

SPECIAL PROVISIONS

HONOLULU RAIL TRANSIT PROJECT

**DILLINGHAM AND KAKA'AKO STATION GROUP
STATION DESIGN CONSULTANT**

SPECIAL PROVISIONS TABLE OF CONTENTS

- I. PROJECT
- II. SERVICES
- III. TIME
- IV. LIQUIDATED DAMAGES
- V. INSURANCE REQUIREMENTS
- VI. COMPENSATION AND INVOICING
- VII. MODIFICATIONS TO THE GENERAL TERMS AND CONDITIONS FOR CONTRACTS FOR PROFESSIONAL SERVICES FOR THE CITY AND COUNTY OF HONOLULU (08/2000)
- VIII. FEDERAL CLAUSES
- IX. ASSIGNMENT
- X. HEADINGS; GENDER; NUMBER
- XI. REFERENCES TO THE CITY AND COUNTY OF HONOLULU

LIST OF SPECIAL PROVISIONS EXHIBITS

- EXHIBIT 1 - SCOPE OF WORK
- EXHIBIT 2 - A. CONTRACT COST
 - B. COMPENSATION AND INVOICING
 - B-1 PROJECT PAYMENT SCHEDULE
- EXHIBIT 3 - CERTIFICATION REGARDING CONFLICT OF INTEREST
- EXHIBIT 4 - LETTER OF SUBCONTRACT INTENT
- EXHIBIT 5 - CERTIFICATE REGARDING INELIGIBLE CONTRACTORS
- EXHIBIT 6 - CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS
- EXHIBIT 7 - CERTIFICATION REGARDING LOBBYING
- EXHIBIT 8 - FEDERAL REQUIREMENTS
 - 1. Attachment 1.6a) - DBE Participation Report
 - 2. Attachment 1.6b) - Final Report of DBE Participation and Instructions for completion of the Final Report of DBE Participation

These Special Provisions and the General Terms and Conditions for Contracts for Professional Services for the City and County of Honolulu dated 08/2000 (“General Terms and Conditions”) shall apply to, and are incorporated by reference into the Agreement, except as modified by reference herein. All defined terms in the Agreement shall have the same meaning as in these Special Provisions.

I. PROJECT

The Honolulu Rail Transit Project (“HRTP”) is described in the Final Environmental Impact Statement as a twenty (20) mile grade separated fixed guideway transit system between East Kapolei and Ala Moana. The CONSULTANT will provide architectural and engineering services for the design of eight (8) transit stations of the Honolulu Rail Transit Project (“HRTP”) comprising the Dillingham and Kaka’ako Station Group: Kalihi Station, Kapalama Station, Iwilei Station, Chinatown Station, Downtown Station, Civic Center Station, Kaka’ako Station, and Ala Moana Station, herein referred to as the “PROJECT”.

II. SERVICES

The CONSULTANT’s responsibilities under this Agreement include providing services set forth in the Scope of Work attached hereto and incorporated herein as Exhibit 1.

III. TIME

Work under this Agreement shall be completed under multiple and overlapping Notices to Proceed (“NTPs”). Work under NTP #1a, NTP #1b, NTP #2 and NTP #3 shall be completed within four hundred forty (440) calendar days from issuance of NTP #1a. The duration for performance of Work under issuance of NTP #4 and NTP #5 shall be determined at the discretion of HART.

IV. LIQUIDATED DAMAGES

Liquidated damages are not applicable to this Agreement.

V. INSURANCE REQUIREMENTS

See Paragraph 4.3., Insurance, of the General Terms and Conditions as modified by Section VII (D) below.

VI. COMPENSATION AND INVOICING

A. Compensation to the CONSULTANT under this Agreement shall not exceed the amount stated in the Agreement. Upon completion and acceptance by HART of the mutually-agreed upon Schedule of Milestones, payment shall be made in accordance with Exhibits 2B and 2B-1, attached hereto and incorporated herein, inclusive of all taxes.

B. Final acceptance of the Work contracted for herein and payment therefore shall not excuse the CONSULTANT from any liability for defects in performance of the Work which may subsequently appear.

VII. MODIFICATIONS TO THE GENERAL TERMS AND CONDITIONS FOR CONTRACTS FOR PROFESSIONAL SERVICES FOR THE CITY AND COUNTY OF HONOLULU (08/2000)

The General Terms and Conditions for Contracts for Professional Services for the City and County of Honolulu (08/2000) shall apply to, and are incorporated by reference into this Agreement, except as modified herein.

A. DEFINITIONS

The following definitions are added to the General Terms and Conditions:

“AIRPORT ALIGNMENT” means the approximately twenty (20)-mile minimum operable segment of the Locally Preferred Alternative identified by Honolulu City Council Resolution No. 08-261.

“BASELINE DESIGN SCHEDULE” means the time-scaled and cost-loaded critical path network, updated monthly in accordance with the Agreement and depicting the Price Items and subordinate activities and their respective prices (distributed over time), durations, sequences, and interrelationships that represent the CONSULTANT’s Work plans, work breakdown structure (“WBS”) for designing and completing the PROJECT and the cost of all Work to be performed under the Agreement, distributed over the duration of the Agreement.

“C.F.R.” means the Code of Federal Regulations.

“CHIEF PROCUREMENT OFFICER” shall mean and refer to the HART Executive Director and CEO or designee.

“CONFORMANCE CHECKLIST” is the formal checklist used by the Project team to verify design criteria and construction specification conformance for each certifiable element in accordance with the H RTP Safety and Security Management Plan dated June 1, 2011.

“FEDERAL GOVERNMENT” means the United States of America and any executive department or agency thereof.

