

HONOLULU RAIL TRANSIT PROJECT



December 2018 MONTHLY PROGRESS REPORT

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

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REPORT FORMAT AND FOCUS

This document 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 HART's technical capability and capacity to execute a project efficiently and effectively, and hence, whether HART continues to be ready to receive federal funds for further project development.

This document covers the project and quality management activities on the Honolulu Rail Transit Project managed by HART as the project sponsor and partially financed by the FTA under the Full Funding Grant Agreement (FFGA). Concurrent non-project activities and other items not covered by the FFGA may not be included.

INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This document includes forward-looking information. The words "believe", "anticipate", "expect", "intend", "aim", "plan", "predict", "continue", "assume", "positioned", "may", "will", "should", "shall", "risk" and any other similar expressions that are predictions of or indicate future events and future trends identifies forward-looking information. Forward-looking information includes all matters that are not historical facts. Readers should not place undue reliance on forward-looking information because it involves known and unknown risks, uncertainties and other factors that are in many cases beyond HART's control. By its nature, forward-looking information involves risks and uncertainties because it relates to events and depends on circumstances that may or may not occur in the future. Forward-looking information is not a guarantee of future performance, and HART's actual results of operations, financial condition, and the development of the industry in which it operates may differ materially from those made in or suggested by forward-looking information contained in this document. The cautionary statements set forth above should be considered in connection with any subsequent forward-looking information that HART, or persons acting on its behalf, may issue. Factors that may cause HART's actual results to differ materially from those expressed or implied by the forward-looking statements in this document include but are not limited to the risks described in HART's annual report. For projects funded through the FTA's New Starts program, the FTA and its PMOC use a risk-based assessment process to review and validate a project sponsor's budget and schedule. 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. Furthermore, any forward looking statements contained in this document are made as of the date of this report, and HART does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by law.

ON THE COVER:

Left: Pearl Highlands Station construction.

Upper Right: Station construction at the UH West O'ahu Station site.

Lower Right: Construction at the Pearlridge Station site.

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LIST OF ACRONYMS

A&E	Architect/Engineer	CLSM	Controlled Low-strength Material
AAN	Accepted as Noted	CM	Construction Manager
AANR	Accepted as noted, resubmit	CMP	Construction Management Plan
AB	Ansaldobreda	CMS	Contract Management System
AC	Asphalt Concrete	CMU	Concrete Masonry Unit
ACHP	Advisory Council on Historic Preservation	CNMMP	Construction Noise Mitigation and Monitoring Plan
ACI	Application Centric Infrastructure	CO	Change Order
ACS	Access Control System	COI	Conflict of Interest
ADA	Americans with Disabilities Act	COMMS	Communications
AFA	Air Force Association	CONRAC	Consolidated Rental Car Facility
AFE	Authorized for Expenditure	COR	Corporation Counsel
AGS	Airport Guideway and Stations	CORP	Central Oahu Regional Park
AHJV	Ansald Honolulu Joint Venture	CP	Consulting Party
AIS	Archaeological Inventory Survey	CPC	Cost Proposals by Consultant
AIT	Art-in-Transit	CPM	Critical Path Method
ALS	Aloha Stadium Station	CPO	Chief Procurement Officer
ANR	Accepted as Noted-Resubmit	CPP	Contract Packaging Plan
APE	Area of Potential Effect	CRM	Customer-Relationship Management
API	Application Program Interface	CRMS	Customer Relational Management System
APS	Auxiliary Power Supply	CROE	Construction Right-of-Entry
APTA	American Public Transportation Association	CRRB	Car Readiness Review Board
ARRA	American Recovery and Reinvestment Act	CSC	Core Systems Contract
ASG	Airport Station Group	CSCC	Construction Specification Conformance Checklists
ASI	Architect Supplemental Information	CSD	Department of Customer Services
ASU	Airport Section Utilities	CSEBOM	Core System Design-Build-Operate-Maintain
ATB	Asphalt Treated Base	CSL	Cross Hole Sonic Logging
ATC	Automatic Train Control	CSOC	Core Systems Oversight Consultant
ATO	Automated Train Operation	CSSC	Core System Support Consultant
ATS	Automatic Train Supervision	CSSM	Construction Safety and Security Manager
AVA	Anil Verma Associates, Inc.	CSSP	Construction Safety & Security Plan
AWO	Assigned Weight, Empty Vehicle (rail car weight with no passengers)	CST	Customer Service Terminal
BA	Buy America	CTS	Communications Transmission System
BAC	Buy America Compliance	CW	Corridor-Wide
BACM	Buy America Compliance Matrix	CWA	Clean Water Act
BAFO	Best and Final Offer	CWR	Continuous Welded Rail
BANCT	Best Available Noise Control Technology	CWRM	Commission on Water Resource Management
BART	Bay Area Rapid Transit	CZM	Coastal Zone Management
BCS	Balanced Cantilever System	DAGS	Department of Accounting & General Services
BFS	Budget and Fiscal Services	DAV	Disabled American Veterans
BIC	Ball in Court	DB	Design-Build
BLS	Blue Light Station	DBB	Design-Bid-Build
BMP	Best Management Practice	DBE	Disadvantaged Business Enterprise
BOD	Board of Directors	DBEDT	Department of Business, Economic Development and Tourism
BPS	Baseline Project Schedule	DBOM	Design-Build-Operate-Maintain
BUE	Bottom-Up Estimate	DCAB	Disability and Communication Access Board
BUEG	Back-up Emergency Generator	DCCC	Design Criteria Conformance Checklists
BWS	Board of Water Supply	DCN	Design Change Notice
CAM	Construction Access Milestone	DD	Definitive Design
CAP	Corrective Action Plan	DDC	Department of Design and Construction
CAR	Corrective Actions	DDC-MED	Department of Design & Construction-Mechanical & Electrical Division
CC2	City Center Phase 2	DES	Department of Environmental Services
CC3	City Center Phase 3	DF	Direct Fixation
ccd	Consecutive Calendar Days	DFD	Direct Fixation Fastener
CCGS	City Center Guideway and Stations	DFIM	Design Furnish Install Maintain
CCH	City and County of Honolulu	DFM	Department of Facility Maintenance
CCO	Contract Change Order	DHHL	Department of Hawaiian Homelands
CCTV	Closed Circuit Television	DHR	Department of Human Resources
CCUG	City Center Utilities and Guideway	DIT	Department of Information Technology
CCUR	City Center Utilities Relocation	DKSG	Dillingham and Kaka'ako Station Group
CDC	Compendium of Design Criteria	DLIR	Hawai'i Department of Labor and Industrial Relations
CDL	Commercial Driver License	DLNR	Department of Land and Natural Resources
CDR	Conceptual Design Review	DOE	Department of Education
CDRL	Contract Document Requirements List	DOH	Department of Health
CE&I	Construction Engineering and Inspection	DOL	Department of Labor
CEB	Civil Engineering Branch	DPM	Deputy Project Managers
CEL	Certifiable Elements List	DPP	Department of Planning and Permitting
CHB	Car History Book	DPR	Department of Parks and Recreation
CIC	Communication Interface Cabinet	DPS	Department of Public Safety
CIL	Certifiable Items List	DS	Downstream
CIP	Cast-in-place	DSDC	Design Services During Construction
CJA	Condon-Johnson & Associates	DTS	Department of Transportation Services
CLOMR	Conditional Letter of Map Revision	DTU	Dillingham Temporary Utilities
CLR	Cultural Landscape Report		

DUF	Division of Urban Forestry	HCC	Honolulu Community College
DVT	Design Verification Test	HCDA	Hawai'i Community Development Authority
E&E	Elevators and Escalators	HCS	Historic Context Studies
E&O	Errors and Omissions	HCSD	Hawai'i Capital Special District
EA	Environmental Assessment	HDCC	Hawaiian Dredging Construction Company
EAC	Estimate at Completion	HDOE	Hawai'i Department of Education
EB	East Bound	HDOH	Hawai'i Department of Health
EC	Environmental Compliance	HDOT	Hawai'i Department of Transportation
ECP	Environmental Compliance Plan	HDOT-A	Hawai'i Department of Transportation Airports Division
EDD	Executive Decision Document	HDPE	High-density polyethylene
E/E	Elevator/Escalator	HECO	Hawaiian Electric Company
EKP	East Kapolei	HFD	Honolulu Fire Department
EMC	Electromagnetic Compatibility	HHC	Howard Hughes Corp
EMF	Electromagnetic Forces	HHF	Historic Hawai'i Foundation
EMI	Electromagnetic Interference	HHFDC	Hawaii Housing Finance & Development Corporation
EMP	Environmental Management Plan	HHM	Hardy-Heck-Moore
EMR	Elevator Machine Room	HHPRB	Hawai'i Historic Places Review Board
EOM	End of Month	HIA	Honolulu International Airport
EOR	Engineer of Record	HIE	Hawaii Independent Energy
EOS	Electrically Operated Switch	HILT	Hawaiian Islands Land Trust
ESA	Environmental Site Assessment	HIOSH	Hawaii Occupational Safety and Health Division
ETC	Estimate to Complete	HOP	Ho'opili
EV	Expected Value	HP	Historic Preservation
FAA	Federal Aviation Administration	HPC	Historic Preservation Committee
FACI	First Article Configuration Inspection	HPCA	Historic Preservation Certification Application
FAI	First Article Inspection	HPCAT	Historic Preservation & Cultural Awareness Training
FAR	Floor Area Ratios	HPD	Honolulu Police Department
FAT	Factory Acceptance Tests	HPF	Historic Preservation Fund
FCC	Federal Communications Commission	HPU	Hawai'i Pacific University
FCN	Field Change Notice	HRHP	Hawai'i Register of Historic Places
FCU	Fan Coil Units	HRI	Hitachi Rail Italy
FD	Final Design	H RTP	Honolulu Rail Transit Project
FDAS	Fire Detection Alarm System	HRU	Hitachi Rail USA, Inc.
FDC	Field Design Change	HSNWG	Hawaiian Station Naming Working Group
FDR	Final Design Review	HTI	Hawaiian Telcom
FEIS	Final Environmental Impact Statement	HTL	Hazard Tracking Log
FEMA	Federal Emergency Management Agency	HV	High Voltage
FFC	Fixed Facility Contractor	HVAC	Heating, Ventilation and Air Conditioning
FFGA	Full Funding Grant Agreement	I&T	Inspection & Testing
FHB	First Hawaiian Bank	IAMR	Interstate Access Modification Report
FHSG	Farrington Highway Station Group	IBEW	International Brotherhood of Electrical Workers
FHWA	Federal Highway Administration	IC	Interim Certification
FISC	Fleet and Industrial Supply Center	ICCS	Integrated Communications Control System
FIT	Field Integration Test	ICD	Interface Control Documents
FLSWG	Fire/Life-Safety Working Group	ICE	Independent Cost Estimate
FM	Force Main	ICM	Interface Control Manual
FMECA	Failure Modes, Effects, and Criticality Analysis	ICWG	Interim Certification Working Group
FOCN	Fiber Optic Communication Network	IDIQ	Indefinite Delivery/Indefinite Quantity
FOM	Finding of Merit/No Merit	IDS	Intrusion Detection System
FP	Fix Panel	IFB	Issued for Bid
FPM	Fix Panel Mono	IFC	Issued for Construction
FPO	Federal Preservation Officer	IJ	Isolation Joint
FTA	Federal Transit Administration	IMP	Interface Management Plan
FTE	Full-Time Equivalent	INMS	Integrated Network Management System
FUT	Factory Unit Testing	IP	Implementing Procedures
FWS	Fish and Wildlife Service	ITP	Inspection and Test Plan
FY	Fiscal Year	ITS	Intelligent Transportation Systems
GAT	Great Aleutian Tsunami	IVR	Interactive Voice Response
GBS	Gap Breaker Station	JTMC	Joint Traffic Management Center
GDR	Geotechnical Data Report	JTMS	Joint Traffic Management System
GEC	General Engineering Consultant	JU&O	Joint Use & Occupancy
GER	Geotechnical Engineering Report	JUOA	Joint Use and Occupancy Agreement
GET	General Excise and Use Tax	JV	Joint Venture
GIS	Geographic Information System	KCDD	Kaka'ako Community Development District
GPR	Ground Penetrating Radar	KCH	Kanehili Cultural Hui
GSA	General Services Administration	KHG	Kamehameha Highway Guideway
GT	General Terms	KHR	Kamehameha Highway Resurfacing
GW	Guideway	KHSG	Kamehameha Highway Station Group
HA	Hazard Analysis	KIWC	Kiewit Infrastructure West Company
HABS	Historic American Buildings Survey	KKJV	Kiewit/Kobayashi Joint Venture
HACBED	Hawai'i Alliance for Community-Based Economic Development	KPI	Key Performance Indicator
HAER	Historic American Engineering Record	L+E	Lea +Elliott
HALS	Historic American Landscape Survey	LCC	Leeward Community College
HART	Honolulu Authority for Rapid Transportation	LD	Lagoon Drive

LEED	Leadership in Energy and Environmental Design	PD	Position Description
LF	Linear Feet	PDR	Preliminary Design Review
LOTB	Log of Test Borings	PE	Preliminary Engineering
LPR	License Plate Reader	PGC	Pacific Guardian Center
LRV	Light Rail Vehicle	PHA	Preliminary Hazard Analysis
LT	Load Test	PHGTC	Pearl Highlands Garage and Transit Center
LVPS	Low Voltage Power Supply	PHL	Pearl Highlands Station
MAI	Mason Architects	PHNB	Pearl Harbor Naval Base
MCY	Makai Casting Yard	PHPR	Pearl Highlands Park and Ride
MEP	Mechanical, Electrical and Plumbing	PHS	Pearl Harbor Station
MIM	Manufacture-Install-Maintain	PI	Public Involvement
MIP	Manufacturing and Inspection Plans	PICM	Project Interface Control Manual
MITT	Multimodal Integration Technical Team	PID	Parcel Identification Number
MMIS	Maintenance Management Information System	PIG	Permitted Interaction Group
MMP	Mitigation Monitoring Program	PIM	Project Interface Manager
MOA	Memorandum of Agreement	PLA	Project Labor Agreement
MOS	Minimum Operable Segment	PLO	Priority-Listed Offerors
MOT	Maintenance of Traffic	PLR	Pearlridge Station
MOU	Memorandum of Understanding	PM	Project Managers
MOW	Maintenance of Way	PMC	Project Management Consultant
MPD	Multiple Property Documentation	PMIM	Project Management and Interface Management
MPS	Master Project Schedule	PMOC	Project Management Oversight Contractor
MPSS	Master Project Schedule Summary	PMP	Project Management Plan
MPV	Multiple Purpose Vehicle	PMSC	Program Management Support Consultant
MPY	Makai Precast Yard	POS	Point of Sales
MS4	Municipal Separate Storm Sewer System	PPE	Personal Protective Equipment
MSE	Mechanically Stabilized Earth	PRS	Pearlridge Station
MSF	Maintenance and Storage Facility	PRTCC	Pre-revenue Testing Conform Checklist
MSTC	Middle Street Transit Center	PSC	Personal Services Contract
MSTCS	Middle Street Transit Center Station	PSG	Platform Screen Gate
MTM	Modern Track Machineries	PSGS	Platform Screen Gate System
NCE	Non-Conformance Evaluation	PSIT	Pre-shipment Inspection Test
NCR	Non-Conformance Report	PT	Post-tensioned
NDC	Notice of Design Change	PTG	Parsons Transportation Group
NEPA	National Environmental Policy Act	PUA	Purchase and Use Agreements
NFPA	National Fire Protection Association	PUC	Public Utilities Commission
NGO	Non-governmental Organization	PUP	Property Utilization Plan
NHL	National Historic Landmark	PV	Passenger Vehicle
NOI	Notice of Intent	QA	Quality Assurance
NPDES	National Pollutant Discharge Elimination System	QAM	Quality Assurance Manager
NPS	National Park Service	QAP	Quality Assurance Plan
NR	National Register	QC	Quality Control
NRHP	National Register of Historic Places	QMP	Quality Management Plan
NSM	Negotiation Strategy Memo	QMS	Quality Management System
NTE	Not to Exceed	QTF	Quality Task Force
NTP	Notice to Proceed	R&A	Readiness and Activation
NTS	Network Time Server	R&R	Revise & Re-submit
O&M	Operations and Maintenance	RA	Risk Assessment
OCC	Operations Control Center	RAC	Rail Activation Committee
OCCL	Office of Conservation and Coastal Lands	RAMP	Real Estate Acquisition and Management Plan
OCIP	Owner-Controlled Insurance Program	RC	Reinforced Concrete
ODC	Other Direct Costs	RCMP	Risk and Contingency Management Plan
OHA	Office of Hawaiian Affairs	RCP	Reinforced Concrete Pipe
OIBC	O'ahu Island Burial Council	RE	Resident Engineer
OIC	Officer-in-Charge	READ	Real Estate Acquisition Database
OIL	Open Items List	RFB	Request for Bids
OIP	Order of Immediate Possession	RFC	Request for Change
OMPO	Oahu Metropolitan Planning Organization	RFCC	Request for Change from Contractor
ORCC	Operational Readiness Conformance Checklist	RFCR	Request for Change by HART
OSB	Operations and Servicing Building	RFHB	Request for High Bids
OSHA	Occupational Safety and Health Administration	RFI	Request for Information
OTR	One-Time Review	RFID	Requests for Interface Data
OTS	Oahu Transit Services	RFMP	Rail Fleet Management Plan
OTW	Oceanic Time Warner	RFP	Request for Proposals
OTWC	Oceanic Time Warner Cable	RFQ	Request for Qualifications
OWG	Operation Working Group	RFV	Request for Variance
P3	Public-private Partnership	RHB	Road and Highway Builders, LLC
PA	Programmatic Agreement	RLB	Rider Levett Bucknall
PAIS	Programmatic Agreement Implementation Schedule	RMS	Risk Management System
PARs	Preventative Actions	RNR	Revise and Resubmit
PAT	Production Acceptance Test	ROC	Rail Operations Center
PB	Parsons Brinckerhoff, Inc.	ROD	Record of Decision
PCI	Payment Card Industry	ROE	Right of Entry
PCN	Potential Change Notice	ROH	Revised Ordinances of Honolulu

ROM	Rough Order of Magnitude	URA	Uniform Relocation Assistance and Real Property Acquisition Policies Act
ROW	Right-of-Way	USACE	U.S. Army Corps of Engineers
RR	Risk Register	USDOL	United States Department of Labor
RSD	Revenue Service Date	USDOT	U.S. Department of Transportation
RTM	Requirements Traceability Matrix	USN	United States Navy
RTSA	Regional Transit Stabilization Agreement	USPS	U.S. Postal Service
S&S	Safety and Security	UST	Underground Storage Tank
S1	Segment 1	VAR	Volt-Ampere Reactive
SAIS	Supplemental Archaeological Inventory Survey	VCR	Vertical Conduit Raceway
SC	Substantial Completion	VE	Value Engineering
SCADA	Supervisory Control and Data Acquisition	VECP	Value Engineering Change Proposal
SCAP	Stream Channel Alteration Permit	VISTA	Volunteers in Service to America
SCC	Standard Cost Category	VMS	Variable Message Sign
SHPD	State Historic Preservation Division	VRC	Vertical Raceway Column
SHPO	State Historic Preservation Officer	VRCS	Voice Radio Communication System
SIC	Sandwich Isle Communications	VRF	Variable Refrigerant Flow
SIT	System Integration Testing	VTP	Vehicle Test Procedure
SL	Street Light	WA	Work Area
SLAN	Secured Local Area Network	WHS	Waipahu High School
SLR	Sea Level Rise	WKM	Walters, Kimoda, Motoda, Inc.
SOG	Slab on Grade	WL	West Loch
SOI	Secretary of the Interior	WLO	West Loch
SOP	Standard Operating Procedures	WOEDA	West Oahu Economic Development Association
SOW	Scope of Work	WOFH	West O'ahu/Farrington Highway
SP	Special Provisions	WOSG	West O'ahu Station Group
SQP	Supplemental Quality Plan	WQC	Water Quality Certification
SSC	Safety Security Certification	WSS	West Side Stations
SSCP	Safety and Security Certification Plan	WSSG	West Side Station Group
SSCWG	Safety and Security Certification Working Group	WTB	Wheel Truing Building
SSI	Sensitive Security Information	WTC	Waipahu Transit Center
SSMP	Safety and Security Management Plan	WTP	Wayside Test Procedure
SSRC	Safety and Security Review Committee	WWPS	Wastewater pump station
SSSP	Site Safety Security Plan	WYL	West Yard Lead
STATCOM	Static Synchronous Compensator	YCB	Yard Control Bungalow
STCC	Specification Testing Conformance Checklists	YOE	Year of Expenditure
STG	Shimmick/Traylor/Granite, Joint Venture		
SUE	Subsurface Utility Engineering		
SWPPP	Storm Water Pollution Prevention Plan		
T&M	Time and Material		
TAP	Track Allocation Procedure		
TAT	Transient Accommodation Tax		
TC	Train Control		
TCA	Temporary Configuration Change		
TCCR	Train Control and Communications Room		
TCE	Temporary Construction Easement		
TCO	Temporary Certificate Occupancy		
TCP	Traffic Control Plan		
TCS	Train Control System		
TDM	Transportation Demand Management		
TES	Traction Electrification System		
TIA	Time Impact Analysis		
TIGER	Transportation Investment Generating Economic Recovery		
TIP	Transportation Improvement Program		
TMK	Tax Map Key		
TMP	Traffic Management Plan		
TOC	The Outdoor Circle		
TOD	Transit-Oriented Development		
TPO	Thermoplastic Polyolefin		
TPSS	Traction Power Substation		
TS	Traffic Signal		
TSA	Transportation Security Administration		
TSI	Transportation Safety Institute		
TUT	Temporary Utility Take		
TVA	Threat & Vulnerability Assessments		
TVM	Ticket Vending Machine		
TWF	Train Wash Facility		
UCA	Utility Construction Agreement		
UFRCA	Utility Facilities Relocation and Cost Reimbursement Agreement		
UG	Underground		
UH	University of Hawai'i		
UHPRB	UH West O'ahu Park and Ride & UHWO Campus Road "B"		
UHWO	University of Hawai'i West O'ahu		
UL	Underwriters Laboratories		
UPS	Uninterruptible Power Supply		

PROJECT MAP



1 SUMMARY

REPORTING DATE AND SUBSEQUENT EVENTS

This report was published on Jan. 4, 2019, for the PMOC meeting scheduled for Jan. 9, 2019. Most of the schedule and cost data is presented with a reporting cutoff date of Nov. 30, 2018, unless otherwise noted.

KEY ACTIVITIES IN DECEMBER

Project Overview

The Federal Transit Administration (FTA) sent a letter confirming the City and County of Honolulu and the Honolulu Authority for Rapid Transportation (HART) have satisfied the three conditions it had requested of HART in September. This brings HART one step closer to the resolution and release of grant monies for the project. The FTA is still reviewing the updated Recovery Plan that was submitted in November, and HART continues to work with the FTA by providing responses to their queries concerning the approval of the Recovery Plan. As of the end of December 2018, the Federal Government is experiencing a shutdown of operations which may adversely affect the timeline of FTA's review of the Recovery Plan. HART will continue to monitor this situation.

Other Developments

The Honolulu Rail Transit Project is making significant progress. In December, overhead guideway installation work began along Kamehameha Highway near Joint Base Pearl Harbor-Hickam and the Daniel K. Inouye International Airport. Airport Guideway and Stations contractor Shimmick/Traylor/Granite recently completed installation of the first span and launched the gantry to install individual segments of the Airport guideway.

The HART Board of Directors approved the contract reconciliation agreement with Kiewit Infrastructure West Company (KIWC) for West O'ahu/Farrington Highway (WOFH) and Kamehameha Highway Guideway (KHG). The agreement enables the final acceptance of the Maintenance and Storage Facility (MSF) contract, and substantial completion of the WOFH and KHG contracts.

The pilot for the HOLO card was launched in December. The pilot project is currently testing on TheBus system with plans to also roll it out for Handi-Van passengers in the future.

COST (as of Nov. 30, 2018)

Project Cost Summary (\$ in millions)				
Description	Original FFGA Budget	2018 Recovery Plan Budget*	Current Estimate at Completion (EAC)*	Incurred To Date
Project Capital Costs				
Base Cost without Contingency	\$4,305	\$7,312	\$7,312	\$3,383
Total Contingency	\$644	\$987	\$853	\$0
Total Project Capital Costs	\$4,949	\$8,299	\$8,165	\$3,383
FFGA Finance Charges	\$173	\$635	\$584	\$5
Total FFGA Project Costs	\$5,122	\$8,934	\$8,749	\$3,388
Post-RSD Finance Charges	\$42	\$254	\$271	\$0
Total Project Costs	\$5,164	\$9,188	\$9,020	\$3,388

*Total Project Costs excludes Operations and Maintenance.

Original FFGA Budget

The Original FFGA Budget reflects the full build-out of the project as executed by the Full Funding Grant Agreement in December 2012.

2018 Recovery Plan Budget Total

In response to issues raised in the 2018 Final Risk Refresh Report and in compliance with FTA direction in its letter of Sept. 21, 2018, HART has updated the Project cost estimate to \$8,299 million (excluding finance costs). The total project cost is \$9,188 million, which includes post-Revenue Service Date (RSD) financing costs of \$254 million and \$8,934 million in FFGA project costs (which includes \$987 million in allocated and unallocated contingency and \$635 million in financing costs). While this cost is \$134 million greater than HART's cost estimate of \$8,165 million, HART has revised the Project cost estimate and identified the additional funding to meet the higher estimate.

Current Estimate at Completion (EAC)

The current project capital Estimate at Completion (EAC) is \$8,749 million, including \$853 million in allocated and unallocated contingency and \$584 million in financing costs. The total project costs including post-Revenue Service Date (RSD) financing costs of \$271 million is \$9,020 million.

The total project contingency is based on a December 2025 RSD. The total contingency amount is \$853.

Incurred to Date

The Incurred-to-date costs are cumulative through November 2018, and exclude third-party reimbursement costs. The \$3,388 million to date represents 46.3% of the base Current EAC. The Incurred-to-date costs increased by \$39 million for the period.

SCHEDULE

The progress reported in the table below provides percent complete based on construction and design contracts. The early and late plans are based on baseline schedules for active contracts and forecasts of future contracts.

Project Progress* Through Nov. 30, 2018			
	Actual	Early Plan	Late Plan
Overall Project Progress	47.4%	53.4%	48%
Construction Progress	42.1%	48.5%	43.2%
Design Progress	77.1%	74.1%	71.8%
* Reported percentages complete are based on the Estimate at Completion for the Minimum Operable Segment (MOS) and December 2025 Revenue Service Date (RSD).			

PROGRESS REPORT SUMMARY OF CHANGES

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

Project Funding

- The Planned vs. Received Project Funding table has been updated to reflect HART's Recovery Plan submitted to the FTA on Nov. 20, 2018. Please see page 14.

Contract Status

- Core Systems Contract (CSC)
 - The current contract value amount has increased due to a change order. Please see page 19.
- Elevators and Escalators Manufacture-Install-Maintain (MIM)
 - The projected substantial completion date has changed from "May 2019" to "February 2024." Please see page 23.
- West O'ahu/Farrington Highway (WOFH) Guideway
 - The "Projected Substantial Completion" date has been changed to an "Actual Substantial Completion" date. Please see page 29.
 - The schedule status has changed from "TBD" to "Substantial Completion Obtained." Please see page 29.
- University of Hawai'i West O'ahu (UHWO) Station Temporary Park-and-Ride & UHWO Campus Road "B"
 - The current contract value amount has increased due to a change order. Please see page 31.
- West O'ahu Station Group (WOSG)
 - The current contract value amount has increased due to change orders. Please see page 33.
- Kamehameha Highway Guideway (KHG)
 - The "Projected Substantial Completion" date has been changed to an "Actual Substantial Completion" date. Please see page 40.
 - The schedule status has changed from "TBD" to "Substantial Completion Obtained." Please see page 40.
- Kamehameha Highway Station Group (KHSG)
 - The current contract value amount has increased due to change orders. Please see page 43.

2 OVERALL PROJECT PROGRESS AND FINANCIALS

2.1 Project Progress

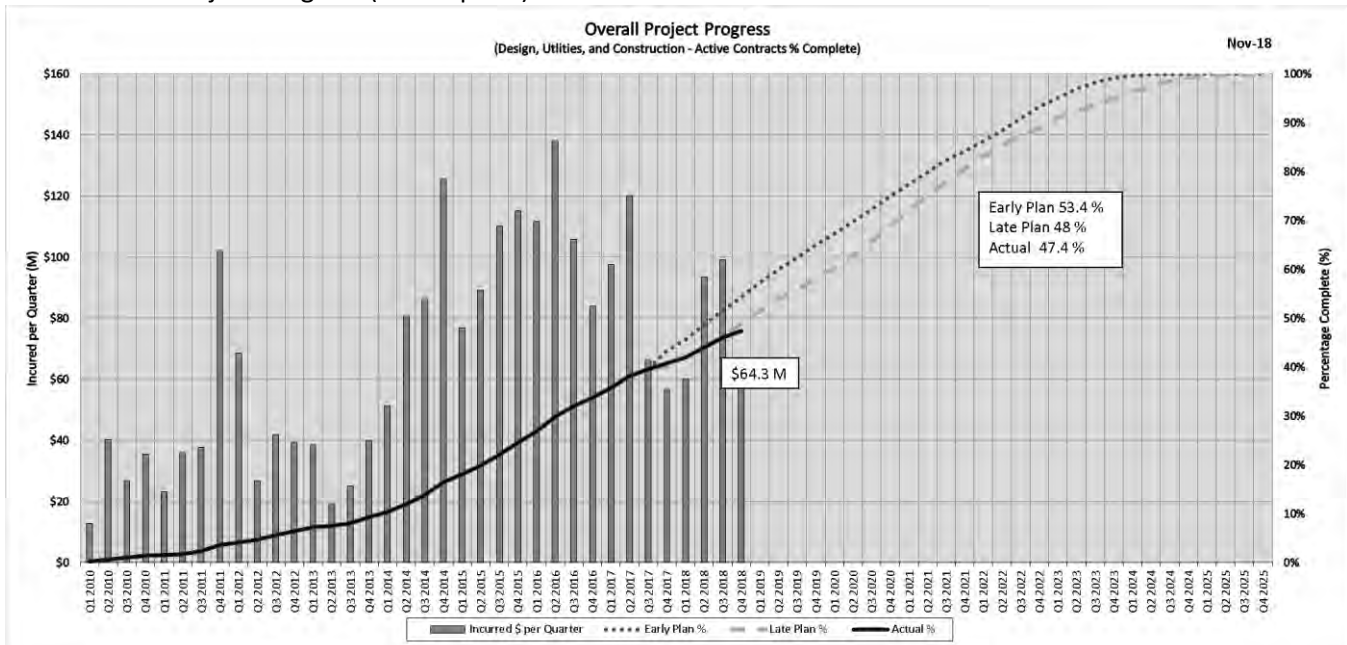
(data as of Nov. 30, 2018)

Reported percentages complete are based on the Estimate at Completion for the Minimum Operable Segment (MOS) and December 2025 Revenue Service Date (RSD). HART will revise its progress curves further when the in-process change orders are executed. This revision is expected to lower the plan values.

