

**SPECIAL PROVISIONS (12/19/2014)**

**FOR**

**HONOLULU AUTHORITY FOR RAPID TRANSPORTATION  
FARRINGTON HIGHWAY STATION GROUP CONSTRUCTION CONTRACT  
RFB-HRT-798316**

These SPECIAL PROVISIONS (“SP”) are intended to modify and amend the General Conditions of Construction Contracts for the Honolulu Authority for Rapid Transportation (12/2014) (“General Conditions” or “GC”) and provide specific requirements for the Farrington Highway Station Group (FHSG) Construction Contract. The SPs are organized as follows:

- (a) SP-1 through SP-7 modifies or supplements the General Conditions;
- (b) SP-8 provides additional performance requirements specific to the Project.

The Contractor shall mean the Offeror to whom the Contract has been awarded by HART.

**PROJECT SUMMARY**

- (a) This FHSG Contract is an estimated \$60-\$75 million Project. The Work of the Project is set forth in the Contract Documents, which consists of the construction of three (3) stations and associated structures, platforms, canopies, passenger bridges, and site work and includes the West Loch Station, Waipahu Transit Center Station, and the Leeward Community College Station.
- (b) The Project Information is as follows:
  - (1) Project Identification: Honolulu Rail Transit Project – Farrington Highway Stations Group;
  - (2) Project Location: as indicated in the Contract Documents;
  - (3) Project Owner: Honolulu Authority for Rapid Transportation (HART); and
  - (4) Architects and Engineers: URS, Inc

**CHAPTER SP-1 TO SP-7**

**1. SP-2.13 LIQUIDATED DAMAGES**

Section 2.13 of the General Conditions shall be amended by adding the following subparagraph:

- (b) If the Contractor fails to achieve Contract Substantial Completion by the deadline specified in Table 7.1 of SP-7.1.1, the Contractor agrees to pay the stated Liquidated Damages Charge, as follows:

- Farrington Highway Stations Group Contract Substantial Completion: \$5,000.00 per day.

**2. SP-7.1 GENERAL PERFORMANCE AND ACCESS PROVISIONS**

**SP-7.1.1 Time is of the Essence**

Section 7.1.1 of the General Conditions is hereby amended by adding the following subparagraphs (a), (b), and (c):

(a) **Schedule of Access Date Milestones.** The following dates in Table 7.1 shall be incorporated into the Contractor’s Baseline Project Schedule and serve as a part of the Contract requirements for the Farrington Highway Stations Group Construction Contract. Abbreviations used in Table 7.1 include:

- CSC – Core Systems contractor
- E&E – Elevator and Escalator contractor
- FHSG – Farrington Highway Station Group Contractor (this Contract)
- LCC – Leeward Community College Station
- NLT – No Later Than date when access is provided by the “Providing” contractor to the “Receiving” contractor
- TCCR – Train Communication & Control Room
- WOFH – West Oahu / Farrington Highway Guideway contractor
- WLO – West Loch Station
- WTC – Waipahu Transit Center Station

	Description	Date NLT:	Receiving Contract:	Providing Contract:
	<b>West Loch Station</b>	(~ start 4/15/15)		
	WLO – Auxiliary Equipment Building / TCCR, Partial Access for Systems Installation	2/15/2016	CSC	FHSG
	WLO – Balance of Building and Structures, Partial Access for Systems Installation	6/15/2016	CSC	FHSG
	WLO – Platform Construction, Partial Access on Guideway Deck for FHSG to Construct Platform	12/1/2015	FHSG	WOFH
	WLO – Elevator & Escalators Installation, Partial Access for E&E	2/15/2016	E&E	FHSG
	WLO – Station Platform, Partial Access for Systems Installation	7/15/2016	CSC	FHSG
	WLO – E&E Complete Installation & Testing to support Station Completion	3/1/2017	FHSG	E&E
	WLO – CSC Complete Installation & Testing to support Station Completion	3/1/2017	FHSG	CSC
	WLO – CSC provided Full Access @ Station Construction Completion	3/31/2017	CSC	FHSG
	<b>Waipahu Transit Center Station</b>	(~ start 8/1/15)		
	WTC – Auxiliary Equipment Building / TCCR, Partial Access for Systems Installation	6/1/2016	CSC	FHSG
	WTC – Balance of Building and Structures, Partial Access for Systems Installation	9/15/2016	CSC	FHSG

<b>TABLE 7.1 - ACCESS SCHEDULE REQUIREMENTS</b> (Based on NTP, anticipated to occur on April 1, 2015)				
	<b>Description</b>	<b>Date NLT:</b>	<b>Receiving Contract:</b>	<b>Providing Contract:</b>
	WTC – Platform Construction, Partial Access on Guideway Deck for FHSG to Construct Platform	5/15/2016	FHSG	WOFH
	WTC – Elevator & Escalators Installation, Partial Access for E&E	11/15/2016	E&E	FHSG
	WTC – Station Platform, Partial Access for Systems Installation	10/1/2016	CSC	FHSG
	WTC – E&E Complete Installation & Testing to Support Station Completion	7/1/2017	FHSG	E&E
	WTC – CSC Complete Installation & Testing to Support Station Completion	7/1/2017	FHSG	CSC
	WTC – CSC provided Full Access @ Station Construction Completion	7/31/2017	CSC	FHSG
	<b>Leeward Community College Station</b>	(~ start 12/1/2015)		
	LCC – Auxiliary Equipment Building / TCCR, Partial Access for Systems Installation	10/1/2016	CSC	FHSG
	LCC – Balance of Building and Structures, Partial Access for Systems Installation	12/1/2016	CSC	FHSG
	LCC – Platform Construction, Partial Access on Guideway Deck for FHSG to Construct Platform	8/15/2015	FHSG	WOFH
	LCC – Elevator & Escalators Installation, Partial Access for E&E	2/1/2017	E&E	FHSG
	LCC – Station Platform, Partial Access for Systems Installation	1/1/2017	CSC	FHSG
	LCC – E&E Complete Installation & Testing to Support Station Completion	6/1/2017	FHSG	E&E
	LCC – CSC Complete Installation & Testing to Support Station Completion	6/1/2017	FHSG	CSC
	LCC – CSC provided Full Access @ Station Construction Completion	6/30/2017	CSC	FHSG
	<b>Farrington Highway Station Group Contract Substantial Completion</b>	<b>9/30/2017</b>		

