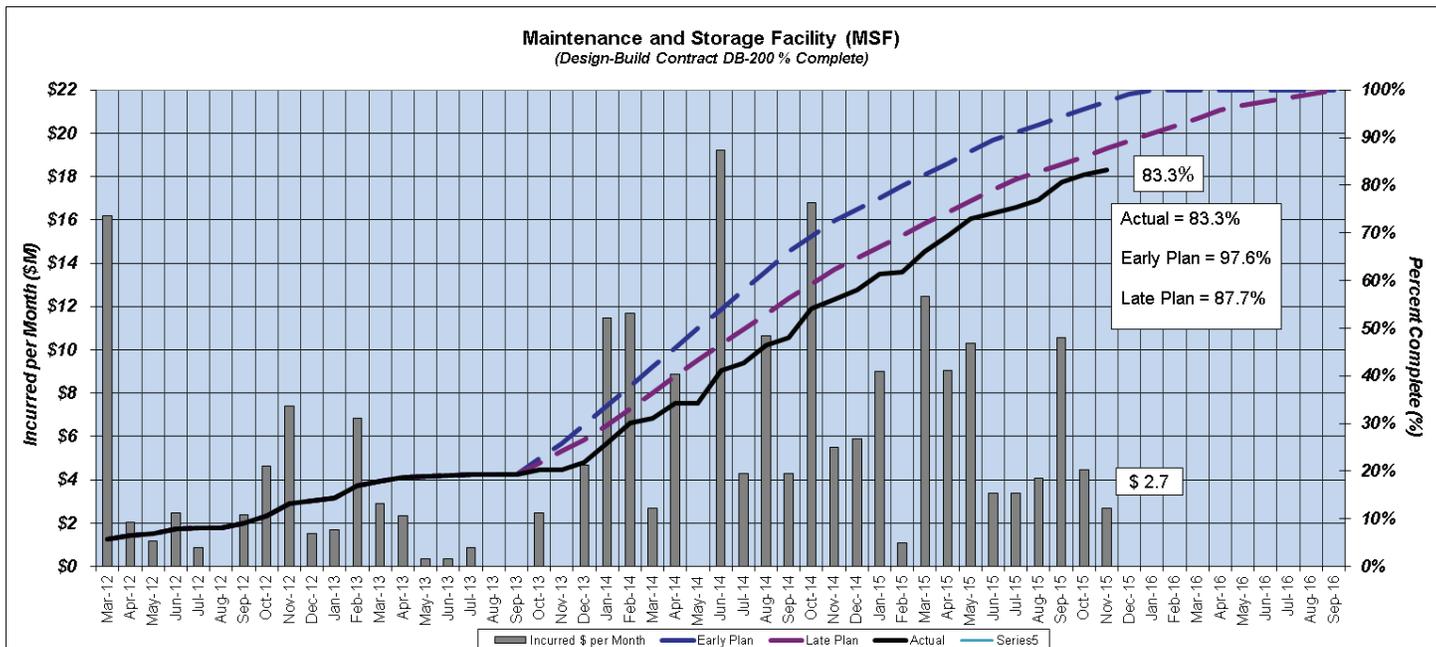
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$195,258,000</u>	<u>Incurred-to-Date:</u>	<u>\$233,007,858</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$275,146,453</u>	<u>Incurred in November:</u>	<u>\$2,699,842</u>

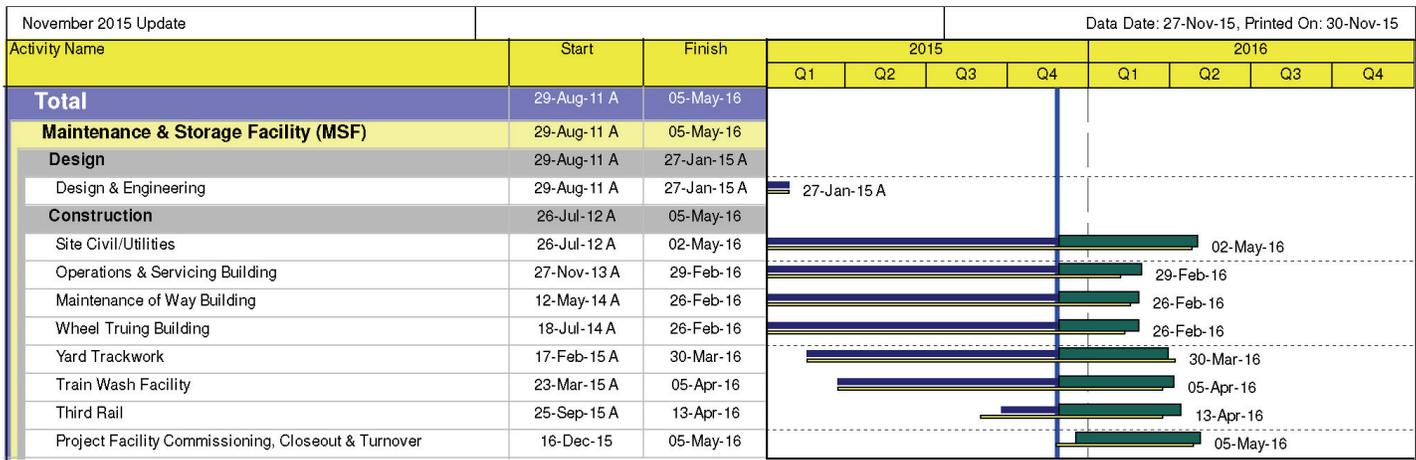
<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$388,923
DBE % Attained:	0.20%

November Change Orders		
Change No.	Description	Amount (\$)
CCO 035	Flagpole, Changes to Color Scheme	\$45,900
CCO 036	OSB, MOW, TWF Interior Bldg Systems Devices	\$130,000
CCO 037	AIS Reconciliation Credit from CCO 0007	(\$785,304.32)
CCO 038	Unpaid Suspension Amounts	\$271,374
CCO 39	Escalation of Additional Design Services Due to Schedule	\$68,058
CCO 41	Rework of Site due to AIS	\$537,653
<b>Cumulative to Date</b>		<b>\$79,888,453</b>



**SCHEDULE:**



**CRITICAL PATH ISSUES:**

- Scheduling work related to yard track and OSB to support program MSF completion date.
- Coordination with abutting WOFH main line contract for completion of track work in west yard, and utilities and site access in the east yard.

MSF Construction Status	
86% Complete Overall as of 12/31/15	
Element	% Complete*
OSB	93%
MOW Building	93%
WTB	97%
TWF	56%
Rail Procurement	98%

\*Not including testing and commissioning.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 85%** [(Total Achieved to October (\$230 million) + Projected November 2015 Period (\$3.6 million))/Total Contract Including Executed Change Orders (\$275 million)]. Planned Value: 90%

**Yard/Utilities**

- Installing conduit for systems, communications, train control, traction power, site electrical and exterior lighting.
- Yard lighting installation continues.
- Track drain, subballast, and ballast installation at East Yard Lead and West Yard Lead.
- Installation of fire pump foundation is complete.
- Paving for Driveway B and Driveway C commenced.

**Operations and Servicing Building (OSB)**

- Installation of mechanical/electrical/plumbing is ongoing.
- Elevator installation is ongoing for elevators 1 and 2.
- Installing service and emergency lighting.
- Installing interior and exterior building finishes.
- Installing framing for fixed ceilings.
- Installing metal door frames, doors and glazing.
- Installing power distribution cabinets.
- Commenced installation of refrigeration lines.
- Completed installation of raised tile floor in Operations Control Center (OCC).

**Maintenance of Way (MOW)**

- Completed pulling power distribution conductors.
- Completed HVAC installation, and commenced startup and testing of HVAC system.

Look Ahead:

**Yard/Utilities**

- Continue train wash, MOW, and ready track installation.
- Continue East Yard Lead track.
- Continue West Yard Lead track.
- Continue contact rail installation and testing.
- Continue testing of running rail.
- Continue installation of exterior yard and perimeter lighting.
- Complete Signal and Control Raceway.
- Complete turnover of Phase 3, 4 and 5 storage tracks to CSC.
- Complete paving of Driveways B and C.

**OSB**

- Installation of turntables and hydraulic lifts.
- Completion of interior finishes.
- Complete installation of HVAC.
- Continue elevator installation.
- Install floor tile and bathroom accessories.
- Energize distribution power.
- Complete installation of refrigeration lines.

**MOW**

- Interior and exterior finishes.

Activities this Month (continued):

- Installing mechanical/electrical/plumbing systems.
- Completed installing door hardware.
- Commenced installation of framing for storefront glazing.
- Application of polished floor finish continues.
- Continue installation of ceiling tiles.
- Commenced installation of bathroom tiles.

**Wheel Truing Building (WTB)**

- Floor finishing commenced.
- Installing plumbing trimout.

**Train Wash Facility (TWF)**

- Completed structural steel installation.
- Commenced roofing installation.
- Completed ground grid installation.

**Rail Procurement and Installation**

- Installation of contact rail is ongoing.
- Receiving materials and installing turnouts is ongoing.
- Distributing rail materials to WOFH is ongoing.
- Installation of pre-curved rail is ongoing.
- Installing subballast and ballast for ready tracks RL1 – 3 and W1 heading toward MOW and Train Wash.
- Continuity testing of running rail and conductivity testing of contact rail.
- Completed turnover of Phase 2 Storage Tracks to CSC.
- Preparing for turnover of Phase 3 Storage Tracks to CSC.

**Administration**

- Continue working with the CSC to resolve design interface issues and turned over raceways for CSC cable pulling activities.

Look Ahead (continued):

- Continue electrical, mechanical and plumbing.
- Complete installation of exterior doors and glazing.
- Tile floor and wall installation.
- Startup and testing of HVAC system.

**WTB**

- Testing of Wheel Lathe.
- Complete finishing of floors.
- Complete plumbing trim.
- Ceramic tile.
- Release Building Systems raceway to CSC.

**Train Wash Facility**

- Continue roofing installation.

**KEY ISSUES:**

- **Joint Occupancy with Core Systems Contractor** – weekly meetings are held and details are being worked out for systematic release of areas and infrastructure whereby the Core Systems Contractor can commence work.
- **Coordination with the abutting main line contract** – for completion of site access in the east and west yards, including rail, vehicular access and utility interconnection.
- **Train Car Delivery and Assembly** – Rail, access and building completion in support of train car delivery and assembly, including site access and internal movement of assembled rail cars.
- Orderly completion of traction power, train control and building services conduits.
- Resolution of outstanding Interface Control Documents (ICDs).

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.
- NCR 28 concerns application of fire stops and seals in rated walls.
- NCR 29 concerns a missing ground wire.
- NCR 30 concerns TWF sewer drain discrepancies.

MSF NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
30	27	3

**PROJECT PICTURES:**



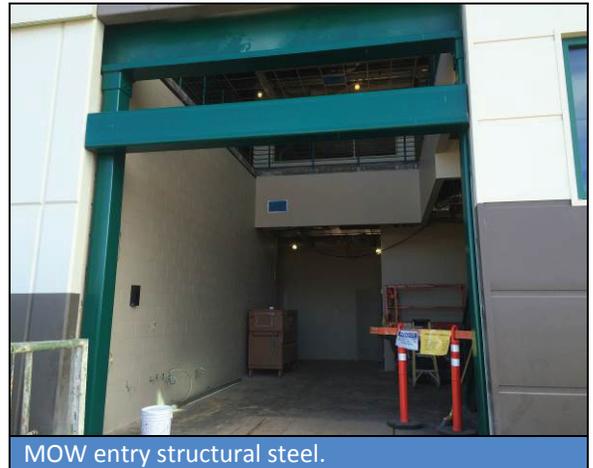
Grading Dwy 'C' roadway subgrade.



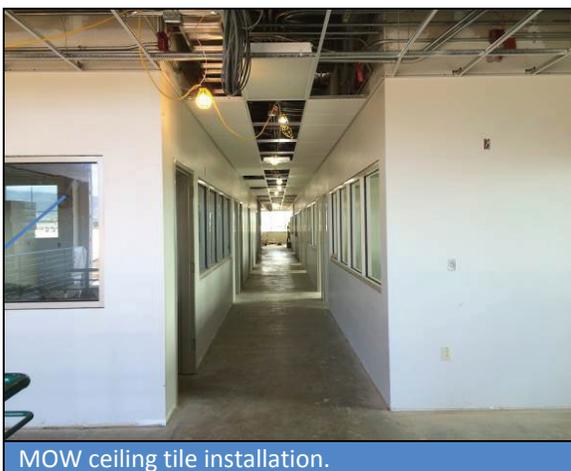
Grading subballast on RL track.



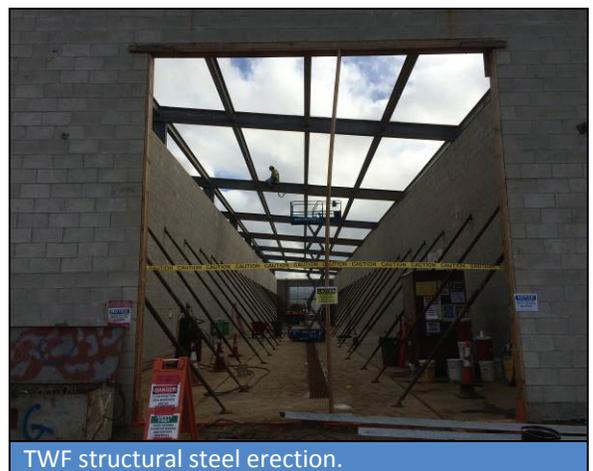
OSB exterior window caulking.



MOW entry structural steel.



MOW ceiling tile installation.



TWF structural steel erection.

### 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:** September 2016  
**Projected Substantial Completion:** September 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 is made up of utility relocations, highway widening, drilled shaft foundations, columns and aerial structure.

**Project Overview:** Construction of the drilled shafts has moved east of the H-1 overpass in order to maintain progress. Column construction has been completed from the WOFH project limits to Waimano Home Rd., with the exception of the Cantilever “C” piers at Acacia that are currently under construction. HART and KIWC continue to work at senior and executive management levels to ensure current utility relocation schedules are being maintained. Construction of the Balanced Cantilever System (BCS) pier table at Pier 306 up and down station has begun and KIWC continues construction on Pier 307 up and down station east of the H-1 overpass.

Per KIWC’s progress schedule, as submitted with the application for payment, the contract is twelve months behind schedule, which includes the guideway structure completion in April 2017 and the remaining roadway civil work being completed by September 2017.

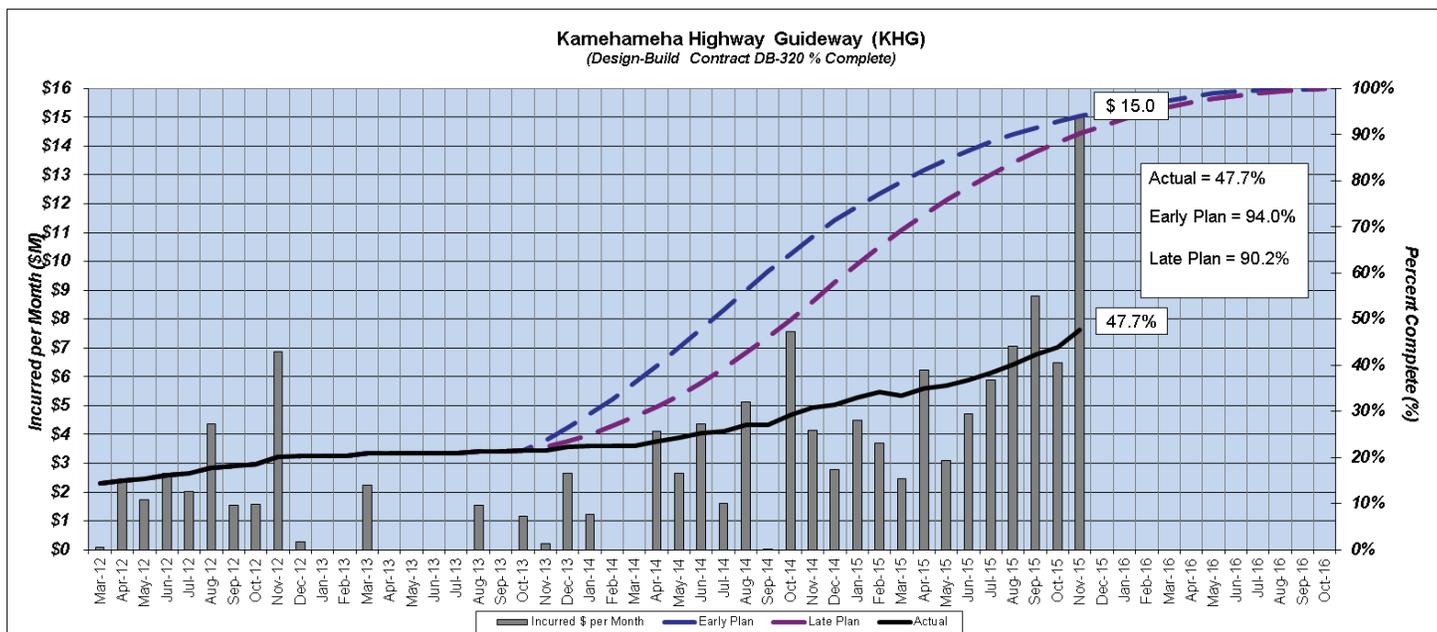
#### COST INFORMATION:

<u>Original Contract:</u>	<u>\$372,150,000</u>	<u>Incurred-to-Date:</u>	<u>\$190,181,817</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$388,967,876</u>	<u>Incurred in November:</u>	<u>\$15,051,403</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$297,631
DBE % Attained:	0.08%

November Change Orders		
Change No.	Description	Amount (\$)
CCO 019	DSC Railroad Sec (922-58) Track profile change, HDOT Addtl	\$57,891
<b>Cumulative to Date</b>		<b>\$16,817,876</b>



In December, KIWC submitted Pay Application #53 for the November 2015 billing and it is currently being reviewed by HART.

**SCHEDULE:**

KIWC submitted a schedule revision in December 2014 with a data date of October 2014, which showed a revised Substantial Completion date of April 4, 2017. HART provided review comments to the schedule and has requested re-submittal via Request for Change (RFC) due to the change to the contractual substantial completion date. Until then, the schedule is deemed unaccepted. Subsequently, KIWC submitted a revised schedule in September 2015 via an RFC for contract time extension. The re-sequencing of the guideway and road work contains significant changes in durations, logic, as well as activity modifications, and is currently being reviewed by HART. The revised schedule shows the guideway structure forecasted to be complete in April 2017 with completion of the roadway civil construction and the overall project in September 2017; this reflects a potential 12 month delay to the contractual substantial completion date.

KIWC continues to have challenges meeting schedule due to various factors including: weather, MOT restrictions, lower productivity, resource sharing between the KHG and WOFH projects, third-party utility relocation work, and lack of truss availability.

November 2015 Update		Data Date: 27-Nov-15, Printed On: 18-Nov-15 10:53										
Activity Name	Start	Finish	2016				2017				Q1 2018	
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		Q4
<b>Total</b>	03-Nov-14 A	28-Feb-18										
<b>West Guideways &amp; Structures</b>	03-Nov-14 A	28-Feb-18										
<b>Kamehameha Highway (KH) - Section 2</b>	03-Nov-14 A	28-Feb-18										
<b>Kamehameha Highway Guideway</b>	03-Nov-14 A	28-Feb-18										
<b>Kiewit KHG Summary</b>	03-Nov-14 A	28-Feb-18										
<b>Foundations</b>	03-Nov-14 A	05-Apr-17										
Drilled Shafts	03-Nov-14 A	07-Dec-16										
Columns	14-Aug-15 A	05-Apr-17										
<b>Guideway</b>	21-Dec-15	23-Jun-17										
Precast Segment Erection	21-Dec-15	23-Jun-17										
Cast BC Segments	25-Jan-16	05-Dec-16										
<b>Trackwork</b>	26-Apr-16	28-Feb-18										
Direct Fixation Trackwork	26-Apr-16	25-Aug-17										
Third Rail	10-May-16	08-Sep-17										
KHG Project Finish Work, Demob, Punchlist	01-Dec-17	28-Feb-18										
KHG Project Finish Work, Demob, Punchlist	01-Dec-17	28-Feb-18										
KHG Substantial Completion		01-Dec-17										

Contractor Forecast Dates:  
Dates Not Approved until  
HART Signoff.

**CRITICAL PATH ISSUES:**

- The KIWC third truss (Heading 3) is east bound heading toward the KHG alignment. KIWC’s selection of the location of Heading 3, on the WOFH contract, has created a delay to the start of span by span segment erection for KHG related to allocation of staffing and equipment. Currently, the heading is officially erecting spans on KHG as of the week of Dec. 14, 2015.
- HECO schedule forecasts at utility conflicts 11-920-M1 and 8-860-M1 are affecting utility relocations work. HART is tracking this issue and notes that its criticality needs to be established.

**WORK PROGRESS:**

KHG Construction Status as of 12/11/15									
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	92	141	99	186	49%
Gas Line	12,641	12,641	100%	Columns	20	103	34	169	12%
Sewer Line	492	492	100%	Segment Casting	658	1,246	812	2,075	32%
Drainage	705	1,469	48%	Spans Stressed	0	89	4	166	0%
Elec/Telecom	15,639	19,455	80%						
Signals/ITS/Lights	13,587	18,486	74%						

\* Accepted Schedule was submitted in 2013.  
\*\* 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:**

**Earned Value: 50.9%** [(Total achieved to November 2015 (\$187.9 million) + December projection (\$10.2 million))/Total contract including executed Change Orders (\$389 million)]. Planned Value: 91.9%

**Look Ahead:**

**Design Progress**

- KIWC is working to complete final design. To date, 40 of 49 drawing packages have been issued for construction.

Activities this Month (continued):

**Shaft/Column/Segments**

- 92 of 186 shafts have been installed; 49% of all shafts have been completed on KHG.
- 20 of 169 columns have been constructed.
- 658 of 2,075 segments have been cast.
- Column construction has resumed on KHG, as of mid-December. Column crews have remobilized from WOFH, after completing 5 columns in November.
- Balanced Cantilever superstructure west of the H-1 overpass has started.
- Construction of Balanced Cantilever columns east of the H-1 overpass have continued.
- “C” pier footings have been completed.
- “C” pier columns at Shafts 277, 278 and 279 have been poured and are awaiting post-tensioning.

**Utility Relocation Progress**

- The relocation of HECO electrical lines and Hawaiian Telcom, Oceanic Time Warner and Intelligent Transportation Systems (ITS) duct banks is occurring in various phases along the alignment.
- Pile driving for traffic signal foundation has ceased due to crew reallocation to WOFH.
- Installation of Waimalu drain line in Phase 5 has been completed.

**Roadway Widening**

- Roadway widening has been placed on hold due to crews being moved to WOFH.

Look Ahead (continued):

**Shaft/Column/Segments**

- Construction of shafts will continue east of the H-1 overcrossing.
- Shaft construction in front of Pearl Kai Shopping Center will begin in January 2016.

**Utility Relocation**

- Acquisition of ROE for utility relocations is being pursued by HART and KIWC jointly, and meetings with property owners will continue.

**Balanced Cantilever Structure**

- Superstructure construction will continue at the BCS area.

**Precast Yard**

- KIWC will continue casting segments. Based on the current rate, the forecasted completion is June 2016.

**Roadway Widening**

- HART has issued RFCRs to the contractor for identified HDOT betterments. Work is anticipated to begin after issuance of a change order.

**KEY ISSUES:**

- **Night Noise Variance** – HART was notified by the Department of Health that backhoes and excavators will no longer be allowed for nighttime work due to improper use of the equipment at night and public complaints received. HART has requested reconsideration on behalf of the contractor and is awaiting a state DOH response. Additionally, permanent ITS work continues to be installed along the alignment, and traffic signal crews ceased construction due to nighttime noise restrictions.
- **HDOT Betterments** – HART has issued eight RFCRs to date covering HDOT betterments and have commenced negotiations with KIWC, simultaneously obtaining scope and cost concurrence from HDOT. HART and HDOT are working in partnership to identify the source of funding, which is being finalized via a separate agreement. HART has negotiated the cost for RFCR 32 (Traffic Signals), which is currently in the HART approval and execution process. The remainder of the betterment RFCR is still pending receipt of cost proposals from KIWC.

KIWC notified HART on Dec. 10, 2015, that they have halted all construction work activities related to HDOT Betterments until HART issues an executed change order for the out of scope work. HART is tracking this issue and notes that its criticality needs to be established.

- **Third Party Utility Impacts** – HART and KIWC continue to work at senior and executive management levels to ensure current utility relocation schedules are being maintained.
- **KIWC Resource Allocations** – Column construction resumed again in November, but operations were again halted to support the WOFH project, while continuing to implement structures access MOT along Kamehameha Highway. KIWC continues to try and balance between the KHG and WOFH projects.

**QUALITY MANAGEMENT:**

- **Quality Process** – KIWC continues to follow an established quality process and have not encountered any significant findings through quality audits.
- **Latest Construction Plans** – Current shaft, column, and footing construction is proceeding with only minor quality issues.
- **Drilled Shaft Quality** – KIWC currently has 13 open NCRs due to velocity reduction exceeding 10%. 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
98	67	31

PROJECT PICTURES:



Forming pier 307, Phase 4.



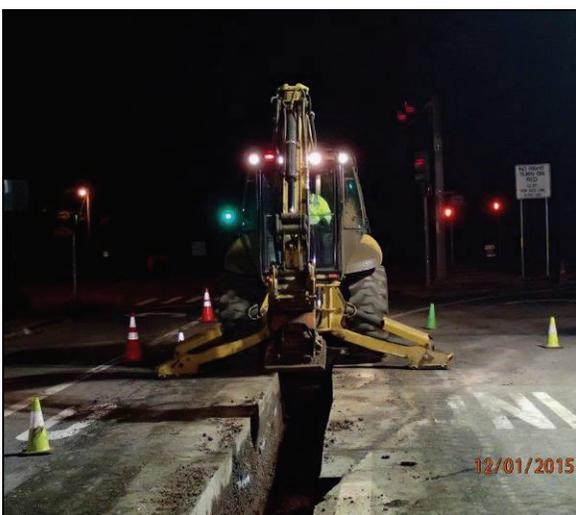
Balanced cantilever 1<sup>st</sup> deck placement, Phase 4.



Shaft drilling, Phase 8.



Shaft reinforcing work, Phase 8.



Installing Oceanic Time Warner Cable (OTWC) duct bank, Phase 12.

**B. Ramp H2R2**

**Contract No.:** DBB-385

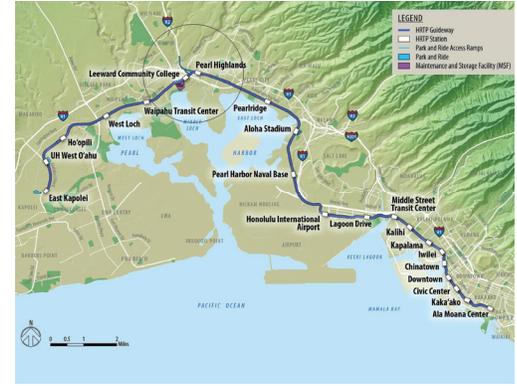
**Contractor:** Royal Contracting Co. Ltd.

**Contract Start Date:** May 2015

**Contract Substantial Completion:** June 2016

**Projected Substantial Completion:** November 2016

**Project Description:** Ramp H2R2 is a loop ramp which connects in-bound Farrington Highway to in-bound Kamehameha Highway. The loop terminates just west of the intersection of Kamehameha Highway and Waihona Street.



**Project Overview:** Royal Contracting was awarded this project on May 4, 2015, and issued NTP on May 18, 2015. Construction duration is anticipated to be 13 months. Royal has not yet started construction due to delays in obtaining required permits and submittal of required documentation. The contractor has projected a substantial completion of November 2016; HART has requested a revised schedule for review and analysis.

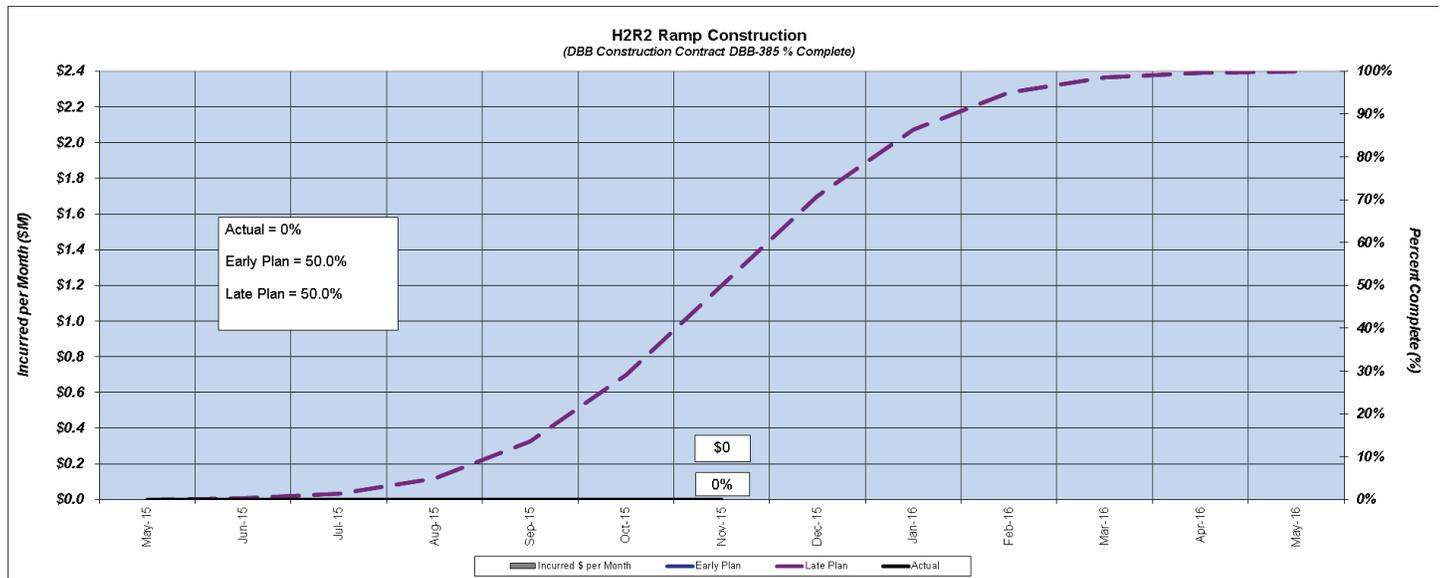
**COST INFORMATION:**

Original Contract:	\$5,203,646	Incurred-to-Date:	\$0
Current Contract Value <sup>1</sup> :	\$5,203,646	Incurred in November:	\$0

<sup>1</sup> Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



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

**SCHEDULE:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 02-Dec-15							
Activity Name	Start	Finish	2015				2016			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>West Guideways &amp; Structures</b>										
<b>Construction - H2R2 Ramp</b>										
Construction - H2R2 Ramp	18-May-15 A	17-Jun-16					17-Jun-16			
Substantial Completion - H2R2 Ramp		17-Jun-16								

**CRITICAL PATH ISSUES:**

- TMK 9-6-004:006 soils remediation area has been enlarged by DOH to now include approximately 200 cubic yards of soil remediation.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 0%; Planned Value: 0%**

- Required Forms, Reports and Certifications are not yet approved.
- Required submittals reviewed and returned for revision.

Look Ahead:

- Approval of all required submittals.
- Site clearing and grading, and placement of surcharge.

**KEY ISSUES:**

- Contractor to submit revised work schedule.

**QUALITY MANAGEMENT:**

Ramp H2R2 NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
0	0	0

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

**Contract No.:** FD-340

**Contractor:** Anil Verma Associates, Inc. (AVA), Final Design Consultant (Engineer of Record)

**Contract Start Date:** November 2012

**Construction Docs Bid-Ready:**

Ramp H2R2: January 2015 (in construction)

Kamehameha Highway Stations: August 2015 (bids received)

**Project Description:** The Kamehameha Highway Stations Group FD Contract (KHSG) consists of architectural and engineering services for the design of three (3) transit stations serving the Kamehameha Highway Guideway. The three (3) stations comprising the KHSG contract are the Pearl Highlands Station, the Pearlridge Station, and the Aloha Stadium Station. The Pearl Highlands Station also includes two highway ramps.



**Project Overview:** The KHSG design has incorporated value engineering changes and was advertised in a construction solicitation in August 2015. The corresponding bids received in November 2015 showed significant cost savings as compared to the prior solicitation for these same stations in 2014. In addition, the Ramp H2R2 was expedited under a separate Design-Bid-Build contract that was awarded in May 2015.