Note:

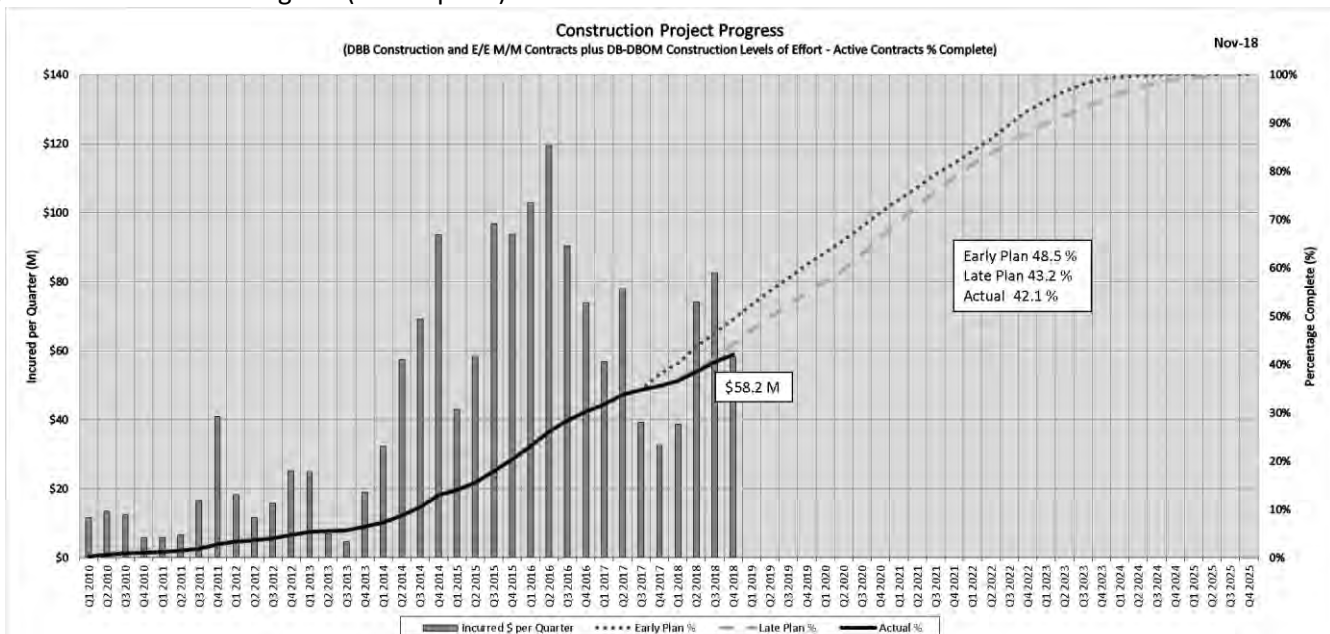
- Actual = Actual cost of work performed, based on reported work-in-place.
- Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
- Late Plan = Latest dates activities can begin and finish and not have an impact on completion date, based on logic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

Figure 1. Overall Project Progress (% Complete)



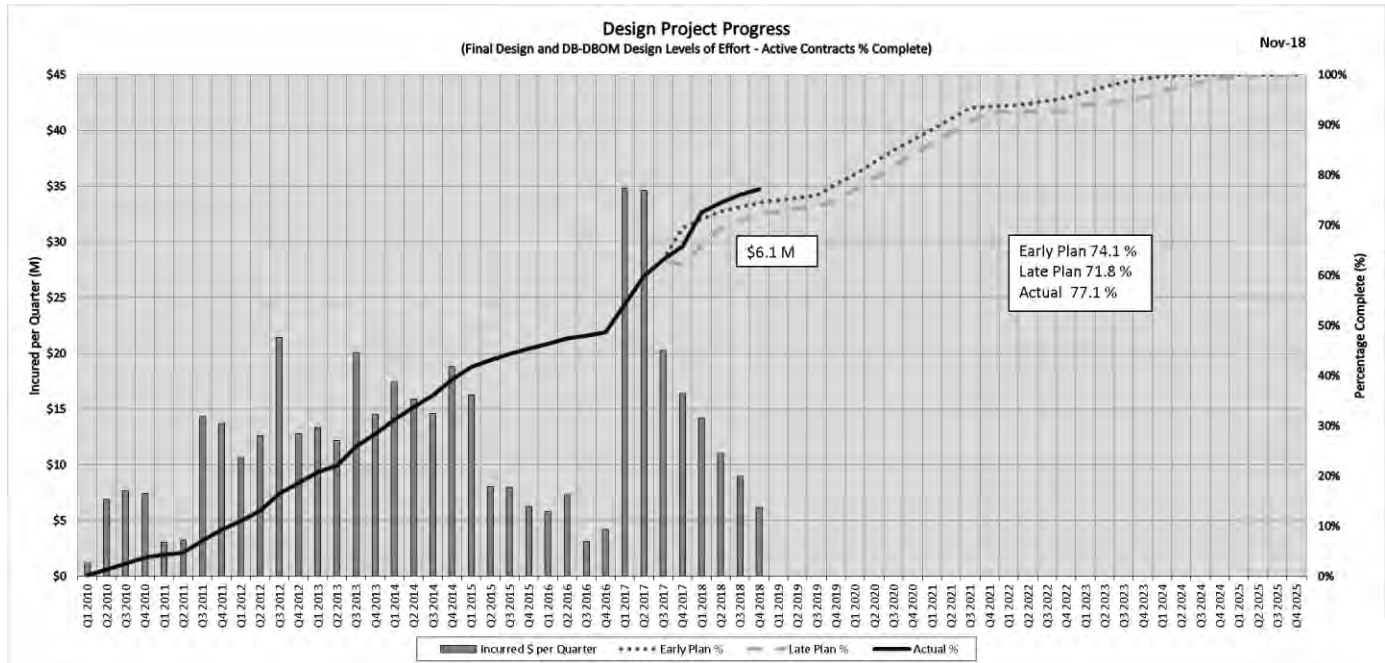
At present "overall" project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM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

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.

2.2 Project Budget

(data as of Nov. 30, 2018)

Project Cost Summary (\$ in millions)			
Description	Original FFGA Budget	2018 Recovery Plan Budget*	Current Estimate at Completion (EAC)*
Project Capital Costs			
Base Cost without Contingency	\$4,305	\$7,312	\$7,312
Total Contingency	\$644	\$987	\$853
Total Project Capital Costs	\$4,949	\$8,299	\$8,165
FFGA Finance Charges	\$173	635	584
Total FFGA Project Costs	\$5,122	\$8,934	\$8,749
Post-RSD Finance Charges	\$42	\$254	271
Total Project Costs	\$5,164	\$9,188	\$9,020

*Total Project Costs excludes Operations and Maintenance.

Original FFGA Budget

The Original FFGA Budget reflects the full build-out of the project as executed by the Full Funding Grant Agreement in December 2012.

2018 Recovery Plan Budget Total

In response to issues raised in the 2018 Final Risk Refresh Report and in compliance with FTA direction in its letter of Sept. 21, 2018, HART has updated the Project cost estimate to \$8,299 million (excluding finance costs). The total project cost is \$9,188 million, which includes post-Revenue Service Date (RSD) financing costs of \$254 million and \$8,934 million in FFGA project costs (which includes \$987 million in allocated and unallocated contingency and \$635 million in financing costs). While this cost is \$134 million greater than HART's cost estimate of \$8,165 million, HART has revised the Project cost estimate and identified the additional funding to meet the higher estimate.

Current Estimate at Completion (EAC)

The current project capital Estimate at Completion (EAC) is \$8,749 million, including \$853 million in allocated and unallocated contingency and \$584 million in financing costs. The total project costs including post-Revenue Service Date (RSD) financing costs of \$271 million is \$9,020 million.

The total project contingency is based on a December 2025 RSD. The total contingency amount is \$853.

2.3 Project Contingency

(data as of Nov. 30, 2018)

Project Contingency (\$ in millions)			
Description	Original FFGA Budget	2018 Recovery Plan Budget	Current Estimate at Completion (EAC)
Allocated Contingency	\$542	\$765	\$765
Unallocated Contingency	\$102	\$222	\$88
Total Contingency	\$644	\$987	\$853

Original FFGA Budget

The Original FFGA Budget reflects \$644 million.

2018 Recovery Plan Budget Total

The 2018 Recovery Plan Budget reflects \$987 million of total contingency or 13% of the base cost estimate which reflects available funding capacity. Based on FTA requirements on contingency for the current phase of the project, the 13% is sufficient reserve to cover against the risk of cost increases during development of the project.

Current Estimate at Completion

The contingency is a reserve to cover known and unknown, but anticipated, project execution costs and uncertainty due to risk factors such as unresolved design issues, unknown site conditions, schedule impacts and market fluctuations. Cumulatively, there is \$853 million in Total Contingency remaining, of which, \$88 million is unallocated.

2.4 Project Funding

(data as of Nov. 30, 2018)

Figure 4. Planned vs. Received Project Funding

Planned vs. Received Project Funding					
Funding Source	Pre-FFGA Project ¹	Project Funding		Total Project	Actuals Received in November 2018
	2007 - 2009 Actuals Received	Planned ² (\$YOE M)	2009 - Present Actuals Received	2007 - Present Actuals Received	
Beginning Project Cash Balance ³	0	298	298	0	-
Interest Income on Cash Balance ⁵	7	3	4	11	(0)
FTA Section 5309 New Starts Revenue ⁴	0	1,550	806	806	-
ARRA Funds	0	4	4	4	-
EPA Brownfields Grant (FY2018-FY2020) ⁶		1	0	0	0
Net General Excise Tax (GET) Surcharge revenues FY2010-FY2030	378	5,990	1,943	2,321	-
Transient Accommodation Tax (TAT) revenue FY2018-FY2030	0	1,182	39	39	-
City Subsidy - HART Administration FY2018-FY2030	0	214	44	44	44
Additional Funds FY2018-FY2030	0	54	0	0	-
Total	385	9,296	3,138	3,225	44

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

² Updated to Chapter 6 - Project Finance, Figure 6-1 of HART's Recovery Plan submitted to the FTA on November 20, 2018.

³ 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.

⁴ New Starts Funds Obligated Through Federal Fiscal Year 2014 Totals \$806.3 million.

⁵ Interest Income received in Nov 2018 \$174,655.83

⁶ EPA \$900,000 Brownfields Grant must be used by 12/31/2020 - to plan and subsidize the environmental cleanup activities.

EPA Brownfields Grant received in Nov 2018 \$2,988

Figure 5. New Starts Drawdown by Federal Fiscal Year

New Starts Grant Information by Federal Fiscal Year (Amounts in Italics are Pending)				
Federal Fiscal Year (FFY) Allocation	FTA Obligated Amounts	Actual Drawdown Amounts to Date	Available Balance	FFGA Base Case Cash Flow
2008	\$15,190,000	\$15,190,000	\$0	
2009	\$19,800,000	\$19,800,000	\$0	
2010	\$30,000,000	\$30,000,000	\$0	
2011	\$55,000,000	\$55,000,000	\$0	\$20,607,242
2012	\$200,000,000	\$200,000,000	\$0	\$99,382,758
2013	\$236,277,358	\$236,277,358	\$0	\$258,280,277
2014	\$250,000,000	\$249,991,376	\$8,624	\$441,719,724
2015*	<i>\$250,000,000</i>	\$0	<i>\$250,000,000</i>	\$250,000,000
2016*	<i>\$250,000,000</i>	\$0	<i>\$250,000,000</i>	\$250,000,000
2017*	<i>\$243,732,642</i>	\$0	<i>\$243,732,642</i>	\$230,010,000
Total	\$1,550,000,000	\$806,258,734	\$743,741,266	\$1,550,000,000
*HART submitted an updated Recovery Plan in November 20 2018; the FTA is evaluating the plan prior to awarding FFY 2015 - 2017 allocations to the Project.				

3 SCHEDULE

(data as of Nov. 30, 2018)

Critical Path Analysis

- Interim Revenue Service Date is planned for December 2020. HART and the City's Department of Transportation Services (DTS) are working on an Interim Opening Plan to allow partial Interim Service Opening by October 2020.
 - The critical path for Interim Opening of the passenger rail system from East Kapolei Station to Aloha Stadium is now shifted to the utility easement providing new power distribution lines to Ho'opili Station. This changes the critical path to Ho'opili's permanent power activation and tie-in, followed by System Functional Track.
 - The previous critical path included work on the Aloha Stadium box girders, platform finishes, and canopy construction. This work remains near-critical.
- Revenue Service Date (RSD) is planned for December 2025.
 - The critical path for RSD of the rail system from East Kapolei Station to Ala Moana Station has been updated to include the procurement of the City Center Guideway and Station contract (public-private partnership solicitation, evaluation, and award), followed by City Center guideway and Kapalama Station's superstructure completion. Following completion of station construction, the controlling work shifts to completing the Core Systems installation, integrated testing, and commissioning leading to full Revenue Service.

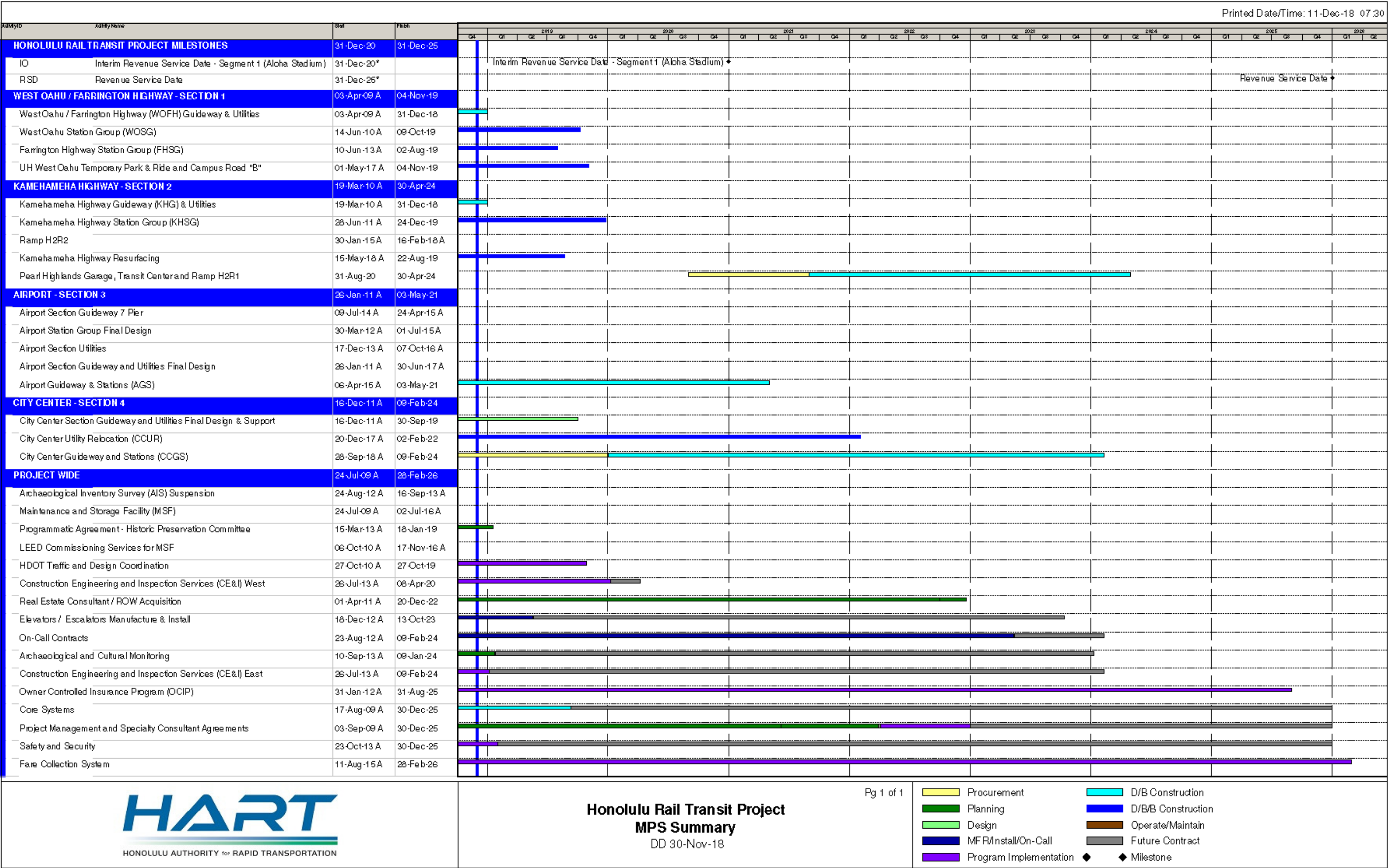
Three-Month Look Ahead

- For the Functional Track required for Interim Opening, the access milestones planned to be handed over to the Core Systems Contractor for systems installation include:
 - Four Train Control and Communications Room (TCCR) milestones planned on the west station group contracts
 - Five Balance of Building milestones planned on west station group contracts
 - Five Access to Platform milestones planned on the west station group contracts
- Station construction for the west station groups continues to include the following:
 - Elevator and escalator installation at Waipahu Transit Center Station, East Kapolei and Pearl Highlands. Pearlridge and Aloha Stadium Stations are working towards being site ready.
 - Installation of architectural fences, gates, sidewalks and flexible pavement at West O'ahu Station Group.
 - Fabricate and install station canopies for WOSG and FHSG. Station contractor to install lighting fixtures.
 - Permanent power on all stations at Farrington Highway Station Group and Ho'opili Station.
 - TCCR Construction Access Milestone (CAM) for all three KHSG stations.
 - Installation of Pearlridge Station pedestrian bridge, precast walls, and stairway.
- Continue installation of wet and dry utility work and gas lines at UHWO Temporary Park-and-Ride and Road B.
- Design work, foundations, and span erection are ongoing for the Airport Guideway and Stations contract.
- Ongoing wet utilities relocation for City Center Utilities Relocation contract.
- Complete Right-of-Way (ROW) acquisition for Dillingham properties ahead of needs for City Center utilities relocation.

Key Schedule Issues

- Fabrication and installation of canopies continue to be an area of concern at all three west side station groups. This impacts the conduits for Core Systems closed circuit television (CCTV), signage and speakers. This key schedule issue continues to be evaluated for mitigating initiatives to not impact Interim Revenue Service.
- Change order for utility materials re-procurement is followed by delay to installation of permanent power to UHWO Station and UHWO Temporary Park-and-Ride Road B substantial completion date. CE&I West continues to work with the contractor to mitigate the schedule delay.
- Development of a project mitigation schedule remains a work in progress for Airport Guideway and Stations.
- Ongoing Department of Planning and Permitting (DPP) approval of trenching permits for CCUR contract Task Orders are impacting the start of utility relocation.
- UH letter of commitment to allow use of UH property to build HECO substation adjacent to MSF. FTA approval of Post-Record of Decision (ROD) to proceed.

Figure 6. 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.



4 CONTRACT STATUS

Contracts in Procurement (data as of Dec. 15, 2018)

Overview

- Awarded Contracts:
 - None.
- Active Procurements:
 - City Center Guideway and Stations / Pearl Highlands Design-Build Finance Operate and Maintain RFP Part 1 was issued on Sept. 28, 2018. A pre-proposal conference was held on Oct. 15, 2018. Qualifications proposals in response to RFP Part 1 are due on Feb. 22, 2019, based on Addendum 2 to the RFP. HART anticipates releasing RFP Part 2 to the priority list of offerors in late March 2019.
 - Programmatic Agreement Historic Architecture Design Services Consultant "II" Request for Qualifications (RFQ) was issued on Sept. 13, 2017. Qualifications were received on Oct. 6, 2017. The process is ongoing.
 - Art-in-Transit: HART continues its negotiations with the highest-ranked artists for each of the stations. To date, twelve (12) contracts have been awarded.
 - Safety and Security Support Consultant Services RFQ was issued on June 19, 2018. The Qualifications due date was extended to Aug. 31, 2018, due to State and City office closures resulting from Hurricane Lane. Qualifications proposals were received on Aug. 31, 2018 and are currently being evaluated.

Active Procurements					
Contract Code	Contract Name	Advertise Date	Bids or Proposals Due	Issue NTP	Projected Contract Substantial Completion Date
AP-00	Art-in-Transit	May 09 '13	12 contracts awarded; active procurement for remaining stations	Staggered	Staggered
PA-102	Programmatic Agreement Historic Architecture Design Services Consultant "II"	Sep 13 '17	Oct 6 '17	Staggered Task Orders	As Indicated in Each Task Order
MM-964	Safety and Security Support Consultant	Jun 19 '18	Aug 31 '18	Jan '19	TBD
DB-550	City Center Guideway and Stations / Pearl Highlands Design-Build Finance Operate And Maintain (DBFOM)	Sep 28 '18	Feb 22 '19 (RFP Pt. 1)	Dec '19	NTP + 1554 ccd

Upcoming Procurement Under Evaluation

Contract Code	Contract Name	Issue Date
AP-00	Art-in-Transit, Windscreen	
MI-950	VAR Equipment Design-Furnish-Install	
FD-600	Permanent Park & Ride Lots Final Design (UHWO & East Kapolei)	
DBB-600	UHWO Permanent Park & Ride DBB Construction	
DBB-600	East Kapolei Permanent Park & Ride DBB Construction	
MM-960	Archaeological and Cultural Survey	January '19
MM-920	HDOT Design Review Support – WOFH	TBD
MM-937	Maps and Surveys	January '19
MM-915	HDOT/DTS Traffic Management Coordination	January '19

4.1 System-wide

A. Core Systems Contract (CSC)

CPP No.: DBOM-920

DBOM Contractor: Ansaldo Honolulu Joint Venture (AHJV)

Contract Start Date: January 2012

Contract Substantial Completion: June 2019

Projected Substantial Completion: July 2025

Project Description: A design, build, operate and maintain contract to provide rail passenger vehicles, automated train control system, traction electrification system (TES), communication systems, passenger platform screen gates (PSGs), and operation and maintenance of the Core Systems.

Design & Construction		Vehicles	Schedule Status
Physical % Complete	59.7%	54.2%	On time for 2025 opening
Early Plan*	67.2%	67.8%	
Late Plan*	50.6%	49.1%	
*Data as of Nov. 30, 2018. The progress chart reflects early program expectations. Progress is being tracked against interim Construction Access Milestone dates, which show the project is "On-Time".			

COST INFORMATION:

Original Contract:	\$573,782,793	Incurred-to-Date:	\$356,232,583
Current Contract Value ¹ :	\$615,773,040	Incurred in November :	\$0
¹ Current Contract Value = Original contract value (excluding original O&M budget) + executed Change Orders			

Disadvantaged Business Enterprise (DBE) Participation	
Actual DBE Participation:	\$408,365
DBE % Attained:	0.066%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$41,411,680
00047	HECO Connection Charges/Bond fee	\$578,568
Cumulative Current Report		41,990,247

SCHEDULE:

Upcoming Schedule Status for December 2018:

- Testing of wayside Automatic Train Control (ATC) equipment with Uninterruptible Power Supply (UPS) power at West Loch Train Control and Communications Room (TCCR) continues. The wayside and TCCR equipment have power and local ATC network is up and running in West Loch. Track circuit adjustment started on Dec. 12.
- Testing of ATC equipment at LCC TCCR continues this month and it is 90% complete. LCC TCCR will need station permanent power to continue testing.
- Communications equipment installation and testing continues at the MSF, including remediation work of cabinets and cabling already installed.
- Supervisory Control and Data Acquisition (SCADA) testing from the Operations Control Center (OCC) for TES and TCCR SCADA equipment will commence in January 2019, pending completion of Nokia network interfaces as well as field cabling to peripheral devices (UPS, generator, etc.).
- Pearlridge and Aloha Stadium Traction Power Substation (TPSS) delivery is delayed and new delivery dates are being planned.
- Passenger Vehicle #2 is undergoing onboard ATC Routine Acceptance Testing on the test track.
- Passenger Vehicle #3 is undergoing official static testing in the Operations and Servicing Building (OSB).
- Vehicle Test Procedure (testing of onboard ATC) will start in January 2019.
- Communication dry run testing started on Dec. 10 at the MSF.
- Waipahu ATC wayside installation and cable pulling encountered field complications and this work start date is TBD.

WORK PROGRESS:

	Base Design Percent Complete	East Kapolei – Aloha Stadium Design	Aloha Stadium – Middle Street Design
Passenger Vehicles	97%		
PSGS	100%		
Communications	80%	89%	27%
Fire Detection	100%	100%	N/A
ATC / SCADA	100%	100%	100%
TES	100%	100%	100%

Activities this Month:**Design:**

- Review of design submittals is ongoing.
- Continued coordination between AHJV and the Airport Guideway and Stations (AGS) contractor for integration of Core Systems requirements.
- Working to complete Requirements Traceability Matrix (RTM) for all subsystems.

Manufacturing:

- Train #5 undergoing final inspection at Pittsburg, CA facility.
- Hitachi Rail USA, Inc. (HRU) is continuing with the production of Trains #6 through #12 in Pittsburg, CA.
- Conducted over-the-shoulder review of Train #5 Car History Book (CHB).

Installation, Testing and Commissioning:

- Communications (COMMS) installation in the MSF buildings and yard continues. Work is near completion, pending punch list work.
- Inter rack wiring installation for UH West O'ahu UPS completed.
- UPS rack installation commenced in LCC Station.
- ATC wayside equipment installation at West Loch and UH West O'ahu platform completed.
- ATC wayside equipment installation at East Kapolei Station commenced.
- Optical fiber pulling from yard to mainline continues; pull between West Loch to Ho'opili is in progress.
- East Kapolei TPSS Commissioning on-hold pending HECO connection.
- Installation of Communications rack completed at West Loch, Ho'opili and UH West O'ahu.
- Installation of Communications rack commenced at LCC Station.
- ATC Wayside testing at West Loch Station TCCR continues.
- ATC Wayside cable Meggering and continuity test is ongoing at LCC and is about 90% complete.
- Train #2 Onboard ATC Routine Acceptance test is in progress on the test track.
- Platform Screen Gate System Fix Panel (FP) and Fix Panel Mono (FPM) tower installation at UH West O'ahu Station completed.
- Continue to conduct Over the Shoulder reviews of Communications test procedures to meet MSF Operational schedule objective.

Look Ahead:**Design:**

- Close out open comments to finalize Final Design of all subsystems.
- Continue coordination between AHJV and WOSG/FHSG/KHSG/AGS.
- Completion of Communications Final Design for AGS and CCGS segments.

Manufacturing:

- Passenger Vehicle truck fabrication – continue truck frame and bolster fabrication activities in Italy.
- Continue car shell fabrication activities in Italy.
- Continue manufacturing of communications, automated train control, traction power, and other subsystems equipment.

Installation, Testing and Commissioning:

- MSF Secured Local Area Network (SLAN) and Communications Transmission System (CTS) Acceptance Test to commence.
- Complete ATC Wayside cable Meggering and continuity test at LCC.
- Continue installation of ATC Wayside devices at East Kapolei and Waipahu Stations.
- PSGS FP and FPM tower installation at East Kapolei Station.
- PSGS shroud installation at Ho'opili.
- Commence TES cable installation from guideway to East Kapolei TPSS.
- Restart testing of TES jumper installation East Kapolei to West Loch.
- Delivery of Aloha Stadium TPSS and Pearlridge TPSS (1st Q 2019).
- Continue formal propulsion/braking design verification tests for Train #1.
- Accelerate testing of all subsystems in the MSF to meet MSF operational schedule objective.
- Review results of fracture mechanics validation strain gage testing and evaluate initial data extrapolation analysis with AHJV/HRI.
- Commence Vehicle Test Procedure (VTP) testing with train #2.
- Commence System Integration Testing with train(s) in the Yard.

Activities this Month (continued):

- Reviewed draft Hitachi fracture mechanic validation report (excluding data extrapolation analysis).

Look Ahead (continued):

- Commence night shift dynamic testing of Train #1 at dynamic section.

KEY ISSUES:

- The CSC's Communications System design is delayed. The CSC is working to submit final revisions of all Segment 1 designs. HART is monitoring this subsystem delay as it is a key component needed for future signaling system qualification testing and can affect system wide integrated testing if it is not adequately addressed. AHJV continues to meet with HART on a weekly basis to address Communications issues to meet driverless train operation goal. Demonstration of this driverless operation was conducted on Dec. 19 at the MSF test track. The rest of the MSF will be demonstrated next year.
- HECO identified a possible power quality issue involved with HART traction power loads. HART continues to coordinate with HECO regarding analysis of the 12kV feeders' voltages and potential mitigations. HART has completed preliminary simulations of all 12 kV feeders on the west-side (Segment #1).
- Documentation is needed from AHJV to complete safety certification of the Yard Control Bungalow (YCB) Construction Specification Conformance Checklist (CSCC) to move forward with ATC acceptance. This prerequisite item to be listed on the hold point document for the MSF ATC/SCADA. Over the shoulder meeting to review AHJV response to open comments on the CSCC occurred on Oct. 18, 2018.
- AHJV is lagging in submitting design criteria conformance requirements and verification documentation for COMM, ATC / SCADA, and Fire Detection Alarm System (FDAS). No timeline is given for resubmittal of Specification Testing Conformance Checklist items. HART continues to press AHJV for MSF yard and Segment 1 documentation. OTS reviews were conducted for the Comms safety submittals and an advance copy of the ATC Test Checklist was provided by AHJV.
- HART has identified deficiencies in MSF communication cabinets which require retrofit to allow completion of testing and commissioning. AHJV has mobilized more technical staff to complete retrofit work for 6 cabinets that are necessary for automatic operation at the MSF. Upon completion of the remediation of these critical cabinets in the MSF, remediation will then begin on the remaining 30 Communication Interface Cabinet (CIC) cabinets in the Yard/MSF area. Upon completion of the Yard/MSF area, remediation work will begin on the Segment 1 station hardware.
- HART has conducted Configuration Control audits of all subsystems under AHJV's scope. There have been 15 non-compliance issues identified, and some progress has been made. HART continues to monitor AHJV's progress to comply with the Configuration Management Plan. A follow-up configuration audit of the MSF TES was conducted on Dec. 18 and non-conformances were identified.
- AHJV/HRI has implemented corrective action to meet Passenger Vehicle (PV) Buy America requirements. A follow-up Supplier Audit of the Interior Lining supplier was conducted remotely by RVB+A auditors on Dec. 13, 2018. HART has stopped shipment of trains until AHJV is Buy America compliant.
- Several Construction Access Milestone (CAM) dates have been missed to date. Not having access to Fixed Facility Contractor's (FFC's) area of work impedes CSC's progress for installation.
- Permanent power connection delay to East Kapolei TPSS, Ho'opili TPSS, Leeward Community College Gap Breaker Station (GBS) and Pearl Highlands TPSS impedes CSC's progress for testing.
- Unclear station permanent power connection dates and permanent Heating, Ventilation and Air Conditioning (HVAC) in the TCCR is starting to affect the testing progress for CSC's equipment in West Loch, Ho'opili and UH West O'ahu.

KEY MILESTONES:

- Train #4 was delivered to the MSF on Dec. 1.
- PSGS installation at UH West O'ahu Station is substantially completed.
- Driverless train operation demonstration at MSF test track occurred on Dec. 19.

QUALITY MANAGEMENT:

- Retrofit of car shell underframe to rectify aluminum extrusion defects continues in Italy. Two (2) retrofit car shells have been received in Pittsburg, CA. Six (6) of eight (8) retrofit car shells to be in the Pittsburg facility by next year.