“FTA” means the Federal Transit Administration, United States Department of Transportation. The Federal Transit Administration is the current designation for the former Urban Mass Transportation Administration. Any reference in any law, map, regulation, document, paper, or other record of the United States to the Urban Mass Transportation Administration or its acronym UMTA is deemed a reference to the Federal Transit Administration.

“FULL FUNDING GRANT AGREEMENT (“FFGA”) means the designated means for the FTA to provide New Starts funds to projects with a Federal share of \$25 million or more. An FFGA establishes the terms and conditions for Federal financial participation in a New Starts project; defines the project; sets the maximum amount of Federal New Starts funding for a project; covers the period of time for completion of the project; and facilitates efficient management of the

project in accordance with applicable Federal statutes, regulations, and policy.

“HART” means the Honolulu Authority for Rapid Transportation. The acronym **“HART”** shall be substituted for the **“City and County of Honolulu”**, **“CITY”**, **“Rapid Transit Division”**, and **“RTD”** wherever those terms appear in the General Terms and Conditions, unless the context clearly indicates otherwise.

“MILESTONE” means a defined step toward the completion of Work in the Schedule of Milestones. The Schedule of Milestones, once achieved, shall serve as the basis for payment.

“PAY ITEM” means a component of the Schedule of Milestones for which the CONSULTANT provides a Pay Item Value for all Work included in a schedule milestone. A Pay Item may be activities, deliverables or a series of interrelated items as identified in the Schedule of Milestones and corresponding with activities from the CONSULTANT’s Baseline Design Schedule.

“PAY ITEM VALUE” means that value allocated by the CONSULTANT to a Pay Item that represents the dollar value to be achieved or achieved upon the completion of a schedule milestone as indicated in the Schedule of Milestones and the CONSULTANT’s Baseline Design Schedule.

“PMOC” means the FTA’s Project Management Oversight Contractor.

“PMSC” means InfraConsult LLC, the HART Project Management Services Consultant or any successor entity.

“PROJECT” means Work performed as set forth in the Agreement, including furnishing all services, labor, materials, supplies, equipment and other incidentals reasonably necessary for the successful completion of the Work contemplated under the Agreement.

“SCHEDULE OF MILESTONES” means a table of scheduled milestones, organized by NTP, which specifies Pay Items, Pay Item descriptions, Pay Item Values, planned or actual achievement dates and serves as a basis for payment.

“SCHEDULE OF MILESTONES PAY ITEM” means a series of activities contained in a Pay Item that depicts the associated Work leading to the payment milestone and shall contain unique coding to facilitate progress reporting of the Schedule of Milestones.

“STANDARD” or “REQUIREMENT” means any provision of any Federal, State, or City law, code, rule, regulation, guideline, directive, order, circular, agreement, practice, policy, notice, plan, statement, or other standard or requirement, and any amendment or revision thereto made in the future, including any mandatory provision, term, condition, clause, representation, certification, assurance or other statement required thereunder.

“SUBCONSULTANT” means any subcontractor or subconsultant who enters into an agreement with the CONSULTANT or Consultant’s subcontractors at any tier to perform a portion of the Work for the CONSULTANT.

“U.S.C.” means the United States Code.

“U.S. DOT” means the United States Department of Transportation, including its operating administrations.

“WORK” in addition to the definition described in the Agreement for Professional Services, paragraph 1, means all of the design, engineering, administration, testing, inspection and other duties and services; the furnishing of all labor, deliverables, materials, supplies, and equipment, as required by the Agreement, including all efforts and design services required during the construction phase of the PROJECT stations to successfully complete the scope of work covered under this Agreement. In certain cases, the term is also used to mean the products of the Work.

“WORK BREAKDOWN STRUCTURE” (“WBS”) means a hierarchal breakdown of the Scope of Work into components. HART will provide the WBS that reflects its breakdown of the scope and associated code structure in NTP #1a.

The following definitions in the General Terms and Conditions are modified as follows:

“CITY AND COUNTY OF HONOLULU”, “CITY”, shall be replaced by **“HART”** whenever those terms appear unless the context specifically indicates otherwise.

“CONSULTANT” OR “CONTRACTOR” means any corporation, partnership, individual, sole proprietorship, joint stock company, joint venture, or other private legal entity engaged by HART to perform the Work under this Agreement. For purposes of this Agreement, **“Contractor”** shall mean **“CONSULTANT.”**

“DIRECTOR” or “DIRECTOR OF BUDGET AND FISCAL SERVICES” shall be replaced by HART’s Executive Director and CEO or the Director’s duly authorized representative or assignee, unless the context specifically indicates otherwise.

“OFFICER-IN-CHARGE” means the HART Executive Director and CEO or designee.

B. DESIGNATION OF PROJECT MANAGERS

The Officer-in-Charge will designate a key representative to coordinate the Work under this Agreement, to coordinate work under other HART contracts with the Work under this Agreement, and to act as the liaison between HART and the CONSULTANT in order to assist in expediting the resolution of questions or controversies, the making of HART decisions, and the review and approval by HART of documents, progress reports, requests, and other matters as required.

The CONSULTANT shall, subject to written approval from HART, designate a key representative, who shall maintain close and frequent communications with HART’s key representative and be authorized to act on behalf of the CONSULTANT. Any change in the CONSULTANT’s key representative will be made by request, in writing, to be approved by HART. The CONSULTANT’s key representative shall be experienced and

qualified in the type of work involved and shall be directly responsible for the prosecution of the Work under this Agreement.

The Parties to this Agreement will make all reasonable efforts to retain the same key representative in order to maintain continuity of effort and control.