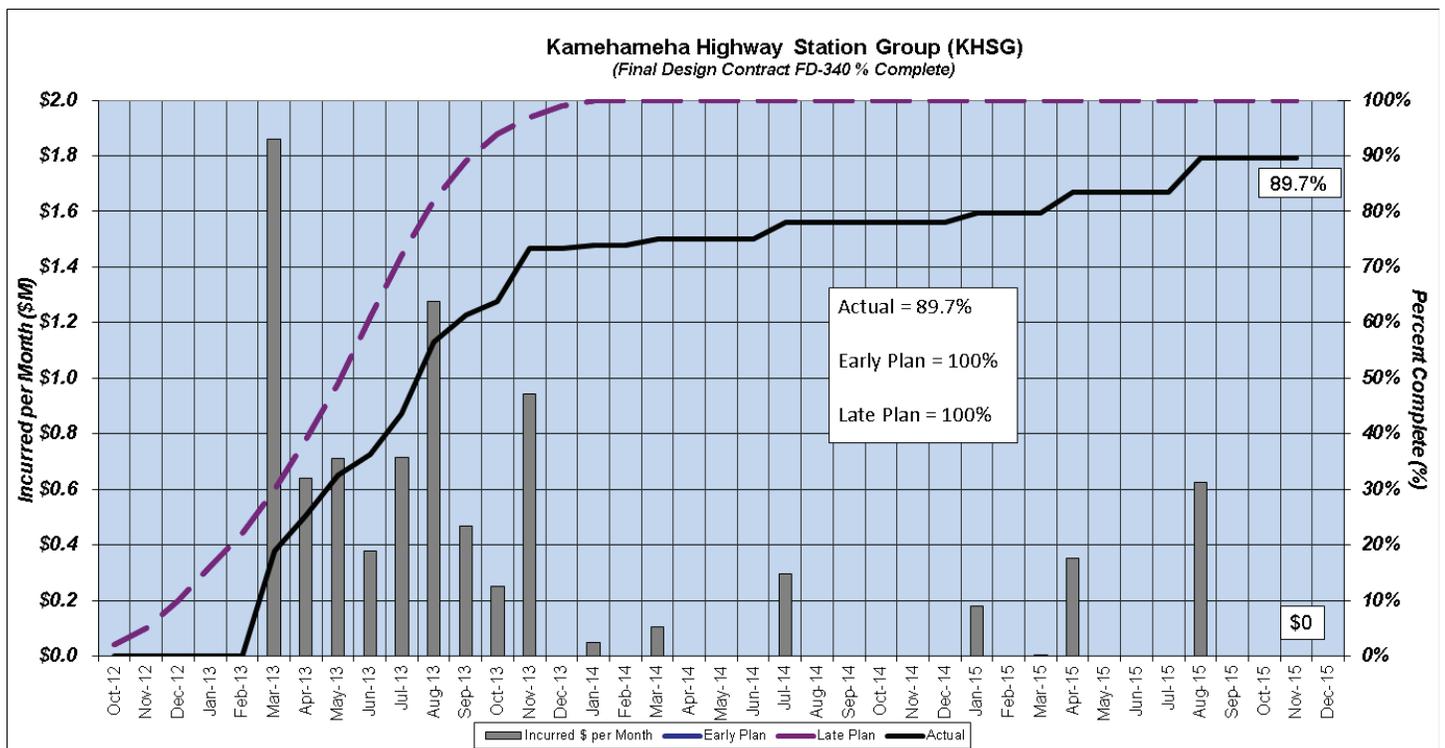
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$8,702,592</u>	<u>Incurred-to-Date:</u>	<u>\$8,843,841</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$9,859,290</u>	<u>Incurred in November:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$3,820,005
DBE % Attained:	43.9%

November Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,199,698</b>



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

The design phase of this contract is substantially complete.

**SCHEDULE:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 03-Dec-15															
Activity Name	Start	Finish	2015			2016				2017				2018				
			Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
<b>Kamehameha Highway (KH) - Section 2</b>	16-May-14 A	30-Jul-18																
<b>Kamehameha Highway Station Group</b>	16-May-14 A	30-Jul-18																
Design - Kamehameha Highway Station Group	16-May-14 A	30-Jul-18																
Design - Bid Support	16-May-14 A	19-Jan-16																
Design - Construction Support	20-Jan-16	30-Jul-18																
Construction - Kamehameha Highway Station Group	01-Mar-16	30-Jul-18																
Pearl Highlands - Station	01-Mar-16	29-Jun-18																
Pearl Ridge Station	01-Jun-16	29-Jun-18																
Aloha Stadium Station	03-Oct-16	30-Jul-18																

**CRITICAL PATH ISSUES:**

- Obtaining final design approval from DPP.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 99%.
- Conform drawings and specifications based on addenda issued during solicitation.
- Transition consultant’s role from design support during bidding to design support during construction.

Look Ahead:

- Obtain final DPP approvals on final construction documents.

**KEY ISSUES:**

- Finalizing interface agreements with other HART contractors.

### 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.):
  - Construction NTP issued July 2014

Construction Completed:

- Airport 7-Piers (DBB-525 – Hawaiian Dredging):
  - Project acceptance on May 2, 2015; currently in project closeout

**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.



**Project Overview:** The services under this contract are now limited to engineering support during construction, and support to HART during the design-build procurement.

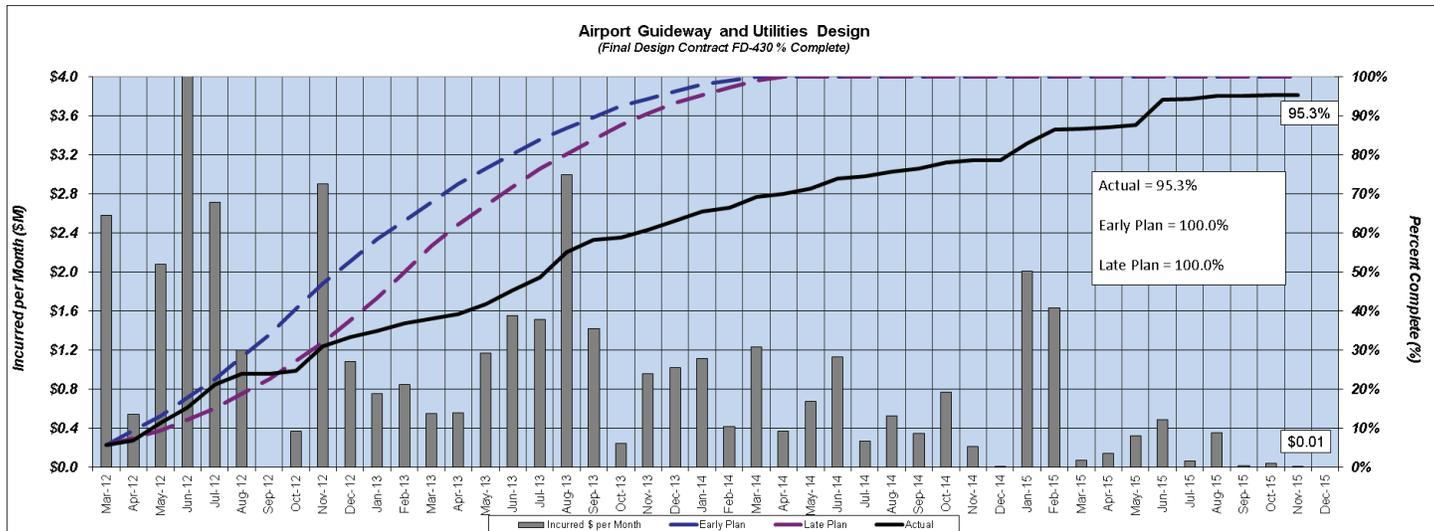
#### COST INFORMATION:

Original Contract:	\$38,840,960	Incurred-to-Date:	\$41,086,689
Current Contract Value <sup>1</sup> :	\$43,134,472	Incurred in November:	\$13,486

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

November 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.

Due to the change in delivery method from DBB to DB, the final design will not be completed under this contract.

**SCHEDULE:**

November 2015 Update		Data Date: 27-Nov-15, Printed On: 08-Dec-15													
Activity Name	Start	Finish	2015	2016			2017			2018			2019		
			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Airport Section Guideway</b>	09-Nov-11 A	19-Jul-19													
Airport Programmatic	01-May-12 A	14-Feb-14 A													
Airport Permits	09-Nov-11 A	09-May-16													
Design - Airport Guideway & Utilities	05-Jan-12 A	27-Mar-15 A													
Construction - Airport Guideway	04-Apr-16	19-Jul-19													

**CRITICAL PATH ISSUES:**

- N/A.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 97%.
- Supporting current construction contracts.
- Supporting AGS DB procurement.

Look Ahead:

- N/A.

**KEY ISSUES:**

- N/A.

**B. Airport Section Utilities Construction**

**Contract No.:** DBB-505

**Contractor:** Nan, Inc.

**Contract Start Date:** July 2014

**Contract Substantial Completion:** February 2016

**Projected Substantial Completion:** August/September 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.



**Project Overview:** Nan, Inc. continues with utility relocation work along Kamehameha Highway. ITS installation work along Kamehameha and Nimitz Highways is completed at 3 of the 4 sites. The 4<sup>th</sup> site needs power which is outside of this contract. Three of the 4 sites are operational and undergoing commissioning. Utility work was impacted due to lack of Navy ROE, however ongoing coordination with the Navy has allowed them to grant access. Details are still being finalized at this time. Meanwhile, Nan, Inc. continues to develop and submit outstanding submittals.

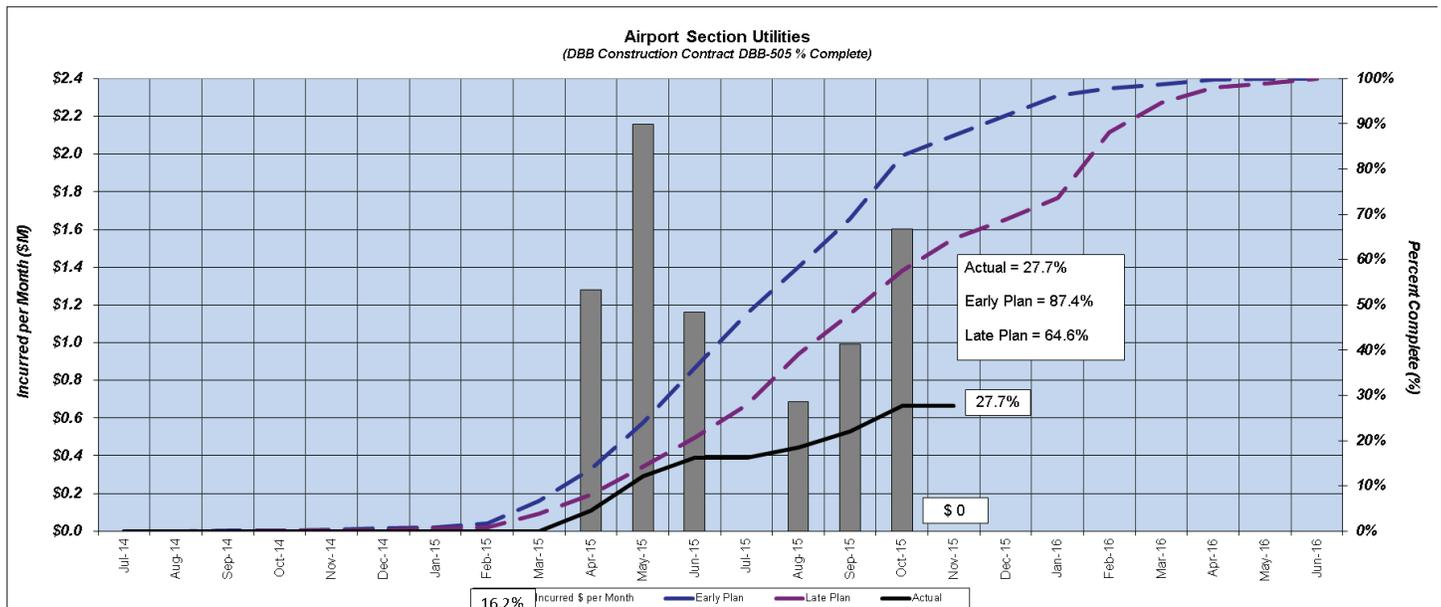
**COST INFORMATION:**

Original Contract:	\$28,413,974	Incurred-to-Date:	\$7,873,650
Current Contract Value <sup>1</sup> :	\$28,413,974	Incurred in November:	\$0

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



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

**SCHEDULE:**

November 2015 Update				Data Date: 27-Nov-15, Printed On: 08-Dec-15				
Activity Name	Start	Finish	2015		2016			
			Q3	Q4	Q1	Q2	Q3	Q4
<b>Airport Section Utilities</b>	30-Jun-14 A	17-Feb-16						
<b>Airport - Section 3</b>	30-Jun-14 A	17-Feb-16						
<b>Airport Utility Relocation</b>	30-Jun-14 A	17-Feb-16						
<b>Construction - Airport Utilities Relocation</b>	30-Jun-14 A	17-Feb-16						
<b>Construction - Airport Utilities Relocation</b>	30-Jun-14 A	12-Feb-16						
Airport Utilities Relocation - Execute Contract	30-Jun-14 A	30-Jun-14 A						
Permits for Airport Utilities Construction	22-Jan-15 A	16-Mar-15 A						
Airport Utilities Construction	16-Mar-15 A	06-Feb-16						
Airport Utility Relocation - Substantially Complete		12-Feb-16						
<b>Utility Relocation Inspection</b>	29-Jan-16	17-Feb-16						
Inspect and Accept Airport Section Utilities Relocations	29-Jan-16	17-Feb-16						

**CRITICAL PATH ISSUES:**

- No critical path issues at this time.

**WORK PROGRESS:**

Activities this Month:

Earned Value: 27%; Planned Value: 30%

- Nan, Inc./CE&I are finalizing coordination’s with DTS to bring the LPR’s online by the end of the year.
- Nan, Inc. has submitted a baseline construction schedule, which has been approved. They are working on a revised baseline schedule based on deductive RFCRs that have been issued.
- Inspection and Testing Plan (ITP) has been submitted by Nan and returned by HART with comments.
- Tree relocation by On-Call (Royal Contracting) is ongoing.

Look Ahead:

- Ongoing utility work on Kamehameha Highway (30-inch and 24-inch waterline connection, telecom duct line and gas line).
- Installation of new sewer line.
- Coordinate with Navy and third party communications utilities to resolve duct/lines that were damaged.
- Summarizing descope items to be added to the guideway contract.
- CE&I II team continues to review RFC and initiate plans to reduce the current outstanding RFCs.

**KEY ISSUES:**

- Nan has submitted a construction delay claim due to the delay in access to Navy right of entry to perform work. HART is currently reviewing the claim.
- Nan, Inc. is presently 7 months behind schedule; due to the delay in access to construction sites as well as other factors, such as differing site conditions.
- Determine status of telecom duct bank work and how to proceed with removal.
- Pending coordination with the Navy if a 30-inch waterline connection can be completed at the station site.
- Awaiting Nan’s cost/schedule of work to relocate a section of 24-inch waterline.
- Comments to Nan’s Noise Mitigation Plan have been sent back to be addressed.

**QUALITY MANAGEMENT:**

Airport Utilities NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
<b>17</b>	<b>14</b>	<b>3</b>

**C. Airport Section Guideway Seven Pier Construction**

**Contract No.:** DBB-525

**Contractor:** HDCC/CJA JV

**Contract Start Date:** September 2014

**Contract Substantial Completion:** April 24, 2015

**Declared Substantial Completion:** April 22, 2015

**Project Description:** The Airport 7-piers contract consists of seven drilled shaft foundations installed within the Honolulu International Airport Parking lot "J", where the new Interim Car Rental Facility (CONRAC) is also being constructed. The contractor has installed seven foundations for piers 546, 547, 548, 549, 550, 551R and 552R. This work involved close coordination with the HDOT Airport and Kiewit, who is the contractor for CONRAC. In addition to the pier work, existing utility relocations have been included at Piers 546, 548, 549 and 550, under Change Amendment 1.



**Project Overview:** HDCC/CJA JV substantially completed the project on April 22, 2015. The site, along with maintenance of existing BMPs and traffic control measures were turned over to the HDOT-A. Generated punch list items were completed and accepted as of May 2, 2015, by HDOT-A. Project is currently in a close out phase; final change orders are being processed.

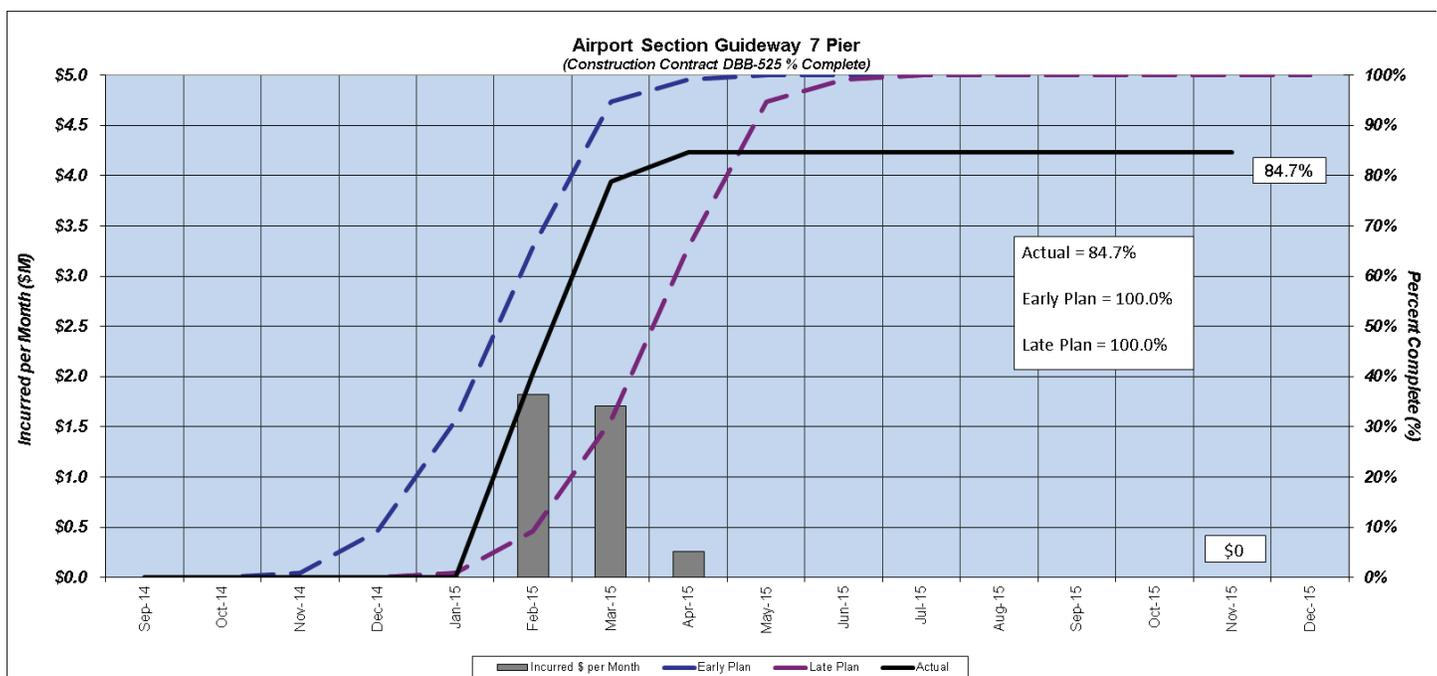
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$3,973,000</u>	<u>Incurred-to-Date:</u>	<u>\$3,796,241</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$4,481,241</u>	<u>Incurred in November:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

November Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$508,241</b>



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

**CRITICAL PATH ISSUES:**

- None - All construction work has been completed; currently two final Change Orders are in process. Project close out and final invoicing will follow upon execution.
- 

**WORK PROGRESS:**Activities this Month:

**Earned Value: 100%**; Planned Value: 100%

Look Ahead:

- HART is processing a change order for:
    - Change proposal for Temporary Fill at Piers 551R and 550.
    - Double handling of drilling spoils.
    - Additional core sample test to confirm Pier 551R concrete.
    - Force Account work for Pier 548 Utility Conflicts.
  - HDCC/CJA JV has the following items to submit for Contract Closeout, pending execution of final Change Orders:
    - Provide Release of Liens.
    - Submit final DBE forms.
    - Submit final invoice.
- 

**KEY ISSUES:**

- None.

**D. 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



**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.

**Project Overview:** These four stations have been combined with the guideway into a single Airport Guideway and Stations Design-Build (DB) package.

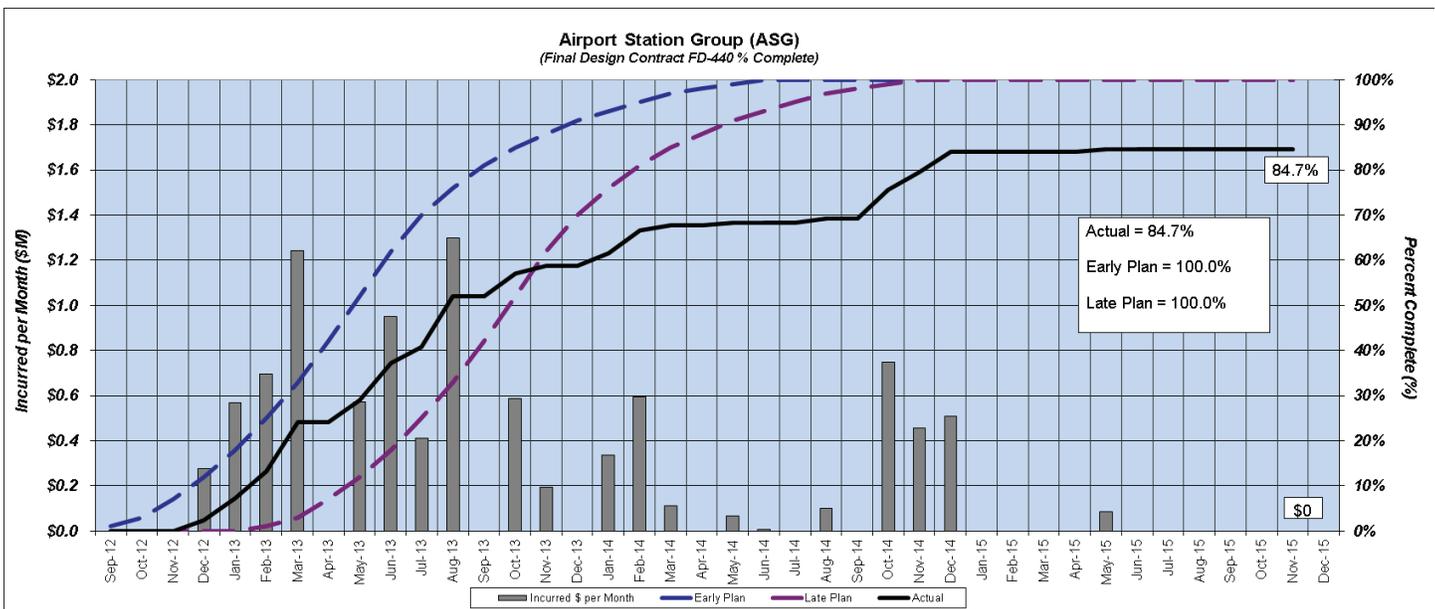
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$10,177,365</u>	<u>Incurred-to-Date:</u>	<u>\$9,801,978</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$11,573,852</u>	<u>Incurred in November:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$234,761
DBE % Attained:	2.31%

November Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,416,487</b>



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

Due to the change in procurement strategy from DBB to DB, the design of the Airport Stations Group will not be advanced to completion under this contract.

**SCHEDULE:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 08-Dec-15															
Activity Name	Start	Finish	2015		2016				2017				2018					
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>Airport - Section 3</b>	02-May-11 A	01-Jun-18																
<b>Airport Station Group</b>	02-May-11 A	01-Jun-18																
Design - Airport Station Group	02-May-11 A	14-Jul-17																
Construction - Airport Station Group	02-Mar-16	01-Jun-18																
Pearl Harbor Station	02-Mar-16	02-Jan-18																
HNI Airport Station	31-May-16	01-Jun-18																
Lagoon Drive Station	18-Apr-16	22-Feb-18																
Middle Street Station	15-Jul-16	13-Apr-18																

**CRITICAL PATH ISSUES:**

- N/A.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 88% and is not anticipated to increase significantly due to the suspension of design activities.

Look Ahead:

- N/A.

**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

**Construction Docs Bid-Ready:**

- Potential Expedited Utilities Package (DBB): TBD

**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.



**Project Overview:** This section of the guideway has been combined with eight (8) stations into a single City Center Guideway and Stations (CCGS) Design-Build package. The services remaining under this contract include preparation of an early utility relocation package and support to HART during design-build procurement.

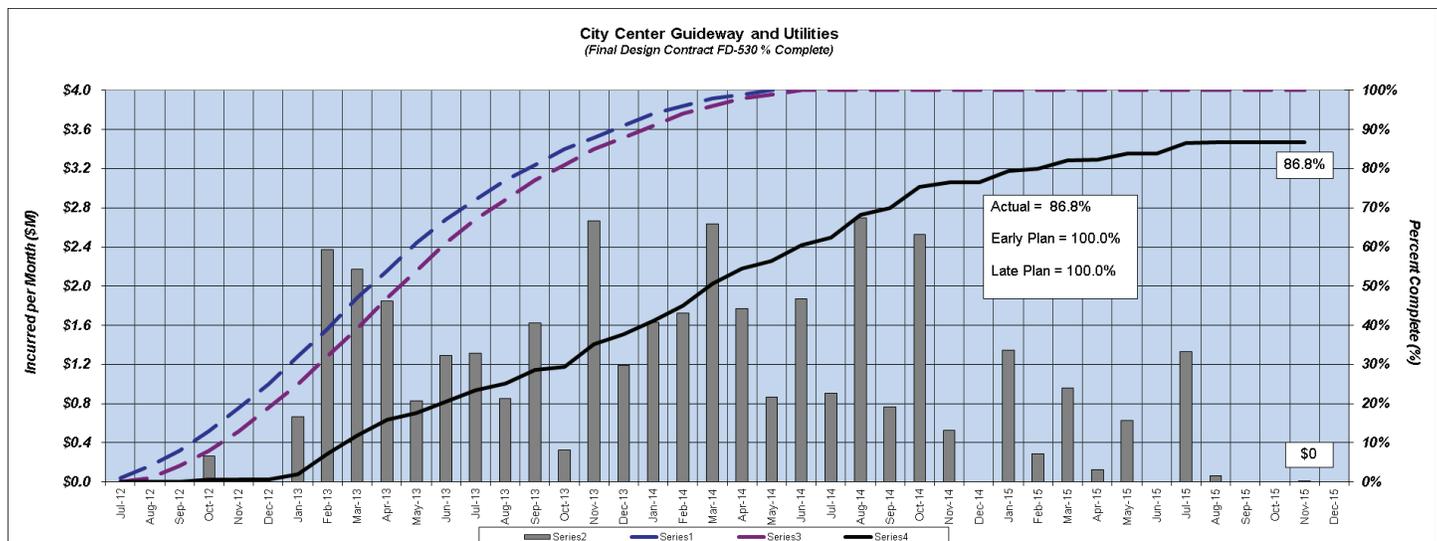
#### COST INFORMATION:

<b>Original Contract:</b> \$43,948,220	<b>Incurred-to-Date:</b> \$40,075,486
<b>Current Contract Value<sup>1</sup>:</b> \$46,197,562	<b>Incurred in November:</b> \$0

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

November Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
CA 007	CC Repackaging GET Credit	\$14,039
<b>Cumulative to Date</b>		<b>\$1,296,842</b>



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

Due to the change in delivery method from DBB to DB, the final design will not be completed under this contract.

**SCHEDULE:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 08-Dec-15																							
Activity Name	Start	Finish	2014			2015			2016			2017			2018			2019			2020					
			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q			
<b>City Center Section Guideway</b>	19-Aug-11 A	31-Dec-19																								
City Center Programmatic	01-Nov-11 A	05-Oct-15 A																								
City Center Permits	19-Aug-11 A	08-Dec-16																								
Design - City Center Guideway & Utilities	01-Jul-12 A	03-May-15 A																								
Construction - City Center Guideway and Utilities	02-Aug-16	31-Dec-19																								

**CRITICAL PATH ISSUES:**

- HART is evaluating the scope of utility work to be expedited in a separate DBB package.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 92%.
- Supporting HART on DB procurement.

Look Ahead:

- Issue advanced utilities package.

**KEY ISSUES:**

- Coordinating with HECO on clearance requirements for overhead power lines.

**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

**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.



**Project Overview:** The DKSG stations have been combined with the City Center Guideway into a single City Center Guideway and Stations Design-Build package.

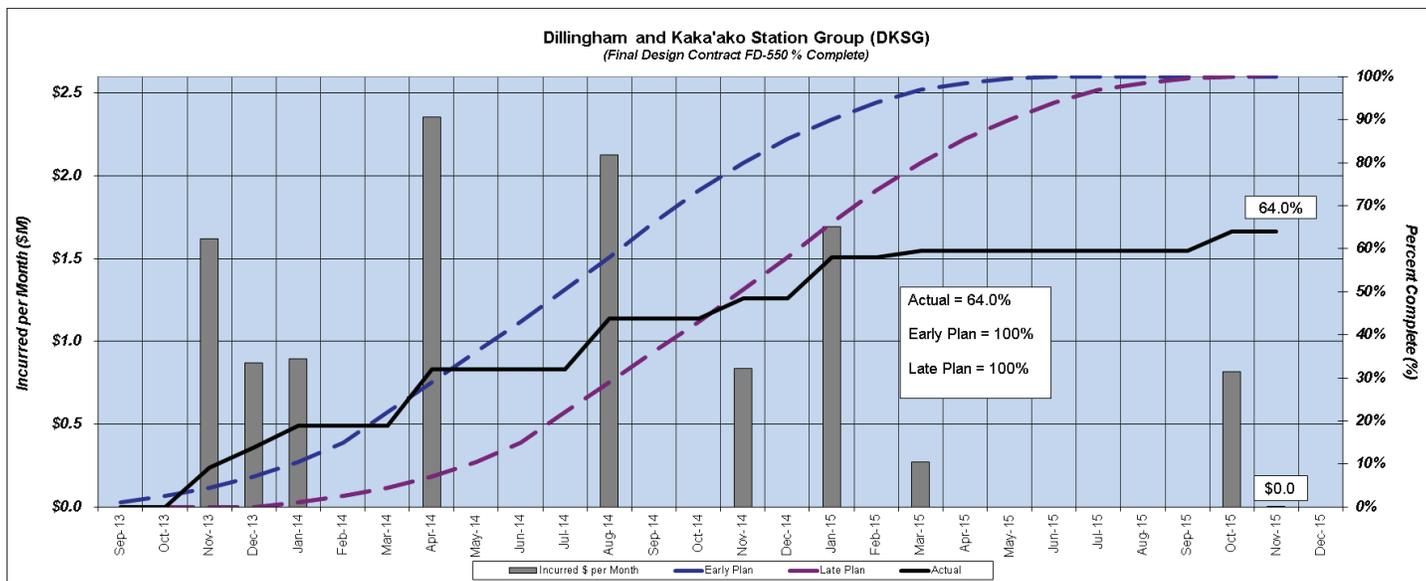
**COST INFORMATION:**

Original Contract:	\$18,321,918	Incurred-to-Date:	\$11,482,205
Current Contract Value <sup>1</sup> :	\$19,308,042	Incurred in November:	\$100

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

November Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,046,743</b>



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

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 contract.

**SCHEDULE:**

November 2015 Update			Data Date: 27-Nov-15, Printed On: 08-Dec-15																			
Activity Name	Start	Finish	2015				2016				2017				2018				2019			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>City Center (CC) - Section 4</b>	15-Oct-12 A	05-Dec-18																				
<b>Dillingham Station Group</b>	15-Oct-12 A	08-Mar-18																				
Design - Dillingham Station Group	15-Oct-12 A	08-Dec-15																				
Construction - Dillingham Station Group	25-Jan-16	08-Mar-18																				
Kalihi Station	25-Jan-16	20-Jul-17																				
Kapalama Station	07-Mar-16	27-Sep-17																				
Iwilei Station	27-Jan-16	08-Mar-18																				
Chinatown Station	11-Jul-16	21-Feb-18																				
<b>Kaka'ako Station Group</b>	15-Oct-12 A	05-Dec-18																				
Design - Kaka'ako Station Group	15-Oct-12 A	08-Dec-15																				
Construction - Kaka'ako Station Group	26-Apr-16	05-Dec-18																				
Downtown Station	26-Apr-16	21-Feb-18																				
Civic Center Station	06-Jun-16	28-Dec-17																				
Kaka'ako Station	01-Aug-16	02-Apr-18																				
Ala Moana Center Station	16-Sep-16	05-Dec-18																				

**CRITICAL PATH ISSUES:**

- N/A.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 68% and is not expected to increase significantly due to the suspension of design activities on this contract.

Look Ahead:

- N/A.

**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 8, 2012

Contract Completion: March 7, 2016, with option to renew contract one additional year

**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.

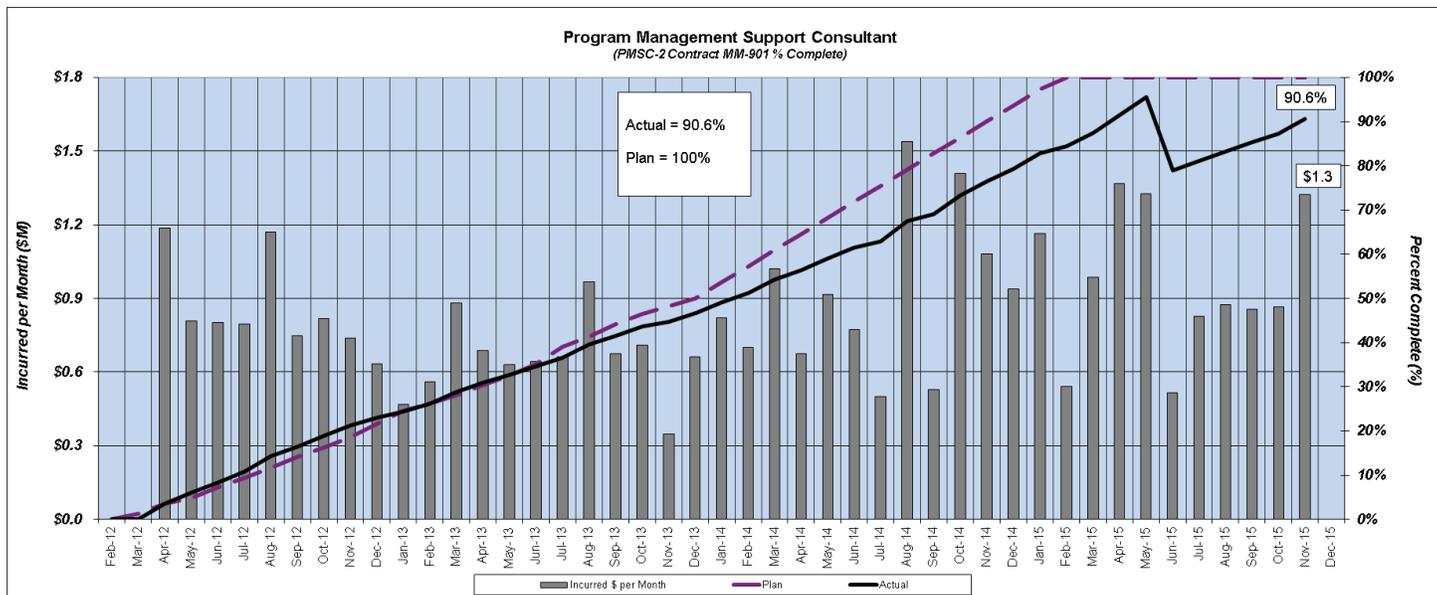
#### COST INFORMATION:

Original Contract: \$33,376,897	Incurred-to-Date: \$37,131,627
Current Contract Value <sup>1</sup> : \$40,993,274	Incurred in November: \$1,322,385

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

November Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$7,616,377</b>



#### KEY ISSUES:

- No issues.