(b) **Access Coordination.** The Contractor shall have shared use of the Project site for construction operations during the construction period. The Contractor's use of the Project site is limited only by HART's right to perform work or to retain other contractors on portions of the Project. The Contractor will perform pre-acceptance walkthroughs and provide a punchlist of other contractors' contractual elements that need to be incorporated in order to begin Work. The Contractor will also be providing access to other contractors to perform their work within the same Work site or Work area. The following terms are defined as follows:

- (1) "Work Site Control" or "Work Site Controller" means the contractor that controls the construction activity on a shared work site. The contractor that controls the work site is held responsible for all activities on that work site in terms of site safety, site

security, and overall site coordination and management. Work Site Control may transfer between contractors, if necessary, to maintain project schedules but must be established prior to any work commencing by two or more contractors in a given work site.

(2) “Partial Access” at the FHSG Stations used in Table 7.1 means:

(a) ‘Auxiliary Equipment Building / TCCR, Partial Access for Systems Installation’ includes shared occupancy between the Contractor and the Core Systems contractor (CSC) of the station interior spaces near to and including the electrical room, UPS room, TCCR room, and other CSC-associated equipment rooms. These rooms are expected to be completed to a degree in which the CSC can securely access and install racks, cables, and equipment within the rooms and are complete including final coat of paint with touchup by the Contractor upon completion of CSC installation. The rooms and adjacent areas are clean and free of dust. Equipment room doors are mounted and lockable. Pathways (duct bank, conduit, etc.) by the Contractor are to be installed and completed from the Auxiliary Equipment Building / TCCR rooms to the guideway to support the CSC’s installation of the main fiber and other cabling/wiring for communications, train control, SCADA, etc. Temporary and/or alternate routing of pathways may be required by the Contractor to permit the CSC’s timely access. Temporary power and lighting within the station is to be made available to the CSC by the Contractor. All specified interface points are to be complete and validated. The Contractor shall take the necessary steps to adequately protect CSC equipment and materials from dust and harm during any subsequent work.

(b) ‘Balance of Building and Structures, Partial Access for Systems Installation’ includes shared access to the remainder of the station areas to allow the CSC to install its own contracted conduits/raceways, cabling within its own conduits as well as within conduits installed by the Contractor, equipment, and devices from the Auxiliary Equipment Building/TCCR rooms throughout the remainder of the station, including ground, entry, and concourse levels (excludes the platform).

(c) ‘Platform Construction, Partial Access on Guideway Deck for FHSG to Construct Platform’ includes shared access by the WOFH guideway contractor and the Contractor to facilitate the Contractor’s installation of the precast or cast-in-place station platforms and, where applicable, the steel trusses for the concourse level and platform level passenger bridges. The Contractor shall coordinate with the CSC and utility providers for the installation of final power and other utilities.

(d) ‘Elevator & Escalators Installation, Partial Access for E&E’ includes the shared access to the areas immediately adjacent to the elevators and escalator locations (including machine rooms) to permit the E&E contractor to install its equipment. Elevator shaft structure (including lifting beam) is complete, ready to receive guide rails, hoisting equipment, platform, cab, electrification, etc. Escalator landing structures are complete at all station levels. Permanent power is required to be available by the time E&E testing is started.

(e) ‘Station Platform, Partial Access for Systems Installation’ includes shared access on the station platform and the installation of all concealed conduits, raceways, canopy steel structure, etc. by the Contractor is complete, ready for the CSC’s installation of wiring, devices, equipment, and Platform Screen Gates. The Contractor’s installation of canopy fabric will typically follow the CSC’s wiring rough-in.

(3) “Full Access” as used in Table 7.1 in the stations means:

(A) Work Site Control is handed over from the Contractor to the CSC at the completion of each station.

(B) With exception of minor finishing activities and punchlist items, all station construction work must be complete, including station auxiliary equipment such as fire control and air conditioning, enabling all mechanical and electrical work to be completed and tested.

(C) Station is clean and free of dust.

<b>Contract Title</b>	<b>Start Date</b>	<b>Finish Date</b>
MSF DB Contract	July 2011	April 2016
WOFH Guideway DB Contract	December 2009	July 2016
Core Systems Contract DBOM (Design-Build Portion)	January 2012	March 2019
Elevator & Escalator DFIM (Design, Furnish & Install Portion)	August 2013	July 2018

(c) **Use of Site:** The Contractor shall limit the use of Project site(s) to areas within the Contract limits indicated as property lines. Do not disturb portions of the Project site beyond areas in which the Work is indicated.