C. INDEPENDENT CONTRACTOR

Section 4.1 of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

“4.1.1 The CONSULTANT shall perform the work as an independent CONSULTANT and shall indemnify and hold harmless HART and all of its officers and employees from death, injuries, losses and damages to persons or property, including reasonable attorney fees and cost of defense, caused by the negligent act, error or omission in the performance of the contract by the CONSULTANT or the CONSULTANT ‘s subconsultants, agents and employees and this requirement shall survive the termination of contract.

The CONSULTANT is an independent consultant and shall not be deemed to be an agent, servant, representative or employee of HART. The contract shall not be construed to create a partnership or joint venture between HART and the CONSULTANT.”

D. INSURANCE

Section 4.3 of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

“4.3.1 Unless otherwise specified in contract documents, the CONSULTANT shall procure or cause to be procured and maintain (as provided herein), at no cost to HART, during the life of this contract and any extensions thereof, all insurance to cover the CONSULTANT’s operations under this contract, that may be required under the laws, ordinances or regulations of any governmental authority, including but not limited to the coverages below. The CONSULTANT shall either include all tiers of subcontractors, if any, under the policies required under paragraphs 2 through 4, to the extent permitted by law, or shall require all subcontractors to maintain coverages described in paragraphs 1 through 4.

1. Workers’ Compensation and Employers Liability Insurance.

The CONSULTANT shall maintain workers compensation and employers liability insurance. Workers’ compensation coverage shall be in accordance with State statutes. Employers liability coverage shall provide limits of not less than \$100,000 each accident for bodily injury by accident or \$100,000 each employee, \$100,000 aggregate, for bodily injury by disease.

2. Commercial General and Umbrella Liability Insurance. The

CONSULTANT shall maintain commercial general liability (CGL) and if necessary commercial umbrella insurance with a limit of not less than \$1,000,000 each occurrence, and general aggregate. CGL insurance shall be written on ISO occurrence form, CG 00 01 (or a substitute form providing equivalent coverage), and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract). HART and the City shall be included as additional insureds under the CGL, using ISO additional insured endorsement CG 20 10 (or equivalent), ; such additional insured provisions shall also apply under the commercial umbrella, if any. The policy(ies) shall contain a waiver of subrogation in favor of HART and the City.

3. Business Automobile and Umbrella Liability Insurance. The CONSULTANT shall maintain business auto liability (including no-fault coverage) and if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos) used by the CONSULTANT in the performance of this contract. Business auto coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage with HART and the City included as additional insureds using ISO endorsement CA 20 48. If necessary, the policy shall be endorsed to provide contractual liability coverage, subject to policy terms and conditions.

4. Professional Liability Insurance. The CONSULTANT shall maintain professional liability insurance with limits of not less than \$1,000,000 per claim/annual aggregate, covering the CONSULTANT, the CONSULTANT employees or agents for liability arising out negligent acts, errors or omissions in the performance of professional services under the contract. Such insurance shall remain in full force and effect continuously for the period of design and construction of the work, and for a period of three years following substantial completion of construction, provided that such coverage is reasonably available at commercially affordable premiums, as mutually determined and agreed. Notwithstanding the foregoing, however, it is understood and agreed that the coverage afforded under this article 4.3.1.4 shall cover only the vicarious liability of the CONSULTANT for the negligent acts or omissions of its agents.

4.3.2 The insurance specified above shall:

1. Provide that insurance specified in 4.3.1.2 and 4.3.1.3 above is primary

for claims arising from the CONSULTANT's performance of Services or operation of automobiles under this Agreement and that insurance (or self-insurance) carried by HART and/or the CITY shall be excess and non-contributing to CONSULTANT'S insurance;

2. Contain a standard Cross Liability coverage proving that the insurance applies separately to each insured, applicable to policies specified in 4.3.1.2 and 4.3.1.3 above;

3. Not be canceled or non-renewed or reduced in limits by endorsement without THIRTY (30) DAYS Prior written notice to HART, except for non payment of premium in which case, TEN (10) DAYS notice of cancellation shall be given.;

4. Except for Professional Liability insurance required in 4.3.1.4 above, be written on an "Occurrence" form of policy, unless otherwise specifically approved by HART.

5. Be provided by insurers authorized to provide insurance in the State of Hawai'i and with a current Best's rating of not less than A-7 or otherwise approved by HART.

4.3.3 Certificate of Insurance:

1. The CONSULTANT will provide and thereafter maintain current and renewal certificates of insurance, prepared by a duly authorized agent, evidencing the insurance in effect at all times during the term of this contract as required herein to HART. In the event of a claim, the City or HART may request, and CONSULTANT shall then provide a copy of the insurance policies.

2. Certificates shall clearly identify the project by name and/or contract number.

3. Certificate shall show the Certificate Holder as the Honolulu Authority for Rapid Transportation, and be delivered to the Executive Director and CEO, 1099 Alakea Street, Suite 1700, Honolulu, Hawai'i 96813. Certificates shall name the Honolulu Authority for Rapid Transportation and the City and County of Honolulu as additional insured as to General Liability and Automobile Liability insurances."

E. MODIFICATIONS

Section 5.1.1 (c) of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

"(c) *Within thirty (30) days* after receipt of a written change order, unless the period is extended by the Officer-in-Charge in writing, the CONSULTANT shall respond with a claim for an adjustment. The

requirement for a timely written response cannot be waived and shall be a condition precedent to the assertion of a claim.”

Section 5.2 of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

“5.2 PRICE ADJUSTMENT.