**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).

**Project Overview:** The GEC III is supporting HART with procurement packages, review of independent cost estimates, evaluation of east segment schedules, and developing Hawaiian Electric Facility avoidance and minimization impact alternatives.

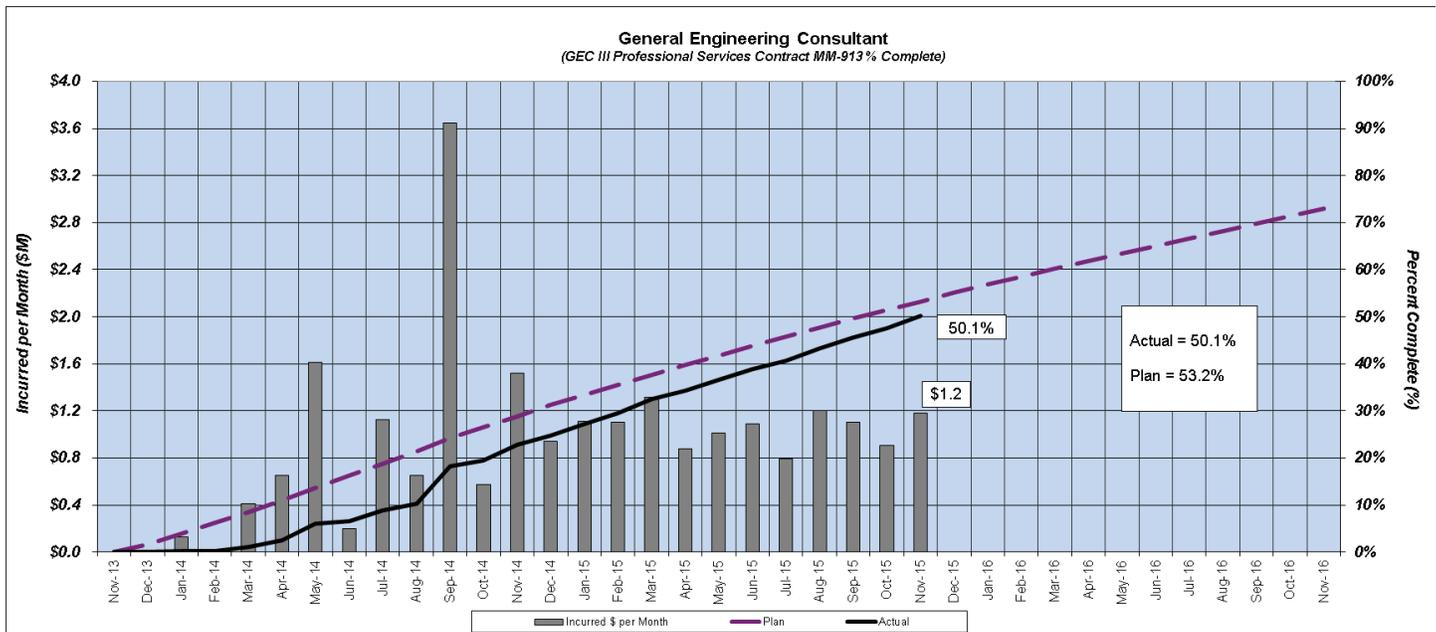
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$46,143,277</u>	<u>Incurred-to-Date:</u>	<u>\$23,135,837</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$46,143,277</u>	<u>Incurred in November:</u>	<u>\$1,181,622</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$1,970,775
DBE % Attained:	4.27%

November Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</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 KHSG, Airport Guideway and Stations (AGS), and 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

**Projected Substantial Completion:** December 2018

**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.

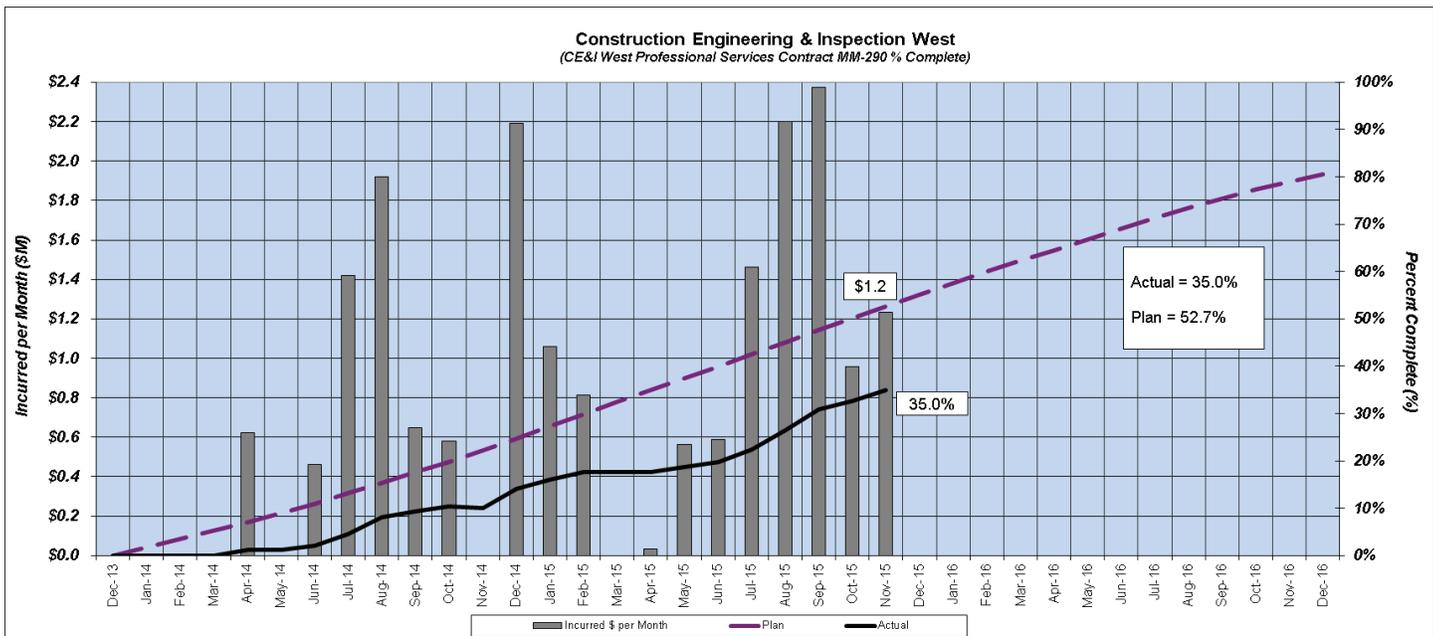
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$54,232,480</u>	<u>Incurred-to-Date:</u>	<u>\$18,959,937</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$54,232,480</u>	<u>Incurred in November:</u>	<u>\$1,234,621</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$2,102,266
DBE % Attained:	3.88%

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



**KEY ISSUES:**

- In the process of procuring a combined field office space to support the staffing requirements for the west section station group’s multiple procurement contracts. A contract amendment will be required to increase the other direct cost reimbursement allowance.
- Recent schedule discussions on guideway and stations contracts need to be aligned with anticipated West CE&I staffing durations.

**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)

**Substantial Completion:** October 2015

**Project Description:** The URS team provided Construction Engineering and Inspection Services (CE&I) for the east section of the Honolulu Rail Transit Project (H RTP) 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.

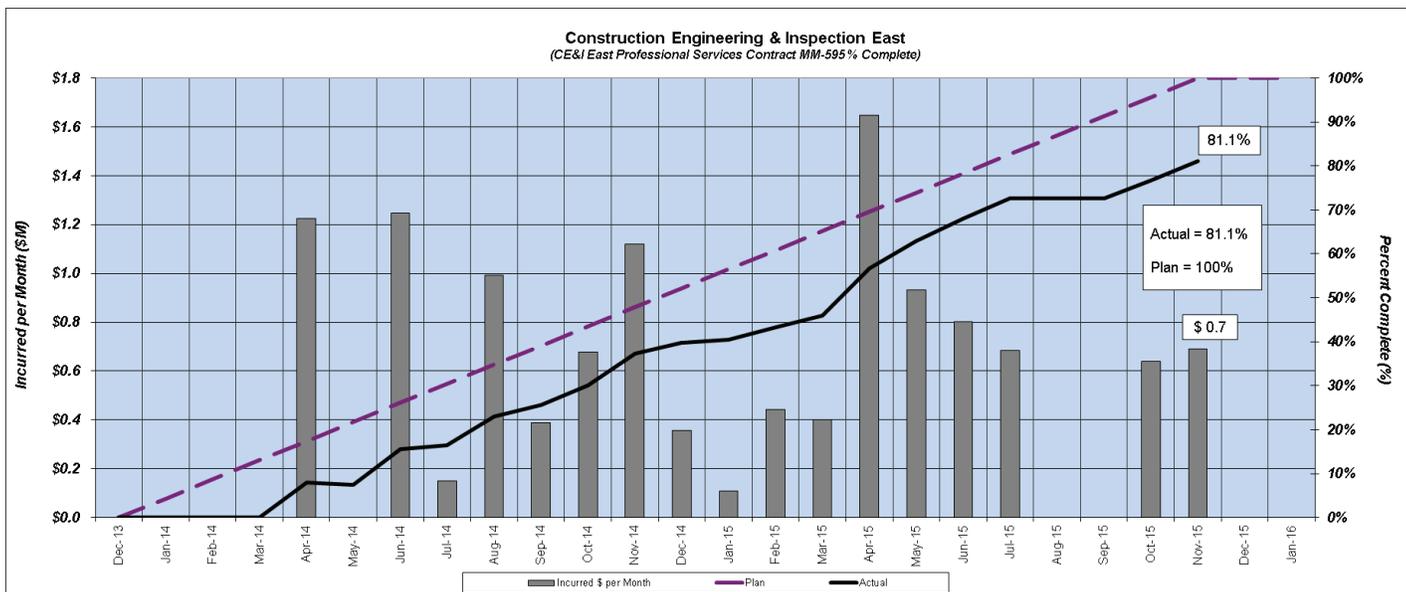
**COST INFORMATION:**

<u>Original Contract:</u> \$63,083,417	<u>Incurred-to-Date:</u> \$12,377,950
<u>Current Contract Value<sup>1</sup>:</u> \$15,257,000	<u>Incurred in November:</u> \$691,632

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$1,578,800
DBE % Attained:	10.35%

November Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>-\$47,826,417</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, and the final closeout of the URS contract is ongoing. Once the contract is closed, this contract page will be removed from the 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

**Projected Substantial Completion:** December 2019

**Project Description:** The Stantec team has assumed the responsibility for Construction, Engineering and Inspection (CE&I) services for the East Section of the Honolulu Rail Transit Project (H RTP) for the Honolulu Authority for Rapid Transportation (HART). The Stantec team is providing services from the preconstruction phase through construction closeout. 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, surveying, material testing, interface coordination, geographic information system (GIS) support, 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, Dillingham Utilities and Roadway contract, Elevators and Escalators Design-Furnish-Install-Maintain contract (construction phase only) and Construction On-Call II 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.

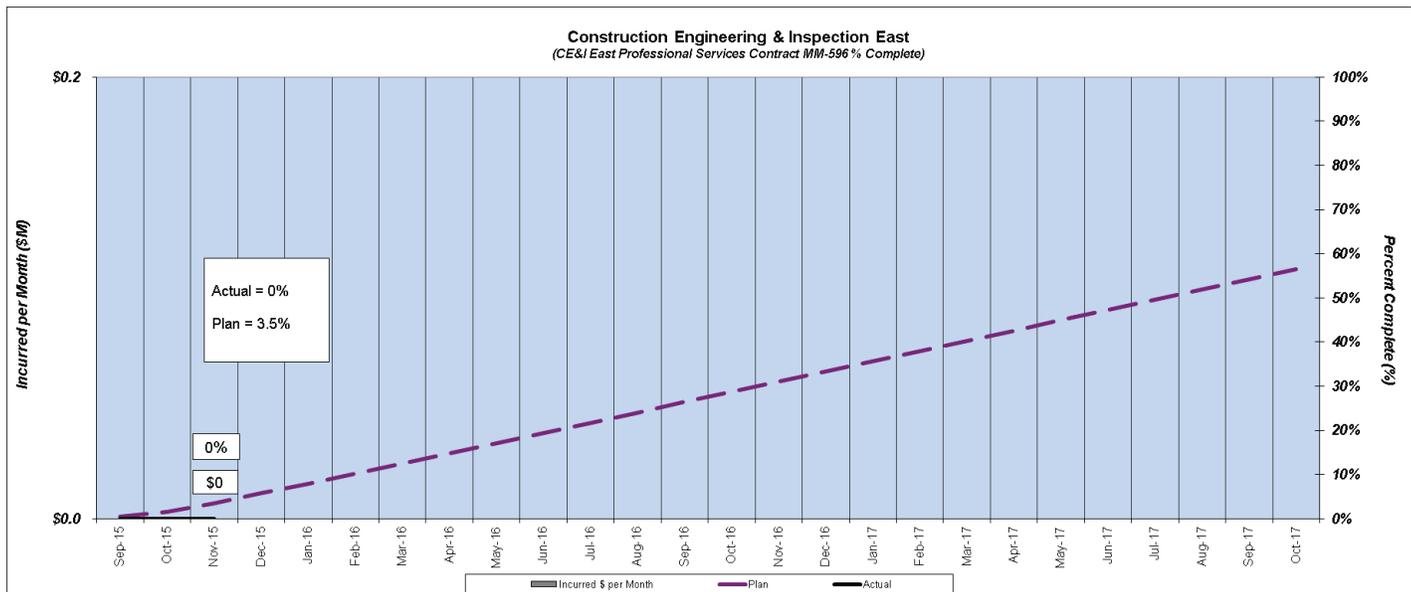
**COST INFORMATION:**

Original Contract:	\$55,036,130	Incurred-to-Date:	\$0
Current Contract Value <sup>1</sup> :	\$55,036,130	Incurred in November:	\$0

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



**KEY ISSUES:**

- The East Section CE&I II team is completing the review and submittal of the NTP deliverables due (90) days after NTP (Sept. 14, 2015). The project team is completing the documents as planned, and is scheduled to have all documents submitted to HART for review and acceptance by January 2016.
- HART has requested an Independent Cost Estimate (ICE) be performed on the Airport Guideway and Stations DBB contract, the Dillingham Utilities and Roadway DBB contract, and the City Center Guideway and Stations DB contract. The ICE's are currently in process, and scheduled to be delivered to HART in March 2016.

**F. Core Systems Contract Oversight Consultant**

**Contract No.:** MM-962

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

**Contract Start Date:** February 2014

**Contract Completion:** August 2019

**Projected Substantial Completion:** N/A

**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.

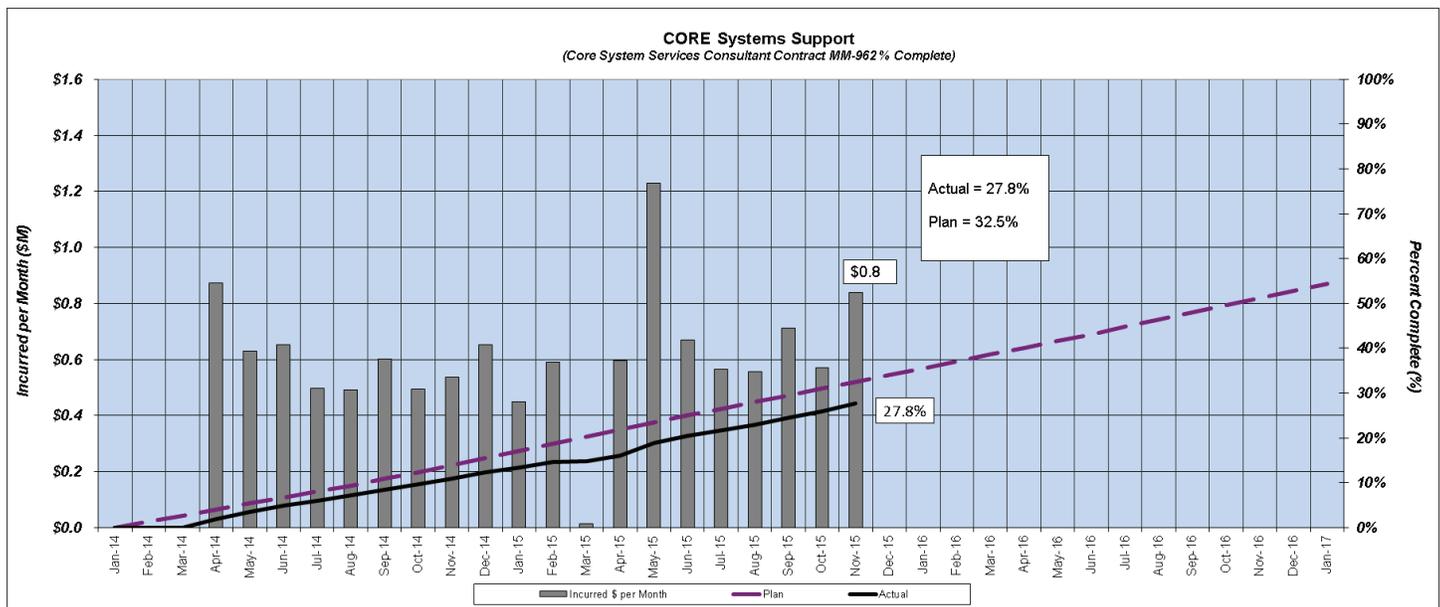
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$43,988,989</u>	<u>Incurred-to-Date:</u>	<u>\$12,221,628</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$43,988,989</u>	<u>Incurred in November:</u>	<u>\$838,680</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$294,308
DBE % Attained:	0.67%

November 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 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.

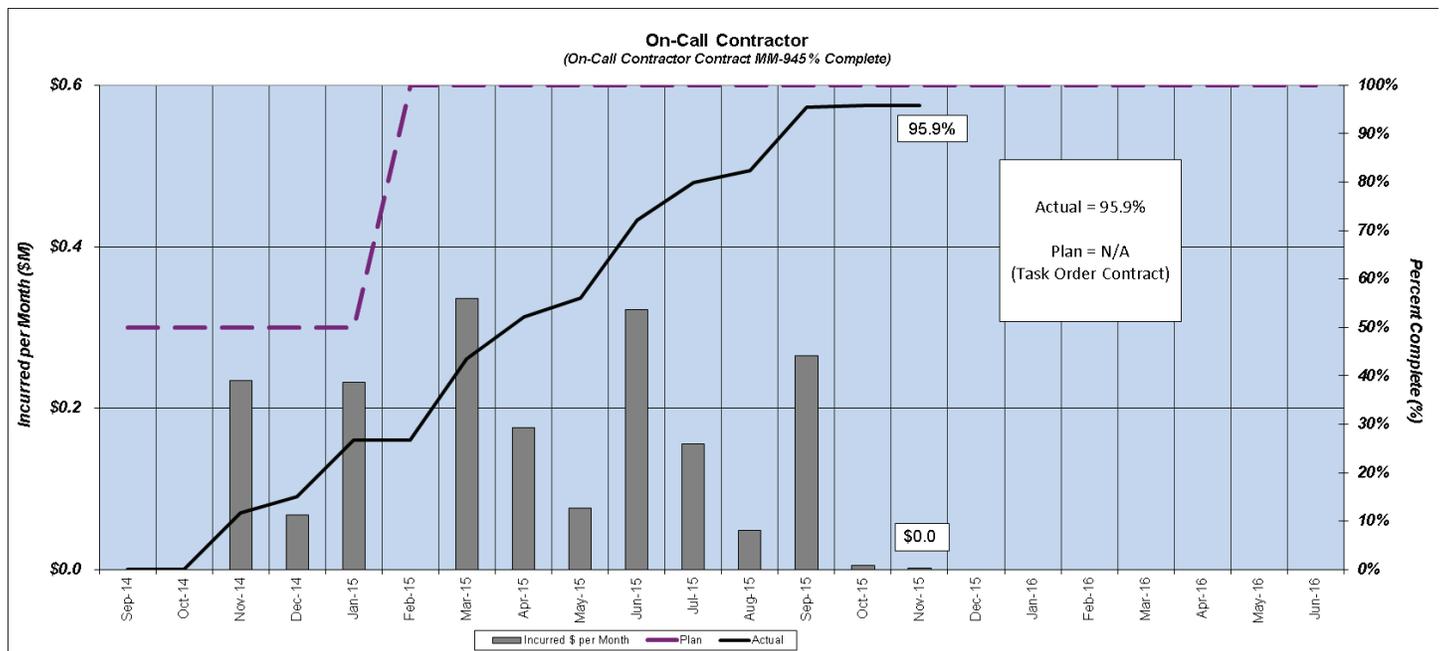
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$1,000,000</u>	<u>Incurred-to-Date:</u>	<u>\$1,918,233</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$2,000,000</u>	<u>Incurred in November:</u>	<u>\$1,588</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$460,024
DBE % Attained:	23%

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



**KEY ISSUES:**

- To date, the On-Call Contractor has successfully:
  - demolished twenty-six buildings located in the WOFH, KHG and City Center right-of-way.
  - relocated/removed more than 70 trees in the Airport right-of-way, and four trees located along Dillingham.
  - repaired/protected multiple facilities owned by HART.
- The On-Call Contractor is in the process of working with HART’s right-of-way group and owners in providing cost to cure solutions to properties which will need modification in achieving cleared right-of-way in the Airport and City Center sections of the guideway.
- As of December, 26 of the 28 buildings targeted for demolition were completed. All demolition work includes the abatement of any hazardous materials identified prior to demolition. Two remaining structures are scheduled for demolition in January 2016, as the current tenant has not yet relocated from the building.
- Maintenance of landscaping along Kamehameha Highway continued during the month of December.
- Continued to support the Core Systems contractor for work at MSF.
- Continued to support the Airport Utility contractors work by performing asbestos abatement.

## 5 OVERALL PROJECT-WIDE ACTIVITIES

### Permits (Section 5.1)

#### OVERVIEW

- HART and Kiewit have minimized the use of excavators/backhoes to address resident concerns about noise levels in construction areas along the West O'ahu/Farrington (WOFH) and Kamehameha Highway Guideway (KHG) sections.

#### KEY ISSUES

- HART has begun an ambient noise study in the airport section to establish the baseline noise levels.

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

#### OVERVIEW

- Ongoing coordination for Intelligent Transportation Systems (ITS), Maintenance of Traffic (MOT) and final operational expectations. Temporary ITS is fully operational and temporary Closed Circuit Cameras are in place to observe traffic and make appropriate adjustments to signal timing as necessary. Signal timing, in most cases, is maximized in the westbound direction during the afternoon peak. HART has been coordinating with DTS on adjustments.

#### KEY ISSUES

- Discussions begin with HDOT to include project funding for betterments being requested by HDOT. An MOU is drafted and being transmitted for HDOT comment.
- Ensure all agreement requirements have been met for HDOT Airports.

### Utility Agreements (Section 5.3)

#### OVERVIEW

- Draft City Center Construction Agreements have been issued to HTI, TW telecom, and Oceanic for review and comment. Awaiting information from the Utilities to finalize the outstanding agreements.

#### KEY ISSUES

- HART continues to address multiple issues with HECO that may affect the design and construction of planned work. HART is continuing to meet with HECO on a weekly basis to resolve the issues. Executive meetings continue to include HART's Executive Director and CEO, and HECO's President.

### Right-of-Way (Section 5.4)

(Data as of Dec. 14, 2015)

#### OVERVIEW

- Currently, there are no ROW actions impeding construction work. Site control has been obtained for nearly 14 million square feet or nearly 93% of the total square footage that is required for the project. The ROW team continues to seek site access or complete acquisitions to ensure construction is not delayed. The process is continuing for parcels that may require eminent domain proceedings, although HART is simultaneously negotiating with owners to obtain access.

KEY ISSUES

- Working to resolve third-party agreement with UH Honolulu Community College in order to allow construction to proceed without delay.
- Working to obtain right of entry from Aloha Stadium for station park-and-ride construction.
- HART proposed the use of irrevocable right of entry documents (Right-of-Entry, Possession and Use Agreement) to gain control of a parcel prior to eminent domain. However, the use of the irrevocable right of entry has been delayed due to concerns expressed by owners regarding liability arising from third parties. This approach is a modification of the current procedures, and HART has updated the Real Estate Acquisition and Relocation Management Plan (RAMP) to include this approach. HART is refining the proposal to address the owners' concerns.
- The Honolulu City Council process has been completed for the following eminent domain cases. While the HART Board has proceeded by approving the resolutions authorizing eminent domain, the HART staff is still striving to reach an agreement with each owner.
  - Five (5) cases were initiated in May 2015, to support the schedule for the Airport Guideway and Stations Design-Build (DB) contract.
  - Twenty (20) cases were initiated in June 2015, primarily to support the schedule for the City Center Guideway and Stations DB contract.
  - Four (4) cases were initiated in July 2015, primarily to support the schedule for the City Center Guideway and Stations DB contract. One case was not submitted because of design refinements, and the Honolulu City Council rejected one of the cases.
  - Seven (7) cases were initiated in August 2015, primarily to support the schedule for the City Center Guideway and Stations DB contract and five of the cases were forwarded to the Honolulu City Council. Two cases required amendments and were withheld.
  - Four (4) cases were initiated in September 2015, to support the schedule for the Airport, and the City Center Guideway and Stations DB contracts. The Honolulu City Council rejected one of the cases.
  - One (1) case was initiated in November 2015, to support the schedule for the City Center Guideway and Stations DB contract.
  - HART continues to negotiate with each property owner in an attempt to reach mutual agreement. However, several more parcels may be proposed to the HART Board of Directors for eminent domain to support east DB contracts.

## 5.1 Permits

### • Permits Submitted and In-Progress

- HART submitted a Stream Channel Alteration Permit (SCAP) application for Kalihi Stream.
- HART submitted a request for determination of permit required to the US Army Corps of Engineers (USACE) and the 404 application for Nuuanu Stream.
- HART submitted the 404 application for Kalihi Stream to the USACE.
- HART will continue consultation with FTA regarding Essential Fish Habitat for City Center segment streams.

### • Permits and Approvals Granted

- HART received approval from the HDOH for the Farrington Highway Station Group (FHSG) National Pollutant Discharge Elimination System construction permit, which enables the discharge of storm water from the project to receiving state waters.
- HART received an extension for the KHG Noise Variance permit, which enables night work activities until July 8, 2016.
- HART received an approved floodway permit, which allows for construction of a transit station within Waiawa Stream.
- HART received a provisional nationwide permit from the USACE for proposed work at Nuuanu Stream. The USACE also determined that the application for the Kapalama Canal was complete.

### • Look Ahead

- Upcoming significant permit activity:
  - HART will submit the Noise Permit Variance application for the City Center construction activities.
  - HART will submit a renewal of the KHG Community Noise permit for continued construction from Pearl Highlands to Aloha Stadium.
  - HART will conduct an ambient noise study in the City Center section of the project.

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

### • Activities this month

- Alignment-wide, the HDOT Traffic Management Consultant (contract MM-915) continues to review traffic signals, ITS and construction Maintenance of Traffic (MOT) for HDOT.
- Kiewit is responsible for maintenance of Farrington Highway and Kamehameha Highway as part of the Master Agreement.
- The HDOT Design Coordination Consultant for the WOFH section (contract MM-920), AECOM Technical Services, Inc. (AECOM), continues to review design submittals for HDOT.
- AECOM, the HDOT Design Consultant for the KHG section (contract MM-921), continues to review design submittals for HDOT.
- SSFM, the HDOT Design Coordination Consultant for the Airport and City Center Guideway sections (contract MM-922), is reviewing guideway design submittals for HDOT.

### • Look Ahead

- Execution of the City Center Joint Use and Occupancy.

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	5/11/11	12/20/11	5/18/12	Including with Airport	Combining with KHG & City Center	12/26/13		Including with Airport	
	NTP	5/12/11	12/21/11							
	Amd 01	7/1/11	HRS Ch 104			HRS Ch 104		Temp Poles		
AT&T (Government Solutions)	Executed			12/26/13	Pending	Combined with AT&T Corp	12/26/13		Combined with AT&T Corp	
	NTP									
Chevron	Executed	12/4/09		11/4/11						
	NTP	12/22/09		11/15/11						
	Amd 01	7/1/11								
Hawaiian Telcom	Executed	5/20/10	11/17/14	5/10/12	12/31/14	5/28/15	9/27/13		Draft sent to HTI	
	NTP	6/14/10	11/18/14							Temp Poles
	Amd 01	7/1/11		4/13/15					Temp Poles	
	Amd 02	5/10/12								
HECO	Executed	4/20/12 Agreement superseded by Design & Construction Services Agreements - CLOSED		7/12/12 Agreement superseded by Design & Construction Services Agreements - CLOSED		Airport (1 of 2) and City Center Bridging Agreements superseded by Design Services Agreements - CLOSED; 2nd Airport pending final payment				
	NTP									
		Pre-Construction - CLOSED		Pre-Construction - CLOSED						
	Executed	10/30/13		10/4/13						
	Expired	11/29/13		11/29/13						
		Design Services	Construction Services	Design Services	Construction Services	Design Services	Construction Services	Design Services	Construction Services	
	Executed	11/20/13	11/29/13	11/20/13	11/29/13	11/20/13	Clarifying Schedule	11/25/13	Clarifying Schedule	
	NTP	11/20/13	11/29/13	11/20/13	11/29/13	11/20/13		11/25/13	Temp Poles	
	Amd 01								Temp Poles	
	Memorandums of Understanding	8/7/14 – Construction Drawings								
		5/1/15 - Access								
		5/15/15 - Derrick Truck								
		6/23/15 - Master Agreement								
6/9/15 - MSF Advanced Construction										
9/16/15 - Right of Entry										
10/12/15 – Clearance (West)					Dillingham Blvd Materials-with HECO for signature					
Power Quality Pending										
Oceanic Time Warner Cable	Executed	12/8/09	12/21/11	1/9/12	6/2/14	12/19/14	4/3/13		Draft sent to Oceanic	
	NTP	12/22/09					4/4/13			Temp Poles
	Amd 01	7/1/11	2/27/14		HRS Ch 104	HRS Ch 104		Temp Poles		
	Amd 02	10/7/13	HRS Ch 104					HRS Ch 104		
Pacific Lightnet/Wavecom	Executed	4/28/10	3/12/12	2/15/12						
	NTP	4/29/10	3/13/12	2/16/12						
	Amd 01	7/1/11	HRS Ch 104							
Sandwich Isle Communications	Executed	5/20/10		4/20/12						
	NTP	6/8/10								
	Amd 01	7/1/11								
Hawai'i GAS	Executed	12/18/09	6/30/11	6/1/12	4/14/14	8/19/14	9/27/13	5/8/15		
	NTP	12/22/09	7/12/11			8/20/14		5/11/15		
	Amd 01	7/1/11	10/17/14		8/28/14	HRS Ch 104		HRS Ch 104		
	Amd 02		HRS Ch 104		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	
TW telecom	Executed	12/2/09		2/14/12	Oceanic to relocate for TW telecom		10/11/12		Draft sent to TW telecom Temp Poles
	NTP	12/22/09		2/16/12					
	Amd 01	7/1/11						Temp Poles	
	Amd 02							HRS Ch 104	
Tesoro	Executed			2/15/12	9/12/13		8/27/13		
	NTP			2/16/12		9/3/13			
	Amd 01				9/12/14				
	Amd 02				5/13/15				
	Amd 03				HRS Ch 104				

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

WOFH

- All WOFH agreements have been executed.

KHG

- All KHG agreements have been executed.

AIRPORT

- All engineering utility agreements for the Airport section have been executed.
- HART is reviewing AT&T comments to the draft Construction Agreement. It is not necessary for this agreement to be in place for the Airport Segment utility construction.

CITY CENTER

- All engineering utility agreements for the City Center section have been executed.
- HART reviewed AT&T comments and the revised draft Construction Agreement was sent back to AT&T for review.
- HART has submitted the Utility Construction Agreement for City Center to OTWC for review/comments.
- HART has submitted a draft of the Utility Construction Agreement to TW telecom for review/comments.
- Looking Ahead:
  - Execute Oceanic City Center UCA.
  - Execute Hawaiian Telcom City Center UCA.
  - Execute AT&T City Center UCA.