CSC NCR Log (Issued by AHJV)			
	Total	Closed	Open
AHJV & Subs	50	48	2
Hitachi Rail	1,568	1,232	336
TOTAL	1,618	1,280	338

TRAIN DELIVERY SCHEDULE:

Forecast Train Delivery Schedule					
Train #	AHJV PR82 Scheduled Ship Date from Pittsburgh*	AHJV PR82 Scheduled Arrival Date to Honolulu*	Forecast Ship Date from Pittsburgh, CA	Forecast Delivery to MSF	Actual Delivery Date
Train 1	SHIPPED	DELIVERED	SHIPPED	DELIVERED	16-Apr-16
Train 2	SHIPPED	DELIVERED	SHIPPED	DELIVERED	23-May-17
Train 3	SHIPPED	DELIVERED	SHIPPED	DELIVERED	6-Aug-18
Train 4	SHIPPED	DELIVERED	SHIPPED	DELIVERED	1-Dec-18
Train 5	30-Oct-18	26-Nov-18	Jan 2019	Jan 2019	
Train 6	21-Dec-18	28-Dec-18	TBD	TBD	
Train 7	4-Jan-19	31-Jan-19	TBD	TBD	
Train 8	29-Jan-19	25-Feb-19	TBD	TBD	
Train 9	16-Feb-19	15-Mar-19	TBD	TBD	
Train 10	8-Mar-19	4-Apr-19	TBD	TBD	
Train 11	18-Apr-19	25-Apr-19	TBD	TBD	
Train 12	19-Apr-19	16-May-19	TBD	TBD	
Train 13	20-Apr-19	17-May-19	TBD	TBD	
Train 14	20-Jun-19	27-Jun-19	TBD	TBD	
Train 15	21-Jun-19	28-Jun-19	TBD	TBD	
Train 16	8-Aug-19	8-Aug-19	TBD	TBD	
Train 17	22-Aug-19	29-Aug-19	TBD	TBD	
Train 18	23-Aug-19	30-Aug-19	TBD	TBD	
Train 19	3-Oct-19	10-Oct-19	TBD	TBD	
Train 20	24-Oct-19	31-Oct-19	TBD	TBD	

*Note: HART has stopped shipment of trains until AHJV is Buy America compliant.

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

CPP No.: MI-930

Contractor: Schindler Elevator Corporation

Contract Start Date: August 2013

Contract Substantial Completion: May 2019

Projected Substantial Completion: February 2024 (see the Schedule section below)

Project Description: A contract to design, fabricate, install, test, commission, and maintain all elevators and escalators at all 21 stations.

Progress		Schedule Status
Physical % Complete	28.4%	Pending**
Early Plan*	40.2%	
Late Plan*	TBD	
*Data as of Nov. 30, 2018. **The E&E schedule is dependent on other contractors' schedules. Actual release for manufacturing will be coordinated for a 'just in time' delivery.		

COST INFORMATION:

Original Contract:	\$50,982,714	Incurred-to-Date:	\$15,256,453
Current Contract Value ¹ :	\$54,409,209	Incurred in November :	\$300,722

¹Current Contract Value = Original contract value with Design Allowance + executed Change Orders

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

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$3,426,495
None	N/A	---
Cumulative Current Report		\$3,426,495

SCHEDULE:

- The Elevators and Escalators (E&E) contract substantial completion date is May 2019. The E&E contractual completion date will change to a later date predicated on the approved baseline schedule for the AGS DB contract. HART is coordinating with the AGS contractor and the E&E contractor to firm up required equipment installation dates now that the station designs are nearing completion. The final completion date for the E&E contract will be based on the award of the CCGS contract.

WORK PROGRESS:Activities this Month:

- Initial elevator pit and elevator shaft steel is continuing to be erected at various western stations. Elevator and Escalator CE&I inspections are occurring to ensure that these elements constructed by others meet the required specifications for the elevator and escalator supplier.
- As of mid-December, the two elevators required for Waipahu Station have a completion date of late December.
- HART is coordinating with the AGS contractor and the E&E contractor to firm up required equipment installation dates now that the station designs are nearing completion.
- The elevator installation work at UH West O'ahu restarted in mid-December. The work required on the hoistway roof has been completed.
- Escalator #1 and #2 at Pearl Highlands have been successfully installed.

Look Ahead:

- The E&E substantial completion date will be revised to incorporate the E&E equipment for the four stations included in the AGS DB contract. The remaining eight east-side stations will be established once the contract is awarded for the CCGS and the schedule for this contract is accepted.
- As of mid-December, Elevators #3 and #5 at UH West O'ahu were shipped as scheduled with an arrival date of late December.
- Schindler is expecting permanent power at the West Loch Station which will allow the running/exercising of the installed equipment.

KEY ISSUES:

- The release for manufacturing date of the E&E equipment is being coordinated for a 'just in time' delivery. The equipment for the eight stations included in the City Center Guideway and Stations contract are on hold pending award of the construction of these stations. The solicitation package contains the size and configuration of the elevators and escalators purchased for these remaining stations.
- The current completion date of the City Center section of guideway with stations will impact the completion of the Elevator and Escalator contract and will have cost impacts to the material and labor escalation.
- The scheduling of equipment for the four stations to be constructed under the Airport Guideway and Stations contract is being developed based upon the current contractors schedule for construction.

KEY MILESTONES:

- Elevator #1 installation at the UH West O'ahu Station resumed in mid-December as the hoistway roof has been completed.

QUALITY MANAGEMENT:

Elevators and Escalators NCR Log (Issued by Schindler)		
Total NCRs Issued To Date	Closed	Open
0	0	0

C. Fare Collection System

CPP No.: MI-900

Contractor: INIT, Innovations in Transportation, Inc.

Contract Start Date: April 2016

Projected Substantial Completion: December 2025

Project Description: The fare collection system is a joint HART and City and County of Honolulu [Department of Transportation Services (DTS), Department of Information Technology (DIT), Budget and Fiscal Services (BFS)] project that will consist of a multi-modal, closed loop, account based smart card system. The Fare System vendor, INIT Innovations in Transportation, Inc., is responsible for design, manufacture, testing, installation and operation of the entire system inclusive of hardware and software.

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

Progress		Schedule Status
Percent Complete	34.6%	9 Months Behind Milestone Schedule Payment
Early Plan*	54.6%	
Late Plan*	46.7%	
*Data as of Nov. 30, 2018. Planned information is being evaluated based on the current (full-alignment) scope versus the revised requirements of the Interim Revenue Service completion date.		

COST INFORMATION:

Original Contract:	\$15,464,198	Incurred-to-Date:	\$5,468,495
Current Contract Value ¹ :	\$15,825,668	Incurred in November :	\$950,144

¹Current Contract Value = Original contract value with Design Allowance + executed Change Orders

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

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$361,470
None	N/A	---
Cumulative Current Report		\$361,470

SCHEDULE:

- The baseline schedule for the fare systems project has the following milestones and is currently nine months behind schedule:
 - The Pilot recruitment website was launched Nov. 1 2018 and the Pilot was launched Dec. 1, 2018. Anticipated completion is March 2019.
 - System Acceptance for Bus and Back Office is anticipated for June 2019.
 - Field Integration Test (FIT) remains at 80% until Init delivers bulk loading.

WORK PROGRESS:Activities this Month:

- Launched Pilot and recruited 1,700 users by Dec. 14.
- Troubleshoot payment gateway and call center network issues.
- Met with DIT to determine options for latency issues at Kapolei Data Center.
- Stood up second merchant ID for Point of Sales (POS) devices at TheBus Pass Office.
- Visited three senior centers and two secondary schools to issue HOLO cards to Pilot testers.
- Drafted Finding of Merit/No Merit (FOM) for antenna gap.
- Drafted FOM for Ops Plan draft to Tech Consultants.
- Drafted revised retail strategy.
- Redrafted Memorandum of Understanding (MOU) for HOLO at Satellite City Halls.
- Three morning show Pilot recruitment appearances and a newspaper article.
- Generated first Key Performance Indicator (KPI) dashboard report for system monitoring.
- Confirmed set of and training on Asset Management and Maintenance for equipment.
- Continued review of draft Amendment to Capital MOU for Card Distribution costs.
- Refined automation of KPI dashboard report.
- Continue to work CE&I group on required Requests for Information (RFI's) for KHSG and AGS.
- Continued cascading 6 week action plan for agency management leading up to Pilot.
- Continued "role playing" training for sales and call center staff after Pilot launch. Supported call center troubleshooting.
- Revised Financial Standard Operating Procedures (SOPs) for consolidated invoicing.
- Developed Quick Guides for Call Center and TheBus Pass Office.

Look Ahead:

- Finalize MOU with City for Satellite City Hall sales of HOLO.
- Finalize MOU with City for cost sharing of card distribution.
- Complete Draft Operations Plan.
- Continue to recruit HOLO Pilot Testers and mail out adult cards.
- Monitor call center and sales staff additional training needs with Pilot launch.
- Begin roll out of retail devices with 7-Eleven and confirm deployment with other retailers.
- Begin institutional website pilot with one identified employer.
- Continue to work with DIT to upgrade firewall at Kapolei and to mitigate impacts of missing Cisco ACI (application centric infrastructure) configuration on fail over capabilities.
- Finalize draft Network Security SOPs in draft for review by team.
- Confirm Deployment Plan and funding.
- Continue in field monitoring of TVM and fare gate stub ups at station entrances. Confirm conduit is correct.
- Transfer Operations and Maintenance portion of the Design-Build-Operate-Maintain (DBOM) contract to DTS.

KEY ISSUES:

- As of Dec. 27, no response to date from DTS on Pilot requirements letter or employee testing letter. Proceeded with Pilot on Dec. 1, 2018.
- Continued delay of MOU approval for HOLO issuance and sales at Satellite City Hall impacts Pilot completion.
- Continued delay of available staff for institutional and retail roll out impacts Pilot and System Acceptance requirements.
- Negotiation of new MOU with DTS and HART for costs associated with card distribution and public testing.
- DTS did not attend Back Office Administration training nor indicate users for monitoring and management of the operations of the system. Additional training sessions may be required when DTS does so.
- DTS has not provided a staff member to assist with the coordination and roll out of HOLO on employee cards and the administration of the monthly pre-tax program using the Institutional Site. This will continue to delay roll out to City employees.

KEY MILESTONES:

- Launch Pilot Dec. 1, 2018 with scheduled completion in March 2019
- System Acceptance of Bus and Back Office scheduled for June 2019.

QUALITY MANAGEMENT:

Fare Collection NCR Log (Issued by INIT)		
Total NCRs Issued To Date	Closed	Open
0	0	0

D. On-Call Construction IV

CPP No.: MM-949

Contractor: Royal Contracting Co., Ltd.

Contract Start Date: January 2018

Contract Substantial Completion: January 2023

Projected Substantial Completion: January 2023

Project Description: This is an on-call contract to perform a variety of construction services by issuance of Task Orders. The construction services to be provided will include, but are not limited to, maintenance, renovations to existing privately owned properties, demolition of buildings/structures, repairs to existing HART facilities, temporary utilities installations, utilities relocation, new construction projects or services, maintenance of roadways inclusive of, filling potholes, removing dead animals, landscape maintenance, repairing/replacing signage, and other such activities to HDOT and/or City and County of Honolulu standards, work in support of HART's ongoing construction activities, and work in support of other HART contractors.

Progress		Schedule Status
Physical % Complete*	8.7%	On Time
Early Plan*	45.8%	
Late Plan*	TBD	
*Data as of Nov. 30, 2018.		

COST INFORMATION:

Original Contract:	\$46,000,000	Incurred-to-Date:	\$4,007,253
Current Contract Value ¹ :	\$46,000,000	Incurred in November :	\$499,409
¹ Current Contract Value = Original contract value + executed Change Orders			

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

Task Orders		
	Number of Task Orders Issued	Amount (\$)
Task Orders Previously Issued	31	\$19,259,272
Task Orders Issued in November	4	\$217,280
Total Task Orders Issued	35	\$19,476,552

SCHEDULE:

- The On-Call Contract is a Task Order based Indefinite Delivery/Indefinite Quantity (IDIQ) contract. The work consists of meeting the objectives of HART's Joint Use and Occupancy Agreements (JUOA) requirements, maintaining HART properties, performing Cost to Cure activities, and performing permanent utility relocation work. Each Task Order has its own start and finish date, and as such, there is no overall schedule requirements for the On-Call contract proper. The Contract NTP was issued on Jan. 8, 2018 and ends on Jan. 7, 2023 with two one-year options.

WORK PROGRESS:Activities this Month:

- Continued maintenance of the HDOT roadways, per the JUOA.
- Continued pothole activities in preparation of the realignment of the 24" waterline on Dillingham Boulevard.

Look Ahead:

- Continue to maintain HDOT roadways as required by the JUOA.
- Continue work on the stormwater and waterlines located on Halekauwila.

Activities this Month (continued):

- Completed the reestablishment of the H1-H2 median.
- Preparing to begin work on retaining walls 2, 3 and 4 located at Cutter Dodge and UH Urban Gardens.
- Completed reframing the 138kV lines on Kamehameha Highway.
- Starting work on Cost to Cure property's located on Dillingham Boulevard.
- Continued to complete HDOT elements of work as required by the HDOT agreements.

Look Ahead (continued):

- Continue work on retaining walls 2, 3 and 4 located at Cutter Dodge and UH Urban Gardens.
- Continue the relocation of the 24" waterline on Dillingham Boulevard.
- Continue to complete HDOT elements of work as required by the HDOT agreements.

KEY ISSUES:

- Need to receive timely road use permits.
- Need to receive timely Right of Entry agreements.
- Need to continue to have Maintenance of Traffic plans reviewed and accepted in a reasonable time frame.

KEY MILESTONES:

- Complete the construction and road widening at Cutter Dodge and Urban Gardens by the end of March 2019.
- Complete relocation of 24" waterline by the end of March 2019.
- Complete current Cost to Cure projects (3 each) by the end of the first quarter 2019.
- Complete wet utility work on Halekauwila by March 31, 2019.

QUALITY MANAGEMENT:

On-Call Construction IV NCR Log (Issued by Royal Contracting)		
Total NCRs Issued To Date	Closed	Open
0	0	0

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

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

CPP No.: DB-120

DB Contractor: Kiewit Infrastructure West Company (KIWC)

Contract Start Date: December 2009

Contract Substantial Completion: March 2017

Actual Substantial Completion: December 2018

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.

Progress		Schedule Status
Physical % Complete	99.9%	Substantial Completion Obtained**
Early Plan*	100%	
Late Plan*	100%	
*Data as of Nov. 30, 2018.		
**Further explanation is provided in the Schedule section.		

COST INFORMATION:

Original Contract:	\$482,430,201	Incurred-to-Date:	\$665,954,894
Current Contract Value ¹ :	\$666,070,659	Incurred in November :	\$0
¹ Current Contract Value = Original contract value + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$17,119,976
DBE % Attained:	2.57%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$183,640,458
None	N/A	---
Cumulative Current Report		\$183,640,458

SCHEDULE:

- The contractor is scheduled to complete License Plate Reader (LPR) installation and troubleshooting by end of month (EOM) February 2019.
- KIWC to provide a proposal for the Acoustical Monitoring System within 30 days of the execution of the Reconciliation Change Order.
- Board of Directors approved Reconciliation Change Order Dec. 13, 2018.

WORK PROGRESS:

Activities this Month:

- Troubleshooting of LPR cameras is ongoing.

Look Ahead:

- Troubleshooting of LPR configuration and coordination with the Hawai'i Department of Transportation (HDOT) will continue.
- Finalize Record Drawings.

KEY ISSUES:

- Closeout – Remaining close out requirements are being addressed by KIWC.

KEY MILESTONES:

- KIWC is working to complete the last HDOT punch list item, LPRs, by February 2019.
 - Record drawings review comments provided to KIWC. KIWC to make revisions and submit final version.
-

SUBSTANTIAL COMPLETION:

- Substantial Completion is Dec. 13, 2018.
-

QUALITY MANAGEMENT:

- **Closing Out NCRs** – NCRs will be closed in accordance with the terms agreed to in the Reconciliation Change Orders.

WOFH NCR LOG (Issued by KIWC)		
Total NCRs Issued to Date	Closed	Open
586	578	8

B. University of Hawai'i West O'ahu (UHWO) Station Temporary Park-and-Ride & UHWO Campus Road "B"

CPP No.: DBB-602

Contractor: Nan, Inc.

Contract Start Date: December 2017

Contract Substantial Completion: July 2019

Projected Substantial Completion: November 2019

Project Description: The project consists of the construction of a temporary park & ride, Road "B" and associated site work in the vicinity of UH West O'ahu Station. The project includes clearing, grubbing, erosion and dust control, grading and hauling, drainage, installation of underground and overhead utilities, installation of traffic signal, street lighting, and park & ride area electrical and communication systems, concrete curbs, sidewalks and wheelchair ramps, asphalt and concrete pavement structures, signing and striping, bus shelters, landscaping including installation of an irrigation system, and other appurtenances associated with roadway and park & ride facilities.

Progress		Schedule Status
Physical % Complete	42.7%	4 months behind
Early Plan*	80.9%	
Late Plan*	68.8%	
*Data as of Nov. 30, 2018. NTP issued Dec. 15, 2017.		

COST INFORMATION:

Original Contract:	\$11,589,300	Incurred-to-Date:	\$4,971,105
Current Contract Value ¹ :	\$12,872,323	Incurred in November :	\$1,147,809

¹Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$108,454
DBE % Attained:	0.86%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$1,222,740
00003	Electrical Materials	\$60,283
Cumulative Current Report		\$1,283,023

SCHEDULE:

- Actions to recover the schedule to date have been successful, resulting in recovery of 50 days thus far. Continued in partnering to further mitigate the schedule.
- October 2018 Progress Schedule has been submitted and is in process for payment purposes.
- Critical path is driven by missing or unusable UH furnished electrical materials at Road B. A change order has been executed for the necessary materials. HART is seeking reimbursement from UH.

WORK PROGRESS:Activities this Month:

- Continue electrical rough-in.
- Drain line and manhole installation continues.
- Water line installation continues.
- R-1 water line continues.
- Parking lot curb installation started.

Look Ahead:

- Installation of water and gas lines.
- Mitigate schedule to recover delay.
- Electrical and R-1 water installation.

KEY ISSUES:

- Working to mitigate schedule impacts from the materials and cul-de-sac change order.
 - Working to resequence electrical conduit installation for station power service at UHWO Station.
-

KEY MILESTONES:

- HECO manhole installation completed in December.
 - Completion of HECO electric duct bank February 2019.
-

QUALITY MANAGEMENT:

UHWO Station Temporary Park-and-Ride & UHWO Campus Road "B" NCR Log (Issued by Nan)		
Total NCRs Issued to Date	Closed	Open
1	0	1

C. West O'ahu Station Group (WOSG)

CPP No.: DBB-171

Contractor: Nan, Inc.

Contract Start Date: October 2015

Contract Substantial Completion: July 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 (EKP), UH West O'ahu (UHWO), and Ho'opili (HOP) Stations. In addition to the transit stations, operational ancillary buildings, a traction power substation, and adjacent areas are included in this project.

Progress		Schedule Status
Physical % Complete	69.4%	TBD**
Early Plan*	96.8%	
Late Plan*	82.7%	
*Data as of Nov. 30, 2018. Plan reflects expected completion of May 2019.		
**Further explanation is provided in the Schedule section.		

COST INFORMATION:

Original Contract:	\$56,088,470	Incurred-to-Date:	\$39,925,240
Current Contract Value ¹ :	\$64,579,775	Incurred in November :	\$0
¹ Current Contract Value = Original contract value + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$80,837
DBE % Attained:	0.13%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$7,551,057
00021	Electric/Communications	\$281,544
00020	Electric/Communications	\$658,704
Cumulative Current Report		\$8,491,305

SCHEDULE:

- Continuing to work with the contractor to mitigate the previous delays and evaluating the contract substantial completion date and warranted time extensions, including added scopes for Architect Supplemental Information (ASI) 20, (IFC Rev 5), ASI 3 and ASI 4 change orders.
- Processing Change order for Time Impact Analysis (TIA) #5.
- The contractor's progress schedule for September 2018 is in review.
- Coordinating with CSC and the contractor to meet Ansaldo's schedule for access turnover for functional testing and interim service milestones.

WORK PROGRESS:Activities this Month:**East Kapolei**

- Canopy fabrication is ongoing. Single canopy arm installation scheduled for January 2019.
- Remaining canopy arms shipped.
- Paul's Electric to complete conduit installation for utilities in the TCCR/UPS Rooms.
- Drainage work completed.

Look Ahead:**East Kapolei**

- Installation of surface mount conduits.
- Escalator installation scheduled to start.
- Balustrade installation scheduled to start.
- Install canopy frames.
- Install faregate ceiling frames.
- Elevator installation to start.

Activities this Month (continued):

- PSG base plate grouting to be completed after Stanley confirms anchor bolt locations.
- Sewer Micro tunnel work started.
- Water line connection started.
- Ground level work continues at piers 6-8.

UH West O'ahu

- Paul's Electric completed installation of electrical and communication conduits from the W. Entrance Building to the Pedestrian Bridge and concourse level.
- Conduit installation at platform level continues.
- Schindler Elevator #1 installation is underway.
- Canopy fabrication is ongoing.
- Pedestrian Bridge roof installation is underway.
- Platform level roof installation is underway.
- Continue faregate structural steel erection.
- Elevator #1 hoistway continues. Stairs #2, #3, #4 and #5 repairs completed.
- Roof drains installed in Elevator Machine Room (EMR) rooms.
- Balustrade installation continues at platform and Ped Bridge levels.
- Topping slab at concourse, platform and EMR level completed.
- TCCR Building work continues.

Ho'opili

- Canopy fabrication is ongoing.
- Conduit installation continues in Ancillary Rooms.
- Site work utilities and sidewalk construction continue.
- TPSS site work and fencing underway.
- Stanley to complete final flex conduit connections from platform to Platform Screen Gate System (PSGS) equipment.
- Detention pond #1 grading started.
- TCCR building work completed.
- HECO OH Line access road rehabilitation started.
- Elevator #1 and #2 glazing completed.
- Elevators #1 and #2 structural steel painting started.
- Piping installation from Ancillary Areas to Platform completed.

Look Ahead (continued):

- Site work/utility work to start including power infrastructure.

UH West O'ahu

- Entrance building elevator/escalator work continues.
- Continue faregate structural steel erection.
- Install phenolic conduit for PSG equipment at Platform.
- Site work power and utilities installation.
- Paint steel stairs 2, 3, 4 and 5.
- E&E to continue elevator/escalator work.
- Complete balance of structures work.
- Ship canopy frames.
- Ship faregate ceiling frames.
- Install flex conduit at PSGs.
- Entrance building work continues.

Ho'opili

- Paint balustrade at stairs, landings and platforms.
- Complete faregate structural steel erection.
- Paint Ancillary Room's exterior areas.
- Start installation of architectural fence at Entrance Area.
- Complete Balance of Structures for CSC access.

KEY ISSUES:

- Canopy completion at all stations. Fabrication and installation are underway. 3 of 5 EKP Station canopy frames on site. Installation at EKP to be complete January 2019.
- Conduit installation at all stations is behind schedule. Balance of Structures access was requested by Ansaldo for all stations and is pending resolution of Requests for Information (RFIs), and issuance of change orders. Contract Change Order (CCO) for IFC Rev 5 and ASI 4 executed. Change Order (CO) for ASI 3 pending signatures. CE&I is meeting with Nan and CSC weekly to integrate schedules and resolve outstanding design and coordination issues.
- Station Power is needed for CSC to perform functional testing. CE&I is coordinating with HECO to facilitate station power delivery by February 2019.
- Project is behind schedule. CE&I is working with Nan to develop an acceptable schedule with mitigation to assure Interim Service Date of December 2020.

KEY MILESTONES:**Ho'opili Station:**

- TCCR building completed in December.
- PSG conduit installation completed December 2018.

- Site work completed in December.
- TPSS completed in December.
- Flex conduits for PSGs installed in December.

UHWO Station:

- Stairs #2 - #5 completed in December.

EKP Station:

- Single canopy arm installation January 2019.
- PSG bolts to be completed January 2019.

QUALITY MANAGEMENT:

- Conducted bi-weekly Quality Task Force Meetings.

WOSG NCR Log (Issued by Nan)			
	NCRs Issued to Date	Closed	Open
East Kapolei	7	6	1
UH West O'ahu	34	22	12
Ho'opili	27	19	8
Contract Wide	7	7	0
TOTAL	75	54	21

D. Farrington Highway Station Group (FHSB)

CPP No.: DBB-271

Contractor: Hawaiian Dredging Construction Company, Inc. (HDCC)

Contract Start Date: August 2015

Contract Substantial Completion: January 2019

Projected Substantial Completion: April 2019

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

Progress		Schedule Status
Physical % Complete	79.9%	3 months behind
Early Plan*	100%	
Late Plan*	86.3%	
*Data as of Nov. 30, 2018.		

COST INFORMATION:

Original Contract:	\$78,999,000	Incurred-to-Date:	\$63,684,874
Current Contract Value ¹ :	\$82,260,034	Incurred in November :	\$5,096,807
¹ Current Contract Value = Original contract value + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$3,810,142
DBE % Attained:	4.62%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$3,261,034
None	N/A	---
Cumulative Current Report		\$3,261,034

SCHEDULE:

- Closely monitoring the critical schedule of canopy production; there is no more float on this activity. All canopy shop drawings submitted. Fabrication for all canopies has begun. The Bipod strut shop drawing will be submitted in January.
- Continuing to coordinate with the Core Systems on the Balance of Structures that are critical for Interim opening.
- Dielectric insulation corrective actions have begun.

WORK PROGRESS:Activities this Month:**West Loch**

- Fire Detection Alarm System (FDAS) Device Conduits installation is on hold pending Request for Information (RFI) 1245.
- PSG dielectric pads corrective actions are ongoing. Testing has also begun.
- DDL has installed fan coil units (FCUs) in the TCCR.
- Painting ongoing around entire station.
- Farrington Highway Streetlights are being installed.
- Bus lane lamp posts are installed.
- CVE is pulling string in conduits in preparation for AHJV cable pull.

Waipahu Transit Center

- Concourse conduit painting is ongoing.

Look Ahead:**West Loch**

- Kiss n Ride Pavement striping to be scheduled soon.
- Installation of PSG conduits, following acceptance of Contract Change Orders (CCOs).

Waipahu Transit Center

- Mauka drain inlet elevations corrections and design changes to be implemented.
- Survey PSG bolt placement on Mauka.
- Procure and install canopies.

Activities this Month (continued):

- Platform CSC cabinet support has been installed. Boxes to be installed by Field Change Notice (FCN) 118.
- Station entrance and ancillary building COMM device conduit and backboxes are being installed.
- Continue installation of electrical, fire-protection and mechanical.
- Corrections of balustrades on platform and service posts.
- HECO has scheduled inspection prior to permanent power.
- Lighting installation across concourse and platform pedestrian bridges is ongoing.
- Mauka outrigger stairs have been reinstalled.
- AHJV began train testing during the second shift from 3:30pm to 12:00am. This has allowed the FHSG contractor to have full platform access during the day shift.

Leeward Community College

- Ongoing elevator glass and louvers installation.
- Ongoing architectural tile installation along tunnel and inside bathrooms.
- Dropped ceiling framing is being installed along the Concourse.
- Tunnel cement wash ongoing.
- Installing TCCR FCUs.
- AHJV given partial access to TCCR/UPS for work.
- Installing platform precast pavers.
- Lantern brackets handed over to HDCC.
- Elastomeric waterproofing work to begin on platform.
- Pull rope for conduit installation is ongoing.

All Stations

- Coordinating turnover of Balance of Structures with the CSC.

Look Ahead (continued):

- Form and pour Mauka outrigger stairway to platform.

Leeward Community College

- Install Variable Refrigerant Flow (VRF) system and other equipment.
- Install entrance artwork.
- Turn on permanent power.
- Install elevator glazing.
- Partial turnover of parking lot to LCC.

All Stations

- Canopy installation.
- Blue Light Station (BLS) installation.
- PSG Metallic conduit installation.

KEY ISSUES:

- Canopy shop drawings were accepted as noted on May 30, 2018. The contractor has fabricated the Waipahu canopies. Delivery to the jobsite is scheduled for the last week in January and into February 2019. The remaining canopies to follow through Q2 and Q3 of 2019.

KEY MILESTONES:

- WLO: AHJV began cable pulling December 2018.
- WTC: Mauka Catch Basin design change and work start targeted for January 2019.
- LCC: Partial turnover of LCC parking lot prior to Jan. 7, 2019.
- All: Canopy installation starting, January 2019.

QUALITY MANAGEMENT:

- The CE&I is working with HDCC to ensure required submittals are approved prior to related construction activities.
- WTC NCR's include an upside-down beam and the Ancillary Building finish.

FHSG NCR Log (Issued by HDCC)			
	NCRs Issued to Date	Closed	Open
West Loch	25	19	6
Waipahu Transit Center	13	3	10
West Loch/Waipahu Transit Center	2	0	2
Leeward Community College	17	10	7
Contract Wide	14	10	4
TOTAL	71	42	29

E. Maintenance and Storage Facility (MSF)

CPP No.: DB-200

Contractor: Kiewit/Kobayashi Joint Venture (KKJV)

Contract Start Date: July 2011

Actual Substantial Completion: July 2016

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

Progress		Schedule Status
Physical % Complete	100%	Substantial Completion Obtained*
Early Plan	100%	
Late Plan	100%	
*Further explanation is provided in the Schedule section.		

COST INFORMATION:

Original Contract:	\$195,258,000	Incurred-to-Date:	\$281,775,032
Current Contract Value ¹ :	\$281,775,032	Incurred in November :	\$0
¹ Current Contract Value = Original contract value + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$710,987
DBE % Attained:	0.25%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$86,517,032
None	N/A	---
Cumulative Current Report		\$86,517,032

SCHEDULE:

- KKJV to close remaining issues January 2019.

WORK PROGRESS:Activities this Month:**Administration**

- Preparing deductive Change Order Documentation for engineering and other analysis costs incurred by HART to support the contractor in completion of this project.

Look Ahead:

- Execute deductive Change Order.
- Process final payment.

MSF Construction Status 100% Complete Overall	
Element	% Complete*
OSB	100%
MOW Building	100%
WTB	100%
TWF	100%
Rail	100%
Paving	100%

*Not including testing and commissioning.

KEY ISSUES:

- **MSF Closeout/Final Acceptance.** KKJV submitted Letter 00544, HART's Request for Statement from KKJV's Contract Rail Supplier dated Dec. 3, 2018, providing clarification on the performance contract rail splice joint.
-

KEY MILESTONES:

- KKJV's request for final acceptance is in review by HART. This contract is pending closure by January 2019.
-

QUALITY MANAGEMENT:

- Overall quality of the contract is good.

MSF NCR Log (Issued by KKJV)		
Total NCRs Issued to Date	Closed	Open
37	37	0

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

A. Kamehameha Highway Guideway (KHG)

CPP No.: DB-320

Contractor: Kiewit Infrastructure West Company (KIWC)

Contract Start Date: June 2011

Contract Substantial Completion: September 2017

Actual Substantial Completion: December 2018

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

Progress		Schedule Status
Physical % Complete	99.9%	Substantial Completion Obtained**
Early Plan*	100%	
Late Plan*	100%	
*Data as of Nov. 30, 2018.		
**Further explanation is provided in the Schedule section.		

COST INFORMATION:

Original Contract:	\$372,150,000	Incurred-to-Date:	\$392,116,041
Current Contract Value ¹ :	\$392,320,216	Incurred in November :	\$0

¹Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$860,191
DBE % Attained:	0.22%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$20,170,216
None	N/A	---
Cumulative Current Report		\$20,170,216

SCHEDULE:

- The contractor is scheduled to complete License Plate Reader (LPR) installation and troubleshooting by end of month (EOM) February 2019.
- Reconciliation Change Order approved by Board of Directors.

WORK PROGRESS:

Activities this Month:

- Troubleshooting of LPR cameras is ongoing.

Look Ahead:

- Troubleshooting of LPR configuration and coordination with the Hawai'i Department of Transportation (HDOT) will continue.
- Finalize Record Drawings.

KEY ISSUES:

- Closeout – Remaining close out requirements are being addressed by KIWC.
-

KEY MILESTONES:

- KIWC is working to complete the last punch list item, LPRs, by February 2019.
 - Record drawings review comments have been provided to KIWC. KIWC to make revisions and submit final version.
-

SUBSTANTIAL COMPLETION:

- Substantial Completion is Dec. 13, 2018.
-

QUALITY MANAGEMENT:

- **Closing Out NCRs** – NCRs will be closed in accordance with the terms agreed to in the Reconciliation Change Orders.