(a) Any adjustment in contract price pursuant to a clause in the contract shall be made in one or more of the following ways:

1. By agreement on a fixed price adjustment before commencement of the pertinent performance;
2. By unit prices specified in the contract or subsequently agreed upon before commencement of the pertinent performance;
3. By the costs attributable to the events or situations under such clauses with adjustment of profit or fee, all as specified in the contract or subsequently agreed upon before commencement of the pertinent performance;
4. In any other manner as the parties may mutually agree before commencement of the pertinent performance; or
5. In the absence of agreement between the parties, the provisions of section 103D-501(b)(5), HRS, shall apply.

(b) Submission of costs or pricing data. The CONSULTANT shall be required to submit cost or pricing data if any adjustment in contract price is subject to the provisions of section 103D-312, HRS. The submission of any cost or pricing data shall be made subject to the provisions of subchapter 15, chapter 3-122. A fully executed change order or other document permitting billing for the adjustment in price under any method listed in paragraph (a)(1) through (a)(4) above shall be issued within ten days after agreement on the method of adjustment.”

F. SAFETY AND SECURITY CERTIFICATION

A new Section 6.8 of the General Terms and Conditions, entitled "SAFETY AND SECURITY CERTIFICATION ", is hereby inserted.

“6.8 SAFETY AND SECURITY CERTIFICATION.

- (a) The purpose of the safety and security certification is to ensure that:
1. The design, construction, fabrication, installation, testing, and commissioning of all safety- and security-certifiable elements (civil, structural, and systems) have been evaluated for conformance with the safety and security design criteria and specifications requirements and to verify their readiness for operational use; and
 2. The rail system is operationally safe and secure for customers, employees, emergency responders, and the general public.
- (b) The objective is to achieve an acceptable level of risk through a systematic approach to safety hazard and security vulnerability management, design criteria adherence, specification and construction compliance, and testing and commissioning verification.
- (c) The CONSULTANT shall implement and successfully complete safety and security certification for all certifiable elements contained in the Agreement. Safety and security certification shall be conducted in accordance with the latest version of the Federal Transit Administration (FTA) Handbook for Transit Safety and Security Certification as tailored to the CONSULTANT's scope of work. HART has developed a Project Safety and Security Certification Plan (SSCP) based on FTA guidelines to describe how these activities will be implemented for the HRTP. The CONSULTANT's activities include, but are not limited to, the following:
1. Participate in safety and security committees and working groups established by HART to perform safety and security certification activities as requested.
 2. Demonstrate within its schedule the integration and completion of safety and security certification activities, including the development and completion of Conformance Checklists.
 3. Develop and support the development of safety and security analyses for safety and security certifiable elements as needed.
 4. Support the resolution of identified safety hazards and security vulnerabilities identified through

safety and security analyses.

5. Submit completed and signed Conformance Checklists to HART for review and acceptance.
 6. Submit supporting verification documentation to demonstrate that the design has incorporated and complies with safety and security design criteria and requirements provided in the contract documents.
 7. Submit required documents using HART's document management system for safety and security certification.
 8. Identify on its organization chart the representative assigned to manage and facilitate the CONSULTANT's implementation of the safety and security certification process.
- (d) The safety and security certification process for each certifiable element is not complete until Conformance Checklists that are completed, signed, and submitted by the CONSULTANT have been reviewed and accepted by HART. Additional requirements for safety and security certification are detailed in the Project SSCP. The CONSULTANT shall refer to Engineering Data for a copy of the Project SSCP.”
- (e) Notwithstanding the foregoing provisions of this Article 6.8, however, it is understood and agreed that the CONSULTANT is responsible only for construction safety in relation to construction actually undertaking at our direction and within our scope of services.

G. FIELD SAFETY AND SECURITY

A new Section 6.9 of the General Terms and Conditions, entitled “FIELD SAFETY AND SECURITY”, is hereby inserted.

“6.9 FIELD SAFETY AND SECURITY

- (a) The CONSULTANT is responsible for initiating and maintaining a safety and health program that complies with applicable local, state and federal occupational safety and health regulations, including but not limited to the Hawaii Administrative Rules, Title 12, Department of Labor and Industrial Relations Subtitle 8, Division of Occupational Safety and Health Part 3, Construction Standards.
- (b) The CONSULTANT shall be familiar with the Honolulu Rail Transit Project Construction Safety and Security Plan (CSSP)

current revision and comply with applicable sections, such as, but not limited to visitor control, public access, first aid/emergency response, safe work practices, personal protective equipment and safety and security reporting requirements. All personnel who have who will be accessing field locations must attend the HART Safety and Environmental Orientation.

- (c) The CONSULTANT shall designate at least one person as the Safety and Security Representative (this may be a collateral duty position and/or prime sub-consultant designee) to be on-site any time field activities are taking place and is responsible to ensure the proper implementation of the Site-Specific Safety and Security Plan (SSSP). The Safety and Security Representative shall have completed the OSHA 10 Hour Construction Safety Outreach Program or equivalent and be a competent person for applicable subject matter including, but not limited to, fall protection, excavation and trenching, the control of hazardous energy (Lock Out Tag Out (LOTO) Procedure), scaffolding and confined spaces.
- (d) The CONSULTANT shall ensure employees, subconsultants and/or subcontractors comply with applicable regulations and the SSSP submitted by CONSULTANT for this project.
- (e) The CONSULTANT shall submit an SSSP, which shall address field work-related hazards and mitigation measures. This plan shall take into account all work, including any activities subcontracted. This plan must interface with the CONSULTANT's overall safety and health program and be submitted to the HART Safety and Security Manager for review and acceptance 30 days prior to field work taking place. The plan shall include, but not be limited to the following criteria:
 - 1. Title, signature and phone number of the Plan Preparer (this person must be a qualified person), Company Officer and Safety and Security Representative (SSR).
 - 2. Background information: CONSULTANT name, Contract name and number, Description of work to be performed (with attention to field related work).
 - 3. Responsibilities and Lines of Authority. Include a statement of the Prime CONSULTANT's ultimate responsibility for the implementation of the SSSP. Identification and accountability of subconsultants, subcontractors and personnel responsible for safety at all levels. Provide to HART to review the SSR's qualifications and letter of designation assigning the authority to carry out safety and security responsibilities. HART will review the qualifications for acceptance.