- (1) Limits: Confine construction operations to property lines.
- (2) Limits: Limit site disturbance, including earthwork and clearing of vegetation, to 40 feet beyond building perimeter; 10 feet beyond surface walkways, surface parking, and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surfaces such as stormwater detention facilities that require additional staging areas in order to limit compaction in the constructed area.
- (3) Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to HART, HART's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
  - (A) Schedule deliveries to minimize use of driveways and entrances by construction operations.
  - (B) Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

### 3. SP-7.1.7 PERMITS, LICENSES

Section 7.1.7 of the General Conditions is hereby amended by adding the following subparagraph (e):

(e) The following permit has been applied for and will be paid for by HART: The Department of Planning and Permitting (“DPP”) One Time Review.

All other required permits are to be applied for and paid for by the Contractor:

### 4. SP-7.15 CONSTRUCTION FACILITIES

Section 7.15.1 of the General Conditions is hereby amended by adding the following subparagraphs:

(r) The main field office, including all equipment and services specified for use by HART’s field staff shall be provided no later than fifteen (15) days prior to the start of construction. HART’s field offices for this FHSG Contract shall be a minimum of 1,400 square feet (equivalent to that of a double wide trailer) and shall include:

- (1) A combination of cubicle/open office space and three (3) enclosed office spaces to accommodate a total of eight (8) workstations.
- (2) Private offices are to be a minimum of eighty (80) square feet and have a lockable door.
- (3) Open office space shall be provided for inspector work stations and administrative work station.
- (4) Window area shall be equal to ten percent (10%) of the area of the floor space..
- (5) Separate restrooms for male and female.
- (6) HART to approve the office space layout.

(s) The field office shall be on a well-graded site with access road and parking area. The parking area shall be reasonably level. The parking area, including visitor parking, shall have an all-weather surface. The field offices shall be equipped with either a 24-hour monitored security service or silent watchmen-type security system. The Contractor shall install sufficient exterior security lighting that is automatically activated at low light levels to maintain two foot candles of lighting in the office site area, including parking. Provide eight (8) dedicated parking spaces for HART’s exclusive use.

(t) The field offices shall be equipped as follows (dimensions are approximate):

- (1) Private Offices: Equip each office with one 66”x 30” desk with lockable filing drawers including a 42”x 24” L-extension with lockable drawers; one padded, adjustable swivel chair with armrests; two guest chairs; one lockable four-drawer legal filing cabinet; two four-shelf 34”w x 58”h bookcases; one 4’ x 5’ white board, one wastebasket, and one recycling wastebasket.
- (2) Open office workstations and cubicles: Provide four 66”x 30” desks with lockable filing drawers including a 42”x 24” L-extension with lockable drawers; six

padded, adjustable swivel chair with armrests; one 34" x 72" work table; six 4-shelf 34" w x 58" h bookcases; one 10 to 12 drawer plan table; four wastebaskets and two recycling baskets.

(3) Administrative workstation: Provide one 66" x 30" desk with lockable filing drawers including a 42" x 24" L-extension with lockable drawers; one padded, adjustable swivel chair; one guest chair; one 24" x 48" work table; four 5-drawer, minimum 28" wide, commercial grade vertical locking file cabinets keyed alike; one 42" w x 72" h two-door lockable supply cabinet; one wastebasket, and one recycling wastebasket.

(4) Eight (8) door keys for the office entry door.

(u) Computer Hardware and Software. For all Contractor provided equipment, provide same day on-site warranty service and loaner equipment as necessary to maintain functionality through Final Acceptance of the Work and for an additional thirty (30) Days, unless directed otherwise by the HART. Provide internet service and access to HART Project network via a direct network connection from HDT (Hawaii Dialogix Telecom) or VPN appliance. Minimum speed must be 20Mb synchronous.

(1) Provide modem, router, firewall, and switches to enable all workstations printers, and copiers to be networked on a 10/100/1000 Mbps LAN with WAN access. All network connections shall be terminated at all connections. The LAN shall also be extended via a wireless 802.11 b/g/n network accessible from all locations within the office space.

(2) Provide one color copier/printer and two local administrative desktops: One desktop for administrative use and one desktop to store scanned documents via the copy machine.

(3) At a minimum, computer hardware/software and equipment must meet the following specifications:

A. Desktop computer hardware and software requirements for administrative use must meet the following specifications:

- (i) Intel Core i7-4770 (3.4 Ghz), Intel Xeon E5-2620 V3 (2.4 Ghz), or greater. Computers shall be capable of running the most current version of Microsoft Windows. Performance shall be equal or greater than that of computers issued to contractor personnel.;
- (ii) 8 GB RAM;
- (iii) 1TB 7200rpm SATA Hard Drive;
- (iv) 16X DVD +/-RW drive and 16X DVD reader drive with recording software (example: Roxio Creator);
- (v) USB Optical Mouse;
- (vi) USB Keyboard;
- (vii) Speakers;
- (viii) Two 24-inch Widescreen Flat Panel Monitor per computer;
- (ix) HART-specified Operating System;
- (x) Microsoft Office Professional (current version);
- (xi) Adobe Acrobat Professional (current version);

- (xii) Anti-virus protection (Symantec Endpoint Protection current version or equal) with a paid up contract for providing periodic updates of the virus protection software and virus definitions through final acceptance of the Work and for an additional 30 Days, unless directed otherwise by the HART;
- (xiii) On-Site Setup Services; and
- (xiv) Surge Protector. Graphics card (Nvidia Quadro K2200 or similar) that provides (equivalent) dual ports for monitors (DVI, HDMI Display Port).

- B. For Color Copier/Printer;
  - (i) 55 Pages per minute color copying;
  - (ii) 11x17 scanning and printing;
  - (iii) Fax;
  - (iv) Duplexing and stapling;
  - (v) Three paper trays each with minimum 500 sheet capacity (at least one must support 11x17);
  - (vi) 100Base-tx (Rj45) network interface;
  - (vii) Sending methods – E-mail and file server (individual and shared); and
  - (viii) Scan to PDF – including OCR (Optical Character Recognition) Full Text Searchable Document Conversion to PDF.