KHG NCR Log (Issued by KIWC)		
Total NCRs Issued to Date	Closed	Open
252	248	4

B. Ramp H2R2

CPP No.: DBB-385

Contractor: Royal Contracting Co. Ltd.

Contract Start Date: May 2015

Contract Substantial Completion: November 2017

Actual Substantial Completion: February 2018

Project Description: The construction of Ramp H2R2 and associated roadway work within the Waiawa Interchange. The Ramp H2R2 will provide access to the Pearl Highlands Station from eastbound Farrington Highway and connects to eastbound Kamehameha Highway.

Progress		Schedule Status
Physical % Complete	100%	Substantial Completion Obtained
Early Plan*	100%	
Late Plan*	100%	
*Data as of Nov. 30, 2018. This project is not on the Critical Path.		

COST INFORMATION:

Original Contract:	\$5,203,646	Incurred-to-Date:	\$5,377,860
Current Contract Value ¹ :	\$5,692,778	Incurred in November :	\$0
¹ Current Contract Value = Original contract value + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$508,702
DBE % Attained:	8.94%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$489,132
None	N/A	---
Cumulative Current Report		\$489,132

SCHEDULE:

- Project Closeout Checklist.

WORK PROGRESS:Activities this Month:

- Officer-in-Charge (OIC) determination for Retaining Wall.
- Finding of Merit/No Merit (FOM) for remaining open contract issues.

Look Ahead:

- Finalizing all open contract issues.

KEY ISSUES:

- Finalize negotiations.
- Request for Change by HART (RFCR) #00006 Issue 24 revised Negotiation Strategy Memo (NSM) is under internal review.
- Issue 42 Delay Claim for Waiawa Bridge FOM is under internal review.
- Prepare FOM for additional retaining wall work.

KEY MILESTONES:

- Close contract by first quarter 2019.

QUALITY MANAGEMENT:

Ramp H2R2 NCR Log (Issued by Royal Contracting)		
Total NCRs Issued to Date	Closed	Open
12	12	0

C. Kamehameha Highway Station Group (KHSG)

CPP No.: DBB-371

Contractor: Nan, Inc.

Contract Start Date:

Notice to Commence Administrative Work: April 2016

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

Full Notice to Proceed (NTP): October 2016

Contract Substantial Completion: May 2019

Projected Substantial Completion: September 2019

Project Description: The Kamehameha Highway Station Group construction contract includes services to build three (3) transit stations along Kamehameha Highway. The stations are Pearl Highlands Station (PHL), Pearlridge Station (PLR), and Aloha Stadium Station (ALS). Operational ancillary buildings, pedestrian crossing improvements, Train Control and Communications Rooms (TCCRs), and landscaping of the station sites are included in addition to the transit stations. The Pearl Highlands Station will include a transit center. The Pearl Highlands and Aloha Stadium Stations include both a Park-and-Ride lot and a Kiss-and-Ride lot.

Progress		Schedule Status
Physical % Complete	50.1%	4 months behind**
Early Plan*	99.4%	
Late Plan*	77.6%	
*Data as of Nov. 30, 2018.		
**Further explanation is provided in the Schedule section.		

COST INFORMATION:

Original Contract:	\$115,805,845	Incurred-to-Date:	\$51,775,957
Current Contract Value ¹ :	\$118,899,752	Incurred in November :	\$4,579,846
¹ Current Contract Value = Original contract value with Design Allowance + executed Change Orders			

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

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$3,037,642
00022	Sewer/Drains	(\$190,000)
00024	PHL Entrance Panel Relocation	\$6,885
00025	Communications Conduit Pathway Changes	\$239,380
Cumulative Current Report		\$3,093,907

SCHEDULE:

- Ongoing coordination with CSC and the contractor to meet Ansaldo's schedule for access turnover and interim opening.
- Continued coordination for ancillary room Heating, Ventilation, and Air Conditioning (HVAC). Equipment installation is complete at Pearl Highlands Station and continuing at Pearlridge Station. The equipment submittal review is complete for Aloha Stadium Station. Installation at Aloha Stadium is expected to commence the beginning of January.
- Aloha Stadium platform girder post tensioning operations and falsework removal is complete. Pearlridge platform girder falsework removal is complete and installation of the pedestrian bridge over Kamehameha Highway has commenced.

WORK PROGRESS:Activities this Month:**Pearl Highlands**

- Continuing erection of stair/escalator structural steel.
- Continuing installation of pathway to guideway conduits.
- Completed walls for rooms adjacent to entrance module.

Look Ahead:**Pearl Highlands**

- Continue door and hardware installation.
- Continue platform dielectric insulation and architectural topping slab installation.

Activities this Month (continued):

- Completed Concrete Masonry Unit (CMU) walls at bathrooms/under stair area of entrance level.
- Commenced dielectric insulation and forming/reinforcement of platform architectural topping slabs.
- Completed setting escalator #2 in place.
- Commenced door frame installation.

Pearlridge Station

- Makai Site – Continuing installation of Variable Refrigerant Flow (VRF) equipment in ancillary building rooms. Completed pouring stair #1 curbs and risers. Commenced installation of pedestrian bridge over Kamehameha Highway.
- Kamehameha Highway –Completed removal of platform falsework.

Aloha Stadium

- Completed paving north portion of North Parking Lot.
- Completed platform girder post-tensioning and falsework removal.
- Commenced ancillary building roofing installation.

Look Ahead (continued):

- Complete stair/escalator structural steel erection.
- Complete pathway to guideway conduit installation.

Pearlridge Station

- Makai Site –Complete VRF equipment installation in ancillary and TCCR.
- Continue pedestrian bridge structural steel erection.
- Commence pathway to guideway conduit installation at pedestrian bridge.
- Mauka Site – Commence Mauka pedestrian bridge structural steel erection. Continue stairway #6 forming/reinforcement.

Aloha Stadium

- Complete ancillary building roofing installation.
- Commence installation of conduit pathway from ancillary building to guideway.
- Commence VRF installation in ancillary building.

KEY ISSUES:

- Canopy Fabrication Coordination – HART continues discussion with the contractor on canopies and Pearlridge entry module fabrication issues.
- Passenger Screen Gate Plate Coordination – Due to tight tolerances, CSC to assist in bolt layout and revised tolerances.
- Coordinating with the contractor to mitigate current delays and prioritize certain activities critical to the operability of the station and overall system.
- Coordinating with CSC in order to meet CSC need dates.

KEY MILESTONES:

- Pearl Highlands Station TCCR and UPS Rooms –Completed VRF installation. Continuing pathway to guideway conduit installation with completion expected in January.
- Pearlridge Station TCCR and UPS Building – Electrical and communication conduit rough-in continues within the Ancillary Building. VRF installation is anticipated to be complete in January.
- Pearlridge Station Platform – Removal of falsework complete at platform girders. Makai pedestrian bridge steel structure is set in place. Mauka pedestrian bridge steel structure is anticipated to be in place by the end of January 2019.
- Aloha Stadium Station TCCR and UPS Rooms –Post-tensioning and falsework removal are complete. VRF installation is anticipated to commence in early January 2019. Pathway to Guideway conduits scheduled to be completed by the end of February 2019.

QUALITY MANAGEMENT:

KMSG NCR Log (Issued by Nan)			
	NCRs Issued to Date	Closed	Open
Pearl Highlands	18	18	0
Pearlridge	20	20	0
Aloha Stadium	0	0	0
Contract Wide	0	0	0
TOTAL	38	38	0

D. Kamehameha Highway Resurfacing (KHR)

CPP No.: DBB-701

Contractor: Road and Highway Builders, LLC (RHB)

Contract Start Date: Notice to Proceed NTP #1: August 2018

Contract Substantial Completion: September 2019

Projected Substantial Completion: September 2019

Project Description: The project consists of pavement resurfacing and other roadway reconstruction associated with completion of the Kamehameha Highway Guideway contract. Construction includes, but is not limited to, clearing, grubbing, erosion and dust control, grading and hauling, maintenance of traffic, pavement resurfacing, and installation of pavement markings and striping, roadway signs, curb ramps, drainage, waterlines, gas lines, traffic signal loop detectors, retaining wall, guard railing, fencing and bus shelters.

Progress		Schedule Status
Physical % Complete	31.5%	On Time
Early Plan*	40.5%	
Late Plan*	17.9%	
*Data as of Nov. 30, 2018.		

COST INFORMATION:

Original Contract:	\$25,989,989	Incurred-to-Date:	\$4,620,688
Current Contract Value ¹ :	\$25,989,989	Incurred in November :	\$4,620,688

¹Current Contract Value = Original contract value + executed Change Orders

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

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$0
None	N/A	---
Cumulative Current Report		\$0

SCHEDULE:

- The contractor completed the through lane paving of Phase 1 paving work from Acacia Road to Kuleana Street.
- NTP #2 is still forecast to be issued on Jan. 7, 2019.

WORK PROGRESS:Activities this Month:

- Processed 115 submittals and 28 Requests for Information (RFI's).
- Held various meetings, such as pre-activity, progress, environmental, traffic quality, safety, and public interface meetings.
- Complete concrete flatwork at curb ramps.
- Complete gas line relocation work.
- Complete excavation for full pavement sections.
- Begin placing subbase for full depth pavement sections.
- Begin median construction at Waimano Home Road.
- Continue modifying manholes to finish road grade.

Look Ahead:

- Begin potholing and lowering manholes from Kuleana Street to Salt Lake Boulevard.
- Begin mill and overlay work from Kuleana Street to Salt Lake Boulevard.
- Place Asphalt Treated Base (ATB) for full depth pavement sections.
- Begin relocation for utilities, streetlight and traffic signals; retaining wall construction; and concrete flatwork at Kaahumanu Street.
- Install signs, fencing, permanent striping, traffic loops, and drain filters from Acacia Road to Kuleana Street.

KEY ISSUES:

- Waimano Home Road 6" gas line relocated. RHB is completing left turn pocket. Schedule completion January 2019.
 - HDOT has requested additional work be done including removal of pavement from gutter pans, additional reconstruction areas, and changing of lane striping to conform with new HDOT best practices.
-

KEY MILESTONES:

- Construction began on Sept. 17, 2018.
 - Bulk of the Phase 1 work is completed.
 - Completion for Phase 1 is Dec. 4, 2018; Time Impact Analysis (TIA) is pending gas line relocation work.
 - NTP for Phase 2 is forecasted for January 2019.
-

QUALITY MANAGEMENT:

- KHR continues to follow established quality processes through quality monitoring and audits.

KHR NCR Log (Issued by Road and Highway Builders)		
Total NCRs Issued To Date	Closed	Open
0	0	0

E. Design Services for 138kV Utilities Relocation at KHG

CPP No.: FD-700

Contractor: R.M. Towill Corporation

Contract Start Date: September 2018

Contract Substantial Completion: November 2021

Projected Substantial Completion: TBD

Project Description: Architectural and Engineering Services for the final design to relocate the existing 138kV overhead electrical lines to underground lines at Kamehameha Highway Guideway and Stations.

Progress		Schedule Status
Based on Expenditures*	6%	TBD
Early Plan*	5.4%	
Late Plan*	1%	
*Data as of Nov. 30, 2018.		

COST INFORMATION:

Original Contract:	\$8,766,327	Incurred-to-Date:	\$525,574
Current Contract Value ¹ :	\$8,766,327	Incurred in November :	\$525,574
¹ Current Contract Value = Original contract value with Design Allowance + executed Change Orders			

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

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$0
None	N/A	---
Cumulative Current Report		\$0

SCHEDULE:

- HART coordinated with the consultant on the schedule, and HECO's comments from the previous schedule rendition were incorporated. The updated schedule was sent to HECO for review and comment on Nov. 15, 2018.

WORK PROGRESS:Activities this Month:

- Contract Management System (CMS) processes (e.g. submittals, correspondences, invoicing, etc.) have been established.
- HART's and the consultant's design schedule has been coordinated. The schedule was updated and sent to HECO for review and comment on Nov. 15, 2018. We continue to await HECO comments.
- The consultant continues to prepare and submit various project work plans. Submitted work plans are currently under review.
- HART-consultant-HECO bimonthly technical and monthly administrative meetings are being held (Note: The purpose of these meetings is primarily to establish power line underground horizontal alignment). The consultant collects data and information, and performs technical evaluations between meetings, in order to move design work forward during the technical meetings. The monthly administrative meetings will continue to be held until agreements between HART and HECO for electrical design and construction work are in-place, per HECO's request.
- Subsurface utility location work is well underway. Potholing work is currently scheduled to commence around mid-January 2019.

Look Ahead:

- Complete various work plan submittals and review.
- Incorporate HECO comments (if any) into schedule.
- Continue periodic HECO meetings.
- Continue subsurface utility location work. Start potholing activities.

KEY ISSUES:

- Completion of subsurface utility investigation in order to not impact other potential HART work in the area.
 - Establishment of power line horizontal underground alignment.
-

KEY MILESTONES:

- Based on schedule information we currently have, key upcoming milestones are as follows:
 - Completion of Subsurface Utility Engineering (SUE) and Field Investigation Activities: March 21, 2019 (Tent.)
 - Development of Preferred Preliminary Alignment: Sept. 6, 2019 (Tent.)
 - Preliminary Design: Jan. 24, 2020 (Tent.)
 - Prefinal Design: July 27, 2020 (Tent.)
 - Final Design: Oct. 7, 2020 (Tent.)

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

A. Airport Section Guideway and Stations (AGS)

CPP No.: DB-450

Contractor: Shimmick/Traylor/Granite, JV (STG)

Contract Start Date: December 2016

Contract Substantial Completion: May 2021

Projected Substantial Completion: May 2021

Project Description: The Airport Guideway and Stations Design-Build contract consists of the design and construction of 5.2 miles of elevated guideway, four (4) stations, and associated facilities between Aloha Stadium and the Middle Street Transit Center. The contractor will begin by interfacing with design disciplines, third-party stakeholders, and construction contracts within the corridor of the project to coordinate and resolve utilities conflicts. Design field verification efforts (potholing and geotechnical exploration) will be followed by construction activities once design packages have been approved.

Progress		Schedule Status
Physical % Complete*	35.7%	On time**
Early Plan*	49.2%	
Late Plan	35.8%	
*Data as of Nov. 30, 2018.		
**Further explanation is provided in the Schedule section.		

COST INFORMATION:

Original Contract:	\$874,750,000	Incurred-to-Date:	\$328,387,491
Current Contract Value ¹ :	\$868,419,990	Incurred in November :	\$16,446,415

¹Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$28,364,449
DBE % Attained:	3.27%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		-\$6,330,010
None	N/A	---
Cumulative Current Report		-\$6,330,010

SCHEDULE:

- October 2018 Schedule Update was returned to STG as Accepted as Noted.
- STG has forwarded the draft revision schedule indicating potential delay due to HECO requirements. HART, HECO and STG are working collaboratively to mitigate any potential delay. An updated schedule showing the schedule requirements for all affected parties was submitted to HECO in early December.

WORK PROGRESS:

AGS Construction Status as of 12/31/2018			
Guideway Structure Element	Total to Date	Total Qty	% Complete
Shafts	124	225	55.1%
Columns	84	232	36.2%
Segment Casting	1,056	2,703	39.1%
Spans Stressed	1	211	0.5%
Spans Grouted	0	211	0.0%
Trackwork	0	*	0.0%
Third Rail	0	*	0.0%
Mill & Overlay	0	*	0.0%
* Amounts to be determined.			

Activities this Month:

- Overall design is approximately 99% complete.
- Drilled shafts continued in Reaches A, B and C.
- Continued rebar fabrication and preparation for shafts in Reaches A, B, C and E, and columns in Reaches A and B.
- Gantry crane load testing at Pier 422 performed and initial 422 span erection underway, launching the gantry for subsequent spans.
- Continued casting segments for Reach A and B spans.
- HART reviewed Pearl Harbor Naval Base (PHNB) Station Issued for Construction (IFC) and Middle Street Transit Center Station (MSTCS) FD.
- Continuing installation of permanent street lighting throughout the AGS project.
- Utility work completed in Zone 1 (Kamehameha Highway) and continuing in Zone 5 (Aolele and Nimitz).

Look Ahead:

- Form/rebar/pour Reaches A, B and C columns and segment casting.
- Continue pouring C-Bents and Straddle Bents Columns in Reach A and Reach B.
- Design coordination meetings continue with third-parties (HDOT-A, HECO, Navy, Keehi Lagoon, Memorial Park, etc.).
- Utility work continues in Zones 3, 5, 6 and 7. Coordination taking place with third-parties.
- Continue drilled shaft construction in Reach C.
- Design Submittals:
 - Corridor-Wide Landscape IFC
 - Reach C – Honolulu International Airport (HIA) Station IFC
 - Reach D – Lagoon Drive Station IFC Resubmittal
 - Reach E – Civil and Composite Utilities IFC
 - Civil Common Drawings and Intelligent Transportation Systems (ITS) IFC
 - Return Reach C – Civil and Composite Utilities IFC

KEY ISSUES:

- STG & HECO Zone 8 IFC Design completion and detailed electrical construction schedule; pending approval of Zone 8 infrastructure design submittal to advance design to HECO.
- Complete Reach C - Revised HIA Station Pedestrian Walkway/Connector Design for Reach C – HIA Station IFC.

KEY MILESTONES:

- STG has passed the 50% completion mark for drill shafts.
- STG began segment erection in December 2018.

QUALITY MANAGEMENT:

- Pre-Activity Meetings continue.

AGS NCR Log (Issued by STG)			
	NCRs Issued to Date	Closed	Open
Guideway	123	78	45
Pearl Harbor Naval Base Station	3	1	2
Honolulu International Airport Station	0	0	0
Lagoon Drive Station	1	1	0
Middle Street Transit Center Station	0	0	0
Contract Wide	13	8	5
TOTAL	140	88	52

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

A. City Center Section Utilities and Guideway

CPP No.: FD-530

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

Contract Start Date: July 2012

Contract Substantial Completion: September 2019

Projected Substantial Completion: March 2019

Project Description: The original City Center Section Utilities and Guideway (CCUG) final design contract consisted of utility relocations, roadway widening, and 4.12 miles of elevated transit guideway serving eight (8) passenger stations. The scope of the CCUG contract has been reduced to include only the design of utility relocations and roadway widening to facilitate future guideway design and construction by others. The remaining work is herein referred to as the City Center Utilities Relocation (CCUR) design.

Progress		Schedule Status
Based on Expenditures*	91.8%	On time**
Early Plan*	99.7%	
Late Plan*	95.6%	
*Data as of Nov. 30, 2018.		
**Further explanation is provided in the Schedule section.		

COST INFORMATION:

Original Contract:	\$43,948,220	Incurred-to-Date:	\$53,146,649
Current Contract Value ¹ :	\$57,889,307	Incurred in November :	\$818,466
¹ Current Contract Value = Original contract value with Design Allowance + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$191,227
DBE % Attained:	0.41%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$13,941,087
None	N/A	---
Cumulative Current Report		\$13,941,087

SCHEDULE:

- CCUR final design is scheduled to conclude in March 2019.

WORK PROGRESS:

Activities this Month:

- Began Feasibility Investigation Study of shifting six (6) drilled shafts west of the Kapalama Bridge to avoid an existing 42" waterline.
- Submit Task Orders 16 and 18 to City agencies for review and approval. Continue coordinating with DPP and other City agencies.
- Submit 90% design for Dillingham Dry Utilities to DTS and other third party utilities for review and approval.

Look Ahead:

- Complete Feasibility Investigation Study of alternative to widening Kapalama Bridge, such as constructing pedestrian bridges on both sides of the Kapalama Bridge to utilize as utility crossing structure and eliminating bridge widening work.
- Continue coordination with third parties on seeking variances to allow reduced spacing between utilities relative to preferred spacing requirements, especially on Dillingham.

Look Ahead (continued):

- Third party review and comments for Task Orders 11, 14, 15, 16 and 18.
- AECOM will submit future designs for Dry Utilities in smaller “task order” drawing packages to facilitate focused production, expedited third-party reviews, and fast-tracking of high-priority construction zones.

KEY ISSUES:

- Rerouting of 138kV from Middle Street to Mokauea Street to meet HECO clearances. Also, simplifying current design for communication facilities to gain needed space for other utilities due to the congestion within Dillingham Boulevard.
- Several utility facilities have been identified by HART to remain in place and not relocated as per design. HART, AECOM and CCUR contractors now in consultation with third parties to approve proposed work. Notably are wastewater facilities in Task Orders 1, 7, 8 and 9.
- Due to the congestion of utilities in the City Center section, the existing clearances between underground utilities do not meet utility owners’ preferred clearance standards. The same space constraints will prevent the proposed utilities from meeting utility owners’ preferred clearance standards. Therefore, variances from preferred standards will be required.

KEY MILESTONES:

- Current contract milestones will now be restructured within current configuration to account for wet and dry packages divided into task orders rather than Dillingham and Kaka’ako sections.
- No major milestones this month, other than task orders that are currently being finalized through the One-Time Review (OTR) process with the City agencies to allow permitting for construction work to start. Task Orders in process now for OTR are: 11, 14, 15, 16 and 18.

B. City Center Utilities Relocation (CCUR) Indefinite Delivery/Indefinite Quantity (IDIQ)**CPP No.:** DBB-511**Contractor:** Nan, Inc.**Contract Start Date:** May 2018**Contract Term Completion:** May 2022**Projected Completion of Relocation Work:** February 2022

Project Description: The CCUR contract is a unit priced, task order contract that relocates utilities in advance of the City Center Guideway and Stations construction work. It provides utility relocation construction services for a variety of utilities along the civil roadway construction throughout the City Center segment of the HRT. The construction services to be provided will include, but are not limited to, permanent and temporary wet and dry utility relocation work which will include miscellaneous, as-needed site work, installation of permanent/temporary utility poles, duct bank construction, and other utility installation support structures.

Progress		Schedule Status
Physical % Complete *	0.1%	On Time
Early Plan *	1.2%	
Late Plan *	0.0%	
*Data as of Nov. 30, 2018.		

COST INFORMATION:

Original Contract:	\$400,000,000	Incurred-to-Date:	\$58,494
Current Contract Value ¹ :	\$400,000,000	Incurred in November :	\$0

¹Current Contract Value = Original contract value + executed Change Orders

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

Task Orders		
	Number of Task Orders Issued	Amount (\$)
Task Orders Previously Issued	11	\$73,416,865
Task Orders Issued in November	0	\$0
Total Task Orders Issued	11	\$73,416,865

SCHEDULE:

- 100% design complete - March 2019.
- All Wet Utility task orders under construction early 2nd quarter 2019.
- All Dry Utility task orders under construction early 3rd quarter 2019.
- HECO completes all electrical design requirements early 2nd quarter 2020.

WORK PROGRESS:Activities this Month:

- Tiger team efforts to resolve issues along Dillingham.
- Started pre-construction work on Queen Street.
- Continuing construction in 3 different areas.
- Various meetings conducted with third party stakeholders to discuss upcoming construction activities and schedule.
- Conducted task order scoping and negotiation meetings for additional work on Queen Street.

Look Ahead:

- Complete tiger team efforts to progress dry utility designs for Dillingham from Pu'uhale to Alakawa.
- Complete decision on path forward for alternative to Kapalama Stream widening.
- Complete decision on the elimination of the Halekauwila 46kV relocation.
- Receive trenching permits and begin construction on existing executed task orders.

KEY ISSUES:

- The CCUR contract is dependent on the approvals of permits from both DPP and DTS. Currently, the issuance of Trenching permits and Road Use permits in a timely manner is improving from previous experience.
- Completion of the dry utility plans (HECO design) by AECOM, and approval by HECO. Identified dry task orders that are associated with the wet task orders and recommended the sequencing of the design delivery. A tiger team approach is being employed to bring focus and collaboration to critical issues and drive toward solutions.
- Alternatives to Kapalama Bridge Widening – reviewing alternatives to widening the bridge as the current design was proving either not constructible or cost prohibitive.
- Keeping 46kV Ductbank from Halekauwila – We have received an alternative analysis from AECOM. Critical area is the congestion between Coral and Cooke Streets; working through alternatives. The contractor was probing to obtain more definitive information to assist with decision making; probing was complete by the end of December 2018.
- Completion of Issued for Construction (IFC) drawings by AECOM. Working with AECOM to prioritize design elements by task order.

KEY MILESTONES:

- 100% design complete - March 2019.
- All Wet Utility task orders under construction early 2nd quarter 2019.
- All Dry Utility task orders under construction early 3rd quarter 2019.
- HECO completes all electrical design requirements early 2nd quarter 2020.

QUALITY MANAGEMENT:

- No immediate quality issues identified this period.

CCUR NCR Log (Issued by Nan)		
Total NCRs Issued To Date	Closed	Open
0	0	0

4.6 Project-Wide

A. Program Management Contractor Contract

CPP No.: MM-902

Contractor: HDR Engineering, Inc.

Contract Start Date: January 2017

Contract Completion Date: December 2022

Description of Work: Oversee the successful design and construction of the full Honolulu Rail Transit Project (H RTP), which includes providing personnel with relevant transit design, construction and operations experience and leadership in the various areas, including construction management, design management, project controls, procurement and contracts, right of way, public and business outreach, safety and security, quality assurance, environmental planning, and federal programmatic compliance.

COST INFORMATION:

Original Contract:	\$63,522,953	Incurred-to-Date:	\$20,278,336
Current Contract Value ¹ :	\$63,522,953	Incurred in November :	\$0

¹Current Contract Value = Original contract value + executed Change Orders

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

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$0
None	N/A	---
Cumulative Current Report		\$0

WORK PROGRESS:

Activities this Month:

- 20 HDR staff contracted through HART.

Look Ahead:

- Continue to support the design and construction of the H RTP, including assessing management needs in Project Controls.

KEY ISSUES:

- Based on the average monthly burn rate, the current contract total will be exhausted by December 2022.
- Subcontractor charges paid to date (from beginning of contract) is \$4,078,023.11.

B. Construction Engineering and Inspection (CE&I) West

CPP No.: MM-290

Contractor: PGH Wong Engineering, Inc.

Contract Start Date: January 2014

Contract Completion Date: January 2020

Description of Work: Provides construction, engineering, and inspection services for construction contract compliance, construction scheduling, construction cost estimating, support, on-site field oversight, project controls and related construction support for the west section of the project.

COST INFORMATION:

Original Contract:	\$54,232,480	Incurred-to-Date:	\$68,743,074
Current Contract Value ¹ :	\$90,232,480	Incurred in November :	\$642,715

¹Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$9,131,147
DBE % Attained:	13%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$36,000,000
None	N/A	---
Cumulative Current Report		\$36,000,000

WORK PROGRESS:Activities this Month:

- Resident Engineers (RE's) continued to provide the weekly project status and issues briefings at the weekly HART Project Managers (PM) meetings.
- RE's managed assigned projects as the key HART on-site field representatives for CE&I, managing contract correspondence, issuing Field Change Notices (FCNs) when required, and overseeing work.
- Continued to pursue resolution of design and fabrication issues related to the station canopies for all 9 stations and to assess potential critical impacts to the project schedule.
- Updated Monthly Progress Report Dashboards for all stations.
- Processed additional staffing requests.
- CCO to effect close-out of WOFH and KHG guideway contracts was executed.
- First station canopy support structure onsite at East Kapolei Station.

Look Ahead:

- Construction at all stations to continue to allow Core Systems access as facilities become available for CSC installation work.
- Monitor and track resolution of KHSG station canopy procurement issues. This is a critical item.
- Present the Monthly Progress Report Dashboards for all projects.
- Monitor and oversee construction of assigned projects.

KEY ISSUES:

- Resolving Core Systems access requirements and balance of structures conduit issues to expedite activities for follow on CSC work at stations.
- Monitor progress of canopy production and related critical issues.
- Continue focus on work-off of backlog of outstanding claims/change issues.

C. Construction Engineering and Inspection (CE&I) East**CPP No.:** MM-596**Contractor:** Stantec Consulting Services Inc.**Contract Start Date:** September 2015**Contract Completion Date:** December 2019

Description of Work: Provides construction, engineering, and inspection services for construction contract compliance, construction scheduling, construction cost estimating, support, on-site field oversight, project controls and related construction support for the east section of the project.

COST INFORMATION:

Original Contract:	\$55,036,130	Incurred-to-Date:	\$35,991,719
Current Contract Value ¹ :	\$55,036,130	Incurred in November :	\$710,656
¹ Current Contract Value = Original contract value + executed Change Orders			

DBE Participation	
Actual DBE Participation:	\$10,942,008
DBE % Attained:	19.88%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$0
None	N/A	---
Cumulative Current Report		\$0

WORK PROGRESS:Activities this Month:

- Performed CE&I services for the AGS DB, On-Call III, On-Call IV, CCGS DB/P3, and CCUR projects throughout the east section project limits.
- Supported activities for the CCUR project and executed task orders.
- Supported HART's overall delivery of the east section construction activities and projects in support of the overall H RTP.
- Continued support to HART on the CCGS P3 procurement process.
- Supported HART with design solutions and resolution to issues with HECO, HDOT, and various stakeholder requested changes.
- Working with HART to continue to advance the CCUR wet/dry utility permits and construction.
- Working with HART in support of resolution of the HECO guideway issue resolution across the east section.

Look Ahead:

- Monitor drilling activities of the foundations throughout the AGS DB project corridor.
- Monitor construction activities of the columns throughout the AGS DB project corridor.
- Monitor construction activities of pre-cast segments at the casting yard for the AGS DB guideway.
- Monitor AGS DB startup of gantry installation and startup along corridor.
- Monitor the start of the AGS DB segment erection.
- Assist with resolution of the AGS DB station designs and support the overall internal review process for the issuance of Issued for Construction (IFC) drawings in support of the construction schedule.
- Monitor construction of CCUR task orders.
- Replace CCUR Lead Engineer, and East Section Environmental Monitors.

KEY ISSUES:

- None outside of the normal project issues and risk management.

D. General Engineering

CPP No.: MM-913

Contractor: CH2M Hill, Inc.

Contract Start Date: December 2013

Contract Completion Date: April 2019

Description of Work:Task 01 – Scheduling and Estimating Support:

Task Order 01 provides staff augmentation to support scheduling and cost estimating services through the design and construction phase of the Project.

Task 02 – Interface Management and Coordination:

Provide oversight of technical coordination and interface management between contracts in accordance with HART's Interface Management Plan (IMP).

Task 03 – Environmental and Planning:

Provide environmental and planning support to ensure compliance with appropriate decision documents for the Project; integration with other applicable state or city entities for systems, station, land use, and operation planning.

Task 04 – Design Management Services:

Engineering and architectural design management services for the duration of the project.

Task 05 – Program Management and Deliverables:

Program Management services throughout the entire duration of the Project to include, but not limited to the Work Breakdown Structure, Budget Staffing Plan, Monthly Progress and Status Reports, and Contract Administration.

COST INFORMATION:

Original Contract:	\$46,143,277	Incurred-to-Date:	\$52,270,413
Current Contract Value ¹ :	\$63,773,658	Incurred in November :	\$0

¹Current Contract Value = Original contract value + executed Change Orders

Task	Description	Original Value	Current Value	Incurred-to-Date
1	Scheduling and Estimating Support	\$13,187,310	\$17,045,302	\$14,255,733
2	Interface Management and Coordination	\$5,644,829	\$3,304,849	\$2,941,793
3	Environmental and Planning	\$6,537,705	\$14,168,536	\$8,739,126
4	Design Management Services	\$16,986,250	\$26,728,817	\$24,253,069
5	Program Management and Deliverables	\$2,434,232	\$1,349,979	\$1,187,635
OD	Other Direct Expenses	\$1,352,951	\$1,176,175	\$893,057
Total		\$46,143,277	\$63,773,658	\$52,270,413

DBE Participation	
Actual DBE Participation:	\$6,653,739
DBE % Attained:	10.43%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$17,630,381
None	N/A	---
Cumulative Current Report		\$17,630,381

WORK PROGRESS:Activities this Month:Task 01:

- Participated in monthly joint FTA/PMOC meetings to discuss cost and schedule updates and progress.
- Maintained Master Project Integrated Schedule.
- Produced Monthly Internal Schedule Progress Report.