4. Safety Policy Statement detailing the CONSULTANT'S commitment to providing a safe and healthy workplace for all employees.
5. Training. Provide a statement requiring completion of the HART Safety and Environmental Orientation for all personnel prior to accessing field work locations. List end user, competent or qualified person training requirements, as applicable.
6. List procedures for field site inspections and documentation. Include the assignment of this responsibility, frequency and documentation method.
7. List procedures for complying with applicable portions of the CSSP.
8. Emergency Planning. Describe emergency plan and means to ensure employees are not permitted to work alone and to ensure an effective means of emergency communication is provided, readily available and in working condition.
9. Describe method of providing drinking water, toilet and washing facilities.
10. First Aid and CPR training. Describe methods to ensure and provide copies of at least two employees on site who are qualified/certified to administer first aid and CPR and provision of first aid kit (type/size).
11. Personal Protective Equipment. At minimum, but not be limited to all personnel, including visitors, on work site locations associated with the PROJECT shall wear the following minimum PPE:
 - i) Head protection complying with ANSI Z89.1-2009 and ANSI Z89.2-2009 shall be worn at all times when on the work site.
 - ii) High visibility, retro-reflective clothing (class 2 or 3) complying with ANSI/ISEA 107, 23 CFR Part 634, MUTCD 6E-3, and 29 CFR 1926.201(a) shall be worn at all times within the traffic work zone.
 - iii) Eye protection complying with ANSI Z87.1-2003 shall be worn at all times on when on the work site.
 - iv) Foot protection complying with ASTM F2413-05 or ANZI Z41-1999 shall be worn

at all times when on the work site. Work boots are the preferred type of protective footwear. No tennis-type shoes are permitted.

- v) Hearing protection with a Noise Reduction Rating (NRR) appropriate for the exposure shall be worn by personnel exposed to noise levels in excess of the 29 CFR 1926.101 Table D-2 Permissible Exposure Limit (PEL). When in the field, personnel must have hearing protection readily available for use.
- 12. Hazardous substances. Describe when any hazardous substances are to be procured, used, stored or disposed. Provide a hazard communication program and describe how Material Safety Data Sheets (MSDSs) will be made readily available for review. Employees shall have received training in hazardous substances being used and emergency equipment (such as eye wash) shall be readily available at the work area.
 - 13. Describe how traffic control will be accomplished in accordance with the Department of Transportation Manual for Uniform Traffic Control Devices (current edition).
 - 14. Control of Hazardous Energy (Lockout/Tagout). Describe procedures to ensure adequate control of energy before an employee performs any inspection, servicing or maintenance on any equipment where the unexpected energizing or startup of the equipment could occur.”
- (e) Notwithstanding the foregoing provisions of this Article 6.9, however, it is understood and agreed that the CONSULTANT is responsible only for construction safety in relation to construction actually undertaking at our direction and within our scope of services. CONSULTANT shall, however, be responsible for the safety of its employees at all times.

H. PAYMENT

Section 8.2 of the General Terms and Conditions, entitled “PROGRESS PAYMENT”, is hereby deleted in its entirety and replaced with the following:

“8.2 PAYMENT

- (a) Payments to the CONSULTANT for Work satisfactorily performed will be made according to the mutually-agreed Schedule of Milestones:

1. Scope of Payment. The CONSULTANT shall receive and accept compensation provided for in the Agreement as full payment for performing all Work under the Agreement in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the Work or the prosecution thereof.
2. Payment Concept. Payment will be calculated using the Schedule of Milestones (“SM”) Pay Item table.
3. Payment does not imply acceptance of the Work. The granting of any payment by HART, or the receipt thereof by the CONSULTANT, shall in no way imply acceptance of the Work. Such Work, equipment, components or workmanship that do not conform to the requirements of this Agreement may be rejected by HART and in such case must be replaced by the CONSULTANT without delay.

(b) Payment will be based on the SM.

Within forty (40) days upon receipt of NTP #1a, the CONSULTANT is required to breakdown the Work into milestones and submit the SM for approval and acceptance by HART. The SM is intended to provide linkage between the Baseline Design Schedule and the PROJECT Work Breakdown Structure (“WBS”) provided by HART. The SM is to be organized by NTP and itemized by Pay Items. The CONSULTANT is to be paid upon satisfactory completion of SM Pay Item(s).

1. Pay Item measurement and payment shall be based on lump sum values assigned to all SM Pay Items. Completion of Milestones is the basis for payment.
2. Request for Monthly Payment. The CONSULTANT shall submit monthly pay requests using Contract Management System procedures for HART to review. The request shall consist of the SM Pay Items for the current month and cumulative to date. An updated SM, Baseline Design Schedule, and a progress narrative addressing, at a minimum, areas of concern shall be included with each pay request.

(c) HART’s obligation to make timely payment and the statutory interest that accrues to any late unpaid balance shall be according to HRS § 103-10.”

I. RETAINAGE

Section 8.5 of the General Terms and Conditions, entitled "RETAINAGE", is hereby deleted in its entirety.