(v) The Contractor shall also supply work space for HART inspectors the equivalent of two office desks in each of their satellite office’s should the contractor elect to set up secondary field offices for station work under this contract in addition to the main field office that the Contractor establishes for work on the FHSG.

**5. SP-7.16 MAINTENANCE OF TRAFFIC**

Subsection 7.16.1(b)(6) shall be amended by adding the following after the first sentence of this subsection:

"Project-specific lane closure requirements are included in the following Table 7.16-1.

TABLE 7.16-1 – Lane Closures																									
Farrington Hwy Route	Direct.	Existing Thru Lanes*	AM											PM											
			12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8:30	8:30-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11
Lane Closure Restrictions: Minimum Number of Thru Lanes to Remain Open																									
Leoku St to Mokuola St	Inbound	2	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	
Leoku St to Mokuola St	Outbound	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1

\* Excludes auxiliary lanes

**CHAPTER SP-8**

**1. SP-8.1 Coordination with Artwork**

- (a) Artwork:
  - (1) Artwork will be provided by HART under contract with the station artist.

- (2) The Contractor shall coordinate with HART and the station artist and schedule access to the site as required for installation and shall include the artist schedule into the Project Schedule.
- (3) The Contractor shall prepare surfaces and substrates as indicated on the Contract Documents.
- (4) Artwork location(s) shall be free of construction debris, materials, equipment, etc. Area shall be broom clean.
- (5) The Contractor shall facilitate the artwork installation and provide temporary electrical and water at no additional cost to HART.
- (6) The Contractor shall provide barriers, and install materials to protect the Work site during installation, and protect artwork after completion.

**2. SP-8.2 Specialty Contractors**

- (a) The following required specialty contractor classifications have been identified in connection with the Contract Work. It is the Contractor’s responsibility to know the State of Hawai’i contractor license laws, including the scope of contractor and specialty classifications. Refer to the Instructions to Bidders regarding timely written submission of comments, request for clarification, or if the bidder does not agree with the list below, including additions or deletions to the identified list of required specialty contractor licenses. The identified required specialty contractor classifications are as follows:

<u>Specialty Classification</u>	<u>Description</u>
C-01	Acoustical and insulation
C-02	Mechanical insulation
C-04	Boiler, hot-water heating, and steam fitting
C-13	Electrical
C-15	Electronic systems
C-15a	Fire and burglar alarm
C-15b	Telecommunications
C-20	Fire protection
C-20a	Fire repressant systems
C-27	Landscaping
C-27a	Hydromulching
C-37	Plumbing
C-42	Roofing
C-44b	Awnings and patio cover
C-52	Ventilating and air conditioning
C-55	Waterproofing
C-62a	Pole
C-63	High voltage electrical

**3. SP-8. 3 Special Coordination Procedures for Elevators & Escalators**

- (a) The Contractor shall provide the Elevator & Escalator (E&E) contractor partial access on the dates provided in Table 7.1 of SP-7.1.1 of the Special Provisions.
- (b) The E&E contractor’s installation work will be performed during normal working hours of normal working days after hoistways and machine/control rooms have been prepared by the Contractor in accordance with the requirements set forth in the subsections below. All work

items herein shall be provided at no additional cost to HART or the E&E contractor, and in accordance with all governing codes.

- (c) All preparatory work as described in the subsections below for elevator and escalator installation shall be performed per the latest applicable revision of the national (ASME A17.1 or CSA B44) and/or local codes.
- (d) The Contractor shall coordinate with the E&E contractor to clarify the sequence of construction for each elevator and each escalator, to ensure that required preparatory work is completed in advance of the E&E contractor's installation date, and that any elements of the Work relating to closing in elevators and escalators is deferred until acceptably coordinated and agreed with the E&E contractor.
- (e) Where machine rooms are remote from the hoistway, electrical duct runs and piping serving the elevators and escalators will be underground or embedded in the concrete slab. The Contractor shall provide notification to the E&E contractor at least two (2) weeks in advance of pouring concrete in the floor area between any hoistway and its corresponding machine room, and provide access to the E&E contractor to supply and install ducting and piping prior to the Contractor pouring concrete.
- (f) The Contractor shall provide availability of a crane and operator to place the elevator/escalator machine, controller, and machine supports (where applicable) into the machine/control room or hoistway overhead, and to place the escalators into the wellways, prior to enclosing these areas. The Contractor shall coordinate this work with the E&E contractor's field supervisor. The crane shall be of adequate capacity to hoist a minimum load of 30 tons and shall have a vertical lift capability to position escalator trusses and elevator hoistway equipment into place.
- (g) The Contractor shall provide an acceptable material unloading area within 100 feet of hoistway (for elevators) and within 300 feet of wellway (for escalators) with 'rollable' access (planked or paved). Unloading area shall be accessible to a 43-foot semi-trailer to allow for unloading of the E&E contractor's equipment during normal working hours.
- (h) The work areas to be used by the E&E contractor, including wellways, hoistways, machine rooms, pits, storage areas and assembly areas, shall be kept clear of construction debris resulting from other than the E&E contractor at all times.
- (i) The Contractor shall coordinate with the E&E contractor regarding requirements for E&E contractor's partial access. At minimum, the Contractor shall provide the following in compliance with the Contract Documents prior to the E&E contractor's partial access dates shown in Table 7.1 of SP-7.1.1 and shall provide notice to the E&E contractor that the station is ready for elevator and escalator installation:
  - (1) Hoistways or wellways, including any supports for elevator or escalator equipment, shall be completed in accordance with the Contract Documents and enclosed, except as required for installation access.
  - (2) Hoistways or wellways shall be plumb from top to bottom within a variation of 1" (one inch) per 100' (one hundred feet), and provided with sufficient clearance at the top and bottom for proper installation of machinery. Inside edge of door sill supports shall be parallel, level and plumb from the center line of the hoistway, with allowable variation of 1/4" (one-quarter inch).