Look Ahead:Task 01:

- Update Master Project Integrated Schedule and forward to PMOC.
- On-going support of ICE development or reviews of cost estimates prepared by the CE&I team for independent quality assessments.

Activities this Month (continued):

- Provided inputs on Finding of Merits and Negotiation Strategy Memos.
- Prepared Independent Cost Estimates (ICEs) for various design and construction changes/task orders.

Task 02:

- The Project Interface Manager (PIM) pursued resolution of spotlighted issues as described below:
 - The Elevator/Escalator contractor and the KHSO contractor have coordinated the complex lifting plan for the installation of Escalator #2 on the Makai side at the Pearl Highlands Station.
 - The Interface Control Document matrix for the Notice of Design Change # 25 for the Guideway Pedestrian Crossing Location Revision to the Track Alignment package has been cosigned by the AGS contractor and the Elevator/Escalator contractor.
 - Issues with the conduits in the Mauka electrical room at West Loch Station have been resolved.
 - Issues with the Makai and Mauka utility chases have been resolved for West Loch Station.
 - Details for the stub up wall in the West Loch TCCR have been resolved.

Task 03:

- *Permits* – submitted draft 401 Water Quality Certification for pier installation in Nuuanu Stream.
- *Environmental Analyses and Documentation* – initiated a literature review and field investigation of archaeological resources within a study area encompassing future ramps from the H-2 Freeway to the Pearl Highlands Station and Parking Garage. Also initiated an infrastructure study on readiness to charge electric vehicles at Pearl Highlands Garage.
- *Programmatic Agreement (PA) Compliance* – clarified scope of deliverables for compliance with Stipulation VII of the Programmatic Agreement. Subconsultants HACBED and Purple Mai'a are proceeding with development of a mobile app and youth-oriented video game to promote knowledge of historic and cultural resources along the rail line.
- *Design Reviews* – completed 4 design reviews of AGS submittals.
- *On-Call Support for Right of Way, Utilities, Environmental Planning* – prepared a PowerPoint presentation on the benefits study for use in discussions with UH administrators and the Board of Regents, and revised the report in response to preliminary comments.

Task 04:

- Met with City & County of Honolulu engineers and attorneys to review WOFH warranty and change order language to gain their approval of a global settlement agreement that will close out the WOFH contract.
- Prepared RFP documents for the CCGS & PHGTC P3 RFP.
- Submitted Kahi Mohala 46kV power line relocation final plans for HECO's approval.
- Reviewed 17 design submittals, 14 NCRs, 5 RFIs, and 1 Notice of Design Change for the Airport Guideway and Stations contract. Attended presubmittal workshops and comment resolution meetings.
- Revised Downtown Station design in CCGS to limit mauka station entrance to plaza area only as well as to provide public access to the concourse level pedestrian bridge.

Look Ahead (continued):

- Continue updates of Monthly Schedule reports and analysis.
- Attend monthly joint FTA/PMOC meetings to discuss cost and schedule updates and progress.

Task 02:

- Continue to push toward resolution on:
 - The Elevator/Escalator contractor and the WOSG contractor need to coordinate the complex lifting plans for the installation of Escalators #1 and 2 at the East Kapolei Station.
 - The Vertical Conduit Raceway (VCR) cladding has been constructed such that installation and maintenance of the lines within will be difficult.
 - Direction is still needed from HART for the stations contractors regarding procurement of station signage.
 - The AGS contractor has agreed to modify their design sheets depicting the train car configurations to reflect the values that were coordinated with the Core Systems Contractor; will track to resolution.
 - A Change Order is needed for the installation of conduits for the Blue Light stations at West Loch and Waipahu Stations.

Task 03:

- *Permits* – revise application of the Section 401 Water Quality Certification for Nuuanu Stream in response to HART comments.
- *Environmental Analyses & Documentation* – conduct re-assessment of true kamani trees on Dillingham Boulevard by the GEC III arborist to confirm original recommendation to remove the trees. Continue to assist with an assessment of potential vibration impacts on historic buildings in City Center.
- *Priority PA Deliverables* – assist in the UH West O'ahu 'Aha 'Āina Aloha event on Jan. 4, 2019 that will serve as an early prototype leading to development of the Humanities Program template.
- *On-Call Support for Right of Way, Utilities, Environmental Planning* – assist with presentations on the benefits study to the UH Board of Regents.

Task 04:

- Provide engineering support to CCUR to evaluate possible guideway configuration changes to minimize utility relocation costs.
- Continue to provide technical support to the CE&I team overseeing the Airport Guideway and Stations contract.
- Continue participation in third-party coordination meetings (technical meetings and management meetings) for various contracts. Third parties include HECO, HDOT, DOH, Airport, Navy and UH West O'ahu.
- Continue to prepare RFP documents for the CCGS & PHGTC P3 RFP.

Activities this Month (continued):**Task 05:**

- Monitored contract labor and Other Direct Costs (ODC) expenditures, and updated monthly Estimate at Completion (EAC) projections.
- Reviewed and approved additional/new staff.
- Prepared monthly status reports.

Look Ahead (continued):**Task 05:**

- Monitor contract labor and ODC expenditures.
- Update monthly Expected at Completion projections.
- Oversee initiation of new subconsultant agreements to meet the increased subconsultant needs of Task 3.

KEY ISSUES:**Task 01:**

- No current contractual issues.

Task 02:

- No current contractual issues.

Task 03:

- No current contractual issues.

Task 04:

- No current contractual issues.

Task 05:

- No current contractual issues.

E. Core Systems Support

CPP No.: MM-962

Contractor: Lea+Elliot, Inc.

Contract Start Date: February 2014

Contract Completion Date: September 2019

Description of Work: Provide design and construction management oversight for the Core System Design-Build-Operate-Maintain (CSDBOM) Contract, to include system commissioning, passenger services start-up, and pre-revenue operations and maintenance activities.

COST INFORMATION:

Original Contract:	\$43,988,989	Incurred-to-Date:	\$34,246,126
Current Contract Value ¹ :	\$43,988,989	Incurred in November :	\$786,991

¹Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$1,198,571
DBE % Attained:	2.72%

Contract Changes in November		
Change No.	Description	Amount (\$)
Cumulative Previously Reported		\$0
None	N/A	---
Cumulative Current Report		\$0

WORK PROGRESS:

Activities this Month:

- On-Going Activities:
 - Project management support and Changes & Claims management support
 - Construction management and installation oversight
 - Review and approve contractor's design, work plans, test procedures, technical notes, and other submittals
 - Systems interface oversight on the stations and AGS project
 - Vehicle and system equipment manufacturing and assembly oversight
 - Testing, commissioning and operational readiness oversight and support
 - Operation and maintenance support
- Key Activities:
 - Continued to address and resolve outstanding design issues with the CSC on the Communications system. Increased site resources to support the Lead Communications Engineer in the review and oversight of AHJV/Nokia Communications activities, specifically documentation review and acceptance, cabinet installation remediation and provisioning readiness to support ongoing MSF commissioning activities.
 - Continue oversight of Train manufacturing activities in Pittsburg, CA. Manufacturing activities continue for Train #6 thru #12. Train #5 undergoing final inspections. Continue oversight of installation and testing activities of ATC, TES, PSGS, and Communications System with the push for driverless train operation demonstration that occurred on Dec. 19. Increased site resources to support the Site Commissioning Lead in witnessing testing activities.
 - Continued to work with HECO to study power quality issues and mitigation options. Analysis for AGS segment commenced.
 - Continued to coordinate with HECO on power load forecasts for system testing periods and issue reports.
 - Witnessed Train Testing including the ATC on-board Software Laboratory Qualification test, Braking and Propulsion Design Verification Tests, ATC Onboard Routine Acceptance Test, and West Loch and LCC Wayside Test.
 - Continued to work with HART Safety and the CSC to close out the Hazard Tracking Log and Conformance checklist. Continued discussions with AHJV took place to resolve open comments with the Communications Safety Documents (Failure Modes, Effects, and Criticality Analysis [FMECA], Design Criteria Conformance Checklist [DCCC] and Hazard Analysis). Supported Safety in closeout of the various Design Conformance Checklist.
 - Conducted visit to PV interior supplier to inspect quality of domestically manufactured interior components prior to follow-up Supplier Audit on Dec. 13, 2018.
 - Worked with subconsultants and RVB+A auditors and conducted remote follow-up Buy America Supplier Audit for PV Interior Linings supplier, Ultimate, on Dec. 13, 2018.
 - Working with subconsultant to conduct quarterly delay claim assessment and review of AHJV's monthly schedule.
 - Continue to monitor AHJV's configuration management control. Meeting weekly to drive to closure the NCRs uncovered in past CMP Audits. A follow up site audit was conducted on Dec. 18.
 - Coordinate with AHJV to close items on the MSF Core Systems punch list in order to achieve MSF Operational Milestone.
 - Provide technical support regarding CCGS P3 procurement.
 - Completed Executive Decision Document (EDD) for Static Synchronous Compensator (STATCOM) and continue to draft procurement documents.
 - Completed EDD and Implementation Plan for Onboard Wi-Fi project.

Look Ahead:

- Complete report of the Buy America follow-up Supplier Audit for Interior Linings.
- Continue to monitor, observe, and report on the Core Systems Contractor's daily activities on-site and at the factories.
- Continue to assist HART with resolution of change and claim issues.
- Continue to assist HART with the Track Allocation Procedure.
- Continue to monitor and witness system testing activities.
- Continue to support HART to address outstanding issues related to construction access at stations.
- Continue to support HART to meet MSF Operational schedule objective.
- Support HART with Interim Opening activities.
- Support HART on P3 activities, as required.
- Continue to work on updating CCGS technical specifications.
- Continue to work with HART and the CSC to address PSG installation issues.
- Continue to coordinate and monitor AHJV's progress on post audit configuration control activities.
- Continue to work on power quality and mitigation analysis.
- Continue to work on procurement of STATCOMs and Onboard Wi-Fi.

KEY ISSUES:

- There are no issues related to scope and budget of the Core Systems Support Services contract to report this month.

4.7 Contract Status by CPP

Contract Summary by CPP
(data as of November 30, 2018)

A

B

C = A + B

D

E = D / C

CPP #	Contract Description	Original Contract Value	Change Orders	Current Contract Value	Incurred	% Exp.	Award Date	Original Completion Date	Revised Completion Date
DB120	West Oahu/Farrington Hwy Guideway	482,430,201	183,640,458	666,070,659	665,954,894	100%	Nov-2009	Oct-2013	Mar-2017
DB320	Kamehameha Hwy Guideway	372,150,000	20,170,216	392,320,216	392,116,041	100%	Jun-2011	Oct-2014	Sep-2017
DB200	Maintenance & Storage Facility	195,258,000	86,517,032	281,775,032	281,775,032	100%	Jun-2011	Dec-2014	Jul-2016
DB450	Airport Section Guideway/Stations	874,750,000	(6,330,010)	868,419,990	328,387,491	38%	Sep-2016	May-2021	May-2021
DBB171	West Oahu Station Group	56,088,470	8,491,305	64,579,775	39,925,240	62%	Jul-2015	Mar-2018	Jul-2018
DBB271	Farrington Highway Station Group	78,999,000	3,261,034	82,260,034	63,684,874	77%	Jun-2015	Jan-2018	Jan-2019
DBB371	Kamehameha Hwy Station Group	115,805,845	3,093,907	118,899,752	51,775,957	44%	Jan-2016	May-2019	May-2019
DBB385	Ramp H2R2	5,203,646	489,132	5,692,778	5,377,860	95%	May-2015	Oct-2016	Nov-2017
DBB505	Airport Section Utilities Construction	27,993,290	726,200	28,719,489	28,719,489	100%	Jun-2014	Feb-2016	Oct-2016
DBB511	City Center Utilities Relocation Construction	400,000,000	0	400,000,000	58,494	0%	May-2018	May-2022	May-2022
DBB525	Airport Section Guideway 7-Pier	3,973,000	54,843	4,027,843	4,027,843	100%	Sep-2014	Feb-2015	Apr-2015
DBB602	UHWO Temp PnR and Campus Rd B	11,589,300	1,283,023	12,872,323	4,971,105	39%	Dec-2017	Jul-2019	Jul-2019
DBB701	Kamehameha Highway Resurfacing	25,989,989	0	25,989,989	4,620,688	18%	Jul-2018	Dec-2019	Dec-2019
DBOM920	Core Systems Design Build O/M	573,782,793	41,990,247	615,773,040	356,232,583	58%	Nov-2011	Mar-2019	Jun-2019
MI900	Fare Collection DFI	15,464,198	361,470	15,825,668	5,468,495	35%	Mar-2016	Jan-2029	Jan-2029
MI930	Elevators & Escalators Install/Maint	50,982,714	3,426,495	54,409,209	15,256,453	28%	Jul-2013	May-2018	May-2019
MM945	On-Call Construction I	1,000,000	1,000,000	2,000,000	2,000,000	100%	Aug-2014	Jul-2019	Dec-2016
MM947	On-Call Construction II	7,500,000	0	7,500,000	7,495,456	100%	May-2015	May-2020	May-2020
MM948	On-Call Construction III	20,000,000	6,000,000	26,000,000	24,178,235	93%	May-2016	May-2023	May-2023
MM949	On-Call Construction IV	46,000,000	0	46,000,000	4,007,253	9%	Jan-2018	Nov-2024	Nov-2024
DB550	City Ctr Section Guideway and Sta DB	100,000	134,000	234,000	206,546	88%	Oct-2014	Sep-2015	Jul-2017
FD140	West Oahu Station Group	7,789,000	5,642,995	13,431,995	12,103,018	90%	Jun-2012	Nov-2016	Nov-2019
FD240	Farrington Highway Stations Group	9,300,696	7,197,120	16,497,816	15,135,212	92%	Jan-2011	Nov-2016	Nov-2019
FD340	Kamehameha Hwy Station Group	8,702,592	4,264,554	12,967,146	11,844,485	91%	Nov-2012	Feb-2014	Nov-2019
FD430	Airport Sect. Guideway/Util	38,840,960	4,111,440	42,952,400	42,370,618	99%	Dec-2011	Aug-2013	Jun-2017
FD440	Airport Station Group	10,177,365	(117,545)	10,059,820	10,059,820	100%	Nov-2012	Jan-2014	Jul-2015
FD530	City Center Guideway/Util	43,948,220	13,941,087	57,889,307	53,146,649	92%	Jul-2012	Mar-2014	Sep-2019
FD550	Dillingham and Kaka'ako Station Group	18,321,918	(6,020,837)	12,301,081	12,253,081	99.6%	Aug-2013	Sep-2014	Jan-2016
FD700	Design Services for 138kV Util. Reloc. at KHG	8,766,327	0	8,766,327	525,574	6%	Aug-2018	Nov-2021	Nov-2021
FD701	KH Civil Design	60,000	0	60,000	60,000	100%	Jan-2018	Jan-2019	Jan-2019

Source: HART CMS.

Note: Excludes Right-of-Way transactions, debt financing costs, and City/HART contract packages, which are included in Appendix A.

Contract Summary by CPP (data as of November 30, 2018)		A	B	C = A + B	D	E = D / C			
CPP #	Contract Description	Original Contract Value	Change Orders	Current Contract Value	Incurred	% Exp.	Award Date	Original Completion Date	Revised Completion Date
MM290	Construction Engrg & Insp CEI West	54,232,480	36,000,000	90,232,480	68,743,074	76%	Jan-2014	Jan-2020	Jan-2020
MM595	Construction Engrg & Insp CEI East I	63,083,417	(50,377,317)	12,706,100	12,706,100	100%	Jan-2014	Jan-2019	Jan-2016
MM596	Construction Engrg & Insp CEI East II	55,036,130	0	55,036,130	35,991,719	65%	Sep-2015	Dec-2019	Dec-2019
MM901	Program Mgt Support Conslt II	33,376,897	16,359,765	49,736,662	49,736,662	100%	Feb-2012	Mar-2015	Mar-2017
MM902	Program Mgt Support Conslt III	63,522,953	0	63,522,953	20,278,336	32%	Jan-2017	Dec-2022	Dec-2022
MM905	MM-905 Gen Engrg Conslt EIS/PE	0	79,171,852	79,171,852	74,157,822	94%	Aug-2007	Feb-2010	Feb-2011
MM910	MM-910 Gen Engrg Conslt FD-Construct	150,226,265	0	150,226,265	150,226,265	100%	Jun-2011	Dec-2014	Dec-2014
MM913	MM-913 Gen Engrg Recompete	46,143,277	17,630,381	63,773,658	52,270,413	82%	Dec-2013	Apr-2019	Apr-2019
MM915	HDOT Traffic Mgmt. Consult.	1,600,000	5,010,000	6,610,000	5,233,664	79%	Jun-2012	Jun-2017	Jun-2019
MM920	HDOT Coordination Conslt WOFH	3,000,000	6,500,000	9,500,000	9,254,501	97%	Jun-2011	Jun-2016	Dec-2018
MM921	HDOT Coordination Conslt KHG	16,138,390	(1,400,000)	14,738,390	6,925,934	47%	Jun-2012	Feb-2025	Feb-2025
MM922	HDOT Coordination Conslt. East	17,560,000	(7,631,360)	9,928,640	4,784,194	48%	Jun-2012	Dec-2024	Dec-2024
MM925	HDOT - WOFH/KHG Imprv Agreements	550,000	2,865,633	3,415,633	2,453,024	72%	Oct-2010	Oct-2019	Oct-2019
MM930	HDOT State SOA Manager & Consultant	1,272,400	583,142	1,855,542	990,437	53%	Feb-2012	Aug-2017	Aug-2017
MM940	Kako'o Consultant I	1,000,000	0	1,000,000	531,609	53%	Mar-2012	Mar-2022	Mar-2022
MM941	Kako'o Consultant II	200,000	200,000	400,000	266,667	67%	Dec-2015	Jan-2018	Jan-2020
MM946	On-Call Hazmat Assessment Consultant	12,006,227	2,075,000	14,081,227	5,245,535	37%	Feb-2018	Feb-2023	Feb-2023
MM950	OCIP Consultant I	1,250,000	0	1,250,000	1,250,000	100%	May-2012	Jun-2017	May-2017
MM951	Owner-Controlled Insurance Program	55,870,308	200,000	56,070,308	41,329,755	74%	Apr-2014	Apr-2020	Mar-2019
MM953	OCIP Consultant II	415,000	0	415,000	220,024	53%	May-2017	May-2020	May-2020
MM960	Archeological & Cultural Monitoring	2,489,748	0	2,489,748	2,274,004	91%	Jan-2014	Jan-2019	Jan-2019
MM962	Core Systems Support	43,988,989	0	43,988,989	34,246,126	78%	Feb-2014	Sep-2019	Sep-2019
MM964	Safety and Security Consultant	4,699,573	5,602,596	10,302,170	9,523,873	92%	Apr-2014	Jan-2017	Jan-2019
MM970	Fare Collection Consultant	1,178,300	244,322	1,422,622	448,875	32%	Sep-2015	Dec-2019	Dec-2019
MM975	LEED Commissioning Services for MSF	278,630	7,845	286,475	286,475	100%	Oct-2010	Jan-2016	Aug-2017
PA102	Programmatic Agreement HPC	450,000	(175,947)	274,053	224,053	82%	Jul-2013	Jan-2019	Jan-2019
ART	ART Contracts	2,139,500	10,000	2,149,500	260,825	12%	Jan-2016	Jul-2019	Jul-2019
MM935	Real Estate Consultant	3,000,000	5,077,665	8,077,665	7,504,910	93%	Mar-2012	Mar-2017	Mar-2017
MM936	Real Estate Consultant II	8,190,000	0	8,190,000	2,724,339	33%	Sep-2016	Sep-2020	Sep-2020
MM937	Real Estate Consultant - Maps/Surv.	2,998,000	1,130,000	4,128,000	2,276,087	55%	May-2014	May-2017	May-2019
MM981	Complex Real Property Nego. Lit. Sup	600,000	(21)	599,979	599,979	100%	Sep-2016	Sep-2018	Sep-2018
MM982	On Call Appraiser	4,000,000	0	4,000,000	418,960	11%	Jun-2016	Dec-2022	Dec-2022
MM983	Land Court Petition Services	1,200,000	0	1,200,000	48,184	4%	Oct-2016	Oct-2019	Oct-2019
MM985	On Call Appraisers II	1,261,308	0	1,261,308	253,526	20%	Apr-2017	Apr-2022	Apr-2022
MM986	Real Estate Legal Services	5,800,000	0	5,800,000	379,298	7%	Oct-2017	Dec-2022	Dec-2022
MM990	Design Review Consultant	4,027,781	0	4,027,781	74,257	2%	Mar-2018	Dec-2024	Dec-2024
MM991	P3 Financial Legal Services	4,282,333	0	4,282,333	0	0%	Oct-2018	TBD	TBD
UTIL	Utility Contracts and Agreements	145,865,854	27,632,834	173,498,689	70,915,493	41%	Dec-2009	Dec-2018	Jun-2018
		4,323,901,284	530,044,557	4,853,945,841	3,118,793,488				

Source: HART CMS.

Note: Excludes Right-of-Way transactions, debt financing costs, and City/HART contract packages, which are included in Appendix A.

5 OVERALL PROJECT-WIDE ACTIVITIES

5.1 Overall Key Issues

Overview

- Evaluated Sea Level Rise (SLR) on the H RTP and provided recommendations to mitigate effects. Recommendations were accepted by HART Management and incorporated into the procurement documents as a contract requirement. A presentation to the HART Board occurred on Dec. 13. HART facilities will be designed to mitigate the effects of 3.2' of sea level rise by mid-century and 6.0' of sea level rise by turn of the century.
- DLNR is reserving air rights above the UH West O'ahu Park-n-Ride for future development. DLNR requested clarification on federal interest that will apply to the future development. HART is drafting a letter to FTA with HART's understanding of federal interest, for confirmation.
- Temporary overhead power line serving Ho'opili Station and TPSS will need to be underground in the future as D.R. Horton's development progresses. Specific timing will depend on market condition, but it's anticipated to be within 10-15 years. HART may need to obligate the funds to underground the power line and execute an MOU between HART/DTS/D.R. Horton/HECO in order to finalize the easement agreement between D.R. Horton/HECO. HART is in discussion with D.R. Horton for them to commit to future undergrounding of the 12kV line in the future.
- HDOT is requesting median landscaping within the West O'ahu Farrington Highway segment similar to the original landscaping. HDOT's previous position was to leave the temporary grass landscaping as a permanent situation to reduce maintenance. HART has developed preliminary landscaping plans for HDOT review.
- Rail Activation Plan: The Rail Activation Plan is needed to define all the activities, processes and personnel that are needed to operate the system. The Core Systems Contractor is responsible for delivering a major component of this plan through the Mobilization Plan and it is a mandatory plan for Interim Opening. We have directed them to start to develop this material and are working with them to have this completed and approved by all of the certifying parties.
- Permanent Power: Receiving permanent power for TPSS sites – currently we do not have permanent right of entry for HECO to provide power to UH West O'ahu, Ho'opili and LCC TPSS sites. Without HECO power, train testing will be delayed and interim opening may be affected. HECO has accepted installing power based on construction entry based on execution of acceptable terms and conditions.
- Station Canopy's: Delivery and installation of canopies – Canopies are a critical element for the project. Workarounds are being discussed to allow initial core system testing due to late delivery as HART is placing major emphasis on the delivery and installation, particularly with respect to the KHSG stations.
- Experienced Personnel: Having experienced and qualified personnel from AHJV to deal with all challenges between now and Interim Opening. This includes personnel in management, testing, commissioning, construction, safety certification and O&M.
- Automated Yard Operation: Demonstration of driverless operation was conducted on Dec. 19 on the MSF test track. The remainder of the MSF yard driverless operation will be demonstrated early next year.
- The guideway for the Airport Guideway and Stations contract ends at approximately 150 feet beyond the Middle Street Station. The City has asked for consideration of having a second Interim Service which runs to Middle Street. In order to accommodate the City's request, the guideway would need to be extended to allow for train storage and to provide a safe buffer zone between the AGS contractor and the P3/DB CCGS contractor. HART is currently studying the impact of this potential change.
- The AGS contractor is dependent on HECO review and approval of the infrastructure design that is required for the relocation of power lines that impact the construction of the AGS guideway. HART is dependent on the electrical design prepared by HECO for the electrical power line relocation work that must be performed by HART's On Call / CCUR contractor. The timeliness of these approvals and design work is critical to the ability of the AGS contractor to meet the contractual substantial completion date of their contract.

5.2 Permits

Permits Submitted and In-Progress

- HART submitted the National Pollutant Discharge Elimination System (NPDES) renewal for the Nimitz Viaduct and United Cargo staging areas for the Airport contract.
- HART addressed comments and resubmitted the 138kV tunneling at Kapalama Canal application to the Department of Health.
- HART submitted weekly monitoring reports to the Department of Health (DOH) for construction at Waiawa Stream under Water Quality Certification.

Look Ahead

- HART will submit the Municipal Separate Storm Sewer System (MS4) permit applications for the City Center Guideway contract.
- HART will submit the Clean Water Act (CWA) Section 401 Water Quality Certification (WQC) application for the Kapalama Bridge Widening and guideway construction at Nuuanu Stream.

5.3 Hawai'i Department of Transportation (HDOT) Agreements

Activities this Month

- The WOFH Master Agreement and Joint Use and Occupancy Agreement (JUOA) Amendment 1 draft resolutions are being prepared for routing. Internal HART review memo prepared.
- Ongoing tracking of the progress of the projects for the Highway Improvement Agreement.
- Highway Improvement Project MOU's \$10 million and \$20 million transfers from the Federal Highway Administration to the Federal Transit Administration completed.

Look Ahead

- Execution of the City Center Joint Use and Occupancy Agreement. Execution will be in conjunction with the start of P3 contractor construction on Nimitz Highway, pending P3 procurement.
- Route for execution of the West O'ahu Farrington Highway Master Agreement and Joint Use and Occupancy Agreement Amendment 1. Internal routing was started in the latter part of the fourth quarter of 2018. Upon HART concurrence, memo and amendments will be routed to DTS/BFS, followed by final legal review, estimated first quarter 2019. Presentation to the Board and City Council to follow, estimated second quarter 2019.

5.4 Utility Agreements

Utility Agreements Status Matrix										
Utility Owner	Status	WOFH		KHG		Airport		City Center		
		ESA	UCA	ESA	UCA	UCA	COMBINED ESA	UCA		
AT&T (Corporation)	Executed	05/11/11	12/20/11	5/18/12	Including with ESA	Not Required	12/26/13	05/03/17		
	NTP	05/12/11	12/21/11							
	Amd 01	07/01/11	HRS Ch. 104	11/22/16						
AT&T Corp. (Public Sector)	Executed			12/26/13		08/27/18	12/26/13			
	NTP									
Chevron	Executed	12/04/09		11/04/11						
	NTP	12/22/09		11/15/11						
	Amd 01	07/01/11								
Hawaiian Telcom	Executed	05/20/10	11/17/14	05/10/12	12/31/14	05/28/15	09/27/13	04/06/17		
	NTP	06/14/10	11/18/14							
	Amd 01	07/01/11		04/13/15		05/11/17	11/19/18	Comments received by HTI. Self - insurance terms under review.		
	Amd 02	05/10/12								
HECO		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		11/25/13	HECO revision to include Temp Poles	
	NTP	11/20/13	11/29/13	11/20/13	11/29/13	11/20/13		11/25/13		
	New					05/16/18				
	Change Order 01		06/30/17		02/22/18					
	Change Order 02		02/22/18		Working on Draft Change Order					
	Memorandums of Understanding	08/07/14 – Construction Drawings								
		05/01/15 – Access								
		05/15/15 – Derrick Truck								
		06/23/15 – Master Agreement								
		06/09/15 – MSF Advanced Construction								
		09/16/15 – Right of Entry								
		10/12/15 – Clearance (West)					11/10/15 – Dillingham Blvd Materials			
		Clearance (West) AMD 01								
		07/13/16 – KHG Vertical Clearance								
		Power Quality MOU (Working on MOU)								
		08/16/18 - Airport Clearance Agreement								
Vehicle Storage MOU (Working on MOU)										
Charter Communications/Oceanic Time Warner Cable	Executed	12/08/09	12/21/11	01/09/12	06/02/14	12/19/14	04/03/13	9/22/16		
	NTP	12/22/09					04/04/13	9/30/16		
	Amd 01	07/01/11	02/27/14		HRS Ch. 104	07/06/18		Attorneys from both sides have negotiated final language.		

Utility Agreements Status Matrix								
Utility Owner	Status	WOFH		KHG		Airport		City Center
		ESA	UCA	ESA	UCA	UCA	COMBINED ESA	UCA
	Amd 02	10/07/13	HRS Ch. 104					
Pacific Lightnet/ Wavecom	Executed	04/28/10	03/12/12	02/15/12				
	NTP	04/29/10	03/13/12	02/16/12				
	Amd 01	07/01/11	HRS Ch. 104					
Sandwich Isle Communications	Executed	05/20/10		04/20/12				
	NTP	06/08/10						
	Amd 01	07/01/11						
Hawai'i GAS	Executed	12/18/09	06/30/11	06/01/12	04/14/14	08/19/14	09/27/13	05/08/15
	NTP	12/22/09	07/12/11			08/20/14		05/11/15
	Amd 01	07/01/11	10/17/14		08/28/14	08/31/17		10/24/17
	Amd 02		05/09/16		10/23/15			
	Amd 03				HRS Ch. 104			
Level 3/TW Telecom	Executed	12/02/09		02/14/12	Oceanic to relocate for TW Telecom		10/11/12	Oceanic to relocate for TW Telecom
	NTP	12/22/09		02/16/12				
	Amd 01	07/01/11						
	Amd 02							
Tesoro	Executed			02/15/12	09/12/13		08/27/13	
	NTP			02/16/12			09/03/13	
	Amd 01				09/12/14			
	Amd 02				05/13/15			
	Amd 03				HRS Ch. 104			
Legend		= Action this month	COR = Corporation Counsel		UCA = Utility Construction Agreement			
		= Not applicable	ESA = Engineering Services Agreement		UFCRA = Combined Engineering and Construction Utility Agreement			

Overall Key Issues

- No key issues to report this month.

HECO

- Ka'aahi Substation near MSF area** – HECO's service proposal for the Ka'aahi Substation was executed by HART and HECO on July 19, 2018. HART and HECO continue to work on a Supplemental Agreement associated with this service proposal. The University of Hawai'i and HART are finalizing the first Amendment to the Construction Right of Entry. This will allow HECO to do preliminary surveying and inspection of land to be used for the new substation. Final document approvals will be needed by June 2019. Target date for the completion of the Ka'aahi Substation is June 2020.
- Mitigation of Horizontal Working Clearance Requirements** – HART is working with the City Dept. of Transportation Services on terms and conditions for the Vehicle Storage MOU. HART and HECO staff have agreed on the Clearance Overlap Agreement which was executed on Aug. 16, 2018. For the KHG 138kV Underground project, HART, R. M. Towill and HECO continue to meet bi-weekly on the design details. Current estimated completion date is August 2024.