J. PROMPT PAYMENT BY CONTACTORS TO SUBCONTRACTORS

Section 8.6 of the General Terms and Conditions, entitled "PROMPT PAYMENT TO SUBCONTRACTORS," is hereby deleted in its entirety and replaced with the following:

"8.6 PROMPT PAYMENT BY CONTRACTORS TO SUBCONTRACTORS

- (a) Generally. Any money paid to a contractor shall be disbursed to subcontractors within ten (10) days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes on which the procurement agency has withheld payment.
- (b) Final Payment. Upon final payment to the contractor, full payment to the subcontractor, including retainage, shall be made within ten (10) days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract. The final payment request shall be properly documented as required under HAR § 3-125-23 (4).
- (c) Penalties. The contractor may be subject to a penalty of one and one-half (1 ½) percent per month on the outstanding amounts due that were not timely paid to the subcontractor under the following conditions. Where a subcontractor has provided evidence to the contractor of satisfactorily completing all work under their subcontract and has provided a properly documented final payment request as described in paragraph (d), and:
 - (1) Has provided to the contractor an acceptable performance and payment bond for the project executed by a surety company authorized to do business in the state.
 - (2) The following has occurred:
 - (a) A period of ninety days after the day on which the last of the labor was done or performed and the last of the material was furnished or supplied has elapsed without written notice of a claim given to contractor and the surety, and
 - (b) The subcontractor has provided to the contractor, an acceptable release of retainage bond, executed by a surety company authorized to do business in the state, in an amount of not more than

two times the amount being retained or withheld by the contractor; any other bond acceptable to the contractor; or any other form of mutually acceptable collateral, then, all sums retained or withheld from a subcontractor and otherwise due to the subcontractor for satisfactory performance under the subcontract shall be paid by the procurement officer to the contractor and subsequently, upon receipt from the procurement officer, by the contractor to the subcontractor within the applicable time periods specified in paragraph (b). The penalty may be withheld from future payment due to the contractor, if the contractor was the responsible party. If a contractor has violated paragraph (b) three or more times within two years of the first violation, the contractor shall be referred by the procurement officer to the contractors license board for action.

- (d) A properly documented final payment request from a subcontractor, as required by paragraph (c), shall include:
- (1) Substantiation of the amounts requested;
 - (2) A certification by the subcontractor to the best of the subcontractor's knowledge and belief, that:
 - (a) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the subcontract;
 - (b) The subcontractor has made payments due to its subcontractors and suppliers from previous payments received under the subcontract and will make timely payments from the proceeds of the payment covered by the certification, in accordance with their subcontract agreements and the requirements of this section; and
 - (c) The payment request does not include any amounts that the subcontractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of their subcontract; and
 - (3) The submission of documentation confirming that all other terms and conditions required under the subcontract agreement have been fully satisfied.

The procurement officer shall return any final payment request that is defective to the contractor within seven (7) days after receipt, with a statement identifying the defect.

(e) In case of a construction contract, a payment request made by a contractor to the procurement officer that includes a request for sums that were withheld or retained from a subcontractor and are due to a subcontractor may not be approved under paragraph (c) unless the payment request includes:

- (1) Substantiation of the amounts requested; and
- (2) A certification by the contractor, to the best of the contractor's knowledge and belief, that:
 - (a) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
 - (b) The subcontractor has made payments due to its subcontractors and suppliers from previous payments received under the contract and will make timely payments from the proceeds of the payment covered by the certification, in accordance with their subcontract agreements and the requirements of this section; and
 - (c) The payment request does not include any amounts that the contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of their subcontract.

The procurement officer shall return any final payment request that is defective to the contractor within seven (7) days after receipt, with a statement identifying the defect.

(f) This section shall not be construed to impair the right of a contractor or a subcontractor at any tier to negotiate and to include in their respective subcontracts provisions that provide for additional terms and conditions that are requested to be met before the subcontractor shall be entitled to receive final payment under paragraph (c); provide that any such payments withheld shall be withheld by the procurement officer.”

VIII. FEDERAL CLAUSES

FEDERAL FUNDING, INCORPORATION OF FTA TERMS, AND CHANGES TO FEDERAL REQUIREMENTS

This Agreement includes, in part, certain standard terms and conditions required by the

FTA, whether or not expressly set forth in the Agreement provisions. All provisions required by the FTA, as set forth in FTA Circular 4220.1F, as amended, will be incorporated by reference. Anything to the contrary notwithstanding, all FTA mandated terms and conditions will be deemed to control in the event of a conflict with other provisions contained in the Agreement. The CONSULTANT shall not perform any act, fail to perform any act, or refuse to comply with any HART requests which would cause HART to be in violation of FTA terms and conditions. This Agreement will be subject to any financial assistance agreement between HART/City and the FTA and all laws, regulations, guidelines, and provisions of the financial assistance agreement will apply to the Agreement and will be incorporated by reference as if fully set forth therein.

The CONSULTANT shall at all times comply with all applicable Federal Government laws and regulations, including without limitation FTA regulations, policies, procedures and directives, including those listed directly or by reference in Applicable Grant Agreements between HART/City and FTA relating to H RTP, as they may be amended or promulgated from time to time during the term of the Agreement (collectively, "Federal Requirements"). These Federal Requirements may change and the changed Federal Requirements will apply to this Agreement as required unless the Federal Government determines otherwise. The CONSULTANT's failure to comply with the Federal Requirements shall constitute a material breach of the Agreement.

The Federal Requirements are contained in Exhibit 8, attached hereto and incorporated by reference.