HECO

- **Davis-Bacon requirements** – HECO has established a collective bargaining agreement – which does not align with Davis-Bacon requirements – for which HART on behalf of HECO has submitted a conformance request to the Department of Labor. HART is coordinating to resolve this with HECO.
- **HECO 46kV Substation near MSF area** – HECO indicates a need in the 2018-2019 timeframe for a new 46kV substation to feed the MSF area due to requirements in HECO Rule 13. Initial planning indicates that a currently un-used location on the MSF property may be suitable for this facility. HECO is investigating a ‘system’ substation, which would also feed the area surrounding the MSF.
- **Additional Clearances** – HECO indicates the need for additional horizontal working clearances from overhead pole alignments and additional buffer radial clearances from the actual overhead high-voltage lines.
  - **Horizontal Working Clearances Analysis** – HECO is reviewing the current overhead pole and line locations to identify areas where accessibility for HECO maintenance is a concern. HART is currently reviewing the results of HECO’s analysis. Additional HECO re-evaluation is ongoing for pole locations with sub-optimal clearance. HART will also be setting up meetings to further discuss and resolve this with HECO.
  - **Bronto Bucket Truck Rental/Testing** – To allow for increased accessibility for HECO maintenance personnel when considering horizontal working clearances, HECO identified a bucket truck with a telescoping boom (versus a knuckle) and with extendable outrigger supports (versus swinging outrigger supports). The truck allows for greater accessibility and less required setup space than the current larger HECO bucket trucks. HART has agreed to reimburse HECO for 3 months of rental for an un-insulated model of the proposed Bronto Bucket Truck. HART is currently reviewing the HECO Horizontal Working Clearance study. HART will also be setting up meetings to further discuss and resolve this with HECO.

- **New Service Connections** – HECO service requests are required for new electrical services for the MSF, Passenger Stations and Systems Sites (traction power facilities). The Passenger Station designers are providing the service request for the stations and the Core Systems Contractor is providing the service request for the systems sites.
  - **MSF** – Service request approved via receipt of HECO Final Cost Letter and HECO design drawings. Installation of the MSF service is complete, buildings are energized.
  - **Passenger Stations and Systems Sites** – HECO service request reviews are in progress and approvals are anticipated for the west side stations and systems sites. HECO is working to finalize its designs and cost estimates.

**5.4 Right-of-Way (data as of Dec. 14, 2015)**

**BUDGET**

	Baseline Budget	Expended	Remaining Budget Balance	Estimate to Completion	Forecast Variance
Acquisition	\$ 201.70	\$ 79.90	\$ 121.80	\$ 109.30	\$ 12.50
Relocation	\$ 20.50	\$ 9.70	\$ 10.80	\$ 16.80	\$ (6.00)
<b>Total (Million)</b>	<b>\$ 222.20</b>	<b>\$ 89.60</b>	<b>\$ 132.60</b>	<b>\$ 126.10</b>	<b>\$ 6.50</b>

Note

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

**ACQUISITIONS**

Figure 13. Right-of-Way Status for the Parcels [data provided by Real Estate Acquisition database (READ)]

	Current No. of Parcels Needed	Appraisals In Process	(a) Appraisals Completed or N/A	Letters of Offer Sent or N/A	Offers Accepted or N/A	Possession Granted For Condemnation	Agreements Completed	Site Control Obtained	Relocations Completed	Properties Available for Contractor	(b) Acquisitions Completed
<b>Full Acquisition</b>											
W.Oahu\Farrington	16		16	16	15	1	2	16	13	16	15
Kamehameha	3		3	3	3			3	1	3	3
Airport	5		5	5	5	1		5	3	4	4
City Center	18		18	18	18			16	14	16	16
<b>TOTAL</b>	<b>42</b>		<b>42</b>	<b>42</b>	<b>41</b>	<b>2</b>	<b>2</b>	<b>40</b>	<b>31</b>	<b>39</b>	<b>38</b>
<b>Partial Acquisition</b>											
W.Oahu\Farrington	3		3	3	3			3		3	2
Kamehameha	4		4	3	2	1		3		3	1
Airport	11		11	11	7		1	7		4	1
City Center	77		76	76	37	2		11		4	6
<b>TOTAL</b>	<b>95</b>		<b>94</b>	<b>93</b>	<b>49</b>	<b>3</b>	<b>1</b>	<b>24</b>		<b>14</b>	<b>10</b>
<b>Easement</b>											
W.Oahu\Farrington	16		16	15	15		6	16		10	6
Kamehameha	6		6	6	6		1	6		6	1
Airport	34		34	34	28		4	28		27	4
City Center	30		30	30	10		1	1		1	1
<b>TOTAL</b>	<b>86</b>		<b>86</b>	<b>85</b>	<b>59</b>		<b>12</b>	<b>51</b>		<b>44</b>	<b>12</b>
<b>GRAND TOTAL</b>	<b>223</b>		<b>222</b>	<b>220</b>	<b>149</b>	<b>5</b>	<b>15</b>	<b>115</b>	<b>31</b>	<b>97</b>	<b>60</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) 'Appraisals Completed' include appraisals for privately-owned parcels and government parcels.  
 b) 'Acquisitions Completed' include 45 privately-owned parcels, and 15 'Agreements Completed' for the transfer or joint use of government-owned parcels.

KAMEHAMEHA

- Issues:
  - Negotiating 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.
  - In order to support the relocation of utility easements in the Kamehameha section, eminent domain proceedings have been initiated for one case. The HART Board approved the resolution to notify the Honolulu City Council of eminent domain. The City Council approved eminent domain, but negotiations are still continuing with the private property owner in an attempt to reach mutual agreement.

AIRPORT

- Issues:
  - Continuing negotiations with TMK 1-1-002-001.
  - Closely monitoring the Airport Station mapping process.
  - Reviewing design changes for TMKs 1-2-013-020 and 1-2-013-021.
  - In order to support the upcoming procurement for the Airport Guideway and Station DB contract, eminent domain proceedings have been initiated. Negotiations are still continuing with all private property owners in the Airport section in an attempt to reach mutual agreement. Through November, the HART Board approved the resolutions to notify the Honolulu City Council of eminent domain. The City Council approved eminent domain and the status of these cases are:
    - 1 Order of Possession obtained
    - 3 in escrow
    - 7 in negotiations
- Look Ahead:
  - Working towards completing Post Office acquisition and Airport agreements.

CITY CENTER

- Issues:
  - Continuing to place priority on obtaining site control and acquiring parcels in the Dillingham section.
  - Negotiating with UH Honolulu Community College to secure construction right of entry for the City Center guideway.
  - Working to resolve issues with TMKs 1-2-009-011 and 1-2-009-098.
  - Negotiating with the owner of fifteen parcels which have complex issues, as well as TMK 2-1-031-030.
  - Reviewing current design for TMK 2-3-039-011.
  - In order to support the upcoming procurement for the City Center Guideway and Station DB contract, eminent domain proceedings have been initiated. Negotiations are still continuing with all private property owners in the City Center section in an attempt to reach mutual agreement. Through November, the HART Board approved the resolutions to notify the Honolulu City Council of eminent domain. The City Council approved eminent domain for most of the cases and the status of the cases are:
    - 2 obtained by Order of Possession
    - 5 acquired
    - 5 in escrow
    - 14 in negotiations
    - 2 rejected by the Honolulu City Council
    - 1 withdrawn due to design changes
  - Other parcels may be presented to the HART Board for eminent domain in the coming months, to ensure that the construction schedule is maintained. HART continues to negotiate with each property owner in an attempt to reach mutual agreement.
- Look Ahead:
  - Evaluate and address the need to advance additional recommendations for eminent domain in order to achieve the Project's schedule.
  - Closely monitor the acquisitions in relation to construction schedules for City Center.
  - HART has received a counteroffer with contingencies from an owner of thirteen parcels, which HART is addressing.

**RELOCATIONS**

Figure 14. Relocation Status for the Occupants (data provided by READ)

Section	Residential Relocations (a)	Business Relocations (b)	Not-For-Profit Relocations (c)	Total Relocations (a+b+c)	Relocation Assessment Completed	90-Day Notice Sent	30-Day Notice Sent	Relocations Completed for Occupants
W.Oahu\Farrington	18	6	1	25	12	12	8	25
Kamehameha		4		4	4	3	3	4
Airport		13		13	5	10		7
City Center	16	66		82	31	55	22	53
<b>Grand Total:</b>	<b>34</b>	<b>89</b>	<b>1</b>	<b>124</b>	<b>52</b>	<b>80</b>	<b>33</b>	<b>89</b>

**WEST O’AHU/FARRINGTON**

- Look Ahead:
  - The Phase II Environmental Site Assessment report has been received for TMK 9-6-004-006. A tentative settlement has been reached and is subject to FTA concurrence.

**AIRPORT**

- Issue:
  - Continuing relocation for TMK 1-1-016-006.
- Look Ahead:
  - Plans are continuing for several relocations.

**CITY CENTER**

- Issue:
  - Continuing negotiations with TMK 2-3-002-059.
- Look Ahead:
  - Planning and monitoring the relocation of several commercial tenants.

**THIRD-PARTY AGREEMENTS**

Figure 15. Third-Party Agreement Status

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
<b>City Agreements</b>				
City Joint Use Memorandum of Understanding	Pending	March 2016	WOFH, KHG, Airport, City Center	In process.
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	Pending	April 2016	WOFH, KHG, City Center	Final negotiations are ongoing. Will secure Right of Construction as not to delay the project.
UH -West O’ahu (UHWO) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.
UH - West O’ahu (UHWO) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
UH - Leeward Community College (LCC) Construction Right of Entry for Guideway	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Garden Pre-Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Urban Garden Construction Right of Entry	Executed		KHG	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Garden Kiewit Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Honolulu Community College (HCC) Pre-Construction Right of Entry	Executed		City Center	Consent to construct in place.
UH - Honolulu Community College (HCC) Construction Right of Entry for Guideway & Station	Pending	April 2016	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 – Kapolei Easement	Pending	March 2016	WOFH	Easement agreement in process.
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	Pending	March 2016	Airport	Process Easement Agreement.
DOE – Dept. of Education Master Agreement and Consent to Construct (Waipahu H.S.)	Executed		WOFH	Consent to construct in place. Jurisdictional Transfer in process.
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 (for Kiewit)	Executed		KHG	Limited ROE granted for staging for Kiewit for KHG contract.
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	March 2016	KHG	Easement Agreement in process.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for station park and ride	Pending	February 2016	KHG	In negotiations.
Aloha Stadium / Department of Accounting & General Services (DAGS) Easement for station park and ride	Pending	March 2016	KHG	Process Easement Agreement.
HDOT(H) – Dept. of Transportation Highways Master Agreement	Executed		WOFH	Master Agreement in place.
HDOT(H) - Master Agreement for KHG, Airport and City Center	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(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) – Dept. of Transportation Airports Joint Use & Occupancy (JU&O) Sub-agreement for Airport leased/revenue parcels	Pending	February 2016	Airport	Sub-agreement in process for leased/revenue parcels.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
HDOT(A) - Joint Use & Occupancy (JU&O) Sub-agreement	Pending	February 2016	City Center	Sub-agreement in process for leased/revenue parcels.
HDOT(A) - Easement Agreement for Airport Division parcels	Pending	February 2016	Airport	Process Easement Agreement.
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 Correctional facility Agreement Dillingham Blvd.	Pending	April 2016	City Center	Finalizing requirements.
HCDA -HI Community Development Agreement	Pending	June 2016	City Center	Coordination is ongoing.
DAGS – Dept. of Accounting & General Services / HHFDC Right of Entry	Pending	March 2016	City Center	Consent to construct in process to be followed by execution of the Easement Agreement.
DAGS – Dept. of Accounting & General Services / HHFDC Easement	Pending	March 2016	City Center	Process Easement Agreement.
<b>Federal Agreements</b>				
U.S. Navy Licenses	Executed		WOFH, KHG, Airport	Consent to construct in place. Formal notification is forthcoming, however, immediate access is granted.
U.S. Navy Licenses	Pending	March 2016	WOFH, KHG, Airport	Land court documents processed and awaiting recordation and filing.
U.S. Navy Pearl Harbor Station Acquisition of Fee Transfer	Adopted	February 2016	Airport	Congressional approval received and immediate access is granted. Conveyance documents are in process.
U.S. Post Office Honolulu Processing Center acquisition	Pending	April 2016	Airport	In negotiations.
U.S. Gov't/GSA/Federal Courthouse Agreement & Landscape Plan	Pending	February 2016	City Center	Draft agreement is under review and discussions are ongoing.
<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	March 2016	WOFH	Easement Agreement in process.

## 6 MANAGEMENT AND ADMINISTRATIVE UPDATES

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

#### OVERVIEW

- **S&S Certification Program**
  - **Certification documents:** (See status chart in Section 6.1)
  - **Design Criteria Conformance Checklists (DCCC) development and verification:** (See status chart in Section 6.1)
  - **Civil – Construction Spec Conform Checklist (CSCC) development/verification:** (See status chart in Section 6.1)
  - **Core Systems – Spec/Testing Conform Checklist (STCC) development/verification:** (See status chart in Section 6.1)
  - **Base Operational Readiness Conformance Checklists (ORCC):** Verification underway.
  - **PHAs and Core Systems SSHAs/O&SHAs:** The following Core Systems HA are ready for January 2016 SSRC review/approval:
    - Vehicle/ATC SSA; UPS O&SHA; FDAS O&SHA
  - **TVA:** No change, on hold - pending Airport Guideway/Stations and City Center Guideway/Stations re-design.
  - **Open Items List (OIL):** (See status chart in Section 6.1)
  - **Hazard Tracking Log:** The HTL has been updated and transmitted.
  - **Interim Certification Requirements:**
    - The Base Interim Certification Conformance Checklists are under review and programmed for January 2016 SSRC review/approval for the following interim certification requirements:
      - The delivery of 3-MOW Vehicles – Vehicle Mover, Multi-Purpose Vehicle, and Enclosed Trailer
      - The delivery of Passenger Vehicle (PV-001)
  - **Key S&S Certification related meetings held in December 2015:**
    - Passenger Vehicle Certification meeting: 12/3/2015
    - PMOC monthly review meeting: 12/9/2015
    - Fire Life Safety Working Group (FLSWG) meeting: 12/8/2015
    - Safety and Security Review Committee Meeting: 12/9/2015
    - Safety and Security Certification Working Group: 12/15/2015
    - Interim Certification Working Group meetings: 12/17/2015
    - Bi-weekly and/or monthly project coordination meetings with Core Systems, MSF, WOFH and KHG
    - HART Safety and Security weekly meeting with HDOT
- The SSRC approved the following certification documents on 12/8/2015:
  - FHSG - LCC and West Loch Stations DCCC verification
  - WOSG - UH West O’ahu, Ho’opili, and East Kapolei Stations DCCC verification
  - Two (2) Passenger Vehicle (PV) Base STCCs
    - 1) General requirements – Applies to all Vehicles, 2) Interim Certification to enter Dynamic Testing
  - The base ORCC.
- **S&S Certification Certificates:** See status chart in Section 6.1: The 12 month milestone projection is updated.
- **Construction Safety and Security:** Please see status chart in Section 6.1.

#### KEY ISSUES

- The rail plinths remain an outstanding issue. A proposed plan by the contractor was reviewed by HART Engineering. The contractor will proceed at risk for the work. The extended fasteners beyond the Compendium of Design Criteria (CDC) requirement must be approved and signed off by the RE’s prior to HART Safety and Security acceptance.
- The CDC lighting levels for the MSF complex remains an issue. The lighting levels are inadequate to support rail yard operations and basic security concerns, and are under internal review based on PHA and TVA results.
- The zoning of the MSF complex as “Parks and Recreational” remains an issue. An internal review is on-going to determine if the zoning needs to be modified to an industrial zone to better support rail system operations and maintenance.
- HART Safety is developing a certification document collection point through CMS to SharePoint for easy access to publish certification certificates with a link to all supporting documentation. This change will facilitate any audit requirements as the Project progresses through each lifecycle.
- Safety and Security is presently lacking one (1) position (Safety Specialist). Staff has divided the work in the interim.

## Quality Management (Section 6.2)

### OVERVIEW

- The HART QMP and HART-approved QAPs of contractors, consultants and suppliers have been assimilated by their respective employees and are being implemented as standard operating procedures. Therefore, less and less Nonconformance Reports (NCR) are reported or encountered.
- Overall quality of the Project is good.
- There are two (2) major NCRs remaining on the WOFH contract and one (1) major NCR on the KHG contract that need to be addressed and corrected to prevent recurrence and mitigate impact on the overall progress of the project. These NCRs are discussed in more detail in the Key Issues of Section 6.2.
- Reviewing KIWC responses to the audit findings on Public Information for WOFH and KHG.
- Reviewing PGH Wong (CE&I West) responses to the audit findings for WOFH, KHG, MSF and EE contracts.
- Issued QA audit report to AHJV on the Core System Configuration Management Plan held on Nov. 5, 2015.
- Performed Combined Internal QA and Safety Audit of HART on Dec. 1-8, 2015.
- Performed Joint (KKJV, AHJV and HART) Final Walkdown of Phase 2 Tracks (S1-S6 and T1) at the MSF Yard. A HART Punchlist was issued to KKJV for completion.

### KEY ISSUES

- Erection and finishing of spans (12-segments) and installation of permanent “shear keys” between the WOFH guideway columns and both ends of the spans.
- Construction of KHG drilled shafts, columns and segments (Casting Facility).
- Resolution of two (2) major WOFH NCRs: cracked segments 1, 2, 11 and 12 of Span 17 repair, and Direct Fixation Shims Tolerances.
- Resolution of one (1) major KHG NCR: Drilled Shafts (Crosshole Sonic Logging Reports) quality and repairs.
- Construction of MSF Yard Ballasted Track: Alignment, Profile, Geometry, Sub-ballast, Drainage, Ballast, Grade Crossings, Welding, Stress Relieving, Concrete Ties, Contact Rail, Switches, etc.
- Installation and welding of rails and turnouts on top of the WOFH guideway.
- Construction of WOFH and KHG Balanced Cantilever Segmental Spans.
- Manufacturing of Carbody(s) at Hitachi Rail Italy and its subcontractor manufacturing facilities in Italy.
- Final Assembly of passenger vehicles at Hitachi Rail Italy facility in Pittsburg, CA.
- Pre-shipment, Inspection & Testing (I&T) and First Article Inspections (FAI) of wayside core system and passenger vehicles materials, parts and components.

## Buy America Compliance (Section 6.3)

### OVERVIEW and KEY ISSUES

- HART is reviewing the issue involving the variable refrigerant flow (VRF) HVAC system for the train control and communications rooms at the stations.

## Disadvantaged Business Enterprise (Section 6.4)

### OVERVIEW

- \$31,557,347 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 12/31/15.

## Planning and Environment (Section 6.5)

### OVERVIEW

- HART’s Planning and Environmental team continues to collaborate with city, state, and federal agencies to ensure proper environmental review occurs in advance of procurement and construction activities. Monitoring and compliance efforts regarding the Programmatic Agreement are ongoing.

### KEY ISSUES

- HART is completing final review of environmental documentation and requirements for Airport and City Center Stations and Guideway bid packages as well as completing final Post-Record of Decision (Post-ROD) documentation of project design refinements and needs.

**Risk Management (Section 6.6)**OVERVIEW

- There are a total of 138 risks in the December 2015 risk register, compared to 208 a year ago. The City Center Guideway and City Center Stations risks were combined this month. And for tracking purposes, the HECO Clearance issues were combined and are now being tracked at a Program Wide level. The issue has escalated significantly and goes well beyond the scope of what a project manager can manage in a single project. The net effect is there were 13 risks deleted and 6 new risks added for the month. During the month, risk reviews were focused on the West Section and conducted for WOFH, KHG, WOSG, FHSG, MSF, H2R2, KHSG, and Pearl Highlands Garage, Transit Center and Ramp H2R1.

KEY ISSUES – West Side

- HECO Clearance requirements will have significant impacts on WOFH and KHG in addition to those already anticipated on the Dillingham portion of City Center.
- WOFH is substantially complete with their underground work giving rise to schedule predictability and risk reduction of changed site condition.
- KHG utility related work is keeping up with requests and is about 50% complete with subsurface work. Utility easement requirements are still ongoing.
- WOSG related third party coordination is nearing completion with respect to the Ho'opili Station area.
- The protest on FHSG will likely have a schedule impact to the program related to access dates and substantial completion.
- The MSF is progressing toward completion. As other downstream works connect and catch up, there may be interface assumptions that do not work out as smoothly as coordinated at this time. The site will be ready to receive vehicle delivery.
- H2R2 grading permit related issues are resolved, but not without some delay to schedule.

**Community Outreach (Section 6.7)**OVERVIEW

- HART expands its business outreach program with the launch of its Shop, Dine & Shuttle program designed to assist local businesses impacted by construction.
- HART's outreach team participated in nearly a dozen presentations, meetings and events this month, including holiday events along the alignment.

KEY ISSUES

- Traffic management continues to be a key issue surrounding construction work in the project's corridor. HART's public outreach team responded to more than 125 public inquiries this month. Inquiries were related to traffic, construction and business outreach programs.
- Business mitigation remains a priority for HART's outreach team. Meetings with businesses and stakeholders in the urban core also continued this month.

**Staffing (Section 6.8)**OVERVIEW

- The Assistant Project Manager of the ROC has been selected for the KHSG/H2R2 Project Manager position as a promotional opportunity.
- Both Information Specialist positions in Public Information have been filled.
- The Assistant Deputy of Transit Property Acquisition and Relocation will be transitioned from a Project Management Consultant (PMC) employee to a City employee in January.
- A full-time position dedicated to monitoring contractor weekly payroll submissions for timeliness and non-compliance with the Davis-Bacon Act has been established and filled.
- HART prioritizes filling all vacancies with City employees and supplements the City staff with PMC when required and appropriate.

KEY ISSUES

- The organization chart has been updated to reflect personnel changes. There are no major structural changes to the current chart. The current chart is dated Dec. 11, 2015.



Project-Wide Incident Activity					
Event Type	Total Number of Events since 1/1/2007	Total Number of Events for December 2015	Loss Type	Date	Event Description
Environment	15	0			
Loss or Damage	32	2	a) Minor Damage b) Minor Damage to multiple vehicles	a) 12/4/15 b) 12/21/15	a) CORE Systems: Watts forklift struck a doorframe with a skid of cable tray. B) WOFH: Grout line on span 252 of balanced cantilever broke, causing grout to spray onto the H-1 causing minor damage to several 3rd party vehicles.
*Reportable Occupational Injury/Illness	0	0			
Security	56	0			
**Loss Time Occupational Injury/Illness	6	0			
Road/Vehicle - Driving	84	1	a) Minor Damage	a) 12/18/15	a) MSF: Company truck was damaged driving over ground rod on site.
Service Strike	70	5	a) Minor Damage b) Minor Damage c) Minor Damage d) Minor Damage e) Minor Damage	a) 12/3/15 b) 12/4/15 c) 12/14/15 d) 12/22/15 e) 12/30/15	a) Airport Utilities: Excavator struck an abandoned 16" pipe. b) Airport Utilities: Excavator struck an unmarked 3" steel pipe. c) Airport Utilities: An unmarked direct bury cable was struck during excavation d) Airport Utilities: Struck an unidentified 2" conduit containing 2 wires while potholing. e) Airport Utilities: While milling for a sewer line, a traffic signal conduit was struck.
*Reportable incidents: Requires OSHA to be notified within 8 hours, and includes the death of an employee or hospitalization of three or more employees. **Loss Time Injury: Time away from work due to injury.					

HART S&S Certification "Open Items List"						
Last 6 Months Status						
"Open Items" - Design/Construction and Verification Issues						
Month - 2015	Total #	Total # Open	Total # Closed	% Closed Overall	# closed In Month	% Closed In Month
July	143	81	62	43%	48	33%
August	154	88	66	42%	4	3%
September	154	88	67	44%	1	1%
October	193	85	108	56%	41	18%
November	205	55	150	73%	44	21%
<b>December</b>	<b>205</b>	<b>48</b>	<b>157</b>	<b>77%</b>	<b>07</b>	<b>3%</b>

Note: Total #s are carried over from month to month

Key HART S&S Certification Documents			
Update & Approval Status			
S&S Project Plans, PHAs, Core Systems SSHA & O&SHA, and TVA			
Documents	Revision #	Date Approved	Comments
Safety and Security Management Plan (SSMP)	Rev 5	10/16/2015	SSMP signed
Safety and Security Certification Plan (SSCP)	Rev 4.B	12/14/2015	SSCP signed
WOFH SSCP	Rev 0	10/22/2014	SSRC approved - No future updates: HART SSCP is in affect
Construction Safety & Security Plan (CSSP)	Rev 2	10/16/2015	
Security Sensitive Information (SSI) Plan	Rev 0	12/15/2015	SSI plan signed
Project Preliminary Hazard Analysis (PHAs)	Rev 2.A	Pending	Rev 2A – DRAFT annual update completed 9/3/2015
- MSF – Yard and Shop	Rev 2.A	-	11/06/2015 HART Safety internal review/update
- Alignment	Rev 2.A	-	11/06/2015 HART Safety internal review/update
- Tracks	Rev 2.A	-	11/06/2015 HART Safety internal review/update
- Stations	Rev 2.A	-	11/06/2015 HART Safety internal review/update
- Traction Power	Rev 2.A	-	Update on-hold - Pending approval of TES SSHA and O&SHA
- Train Control	Rev 2.A	-	Update on-hold - Pending approval of ATC related SSHA & O&SHA
- Vehicles	Rev 2.A	-	Update on-hold - Pending approval of PV related SSHA & O&SHA
- Communications	Rev 2.A	-	Update on-hold - Pending approval of Comms SSHA and O&SHA
Core Systems Contract (CSC) PHAs (DBOM)	Rev E	-	11/30/2015 – Under HART Review
- Technologies PHAs	Rev C	-	10/29/2015 – CSC R&R
- Central ATC O&SHA	Rev C	9/23/2015	SSRC approved
- Wayside ATC SSHA	Rev B	-	11/14/2014 – CSC Revise & Re-submit (R&R)
- Wayside ATC O&SHA	Rev D	9/23/2015	SSRC approved
- Wayside/ATC SHA	Rev C	-	1/6/2015 – CSC R&R
- SCADA O&SHA	Rev D	-	7/14/2015 – CSC R&R
- SCADA SSHA	Rev C	-	3/10/2015 – CSC R&R
- Vehicle Fire Hazard Analysis (FHA)	Rev B	-	8/28/2015 – CSC R&R
- Vehicle SSHA	Rev A	-	8/31/2015 – CSC R&R
- Vehicle O&SHA	Rev A	-	10/26/2015 – CSC R&R
- Vehicle/ATC SSHA	Rev E	-	HART Accepted (ACC) - 11/02/2015 – ready for Jan SSRC approval
- Vehicle/ATC O&SHA	Rev F	-	12/17/2015 – Under HART Review
- TES SSHA	Rev B	-	11/03/2015 – CSC R&R
- TES O&SHA	Rev B	-	11/03/2015 – CSC R&R
- PSGS PHAs	Rev A	-	Under development
- PSGS O&SHA	Rev A	-	12/8/2014 – CSC R&R
- PSGS SSHA	Rev B	-	10/05/2015 – CSC R&R
- UPS O&SHA	Rev C	-	HART Accepted (ACC) - 11/04/2015 – ready for Jan SSRC approval
- Communications SSHA	Rev B	-	11/30/2015 – Under HART Review
- Communications O&SHA	Rev B	-	11/24/2015 – CSC R&R
- FDAS SSHA	Rev B	-	11/03/2015 – CSC R&R
- FDAS O&SHA	Rev B	-	HART Accepted (ACC) - 11/24/2015 – ready for Jan SSRC approval
- MOW Support Vehicles O&SHA	Rev A	-	Under development
Project Threat & Vulnerability Assessments (TVAs)	Rev 1	1/16/2015	On hold pending contract restructure & re-design

<b>S &amp; S Design Criteria Conformance Checklist (DCCC)</b>						
<i>Civil and Core Systems Contracts</i>						
<b>Verification Status</b>						
<b>Design Phase</b>				<b>Construction / Installation /Testing</b>		
Contracts: FD, DB, DBOM	% Verified	+ / - % Change	Comments: Design SSRC Approval Date	% Verified	+ / - % Change	Comments: C/I/T SSRC Approval Date
<b>Civil Contracts Under Construction</b>						
FD-430, Airport Section 7-Piers	100%	N/A	6/17/2015	100%	N/A	8/26/2015
FD-430, Airport Utilities	100%	N/A	6/25/2014			
FD-340, H2R2 Ramps	100%	N/A	5/27/2015			
DB-200, MSF	96%	-	1/28/2015			
DB-120, WOFH Guideway - 38 total – Sub CEL/CIL Packages	99%	-	35 Sub - CELs/CILs SSRC approved	20%		
DB-320, KHG Guideway - 40 total – Sub CEL/CIL Packages	97%	-	34 - Sub CELs/CILs, SSRC approved			
FD-240, Farrington Hwy Station Group	99%	-	3- station- 12/09/2015			
FD-140, West Oahu Station Group	99%	-	3 stations 12/09/2015			
FD-340, Kamehameha Highway Station Grp	100%		3 Stations – 8/26/2015			
MI-930, Elevators & Escalators	-	-	Base DCCC 8/26/15			
<b>Civil Contracts Under Design or in Pre-bidding Status</b>						
FD-530, City Center Utilities	-	-	On hold – re-designing			
AP00 Art-in-Transit, 23 artists/contracts	-	-	Base DCCC under review			
MI-900 Fare Collection System	-	-	Under Development			
DB-275, Pearl Highlands PS/BTC	-	-	Base DCCC under review			
FD-600, West O’ahu Park & Ride	-	-	Base DCCC under review			
DB-xxx, Traction Power Generator System	-	-	Base DCCC under review			
DB-450, AG & Stations Group (AGS)	-	-	2016 Redesign			
DB-550, CCG & Stations Group (CCGS)	-	-	2016 Redesign			
<b>DBOM-920 Core Systems Contracts Under Procurement - Production - Manufacture - Installation</b>						
DBOM-920, Core Systems						
- Passenger Vehicles (PV)	-	-	Designer input underway			
- Traction Electrification System (TES)	-	-	Designer input underway			
- MOW Vehicles	-	-	Base DCCC 9/23/2015			
- Yard Control Bungalow (YCB) Civil CSC	48%	-	DCCC under review			
<b>DBOM-920 Core Systems Contracts Under Design</b>						
DBOM-920, Core Systems						
- Traction Power Generator Back-up System	-	-	Base DCCC under review			
- Communication System	-	-	Designer input underway			
- Fire Detection Alarm System (FDAS)	-	-	Designer input underway			
- Train Control System (TCS)	-	-	Designer input underway			
- SCADA	-	-	Designer input underway			
- Platform Screen Gate System (PSGS)	-	-	Designer input underway			

<b>S &amp; S Construction Specification Conformance Checklists (CSCC)</b>			
<i>Civil - Contracts</i>			
<b>Verification Status</b>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>Civil Contracts Under Construction</b>			
DBB-525, Airport Section, 7 - Drilled Shafts	100%	N/A	8/26/2015 SSRC approved –Certification Completed
DB-200, MSF	37%	+2%	Verification underway
DB-120, WOFH Guideway	44%	-	Verification underway
DB-320, KHG Guideway	8%	+4%	Verification underway
DBB-505, Airport Utilities - Construction	28%	-	Verification underway
DBB-385, Ramp H2R2	-	-	Base CSCC approved, 5/27/2015
DBB-271, Farrington Hwy Station Group	-	-	Base CSCC approved, 7/22/2015
DBB-171, West O’ahu Station Group	-	-	Draft Base CSCC updated, 8/6/2015 under PM review
MI-930, Elevators & Escalators, WOSG	-	-	Base CSCC SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, FHSO	-	-	Base CSCC SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, KHSG	-	-	Base CSCC SSRC approved, 8/26/2015
<b>Civil Contracts Under Design or in Bidding - Pre-bidding Phases</b>			
DBB-371, Kamehameha Hwy Stations Grp	-	-	Draft Base CSCC Updated 8/20/2015 under PM review
MI-930, Elevators & Escalators, AP/CC Stations	-	-	Base CSCC SSRC approved 8/26/2015
AP00 Art-in-Transit, 23 Artists/contracts	-	-	Draft Base CSCC under review
DBB-510, Dillingham Utilities & Roadway	-	-	Draft Base CSCC in hand
DB-275, Pearl Highlands PS/ Bus Transit Center	-	-	TBD
MI-900 Fare Collection System	-	-	Under Development
DBB-600, West O’ahu Park & Ride	-	-	TBD
DB-450, AG & Stations Group (AGS)	-	-	On hold pending re-design
DB-550, CCG & Stations Group (CCGS)	-	-	On hold pending re-design

<b>S &amp; S Specification/Testing Conformance Checklists (STCC)</b>			
<i>Core Systems - Contracts</i>			
<b>Verification Status</b>			
<b>Procurement - Production - Manufacture - Installation - Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>DBOM-920 Core System Contracts under Procurement - Production - Manufacture - Installation - STCC</b>			
<b>Passenger Vehicles/Cars</b>			
1) General Requirements – Applies to all PVs	-	-	SSRC approved, 12/09/2015
2) Vehicle - Interim Cert – for Dynamic Testing	-	-	SSRC approved, 12/09/2015
3) Train/4-PV Cert for Pre-revenue Service	-	-	Base STCC under development
<b>Traction Electrification System (TES)</b>			
1) General Requirements – Project Wide	-	-	Draft base STCC under review
2) MSF – Rail Yard	-	-	Draft base STCC under review
3) Functional Track – WOFH Guideway	-	-	Draft base STCC under review
4) WOFH and KHG Guideways	-	-	Draft base STCC under review
5) Airport and City Center Guideways	-	-	Draft base STCC under review
<b>Yard Control Bungalow (YCB) Civil</b>	-	-	Base STCC pending 12/09/2015 SSRC approval
<b>MOW Vehicles</b>	-	-	Draft base STCC under review
<b>Operational Requirements</b>			
- Operational Readiness Conformance Checklists	5%	-	SSRC approved 12/09/2015
<b>DBOM-920 Core Systems Contracts Under Design- STCC</b>			
- System Integration Testing (SIT)	-	-	Draft base STCC updated & under review – 5 - STCCs
- Traction Power Generators Back-up System	-	-	Draft base STCC under review
- Communication Systems	-	-	Draft base STCC under review
- Fire Detection Alarm System (FDAS)	-	-	Base STCC under development
- Train Control System (TCS)	-	-	Base STCC under development
- Supervisory Control & Data Acquisition (SCADA)	-	-	Base STCC under development
- Platform Screen Gate System (PSGS)	-	-	Base STCC under development