5.5 Right-of-Way

(data as of Dec. 3, 2018)

Key Issues

- ROW continues to engage property owners along the City Center Guideway and Stations (CCGS) Section to acquire the requisite property rights via Right of Entry and Purchase and Use Agreements (ROE/PUA). Acquisition by purchase has become more challenging in the CCGS, resulting in ROW's need to use eminent domain to acquire property interests. When eminent domain is used, HART's counsel prosecutes motions for immediate possession of the property so that the construction access may be obtained. ROW moved more properties through the prescribed eminent domain authorization process.

The Howard Hughes properties continue to be a focus of ROW's efforts and resources. Howard Hughes filed a challenge to HART's *Ex Parte* Motion for an Order Putting Plaintiff [HART] in Possession [of the subject property]. Howard Hughes has requested a short continuance of the hearing on that matter. HART's counsel and Howard Hughes' counsel have begun settlement discussions and the parties met on Nov. 16, 2018. While there remain many disagreements between the parties, a path for potential resolution was identified by the parties and the parties have committed to pursue resolution. HART personnel are working closely with its counsel to fully explore possible settlement agreements with Howard Hughes.

On Nov. 15, 2018, HART received initial authorization from the HART Board of Directors to commence eminent domain proceedings against Parcel Identification Number (PID) 503 JY Trading Co., Inc. and final eminent domain authority to commence eminent domain for property PID 443 HECO (Downtown). HART is scheduled to seek final authorization from the HART Board to institute eminent domain against Servco Pacific Inc. HART delayed seeking authority for eminent domain for PID 502 Yung Soon Tajima in order to resolve issues regarding the title of that property, but will seek HART Board initial eminent domain authority. Additionally, HART will proceed to file the eminent domain action for PID 433 HECO (Iwilei) within the next two weeks.

- West O'ahu/Farrington:
 - 1 case is filed with the court and is active (PID 102 R. Lee). While HART has possession of the property, there continues to be unfulfilled duties of the Lees to remediate contamination on the parcel. The judge overseeing this case has been serving as a mediator and facilitator, assisting the property owner in completing its obligations under the settlement. The judge holds biweekly status conferences with the parties and has engaged the Department of Health in facilitating the completion of the remediation of the property.
- Kamehameha:
 - 1 case is closed (PID 201 Stuart Plaza).
- Airport:
 - 3 cases are filed with the court and are active. Two cases (PID 302 Kronick, PID 318 Masters) both have Order of Immediate Possession (OIP). Additionally, PID 318 Masters completed the Land Court process. For 1 case, PID 306 SCI, (Partial fee and easement) HART has an irrevocable ROE/PUA dated March 18, 2016 and recorded Docs. # T-9573088 A & B and T-9573089. The condemnation action for PID 306 SCI was filed on Aug. 18, 2018 and an OIP was also issued for the property.
- City Center:
 - 4 cases are filed with the court and are active (PID 400 Blood Bank, PID 472A Desk, PID 439 Yamauchi, PID 485 Scott Shoe). For PID 439 Yamauchi, a fully executed settlement agreement was received from the parcel owners and outside counsel is preparing to formally dismiss this case. HART received the Order of Immediate Possession for PID 485 Scott Shoe dated Oct. 10, 2018 and subsequently discovered an error in the appraisal which required an update and new offer to ownership. OIPs have been granted for PID 400 Blood Bank and PID 472A Desk.
 - 1 case is complete and the Final Order of Condemnation (PID 429 Kalahiki) was recorded on Sept. 13, 2018.
 - 1 case is complete and the Final Order of Condemnation (PID 483 Hardwoods) was recorded on April 27, 2018.
 - 10 cases were authorized by the City Council for eminent domain proceedings via resolution

(36 TMKS) (Reso 2017-12 (VW),-14 (HECO),-15 (Four K),-16 (Otani),-17 (PGC),-18 (HECO),-19 (Wong),-20 (Servco),-21 (Fuji Sake),-23 (Sanno). We anticipate presenting additional cases to the City Council for approval over the next few months and continue to cooperate and assist the Government Affairs team in these efforts.

Negotiations are still continuing with the private property owners with the goal of reaching mutual agreements. In support of these efforts, two additional appraisal contracts were awarded to Colliers Valuation & Advisory Services and Overland Pacific & Cutler to assist in updating our past appraisals to support new Letters of Offers to owners in the City Center Section.

The appraisals were split into two groups, CCGS Slate I and CCGS Slate II. All appraisals from CCGS Slate I and II are complete and all requested FTA concurrences have been received. Please note that two parcels initially appraised in these rounds remain outstanding. PID 437 Otani, has been internally approved for conversion from a partial take to full take due to considerations regarding safety, access, and severance damages amongst others. FTA approval of the conversion from partial to full take is being sought. Post-appraisal, it was suggested that a re-design of the station on PID 442 Pacific Guardian Center would serve to minimize impact on the building and severance damages. The proposed re-design was the subject of an Executive Decision Document (EDD) which was approved by HART. A new appraisal will be ordered for this parcel.

A total of one (1) Letter of Offer processed through HART in November 2018.

At the request of the CCUR team, active acquisition efforts for HECO 138kV easements for PID 423A Kapalama Bridge/Canal, PID 424A Honolulu Community College and PID 501 Kalihi Kai Elementary are on hold pending final CCUR design decision. This request was confirmed in writing. ROW stands ready to re-engage when requested.

- ROW continues to work with the CCUR team and Project Controls on enhanced reporting. Coordination with CCUR to prioritize efforts to obtain access and acquire critically needed parcels is ongoing. ROW is also working on an educational presentation for Project colleagues in an effort to provide understanding and insight to the acquisition steps, eminent domain procedures, and perspective on compliance with the requirements of the FFGA, Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and other governmental requirements which regulate ROW activity.
- PID 493 Watumull remains a top priority and focus as the site is the location of the future Ala Moana Station. HART is working closely with the city as a portion of the property has been identified by DTS as the future home of a bus transit plaza.
- ROW continues to monitor negotiations between Design and Construction and HECO regarding issues involving clearance requirements due to maintenance equipment staging needs for 138kV poles and lines located next to the HART guideway system. HART has more easements to be acquired for undergrounding 138kV electric lines and other utility related needs. Other easement relocations are required from public streets, and within HDOT Airport lands and HDOT Highway Right of Ways. These additional non-asset easements will eventually be assigned over to HECO or other utility agencies and/or companies.
- HART's updated Real Estate Acquisition and Management Plan (RAMP) is currently under internal review and its completion is imminent. ROW responded to comments on the document and has returned it to management for finalization. The revision clarifies and improves the document. Included in this update are: policy changes regarding Floor Area Ratios (FAR) such that ROW is in favor of a policy whereby any non-conformity created by voluntary settlement or eminent domain relative to floor area ratio may be deemed by the authorities having jurisdiction over FAR to be conforming to Code requirements by issuance of variance or similar instrument; updating the ROW acquisition list to include approved design changes that affect acquisition; and addition of Temporary Construction Easements (TCEs) and utility easements on behalf of third parties on private properties. HART administration has made its final comments on the revised document and it is with ROW for finalization.
- Negotiations are continuing with UH, including securing a construction ROE Agreement with the Honolulu Community College.

- ROW and Construction are working collaboratively to mitigate potential construction impacts arising from access availability to parcels. ROW's objective is to secure site access to properties identified by Construction via Rights of Entry or other arrangements. ROW has moved forward with condemnation and/or obtained legally enforceable possession of properties. These agreements will eventually require a final conveyance of the required estate in the real estate and for the establishing of valuation of real property interests being acquired.

Acquisitions (data as of Dec. 3, 2018)

Figure 7. Right-of-Way Status for the Parcels

	TOTAL ACQUISITIONS REQUIRED (a)	TOTAL ACQUISITIONS COMPLETED (b)	ACQUISITIONS PENDING AND ACCESS OBTAINED (c)
	Current No. of Parcels Needed (TMKs)	No. of Parcels (TMKs)	No. of Parcels (TMKs)
W.Oahu/Farrington	35	26	9
Kamehameha	12	6	6
Airport	49	38	11
City Center	122	50	19
GRAND TOTAL	218	120	45

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) Total Acquisitions Required - Parcels identified as needed by the project.
 (b) Total Acquisitions Completed - Acquisitions which have been completed and right to access has been obtained. While these parcels may be accessible at this time, further documentation may also be required.
 (c) Acquisitions Pending & Access Obtained - Acquisitions are pending, but the right to access has been obtained.

Relocations (data as of Dec. 3, 2018)

Figure 8. Relocation Status for the Occupants

	ACTIVE RELOCATIONS	RELOCATIONS COMPLETED	TOTAL RELOCATIONS
W.Oahu/Farrington	0	27	27
Kamehameha	0	5	5
Airport	1	10	11
City Center	6	65	71
GRAND TOTAL	7	107	114

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

Non-Right of Way (data as of Dec. 3, 2018)

Figure 9. Temporary Construction Easements and Utility

Section	Required by TMK		Acquisition Status by TMK		Total No. of TMKs Required	Total No. of TCE/TUT Required
	Without Project Asset	With Project Asset	Completed	Active/Pending Acquisition		
1 (WOFH)	3	3	3	3	6	15
2 (KHG)	13	0	2	11	13	17
3 (AGS)	8	9	8	9	17	34
4 (CCGS)	16	22	6	32	38	59
GRAND TOTAL	40	34	19	55	74	125

Notes

- **TMKs Required:** Parcels identified as requiring a Temporary Construction Easement (TCE) or Temporary Utility Take (TUT) by the project. TUTs requires negotiation by HART for the benefit of the project, but are not permanent acquisitions.
- **TMK Acquisition Status:** Completed category represents those where the TCE Agreement and/or the Final Grant of Easement has been completed. The Active/Pending category are those where negotiations are active.

Status of Inter-Governmental Agreements**Figure 10.** Inter-Governmental Agreement Status

The status of agreements between HART and other government entities. Objectives are:

- 1) Obtain Construction Right of Entry, Executive Orders, Set asides, Jurisdiction Transfers, Joint Use Agreements, licenses, easements, Memorandum of Understanding (MOUs), Memorandum of Agreement (MOAs), etc. with impacted government agencies. Government agencies HART is working with include: Federal (GSA, Navy, USPS, Office of Interior), State (HDOT-Hwys & Air, DLNR, DAGS, HCDA, DOE, Aloha Stadium, UH), and County Agencies (DTS, DPP, DFM, BFS, DDC, Parks, DLM, ENV). Some government agencies may choose to issue the final documents after construction is substantially underway or near completion.
- 2) To help negotiate and/or obtain Rights of Entry for certain other construction related activities as requested by Design and Construction. Such agreements may include: geotechnical borings, soil testing, environmental surveys, bus stop agreements, construction lay down surveys, and other construction related needs. There may be other Rights of Entry and Agreements which may not involve ROW acquisition, nor relocation. ROW will assist other HART departments, should requests be authorized and funded.
- 3) Agreements to be executed are in white. Executed agreements are in grey at the end of the table, and while these parcels may be accessible at this time for construction, further documentation may also be required to complete the acquisition.

Inter-Governmental Agreements					
Agency	Pending Agreements (Executed Agreements are shaded grey)	Target	Section	Construction Right of Entry Obtained	Notes/Remarks
STATE AGREEMENTS					
UH – University of Hawai‘i, West O‘ahu (UHWO-125)	Construction Right of Entry and Occupancy & Use Agreement for East Kapolei Park & Ride	TBD/ Estimate 2021	WOFH	Yes	Temporary park and ride and Road B (connector road) under construction on UH property. Continue to coordinate and work with UH on final disposition in control. Negotiations ongoing on CROE to expand it to include anticipated sewer work at East Kapolei Station. This will also include an amendment to Nan, Inc. CROE as the contractor to perform sewer line work.
UH – Urban Gardens (201A)	Conveyance to HDOT (H) – Dept. of Transportation Highways	Jan 2020	KHG	Yes	In process. Royal Contracting in process of securing Right of Entry (ROE) for road, retaining wall, and concrete culvert improvements. Based on final Phase II results, HDOH has issued concurrence letter. Construction completion date (estimated May 2019) contingent upon Royal securing a ROE from UH.

Inter-Governmental Agreements					
Agency	Pending Agreements (Executed Agreements are shaded grey)	Target	Section	Construction Right of Entry Obtained	Notes/Remarks
UH – Honolulu Community College (HCC) (424A)	Construction Right of Entry for guideway & station	Jan 2019	City Center	No	Working with UH regarding ROE Agreement. Draft ROE Agreement under review by COR. ROE will be broken down into phases starting with least intrusive activity. Demolition and preliminary construction activities completed under letter agreement with Royal Construction.
DLNR – Dept of Land & Natural Resources (124)	Kapolei Easement Agreement for overhead guideway and for park and ride facility	June 2019	WOFH	Yes	In process. DPP approved subdivision application. Transmitted to DLNR for land court submittal.
DLNR/C&C Wastewater Div (437B)	Easement Agreement	Jan 2019	City Center		In process. Working with DAGS survey group to address questions regarding final easement map.
DOE - Waipahu H.S. (118)	Permanent Easement (State owned portion)	May 2019	WOFH	Yes	In process. Construction is not impacted as the ROE for right to access and construct is executed. With DOE for review. Working with DLNR for permanent rights.
DOE – Waipahu H.S (117)	Memorandum of Understanding (City owned portion)	Jan 2019	WOFH	Yes	In process. Met with DOE 10/3/18. Proposed MOU with DTS comments submitted for DOE and AG review. Construction is not impacted as the ROE for right to access and construct is executed. Working with City for permanent rights.
DOE – Waipahu H.S. (117)	Permanent Easement (City portion)	May 2020	WOFH	Yes	Permanent easement from City in process. DLM has indicated they will delay the transfer of the City portion to the State until HART has permanent entitlements in place. Construction is not impacted as the Master/ Construction Agreement is executed. Working with BFS for permanent rights.
Aloha Stadium / Dept of Accounting & General Services (DAGS) (207A to C)	Easement Agreement for guideway	Jan 2020	KHG	Yes	In process. Construction is not impacted as the ROE for right to access and construct is executed. Working on permanent easement agreement.
Aloha Stadium/ DAGS (207B)	Easement Agreement for station park and ride	Jan 2020	KHG	Yes	In process. Construction is not impacted as the ROE for right to access and construct is executed. Working on permanent easement agreement.
HDOT(H) – Dept. of Transportation Highways (100,100-A, 304, 400-A, 400-B)	Master Agreement Amendment	Jan 2019	WOFH	Yes	Construction is not impacted as the Joint Use & Occupancy Agreement (JU&O) for right to access and construct is executed.

Inter-Governmental Agreements					
Agency	Pending Agreements (Executed Agreements are shaded grey)	Target	Section	Construction Right of Entry Obtained	Notes/Remarks
HDOT(H) and (A) – Dept of Transportation Highways & Airports (100,100-A, 301, 304, 304, 400-A, 400-B)	Master Agreement for KHG, Airport and City Center Amendment	Jan 2019	KHG, Airport, City Center	Yes for KHG & Airport	Construction is not impacted as the JU&O for right to access and construct for City Center will be executed when the Notice to Proceed (NTP) is issued.
HDOT(H) (100,100-A, 304, 400-A, 400-B)	Joint Use & Occupancy (JU&O) Sub-agreement	Jan 2019	WOFH	Yes	In process. Construction is not impacted as the JU&O for right to access and construct is executed.
HDOT(H) (100,100-A, 304, 400-A, 400-B)	Joint Use & Occupancy (JU&O) Sub-agreement	Jan 2019	City Center		In process. Construction is not impacted as the JU&O will be executed when NTP is issued.
HCDA -HI Community Development Authority (444A, 450,463BE-5-B, 475)	Construction ROE, License Agreement, & Final Disposition	Jan 2019	City Center		Coordination is ongoing. ROE for Royal Contracting pre-construction activities executed July 13, 2018 and in effect for one (1) year. HART will need to appear before HCDA board for construction ROE (construction of guideway improvements and utility relocation) approval.
DAGS (441-A)	Construction Right of Entry for City Center for Liliha Civic Center.	Feb 2019	City Center		Currently working to address concerns of all stakeholders including DAGS, HHFDC, and Senior Residence at Iwilei. Received response from counsel for Senior Residence at Iwilei acknowledging that HART has addressed concerns regarding DPP approvals in connection to access road construction. Will petition DAGS/DLNR for CROE.
DAGS (441-A)	Easement Agreement for City Center for Liliha Civic Center.	Aug 2020	City Center		To be processed. Currently working to address concerns of all stakeholders including DAGS, HHFDC, and Senior Residence at Iwilei.
Kalihi Kai Elementary (501)	Right of Entry from DOE/DLNR	June 2019	City Center		On hold.
Kalihi Kai Elementary (501)	Easement Agreement	Feb 2020	City Center		On hold. Once ROE is in place, subdivision map to be completed and submitted to DPP.
State of Hawaii - DOT (504)	Easement Agreement	Pending	City Center		Need identified. In process.
FEDERAL AGREEMENTS					
U.S. Gov't/General Services Administration (GSA)/Federal Courthouse (443C)	Master Agreement, Security & Landscape License Agreement, Utility License Agreement, Guideway License Agreement	Jan 2019	City Center		Final draft of Master Agreement sent for approval.
GSA Federal Courthouse	Quitclaim Easement Documents for Utility and Guideway Easements	Dec 2019	City Center		Under review.
CITY AGREEMENTS					

Inter-Governmental Agreements					
Agency	Pending Agreements (Executed Agreements are shaded grey)	Target	Section	Construction Right of Entry Obtained	Notes/Remarks
BFS – Dept. of Budget & Fiscal Svcs (204A)	Intra-Agency coordination which may take the form of a ROE, letter agreement, or license (Continental Investment)	2020	KHG	Via intra-agency coordination	In process.
DFM (423A)	Work Permit (Kapalama Stream for Street, Bridge, and Guideway Improvements)	Jan 2019	City Center		Per BFS, no ROE necessary. Only a work permit will be needed. Contractor and HART Planning department in process of obtaining a work permit.
DFM (423A)	Easement Agreement for Utilities	2020	City Center		Utility agreements on hold.
DTS – Dept. of Transportation Svcs (322)	Intra-Agency coordination which may take the form of an ROE, letter agreement, or license (Middle Street Station)	2020	Airport	Via intra-agency coordination	In process.
OTHER AGREEMENTS					
D.R. Horton (101B)	Construction Right of Entry Amendment – D.R. Horton & HART Easement Agreement – D.R. Horton & HECO	Dec 2018	WOFH	Yes	Current efforts are focused on facilitating easement agreement between HECO and DRH in order to energize the Ho’opili Station.
D.R. Horton	Final Easement Agreement	Jan 2020	WOFH	Yes	In process and subject to owner’s development plans. Construction is not impacted.
EXECUTED AGREEMENTS					
CITY AGREEMENTS					
BFS (205A)	Jurisdictional transfer from DFM to HART of Kamehameha Hwy/Makalapa Manor		Airport	Yes	Jurisdictional Transfer from BFS Letter dated 8/26/11.
DPR - Dept. of Parks & Recreation (119)	Construction consent to construct for MSF drainage		WOFH	Yes	
BFS / DFM (Dept. of Facility & Maintenance) (437C)	Jurisdictional Transfer (Awa Triangle, N. Nimitz & Awa St.)		City Center		Jurisdictional transfer completed July 9, 2018.
STATE AGREEMENTS					
DLNR/C&C Wastewater Div (437B)	Construction Right of Entry		City Center	Yes	Construction ROE obtained from DLNR 10/21/17. Subdivision submitted with DPP 1/1/18.
UH – University of Hawaii	Master Agreement is not needed as the ROE for right to access and construct will be executed separately by each campus.		WOFH, KHG, City Center	Will be executed by each campus	Construction is not impacted as the ROE for right to access and construct will be executed by each campus.
UH	Pre-Construction Right of Entry and Amendment		WOFH, KHG, City Center	Yes	

Inter-Governmental Agreements					
Agency	Pending Agreements (Executed Agreements are shaded grey)	Target	Section	Construction Right of Entry Obtained	Notes/Remarks
UH - West O'ahu (UHWO) (125)	Construction Right of Entry for Station, Temporary Park & Ride, and Amendment for Construction of Road B		WOFH	Yes	
UH - Leeward Community College (LCC) (122)	Construction Right of Entry for Guideway		WOFH	Yes	
UH - LCC (122)	Construction Right of Entry for Station		WOFH	Yes	
UH - Urban Gardens (201A)	Construction Right of Entry		KHG	Yes	
DLNR – Dept. of Land and Natural Resources (124)	Kapolei Construction Right of Entry for overhead guideway and for park and ride facility		WOFH	Yes	CROE has been granted once a year by letter. Working on permanent Easement with DLNR. Currently with DPP for subdivision.
DLNR (320)	Keehi Lagoon Construction Right of Entry		Airport	Yes	
DOE – Dept. of Education Waipahu H.S. (117, 118)	Master/Construction Agreement		WOFH	Yes	
DOE/DLNR for Waipahu H.S. (118)	Construction Right of Entry		WOFH	Yes	Executed by DLNR with DOE concurrence.
Aloha Stadium / Dept of Accounting & General Services (DAGS) (207)	MOU for guideway & station		KHG	Yes	
Aloha Stadium/DAGS	Construction Right of Entry for guideway		KHG	Yes	
Aloha Stadium/DAGS	Construction Right of Entry for station park and ride		KHG	Yes	
HDOT(H) – Dept. of Transportation Highways (100)	Master Agreement for HDOT Highways for WOFH		WOFH	Yes	
HDOT(H) and (A) – Dept. of Transportation Highways & Airports	Master Agreement for HDOT Highways and Airports, for KHG, Airport and City Center Sections		KHG, Airport, City Center	Yes except for City Center whose JU&O will be executed when the NTP is issued	
HDOT(H)	Joint Use & Occupancy (JU&O) Sub-agreement		WOFH	Yes	
HDOT(H)	Joint Use & Occupancy (JU&O) Sub-agreement		KHG	Yes	
HDOT(H)	Joint Use & Occupancy (JU&O) Sub-agreement		Airport	Yes	
HDOT (A) - Dept. of Transportation Airports	Airport Special Provisions for Right of Entry		Airport	Yes	
HDOT(A)	Joint Use & Occupancy (JU&O) Sub-agreement for Airport Division parcels		Airport	Yes	

Inter-Governmental Agreements					
Agency	Pending Agreements (Executed Agreements are shaded grey)	Target	Section	Construction Right of Entry Obtained	Notes/Remarks
HDOT(A) (301A)	Easement document for Airport Division parcel (Main guideway easement)		Airport	Yes	Ongoing intra-agency coordination. Construction is not impacted as the Special Provisions and the JU&O for right to access and construct is executed.
DHHL - Dept. of Hawaiian Home Lands (Exchange w/ Varona Village) (115A)	MOA, License/ROE from DHHL, City Council Resolution		WOFH, MSF	Yes	DLNR approves withdraw from GEO 571 7/14/17. DFM accepts road widening and now City jurisdiction.
OCCC - Dept. of Public Safety, Oahu Community Correctional Center (400A)	Memorandum of Understanding (MOU)		City Center	Yes	
OCCC/DLNR	Construction Right of Entry		City Center	Yes	
DLNR/OCCC	Letter of Responsibility from City-DFM/Road		City Center	Yes	
HCDA -HI Community Development Authority (444A, 450, 463B, E-5-B, 475)	Pre-construction Right of Entry		City Center	Yes, effective upon request	Verbal approval granted by the HCDA Board in 6/2016.
FEDERAL AGREEMENTS					
U.S. Navy (116A)	Grant of Easements for Maintenance & Storage Facility (MSF)/Rail Operations Center (ROC) offsite drainage and sewer easements		WOFH	Yes	Per Letter #N62478-12-RP00011 dated 6/28/12 confirming easement from Navy.
U.S. Navy (300)	Licenses/Construction Right of Entry		WOFH, KHG, Airport	Yes	6/22/15 – 5 Yrs. License ends in 2020. All utility work needs to be completed by then.
U.S. Navy	Easement Agreements		WOFH, KHG, Airport	Yes	Grant of Easement executed. Grant of Easement 8/22/16.
U.S. Navy	Pearl Harbor Station Acquisition of Fee Transfer		Airport	Yes	Quitclaim deed executed 2/25/16.
U.S. Post Office (USPS) (301)	Honolulu Processing Center acquisition		Airport	Yes	Acquisition completed in regular system. Need to process through Land Court to complete process. Funds already paid. USPS Land Court share to complete process is in escrow.
OTHER AGREEMENTS					
D.R. Horton	Construction Right of Entry - D.R. Horton & HECO		WOFH	Yes	Executed 5/11/2018.

6 MANAGEMENT AND ADMINISTRATIVE UPDATES

6.1 Safety and Security (S&S)

Key Issues

- The Core Systems Contractor AHJV Safety and Security Certification point of contact is on island part-time. This issue will be ongoing and monitored by HART Executive Management, Safety and Security, and Core Systems.
- HART Safety has accepted a new interim AHJV Construction Safety Manager until Jan. 31, 2019. AHJV is working on a plan to address the vacancy.
- MSF Blue Light Station (BLS) wiring redesign has been completed and tested. The Core Systems Contractor AHJV stated all BLS has been commissioned in the yard and a white paper for the BLS draft has been completed. HART has reviewed and requested the document be revised and resubmitted.
- The Safety & Security Support Consultant Services contract negotiations have concluded. Award is pending.
- Awaiting design verification documents for MSF Track Design to lift 5mph speed restriction for any vehicles with axle loads greater than AW0 [Assigned Weight, Empty Vehicle (rail car weight with no passengers)].
- The impact of the P3 on Safety and Security certification is being evaluated.
- Safety and security certification of on-call task orders is being monitored to ensure documents for verification are being submitted.
- Past scheduled certification milestones pending design and/or construction approved documentation:
 - AHJV, MSF YCB civil contract certification – pending approved construction submittals – 19 open Construction Specification Conformance Checklists (CSCC) items
 - AHJV, 9 (nine) MOW vehicles certification - pending approved design documentation for 25 open items on Design Criteria Conformance Checklists (DCCC) and vehicle acceptance documentation for 12 open items on Specification Testing Conformance Checklists (STCC)
 - FD-340 and DBB-385, H2R2 Ramp civil contract certification – pending approval of two (2) as-built submittals
 - DB-120, WOFH civil contract certification – pending closure of NCRs
 - DB-320, KHG civil contract certification – pending closure of NCRs
 - PT-004 IC Delivery – pending official submission of the Car History Book (CHB)

6.1.1 Safety and Security Certification Twelve (12) Month Projected Milestones and Work Priority

12 - Month Certification Projected Milestones													
Contract and Interim Certificates (IC)	Next 30-90 days			Next 90-180 days			Next 180-270 days			Next 270-365 days			
X – Projected Month, TBD – To be Determined – Pending Documentation	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sept 2019	Oct 2019	Nov 2019	Dec 2019	
1. PT-003, IC to enter Dynamic Testing													
2. PT-005, Delivery IC													
3. MSF, IC Systems Fully Operational													
4. PT-004, IC to Enter Dynamic Testing													
5. PT-006, Delivery IC													
6. PT-007, Delivery IC													
7. PT-005, IC to Enter Dynamic Testing													
8. PT-008, Delivery IC													
9. PT-006, IC to enter Dynamic Testing													
10. PT-007, IC to enter Dynamic Testing													
11. IC PT Manual Operations - Functional Track													
12. FHSG Civil Contract Certification													
13. PT-008, IC to enter Dynamic Testing													
14. Functional Track - IC Systems fully operational													
15. WOSG Civil Contract Certification													
16. KHSG Civil Contract Certification													
17. Elevator/Escalator Certifications FHSG/WOSG/KHSG													

6.1.2 Project Overall Certification Status

<i>Project Overall Certification Status - Progress</i>			
Historical Record	Oct/18	Nov/18	Dec/18
Final Revenue Overall %	37%	38%	38%
- Interim Revenue Service - 12/2020	53%	55%	55%
- Phase II Revenue Service - 12/2025	21%	22%	22%

6.1.3 Interim Revenue Service Date Certification Status

<i>Interim Revenue Service (2020) Certification Status - Progress</i>			
Historical Record	Oct/18	Nov/18	Dec/18
Major Components			
- MSF (Civil & Systems)	87%	87%	87%
- Guideway (Civil & Systems)	97%	97%	97%
- Stations & Parking (Civil & Systems)	76%	77%	76%
- Passenger Train (PT 1-20)	18%	19%	19%
- Fare Vending	9%	9%	9%
- Traction Electrification System (TES)	58%	58%	58%
- ATC / SCADA	81%	81%	81%
- Communication	67%	67%	67%
- System Integration Testing (SIT)	39%	39%	40%
- Operational Readiness	16%	16%	16%
- Risk Management	28%	29%	29%

6.1.4 Phase II Revenue Service Date Certification Status

<i>Phase II Revenue Service (2025) Certification Status - Progress</i>			
Historical Record	Oct/18	Nov/18	Dec/18
Major Components			
- Guideway (Civil & Systems)	9%	10%	12%
- Stations & Parking (Civil & Systems)	2%	4%	5%
- Fare Vending	7%	7%	7%
- Traction Electrification System	7%	7%	7%
- ATC / SCADA	80%	80%	80%
- Communication	13%	13%	13%
- System Integration Testing	0%	0%	0%
- Operational Readiness	0%	0%	0%
- Risk Management	28%	32%	32%

6.1.5 S&S Open Items List Status

<i>"Open Items List"</i>						
<i>"Open Items" - Design/Construction and Verification Issues</i>						
Month 2018	Total #	Total # Open	Total # Closed	% Closed Overall	# Closed In Month	% Closed In Month
Sept	295	21	274	93%	0	0%
Oct	295	21	274	93%	0	0%
Nov	296	22	274	93%	0	0%
Dec	296	22	274	93%	0	0%

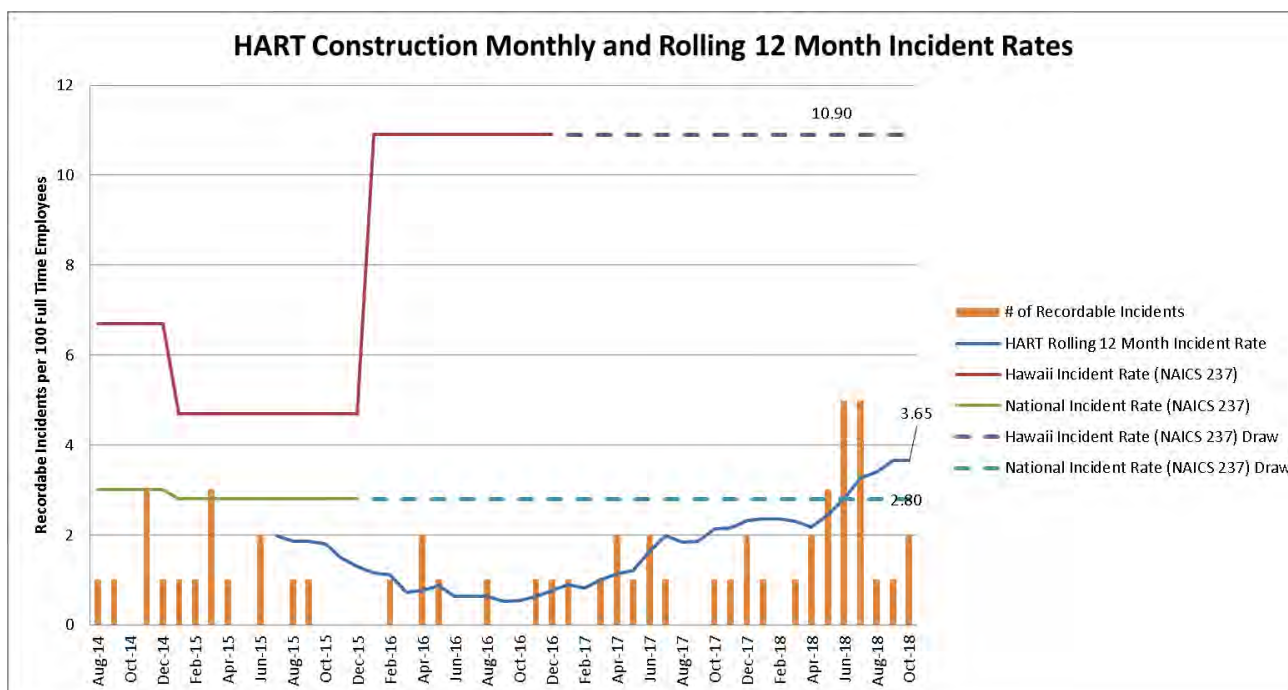
6.1.6 Construction Safety and Security:

Safety and Security Incidents

- Incidents for Nov. 18, 2018 – Dec. 21, 2018:
 - AGS: A worker strained their shoulder after their hand was snagged in crane rigging. They were treated and released to light duty after one day and final diagnosis is pending.
 - AGS: A worker was struck above the eye when a hose sprung free after becoming entangled in the tracks of a crane. He received 6 sutures at the hospital and was released for work.
 - AGS: While wearing safety toe boots, a worker broke 2 toes when a trailer was dropped on his foot while unloading a piece of equipment. He was treated and released to light duty.
 - FHSG: A worker strained their back lifting a 5 gallon bucket and was placed on light duty and a diagnosis is pending.