IX. ASSIGNMENT

The CONSULTANT agrees that the CONSULTANT shall not transfer or assign this Agreement in whole or in part, except by an instrument, in writing, approved by HART.

X. HEADINGS; GENDER; NUMBER

The titles of headings of Sections, Subsection and Paragraphs are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

All words used in the singular shall extend to and include the plural. All words used in the plural shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

XI. REFERENCES TO THE CITY AND COUNTY OF HONOLULU

The acronym "HART" shall be substituted for "City and County of Honolulu", "CITY", "Rapid Transit Division", and "RTD" wherever those terms appear in the Request for Qualifications and Contract Documents inclusive of all Addendums, unless the context clearly indicates otherwise.

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION
DILLINGHAM AND KAKA'AKO STATION GROUP

PERKINS + WILL
SCOPE OF WORK

June 10, 2013

TABLE OF CONTENTS

Table of Contents..... 1

01 Dillingham and Kaka’ako Station Group Description 1

 Kalihi Station..... 1

 Kapālama Station 1

 Iwilei Station 2

 Chinatown Station..... 3

 Downtown Station..... 3

 Civic Center Station 4

 Kaka’ako Station..... 4

 Ala Moana Center Station..... 5

02 Design Packages and Duration of the Contract 6

 Design Duration Table 6

 NTP #1a – Workshop, Design Schedule and Schedule of Milestones (SM)..... 6

 NTP #1b – Revisions to Preliminary Engineering (PE)..... 7

 NTP #2 – Interim Design (ID) 8

 NTP #3 – Final Design (FD) 9

 NTP #4 – Design Support During Bidding 10

 NTP #5 – Design Support During Construction 10

03 Scope of Work 11

 Sustainability 11

 Professional Licenses..... 11

04 Project management Approach 12

 Management Approach 12

 Approach to Estimates of Construction Cost 12

 The “Construction Budget” stated for this Contract 12

 Preparation of Estimates of Construction Cost..... 13

 Design to Construction Budget..... 13

 Approach to Submittal Documents and Final Construction Contract Documents 13

05 Reference Documents 15

 Preliminary Engineering (PE) Documents 15

 HRTTP Baseline Documents 16

 Project-wide Documents..... 16

Environmental Documents..... 18

Geotechnical Reference Documents 19

Department of Planning and Permitting (DPP) Documents 20

06 Task and Activity Description Sheets..... 21

Project Management..... 22

 Project Management (SM) 23

 Project Management (PE) 25

 Project Management (ID) 27

 Project Management (FD) 29

 Baseline Project Design Schedule (SM)..... 31

 Schedule of Milestones (SM) 32

 Quality Assurance and Control..... 33

Safety and Security..... 34

 Site Safety and Security Plan (PE)..... 35

 Safety and Security Certification – All Stations (SM, PE, ID, FD)..... 37

Design Management..... 38

 Design Management 39

 Design Management (PE) 41

Design Workshop and Architectural Design Charrette 47

 Design Workshop (SM) 47

 Architectural Design Charrette (PE) 48

Environmental..... 49

 Environmental (SM)..... 50

 Environmental (PE) 51

 Environmental (ID) 52

 Environmental (FD) 53

Permits 54

 Permits 55

Interface, Coordination and Management..... 57

Interface with Other Contractors 57

Coordination with Others 57

 Interface, Coordination and Management 60

 All Stations (SM, PE, ID, FD) 60

Cost Estimating.....62

 Estimate of Construction Cost.....63

 All Stations (SM).....63

 Estimate of Construction Cost.....63

 All Stations (PE).....63

 Estimate of Construction Quantities and Cost.....64

 All Stations (ID).....64

 Estimate of Construction Quantities and Cost.....65

 All Stations (FD).....65

Geotechnical Exploration and Design.....66

 All Stations – (SM).....66

 All Stations – (PE).....68

 All Stations – (ID).....70

 All Stations – (FD).....72

 Kalihi Station – (PE).....73

 Kalihi Station – (ID).....74

 Kalihi Station – (FD).....74

 Kapālama Station – (PE).....75

 Kapālama Station – (ID).....76

 Kapālama Station – (FD).....76

 Iwilei Station – (PE).....77

 Iwilei Station – (ID).....78

 Iwilei Station – (FD).....78

 Chinatown Station – (PE).....79

 Chinatown Station – (ID).....80

 Chinatown Station – (FD).....80

 Downtown Station – (PE).....81

 Downtown Station – (ID).....82

 Downtown Station – (FD).....82

 Civic Center Station – (PE).....83

 Civic Center Station – (ID).....84

 Civic Center Station – (FD).....84

 Kaka’ako Station – (PE).....85

Kaka’ako Station – (ID)86

Kaka’ako Station – (FD)86

Ala Moana Center Station – (PE)87

Ala Moana Center Station – (ID)88

Ala Moana Center Station – (FD)88

Topographic Survey.....89

 All Stations – (PE)89

 All Stations – (ID)90

 Kalihi Station – (PE)91

 Kalihi Station – (ID)91

 Kapālama Station – (PE)92

 Kapālama Station – (ID)92

 Iwilei Station – (PE)93