- (3) Machine rooms shall be completed in accordance with the Contract Documents, including cooling system, concrete floors and foundations.
  - (4) All pits shall be completed in accordance with the Contract Documents, including drains, sumps and waterproofing. Provide any additional measures required to ensure effective prevention of pit exposure to storm water or ground water for the duration of the Work.
  - (5) Concrete surfaces of hoistways, wellways, pits and machine rooms shall be fully dry and cured.
  - (6) Power shall be provided to the elevator and/or escalator controller and associated lighting circuits, including necessary disconnect switches, switches, conduit, wiring and junction boxes etc., in accordance with the Contract Documents. Where permanent power is not available, temporary electric power shall be provided, with the same characteristics as the permanent supply, for construction, testing and adjusting. Permanent power is required prior to any testing of elevator or escalator installations.
- (j) The Contractor shall coordinate with the E&E contractor regarding the requirements for preparatory work for elevators. At minimum, the Contractor shall provide the following preparatory work for elevators:
- (1) Pit floor shall be dry, level, flat, and free of surface imperfections and debris.
  - (2) Provide a dry and enclosed storage area of 15 feet by 30 feet for elevator materials and tools, adjacent to the lowest entrance at each hoistway. If this space cannot be provided, the Contractor shall provide an alternate lay down area acceptable to the E&E contractor. The Contractor shall provide power for construction adjacent to hoistways and machine/control rooms (110/220-V, single phase, for welders and hoists) and sufficient 480-V 3-phase power to run elevator(s) at the same time.
  - (3) Provide a temporary work platform, as approved by the E&E contractor for all elevators at the top floor served by each elevator. The platform shall comply with applicable codes and regulations and shall be securely fastened to the structure. Construction, maintenance and removal of this platform shall be provided by the Contractor.
  - (4) Provide 75° bevel guards on all projections, recesses or setbacks over 4", except on side used for loading/unloading within all elevator shafts.
  - (5) Provide venting of hoistways in accordance with the Contract Documents.
  - (6) Provide construction barricades outside elevator hoistways in accordance with OSHA requirements. Barricades shall be freestanding and removable, located at each hoistway opening at each floor.
  - (7) Provide drains and sumps in elevator pits in accordance with the Contract Documents. The cover shall be secured and level with the pit floor (Rules 2.2.2.4 and 2.2.2.6 in cars following ANSI 2000 or greater or Rules 106.1b(3)&(4) less than ANSI 2000) and shall be located to clear elevator equipment.
  - (8) Access to the machine room shall be secured (Rule 2.7.3 in cars following ANSI 2000 or greater or Rule 101.3 for less than ANSI 2000). Door shall be self-closing, self-locking and operable from inside without a key.

- (9) Provide a GFI convenience outlet and telephone outlet for each elevator in the machine/control room, in accordance with the Contract Documents.
  - (10) Provide lighting, power, and cooling of elevator machine room (Rule 2.7.5 in cars following ANSI 2000 or greater and less than ANSI 2007 and Rule 2.7.9 for ANSI 2007 or greater or Rule 101.5 for less than ANSI 2000), in accordance with the Contract Documents. Machine room temperature shall be maintained between 55°F and 90°F. Humidity levels shall be maintained to prevent condensation on equipment or surfaces.
  - (11) Provide lighting and GFCI per hoistway code requirements as shown on the Contract Documents. For elevator machine roomless (MRL) type elevators, the “machine room” and “control room” as shown are two separate spaces and require a “GFI” outlet and for lighting (19ftc) per code in each space.
  - (12) Provide hoisting beams, trap doors and other means of access to machinery space, in accordance with the Contract Documents (Rules 2.7.3.4 and 2.9.3.3 in cars following ANSI 2000 or greater or Rules 101.3d and 105.3c for less than ANSI 2000). Hoisting beams in each shaft shall be located and load rated in accordance with the Contract Documents. Lifting points or beams shall be visibly marked with the safe working load.
  - (13) Provide Class “ABC” fire extinguishers in electrical machinery and control space in accordance with the Contract Documents. Extinguishers shall be located convenient to access door (Rule 8.6.1.6.5 in cars following ANSI 2000 or greater or Rule 1206.1h for less than ANSI 2000).
  - (14) All elevator glass and secondary steel framing shall be left open at ground level entrances for the E&E contractor to install elevator cab assemblies. Coordinate with E&E contractor for installation of elevator door frame.
  - (15) At the Elevator Roof level, all roof structure and finishes shall not be installed until the elevator cab assembly is complete. Provide an effective prevention of hoistway exposure to storm water by means of removable barriers at the roof level.
- (k) The Contractor shall coordinate with the E&E contractor regarding work to be performed prior to placing the elevators into automatic operation. At minimum, the Contractor shall have completed the following work before elevators are placed into automatic operation, prior to code-required inspections by the authority having jurisdiction:
- (1) The machine room shall be completed in accordance with the Contract Documents, and in compliance with code, including stairways or steps and guardrails, and lockable fire rated door, self-closing and self-locking with label to be provided (Rules 2.7.3 & 2.11.14 in cars following ANSI 2000 or greater or Rules 101.3 & 110.14 for less than ANSI 2000).
  - (2) All penetrations through 2-hour (or greater) rated walls shall be sealed in accordance with the Contract Documents.
  - (3) Cab light circuits and all receptacles installed in machine rooms, and ground fault circuit interrupter protection shall be installed in pits (GFI) (NEC 620 or CSA 38).
  - (4) The conduit runs from elevators to remote status panel and monitoring systems shall be in accordance with the Contract Documents.