	2017			2018		
	OCIP Participants Hours worked	No. of Recordable	No. of Loss Time	OCIP Participants Hours worked	No. of Recordable	No. of Loss Time
January	105,639	1	1	84,805	1	1
February	82,068	0	0	85,187	0	0
March	91,567	1	0	117,641	1	1
April	45,603	2	0	105,981	2	0
May	85,744	1	0	125,075	3	1
June	76,754	2	1	140,934	5	2
July	49,055	1	0	126,535	5	0
August	105,613	0	0	112,006	1	1
September	99,671	0	0	63,940	1	1
October	86,442	1	0	143,041	2	0
November	90,101	1	0			
December	118,340	2	1			
Total	1,036,597	12	3	1,105,144	21	7
OSHA Annual Incident Rate				12 Month Rolling Rate		
	2.32			3.65		

*Work hours from OCIP enrolled contracts



6.2 Quality Management

Key Issues

HART NCR Log		
Total NCRs Issued To Date	Closed	Open
85 (Audits)	69	16
1 (Construction)	1	0

Note: HART Issued NCRs for Construction are shown on each respective contract.

- One major issue remains along the WOFH alignment and needs to be addressed and resolved:
 - Tendons:** Reconciliation Change Order approved by the Board of Directors in December. KIWC to provide a proposal for the Acoustical Monitoring System within 30 days of the execution of the Reconciliation Change Order.
- Resolution of a major CSC NCR that needs to be addressed and corrected to prevent recurrence, and to mitigate impact on the overall progress of the project. The major NCR is described below:
 - Retrofit of **Eight (8) Car Shells** under frame to rectify aluminum extrusion defects continues. Retrofit of car shell underframe to rectify aluminum extrusion defects continues in Italy. Two (2) retrofit car shells have been received in Pittsburg, CA. Six (6) of eight (8) retrofit car shells to be in the Pittsburg facility by next year.
- One major NCR was issued by HDCC on the FHSG contract. The major NCR is described below:
 - Two (2) Elevators Structural Steel Towers:** The two elevators structural steel towers at the Waipahu Transit Center Station were both out of plumb by 3/8 inches. Corrective action is in progress. As of mid-December, the work was restarted the last week of October with a completion date of late December.

Audit Look Ahead

- Updated (Revision 8) the Project Combined Management System Audit Schedule for 2018 to HART and all contractors, consultants and suppliers. All scheduled and planned audits for 2018 were performed.
- Issued the Audit Report for the Combined Quality Assurance (QA) and Environmental Compliance (EC) Audit of STGJV on the AGS contract on Oct. 2, 2018. HART is verifying and performing over-the-shoulder review of responses from STGJV.
- Performed a Follow-up Audit of AHJV on the Configuration Management Plan on Dec. 17-21, 2018. AHJV is making big progress in responding to the NCRs and have closed two (2) NCRs in December.
- Performed a Joint HART/AHJV QA Audit of HRU/HRI contract on Oct. 8-10, 2018 in Pittsburg, CA. The Audit Report was issued Oct. 29, 2018. HART is waiting for a response from HRU/HRI, which is overdue.
- Issued the Audit Report for the Combined QA and EC Audit of Stantec on the CE&I East contract on Nov. 14, 2018.
- Issued Closeout Letter for the Combined QA, Buy America (BA) and EC Audit to Nan Inc. on the KHSG contract on Dec. 5, 2018.
- Prepared Audit Report for the Combined QA, BA and EC Audit of Nan Inc. on the UH Park & Ride – Road B contract held on Nov. 15, 2018.
- Performed a Combined QA and EC Audit of PGH Wong on the CE&I West contract on Nov. 29-30, 2018; currently preparing the Audit Report.
- Performed the HART Internal Combined QA, Environmental Compliance, and Safety & Security Audit on Dec. 4-7, 2018.

Oversight and Monitoring

- Conducted Bi-weekly Quality Task Force Meetings including a review of the status of NCRs and Corrective Actions to prevent their recurrence and process improvements. Performed QA/Quality Control (QC) surveillance of construction sites after the Quality Task Force (QTF).
- Attended and participated in AHJV Testing and Commissioning activities on the CSC contract:
 - PV Train #2 Dynamic Testing.
- Attended and participated in the Safety and Security Review Committee (SSRC), Rail Activation Committee (RAC), Car Readiness Review Board (CRRB), and Operation Working Group (OWG) meetings.
- Attended and participated in Pre-activity meetings on the fixed facilities contracts.
- Continued reviews of the revised HART Baseline Plans and Procedures to incorporate the latest approved Project Management Plan (PMP), Quality Management Plan, Project Organization Chart (which is depicted in Appendix D of this Monthly Progress Report), Recovery Plan, and the P3 procurement documents for CCGS.
- Prepared and issued Project NCRs Trend Analysis from January 2018 to December 2018. The trend for this month: Trains: went down 25 from 35 to 10; Core System: went down by one; Fixed Facilities: went down 1 from 9 to 8; which are much lower than the monthly averages. Please see Appendix C.

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

(data as of Dec. 15, 2018)

Overview and Key Issues

- Inquiring with vehicle manufacturers HECO identified regarding Buy America requirements.
- The Buy America post-delivery audit of the rail vehicles:

In early 2018, HART commenced the post-delivery audit of rolling stock pursuant to 49 CFR Part 663. Raoul Bravo was retained to conduct the post-delivery audit of Ansaldo Honolulu JV delivery of its rolling stock. In November 2018, the audit findings showed that AHJV failed to meet the Buy America domestic content requirements. Immediately thereafter AHJV submitted to HART its corrective action plan to meet the Buy America requirements. Raoul Bravo is currently reviewing and evaluating AHJV's corrective action plan through a follow-up audit.

6.4 Disadvantaged Business Enterprise (DBE)

Activities this Month

- \$108,026,005 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 12/31/18
 - 13.4% = DBE utilization on total disbursed FTA funds received to date (\$108,026,005 divided by \$806,258,734)
 - 6.12% = DBE utilization to date on total Project FTA funds (\$108,026,005 divided by \$1,763,903,901)

6.5 Art-in-Transit (AIT) Program

The Honolulu Rail Transit Project's December 2012 FFGA grant (Sitework and Special Conditions) includes a public art program. In addition, the Revised Ordinances of Honolulu (ROH) Section 3-2.7, "Art in City Buildings," provides for the inclusion of art in city-owned buildings frequented by the public. For the rail project, the AIT staff negotiates and manages contracts for the west-side stations and AGS. AIT contracts are managed in five Notice to Proceed (NTP) phases:

- NTP1 - Conceptual design
- NTP2 - Design development, final design, and construction documents
- NTP3 - Mobilization
- NTP4 - Fabrication, transportation, and installation
- NTP5 - Final acceptance

Conceptual and final designs are presented to the Mayor's Commission on Culture and the Arts for review and comment. The Transit Art Committee evaluates and makes the final recommendation and approval.

Station / Facility Name	Artist Name	NTP Phase	Comments
East Kapolei Station	Robert Flint	NTP2	Revising final design, working on color test tiles, 3-D model.
University of Hawai'i West O'ahu Station	Satoru Abe	NTP3	Fabricator making a full-scale mock up for Safety and Security Certification.
Ho'opili Station	Karen Lucas	NTP2	Technical integration of artwork; working on final design construction documents, and Safety and Security Certification.
West Loch Station	Hans Ladislaus	NTP2	Revising final design.
Waipahu Transit Center Station	John Koga	NTP1	Revised conceptual design received.
Rail Operations Center – Operations & Servicing Building	Shigeru Miyamoto	NTP2	Revising final design, working on 3-D model.
Leeward Community College	Donald Lipski	NTP2	Approved to final design. Metal brackets and lifting eyes received from artist for the structural integration of artwork into the Lantern structure.
Pearlridge Station	Robert Kushner	NTP2	Technical integration of artwork; working on construction documents.
Aloha Stadium Station	Jay Wilson	NTP1	Revising conceptual design.

Station / Facility Name	Artist Name	NTP Phase	Comments
Pearl Harbor Naval Base Station	Carol Bennett	NTP1	Revising conceptual design. Working with STG and the artist on technical integration of artwork on pedestrian bridge.
Honolulu International Airport Station	Mamoru Sato	NTP1	Revised conceptual design received.
Lagoon Drive Station	Carol Yotsuda	NTP1	Revising conceptual design.

6.6 Planning and Environment

Activities this Month

- Environmental Clearances: Staff addressed FTA comments on a Post-Record of Decision (Post-ROD) environmental evaluation for the full acquisition of a parcel (230 North Nimitz Highway) in order to accommodate the relocation of a TPSS. The FTA continues to review Post-ROD documentation for a power substation next to the Hālaulani (Leeward Community College) substation, as well as a casting yard for the City Center guideway construction.
- Environmental Compliance: Staff reviewed the Airport Guideway/Station Environmental Compliance Plan and continued to assist the contractors with resolving environmental issues.
- Environmental Due Diligence: Staff are conducting a Phase I Environmental Site Assessment (ESA) of over 39 City Center parcels in order to support the right-of-way acquisition process. The Phase I ESA involves a visual assessment and background research of recognized existing conditions, including the presence or likely presence of hazardous substances or petroleum products.
- Design Reviews: Pursuant to the National Historic Preservation Act of 1966, the Project has a Section 106 Programmatic Agreement (PA) that stipulates required actions to address adverse impacts to historic resources along the alignment. One of these stipulations provides for consulting party review of the preliminary engineering design plans. Staff are currently reviewing recent consulting party comments on the updated design plans for the Kalihi, Kapālama, Iwilei, Chinatown, and Downtown stations, and are preparing a formal response. HART staff are also working with Mason Architects and the FTA to assess the applicability of the Secretary of the Interior (SOI) standards for these stations and the next steps in the process. Staff are also working on ways to integrate the future station design reviews and potential treatment plans to minimize and mitigate adverse effects on historic properties.
- Historic Resource Documentation: HART staff continue to support historic building preservation efforts within the Area of Potential Effect (APE) for the rail project, including those within the Chinatown Historic District. Staff submitted an application to enable the Wo Fat Chop Sui House to be eligible for federal tax credits that would support the building rehabilitation. Staff also continued reviewing the final Historic American Buildings Survey (HABS) documentation for Chinatown as well as six (6) draft National Register for Historic Places (NRHP) nominations. HART's contractors continued work on the Historic Context Studies (Hardy-Heck-Moore) and the Multiple Property Documentation (MPD) study associated with modernist buildings in Honolulu.
- Interpretive and Educational Materials: Staff are working with contractors and the City and County of Honolulu Department of Information Technology to develop a mobile application that will highlight the history and culture of the communities along the rail system, as well as a field guide to nearby historic buildings and structures. Staff are also working with the University of Hawai'i-West O'ahu to develop a template for the project's humanities program. The 'Aha 'Āina Aloha colloquium on Jan. 4, 2019 is being used to develop this template. The colloquium will bring together cultural practitioners and the community to share stories about land-based relationships from 'Ewa and Honouliuli.

- Section 106 Annual Meeting: Staff have scheduled the annual meeting between the FTA, PA signatories, and consulting parties for March 11, 2019.
- City Center Contract Development: Staff are developing the environmental requirements and mitigation documentation that will be included in the Public-Private Partnership (P3) bid package. These requirements will include permitting strategies, handling of hazardous materials, consulting party reviews, and other environmental compliance concerns. Staff are also working to incorporate green building standards and other sustainability incentives into the program.
- Transit Oriented Development: Staff are conducting research and supporting the HART Board on development of a policy to promote integrated transit-oriented development (TOD). Staff worked with the Design and Construction team to identify locations that could be suitable for retail opportunities on station sites. Staff also continue to coordinate with the Department of Planning and Permitting and the Department of Transportation Services on TOD-supportive projects, including rail station access initiatives and integrating wayfinding programs.
- New Technology: Staff are working with partners at the Department of Transportation Services, the Oahu Metropolitan Planning Organization, and the Ulupono Initiative to plan for future Low Speed Autonomous Vehicles, including first- and last-mile connections to the rail system. Staff have begun assessing the needs for electric vehicle charging infrastructure at the Waiawa Station, Parking Garage and Transit Center—including power requirements, conduit spaces, and other physical infrastructure needs.
- Sustainability: Staff continued to develop curriculum partnerships with Hawaii Technology Academy to advance the “Community Fabric” program within HART’s Sustainable Mobility Lab. Intermediate and high-school English instructors are designing student projects that will use HART’s research to conduct place-based inquiries into Waipahu’s community history. The Sustainable Mobility Lab also hosted a site visit from Code for America, which partnered with HART to advance community sustainability goals during a 6-month fellowship program.

Look Ahead

- Submit draft work plan for Stipulation VII to State Historic Preservation Division (SHPD) to review and finalize.
- Prepare and submit final Post-ROD Documentation to FTA for approval:
 - Additional Right-of-Way, awaiting potential project refinements.
 - West O’ahu Park-and-Ride Lots, on hold pending identification of potential Park-and-Ride sites.
- Hōlau Market/Ai-Goto, NRHP nominations and HABS documentation.

6.7 Risk Management

The HART program’s Risk Management System (RMS) focuses on mitigation strategies to assist the project teams in successful project delivery. The bottoms-up risk assessments for all projects in the program are updated monthly by the project teams. A network model is then updated to evaluate the cost and schedule contingencies of the program, including relationships between each of the individual projects and contracts. Risk assessment discussions with the project teams are held periodically 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. The individual project risks are now updated monthly and input into the RR. Outputs from the RR are now being transitioned as a batch input to the overall cost forecasting reports.

The RMS quantifies each risk as a schedule impact or as a direct cost impact independently. The schedule impact is then monetized if it is a critical-path risk, based in the model and based upon the contracts impacted. The top risks to the program are then evaluated on both schedule and cost.

As HART implements the risk management system focused on mitigation, monitoring, and control, the PMOC had requested to work with HART to develop a new tracking mechanism or data reporting set to better assist in the oversight of the program. As a result, the HART risk manager reports risk updates by project on a monthly basis and performs a model update of the program on a quarterly basis. The latest quarterly update was in September, and the last monthly update was in November 2018.

Notes of Significance

- On Nov. 15, 2018, the HART Board approved HART staff's recommended final closeout agreement with the Kiewit construction team for the western guideway projects (West O'ahu/Farrington Highway Guideway – WOFH, and Kamehameha Highway Guideway - KHG). HART's final settlement with Kiewit stipulates payment of \$13.2 million to Kiewit which resolves all outstanding change order requests and claims. It also stipulates continued monitoring of the WOFH guideway tendons and balanced cantilever spans for 20 years. The agreement was subject to final review and approval of the terms by the City attorney, which describe the tendon monitoring warranty work and the ultimate transfer of the guideway asset from HART to DTS during the warranty period. This final legal review was completed, and the HART Board approved the final language of the agreement on Dec. 13, 2018. The cost curve shown in Figure 11 shows the project's P80 value prior to the Kiewit closeout agreement. Once the final change order is fully signed following the Board's approval on Dec. 13, 2018, the active risks within the WOFH and KHG projects can be fully closed out, which will result in a net risk expected value reduction to the overall HART Project.
- The HART Board approved HART's plan for P3 delivery for CCGS and PHGTC on Sept. 27, 2018. These projects will need to have a Risk Refresh conducted soon in order to further refine the plan for P3 delivery. In order to conduct a detailed Risk Assessment (RA) of P3 delivery for these projects, it will be necessary for the base cost estimates and schedules to be updated by the Project Controls team to reflect P3 delivery. The RA can then be conducted to model risks utilizing the revised base cost and schedule information.
- A special risk assessment comparing P3 and DB alternatives for CCGS and PHGTC was held in June 2018. The results of this risk assessment were included in a White Paper on P3 delivery that was presented at the HART Board Meeting held on July 19, 2018. The White Paper should be referenced for specific results, but in general the P3 project delivery mechanism shows a higher likelihood of cost and schedule control for CCGS and PHGTC, as well as for 30 years of future operations and maintenance costs.
- FTA staff from Washington, D.C. and Region 9 from San Francisco along with their PMOC consultant conducted a Risk Refresh workshop on HART's project in February 2018. HART's update to the PMOC in May 2018 demonstrated risk reductions of \$177 million when comparing the April 2018 risk update to the January 2018 risk update. PMOC's final report from the 2018 Risk Refresh, dated June 2018, was received by HART in July 2018. FTA has stated in its report that HART's budget should be increased by \$134 million to a total of \$8.299 billion, although HART has said we will still consider our budget target to be \$8.165 billion. The schedule recommendation by FTA is for full Revenue Service in September 2026; however, HART still is targeting December 2025.
- HART has undertaken reviews of soft cost budgets, including Professional Services contracts. The RMS provides forecasts of extended soft costs based on risks within projects and overall project progress. The Risk Manager will continue to meet with contract managers and Project Controls to evaluate any forecast revisions to the budgets considering a planned P3 delivery approach for CCGS and PHGTC, as well as for the other ongoing projects.

Areas of Focus

A) November 2018 Risk Update – The cost and schedule probability curves are now updated monthly. The November 2018 update was presented to HART management and PMOC on Dec. 12, 2018 (see Figures 11 and 12 below). The update shown in Figure 11 resulted in a \$41.2 million decrease to the P80 risk expected value when comparing the November 2018 update (shown below) to the October 2018 update (shown in last month's report). The primary reason for the decrease is due to a revision within the risk model in the calculation of escalation of project costs for remaining work, partially offset by a \$4.3 million increase to the western station contracts due to change orders and electrical service connections. The P80 for the project is now \$8.010 billion, which is below HART's budget of \$8.165 billion (excluding finance charges).

Figure 11. Cost Probability Curve, November 2018 Risk Data

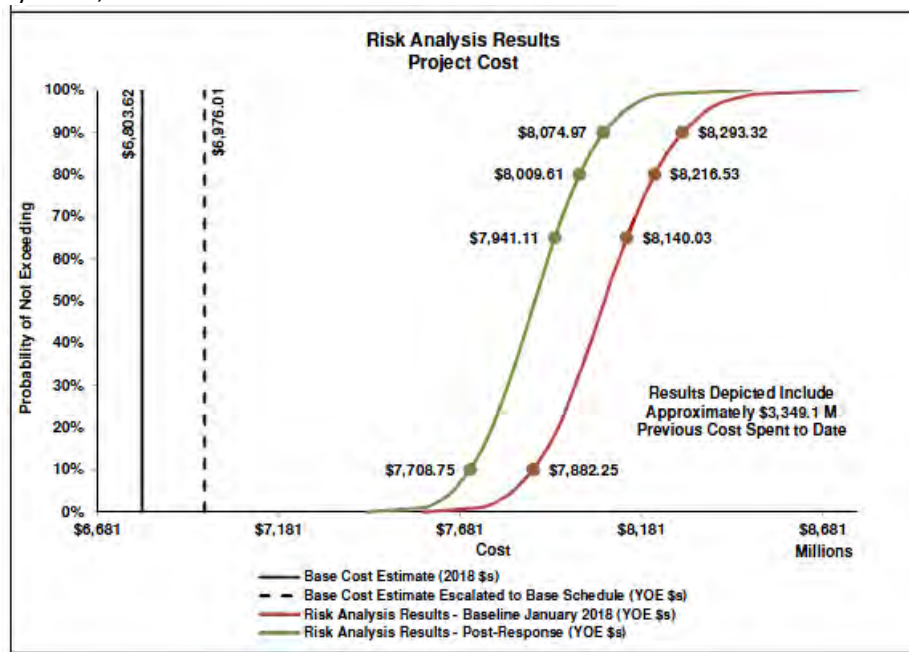
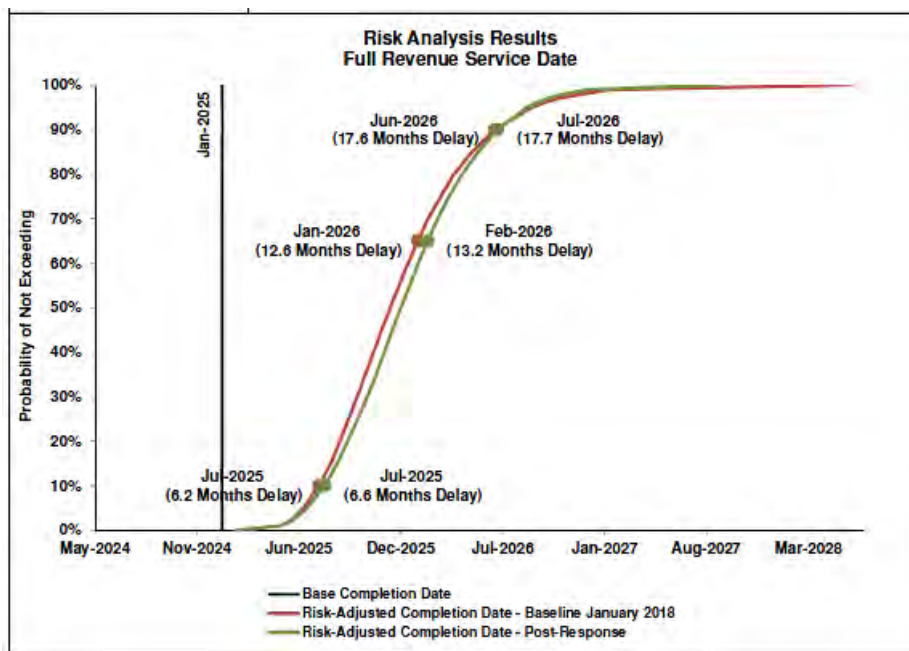


Figure 12. Schedule Probability Curve, November 2018 Risk Data



The schedule probability curve with November 2018 risk data forecasts that the FTA benchmark 65% probability of completing the Project by the Full Revenue Service Date of December 2025 is in jeopardy (if the procurement for CCGS continued to be delayed). The P65 date shows a 1.2 month delay from December 2025 to February 2026. This assumes a DB delivery format for CCGS. However, with a P3 delivery method now selected, as approved by the HART Board on Sept. 27, 2018, the recent P3 and DB Risk Assessments suggests there is the opportunity for several months of schedule reduction, which would bring the project back on schedule, to December 2025 for Full Revenue Service. This adjustment will be made in the risk forecasts in the next several months after the effects of the change to P3 project delivery are fully evaluated in pending risk workshops and in coordination with the Project Controls' Cost and Scheduling staff.

HART's Cost and Schedule Contingency:

- Remaining Contingency as of the end of October 2018 is \$853 million, of which \$765 million is allocated contingency, and \$88 million is unallocated contingency.
The value referenced above is the Project's Available Contingency as calculated by Project Controls from HART's November 2018 Monthly Progress Report. Risk Management holds a modestly different contingency value, but that is because fully committed changes are still held in the Risk column (versus the budgeted column) until such time as the changes are fully executed.
- Refer to the Schedule section of the Project Controls' update for a discussion of schedule contingency on the project. In prior updates, HART was holding a 12-month schedule contingency resulting in a Full Revenue Service date of December 2025. Project Controls' schedule forecast still shows this date, but it reflects a reduction in schedule contingency from mid-July 2018 until the time that the CCGS procurement commences, presuming Design-Build project delivery. The forecast risks, however, will consume all of the project's reduced schedule contingency, plus another 1.2 months, leading to project completion in February 2026 for Full Revenue Service as shown in Figure 12.

B) Risk Expected Value Report – The Risk Manager now prepares the monthly Risk Expected Value (EV) Report, which is intended to provide an independent view of the project cost at completion and schedule completion, in order to inform HART management of the health of the project. Project Controls utilizes this information and compares it to their own projection of project cost and schedule completion, and necessary use of allocated and unallocated contingency on the project.

C) Risk Comparison Reports – The Risk Manager is producing a report comparing the summation of cost and schedule risks by project, from one month to the next. The latest reports were presented to HART management and PMOC in December 2018 reflecting data from the November 2018 risk update compared to October 2018 risk data on a project by project (versus individual risk) basis.

D) Risk "Hit List" Reports – The Risk Manager is producing Risk "Hit List" reports, which provide tornado diagrams for the top ten cost and schedule risks for each project as well as the overall HART Project. The tornado diagrams compare the pre-mitigated strategy (red bar) to post-mitigated strategy (green bar) for each risk. These reports are provided to HART construction management teams for their information as to how the Risk Management System views the risks on their projects. The initial data is organized and input into the RMS by the risk and change specialists within the project teams, but the Risk Manager felt it would be beneficial to provide the resulting summary reports back to the project teams' management representatives to make sure that the risks are fully communicated and understood by those who are responsible for on time and on budget delivery of each project.

E) Cost Containment/Cost Reduction Workshops including Secondary Mitigations – The Risk Manager has facilitated several cost containment/cost reduction workshops with numerous HART project team members from September 2017 through June 2018. (See prior Monthly Reports for further detail.) In case the affordability limit is exceeded for the DBF portion of the project (for CCGS, PHGTC and associated Core Systems work within the DBF) HART will work with P3 Proponents to identify which Secondary Mitigations can and should be included and implemented in the Project scope that will keep the overall Project within budget. Within the P3 procurement, HART will be utilizing an Alternate Technical Concept (ATC) process whereby P3 proponents may propose, on a confidential basis, changes to the RFP and innovations that may be included in their proposals that seek to reduce the overall cost and increase the value to taxpayers in regard to building and operating the CCGS and PHGTC less expensively, but still fulfill the basic requirements and functionalities of the DBF and O&M portions of the Project. Using these approaches, HART will have an early notification of issues during the procurement process regarding affordability of the CCGS and PHGTC components of the Project such that effective management decisions can be made on the deployment of ATC's and possible and available secondary mitigation measures. The status of the latest list of cost containment/cost reduction proposals will continue to be discussed in the forthcoming Risk Management Committee meetings.

F) Decision Milestone Matrix – The Risk Manager updated the Tier 1 through Tier 5 decisions in the Decision Milestone Matrix and presented an update to HART management and PMOC on Oct. 16, 2018. (An updated matrix was in the process of being updated in November and December 2018 and can be provided to PMOC upon request.) Additional

updates have been prepared internally within HART. Updates will generally be prepared for the monthly PMOC meetings.

G) Market Conditions

- The Rider Levett Bucknall (RLB) 2nd Quarter 2018 Construction Cost Index shows Hawai'i with a comparative cost index of -1.06% for the second quarter of 2018 compared to the year prior. This means that construction costs have shown a slight decrease compared to a year ago. However, nationally, the comparative cost of construction in Hawai'i (index of 23,804 in April 2018) is still substantially higher than many other US cities, such as Phoenix with an index of 14,442, or Portland (index of 15,768). The cost of construction in Hawai'i (index of 23,804) compares to other high-cost US Cities including Boston (21,563), Los Angeles (21,010), New York (25,387), and San Francisco (25,704). Hawai'i news has reported local shortages in skilled labor, particularly electricians. Continued pricing pressures in the market could still lead to higher than expected price proposals and bids. HART's estimators continue to monitor the indexed construction cost data for Honolulu in preparation of remaining project estimates including CCGS.
- The Hawai'i Department of Business, Economic Development & Tourism, 3rd Quarter 2018 Report, states "Construction has been one of the steady contributors to job growth in Hawai'i over the past few years. In the second quarter of 2018, the number of jobs in the construction sector was unchanged compared with the same quarter of 2017." This is an indication that the construction market in Hawai'i is continuing at the same pace as last year.

Table E-7 from this same report "Honolulu Construction Cost Index: High-Risk Building" identifies the annual average construction cost index, and the percentage change from the prior year by quarter, from 1982 to 2017 (with final results for 2018 derived from Q1 and Q2 data). Over the last 15 years (from 2004 to 2018) the annual percentage change has averaged 4.0%. Within the last 5 years (from 2014 to 2018) the annual percentage change has averaged 2.7%.

- In spite of the latest RLB report showing escalation as being flat to negative over the last year, and due to local data from the Hawai'i Department of Business, Economic Development & Tourism showing an average of 4% escalation over the last 15 years, an escalation assumption of 4% per year continues to be used within the Risk Management System for all risks on remaining work, in order to provide a reasonable level of conservatism in our forecasts.
- Special focus will be on the procurement of the CCGS contract given that it is a significant contract affected by market conditions. The CCUR project has now been awarded, so the effects of market escalation have now been reflected within this competitive award.

H) 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. One example is the HART Board's approval in February 2018 of the purchase of specialized lift vehicles for HECO to maintain overhead power lines in closer proximity to the guideway, thus avoiding having to place the power lines underground at a much higher cost to HART.
- Identifying existing utilities along the City Center corridor.
- Resolve utility conflicts prior to construction contracts being issued.
- Sign construction agreements with utilities for the City Center construction area.
- Weekly meetings are held between HART and HECO to discuss the planned scope of and design progress for undergrounding the 138kV power lines along certain sections of the eastern route of the guideway.
- Evaluated and now implementing the advancing of the City Center utilities relocation package as an early contract (bids were evaluated in March to May, with project award in May 2018). The CCUR work will be followed by the procurement for the City Center Guideway and Stations project.

- HART has formed a “Tiger Team” including representatives from HART, AECOM, Stantec, Nan Construction, and Royal Construction that is focusing on removing obstacles that could keep the CCUR contract from moving ahead as quickly as possible. Recent areas of focus have included expediting the city and third-party review and permitting process, and advancing the potholing efforts to specifically identify utility locations and avoid unnecessary relocations wherever possible.

I) Right-of-Way – While construction access for nearly all west-side acquisitions is complete, progress is being made on east-side acquisitions with numerous properties still in active negotiations for construction access and acquisition. The goal is to provide site access to the contractors for the entire project to avoid or mitigate against associated inefficiencies related to re-sequencing the work plan which would have a negative impact to the revenue service date. A new risk added to the Risk Register in April 2018 pertains to possible delays in acquiring necessary properties from the University of Hawai‘i. This topic continues to be the focus of risk reviews. It was discussed in the September 2018 Risk Refresh in which the Right-of-Way manager said discussions are ongoing with UH to resolve right-of-entry impediments. Refer to the Right-of-Way section of the Monthly Progress Report for current status of Right-of-Way activities.

6.8 Construction Claims

Pursuant to FTA Circular 4220.1F, HART is obligated to notify the FTA and PMOC about third-party claims and litigation with which it is involved. HART considers a “claim” to arise when a third-party contractor submits a request for a final written decision by the Contracting Officer. Pursuant to Hawai‘i Revised Statutes Section 103D-711 and Hawai‘i Administrative Rules Section 3-126-28, the Contracting Officer’s decision is deemed final and the basis on which the aggrieved party can initiate an action in Circuit Court within six (6) months of receipt of the Contracting Officer’s decision.