<b>S &amp; S Certification Certificates</b> <i>Issued to Date and 12 Month Milestones</i>		
<b>Certification Certificates Issued</b>	<b>Date Signed</b>	<b>Comments</b>
FD-430 & DBB-525 Airport Section 7-Piers Contracts & Certifiable Element "Guideway"	9/21/2015	None – No open Items
<b>Projected Certification Certificates &amp; Interim Certifications next 12 Months</b>		
	<b>Milestone Dates</b>	<b>Comments</b>
1. YCB Civil Contract - Core Systems	February 2016	Civil only
2. MOW Vehicles - Interim Certification (Hard Certification Date)	2/1/2016	3 - MOW vehicles & tracks
3. PV-001 Delivery - Interim Certification (Hard Certification Date)	3/31/2016	MSF/Tracks/PV-001/IT/Ops
4. DB-200, MSF Contract & Certifiable Element	May 2016	Civil Only
5. DBB-505, Airport Utilities Contract and Certifiable Element	September 2016	Civil Only
6. PV-001, Interim Certification to enter Dynamic Testing	September 2016	PV-001 only
7. Rail Yard Test Track # 1 – Interim Certification	September 2016	Civil-Track, TES, PV-001,IT, Ops
8. Functional Track – WOFH Guideway – Interim Certification – Test Track # 2	October 2016	Civil and Core Systems
9. PV-002, Interim Certification to enter Dynamic Testing	November 2016	PV-002 only
10. DBB-385, H2R2 Contract and Certifiable Element	December 2016	Civil only
11. DB-120, WOFH Guideway Contract and Certifiable Element	December 2016	Civil Only

## 6.2 Quality Management

### • Overview

- The HART QMP and HART-approved QAPs of contractors, consultants and suppliers have been assimilated by their respective employees and are being implemented as standard operating procedures. Therefore, less and less Nonconformance Reports (NCR) are reported or encountered.
- Overall quality of the Project is good.
- Review and approve contractors, consultants and suppliers new and updated QAPs including Inspection and Test Plans (ITP). Completed review of QAP of Nan, Inc. for the WOSG contract, QAP of Royal Contracting on Ramp H2R2, and QAP of Hawaiian Dredging for the FHSG contract.
- Conducted biweekly Quality Task Force (QTF) meetings with CE&I, contractors and consultants QA teams to discuss the status of: design and construction activities; procurement activities; inspection and testing; NCRs; Corrective Actions (CARs) and Preventative Actions (PARs); quality compliance; various process improvements; quality economics, and Buy America compliance.
- Participated in Pre-Activity Meetings for scheduled construction activities: CSC (EK TPSS and SCADA Racks [WY, WLO, LCC], MSF (Traction Power Cable Installation and Drilling of 3<sup>rd</sup> Rail); and KHG (Guideway Span by Span Erection).
- Performed Combined QA and Safety Internal Audit of HART on Dec. 1-8, 2015.
- Performed Joint (HART, KKJV, AHJV) Final Walkdown of Phase 2 Tracks (S1-S6 and T1) at the MSF Yard. A Punchlist was created and issued to KKJV by HART for completion.
- Witnessed and checked the concrete pouring of the joining segments of Balance Cantilever Span 254 (top of H-2 On-Ramp).
- Perform Management System Audits (QA, Environmental and Buy America); 2015 Combined Management System Audit Schedule as shown below:



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: **2015** Rev 13

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
CCH-100	Honolulu Authority for Rapid Transportation (HART)	HART	15-009 QA	12/01 - 12/08	12/01 - 12/08	
	Honolulu Authority for Rapid Transportation (HART) -Security & Safety Only		15-009 SS	12/01 - 12/08	12/01 - 12/08	
CT-HRT-10HO137	West O'ahu/Farrington Highway Guideway Design-Build (WOFH)	KIWC - HI	15-001 QA	2/17 - 2/19	2/17 - 2/18	4/17/15
CT-HRT-11HO195	Kamehameha Highway Guideway Design-Build (KHG)		15-001 BA	2/17 - 2/19	2/17 - 2/18	4/17/15
CH-HRT-10HO449	Maintenance and Storage Facility Design-Build (MSF)	KKJV - HI	15-003 QA	2/25 - 2/26	2/25 - 2/26	4/14/15
			15-003 BA	2/25 - 2/26	2/25 - 2/26	8/4/15
CT-HRT-10HO137	WOFH Public Information	KIWC - HI	15-008	10/21 - 10/22	10/22 - 10/23	
CT-HRT-11HO195	KHG Public Information					
CT-HRT-10HO137	WOFH & KHG Casting Facility	KIWC - HI	15-011	7/15-7/16	7/15 - 7/16	9/30/15
CT-HRT-11HO195						
CH-HRT-10HO449	WOFH Surveying, KHG and MSF Audit and Alignments	KIWC/KKJV - HI	15-013	8/20- 8/21	8/20	9/1/15
CT-HRT-11HO195						
CT-HRT-10HO137						
CT-HRT-1200106	Core Systems Contract (CSC) & AB Design-Build-Operate-Maintain	ASTS Italy	TBD	2016		
		AB Italy	TBD	2016		
		AB USA	TBD	2016		



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: **2015** Rev 13

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
CT-HRT-1200106	Core Systems Contract (CSC)	AHJV - HI	15-010	7/06 - 7/07	7/6	7/14/15
	Configuration Management Plan (CMP)	AHJV - HI	15-017	11/5/2015	11/5	
SC-HRT-1200116	West O'ahu Station Group Final Design (WOSG)	AECOM - HI	15-005	3/18 - 3/19	3/18 - 3/19	5/18/15
SC-HRT-1200111	Kamehameha Highway Station Group Final Design (KHSG) PH, PR, AS	AVA - HI	15-002	6/3 - 6/04	6/3	6/8/15
		AVA - CA				
SC-HRT-1200111	H2R2 Final Design	AVA - HI	15-004	1/28	1/28	2/3/15
		AVA - CA				
SC-HRT-1400049	CSC Support Services	L + E	TBD	2016		
DB	Pearl Highlands Parking Structure/Bus Transit Center Construction	TBD	TBD	2016		
CR-HRT-1500309	H2R2 Ramp Construction	Royal Contracting	TBD	2016		
CR-HRT-1500503	West Oahu Station Group Construction	NAN, Inc	TBD	2016		
CT-HRT-1500236	Farrington Hi-way Station Group Construction FHSG	Hawaiian Dredging	TBD	2016		
DB	Kamehameha Hi-way Station Group Construction	TBD	TBD	2016		
SC-HRT-14000323	Airport Section Utilities Construction	NAN, Inc	15-012	8/13 - 8/14	8/13 - 8/14	9/22/15



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: **2015** Rev 13

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
CT-HTR-1500080	Airport Section Guideway Seven Pier Construction	HDCC/CJA JV	15-006 QA	3/11	3/11 - 3/24	3/31/15
			15-006 BA	3/11	3/11 - 3/24	3/31/15
DB-	Airport Section Guideway and Stations	TBD	TBD	2016		
DB-	City Center Section Guideway and Stations	TBD	TBD	2016		
DB	UH West O'ahu Park-and-Ride and Ho'opili Station Finishes Construction	TBD	TBD	2016		
CT-HRT-1300318	Elevator and Escalator - Manufacture, Install and Maintain	US Schindler - HI	15-015	9/10 - 9/11	9/10	11/4/15
		US Schindler - NJ				
SC-HRT-1400050	West Side Station Group CE&I	PGH Wong - HI	TBD	2016		
	West Oahu Farrington Highway and Kamehameha Highway Guideways CE&I		15-014	10/28 - 10/30	10/28 -10/29	
	MSF CE&I			10/28 - 10/30	10/28 -10/29	
	Elevator and Escalator - CE&I			10/28 - 10/30	10/28 -10/29	
	Pearl Highlands Parking Structure/Bus Transit Center CE&I		TBD	2016		
	UH West O'ahu Park-and-Ride and Ho'opili Station Finishes CE&I		TBD	2016		



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: **2015** Rev 13

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
SC-HRT-1600008	Airport Section Guideway & Stations CE&I	Stantec	TBD	2016		
	City Center Section Guideway & Stations CE&I		TBD	2016		
SC-HRT-1400027	General Engineering Consultant Final Design and Construction (GEC 3)	CH2M Hill	15-007	5/20 - 5/21	5/20 -5/21	7/14/15

• **Key Issues**

HART NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
<b>37 (Audits)</b>	<b>33</b>	<b>4</b>
<b>1 (Construction)</b>	<b>1</b>	<b>0</b>

- Continue updating, reviewing and approval of appropriate HART Project Baseline Plans and Procedures due to new policies, re-organization, process improvement and lessons learned from the internal audits. Upon approval of revised plans and procedures, training of HART employees must be performed in order to assure competency and proficiency.
- Resolution of two (2) major WOFH NCRs that need to be addressed and corrected to prevent recurrence and to mitigate impact on the overall progress of the project. The following are the major NCRs identified :
  - **Span 17 – NCR 00314:** The procedure for lowering a heavier and wider span was not followed during the setting of the span to the columns. The result of the error was cracked segments 17-1, 17-2, 17-11 and 17-12. KIWC has evaluated the damages, disposition and the proposed corrective actions. KIWC has submitted a Remediation Plan to HART, which was approved by HART (CE&I, Design and Construction Department, and GEC-3). Therefore, the disposition on the NCR is Repair. KIWC continued the repair of the cracked segments. Repair completion of Span 17 is expected by January 2016.
  - **Direct Fixation Shims Tolerances – NCR 00398:** KIWC shims shall exceed the 9/16 inches specified requirements. HART and KIWC continue discussions on the direct fixation shim tolerances. KIWC has decided to halt installation of shims until the issue is resolved. HART is currently reviewing the KIWC NCR Disposition and Corrective Actions.
- 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 identified:
  - **Drilled Shafts:** To date there are 13 Open NCRs (closed four), which are related to the CSL Reports, and 90 Drilled Shafts completed (added one). The CSL anomalies were found to be 10"-24" on top of the shafts, therefore correction/fixing will be quicker and easier.
- Erection and finishing of spans (12-segments) and construction of "shear keys" between columns and spans on WOFH and KHG guideways.
- Resolution of two (2) major WOFH NCRs: cracked segments 1, 2, 11 and 12 of Span 17 repair, and Direct Fixation Shims Tolerances.
- Resolution of one (1) major KHG NCR: Drilled Shafts (Crosshole Sonic Logging Reports) quality and repair.
- Construction of MSF Yard Ballasted Track: Alignment, Profile, Geometry, Sub-ballast, Drainage, Ballast, Grade Crossings, Welding, Stress Relieving, Concrete Ties, Contact Rails, Switches, etc.
- Installation and welding of rails and turnouts on top of the WOFH guideway.
- Construction of WOFH and KHG Balanced Cantilever Segmental Spans.
- Manufacturing of Carbody(s) at Hitachi Rail Italy and its subcontractor manufacturing facilities in Italy.
- Final Assembly of Passenger Vehicles in Hitachi Rail Italy facilities in Pittsburg, CA.
- Pre-shipment, I&T and FAI of wayside core system and passenger vehicles materials, parts and components.

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

- **Look Ahead**
  - HART will provide updates on any new construction agreements HART enters into with a utility company.
  - HART will provide updates regarding the variable refrigerant flow (VRF) issue.

### 6.4 Disadvantaged Business Enterprise (DBE)

- **Activities this month**
  - \$31,557,347 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 12/31/15
    - 6.62% = DBE utilization on total disbursed FTA funds received to date (\$31,557,347 divided by \$476,509,166)
    - 1.79% = DBE utilization to date on total Project FTA funds (\$31,557,347 divided by \$1,763,903,901)

*Total DBE Participation = \$31.6M*  
*(previous report = \$29.5M)*

Figure 16. DBE Participation this Month

DBE Participation in December		
DBE Firm	Contract Number	Participation
Lawson & Associates	SC-HRT-1400061 MM-964	\$57,521
ADS System Safety Consulting	SC-HRT-1400061 MM-964	\$88,599
AMR Estimating Services	SC-HRT-1400027 MM-913	\$54,358
The Solis Group	SC-HRT-1400027 MM-913	\$119,093
PAC Electric	CT-HRT-10H0137 DB-120	\$447,917
Pacific Preferred	CT-HRT-10H0137 DB-120	\$25,162
Dovetail	MOU-11-SO-1 MM-930	\$22,745
PSC Consultants	SC-HRT-1400050 MM-290	\$355,899
Element Environmental	SC-HRT-1400050 MM-290	\$761,995
Bow Construction	SC-HRT-1400050 MM-290	\$2,610
LKG-CMC	SC-HRT-1400049 MM-962	\$12,868
FIC, LLC	SC-HRT-1400051 MM-595	\$66,031
LKG-CMC	SC-HRT-1400051 MM-595	\$21,489
PSC Consultants	SC-HRT-1400051 MM-595	\$3,836
<b>TOTAL FOR THE MONTH</b>		<b>\$2,040,123</b>

Note: For a full listing of DBE participation to date, please see Appendix F.

## 6.5 Planning and Environment

### • Activities this month

- Programmatic Agreement Activities:
  - HART entered into a contract with Honua Consulting on Dec. 8, 2015 for Section 106 Programmatic Agreement Project Manager (Kāko'o "II").
  - HART's Programmatic Agreement (PA) team met with the Hawai'i State Historic Preservation Division (SHPD) on Monday, Nov. 30, 2015, as part of ongoing consultation with the division.
  - HART's two Makalapa National Register of Historic Places (NRHP) nominations that were withdrawn from the Nov. 13, 2015 hearing of the Hawai'i Historic Places Review Board, will be sent to the Keeper of the National Register in Washington, D.C. for concurrence on the boundaries, per recommendations of the PA Consulting Parties.
  - Graffiti removal tests were completed in November at the Armstrong Building (175 N. King Street) as well as tests at 1, 15/19, and 25 North Hotel Street, and 1024-1034 and 1111 Nuuanu Avenue. Graffiti abatement is awaiting owners' consent to proceed with work.
  - HART has compiled a status update on Historic Preservation Fund progress to date, which will be presented to PA Consulting Parties.
  - The second draft of the Pearl Harbor National Historic Landmark (NHL) Update was submitted for comments to the Navy, SHPD, and National Park Service on Oct. 8, 2015. Comments were received only from SHPD by the established due date of Dec. 8, 2015.
  - A Notice of National Park Service (NPS) acceptance of Historic American Buildings Survey (HABS) Documentation for the Dillingham Boulevard Residences, Genet House, Higa Four-Plex, and Teixeira House was received on Nov. 19, 2015. NPS transferred archival copies of this documentation to SHPD on Nov. 6, 2015. Final notice was sent to FTA and HART on Dec. 2, 2015.
- Planning, Environmental, and Cultural Activities:
  - HART continues to assist the Oahu Metropolitan Planning Organization (OMPO) in updating the regional long-range travel demand forecasting model.
  - HART, City and County Department of Transportation Services (DTS), and DTS' contractor Oahu Transit Services (OTS) are collaborating on bus-to-rail interface planning using a new software package called Remix. This software enables planners to quickly cost out multiple routing scenarios with awareness of socioeconomic implications on Honolulu's transit ridership.
  - HART submitted a draft archaeological data-recovery report to SHPD for the Waipahu Transit Center area.
  - HART consulted with the O'ahu Island Burial Council (OIBC) on Wednesday, Dec. 9, 2015.
  - HART staff completed training in Remix Software, which is a planning tool that allows for bus-rail transit network planning.
  - Filming took place in and around the Holau Market site between Dec. 16 and 18, 2015. HART staff, in consultation with and with approval from FTA and SHPD, approved the work at the site that included construction of a film set beginning Dec. 7, 2015, and mitigations to historic elements of the property. HART staff monitored the work to ensure both the historic elements and the overall building were not compromised during the filming.
- Sustainability:
  - Staff presented an organizational sustainability policy to the HART Board of Directors on Nov. 24, 2015.
  - HART formally included photovoltaic panels into the City Center Guideway and Stations (CCGS) package.

### • Looking Ahead

- Ongoing coordination with DTS to ensure consistent planning of seamless bus and rail services focusing on rail's interim opening date.
- Conduct regular monthly HART/SHPD consultation meetings.
- HART to draft sustainability policy document and present to the HART Board Chair.
- HART to present purchase power agreement vs. photovoltaic ownership evaluation to the HART Board.
- HART to develop Sustainability Focus Group with to-be-identified stakeholders.
- Attend monthly scheduled Kāko'o Meetings with Programmatic Agreement Signatory and Consulting Parties.

- Continue coordination with DPP, the State, and HCDA regarding transit-oriented development.
- Continue development of HART's sustainability program.
- Continue development of the photovoltaic RFP for the Rail Operations Center (ROC).

## 6.6 Risk Management

The primary strategy 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.

Risk assessments are performed 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.

Maintaining the RR includes assessing the potential for a risk to happen as well as the cost and schedule impacts should the risk occur in isolation. The cost and time impacts to the Project are assessed based on a "most likely scenario" rather than the maximum or the minimum impact. Not all risks (known and unknown) will occur with the same frequency or probability as estimated in isolation. In addition, risks can be eliminated due to design best practices as well as through the implementation of safe alternative means and methods of construction to avoid the occurrence.

This report includes a listing of the top project wide risks which is an aggregate of the individual contract risks. Key metrics for probability of occurrence and cost and schedule impacts are subject to change as more is learned about the risks. At the same time, HART is implementing mitigation of avoidance, transfer, and acceptance/minimization.

### NOTES OF SIGNIFICANCE

- Additional focus is being placed on Hawaiian Electric Co. coordination and clearance issue resolution.
- Discussions of project schedule and estimated costs at completion are being evaluated to provide the most accurate information possible.
- Risk refresh will be scheduled when the PMOC and HART are in agreement that budget and schedule approach are in alignment. This process will be used to identify and recommend appropriate budget contingency and schedule float for the revised Revenue Service Date.

### ADDITIONAL BACKGROUND

The narrative below provides additional background on the mitigation actions being taken to control and contain cost and schedule impacts to the Project. Provided below are the risk category and specific actions being taken. Dates are tracked separately. Based on the effectiveness of the mitigation efforts, more actions may be required to further contain cost and schedule impacts in future months. The major risks covered this month are: A) Market Conditions, B) Utilities, and C) Right-of-Way.

**A) Market Conditions** – The construction market in Hawai'i is similar to the conditions experienced in 2005-07. The year 2015 is expected to set a new record for construction in the state. This translates to increased escalation of about 1% per month for late 2014 and through 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 contractor outreach efforts have been successful with respect to the West Side Stations. The net benefit of Value Engineering, revisions to the General Terms and Conditions and repackaging have resulted in a savings of \$40M.

- HART's continuous improvement in estimating methodology has led to more confidence in the likely construction pricing.
- The combined guideway and station packages on the East 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.
- Clearance of HECO overhead facilities and HART Guideway and Stations is undergoing evaluation for site specific solutions with respect to the 138kV, 46kV and 12kV. The range of solutions to meet physical separation are extraordinary in cost, requiring further study prior to reaching an agreeable solution that is functional and affordable.

**C) Right-of-Way** – There are parcels on the east and west segments that are still under active procurement. Lack of access by the contractor has been partially mitigated through re-sequencing the work on the west. 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:

- West property transactions have been elevated and accomplished.
- East Side – there are a number of third-party agreements needed on the Airport Section and private parcels on the City Center Section. The revised Delivery and Procurement Plan takes into account the Right-of-Way Acquisition Plan. Cost to cure partial property improvement impacts were delayed initially. The majority have now been resolved.

*Note: Risks by Contract Package and a Comparison of Risk Ratings can be found in Appendix G.*

Figure 17. Risk Matrix

RISK MATRIX					
Legend	Low (1)	Med (2)	High (3)	Very High (4)	Significant (5)
Probability	< 10%	10><50%	50><75%	75%><90%	>90%
Cost	< \$250K	\$250K><\$1M	\$1M><\$3M	\$3M><\$10M	>\$10M
Schedule	< 1 Mths	1><3 Mths	3><6 Mths	6><12 Mths	>12 Mths
Rating	<=3	3.1-9.49		>=9.5	

The risk matrix is used to score and rank identified risks. The rating is the average cost and schedule impact score multiplied by the probability score.

Figure 18. Top Project Risks

Top Risks December 2015								
Current Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	Dec '15 Risk Rating	Nov '15 Risk Rating
111.16	Pearl Highlands Garage	Cost estimates for Parking Structure and Transit Center FFGA Budget may be low compared to current market conditions.	90%	5	5	4	22.5	
111.19	Airport Guideway and Stations	Estimates for remaining guideway contracts may be low compared to current market conditions.	90%	5	5	4	22.5	22.5
111.06	City Center Guideway & Stations	Cost estimates for remaining guideway contracts may be low due to adjustments using pricing from WOFH Bid.	90%	5	5	4	22.5	22.5
184.17	Elevator/ Escalator	There is a potential for cost escalation and extended OH for delay of manufacturing and installing elevator/escalator.	90%	4	4	5	18	18.0
110.06	City Center Guideway & Stations	Real Estate market could rebound before purchase of all needed properties, greatly increasing cost of property and delaying construction if legal actions are pursued.	75%	4	5	4	18	18
6.06	City Center Guideway & Stations	Insufficient utility company resources available to resolve conflicts and meet the design, approvals, and/or construction schedule. (Dillingham bottleneck)	75%	4	4	5	18	18
6.04	Kamehameha Highway Guideway	Insufficient utility company resources available to meet the design, approvals, and/or construction schedule.	75%	4	5	4	18	18
68.14	City Center Guideway & Stations	Downtown Station planned to be integrated into Pacific Guardian Center; agreement with owner yet to be proposed. PGC demands could extend negotiations and delay construction or increase construction costs.	75%	4	5	3	16	16
36.01	Project Wide	HECO Clearance - Cost exposure from unexpected utility replacements.	90%	5	5	1	15	
186.17	Elevator/ Escalator	Increase/decrease in escalator requirements.	90%	5	3	3	15	15
37.19	Airport Guideway and Stations	Additional utility easements may be required for private utility companies.	50%	3	5	5	15	15
37.06	City Center Guideway & Stations	Additional utility easements may be required for private utility companies.	50%	3	5	5	15	15
37.04	Kamehameha Highway Guideway	Additional utility easements may be required for private utility companies.	50%	3	5	5	15	15

Risks are placed in order based on highest risk rating for the month. The Top Risks listed represents those that could have a major impact on the Project and require additional focus by management. There are other high rated risks that are not listed and are also in the process of being mitigated by HART staff.

Figure 19. Risks Added

Risks Added in December 2015							
Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	Risk Rating
36.01	Project Wide	HECO Clearance - Cost exposure from unexpected utility replacements.	90%	5	5	1	15
111.16	Pearl Highlands Garage	Cost estimates for Parking Structure and Transit Center FFGA Budget may be low compared to current market conditions.	90%	5	5	4	22.5
178.07	MSF	Disputed items escalated for resolution results in overturning field determination of no merit.	25%	2	3	0	3
195.01	Project Wide	Core Systems design delays impacting construction details of peripheral connections, door hardware and platform screengates.	25%	2	2	1	3
196.03	WOFH	CASTING YARD lease expiration.	90%	5	3	0	7.5
197.10	FHSG	Contract design document complexity and award delay due to protest could delay revenue service date.	50%	3	3	3	9

Figure 20. Risks Deleted

Risks Deleted in December 2015						
Current Risk ID	Contract Package	Risk Description	Comments	Risk Rating		
				Dec. '15	Nov. '15	
36.19	Airport Guideway and Stations	HECO Clearance - Cost exposure from unexpected utility clearance issues. (Ex. HECO 138kV Line undergrounding, delay in resources).	Risk is now being tracked and mitigated as a program risk.	13.5	13.5	
36.06	City Center Guideway	HECO Clearance - Cost exposure from unexpected utility clearance issues.	Risk is now being tracked and mitigated as a program risk.	18	18	
8.04	Kamehameha Highway Guideway	Old electrical and other utilities may contain asbestos which will require HAZMAT disposal.	Duplication with Change Log as a changed site condition.	6	6	
36.04	Kamehameha Highway Guideway	HECO Clearance - Cost exposure from unexpected utility replacements and/or relocations.	Risk is now being tracked and mitigated as a program risk.	9	9	
40.12	KHSG	With guideway previously constructed at Pearl Highlands Station, constructability issues could arise for Bus Transit Center and Parking Garage.	The contracts have sufficient separation to mitigate risk.	0	2	
146.12	KHSG	HART Service Connection - HECO and other utility service hook up requests may cause potential delay.	Requests have been made and scheduled.	0	3	
119.07	Maintenance & Storage Facility Contract	Coordination of yard space versus vehicle delivery could cause schedule issues.	Area for receiving vehicles has been sufficiently coordinated and is proceeding ahead of schedule.	0	1	
2.03	West Oahu/Farrington Highway Guideway	Discovery of unanticipated archeological findings could result in construction delay and/or design modification to relocate columns and foundations.	Subsurface work is substantially complete.	0	1.5	
6.03	West Oahu/Farrington Highway Guideway	Insufficient utility company resources available to meet the design, approvals, and/or construction schedule.	Subsurface work and overhead other than HECO clearance has been resolved.	0	10.5	
35.03	West Oahu/Farrington Highway Guideway	Differing geotechnical conditions encountered may result in schedule delays and additional costs.	Subsurface work is substantially complete.	0	4	
36.03	West Oahu/Farrington Highway Guideway	HECO Clearance - Cost exposure from unexpected utility replacements.	Risk is now being tracked and mitigated as a program risk.	15	9	
38.03	West Oahu/Farrington Highway Guideway	Conflict Resolution - Costs for utility relocations may increase if utility plans have deviations greater than contract stipulation.	Relocations are substantially complete for WOFH.	0	1.5	
39.03	West Oahu/Farrington Highway Guideway	Extensive rain could, because of potential flooding of the work site, affect construction schedule at the Pearl Highlands Station area.	Weather delays in this area did not materialize.	0	3	

**6.7 Community Outreach**

**• Activities this month**

- HART’s public outreach included nearly a dozen presentations to business organizations, schools, and community groups. During the holiday season, HART’s outreach staff participated in several holiday events, including Kapolei City Lights.
- HART released the latest photos of the four rail cars now in full production in Pittsburg, California. The photos were unveiled on Hawaii News Now’s Sunrise morning show.

**• Construction Outreach**

- Responding to feedback from businesses along the rail corridor, HART launched its free shuttle service as part of its Shop & Dine on the Line program. The new Shop, Dine & Shuttle program will feature an open-air trolley and a minibus that will provide free shuttle service for people who want to visit local businesses along the Kamehameha Highway corridor. The inaugural shuttle run ties in with the Aloha Stadium swap meet, and riders can board on the shuttle at the stadium or anywhere along the listed route. All riders will be given Shop & Dine on the Line brochures, which list special offers and discounts from 100 businesses along the route. HART partnered with Move Oahu Forward and E Noa Tours for the inaugural shuttle service and is looking for sponsors to continue the service for the duration of construction.
- HART held two Business Alliance meetings this month, one in Waipahu and a second one in the Pearl City area. These regular meetings are designed to provide businesses along the rail corridor with updated information about construction work and upcoming traffic changes in their area. The meetings are also designed to provide businesses with the opportunity to provide feedback that helps shape some of HART’s business outreach programs. HART’s Business Alliance partnership continues to provide businesses in the construction corridor with tailored construction briefings, free business development workshops, and other programs to assist local businesses during construction.

*To date, HART’s outreach team has participated in:*

- *1,909 presentations and events*
- *1,034 Neighborhood Board meetings*

Figure 21. HART shared the most recent photos of its rail cars in production.



Straight from the factory floor: The public got a glimpse of HART’s first four-car train under production in Pittsburg, California.

Figure 22. HART’s Shop, Dine & Shuttle launched Sunday, Dec. 13.



Shop, Dine & Shuttle riders enjoy the open-air trolley ride to Pearlridge Center.

**• Community Input**

- HART’s public information team responded to more than 125 inquiries and requests in December that came in via the agency’s website, email and 24-hour hotline. Inquiries this month primarily focused on traffic, construction activities, and HART’s Shop & Dine on the Line program.

• **Look Ahead**

Coming in January:

- HART’s outreach and construction teams prepare to break ground at some of its west side stations.
- HART continues its Business Outreach program, and expands its Shop & Dine on the Line program to assist businesses along the rail route during construction.

**6.8 Staffing**

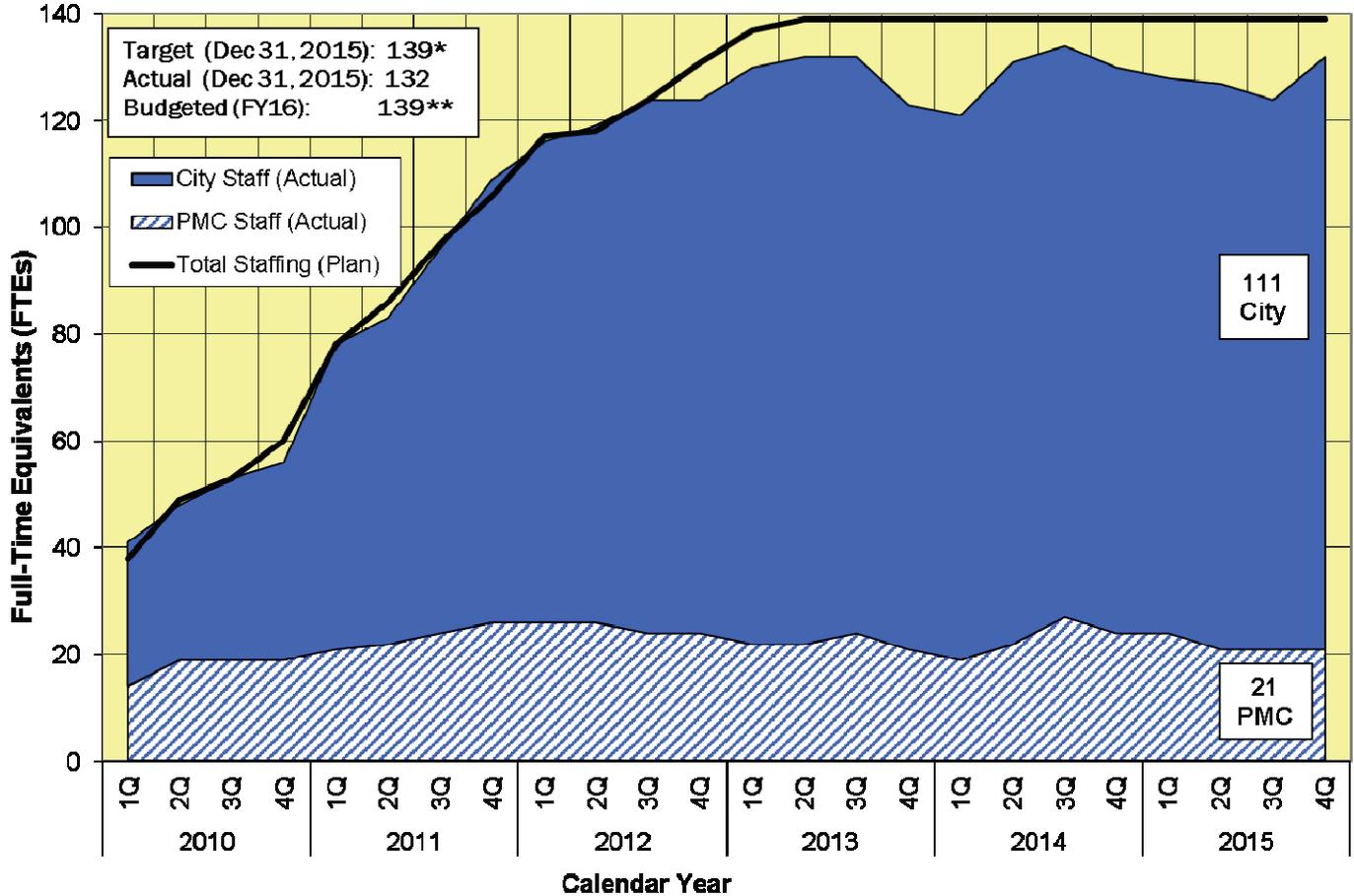
Figure 23. Staffing Activities

Staffing Activities				
Title	Group	New/Existing HART position (City or PMC)	Position Status	Start Month
<b>Design and Construction</b>				
West Area Construction Manager	Construction	New (City)	Recruiting	
Project Manager (KHSG/H2R2 Ramp)	Construction	New (City)	Filled	Dec
Project Manager (FHSG)	Construction	New (City)	Filled	Jan
Assistant Project Manager (City Center DB)	Construction	New (City)	Recruiting	
Project Manager (WOFH & KHG)	Construction	Existing (City)	Recruiting	
Electrical Engineer	Core Systems	Existing (City)	Recruiting	
<b>Planning, Permits &amp; Right-of-Way</b>				
Planner III* (Environmental)	Planning	Existing (City)	Recruiting	
Land Document Technician	ROW	New (City)	Filled	Jan
<b>Operations and Maintenance</b>				
Director of Operations & Maintenance	Operations & Maintenance	Existing (PMC)	Recruiting/Interviewing	
<b>Quality Assurance</b>				
Quality Assurance Engineer * (Civil)	Quality Assurance	Existing (City)	Recruiting	
<b>Administrative Services</b>				
Personnel Clerk	Administrative Services	New (City)	Recruiting via Civil Service	
<b>Public Information</b>				
Information Specialist II	Public Information	Existing (City)	Filled	Dec
<b>Project Controls</b>				
Scheduler	Project Controls	Existing (City)	Recruiting	
<b>Civil Rights</b>				
Senior Clerk	Certified Payroll	New (City)	Filled	Dec
<b>Procurement</b>				
Contracts Officer	Procurement & Specifications	Existing (City)	Recruiting	

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

HART currently receives direct project support in centralized functions from the following city departments: Honolulu Police Department (HPD), Department of Information Technology (DIT), Department of Budget and Fiscal Services (BFS), Department of Design and Construction (DDC), Corporation Counsel (COR) and Department of Human Resources (DHR); and from the State of Hawai’i Department of Transportation (HDOT) on Consultant Services Contracts. HART is currently working with the Department of Facility Maintenance (DFM) on creating a Memorandum of Understanding (MOU).