- (5) The conduit for fire alarm system to each elevator control in machine room shall be in accordance with the Contract Documents.
- (l) The Contractor shall coordinate with the E&E contractor regarding preparatory work for escalators. At minimum, the Contractor shall provide the following preparatory work for escalators:
    - (1) The wellway framed openings shall be complete in the floors, including necessary supports for the truss in accordance with the Contract Documents. Any indicated enclosures, wellway railings, baffles and barricades around the wellway shall be in place prior to escalator installation, so that the E&E contractor can hoist trusses into place. Roof structures shall not be used for hoisting escalators into place. Confirm and coordinate with EE for locations of intermediate or other supports as shown on Contract Documents. Locate and install supports required for escalator truss attachments prior to installation of the intermediate supports.
    - (2) Provide a staging area for the exclusive use of the E&E contractor, with a minimum area of 15 feet by 50 feet (per escalator), located at the bottom or most accessible landing within crane picking distance of each escalator wellway.
    - (3) Coordinate with the Core Systems Contractor for their installation of a RJ11C-one pair telephone line to phone jack in either the top or bottom landing.
  - (m) The Contractor shall coordinate with the E&E contractor regarding the work to be provided by the Contractor during E&E contractor's performance of its work. At minimum, the Contractor shall perform the following Work during the E&E contractor's performance of its work:
    - (1) Provide all cutting, patching and chasing of walls, beams, masonry, finish work and painting, together with all repairs made necessary by such work.
    - (2) Provide protection to hoistway or wellway during the time the equipment is being installed.
    - (3) Provide blackout/cutout through steel or masonry as required, to accommodate hall button boxes, signal fixtures, hoistway access switches, fire service fixtures, hydraulic piping, electrical conduit and hatch duct. Provide any repairs such as grouting, patching, painting, or fire-proofing. Coordinate blackout/cutout with the E&E contractor's field supervisor.
  - (n) The Contractor shall at minimum perform the following Work following the completion of the E&E contractor's work:
    - (1) Completed elevators and escalators shall be barricaded, protected and secured by the Contractor for the duration of the Work.
    - (2) Provide any repairs such as grouting, patching, painting, or fire-proofing around entrance frames and finished floor and grout to sill line after installation of entrance.

#### **4. SP-8. 4 Protection of Adjacent Guideway and Core Systems Work Elements**

(a) The Contractor is advised that other contractors will be performing work prior to, concurrently with, and after the Contractor work on the stations. Special care shall be taken to protect other contractors' work-in-place to eliminate the potential for damage.

- (1) Track Installation. The Contractor shall not use the tracks to carry or transport materials or equipment for its construction. The Contractor shall be responsible to repair or replace any damage done by its work to track, third rail, duct banks and conduit pathways and conduits, and appurtenances installed by others.
- (2) Baseline As-Builts. A baseline that will be utilized by HART to determine whether the damage resulted from the Contractor's work is the As-Built documentation provided by the WOFH guideway contractor for the guideway segment at, and adjacent to, the station construction work area.
- (3) Quantification of Damage. Contractor shall be responsible for repair and replacement of any damage to track, contact rail, and deck appurtenances to the extent that they have to be corrected in order to comply with specifications applied to the initial new construction by other contractors.
- (4) Safety. If train testing and commissioning commences during the course of the Contractor's work schedule, Contractor personnel working adjacent to track shall be safety-certified in accordance with 49FRA214.

## 5. SP-8. 5 Potential Station Site Contamination

(a) The following is provided for information purposes only and is a brief summary for each of the station sites of the known contaminants of potential concern as documented in the site-specific relevant existing background reports and studies.

- (1) Environmental Contaminant Screening Summary

**Station: West Loch**

There is potential that petroleum contaminated soil will be encountered during construction activities at the future West Loch Transit Station.

There are several Leaking Underground Storage Tank (LUST) sites in the vicinity, all of which have received No Further Action (NFA) status. The C&CH Waipahu Fire Station LUST site has on-going groundwater monitoring and land-use controls in place, however this site is located down gradient and approximately 150 meters from the West Loch Transit Station and is unlikely to impact the Station.