As of Dec. 15, 2018, HART is tracking the following claims:

Contract	Contractor	Claim Description	Claim Amount	Status
KHSG	Nan, Inc.	Nan claims 161 days of compensable delay based on a rate of \$30,000/day due to alleged design changes at the Pearl Highlands Station.	\$4,830,000	Nan submitted a request for a final written decision by the Contracting Officer on April 3, 2018. On May 21, 2018, Nan requested a stay in the issuance of the Contracting Officer’s decision until Aug. 31, 2018 pending the parties’ good faith discussions. In a letter dated Aug. 31, 2018, Nan acknowledged that the parties’ good faith discussions were beneficial, but that more time was required and requested a continued stay in the issuance of the Contracting Officer’s decision until Oct. 31, 2018. In a letter dated Nov. 14, 2018, Nan acknowledged that, despite the positive result of the parties’ continued good faith discussions, more time is still required and requested a continued stay in the issuance of the Contracting Officer’s decision until Jan. 4, 2019.
FHSG	Hawaiian Dredging Construction Co.	HDCC seeks 482 days of compensable delay based on a rate of \$30,000/day due to alleged delays in the issuance of the Issued For Construction drawings and access to LCC Station site.	\$14,460,000	In response to HDCC’s request for a decision by the Contracting Officer, the Contracting Officer issued a final written decision on July 17, 2018. The parties agreed to submit this dispute to mediation and participated in a mediation on Sept. 5-6, 2018 and again on Nov. 1, 2018, but were unable to reach an agreement. The mediator issued a recommendation on Nov. 29, 2018, which was taken under consideration by HART.

6.9 Community Outreach

Overview

- Since the inception of HART, the outreach team has participated in:
 - 1,289 Public Presentations and Events
 - 5 Events and Presentations in December 2018, including the Aiea Community Association Christmas Parade and Fair and the City's Kapolei City Lights Celebration.
 - 775 Neighborhood Board Meetings
 - 1 Neighborhood Board Meeting in December 2018.

Community Input

- HART's public outreach team responded to dozens of public inquiries and comments this month. Inquiries were related to maintenance issues along the rail corridor, requests for general project information and employment opportunities.

6.10 Staffing

Overview

- Organization: The latest organizational chart is dated Nov. 15, 2018.
- Project Staffing:
 - Target (current organization): 135 Full-Time Equivalent (FTE) City Staff
 - Actual City Staff Total: 117 Employees (5 Civil Service and 112 Personal Services Contract [PSC] Employees)
 - Project Management Support Consultant (HDR) Staff Total: 18 Employees
 - Combined Project Staff (City plus HDR): 135 Personnel (reflects current month arrivals and departures)
- Positions Filled:
 - Senior Clerk – Executive Management (PSC)
 - Information Specialist II (PSC)
- Positions Vacated:
 - Director of Transit Property Acquisition & Relocation (mid-January departure)

Figure 13. Staffing Activities

Staffing Activities				
Title	Group	New/Existing HART Position (City or PMC)	Position Status*	Start Month
Executive Management				
Senior Clerk	Executive Management	Existing (City)	Filled - PSC	Dec
Procurement, Contracts & Construction Claims				
Procurement & Specifications Specialist	Procurement & Consultant Contracts	Existing (City)	Selected/Processing - PSC	Jan
Procurement & Specifications Specialist	Procurement & Consultant Contracts	Existing (City)	Recruiting/Interviewing - PSC	
Contract Manager	Construction Claims, Utility, & Third Party Contracts	New (City)	Recruiting/Interviewing - PSC	
Construction Claims Manager	Construction Claims, Utility, & Third Party Contracts	New (City)	Recruiting/Interviewing - PSC	
Construction Claims Specialist	Construction Claims, Utility, & Third Party Contracts	New (City)	Recruiting/Interviewing - PSC	
Deputy Director of Contract Administration	Contract Administration	Existing (HDR) New (City)	Recruiting/Interviewing – PSC or HDR	
Transit Property Acquisition & Relocation				
Director of Transit Property Acquisition & Relocation	Transit Property Acquisition & Relocation	Existing (City)	Recruiting/Interviewing - PSC	
Planning, Environmental Compliance & Sustainable Mobility				
Director of Planning, Environmental Compliance & Sustainable Mobility	Planning, Environmental Compliance & Sustainable Mobility	New (City)	Recruiting/Interviewing - PSC	
Public Information				
Information Specialist II	Public Information	Existing (City)	Filled- PSC	Dec

Staffing Activities

Title	Group	New/Existing HART Position (City or PMC)	Position Status*	Start Month
Budget & Finance				
Grants Manager	Budget & Finance	Existing (City)	Recruiting - PSC	
Internal Control Analyst	Budget & Finance	New (City)	Recruiting - PSC	
Accountant	Budget & Finance	Existing (City)	Recruiting - PSC	
Design & Construction				
Civil Engineer (Assistant Area Manager)	East Area Construction	Existing (City)	Recruiting - PSC	
Program Manager Production	West Area Construction	Existing (City)	Recruiting - PSC	
Readiness and Activation				
Project Manager (Transit Assets)	Readiness and Activation	New (City)	Recruiting/Interviewing - PSC	
Administrative Support	Readiness and Activation	Existing (City)	Recruiting - PSC	
Project Controls				
Senior Cost Analyst	Project Controls	Existing (City)	Recruiting - PSC	
Fiscal Analyst	Project Controls	Existing (City)	Recruiting - PSC	
Records Management Analyst	Project Controls	New (City)	Selected/Processing - PSC	Jan

*Personal Services Contracts are limited to one year per the Revised Charter of the City and County of Honolulu, Sec. 6-1103(g).

For the latest project organization chart, see Appendix D.

6.11 HART Baseline Plans and Procedures Status List

The status of the Baseline Plans and Procedures is shown below:

Owner	Plan/Procedure	Revision Level	Date Approved	Status
Project Management (Sam Carnaggio)	Project Management Plan (PMP)	7.0	December 10, 2018	Approved/Baselined
Safety and Security (Ralph McKinney)	Construction Safety and Security Plan (CSSP)	4.0	December 7, 2017	Pending Revision 5.0 Estimate to Complete (ETC): 1/31/19
	Safety and Security Certification Plan (SSCP)	6.0	January 11, 2018	Pending Revision 7.0 ETC: 1/31/19
	Safety and Security Management Plan (SSMP)	7.0	February 28, 2018	Pending Revision 8.0 ETC: 1/31/19
	Sensitive Safety Information Plan	1.0	December 13, 2017	Pending Revision 2.0 ETC: 5/31/19
	Preliminary Hazard Analysis (PHA)	3.0	December 7, 2017	Pending Revision 4.0 ETC: 5/31/19
Quality Assurance (Alberto Bonifacio)	1.PP-02, Project Procedure and Plan Revision and Control Procedure	3.0	January 4, 2018	Pending Revision 4.0 ETC: 1/30/19
	1.PP-03, Standard Terms, Definitions, and Acronyms Procedure	2.0	January 4, 2018	Pending Revision 3.0 ETC: 1/30/19
	3.PM-05, Meeting Minutes Procedure	3.0	January 4, 2018	Pending Revision 4.0 ETC: 2/28/19
	6.CM-01, Submittal Processing Procedure	3.0	January 12, 2018	Pending Revision 4.0 ETC: 2/28/19

Owner	Plan/Procedure	Revision Level	Date Approved	Status
	Quality Management Plan (QMP)	4.0	November 9, 2018	Approved/Baselined
Procurement, Contracts, and Construction Claims (Nicole Chapman)	2.PA-09, Procurement Standards of Conduct Procedure	1.0	May 29, 2015	Pending Revision 2.0 ETC: 1/30/19
	2.PA-10, Procurement Methods Procedure	0.0	February 2, 2015	Pending Revision 1.0 ETC: 1/30/19
	2.PA-11, Procurement Full and Open Competition Procedure	0.0	February 2, 2015	Pending Revision 1.0 ETC: 1/30/19
	2.PA-12, Procurement Federal Compliance Procedure	0.0	February 2, 2015	Pending Revision 1.0 ETC: 1/30/19
	2.PA-13, Procurement Protests Procedure	1.0	May 29, 2015	Pending Revision 2.0 ETC: 3/29/19
	2.PA-14, Procurement Record-keeping Procedure	0.0	June 12, 2015	Pending Revision 1.0 ETC: 3/29/19
	2.PA-15, Stipend Payment Procedure	0.0	July 15, 2016	Pending Revision 1.0 ETC: 3/29/19
	2.PA-16 Executive Decision Document (EDD) Procedure	0.0		Pending Revision 0.0 ETC: 3/29/19
	5.CA-06, Project Closeout Procedure	2.0	June 9, 2016	Pending Revision 3.0 ETC: 2/28/19
	5.CA-11, Contract Changes Procedure	4.0	November 5, 2018	Pending Revision 5.0 ETC: 2/28/19
	Buy America Plan (BAP)	2.0	December 6, 2017	Pending Revision 3.0 ETC: 2/28/19
	HART Procurement Manual	0.0	December 13, 2017	Pending Revision 1.0 ETC: 3/28/19
Project Controls (Nate Meddings)	2.PA-04, Project-wide Document Control and Project Library Procedure	2.0	February 27, 2016	Pending Revision 3.0 ETC: 1/30/19
	3.PM-01, Contract Management System Procedure	2.0	April 7, 2016	Pending Revision 3.0 ETC: 3/28/19
	4.PC-03, Project Progress Report Procedure	2.0	August 25, 2016	Pending Revision 3.0 ETC: 1/30/19
	4.PC-04, Project Scheduling Procedure	4.0	August 15, 2018	Pending Revision 5.0 ETC: 1/30/19
	4.PC-06, Cost Estimating Procedure	3.0	December 13, 2017	Pending Revision 4.0 ETC: 1/30/19
	4.PC-07, Cost Control Procedure	2.0	April 20, 2016	Pending Revision 3.0 ETC: 2/28/19
	4.PC-09, Contingency Management Procedure	1.0	May 8, 2012	Pending Revision 2.0 ETC: 1/18/19
	Contract Packaging Plan (CPP)	5.0	December 13, 2017	Pending Revision 6.0 ETC: 3/28/19

Owner	Plan/Procedure	Revision Level	Date Approved	Status
Budget and Finance (Robert Yu)	5.CA-03, Contractor Payment Application Procedure	2.0	February 19, 2018	Pending Revision 3.0 ETC: 3/29/19
	5.CA-10, Consultant Invoice Payment Procedure	0.0	January 12, 2018	Pending Revision 1.0 ETC: 3/29/19
	7.GA-04, Petty Cash Procedure	2.0	May 9, 2016	Pending Revision 3.0 ETC: 1/30/19
	7.GA-06, Travel Procedure	2.0	May 1, 2017	Pending Revision 3.0 ETC: 1/30/19
	Project Financial Plan (PFP)	0.0	December 24, 2012	Pending Revision 1.0 ETC: 3/28/19
Planning, Permitting, and Right of Way (Ryan Tam) (Richard Lewallen)	6.CM-08, Environmental Procedure	0.0	June 27, 2017	Pending Revision 1.0 ETC: 3/29/19
	Before-and-After Study Plan	0.0	January 4, 2018	Pending Revision 1.0 ETC: 3/15/19
	Bus Fleet Management Plan (BFMP)	4.0	January 4, 2018	Pending Revision 5.0 ETC: 2/28/19
	Mitigation Monitoring Plan (MMP)	2.0	January 4, 2018	Pending Revision 3.0 ETC: 2/11/19
	Real Estate Acquisition Management Plan (RAMP)	6.0	March 14, 2016	Pending Revision 7.0 ETC: 2/28/19
Public Information (Bill Brennan)	2.PA-06, Community Relations and Media Contacts Procedure	2.0	January 29, 2016	Pending Revision 3.0 ETC: 2/28/19
	3.PM-04, Public Involvement Communications Procedure	2.0	January 29, 2016	Pending Revision 3.0 ETC: 2/28/19
	Public Involvement Plan (PIP)	1.0	December 6, 2017	Pending Revision 2.0 ETC: 2/25/19
Design and Construction (Frank Kosich)	6.CM-02, Request for Information (RFI) Processing Procedure	2.0	December 7, 2017	Pending Revision 3.0 ETC: 3/29/19
	CADD Procedures	1.0	August 4, 2015	Pending Revision 2.0 ETC: 2/28/19
	Configuration Management Plan (CFMP)	3.0	February 28, 2018	Pending Revision 4.0 ETC: 2/20/19
	Construction Management Plan (CMP)	3.0	December 11, 2017	Pending Revision 4.0 ETC: 3/29/19
	Force Account Plan	2.0	December 7, 2017	Pending Revision 3.0 ETC: 1/30/19
	Interface Management Plan (IMP)	3.0	January 12, 2018	Pending Revision 4.0 ETC: 2/08/19
Operation and Maintenance (Robert Good)	System Integration and Test Plan (SITP)	1.0	December 7, 2017	Pending Revision 2.0 ETC: 2/22/19

Owner	Plan/Procedure	Revision Level	Date Approved	Status
	Rail Fleet Management Plan (RFMP)	1.0	December 11, 2017	Pending Revision 2.0 ETC: 3/28/19
	Operation and Management Plan (OMP)	1.0	February 28, 2018	Pending Revision 2.0 ETC: 3/28/19
	Rail Activation Plan	1.0	January 4, 2018	Pending Revision 2.0 ETC: 1/24/19
Administrative Services (Paul Romaine)	1.PP-05, Identification Badge Procedure	2.0	August 17, 2017	Pending Revision 3.0 ETC: 2/28/19
	2.PA-03, Email Management Procedure	2.0	May 1, 2017	Pending Revision 3.0 ETC: 2/28/19
	2.PA-07, Training Procedure	2.0	December 2, 2015	Pending Revision 3.0 ETC: 2/28/19
	Staffing and Succession Plan	5.0	May 25, 2012	Pending Revision 6.0 ETC: 3/29/19
Risk Management (Paul Johnson)	4.PC-08, Risk Management Procedure	2.0	February 20, 2018	Pending Revision 3.0 ETC: 3/08/19
	Risk and Contingency Management Plan (RCMP)	2.0	March 6, 2018	Pending Revision 3.0 ETC: 3/08/19

6.12 Readiness and Activation

Overview of Key Responsibilities

- Oversight of the Core System Contractor's Operations and Maintenance (O&M) development and mobilization.
- Review and support of HART project activities with an emphasis on O&M impact assessment.
- Collaborating with DTS to ensure readiness for O&M responsibilities.

Ongoing Activities

- Supporting P3 evaluation of current O&M contract and technical specification development.
- Rail Activation Plan draft complete and distributed for internal review.
 - Key elements include: AHJV Requirements Traceability Matrix (RTM), Operational Readiness Conformance Checklist (ORCC), AHJV Mobilization Plan, DTS Pre-Revenue Operations Plan, OP54
- AHJV Mobilization Plan draft complete and distributed for internal review.
 - Identified core documents. AHJV to update development schedule (including resources), hiring plan, and training plan
 - System Start-up workshops are ongoing
 - AHJV Mobilization Progress Dashboard being developed
- Maintenance Activities
 - Actively recruiting position to support AHJV Mobilization activities and submittals
 - Finalizing Rail Operations Center (ROC) Transfer of Assets
 - Continued warranty support for delivered assets
 - Review of maintenance performance and KPIs
 - Assisting with H2R2 final acceptance and turnover
- Asset Management Program Development
 - Supporting Transit Asset Management Plan requirements and outline with DTS
- Supported Recovery Plan and PMP revision activities.
- DTS and project stakeholder coordination
 - Jointly developing a memorandum of understanding for 2016 Charter Amendment 4

- Supporting data retention policy in coordination with DTS, DIT and the Department of Customer Services (CSD)
 - Established Interim Opening Task Force with DTS and BFS participation
- Fare Systems Pilot (Beta testing with Public) launched Dec. 1, 2018
 - Launched holocard.net website on Nov. 1
 - Target onboarding one retail outlet by January 2019
 - Evaluating City fiber connection with DIT

Look Ahead

- Recruit for Administrative Specialist vacancy.
- AHJV Maintenance Management Information System (MMIS) development schedule.
- Develop guideway and stations maintenance documents, pending monitoring plan.

APPENDICES

Appendix A. Project Costs by SCC – Level 2 (data as of Nov. 30, 2018)

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

SCC	Description	2018 Recovery Plan Budget			Estimate At Completion			Incurred
		Base Cost	Contingency	Total	Base Cost	Contingency	Total	
10	GUIDEWAY & TRACK ELEMENTS	1,385,613,350	222,868,325	1,608,481,675	1,385,613,350	222,868,325	1,608,481,675	689,946,624
10.02	Guideway: At-grade semi-exclusive	17,378	-	17,378	17,378	-	17,378	17,378
10.04	Guideway: Aerial structure	1,243,170,339	214,668,325	1,457,838,664	1,243,170,339	214,668,325	1,457,838,664	600,829,933
10.05	Guideway: Built-up fill	-	-	-	-	-	-	5,054,744
10.06	Guideway: Underground Cut & Cvr	-	-	-	-	-	-	(1,228,000)
10.08	Guideway: Retained cut or fill	142,425,633.00	8,200,000	150,625,633	142,425,633	8,200,000	150,625,633	-
10.09	Track: Direct fixation	0	-	0	-	-	-	81,347,320
10.11	Track: Ballasted	-	-	-	-	-	-	2,394,373
10.12	Track: Special (switches, turnouts)	-	-	-	-	-	-	1,530,876
20	STATIONS, STOPS, TERMINALS, INTERMODA	740,278,879	91,423,195	831,702,074	740,278,879	91,423,195	831,702,074	134,830,531
20.01	At-grade station, stop, shelter, mall, terminal, platform	4,956,181	8,505,325	13,461,506	4,956,181	8,505,325	13,461,506	6,399,102
20.02	Aerial station, stop, shelter, mall, terminal, platform	548,219,008	54,496,453	602,715,461	548,219,008	54,496,453	602,715,461	113,174,976
20.04	Other stations, landings, terminal	-	-	-	-	-	-	-
20.06	Automobile parking multi-story structure	121,609,473	26,632,475	148,241,948	121,609,473	26,632,475	148,241,948	-
20.07	Elevators, escalators	65,494,217	1,788,942	67,283,159	65,494,217	1,788,942	67,283,159	15,256,453
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	100,806,854	-	100,806,854	100,806,854	-	100,806,854	120,057,692
30.01	Administration Building: Office, Sales	-	-	-	-	-	-	231,250
30.02	Light Maintenance Facility	3,057,240	-	3,057,240	3,057,240	-	3,057,240	7,582,704
30.03	Heavy Maintenance Facility	64,479,556	-	64,479,556	64,479,556	-	64,479,556	46,295,366
30.04	Storage or Maintenance of Way Building	8,619,230	-	8,619,230	8,619,230	-	8,619,230	8,892,739
30.05	Yard and Yard Track	24,650,828	-	24,650,828	24,650,828	-	24,650,828	57,055,633
40	SITEWORK & SPECIAL CONDITIONS	2,315,294,490	230,442,932	2,545,737,422	2,315,294,490	230,442,932	2,545,737,422	821,517,522
40.01	Demolition, Clearing, Earthwork	33,446,029	1,038,000	34,484,029	33,446,029	1,038,000	34,484,029	23,995,288
40.02	Site Utilities, Utility Relocation	784,993,474	97,126,874	882,120,348	784,993,474	97,126,874	882,120,348	190,668,304
40.03	Haz. Mat'l, contam'd soil removal/mitigation, ground water treatments	33,829,683	515,000	34,344,683	33,829,683	515,000	34,344,683	2,476,521
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	5,518,864	-	5,518,864	5,518,864	-	5,518,864	11,391,864
40.05	Site structures including retaining walls, sound walls	21,764,985	6,884,511	28,649,496	21,764,985	6,884,511	28,649,496	14,362,535
40.06	Pedestrian / bike access and accommodation, landscaping	14,744,276	500,000	15,244,276	14,744,276	500,000	15,244,276	2,325,125
40.07	Automobile, bus, van accessways including roads, parking lots	264,580,524	29,237,568	293,818,092	264,580,524	29,237,568	293,818,092	60,123,054
40.08	Temporary Facilities and other indirect costs during construction	1,156,416,655	95,140,979	1,251,557,634	1,156,416,655	95,140,979	1,251,557,634	516,174,831
50	SYSTEMS	313,983,939	16,033,668	330,017,607	313,983,939	16,033,668	330,017,607	132,005,706
50.01	Train control and signals	157,077,732	7,756,522	164,834,254	157,077,732	7,756,522	164,834,254	47,472,485
50.02	Traffic signals and crossing protection	3,172,131	598,725.00	3,770,856	3,172,131	598,725	3,770,856	98,000
50.03	Traction power supply: substations	32,396,808	-	32,396,808	32,396,808	-	32,396,808	14,309,335
50.04	Traction power distribution: catenary and third rail	37,120,977	-	37,120,977	37,120,977	-	37,120,977	27,086,531
50.05	Communications	65,390,742	-	65,390,742	65,390,742	-	65,390,742	35,560,378
50.06	Fare collection system and equipment	15,015,206	7,678,421	22,693,627	15,015,206	7,678,421	22,693,627	4,785,470
50.07	Central Control	3,810,343	-	3,810,343	3,810,343	-	3,810,343	2,693,507
	Construction Subtotal (10 – 50)	4,855,977,512	560,768,120	5,416,745,632	4,855,977,512	560,768,120	5,416,745,632	1,898,358,075

SCC	Description	2018 Recovery Plan Budget			Estimate At Completion			Incurred
		Base Cost	Contingency	Total	Base Cost	Contingency	Total	
60	ROW, LAND, EXISTING IMPROVEMENTS	254,835,574	106,789,890	361,625,464	254,835,574	106,789,890	361,625,464	159,712,185
60.01	Purchase or lease of real estate	171,400,000	101,500,000	272,900,000	171,400,000	101,500,000	272,900,000	134,318,565
60.02	Relocation of existing households and businesses	83,435,574	5,289,890	88,725,464	83,435,574	5,289,890	88,725,464	25,393,620
70	VEHICLES	211,389,952	-	211,389,952	211,389,952	-	211,389,952	96,227,130
70.01	Light Rail	190,383,694	-	190,383,694	190,383,694	-	190,383,694	83,844,306
70.02	Heavy Rail	-	-	-	-	-	-	-
70.05	Other	128,700	-	128,700	128,700	-	128,700	493,700
70.06	Non-revenue vehicles	14,371,344	-	14,371,344	14,371,344	-	14,371,344	11,889,124
70.07	Spare parts	6,506,214	-	6,506,214	6,506,214	-	6,506,214	-
80	PROFESSIONAL SERVICES	1,989,870,725	97,630,139	2,087,500,864	1,989,870,725	97,630,139	2,087,500,864	1,229,181,319
80.01	Preliminary Engineering	54,753,840	-	54,753,840	54,753,840	-	54,753,840	110,515,695
80.02	Final Design	584,149,899	31,512,697	615,662,596	584,149,899	31,512,697	615,662,596	304,319,204
80.03	Project Management for Design and Construction	668,557,925	29,851,833	698,409,758	668,557,925	29,851,833	698,409,758	465,377,342
80.04	Construction Administration & Management	278,640,420	28,220,008	306,860,428	278,640,420	28,220,008	306,860,428	207,836,522
80.05	Professional Liability and other Non-Construction Insurance	99,340,000	4,000,000	103,340,000	99,340,000	4,000,000	103,340,000	45,262,978
80.06	Legal; Permits; Review Fees by other agencies, cities, etc.	99,928,698	3,768,439	103,697,137	99,928,698	3,768,439	103,697,137	34,587,543
80.07	Surveys, Testing, Investigation, Inspection	141,686,622	277,162	141,963,784	141,686,622	277,162	141,963,784	11,797,575
80.08	Start up	62,813,321	-	62,813,321	62,813,321	-	62,813,321	49,484,460
90	Subtotal (10 – 80)	7,312,073,763	765,188,149	8,077,261,912	7,312,073,763	765,188,149	8,077,261,912	3,383,478,709
	UNALLOCATED CONTINGENCY	-	221,738,087	221,738,087	-	87,792,279	87,792,279	48,184
100	Subtotal (10 – 90)	7,312,073,763	986,926,236	8,298,999,999	7,312,073,763	852,980,428	8,165,054,191	3,383,526,893
	FINANCE CHARGES	635,000,000	-	635,000,000	583,707,000	-	583,707,000	4,609,277
	Total Project Cost (10 – 100)	7,947,073,763	986,926,236	8,933,999,999	7,895,780,763	852,980,428	8,748,761,191	3,388,136,170
	Provisional Request for Payment							
	Total FFGA Project Cost (10 – 100)	7,947,073,763	986,926,236	8,933,999,999	7,895,780,763	852,980,428	8,748,761,191	3,388,136,170

Appendix B. CSC Major Subsystem Progress

Major Subsystem Progress

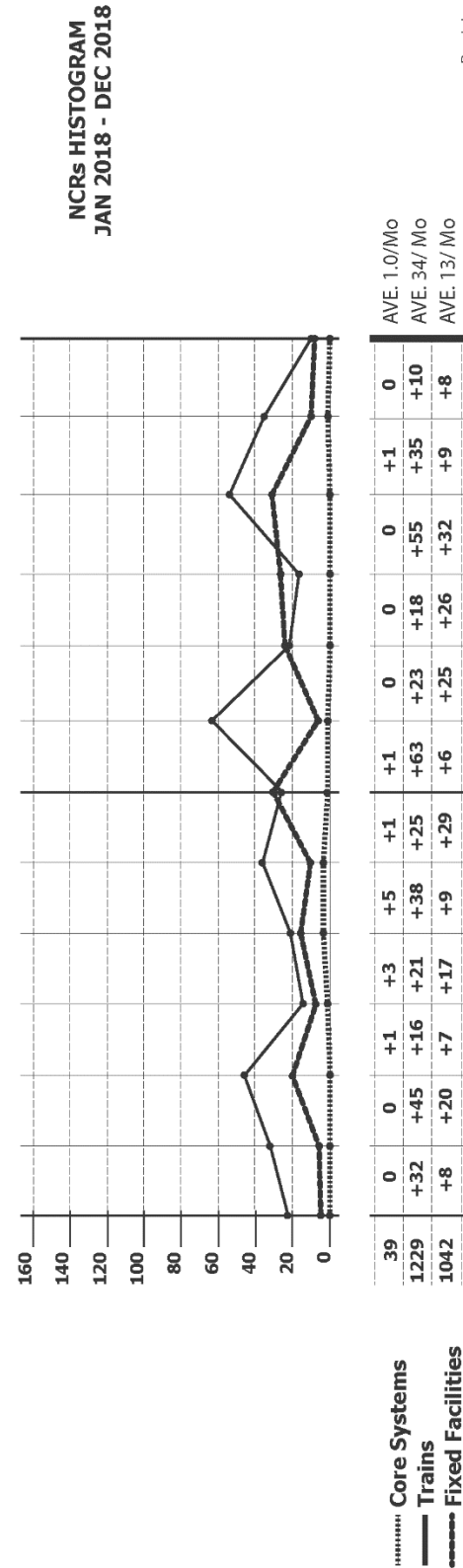
No.	Location	TES TPSS/GBS	FDAS	ATC TCCR	SCADA	PSGS	UPS	COMMS
1	MSF	Energized/Non-active	Installed	Installed	Installed	N/A	Energized	Installation
2	East Kapolei Station	Installed	Delivered On-Island	Delivered On-Island	Delivered On-Island	Delivered On-Island	Ready for Delivery	Delivered On-Island
3	UH West O'ahu Station	N/A	Delivered On-Island	N/A	Delivered On-Island	Installation	Installation	Delivered On-Island
4	Ho'opili Station	Installed	Delivered On-Island	Installed	Delivered On-Island	Installation	Installation	Delivered On-Island
5	West Loch Station	Energized/Non-active	Delivered On-Island	Installed	Delivered On-Island	Delivered On-Island	Energized	Delivered On-Island
6	Waipahu Station	Energized/Active	Delivered On-Island	Delivered On-Island	Delivered On-Island	Delivered On-Island	Ready for Delivery	Delivered On-Island
7	Leeward Station	Installed (GBS)	Delivered On-Island	Installed	Delivered On-Island	Delivered On-Island	Delivered On-Island	Delivered On-Island
8	Pearl Highlands Station	Installed	Delivered On-Island	Delivered On-Island	Delivered On-Island	Ready for Delivery	Ready for Delivery	Delivered On-Island
9	Pearlridge Station	Delivery – 1 st Q 2019	Delivered On-Island	Delivered On-Island	Delivered On-Island	Has Not Commenced	Ready for Delivery	Delivered On-Island
10	Aloha Stadium Station	Delivery – 1 st Q 2019	Delivered On-Island	Delivered On-Island	Delivered On-Island	Has Not Commenced	Ready for Delivery	Delivered On-Island
11	Pearl Harbor NB Station	Has Not Commenced (GBS)	Has Not Commenced	Ready for Delivery	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
12	Airport Station	Has Not Commenced	Has Not Commenced	Ready for Delivery	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
13	Lagoon Drive Station	Has Not Commenced	Has Not Commenced	Ready for Delivery	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
14	Middle Street TC Station	Has not Commenced	Has Not Commenced	N/A	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
15	Kalihi Station	N/A	Has Not Commenced	Ready for Delivery	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
16	Kapalama Station	N/A	Has Not Commenced	N/A	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
17	Iwilei Station	N/A	Has Not Commenced	Ready for Delivery	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
18	Chinatown Station	Has Not Commenced	Has Not Commenced	N/A	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
19	Downtown Station	N/A	Has Not Commenced	N/A	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
20	Civic Center Station	Has Not Commenced	Has Not Commenced	Ready for Delivery	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
21	Kaka'ako Station	N/A	Has Not Commenced	N/A	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced
22	Ala Moana Center Station	Has Not Commenced	Has Not Commenced	Ready for Delivery	Ready for Delivery	Has Not Commenced	Ready for Delivery	Has Not Commenced

Legend	TPSS Energized from HECO	Installation is in progress	Equipment has been installed	Manufacturing in progress	Equipment is at Factory and Ready for delivery	Equipment Not Installed but On-Island	Equipment not required
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Appendix C. Project NCRs Trend Analysis

PROJECT NCRs TREND ANALYSIS

CONTRACTS	2018												STATUS		COMMENTS
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	OPEN	%	
HART	65	66	66	66	68	83	83	83	83	86	86	86	16	19	0
CORE SYSTEMS	39	39	40	43	48	49	50	50	50	50	51	51	3	4	+0
TRAINS	1229	1274	1290	1311	1349	1374	1437	1460	1478	1533	1568	1578	300	19	+10
WOFH	586	586	586	586	586	586	586	586	586	586	586	586	8	1	COMPLETE
KHG	252	252	252	252	252	252	252	252	252	252	252	252	4	2	COMPLETE
MSF	34	34	34	34	34	34	34	34	37	37	37	37	0	0	COMPLETE
ASU	19	19	19	19	19	19	19	19	19	19	19	19	0	0	COMPLETE
WOSG	58	63	65	65	65	67	67	67	68	74	75	75	21	28	+0
FHSG	44	50	50	54	56	57	57	63	66	67	69	71	29	42	+2
KHSG	20	21	22	23	28	32	32	38	38	38	38	38	0	0	0
H2R2	12	12	12	12	12	12	12	12	12	12	12	12	0	0	COMPLETE
AGS	17	25	29	41	43	65	71	84	103	128	134	140	52	37	+6
CCUR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CCGS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	1042	1062	1069	1086	1095	1124	1130	1155	1181	1213	1222	1230	114	9	+8



Revision 34 12/24/18



HART
HONOLULU RAIL TRANSIT PROJECT
21 Stations / 20-Mile Alignment

Appendix D. Project Organization Chart

NOVEMBER 15, 2018

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