Figure 24. Project Staffing (Actual vs. Planned)



\* In accordance with Staffing and Succession Plan Rev 5 (Under Revision)  
 \*\* 139 City positions authorized in FY 2016 HART Operating Budget

The actual number of employees reflects employees hired during this period as well as employees who left the project from both HART and the PMC staffs.

Note: For a project organization chart, see Appendix H.

# APPENDICES

## Appendix A. Action Items

The following are Action Items for HART and/or the PMOC, which are reviewed and discussed on a monthly basis.

Action Items						
Item No.	Item	Responsible Party	Date Identified	Date Due	Date Completed	Status
1	Resolve HECO issue with Davis-Bacon requirements	HART/FTA	Mar-14	On-going		Open – HECO waiver is pending. HART provided MOU to PMOC.
2	<b>Updates resulting from Risk Refresh:</b>					
2a	Update the Contract Packaging Plan	HART	Aug-14	TBD		In progress – Draft provided to PMOC but changes may be incorporated on updated estimate and schedule
2b	Re-baseline Financial Plan	HART	Apr-14	TBD		Pending final update of budget and schedule
2c	Re-baseline budget	HART	Apr-14	TBD		In progress
2d	Re-baseline MPS	HART	Apr-14	TBD		In progress – HART has provided MPS update for review
2f	Update RCMP (including Hold Points and Secondary Mitigation Measures)	HART	Sept-13	TBD		In progress – PMOC provided review comments on early draft, but updated draft will be prepared to reflect revised budget and schedule.
3	HART to provide target date for Federal Courthouse resolution/sign-off	HART	Sep-15	Jan-16		
4	HART to provide a matrix of ROW parcels	HART	Nov-15	Jan-16		

## Appendix B. Project Contingency Management General Background and Clarifications

The FFGA Baseline Budget for Project Contingency is approximately \$643.6M and consists of the following elements:

- 1) Unallocated Contingency – Reserve contingency to address unknown changes to the Project and not currently allocated to a particular work package.
- 2) Project Allocated Contingency – Contingency allocated to each work package to address potential uncertain changes within each respective work package.
- 3) Allowance – A reserve designated for Final Design contracts and committed under the contracts.

*Current Contingency Balance = \$488.2M*

*Current Known Changes Contingency = \$0M*

The \$643.6M Baseline Budget for Total Project Contingency does not include amounts for Known Changes yet to be finalized at the time the Bottom-Up Estimate (BUE) was prepared.

As the project progresses, budget transfers will be executed, moving budgeted project scope and budgeted contingencies as appropriate to reflect either a realized cost savings, cost overruns, or a transfer of scope. It is expected that project contingency will continue to be drawdown as the overall design is further developed, risks are identified, and construction progress continues to advance. The following list details ways in which project contingency can either increase or decrease:

- 1) The budgeted amount for a contract package is either lower or higher than the actual executed contract amount. Contingency will increase if the budgeted amount is higher than the actual contract amounts which results in a budget surplus, and vice versa if the budgeted amount is lower.
- 2) Increase of a contract amount through the execution of a change order or contract amendment. Contingency is decreased and transferred to the appropriate SCC.
- 3) Transfer of work scope, e.g. utility relocation, between contract packages through a change order. The scope value from one contract is decreased and transferred to Contingency. Contingency is then decreased by the same scope value and transferred to the other contract. Contingency is used as a “holding account” in this instance.
- 4) Revisions to contract packaging. Further evaluation of contract packages may be considered to seek budget savings and/or to mitigate cost or schedule impacts. Budget savings, if any, would be transferred to Contingency.
- 5) Utilization of allowance in design contracts. The allowance amount to be utilized will decrease this contingency category and will be transferred to the appropriate SCC.

### Changes Identified and Project Performance

HART and the PMOC continue to hold a monthly breakout session to review cost containment strategies and changes being considered for each contract. Changes are tracked by three categories which are determined by how well defined a change is and are summarized as Changes Identified in Project Cost reports. HART continually manages the strategy to avoid or mitigate as well as plan the timing of any potential changes. Breakout session discussions focus on opportunities to reduce costs and accelerate contract-scheduled activities to attain key milestones earlier than targeted. The session concludes with an overview of the cost and schedule drawdown curves, if and when changes might occur, in order to assess project performance against total project contingencies and buffer float.

The Risk and Contingency Management Plan (RCMP), Contract Packaging Plan (CPP), Master Project Schedule (MPS), Project Budget and Financial Plan updates are all in progress. The RCMP includes updates to the cost and schedule contingency drawdown curves, which establish minimum and buffer zone levels of cost and schedule contingency in accordance with FTA recommendations. Over the course of the project, if the cost or schedule contingency enter into the buffer zone (the area above the minimum contingency), Project Management will immediately implement actions to maintain the level of contingency appropriate for the project stage.

### Known Changes Contingency

Known Changes, though tracked separately from the Project Contingency established under the FFGA, functions like contingency and is designated as SCC 90.07 on project cost reports. In re-baselining the Project Budget for FFGA, a bottoms-up estimate (BUE) was developed for each work package identified in the CPP based on the level of design and current pricing of material, equipment, construction labor, professional services, real estate and all other costs. These revised estimates took into account the reduction of contingency to reflect the advancement of Final Design since the Preliminary Engineering phase. Contingency was then allocated in accordance with FTA guidelines and current risk modeling methodologies. The net effect was a reduction of approximately \$170M of contingency between the previous Final Design Project Budget and the FFGA Project Budget. Included in the base costs of the BUE were elements that were considered “Known” or pending changes that were still subject to final negotiations with contractors and the execution of change orders. The estimated costs for Known Changes were applied to work packages established under the FFGA. Based on the level of risk, the estimated costs for Known Changes were either classified as base cost or as separate contingency for specific work packages (contingencies eventually convert to base costs via change order). Of the total \$170M estimated for Known Changes, \$97M was classified as base cost and allocated to multiple contracts. The remaining \$74M was classified as “contingency” in order to process all changes using a consistent methodology of transferring budget from contingency to the appropriate base cost code when a change order is executed. As it was intended for this reserve, this line item has been debited to zero as all changes contemplated to draw-down against “known” contingency has been executed.

# HART Project Contingency Drawdown with Details

Data as of 11/27/15

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
<b>July '12 (Bottoms-Up Estimate)</b>					
<b>Beg. Balance:</b>				<b>\$643.6</b>	
1)	FD-240	Farrington Highway Stations Group FD	Budget Transfer at Bottoms-Up Estimate from Project Scope to Contingency (contract allowance)	\$36,443	90.03 - Contract Allowance
2)	FD-430	Airport Section Guideway Utilities FD	Budget Transfer for Contract Award less than the ASGU FD contract budget	\$2,054,106	90.02 - Allocated Contingency
3)	MM-975	LEED Commissioning Services	Budget Transfer for Contract Award above the LEED Comm. Services contract budget	(\$35,623)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Budget Transfer for Contract Award above the KHG DB contract budget	(\$220,863)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer for Ins. Covg per executed CO No. 004	\$3,995,230	90.02 - Allocated Contingency
<b>July '12 Contingency Drawdown</b>				<b>\$5,851,273</b>	
<b>August '12</b>					
<b>Beg. Balance:</b>				<b>\$649.4</b>	
1)	FD-140	West Oahu Stations Group FD	Budget Transfer for Contract Awarded under WOSG FD contract budget	\$1,808,200	90.02 - Allocated Contingency
2)	FD-530	City Center Guideway Utilities FD	Budget Transfer for Contract Awarded under COGU FD contract budget	\$5,917,945	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 17 - Procure and Install Portable Buildings	(\$2,670,000)	90.02 - Allocated Contingency
<b>August '12 Contingency Drawdown</b>				<b>\$5,095,145</b>	
<b>September '12</b>					
<b>Beg. Balance:</b>				<b>\$654.5</b>	
N/A	N/A	N/A	No Contingency Drawdown	\$0	
<b>September '12 Contingency Drawdown</b>				<b>\$0</b>	
<b>October '12</b>					
<b>Beg. Balance:</b>				<b>\$654.5</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 21 - Builders Risk Insurance Coverage	(\$56,689)	90.02 - Allocated Contingency
<b>October '12 Contingency Drawdown</b>				<b>(\$56,689)</b>	
<b>November '12</b>					
<b>Beg. Balance:</b>				<b>\$654.4</b>	
1)	FD-440	Airport Stations Group FD	Budget Transfer for Contract Award under ASG FD the contract budget	\$227,784	90.03 - Contract Allowance
2)	FD-340	Kamehameha Highway Stations Group FD	Budget Transfer for Contract Award under KHSG FD the contract budget	\$202,459	90.03 - Contract Allowance
3)	MM-906	General Engineering Consultant	Budget Transfer to align contract budget with Committed value	(\$120,650)	90.02 - Allocated Contingency
<b>November '12 Contingency Drawdown</b>				<b>(\$109,623)</b>	
<b>December '12</b>					
<b>Beg. Balance:</b>				<b>\$654.7</b>	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 01 - Design & Engineering Cost Estimates	(\$275,000)	90.02 - Allocated Contingency
<b>December '12 Contingency Drawdown</b>				<b>(\$275,000)</b>	
<b>January '13</b>					
<b>Beg. Balance:</b>				<b>\$654.4</b>	
1)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 01 - Asceia r30 alternative analysis	(\$15,981)	90.02 - Allocated Contingency
<b>January '13 Contingency Drawdown</b>				<b>(\$15,981)</b>	
<b>February '13</b>					
<b>Beg. Balance:</b>				<b>\$654.4</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 26 - Ins. Covg Requirement/ Additional BCGV at F. Weaver Rd	(\$1,670,178)	90.02 - Allocated Contingency
<b>February '13 Contingency Drawdown</b>				<b>(\$1,670,178)</b>	
<b>March '13</b>					
<b>Beg. Balance:</b>				<b>\$652.8</b>	
1)	FD-240	Farrington Highway Stations Group FD	Executed Contract Amendment No. 09 - Waipahu Station sewer	(\$3,886)	90.03 - Contract Allowance
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 06 - Ins. Covg Requirements/Dsl Crossovers Insulated Joints	(\$484,878)	90.02 - Allocated Contingency
<b>March '13 Contingency Drawdown</b>				<b>(\$488,764)</b>	
<b>April '13</b>					
<b>Beg. Balance:</b>				<b>\$652.3</b>	
<b>April '13 - Ending Balance</b>				<b>\$652.3</b>	
1)	DB-140	West Oahu Stations Group FD	Executed Contract Amendment No. 01 - Second Elevator provision	(\$31,013)	90.03 - Contract Allowance
2)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer to offset Ins. Covg Requirement for Change Order No. 26	\$1,670,178	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer to offset Ins. Covg Requirement for Change Order No. 26	\$47,843	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Budget Transfer to Align current budget to contract Schedule of Values	\$600	90.02 - Allocated Contingency
<b>April '13 Contingency Drawdown</b>				<b>\$2,023,765</b>	
<b>May '13</b>					
<b>Beg. Balance:</b>				<b>\$654.3</b>	
N/A	N/A	N/A	No Contingency Drawdown	\$0	
<b>May '13 Contingency Drawdown</b>				<b>\$0</b>	
<b>June '13</b>					
<b>Beg. Balance:</b>				<b>\$654.3</b>	
N/A	N/A	N/A	No Contingency Drawdown	\$0	
<b>June '13 Contingency Drawdown</b>				<b>\$0</b>	
<b>July '13</b>					
<b>Beg. Balance:</b>				<b>\$654.3</b>	
<b>July '13 - Ending Contingency Balance</b>				<b>\$654.3</b>	

# HART Project Contingency Drawdown with Details

Date as of 11/27/15

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
<b>July '13</b>					
1)	FD-430	Airport Station Guideway Utilities FD	Executed Contract Amendment No. 04 - Antenna Engineering Design Services	\$664.3	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 07 - Archeological Inventory Survey (AIS) Provisional Sum Part 2	(\$3,000,000)	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 08 - Maintenance & Storage Facility Yard Switch Machines	(\$933,000)	90.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 09 - Yard Layout Revisions	(\$914,463)	90.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 10 - Train Configuration	(\$27,703)	90.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 11 - Primary Design & Supplemental Project Mgt	(\$94,869)	90.02 - Allocated Contingency
<b>July '13 Contingency Drawdown</b>					
				<b>\$649.1</b>	
<b>August '13</b>					
<b>July '13 - Ending Contingency Balance</b>				<b>\$649.1</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 30 - Archeological Inventory Survey (AIS) Provisional Part 2	(\$5,800,000)	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 32 - Kalo Channel Station MOC Concept	(\$72,381)	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 34 - Traditional Cultural Property Construction Permit Suspension	(\$1,186,054)	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 36 - Hiopili Station Rehabilitation Design	(\$481,675)	90.02 - Allocated Contingency
5)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 06 - Archeological Inventory Survey (AIS) Provisional Part 2	(\$1,900,000)	90.02 - Allocated Contingency
6)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 02 - Canopy Redesign	(\$34,386)	90.03 - Contract Allowance
7)	MI-930	Elevator & Escalator Install/Maint	Executed Transfer for Contract Awarded under E&C Int Contract Budget	\$3,736,472	90.02 - Allocated Contingency
<b>August '13 Contingency Drawdown</b>				<b>(\$5,624,004)</b>	
<b>September '13</b>					
<b>August '13 - Ending Contingency Balance</b>				<b>\$643.2</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 33 - Provisional Sum HOOT Joint Use and Occupancy	(\$4,900,000)	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 35 - Asbestos/Cultural/Design Conflict	(\$1,900,872)	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 12 - RNTB Design Escalation	(\$933,500)	90.02 - Allocated Contingency
4)	FD-240	Farrington Highway Stations Group FD	Executed Contract Amendment No. 10 - NTP 2 Delay/Design Delay from Core Systems Contract & West Oahu Farrington Highway DB Contract	(\$270,985)	90.02 - Allocated Contingency
<b>September '13 Contingency Drawdown</b>				<b>(\$8,116,267)</b>	
<b>October '13</b>					
<b>September '13 - Ending Contingency Balance</b>				<b>\$637.1</b>	
1)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 13 - Ins. Covg Requirement/ Roof Access Modification	(\$287,155)	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 13 for Ins. Covg Requirements	\$286,500	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer for Change Order No. 37 - Ala He Street Wood Yards at DR Portion & Farrington HWY	\$24,813	90.02 - Allocated Contingency
4)	DB-620	Core Systems Design Build/CM	Executed Change Order No. 05 - Perform Screen Gates Systems	(\$93,901,657)	90.02 - Allocated Contingency
5)	FD-350	Ullingham and Kalia Ave Stations Group FD	Budget Transfer for Contract awarded under BKSS FD contract budget	\$1,157,763	90.02 - Allocated Contingency
<b>October '13 Contingency Drawdown</b>				<b>(\$82,134,722)</b>	
<b>November '13</b>					
<b>October '13 - Ending Contingency Balance</b>				<b>\$615.0</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 38 - Insurance Coverage Requirement Q4-2013	(\$1,000,000)	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 08 for Ins. Covg Requirements	\$1,000,000	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 014 - Preliminary Design & Supplemental Project Management 2	(\$214,698)	90.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 013 - Yard Layout Revisions/RFP Structural Steel Modification	(\$1,728,000)	90.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 016 for Ins. Covg Requirements	\$223,000	90.02 - Allocated Contingency
6)	FD-320	City Center Guideway Utilities FD	Executed Contract Amendment No. 01 - Archeological Inventory Survey (AIS) Suspension	(\$332,800)	90.02 - Allocated Contingency
7)	FD-240	Farrington Highway Station Group FD	Budget Transfer for Contract Award for FHS PD II	(\$7,000,855)	90.01 - Unallocated Contingency
<b>November '13 Contingency Drawdown</b>				<b>(\$4,947,261)</b>	
<b>December '13</b>					
<b>November '13 - Ending Contingency Balance</b>				<b>\$610.0</b>	
1)	FD-430	Airport Station Guideway Utilities FD	Executed Contract Amendment No. 05 - Utera St resection scope impact	(\$246,958)	90.02 - Allocated Contingency
2)	FD-140	West Oahu Station Group FD	Executed Contract Amendment No. 03 - Design relocation of HECO 4pkv and fiber optic lines	(\$33,528)	90.02 - Allocated Contingency
<b>December '13 Contingency Drawdown</b>				<b>(\$272,886)</b>	
<b>January '14</b>					
<b>December '13 - Ending Contingency Balance</b>				<b>\$609.8</b>	
1)	FD-430	Airport Station Guideway Utilities FD	Executed Contract Amendment No. 06 - Archeological Inventory Survey (AIS) Suspension	(\$2,306,450)	90.02 - Allocated Contingency
2)	FD-350	City Center Guideway Utilities FD	Executed Contract Amendment No. 02 - Soil Resistance Test and Max Sag Calculation	(\$4,061,153)	90.02 - Allocated Contingency
3)	MM-290	Construction Engineering & Inspection West	Budget Transfer for Contract Award less than C&E West contract budget	\$181,068	90.02 - Allocated Contingency
4)	MM-596	Construction Engineering & Inspection East	Budget Transfer for Contract Award less than C&E East contract budget	\$1,102,617	90.02 - Allocated Contingency
<b>January '14 Contingency Drawdown</b>				<b>(\$1,428,718)</b>	
<b>February '14</b>					
<b>January '14 - Ending Contingency Balance</b>				<b>\$608.3</b>	
1)	FD-430	Airport Station Guideway Utilities FD	Executed Contract Amendment No. 07 - Reset & Sag Geotech Investigation	(\$136,920)	90.02 - Allocated Contingency
2)	HRT-201	HART OCC	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	(\$11,467)	90.02 - Allocated Contingency
3)	MM-910	GEC II	Budget Transfer for Contract Award - Archeological & Cultural Monitoring & Core Systems Support contracts	(\$4,424,173)	90.02 - Allocated Contingency
4)	MM-980	Archeological & Cultural Monitoring	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	\$36,761	90.02 - Allocated Contingency
5)	MM-982	Core Systems Support	Budget Transfer for Contract Award - Core Systems Support contract	\$4,336,859	90.02 - Allocated Contingency
<b>February '14 Contingency Drawdown</b>				<b>(\$1,022,900)</b>	
<b>February '14 - Ending Contingency Balance</b>				<b>\$608.2</b>	

# HART Project Contingency Drawdown with Details

Data as of 11/27/15

Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
<b>March '14</b>				
N/A	N/A	No Contingency Drawdown	\$0	
<b>March '14 Contingency Drawdown</b>				
<b>March '14 - Ending Contingency Balance</b>			<b>\$608.2</b>	
<b>April '14</b>				
<b>March '14 - Ending Contingency Balance</b>			<b>\$608.2</b>	
1) FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 04 - East Kapolei Staff Room Pre-Final Submittal	(\$607,243)	90.03 - Contract Allowance
2) FD-400	Airport Section Guideway Utility FD	Executed Contract Amendment No. 08 - Notice-to-Proceed & Provisional Sum for Design Support during bid	(\$1,586,074)	90.03 - Contract Allowance
3) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 019 - Rail Lubricators	(\$1,022,000)	90.02 - Allocated Contingency
4) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 017 - Yard Layout, Reconfiguration/Automated Train Operation Design	(\$2,126,000)	90.02 - Allocated Contingency
5) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 019 - Rail Material Storage Plan	(\$370,000)	90.02 - Allocated Contingency
6) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 019 - Train Wash Facility Shortening	\$0	90.02 - Allocated Contingency
7) DE-120	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 040 - Precast Yard Alternative Site	(\$12,400,638)	90.02 - Allocated Contingency
8) DE-120	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 041 - Revised Track Alignment and Profile	(\$46,803)	90.02 - Allocated Contingency
9) DE-120	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 042 - Stormwater Islets Communications Utility Relocation @ North South Rd	(\$796,048)	90.02 - Allocated Contingency
10) DE-320	Kamehameha Highway Guideway DB	Executed Change Order No. 005 - Repair Clear Spacing Design Criteria	\$0	90.02 - Allocated Contingency
<b>April '14 Contingency Drawdown</b>			<b>(\$17,480,782)</b>	
<b>April '14 - Ending Contingency Balance</b>			<b>\$580.7</b>	
<b>May '14</b>				
<b>April '14 - Ending Contingency Balance</b>			<b>\$580.7</b>	
1) DE-140	West Oahu Stations Group FD	Budget Transfer for Executed Contract Amendment No. 05 - Final Design for relocated Hoopili Station	\$201,123	90.02 - Allocated Contingency
2) DE-320	Kamehameha Highway Guideway DB	Executed Change Order No. 009 - APEC work restrictions/abandoned utilities removal	(\$505,674)	90.02 - Allocated Contingency
3) DE-320	Kamehameha Highway Guideway DB	Executed Change Order No. 009 - Emergency walkway/insurance covg. Requirements 2013	(\$839,000)	90.02 - Allocated Contingency
4) DE-320	Core Systems Contract Design Build OIM	Executed Change Order No. 007 - Reallocate TPSS to system site #3	\$87,054	90.02 - Allocated Contingency
5) MM-916	HCOT MOT Consultant	Budget Transfer for Executed Contract Amendment No. 002 - Increase T&M contract value	\$297,381	90.02 - Allocated Contingency
6) MM-915	MSF LEED Consultant	Budget Transfer for Executed Contract Amendment No. 001 - LEED measurement and verification plan	(\$9,970)	90.02 - Allocated Contingency
7) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 020 - CSC consolidated changes construction	(\$22,900,000)	90.01 - Unallocated Contingency
8) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 025 - USB reconfiguration	\$170,000	90.02 - Allocated Contingency
<b>May '14 Contingency Drawdown</b>			<b>(\$22,910,016)</b>	
<b>May '14 - Ending Contingency Balance</b>			<b>\$568.4</b>	
<b>June '14</b>				
<b>May '14 - Ending Contingency Balance</b>			<b>\$568.4</b>	
1) DE-200	Maintenance & Storage Facility DB	Board Approved RF CC-00010 - Amendment 1 Non-Rail Escalator	(\$5,000,000)	90.02 - Allocated Contingency
<b>June '14 Contingency Drawdown</b>			<b>(\$5,000,000)</b>	
<b>June '14 - Ending Contingency Balance</b>			<b>\$563.4</b>	
<b>July '14</b>				
<b>June '14 - Ending Contingency Balance</b>			<b>\$563.4</b>	
1) DE-320	Core Systems Contract Design Build OIM	Executed Change Order No. 008 - Platform Screen Gates Mobilization	(\$896,194)	90.02 - Allocated Contingency
2) ROW	Real Estate/Rights of Way	Budget Transfer for Contract Award above the Real Estate, Map & Survey Budget	(\$1,344,672)	90.02 - Allocated Contingency
3) DE-200	Maintenance & Storage Facility DB	Budget Transfer to Project Contingency from remaining "known" Changes balance	\$1,007,860	90.02 - Allocated Contingency
4) DE-120	West Oahu Fanning Highway Guideway DB	Budget Transfer to Project Contingency from remaining "known" Changes balance	\$1,556,107	90.02 - Allocated Contingency
<b>July '14 Contingency Drawdown</b>			<b>\$321,161</b>	
<b>July '14 - Ending Contingency Balance</b>			<b>\$663.7</b>	
<b>August '14</b>				
<b>July '14 - Ending Contingency Balance</b>			<b>\$663.7</b>	
1) DE-320	Kamehameha Highway Guideway DB	Executed Change Order No. 010 - Delay in issuance of Notice-to-Proceed 2 & 3	(\$1,928,000)	90.02 - Allocated Contingency
2) FD-140	West Oahu Stations Group FD	Executed Amendment No. 016 - Passenger screen gates	(\$80,233)	90.02 - Allocated Contingency
3) DE-320	Airport Section Utility Construction DB	Budget Transfer for Contract Award above Airport Section Utility Construction original budget	(\$2,755,321)	90.02 - Allocated Contingency
4) MM-946	On Call Hazmat Removal Consultant	Budget Transfer due to scope transfer from ROW to Hazmat consultant	\$470,823	90.02 - Allocated Contingency
5) MM-945	On Call Contractor	Budget Transfer for Contract Award above On Call Contractor original budget	(\$130,455)	90.02 - Allocated Contingency
<b>August '14 Contingency Drawdown</b>			<b>(\$4,323,188)</b>	
<b>August '14 - Ending Contingency Balance</b>			<b>\$669.4</b>	
<b>September '14</b>				
<b>August '14 - Ending Contingency Balance</b>			<b>\$669.4</b>	
1) MM-980	OCIP Consultant Contract	Budget Transfer to unallocated contingency as estimate at completion is less than current budget	\$749,000	90.02 - Allocated Contingency
2) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 027 - Construction Change Order (COP) Separation	(\$273,533)	90.02 - Allocated Contingency
3) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 026 - Insurance Coverage Requirements 2014	(\$1,112,000)	90.02 - Allocated Contingency
4) DE-320	Kamehameha Highway Guideway DB	Executed Change Order No. 011 - Revised Vehicle Other/Construction Safety Security Plan	(\$531,500)	90.02 - Allocated Contingency
5) DE-320	Kamehameha Highway Guideway DB	Executed Change Order No. 012 - Insurance Coverage Requirements 9/11/13 - 6/30/14	(\$1,400,000)	90.02 - Allocated Contingency
6) DE-120	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 045 - Standard Specification Revision 2.0	(\$2,500,000)	90.02 - Allocated Contingency
7) DE-120	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 048 - Insurance Coverage Requirements 2014	(\$3,400,000)	90.02 - Allocated Contingency
8) DE-530	City Center Guideway Utilities FD	Executed Contract Amendment 004 - Aesthetics Station Column	(\$271,850)	90.02 - Allocated Contingency
9) FD-530	City Center Guideway Utilities FD	Executed Contract Amendment 005 - City Center Section Rescue Cart Scope Impact	(\$27,000)	90.02 - Allocated Contingency
10) FD-340	Kamehameha Highway Stations Group FD	Executed Contract Amendment 001 - Special Provisions Update/Shear Wave Analysis	(\$27,522)	90.03 - Contract Allowance
11) FD-340	Kamehameha Highway Stations Group FD	Executed Contract Amendment 003 - Historic Architect/Replace Highway Sign	(\$71,811)	90.03 - Contract Allowance
12) FD-340	Kamehameha Highway Stations Group FD	Executed Contract Amendment 005 - Added Bus Shelters at Aloha Stadium Station	(\$26,853)	90.03 - Contract Allowance
13) FD-430	Airport Section Guideway Utility FD	Executed Contract Amendment 010 - Aesthetic Station Column and Pearl Harbor Station Redesign	(\$236,750)	90.02 - Allocated Contingency
14) FD-430	Airport Section Guideway Utility FD	Executed Contract Amendment 011 - Airport Section Rescue Cart Scope Impact	(\$46,000)	90.02 - Allocated Contingency
15) FD-140	West Oahu Stations Group FD	Executed Contract Amendment 007 - Traffic Signal Conflict UHWO/Hoopili Access Road	(\$52,722)	90.03 - Contract Allowance
<b>September '14 Contingency Drawdown</b>			<b>(\$9,336,151)</b>	
<b>September '14 - Ending Contingency Balance</b>			<b>\$650.1</b>	
<b>October '14</b>				
<b>September '14 - Ending Contingency Balance</b>			<b>\$650.1</b>	
1) DE-320	Core Systems Contract Design Build OIM	Executed Change Order No. 009 - WO/HF Guideway Alignment for CSC	(\$146,000)	90.01 - Unallocated Contingency
2) DE-200	Maintenance & Storage Facility DB	Executed Change Order No. 023 - Escalator due to Schedule Impacts	(\$8,300,000)	90.01 - Unallocated Contingency

# HART Project Contingency Drawdown with Details

Date as of 1/12/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (F/A)	Contingency Code
3)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 013 - Station Load & Configuration Mods.	(\$1,350,000)	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Contract Amendment No. 002 - Extension of PM Services	(\$4,400,000)	90.01 - Unallocated Contingency
5)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 003 - Add Pedestrian Bridges to HIA Stations	(\$7,900,000)	90.02 - Allocated Contingency
6)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 001 - Extension of PM Services	(\$434,540)	90.02 - Allocated Contingency
7)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 002 - Incorporation of Comments	(\$297,500)	90.03 - Contract Allowance
8)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 003 - Value Engineering	(\$788,750)	90.01 - Unallocated Contingency
9)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 004 - ERO/OCR	(\$472,705)	90.01 - Unallocated Contingency
10)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 010 - Emergency Backfill of Near UHWO/HWYC & Hobbsli Sewage Holding Tank	(\$149,260)	90.01 - Unallocated Contingency
11)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 011 - Extension of PM Services	(\$193,260)	90.03 - Contract Allowance
12)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 011 - Extension of PM Services	(\$237,500)	90.02 - Allocated Contingency
<b>October '14 Contingency Drawdown</b>				<b>(\$18,307,188)</b>	
<b>November '14 - Ending Contingency Balance</b>				<b>\$531.8</b>	
1)	DBSM-920	Core Systems Contract Design/Built O/M	Executed Change Order No. 012 - Details Toilet Vending Machines	\$70,350,000	90.02 - Allocated Contingency
2)	FD-660	Dillingham Kakaako Stations Group FD	Executed Contract Amendment No. 002 - General Excess Tax on rail	\$10,735,566	90.02 - Allocated Contingency
<b>November '14 Contingency Drawdown</b>				<b>\$10,735,566</b>	
<b>November '14 - Ending Contingency Balance</b>				<b>\$5442.5</b>	
1)	DBSM-920	Core Systems Contract Design/Built O/M	Executed Change Order No. 010 - HRT Train Make-up Shipments/Delivery	(\$33,715)	90.02 - Allocated Contingency
2)	DBM-620	Core Systems Contract Design/Built O/M	Executed Change Order No. 013 - HECO Connection Changes	(\$150,000)	90.02 - Allocated Contingency
3)	DBM-620	Core Systems Contract Design/Built O/M	Executed Change Order No. 014 - Escalation due to Schedule Impacts	(\$100,000)	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 044 - Escalation due to Schedule Impacts	(\$15,000,000)	90.01 - Unallocated Contingency
5)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Contract Amendment No. 007 - Value Engineering	(\$18,713,115)	90.01 - Unallocated Contingency
<b>December '14 Contingency Drawdown</b>				<b>(\$18,713,115)</b>	
<b>December '14 - Ending Contingency Balance</b>				<b>\$523.8</b>	
<b>January '15</b>				<b>\$523.8</b>	
1)	DBSM-920	Core Systems Contract Design/Built O/M	Executed Change Order No. 011 - Eliminate Station Manager Booths	(\$310,000)	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 050 - Escalation due to Schedule Impacts Subcontractor Amerion Aggregate	(\$494,413)	90.01 - Unallocated Contingency
3)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 051 - Escalation due to Schedule Impacts Subcontractor AMI-Griffin Paint	(\$21,419)	90.01 - Unallocated Contingency
4)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 062 - Escalation due to Schedule Impacts Subcontractor HFD Spec Duty Officer	(\$196,123)	90.01 - Unallocated Contingency
5)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 063 - Escalation due to Schedule Impacts Subcontractor MESA Books	(\$1,663)	90.01 - Unallocated Contingency
6)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 064 - Escalation due to Schedule Impacts Subcontractor Road Builder	(\$716,655)	90.01 - Unallocated Contingency
7)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 065 - Escalation due to Schedule Impacts Subcontractor Post Tension Strand Accessories	(\$797,777)	90.01 - Unallocated Contingency
8)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 066 - Escalation due to Schedule Impacts Subcontractor Amerion Rolled Unified Shaft Casings	(\$192,675)	90.01 - Unallocated Contingency
9)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 067 - Escalation due to Schedule Impacts Subcontractor PAC Electric	(\$77,683)	90.01 - Unallocated Contingency
10)	DBM-620	Core Systems Contract Design/Built O/M	Executed Change Order No. 014 - Unmanned Secondary Emergency Access at HRS	(\$0.00)	90.02 - Allocated Contingency
11)	DBM-620	Core Systems Contract Design/Built O/M	Executed Change Order No. 015 - Station Signage, Wayfinding, and Storage	(\$1,000,000)	90.02 - Allocated Contingency
12)	FD-850	Dillingham Kakaako Stations Group FD	Executed Contract Amendment No. 012 - Station Signage, Wayfinding, and Storage	(\$480,971)	90.02 - Allocated Contingency
13)	FD-850	Dillingham Kakaako Stations Group FD	Executed Contract Amendment No. 014 - Add Marine Transit/Chaparral Stn. Gaskets/Expelled Station Leads	(\$618,717)	90.02 - Allocated Contingency
14)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 009 - Addition of Bike Ramps to FHSS Stations	(\$17,140)	90.02 - Allocated Contingency
15)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 006 - Addition of 30' Guideway Section West Loch and Waipahu Stations	(\$57,000)	90.02 - Allocated Contingency
16)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 007 - MOC6 to West Loch and Waipahu Station Design	(\$38,000)	90.02 - Allocated Contingency
<b>January '15 Contingency Drawdown</b>				<b>(\$3,988,243)</b>	
<b>January '15 - Ending Contingency Balance</b>				<b>\$519.8</b>	
<b>February '15</b>				<b>\$519.8</b>	
1)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 059 - Kalo Drainage Channel Geotechnical	(\$997,501)	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 059 - Revision of Waipahu Guideway, LCC Station & Pedestrian Vibration Criteria	(\$301,029)	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 069 - Weave Scour Design Actuals	(\$286,484)	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 061 - Kalo Scour Design Actuals	(\$936,571)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 062 - West Loch and UHWO Station Revisions of Guideway	(\$94,279)	90.02 - Allocated Contingency
6)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 063 - Procurement & Delivery LCC Modular Erog	(\$1,919,021)	90.01 - Unallocated Contingency
<b>February '15 Contingency Drawdown</b>				<b>(\$4,168,381)</b>	
<b>February '15 - Ending Contingency Balance</b>				<b>\$515.6</b>	
<b>March '15</b>				<b>\$515.6</b>	
1)	DBOM-920	Core Systems Contract Design/Built O/M	Executed Change Amendment No. 015 - Test and Storage Track Changes at MSF	(\$2,510,000)	90.02 - Allocated Contingency
2)	FD-140	West Oahu Stations Group FD	Executed Change Amendment No. 013 - MOC6 Rect and VE Items, 4&6 Bay Station Canopy, Roots, Change to CSC Dev location	(\$340,000)	90.02 - Allocated Contingency
3)	FD-140	West Oahu Stations Group FD	Executed Change Amendment No. 013 - MOC6 Rect and VE Items, 4&6 Bay Station Canopy, Roots, Change to CSC Dev location	(\$245,000)	90.03 - Contract Allowance
4)	FD-530	City Center Guideway Utilities FD	Executed Change Amendment No. 006 - Management Extension thru October 2014	(\$992,500)	90.02 - Allocated Contingency
5)	DBS-525	Airport Station Guideway 7 Pier Construction	Executed Change Order No. 001 - HDOOT Utility Relocation at Piers	(\$490,863)	90.02 - Allocated Contingency
6)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amendment No. 005 - Misc RF's Infrastructure Items	(\$309,176)	90.02 - Allocated Contingency
7)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amendment No. 006 - Alpha Stadium Low Impact Development Requirement	(\$45,000)	90.03 - Contract Allowance
<b>March '15 Contingency Drawdown</b>				<b>(\$4,910,539)</b>	
<b>March '15 - Ending Contingency Balance</b>				<b>\$510.7</b>	
<b>April '15</b>				<b>\$510.7</b>	
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 014 - Re-design of East Kapolei Escalator	(\$56,000)	90.02 - Allocated Contingency
2)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 014 - Hospital Grading	(\$175,000)	90.03 - Contract Allowance
3)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 015 - Re-design of T-SSS Trench at SSS and CSC Cabineels at East Kapolei	(\$28,000)	90.02 - Allocated Contingency
4)	DBS-525	Airport Station Guideway 7 Pier Construction	Executed Change Order No. 002 - Contractor to Perform CSI Training	(\$17,519)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 049 - Normal Assessment for LCC Portals	(\$8,174)	90.02 - Allocated Contingency