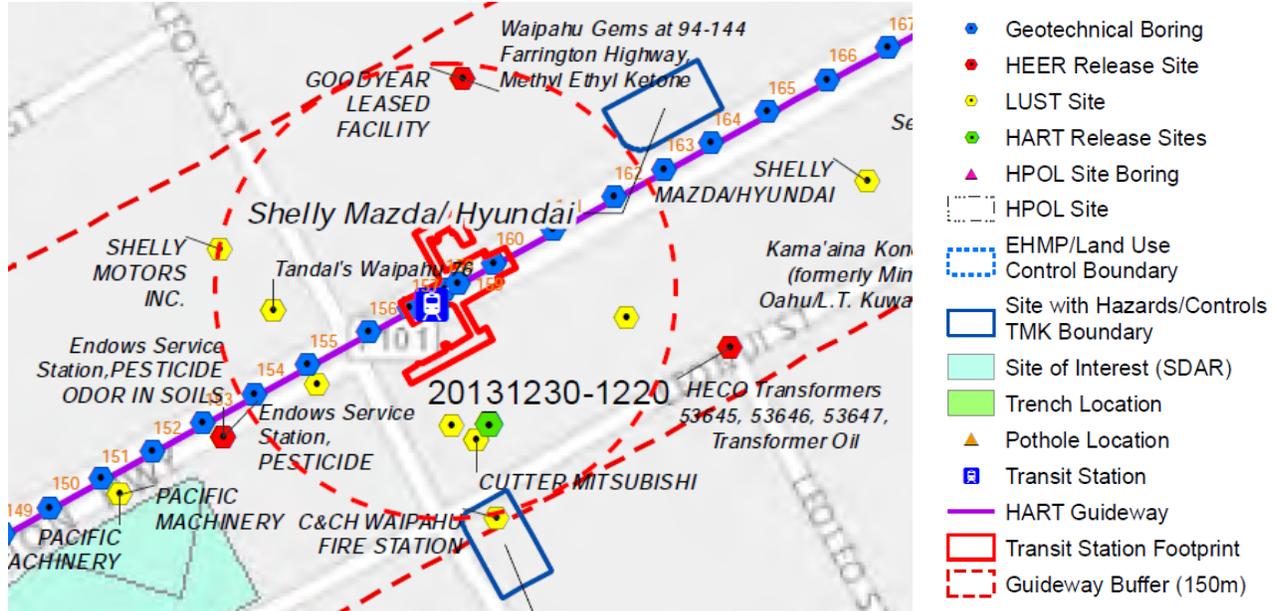
During excavation work at the site in December 2013, petroleum odors and stained soil were observed at the location of the future West Loch Transit Station (94-149 Farrington Highway). The area of contamination corresponds with the approximate location of the former gasoline UST at the Nissan Waipahu Showroom LUST site. During excavation and removal of the 1,000-gallon gasoline UST in October 1991, petroleum contaminated soil was discovered.<sup>1</sup> Over excavation was performed and approximately 125 cubic yards of impacted soil were removed. A limited volume of petroleum contaminated soil was left in place adjacent to the showroom because it could not be safely removed without jeopardizing the structural integrity of the adjacent building and vehicle ramp. The location of this residual contamination

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<sup>1</sup> Masa Fujioka and Associates, 1991. Initial Site Characterization, Nissan of Waipahu, 94-119 Farrington Highway, Waipahu, Oahu, Hawaii, TMK: 9-4-48, Facility I.D. No. 9-201672. November 15.

approximately corresponds to the location of the petroleum contaminated soil observed in December 2013. TPH-GRO concentration of soil left in place was below the HDOH Tier 1 EAL for commercial/industrial use.

The approximate areas of contamination are depicted on the figure below and appear to be located east, west, north, and south of the proposed station footprint.



References:

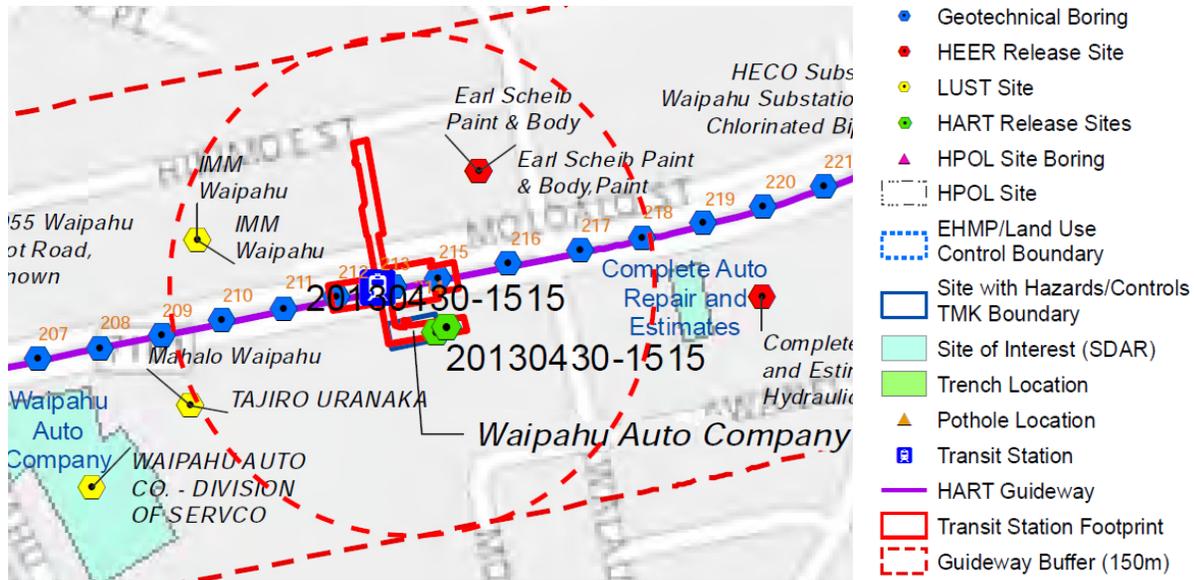
- (a) Hawaii Hazardous Substance Written Follow-Up Notification State of Hawaii Department of Health Release ID 20131230-1220. March 28, 2014.
- (b) Former UST Site Follow-Up Investigation Report Cutter Dodge Waipahu Facility 94-149 Farrington Highway Waipahu, Hawaii. August 12, 2011.
- (c) Phase I Environmental Site Assessment Cutter Mazda of Waipahu 94-135 Farrington Highway Waipahu, Hawaii TMK no. (1) 9-4-048:047. December 4, 2009.
- (d) Partial Phase I Environmental site Assessment Shopping Strip Mall 94-144 Farrington Highway Waipahu, Hawaii TMK No. (1) 9-4-047:008. December 3, 2009.
- (e) Phase I Environmental Site Assessment Cutter Pontiac Buick GMC 94-119 Farrington Highway Waipahu, Hawaii TMK No. (1) 9-1-048:046. December 3, 2009.
- (f) UST Release Response Report DOH Facility ID No.: 9-201495. Cutter Waipahu, 94-149 Farrington Highway Honolulu, Hawaii 96797. August 27, 2002.
- (g) Underground Storage Tank Removal 94149 Farrington Highway Waipahu, Hawaii 96797, Facility ID No. 9-201495. July 9, 2002.