# HART Project Contingency Drawdown with Details

Date as of 11/27/15

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (F./J.)	Contingency Code
<b>April '15 Contingency Drawdown</b>					
			<b>April '15 - Ending Contingency Balance</b>	<b>\$510.4</b>	
<b>May '15</b>					
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 016 - PSC/Rev to Canopy Design/Power to Hopili. Staff/Source Countermeasures	<b>\$110.4</b>	80.03 - Contract Allowance
2)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 009 - West Loch Generator	<b>(7,000.00)</b>	80.03 - Contract Allowance
3)	FD-440	Alford Stations Group FD	Executed Contract Amendment No. 004 - HIA Obstruction Investigation	<b>(20,000.00)</b>	80.03 - Contract Allowance
4)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 016 - Delay to Main Road Staff 6	<b>(121,000.00)</b>	80.02 - Allocated Contingency
5)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 018 - Delay to Main Road Staff 6	<b>\$114,161</b>	80.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 030 - OSB 1st Fl Bldg Int EX System Design Rev	<b>(8,450,000.00)</b>	80.02 - Allocated Contingency
				<b>(8815,889)</b>	
<b>May '15 Contingency Drawdown</b>					
			<b>May '15 - Ending Contingency Balance</b>	<b>\$609.8</b>	
<b>Jun '15</b>					
1)	MM-923	HDOT Coordination Consult City Center	Budget Transfer from Inactive CFP. HDOT Airport consultant look on City Center scope	<b>\$1,084,782</b>	80.01 - Unallocated Contingency
2)	MM-960	Archaeological & Cultural Monitoring	Budget Transfer to Provide funding for FY2015	<b>(8551,092)</b>	80.01 - Unallocated Contingency
3)	MM-923	HDOT cord	Executed Contract Amendment No. 013 - Airport Design Build Package	<b>(8523,640)</b>	80.02 - Allocated Contingency
4)	MM-901	Program Management Support Const(PM-SC-2)	Budget Transfer for exercised option for one year extension of services	<b>(3,716,377)</b>	80.01 - Unallocated Contingency
5)	DBOM-920	Core Systems Contract Design Build O/M	Budget Transfer for On Call Contractor performing OSC related scope at the ROC	<b>(3500,000)</b>	80.02 - Allocated Contingency
				<b>(85,106,327)</b>	
<b>June '15 Contingency Drawdown</b>					
			<b>June '15 - Ending Contingency Balance</b>	<b>\$601.7</b>	
<b>Jul '15</b>					
1)	COH-100	City and County of Honolulu	Inactive CFP. DTS costs, reduces budget to incurred costs	<b>\$410,636</b>	80.01 - Unallocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 095 - Reloc of LCC Protables/Park Lot	<b>(8,490,979)</b>	80.01 - Unallocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 096 - Revise Offset LT Lane at Kahualii	<b>(8755,983)</b>	80.01 - Unallocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 087 - Revised West Yard Lease	<b>(124,655)</b>	80.01 - Unallocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 031 - MOW Interior Bldg Systems Devices	<b>(1190,000)</b>	80.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 032 - Deletion of Vegetative Roof Request	<b>\$153,415</b>	80.02 - Allocated Contingency
				<b>(9897,486)</b>	
<b>Jul '15 Contingency Drawdown</b>					
			<b>July '15 - Ending Contingency Balance</b>	<b>\$600.7</b>	
<b>Aug '15</b>					
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 085 - Delay NITP1, 2 & 4 - CMC Escalation	<b>(86,226,445)</b>	80.01 - unallocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 033 - EOC Foundation	<b>(44,179)</b>	80.02 - Allocated Contingency
3)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 017 - Relocate Sewer Near 936-00 to 947-00	<b>(8181,291)</b>	80.02 - Allocated Contingency
4)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 017 - Power to UHWO Station and Electrical Bonding	<b>(84,000)</b>	80.03 - Contract Allowance
5)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 010 - Prestressing Bridge Modifications	<b>(18,750)</b>	80.03 - Contract Allowance
6)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Order No. 007 - Value Engineering Reduce Str Cost and PH, ER and AS New Platform Canopy Coordination	<b>(8524,522)</b>	80.02 - Allocated Contingency
7)	FD-440	Alford Stations Group FD	Executed Contract Amendment No. 005 - Design Build Bridging Documents	<b>(3270,000)</b>	80.02 - Allocated Contingency
8)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 017 - Voltage Floker Study	<b>(337,860)</b>	80.02 - Allocated Contingency
9)	FD-560	Pillingham Kakaako Stations Group FD	Executed Change Order No. 00005 - Scope of Change - Schedule Extension	<b>(6333,585)</b>	80.02 - Allocated Contingency
				<b>(87,786,632)</b>	
<b>Aug '15 Contingency Drawdown</b>					
			<b>Aug '15 - Ending Contingency Balance</b>	<b>\$492.9</b>	
<b>Sept '15</b>					
1)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 018 - Unknown Subsurface at Borng 422R Utility Varying from RFP	<b>\$92,331</b>	80.02 - Allocated Contingency
				<b>(92,331)</b>	
<b>Sept '15 Contingency Drawdown</b>					
			<b>Sept '15 - Ending Contingency Balance</b>	<b>\$492.8</b>	
<b>Oct '15</b>					
1)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Order No. 008 - Interface Coordination	<b>(8163,000)</b>	80.02 - Allocated Contingency
2)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Order No. 009 - Reopen of NIP4	<b>(80,000)</b>	80.02 - Allocated Contingency
3)	FD-240	Farrington Highway Stations Group-2 FD	Executed Change Order No. 012 - WL Switchgear Pad & TPSS Foundation	<b>(50,000)</b>	80.02 - Allocated Contingency
4)	FD-240	Farrington Highway Stations Group-2 FD	Executed Change Order No. 018 - NIP2 4 Replenishment	<b>(34,000)</b>	80.02 - Allocated Contingency
5)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 019 - East Kapolei Bent Deflections	<b>(350,000)</b>	80.02 - Allocated Contingency
6)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 006 - General Excise Tax Credit	<b>(340,000)</b>	80.03 - Contract Allowance
7)	FD-440	Alford Stations Group FD	Executed Contract Amendment No. 006 - General Excise Tax Credit	<b>\$96,353</b>	80.02 - Allocated Contingency
8)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 018 - Settlement of RPOC 00002(R/mo) Delay Claim (resubmittal)	<b>(89,700,000)</b>	80.02 - Allocated Contingency
9)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 019 - Credit for four car consists eliminates the requirements for mixed fleet operations	<b>\$5,200,000</b>	80.02 - Allocated Contingency
				<b>(83,736,647)</b>	
<b>Oct '15 Contingency Drawdown</b>					
			<b>Oct '15 - Ending Contingency Balance</b>	<b>\$489.0</b>	
<b>Nov '15</b>					
1)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 035 - Flagpole, Changes to Color Scheme	<b>(846,900)</b>	80.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 037 - AS Reconciliation Credit from COO 0007	<b>\$785,304</b>	80.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 036 - Unpaid Suspension Amounts	<b>(8271,374)</b>	80.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 039 - Escalation of Additional Design Services Due to Schedule	<b>(588,058)</b>	80.02 - Allocated Contingency
5)	MM-970	Fare Collection Consultant	Budget Transfer for Contract Award - MM-970 Fare Collection Consultant	<b>(51,176,300)</b>	80.03 - Contract Allowance
				<b>(8778,328)</b>	
<b>Nov '15 Contingency Drawdown</b>					
			<b>Nov '15 - Ending Contingency Balance</b>	<b>\$488.2</b>	

**Appendix C. Project Cost Reports** (data as of Nov. 27, 2015)

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

**Project Costs by Contract**



Costs Reported as of Month Ending: November 2015

**Project Monthly Cost Report by Contract - One Line Summary**

Page: 1 of 3

CPP No.	Title	T&M	A		B		C=A+B		D		E		F	
			Original	Changes	COMMITTED	Current *	AFE**	AFE**	Incurred To Date	INCURRED	PERCENT	PERCENT		
ART	ART Contracts		0	0	0	0	0	0	0	0	0	0	0	0%
CCH-000	Operating/Maintenance Contracts	FFF	280,970	-58,970	222,000	222,000	1,410,000	199,030	199,030	30%	30%			
CCH-100	Inactive HART/City CCH		15,348,443	0	15,348,443	0	14,925,228	0	14,925,228	37%	37%			
CCH-101	HART/City Dept of BFS		105,092	0	105,092	0	0	0	0	0%	0%			
CCH-102	HART/City DDC Land Division		256,201	0	256,201	0	173,182	0	173,182	68%	68%			
CCH-107	HART/City Corporation Counsel (COCR)		1,669,151	0	1,669,151	0	152,889	0	152,889	9%	9%			
CCH-108	HART / Board of Water Supply (BWS)		928,325	0	928,325	0	928,325	0	928,325	100%	100%			
DB-120	West Oahu/Farrington Hwy Guideway DB	SOM	482,924,000	148,482,384	631,406,384	631,406,384	493,585,870	0	493,585,870	78%	78%			
DB-200	Maintenance & Storage Facility DB	SOM	195,238,000	79,888,453	275,146,453	275,146,453	233,007,858	0	233,007,858	85%	85%			
DB-220	Kamehameha Hwy Guideway DB	SOM	372,150,000	16,817,876	388,967,876	388,967,876	190,181,817	0	190,181,817	49%	49%			
DBB-171	West Oahu Station Group DBB	SOV	56,088,470	0	56,088,470	0	0	0	0	0%	0%			
DBB-185	SPCD - West Side SG Construction	SOV	0	0	0	0	0	0	0	0%	0%			
DBB-271	Farrington Highway Station Group DBB	SOV	78,999,000	0	78,999,000	0	0	0	0	0%	0%			
DBB-275	SPCD-Pearl Highlands Pkg. Str Onstr.	SOV	0	0	0	0	0	0	0	0%	0%			
DBB-385	H2R2 Ramp	SOV	9,413,292	0	9,413,292	0	5,203,646	0	5,203,646	0%	0%			
DBB-470	SPCD-Airport Station Group Constr.	SOV	0	0	0	0	0	0	0	0%	0%			
DBB-305	Airport Section Utilities Constr. DBB	SOV	28,413,974	0	28,413,974	0	7,873,650	0	7,873,650	28%	28%			
DBB-510	City Ctr. Section Util. Constr. DBB	SOV	0	0	0	0	0	0	0	0%	0%			
DBB-520	SPCD-Airport-City Center Guideway Cntr.	SOV	0	0	0	0	0	0	0	0%	0%			
DBB-525	Airport Section Guideway 7 Pier DBB	SOV	3,973,000	508,241	4,481,241	4,481,241	3,796,241	0	3,796,241	85%	85%			
DBB-580	SPCD-Dillingham/Kaka'ako SG Cntr.	SOV	0	0	0	0	0	0	0	0%	0%			
DBB-600	Park-and-Ride Lots Construction	SOV	0	0	0	0	0	0	0	0%	0%			
DBB-M-920	Core Systems Design Build D/M	SOM	573,782,793	24,780,894	598,563,687	598,563,687	165,783,508	0	165,783,508	28%	28%			
FD-140	West Oahu Station Group FD	SOM	7,789,000	2,275,307	10,064,307	10,064,307	9,199,096	0	9,199,096	91%	91%			
FD-240	Farrington Highway Stations Group FD	SOM	9,300,696	4,981,349	14,282,045	14,282,045	12,577,457	0	12,577,457	88%	88%			
FD-245	SPCD-Pearl Highlands Pkg. Str. FD	SOM	0	0	0	0	0	0	0	0%	0%			
FD-340	Kamehameha Hwy Station Group FD	SOM	8,702,592	1,156,638	9,859,230	9,859,230	8,843,841	0	8,843,841	90%	90%			
FD-430	SPCD-Airport Sect. Guideway/Util. FD	SOM	38,840,960	4,293,512	43,134,472	43,134,472	41,086,689	0	41,086,689	95%	95%			
FD-440	SPCD-Airport Station Group FD	SOM	10,177,365	1,396,487	11,573,852	11,573,852	9,801,978	0	9,801,978	85%	85%			
FD-530	SPCD - City Center Guideway/Util. FD	SOM	43,948,220	2,249,342	46,197,562	46,197,562	40,075,466	0	40,075,466	87%	87%			
FD-550	SPCD - Dillingham and Kaka'ako SG FD	SOM	18,321,918	986,124	19,308,042	19,308,042	11,462,205	0	11,462,205	59%	59%			
FD-600	Park-and-Ride Lots Final Design	SOM	0	0	0	0	0	0	0	0%	0%			
HRT-200	HART Labor		43,951,942	0	43,951,942	0	43,274,903	0	43,274,903	98%	98%			

m\_cw\_pmcoc\_m o r t y \_ c o s t r e p o r t \_ l i s t \_ n o . 19

Print 12/11/15 9:30

\* Current Committed = Original Contract + CCO/Amendment

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



Costs Reported as of Month Ending: November 2015

Project Monthly Cost Report by Contract - One Line Summary

Page: 2 of 3

CPP No	Title	A		B		C=A+B		D		E		F	
		Original	Changes	COMMITTED	Changes	Current*	AFE**	AFI	INCURRED	INCURRED To Date	PERCENT	PERCENT	
HRT-201	HART ODC Contracts	15,889,154	0	0	0	15,889,154	130,100	17,682,563	0	111%	0	0	0%
M1-900	Fare Collection DFI	0	0	0	0	0	0	0	0	0%	0	0	0%
M1-930	Elevators & Escalators Install/Maint	50,982,714	0	0	0	50,982,714	5,442,108	4,925,631	0	10%	4,925,631	0	10%
MM-280	SPCD-WOFH/KHSG CE&I (REPA CK&GED)	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-290	Construction Engrg & Insp CEI West	54,232,480	0	0	0	54,232,480	16,650,000	18,959,937	0	35%	18,959,937	0	35%
MM-385	SPCD-Pearl Highlands Garage Rmps CEI	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-500	SPCD-By MM939 CEI East	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-525	SPCD-By MM939 CEI East	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-530	SPCD-By MM939 CEI East	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-595	SPCD - Const. Engrg & Insp. CEI East	69,083,417	-47,826,417	0	0	15,257,000	(32,569,417)	12,377,950	0	81%	12,377,950	0	81%
MM-596	Construction Engrg & Insp CEI East 2	55,036,130	0	0	0	55,036,130	55,036,130	0	0	0%	0	0	0%
MM-600	SPCD-UHWO Pig-Hooplii Stn Fresh CEI	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-900	Program Mgt. Support Const (PM SC-1)	15,952,569	0	0	0	15,952,569	20,700,000	0	0	0%	0	0	0%
MM-901	Program Mgt. Support Const (PM SC-2)	33,376,897	7,616,377	0	0	40,993,274	34,237,167	37,131,627	0	91%	37,131,627	0	91%
MM-905	MM-905 Gen Engrg Const. EIS/FE	0	78,564,942	0	0	78,564,942	78,564,942	74,157,822	0	94%	74,157,822	0	94%
MM-910	MM-910 Gen Engrg Const. FD-Construct	150,000,000	0	0	0	150,000,000	150,000,000	149,446,962	0	100%	149,446,962	0	100%
MM-913	MM-913 Gen Engrg Reconnect	46,143,277	0	0	0	46,143,277	13,078,208	23,135,837	0	50%	23,135,837	0	50%
MM-915	HDOOT Traffic Mgmt. Consult.	1,600,000	1,400,000	0	0	3,000,000	4,000,000	2,865,148	0	96%	2,865,148	0	96%
MM-920	HDOOT Coordination Const. WOFH	3,000,000	7,500,000	0	0	10,500,000	10,000,000	6,554,186	0	62%	6,554,186	0	62%
MM-921	HDOOT Coordination Const. KHG	10,000,000	-1,400,000	0	0	8,600,000	5,000,000	3,908,475	0	45%	3,908,475	0	45%
MM-922	HDOOT Coordination Const. Airport	12,000,000	-5,600,000	0	0	6,400,000	3,000,000	2,423,651	0	38%	2,423,651	0	38%
MM-923	HDOOT Coordination Const. City Center	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-925	HDOOT Labor - WOFH/KHG Agreements	550,000	1,265,633	0	0	1,815,633	3,081,266	1,627,453	0	90%	1,627,453	0	90%
MM-926	HDOOT Labor - Airport Agreements	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-930	HDOOT State SOA Manager & Consultant	1,272,400	583,142	0	0	1,855,542	843,167	832,095	0	45%	832,095	0	45%
MM-935	Real Estate Consultant	3,000,000	4,227,665	0	0	7,227,665	5,717,665	5,594,529	0	77%	5,594,529	0	77%
MM-937	Real Estate Consultant - Maps/Surv.	2,998,000	0	0	0	2,998,000	1,500,000	508,128	0	17%	508,128	0	17%
MM-940	Kaikoo Consultant	1,000,000	0	0	0	1,000,000	500,000	519,906	0	52%	519,906	0	52%
MM-941	Kaikoo Consultant II	0	0	0	0	0	0	0	0	0%	0	0	0%
MM-945	On-Call Contractor	1,000,000	1,000,000	0	0	2,000,000	1,800,000	1,918,233	0	96%	1,918,233	0	96%
MM-946	On-Call Hazmat Removal Contractor	3,075,000	0	0	0	3,075,000	1,000,000	2,456,356	0	80%	2,456,356	0	80%
MM-947	On-Call Contractor 2	7,500,000	0	0	0	7,500,000	4,500,000	2,138,316	0	29%	2,138,316	0	29%
MM-950	O&IP Consultant	1,250,000	0	0	0	1,250,000	1,250,000	955,156	0	76%	955,156	0	76%

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



Costs Reported as of Month Ending: November 2015  
**Project Monthly Cost Report by Contract - One Line Summary**

Page: 3 of 3

CPP No	Title	A		B	COMMITTED Changes	C=A+B	Current*	D	AFE	AFE**	E	INCURRED Incurred To Date	F	PERCENT %
		Original	Changes											
MM-951	Owner-Controlled Insurance Program	FFF	41,000,000	0	41,000,000	0	41,000,000	0	0	0	26,494,012	65%		
MM-960	Archaeological & Cultural Monitoring	T8M	1,010,609	0	1,010,609	0	1,010,609	1,010,609	0	0	967,161	96%		
MM-962	Core Systems Support	CPFF	43,988,989	0	43,988,989	0	43,988,989	3,600,000	0	0	12,221,628	28%		
MM-964	Safety and Security Consultant	FFF	4,699,573	112,751	4,812,324	0	4,812,324	4,012,751	0	0	2,587,796	54%		
MM-970	Fare Collection Consultant	MM	1,178,300	0	1,178,300	0	1,178,300	1,178,300	0	0	0	0%		
MM-975	LEED Commissioning Services for MSF	T8M	278,630	9,910	288,540	0	288,540	288,540	0	0	102,145	35%		
OTHER	All Project Wide Documents		0	0	0	0	0	0	0	0	0	0%		
PA-101	Programmatic Agreement Humanities	PA	0	0	0	0	0	0	0	0	0	0%		
PA-102	Programmatic Agreement HP C	T8MTI	400,000	0	400,000	0	400,000	2,000,000	0	0	172,325	43%		
PA-103	Programmatic Agreement HP C Park Impr	PA	0	0	0	0	0	0	0	0	0	0%		
ROW	Real Estate /Right-of-Way		89,885,511	0	89,885,511	0	89,885,511	121,992	0	0	92,693,792	103%		
UTIL	Utility Company Contracts	T8M	96,126,631	13,644,575	109,771,206	0	109,771,206	87,668,516	0	0	42,065,947	38%		
<b>Total Project:</b>			<b>2,812,103,685</b>	<b>348,856,274</b>	<b>3,160,959,959</b>	<b>0</b>	<b>3,160,959,959</b>	<b>2,612,564,458</b>	<b>0</b>	<b>0</b>	<b>1,834,393,632</b>			

\* Current Committed = Original Contract + CCO/Amendment

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

Project Costs by SCC – Summary

Costs Reported as of Month Ending: November 2015  
**Project Monthly Cost Report by SCC Summary**

Page: 1 of 1



SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Transfers	BUDGET	Current	COMMITTED	AFE**	Changes ID'd***	Est. At Completion****	Variance	Incurred To Date		
<b>1. Subtotal 10 - 80 SCC Costs</b>													
10.	Guideway & Track Elements	1,114,215,147	46,009,500	1,160,223,647	550,992,093	37,178,532	(2,966,193)	1,160,223,647	0	281,719,689			
20.	Stations, Stops, Terminals, Intermodal	421,804,740	(3,205,951)	418,598,789	186,070,184	0	0	418,598,789	0	4,925,631			
30.	Support Facilities: Yards, Shops, Admin	92,535,015	22,319,178	114,854,193	114,998,024	18,654,360	0	114,854,193	0	86,534,317			
40.	Sitework & Special Conditions	983,178,121	22,935,209	1,006,111,330	739,281,277	167,625,598	21,303,422	1,006,111,330	0	522,374,183			
50.	Systems	221,284,301	27,474,531	248,758,832	239,599,619	27,088,099	0	248,758,832	0	37,000,560			
60.	ROW, Land, Existing Improvements	197,397,947	529,621	197,927,568	94,115,331	1,229,820	4,986,995	197,927,568	0	98,596,466			
70.	Vehicles	186,829,020	4,645,501	191,474,521	191,474,521	1,446,224	0	191,474,521	0	34,051,880			
80.	Professional Services	1,087,830,119	34,620,900	1,122,451,019	1,043,331,143	96,111,742	5,480	1,122,451,019	0	765,757,629			
A.C.	Provisional Pay Requests	0	0	0	0	0	0	0	0	2,892,318			
<b>Subtotal:</b>		4,305,074,410	155,324,489	4,460,398,899	3,153,861,192	349,284,376	23,323,744	4,460,398,899	0	1,833,852,873			
<b>2. NTP</b>													
NTP	Authorized For Expenditure	0	0	0	0	2,259,282,795	0	0	0	0			
<b>Subtotal:</b>		0	0	0	0	2,259,282,795	0	0	0	0			
<b>3. Contingency</b>													
CNTR	Allocated Contingency	541,689,348	(99,101,584)	442,587,763	7,098,767	3,997,289	251,429,435	442,587,763	0	540,959			
PRJ	Unallocated Contingency	101,871,170	(56,222,905)	45,648,265	0	0	0	45,648,265	0	0			
<b>Subtotal:</b>		643,560,518	(155,324,489)	488,236,024	7,098,767	3,997,289	251,429,435	488,236,024	0	540,959			
<b>4. Finance Charges - Eligible</b>													
OTH	Finance Charges	173,058,243	0	173,058,243	0	0	0	173,058,243	0	0			
<b>Subtotal:</b>		173,058,243	0	173,058,243	0	0	0	173,058,243	0	0			
<b>FTA TOTAL PROJECT COSTS 5,121,693,166</b>													
		0	(0)	5,121,693,166	3,160,959,959	2,612,564,468	274,759,179	5,121,693,166	0	1,834,393,632			
<b>4. Finance Charges - Ineligible Costs</b>													
FINC	Finance Charges	42,000,000	0	42,000,000	0	0	0	42,000,000	0	0			
<b>Subtotal:</b>		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0			
<b>INELIGIBLE COSTS</b>													
		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0			
<b>Total Project:</b>		5,163,693,166	(0)	5,163,693,166	3,160,959,959	2,612,564,468	274,759,179	5,163,693,166	0	1,834,393,632			

\* 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

Report: M\_CW\_pnoc\_monthly\_Soc\_summary - No. 22

Print Date: 2/11/15 9:44

Project Costs by SCC – Level 2

Costs Reported as of Month Ending: November 2015  
 Project Monthly Cost Report by SCC Details

Page: 1 of 3



SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Transfers	BUDGET	Transfers	Current	Current*						
<b>1. Subtotal 10 - 80 SCC Costs</b>													
10.01	Guideway & Track Elements	1,114,215,147	0	46,008,500	17,378	1,160,223,647	550,982,093	37,178,532	(2,966,153)	1,160,223,647	0	281,719,689	
10.02	Guideway: At-grade semi-exclusive	0	0	17,378	17,378	17,378	17,378	17,378	0	17,378	0	17,378	
10.04	Guideway: Aerial Structure	1,022,380,671	0	43,014,981	0	1,065,395,652	465,671,878	27,499,427	(2,646,153)	1,065,395,652	0	230,405,882	
10.08	Guideway: Retained Cut or Fill	7,482,944	(1,056,688)	6,426,256	6,426,256	0	0	0	0	6,426,256	0	0	
10.09	Track: Direct Fixation	79,347,205	3,037,822	82,444,027	74,637,831	9,630,851	9,630,851	9,630,851	(320,000)	82,444,027	0	51,236,429	
10.11	Track: Ballasted	3,293,724	(595,849)	2,697,875	2,697,875	0	0	0	0	2,697,875	0	0	
10.12	Track: Special (Switches, turnouts)	1,700,603	1,530,876	3,231,479	1,530,876	308,76	308,76	308,76	0	3,231,479	0	0	
20. Stations, Shops, Terminals, Intermodal	421,804,740	(3,205,951)	418,598,789	186,070,184	0	0	0	0	0	418,598,789	0	4,925,631	
20.01	At-grade station, stop, shelter,...	6,111,332	(6,111,332)	0	0	0	0	0	0	0	0	0	
20.02	Aerial Station, stop, shelter, mail	294,563,457	6,643,833	301,207,310	135,087,470	0	0	0	0	301,207,310	0	0	
20.06	Automobile parking multi-story str	66,408,765	0	66,408,765	0	0	0	0	0	66,408,765	0	0	
20.07	Elevators, Escalators	54,721,186	(3,738,472)	50,982,714	50,982,714	0	0	0	0	50,982,714	0	4,925,631	
30. Support Facilities/Yards, Shops, Admin	92,535,015	22,319,178	114,854,193	114,998,024	18,654,360	0	114,854,193	0	0	114,854,193	0	86,534,317	
30.01	Administration Bldg: Office, sales	0	191,435	191,435	205,266	205,266	205,266	205,266	0	191,435	0	0	
30.02	Light Maintenance Facility	7,591,888	(5,095)	7,586,793	7,586,793	0	0	0	0	7,586,793	0	4,351,177	
30.03	Heavy Maintenance Facility	36,099,138	4,978,668	43,077,806	43,077,806	0	43,077,806	0	0	43,077,806	0	27,428,253	
30.04	Storage or Maintenance of Way Buil	7,797,460	819,670	8,617,130	8,617,130	881,220	881,220	881,220	0	8,617,130	0	6,129,584	
30.06	Yard and Yard Track	39,046,529	16,334,500	55,381,029	55,381,029	12,217,098	55,381,029	12,217,098	0	55,381,029	0	48,625,297	
40. Siterwork & Special Conditions	983,178,121	22,933,209	1,006,111,330	739,281,277	167,625,598	21,303,422	1,006,111,330	0	0	522,374,183	0	522,374,183	
40.01	Demolition, Clearing, Earthwork	29,980,158	(9,880,263)	20,099,795	11,839,349	1,229,005	11,839,349	1,229,005	0	20,099,795	0	2,539,412	
40.02	Site Utilities, Utility Relocation	299,449,756	(522,285)	298,927,471	213,041,443	20,265,599	213,041,443	20,265,599	3,503,271	298,927,471	0	110,277,823	
40.03	Haz. mat'l, contain'd soil removal	9,199,237	(5,288,631)	3,910,606	3,434,088	149,088	3,434,088	149,088	(391,304)	3,910,606	0	2,605,444	
40.04	Environmental Mitigation	26,979,122	4,983,249	31,962,371	16,557,672	16,864	16,557,672	16,864	0	31,962,371	0	10,816,505	
40.05	Site structures, retaining walls,	7,998,980	6,540,840	14,539,800	11,229,628	274,780	11,229,628	274,780	4,647,403	14,539,800	0	4,618,004	
40.06	Pedestrian/bike access/landscaping	41,073,897	(6,105,894)	34,968,003	5,139,868	(4,566)	5,139,868	(4,566)	478,020	34,968,003	0	50,000	
40.07	Auto, bus, van accessways	181,979,367	(18,478,464)	163,500,903	38,724,758	1,577,242	38,724,758	1,577,242	1,324,868	163,500,903	0	5,472,264	
40.08	Temporary Facilities/Indirect Cost	386,517,624	51,684,757	438,202,381	439,254,473	144,117,586	439,254,473	144,117,586	11,741,174	438,202,381	0	385,994,731	
50. Systems	221,284,301	27,474,531	248,758,832	233,598,819	27,038,099	0	248,758,832	27,038,099	0	248,758,832	0	37,000,560	
50.01	Train control and signals	81,982,556	24,381,140	106,363,696	106,363,696	23,961,050	106,363,696	23,961,050	0	106,363,696	0	2,230,972	
50.02	Traffic signals and crossing prot.	10,458,226	(206,890)	10,251,336	0	0	0	0	0	10,251,336	0	0	
50.03	Traction power supply: substation	29,500,926	1,379,880	30,880,806	30,880,806	(67,465)	30,880,806	(67,465)	0	30,880,806	0	4,751,819	

Report: M\_Cho\_jm\_00\_months\_V\_Scc\_06.tall - No. 23

Print Date: 12/11/15 10:59

\* 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: November 2015  
**Project Monthly Cost Report by SCC Details**

SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Budget	Transfers	Current	Current	COMMITTED	AFE	ESTIMATE AT COMPLETION	Variance	Incurred To Date		
									AFE**	Changes ID#***	Est. At Completion***		Incurred To Date
<b>1. Subtotal 10 - 80 SCC Costs</b>													
80. Systems		221,284,301	27,474,531	248,758,832	233,598,619	27,038,039	0	248,758,832	0	0	37,000,560	0	37,000,560
80.04	Traction power distribution: cate	32,878,150	5,059,938	37,937,988	33,029,111	7,941,115	0	37,937,988	0	0	16,860,895	0	16,860,895
80.05	Communications	53,691,339	6,133,477	59,824,816	59,824,816	5,573,419	0	59,824,816	0	0	14,268,775	0	14,268,775
80.06	Fare collection system and equipme	9,159,277	(9,112,878)	46,399	46,399	(10,330,000)	0	46,399	0	0	(1,131,301)	0	(1,131,301)
80.07	Central Control	3,613,827	(160,036)	3,453,791	3,453,791	0	0	3,453,791	0	0	0	0	0
80. ROW, Land, Existing Improvements		137,397,947	528,621	137,926,568	94,115,331	1,229,820	4,886,995	137,926,568	0	4,886,995	98,596,466	0	98,596,466
80.01	Purchase or lease of real estate	179,360,664	250,821	179,611,485	86,269,854	52,020	4,886,995	179,611,485	0	4,886,995	88,579,684	0	88,579,684
80.02	Relocation of existing households	18,037,283	277,800	18,315,083	7,845,477	1,177,800	0	18,315,083	0	0	10,016,782	0	10,016,782
70. Vehicles		186,829,020	4,645,501	191,474,521	131,474,521	1,446,224	0	191,474,521	0	0	34,051,880	0	34,051,880
70.01	Light Rail	186,721,386	5,847,191	192,568,577	172,568,577	1,446,224	0	192,568,577	0	0	26,259,419	0	26,259,419
70.06	Non-revenue vehicles	14,346,923	(1,320,375)	13,026,548	13,026,548	0	0	13,026,548	0	0	7,792,461	0	7,792,461
70.07	Spare parts	5,760,711	118,685	5,879,396	5,879,396	0	0	5,879,396	0	0	0	0	0
80. Professional Services		1,087,830,119	34,620,900	1,122,451,019	1,043,331,143	96,111,742	5,480	1,122,451,019	0	5,480	785,757,629	0	785,757,629
80.01	Preliminary Engineering	94,055,262	24,644,185	118,699,447	109,567,127	20,905,682	0	118,699,447	0	0	103,465,648	0	103,465,648
80.02	Final Design	228,321,632	(7,125,848)	221,195,784	204,525,054	29,610,628	(6,576,720)	221,195,784	0	(6,576,720)	161,487,032	0	161,487,032
80.03	Project Management Design & Cons	363,849,768	(28,315,655)	335,534,113	413,099,163	79,572,239	(17,065,460)	335,534,113	0	(17,065,460)	308,323,643	0	308,323,643
80.04	Constr. Admin. & Management	199,656,728	(35,799,681)	163,857,047	110,767,170	(49,617,462)	768,374	163,857,047	0	768,374	81,425,006	0	81,425,006
80.05	Professional Liability & other Ins	46,549,724	28,781,938	75,331,662	43,174,657	700,500	0	75,331,662	0	0	28,408,468	0	28,408,468
80.06	Legal: Permits, Review Fees et..	67,641,005	(3,206,464)	64,434,541	36,806,424	3,782,053	0	64,434,541	0	0	20,993,156	0	20,993,156
80.07	Surveys, Testing, Investigation, I	21,759,336	47,172,110	68,931,446	67,822,570	1,436,194	0	68,931,446	0	0	28,945,885	0	28,945,885
80.08	Start up	65,996,664	8,469,316	74,465,980	57,568,977	9,661,909	(775,809)	74,465,980	0	(775,809)	32,798,793	0	32,798,793
80.09		0	0	0	0	0	23,845,085	0	0	23,845,085	0	0	0
A.C. Provisional Pay Requests		0	0	0	0	0	0	0	0	0	2,892,318	0	2,892,318
ACR Provisional Request For Payment		0	0	0	0	0	0	0	0	0	2,892,318	0	2,892,318
<b>Subtotal:</b>		4,305,074,410	155,324,489	4,460,398,899	3,153,861,192	349,284,375	23,329,744	4,460,398,899	0	23,329,744	1,893,852,673	0	1,893,852,673
<b>2. NTP</b>													
NTP Authorized For Expenditure		0	0	0	0	0	0	0	2,259,282,795	0	0	0	0
NTP Notice To Proceed		0	0	0	0	0	0	0	2,259,282,795	0	0	0	0
<b>Subtotal:</b>		0	0	0	0	0	0	0	2,259,282,795	0	0	0	0

\* 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: November 2015  
**Project Monthly Cost Report by SCC Details**

SCC	Title	A		B		C=A+B		D		E		F		G		H=C-G		I	
		Baseline	Transfers	BUDGET	Transfers	Current	COMMITTED	Current	AFE**	AFE**	Changes ID'd***	ESTIMATE AT COMPLETION	Variance	Incurred To Date					
<b>3. Contingency</b>																			
CTR	Allocated Contingency	541,688,343	(99,101,584)	(99,101,584)	442,587,759	7,098,767	3,997,289	3,997,289	251,429,435	442,587,759	0	540,959							
90.02	Allocated Contract Contingency	540,101,323	(101,273,313)	(101,273,313)	438,828,016	3,997,289	3,997,289	246,482,489	438,828,016	0	540,959								
90.03	Allowances	1,588,014	2,173,729	2,173,729	3,761,743	3,101,478	0	4,946,946	3,761,743	0	0								
90.07	Known Change Contingency	0	0	0	0	0	0	0	0	0	0								
PRJ	Unallocated Contingency	101,871,170	(56,222,905)	(56,222,905)	45,648,265	0	0	0	45,648,265	0	0								
90.01	Unallocated Project Contingency	101,871,170	(56,222,905)	(56,222,905)	45,648,265	0	0	0	45,648,265	0	0								
<b>Subtotal:</b>		643,560,513	(155,324,489)	(155,324,489)	488,236,024	7,098,767	3,997,289	251,429,435	488,236,024	0	540,959								
<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 5,121,693,166</b>																			
		(0)			5,121,693,166	3,160,959,959	2,612,564,458	274,759,179	5,121,693,166	0	1,834,393,632								
<b>4. Finance Charges - Ineligible Costs</b>																			
FNC	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>																			
		42,000,000	0	0	42,000,000	0	0	0	42,000,000	0	0								
<b>Total Project:</b>		5,163,693,166	(0)	(0)	5,163,693,166	3,160,959,959	2,612,564,458	274,759,179	5,163,693,166	0	1,834,393,632								

\* 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 D. 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 O'ahu/Farrington Highway Guideway (WOFH)	Kiewit Infrastructure West Company (KIWC)	Apr 03 '09	Nov 11 '09	Dec 01 '09	Jul 04 '16
DB-200	Maintenance and Storage Facility (MSF)	Kiewit / Kobayashi Joint Venture (KKJV)	Jul 24 '09	June 30 '11	Jul 25 '11	Apr 15 '16
DB-320	Kamehameha Guideway (KHG)	Kiewit Infrastructure West Company (KIWC)	Mar 19 '10	June 30 '11	Jul 12 '11	Sep 16 '16
DBOM-920	Core Systems Contract	Ansaldol Honolulu JV	Aug 17 '09	Nov 28 '11	Jan 13 '12	Mar 31 '19
MI-930	Elevators and Escalators	Schindler Elevator Corporation	Dec 18 '12	Jul 31 '13	Aug 02 '13	May 31 '18
FD-140	West O'ahu Station Group Final Design and Support	URS Corporation	Jun 14 '10	Jun 14 '12	Jun 15 '12	Jun 30 '16
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	Anil Verma Associates, Inc.	Jun 28 '11	Nov 16 '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	Jul 15 '17
FD-550	Dillingham and Kaka'ako Station Groups "East Side Stations" Final Design and	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	Mar 01 '19
MM-595	Construction Engineering & Inspection East Side Sections	URS Corporation	Jul 26 '13	Jan 07 '14	Jan 09 '14	Oct 09 '15
MM-901	Program Management Support Consultant -2 (PMSC-2)	InfraConsult LLC	Aug 03 '11	Feb 28 '12	Mar 08 '12	Mar 07 '16
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 5 '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	Dec 30 '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	Honua Consulting	Jun 26 '15	Dec 08 '15	Jan 04 '16	2 years + option to extend up to 4 years
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	May 30 '18
MM-962	CORE Systems Support	Lea+Elliott, Inc.	Sep 13 '13	Feb 10 '14	Feb 11 '14	Mar 01 '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	Jan 14 '16
PA-102	Historic Architecture Design Services	Fung Associates, Inc.	Mar 15 '13	Aug 1 '13	Aug 01 '13	May 01 '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 O'ahu/Farrington Highway	AECOM Technical Services, Inc.		Jun 7 '11	Jun 08 '11	Jun 07 '16
MM-921	HDOT Design Coordination Consultant - Kamehameha Highway Guideway Section	AECOM Technical Services, Inc.		Jun 28 '12	Jun 29 '12	Jun 28 '17
MM-922	HDOT Design Coordination Consultant - Airport and City Center Guideway	SSFMI International, Inc.		Jun 8 '12	Jun 12 '12	Jun 11 '17
MM-925	HDOT Labor Master Agreement WOFH	HDOT		Oct 27 '10	Oct 27 '10	Oct 27 '19
MM-945	On-Call Construction Contractor	Royal Contracting Co. Ltd.	Jun 02 '14	Aug 6 '14	Aug 14 '14	Mar 03 '19
MM-946	On-Call Hazardous Materials (HazMat) Removal Contractor	CH2M HILL		Aug 23 '12	Sep 07 '12	Feb 15 '17
MM-947	On-Call Construction Contractor II	Royal Contracting Co. Ltd.	Mar 17 '15	May 21 '15	May 21 '15	May 21 '20
MM-596	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
DBB-385	Ramp H2R2	Royal Contracting Co. Ltd.	Jan 30 '15	May 18 '15	May 18 '15	Jun 17 '16
DBB-505	Airport Section Utilities Construction	Nan, Inc.	Dec 17 '13	Jun 30 '14	Oct 6 '14	Feb 05 '16
DBB-525	Airport Section Guideway Seven (7) Pier Construction Contract	HDCC / CJA JV	Jul 09 '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

Remaining Contracts						
Contract Code	Contract Name	Advertise Date	Bids Due/Part 1 Proposals Due	RFP Part 2 Proposals Due	Issue NTP	Projected Contract Substantial Completion Date
AP00	Art-in-Transit	May 9 '13	-	-	TBD	TBD
DB-450	Airport Guideway and Stations	Apr 07 '15	Aug 11 '15	Feb 23 '16	Apr 05 '16	NTP + 53 months
DB-550	City Center Guideway and Stations	Aug 04 '15	Nov 18 '15	TBD	TBD	TBD
MI-900	Fare Systems Contract	Aug 11 '15	Nov 13 '15	-	Feb 12 '16	NTP + 120 months + 2 year option
DBB-371	Kamehameha Hwy Stations Group Construction	Aug 18 '15	Nov 17 '15	-	TBD	NTP + 32 months
	Independent Financial Auditor "II" Contract	Oct 26 '15	Dec 01 '15	-	Feb 19 '16	NTP + 48 months
DBB-510	Dillingham Utilities and Roadway	TBD	TBD	-	TBD	TBD
DBB-600	East Kapolei and UH/West O'ahu Park and Ride Lots	Nov 14 '16	Feb 15 '17	-	Apr 03 '17	Mar 01 '19



## Appendix F. DBE Participation

HART has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), Title 49, Code of Federal Regulations, Part 26 (49 CFR Part 26). To be certified as a DBE, a firm must be small business owned and controlled by socially and economically disadvantaged individuals.

FTA funds totaling approximately \$1.764 billion in year of expenditure dollars (\$1.550 billion New Starts funds plus \$0.214 billion Section 5307/ARRA funds) will be expended for Project related goods and services. A project goal of 13% or approximately \$229 million dollars has been established for awards to DBEs through Federal Fiscal Year 2018.

It is the policy of HART to ensure that DBEs as defined in 49 CFR Part 26 have an equal opportunity to receive and participate in USDOT-assisted contracts.

DBE Participation (9/24/07 to 12/31/15)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
David's Fencing	238990	APA	M	CT-HRT-10H0137 DB-120	\$6,800	
				CT-DTS-1100195 DB-320	\$129,816	
				CT-HRT-1000449 DB-200	\$68,082	\$204,698
Glad's Landscaping	561730	APA	M	CT-HRT-10H0137 DB-120	\$303,790	\$303,790
Don's Makiki	484110	APA	M	CT-HRT-10H0137 DB-120	\$537,031	
				CT-HRT-10H0449 DB-200	\$75,391	
				CT-DTS-1100195 DB-320	\$60,714	\$673,136
Pacific Preferred Contractors Corp.	237310	APA	M	CT-HRT-10H0137 DB-120	\$85,043	\$85,043
PAC Electric	238210	APA	F	CT-HRT-10H0137 DB-120	\$5,836,436	\$5,836,436
PMJ Builders	238310	APA	M	CT-HRT-10H0137 DB-120	\$43,866	
				CT-DTS-1100195 DB-320	\$107,100	\$150,966
Standard Sheetmetal & Mechanical	236220	APA	M	CT-HRT-10H0449 DB-200	\$6,105	\$6,105
LP&D Hawaii	541320	APA	M	SC-DTS-1100013 FD-240	\$219,911	\$219,911
Ace Land Surveying	541370	NA	M	SC-DTS-1100013 FD-240	\$38,700	\$38,700
Integrated Security Tech.	561621	O	F	CT-HRT-1200106 DBOM-920	\$105,180	\$105,180
LKG-CMC	541618	O	F	SC-HRT-11H0131 MM-905	\$2,600,462	
				SC-DTS-0700001 **** MM-910	\$2,783,277	
				SC-HRT-1400051 MM-595	\$271,047	
				SC-HRT-1400049 MM-962	\$294,308	\$5,949,094
Lawson & Associates	541690	O	F	SC-HRT-11H0131 MM-905	\$740,962	
				SC-DTS-0700001 **** MM-910	\$150,141	
				SC-HRT-1400061 MM-964	\$1,010,578	\$1,901,681
Gary K. Omori	541618	APA	M	SC-HRT-11H0131 MM-905	\$388,609	

DBE Participation (9/24/07 to 12/31/15)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				SC-DTS-0700001 **** MM-910	\$392,920	\$781,529
Pat Lee & Assoc.	541618	APA	M	SC-HRT-11H0131 MM-905	\$402,791	
				SC-DTS-0700001 **** MM-910	\$374,110	\$776,901
212 Harakawa	541430	APA	F	SC-HRT-11H0131 MM-905	\$358,141	
				SC-DTS-0700001 **** MM-910	\$354,758	\$712,899
JAD & Associates	541330	APA	M	SC-DTS-0700001 **** MM-910	\$508,355	\$508,355
Pacific Architects	541310	APA	M	SC-DTS-0700001 **** MM-910	\$39,273	\$39,273
Nagame Okawa*	541310	APA	M	SC-DTS-0700001 MM-910	\$67,014	\$67,014
Consulting Structural Hawaii	541330	APA	M	SC-DTS-0700001 **** MM-910	\$298,557	\$298,557
Bright Light Marketing Group	541613	APA	F	SC-HRT-1200038 FD-430	\$162,813	
				SC-HRT-1200149 FD-530	\$191,227	
				SC-HRT-1300022 FD-440	\$134,912	\$488,952
Ki Concepts	541320	APA	M	SC-HRT-1200077 MM-922/923	\$26,550	\$26,550
Miyabara Associates	541320	APA	M	SC-HRT-1300022 FD-440	\$99,850	\$99,850
Anil Verma Associates, Inc.**	541350	HA	M	SC-HRT-1200111 FD-340	\$3,820,005	\$3,820,005
AMR Estimating Services ***	541330	HA	M	SC-HRT-11H0131 MM-905	\$135,281	
				SC-HRT-1400027 MM-913	\$817,270	\$952,551
The Nakoa Companies	541620	NA	M	CT-HRT-1200106 DBOM-920	\$3,843	\$3,843
Hawaiya Technologies	238210	APA	F	CT-HRT-10H0449 DB-200	\$27,514	
				CT-HRT-1200106 DBOM-920	\$20,142	\$47,656
Element Environmental	541620	APA	M	SC-HRT-1400050 MM-290	\$1,436,551	\$1,436,551
PSC Consultants	541330	APA	M	SC-HRT-1400050 MM-290	\$544,183	
				SC-HRT-1400051 MM-595	\$9,899	\$554,082
Bow Construction Management	541330	APA	M	SC-HRT-1400050 MM-290	\$121,532	\$121,532
FIC, LLC	541611	APA	M	SC-HRT-1400051 MM-595	\$1,297,854	\$1,297,854
The Solis Group	541620	O	F	SC-HRT-1400027 MM-913	\$1,153,505	\$1,153,505
Island Hauling	484110	APA	M	CT-HRT-1000449 DB-200	\$211,831	\$211,831
ADS System Safety Consulting *****	541620	BA	M	SC-HRT-1400061 MM-964	\$1,417,212	\$1,417,212
Dovetail Consulting	541330	BA	F	MOU-11-SO-1 MM-930	\$806,080	\$806,080
Amazon Construction Co.	238990	APA	F	CT-HRT-1500056 MM-945	\$446,558	\$446,558

DBE Participation (9/24/07 to 12/31/15)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
Aloha Steel	238120	APA	M	CT-HRT-1500056 MM-945	\$176	\$176
Carol Kwan Consulting	561730	O	F	CT-HRT-1500056 MM-945	\$13,291	\$13,291
<b>Total</b>						<b>\$31,557,347</b>

*\* Nagame Okawa's countable participation is limited to the period from 1/2/09 to 2/16/10. The company graduated from the DBE program on 2/16/10.*  
*\*\* Anil Verma Associates, Inc. is a prime contractor and was certified as a DBE effective 6/26/13.*  
*\*\*\* AMR Estimating Services, Inc. was certified as a DBE effective 10/25/13.*  
*\*\*\*\* DBE participation from 9/24/07 to 9/17/13.*  
*\*\*\*\*\* ADS System Safety Consulting was certified as a DBE effective 8/7/14.*

**Race Categories**

<b>APA</b>	Persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands, (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia or Hong Kong
<b>BA</b>	Persons having origins in any of the black racial groups of Africa
<b>HA</b>	Persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin regardless of race
<b>NA</b>	Persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians
<b>SAA</b>	Persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka
<b>O</b>	Any other group whose members are designated as socially and economically disadvantaged by the SBA

## Appendix G. Risk

Risk by Contract Package				
Contract Packages	Nov. 2015 # of Risks	December 2015 Update		
		Total # of Risks	New Risks	Deleted Risks
Project Wide	4	6	2	0
WOFH Guideway	20	15	1	6
Pearl Highlands Garage	3	4	1	0
Maintenance and Storage Facility	4	4	1	1
Kamehameha Highway Guideway	17	15	0	2
Core Systems Contract	9	9	0	0
Elevator/Escalator	4	4	0	0
Airport Utilities	5	5	0	0
Farrington Highway Stations	4	5	1	0
H2R2 Ramp	1	1	0	0
West Oahu Stations	5	5	0	0
Kam. Highway Stations	7	5	0	2
Airport Guideway & Stations	28	27	0	1
City Center Guideway & Stations		33	33	0
City Center Guideway	25	0	0	25
City Center Section Stations	9	0	0	9
<b>Total</b>	<b>145</b>	<b>138</b>	<b>39</b>	<b>46</b>

## Notes of Significance:

The City Center Guideway and City Center Stations Group were combined in the Risk Registry this month.

Comparison of Risk Ratings								
Contract Package/Section	November 2015 Update				December 2015 Update			
	# of Risks				# of Risks			
	Total	High	Medium	Low	Total	High	Medium	Low
Project Wide	4	1	2	1	6	2	2	2
WOFH Guideway	20	1	14	5	15	1	12	2
Pearl Highlands Garage	3	0	3	0	4	1	3	0
Maintenance and Storage Facility	4	0	1	3	4	0	1	3
Kamehameha Highway Guideway	17	2	10	5	15	2	8	5
Core Systems Contract	9	1	5	3	9	1	6	2
Elevator/Escalator	4	2	2	0	4	2	2	0
Airport Utilities	5	1	3	1	5	1	3	1
Farrington Highway Stations	4	0	4	0	5	1	4	0
H2R2 Ramp	1	0	1	0	1	0	1	0
West Oahu Stations	5	0	5	0	5	0	5	0
Kam. Highway Stations	7	0	4	3	5	0	4	1
Airport Guideway & Stations	28	5	21	2	27	4	21	2
City Center Guideway & Stations					33	9	20	4
City Center Guideway	25	9	12	4				
City Center Stations	9	1	8	0				
<b>Total</b>	<b>145</b>	<b>23</b>	<b>95</b>	<b>27</b>	<b>138</b>	<b>24</b>	<b>92</b>	<b>22</b>

Note: The City Center Guideway and City Center Stations Group were combined in the Risk Registry this month.

Appendix H. Project Organization Chart

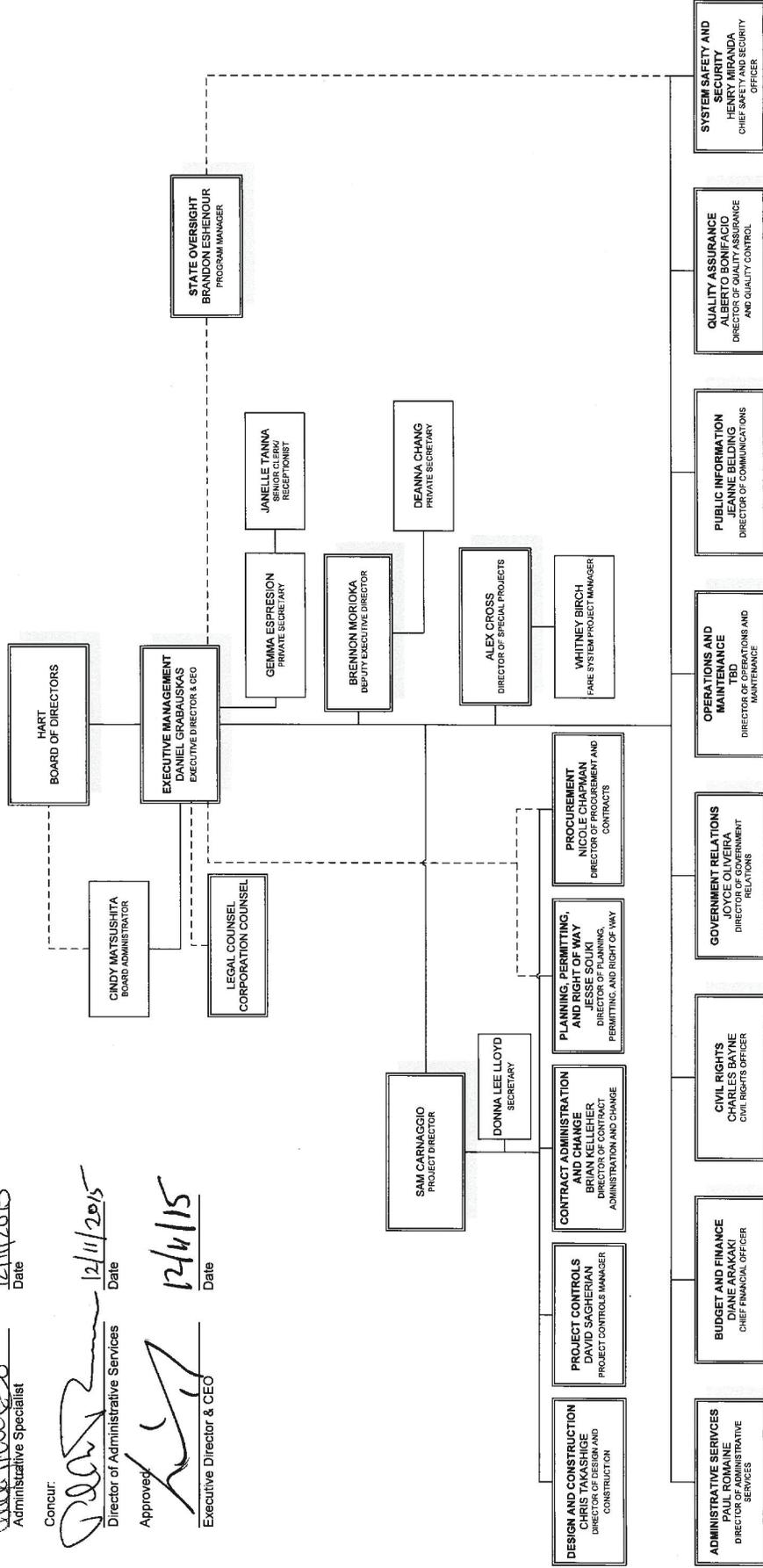
December 11, 2015

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

Prepared by: [Signature] 12/11/2015  
 Administrative Specialist Date

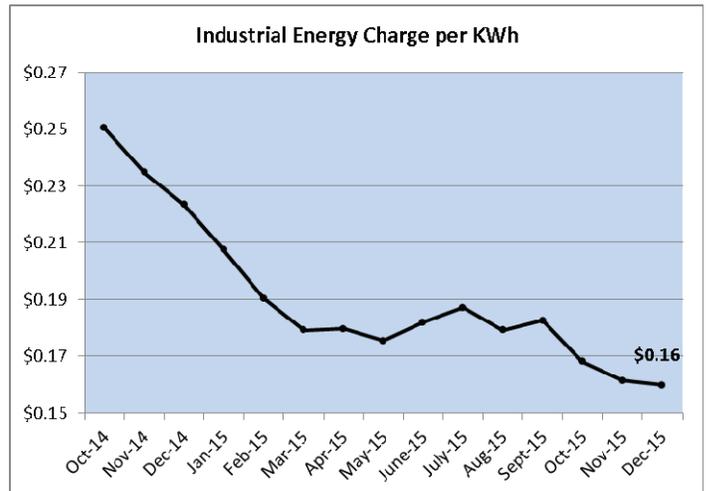
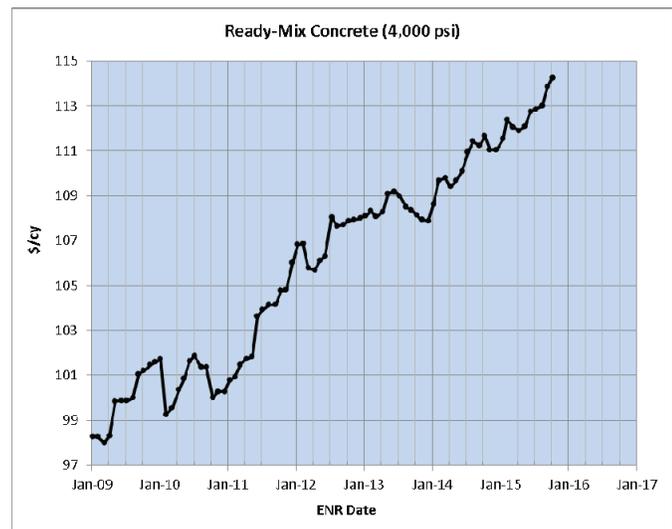
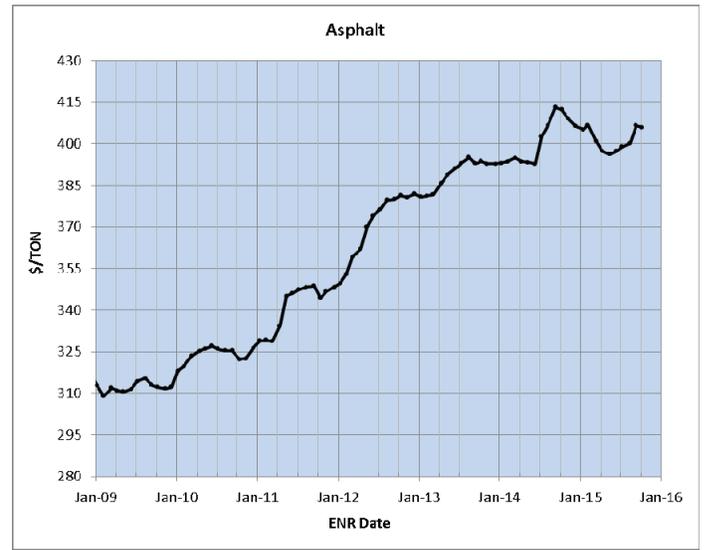
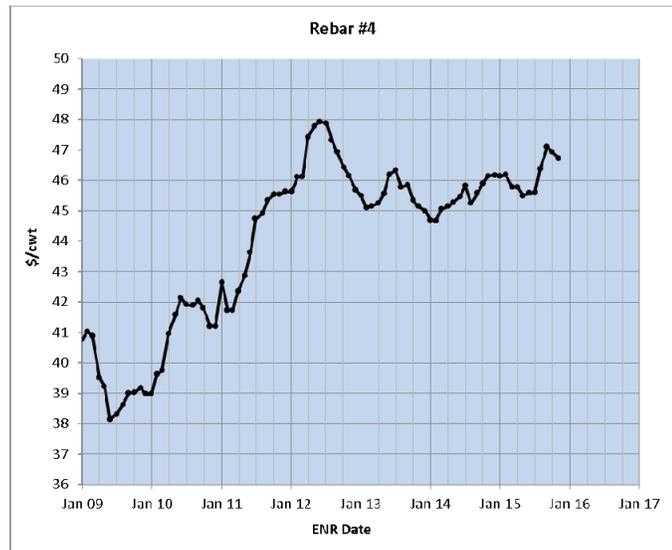
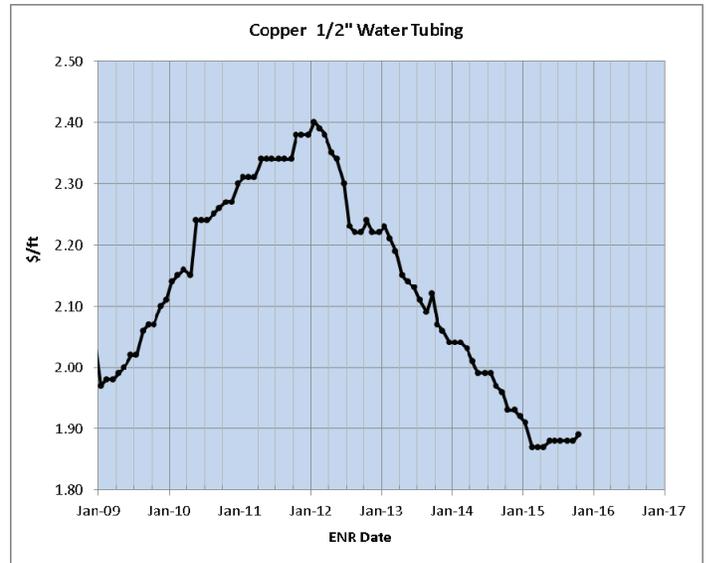
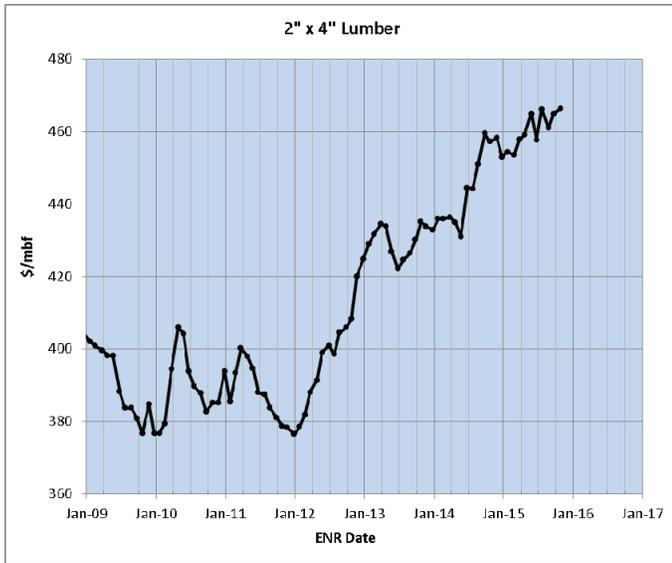
Concur: [Signature] 12/11/2015  
 Director of Administrative Services Date

Approved: [Signature] 12/4/15  
 Executive Director & CEO Date



### Appendix I. Indices on Key Commodities

The following charts represent the cost trends on some of the key materials used in the program.



Source: HECO: Effective Rate Summary for P Rate

### Appendix J. Project Photos



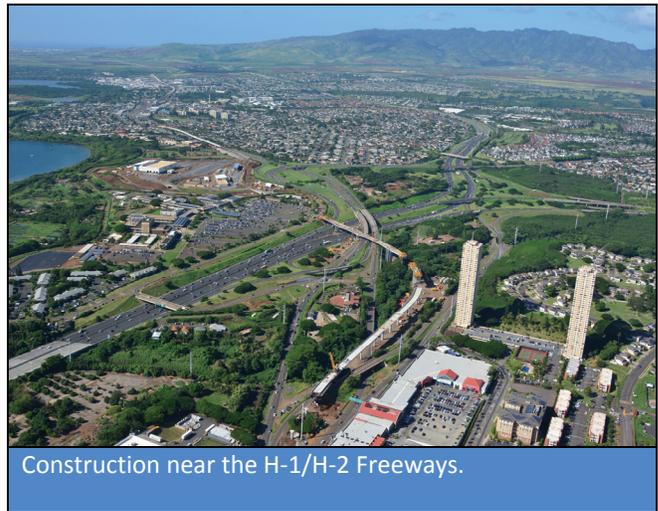
Guideway construction in West O'ahu.



Equipment storage site.



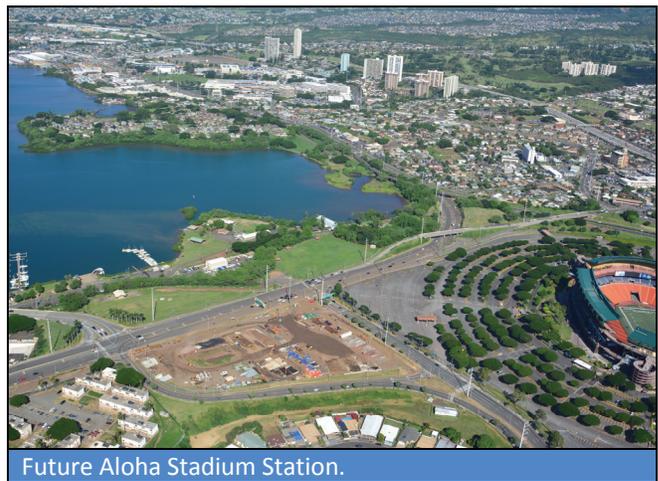
Balanced Cantilever construction near the H-1/H-2 Freeway merge.



Construction near the H-1/H-2 Freeways.



Construction along Kamehameha Highway.



Future Aloha Stadium Station.



Operations and Servicing Building (OSB).



Wheel Truing Building and OSB.



Maintenance of Way Building.



Casting Yard.