**Station: Waipahu**

It is likely that petroleum contaminated soil will be encountered during construction activities at the future Waipahu Transit Station.

There are several Leaking Underground Storage Tank (LUST) sites in the vicinity, all of which have received No Further Action (NFA) status, as well as several Hazard Evaluation and Emergency Response (HEER) release sites. There is one Site Discovery and Remediation (SDAR) site, Waipahu Auto Company that has

land-use controls due to residual petroleum contamination in soil. Laboratory analytical results indicated that total petroleum hydrocarbons (TPH)-diesel range organics (TPH-DRO) and TPH-residual range organics (TPH-RRO) were present in the soil deeper than 10 feet below ground surface at concentrations above the HDOH Tier 1 EAL for commercial/industrial use. During archeological trenching in April 2013, petroleum odors were observed within a trench at 4 feet below ground surface (bgs). TPH-RRO was also detected above the HDOH Tier 1 EAL for commercial/industrial use. Accordingly, soil excavated within the Land Use Control boundary must be managed in accordance with the Programmatic EHE-EHMP (HART, July 2014).



## References

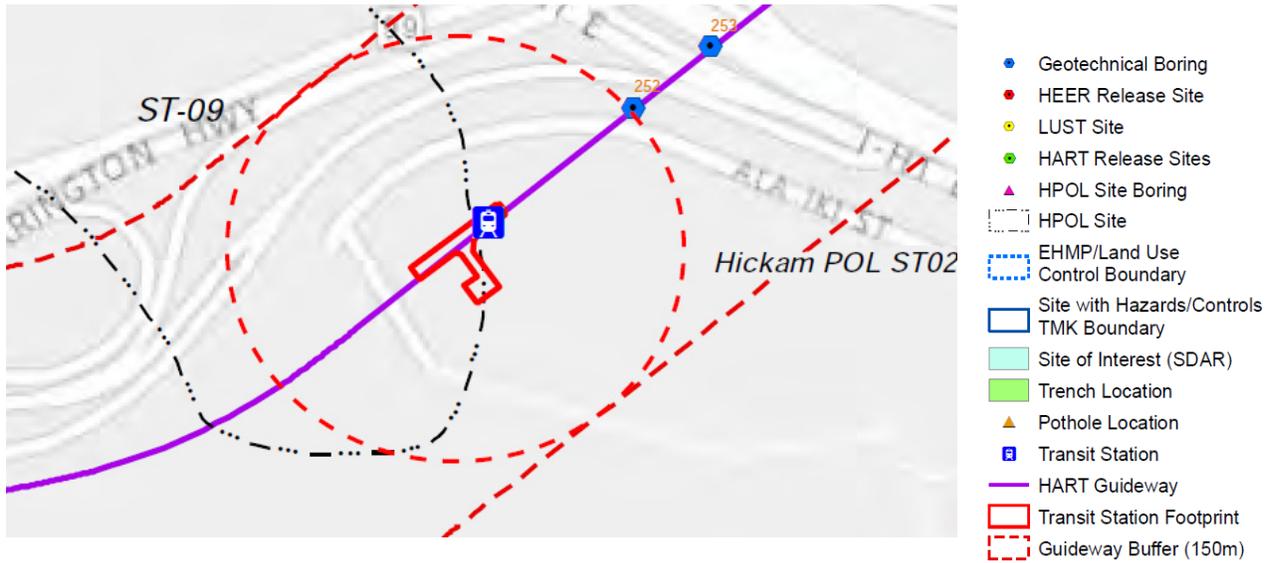
- (a) Hawaii Hazardous Substance Written Follow-Up Notification State of Hawaii Department of Health Release ID 20140122-1029. March 28, 2014.
- (b) Hawaii Hazardous Substance Written Follow-Up Notification State of Hawaii Department of Health Release ID 20130430-1515. July 26, 2013.
- (c) Hawaii Hazardous Substance Written Follow-Up Notification State of Hawaii Department of Health Release ID 20121008-1510. October 18, 2012.
- (d) Review of Hydraulic Lift Closure and Release Response Report, dated September 2, 2005 and No Further Action. Waipahu Auto Company, 94-729 Farrington Highway, Waipahu, Hawaii. May 10, 2006.
- (e) Underground Storage Tank Removal at Waipahu Auto 94-729 Farrington Highway Waipahu, Oahu, Hawaii (DOH Facility ID Number 9-200882). June 9, 1998.

### **Station: Leeward Community College**

It is unlikely that contamination will be encountered during construction activities at the future Leeward Community College Transit Station.

The Hickam Petroleum, Oil and Lubricants (HPOL) site ST-09, which has a No Further Action (NFA) status, is the only environmental site of concern within the vicinity of the future Leeward Community College Transit Station. Due to the proximity of the site to the proposed station location, there is a slight potential for

encountering petroleum contaminated soil within the work area.



References:

- (a) Final Environmental Hazard Management Plan for Sites Associated with the Hickam Petroleum, Oils, and Lubricants System. June 27, 2013.