 Iwilei Station – (ID)93

 Chinatown Station – (PE)94

 Chinatown Station – (ID)94

 Downtown Station – (PE)95

 Downtown Station – (ID)95

 Civic Center Station – (PE)96

 Civic Center Station – (ID).....96

 Kaka’ako Station – (PE)97

 Kaka’ako Station – (ID)97

 Ala Moana Center Station – (PE)98

 Ala Moana Center Station – (ID)98

Civil Design.....99

 All Stations – (PE)100

 All Stations – (ID)102

 All Stations – (FD)103

 Kalihi Station – (PE)104

 Kalihi Station – (ID)104

 Kalihi Station – (FD)105

 Kapālama Station – (PE)106

 Kapālama Station – (ID)106

Kapālama Station – (FD) 107

Iwilei Station – (PE) 108

Iwilei Station – (ID) 108

Iwilei Station – (FD) 109

Chinatown Station – (PE) 110

Chinatown Station – (ID) 110

Chinatown Station – (FD) 111

Downtown Station – (PE) 112

Downtown Station – (ID) 112

Downtown Station – (FD) 113

Civic Center Station – (PE) 114

Civic Center Station – (ID) 114

Civic Center Station – (FD) 115

Kaka’ako Station – (PE) 116

Kaka’ako Station – (ID) 116

Kaka’ako Station – (FD) 117

Ala Moana Center Station – (PE) 118

Ala Moana Center Station – (ID) 118

Ala Moana Center Station – (FD) 119

Structural Design 120

 All Stations – (PE) 121

 All Stations – (ID) 123

 All Stations – (FD) 125

 Kalihi Station – (PE) 126

 Kalihi Station – (ID) 126

 Kalihi Station – (FD) 127

 Kapālama Station – (PE) 128

 Kapālama Station – (ID) 128

 Kapālama Station – (FD) 129

 Iwilei Station – (PE) 130

 Iwilei Station – (ID) 130

 Iwilei Station – (FD) 131

 Chinatown Station – (PE) 132

Chinatown Station – (ID) 132

Chinatown Station – (FD) 133

Downtown Station – (PE) 134

Downtown Station – (ID) 134

Downtown Station – (FD) 135

Civic Center Station – (PE) 136

Civic Center Station – (ID)..... 136

Civic Center Station – (FD) 137

Kaka’ako Station – (PE) 138

Kaka’ako Station – (ID) 138

Kaka’ako Station – (FD) 139

Ala Moana Center Station – (PE) 140

Ala Moana Center Station – (ID) 140

Ala Moana Center Station – (FD) 141

Architectural Design..... 142

 All Stations – (PE) 143

 All Stations – (ID) 145

 All Stations – (FD) 147

 Kalihi Station – (PE) 149

 Kalihi Station – (ID) 149

 Kalihi Station – (FD) 150

 Kapālama Station – (PE) 151

 Kapālama Station – (ID) 151

 Kapālama Station – (FD) 152

 Iwilei Station – (PE) 153

 Iwilei Station – (ID) 153

 Iwilei Station – (FD) 154

 Chinatown Station – (PE) 155

 Chinatown Station – (ID) 155

 Chinatown Station – (FD) 156

 Downtown Station – (PE) 157

 Downtown Station – (ID) 157

 Downtown Station – (FD) 158

Civic Center Station – (PE) 159

Civic Center Station – (ID)..... 159

Civic Center Station – (FD) 160

Kaka’ako Station – (PE) 161

Kaka’ako Station – (ID) 161

Kaka’ako Station – (FD) 162

Ala Moana Center Station – (PE) 163

Ala Moana Center Station – (ID) 163

Ala Moana Center Station – (FD) 164

Mechanical, Fire Protection and Plumbing Design 165

 All Stations – (PE) 165

 All Stations – (ID) 166

 All Stations – (FD) 167

 Kalihi Station – (PE) 168

 Kalihi Station – (ID) 168

 Kalihi Station – (FD) 169

 Kapālama Station – (ID) 170

 Kapālama Station – (PE) 170

 Kapālama Station – (FD) 171

 Iwilei Station – (PE) 172

 Iwilei Station – (ID) 172

 Iwilei Station – (FD) 173

 Chinatown Station – (PE) 174

 Chinatown Station – (ID) 174

 Chinatown Station – (FD) 175

 Downtown Station – (PE) 176

 Downtown Station – (ID) 176

 Downtown Station – (FD) 177

 Civic Center Station – (PE) 178

 Civic Center Station – (ID)..... 178

 Civic Center Station – (FD) 179

 Kaka’ako Station – (PE) 180

 Kaka’ako Station – (ID) 180

Kaka’ako Station – (FD)181

Ala Moana Center Station – (PE)182

Ala Moana Center Station – (ID)182

Ala Moana Center Station – (FD)183

Electrical Design184

 All Stations – (PE)184

 All Stations – (ID)185

 All Stations – (FD)186

 Kalihi Station – (PE)187

 Kalihi Station – (ID)187

 Kalihi Station – (FD)188

 Kapālama Station – (PE)189

 Kapālama Station – (ID)189

 Kapālama Station – (FD)190

 Iwilei Station – (PE)191

 Iwilei Station – (ID)191

 Iwilei Station – (FD)192

 Chinatown Station – (PE)193

 Chinatown Station – (ID)193

 Chinatown Station – (FD)194

 Downtown Station – (PE)195

 Downtown Station – (ID)195

 Downtown Station – (FD)196

 Civic Center Station – (PE)197

 Civic Center Station – (ID)197

 Civic Center Station – (FD)198

 Kaka’ako Station – (PE)199

 Kaka’ako Station – (ID)199

 Kaka’ako Station – (FD)200

 Ala Moana Center Station – (PE)201

 Ala Moana Center Station – (ID)201

 Ala Moana Center Station – (FD)202

Station Landscape Architectural Design203

All Stations – (PE)203

All Stations– (ID)204

All Stations – (FD)205

Kalihi Station – (PE)206

Kalihi Station– (ID)206

Kalihi Station – (FD)207

Kapālama Station – (PE)208

Kapālama Station – (ID)208

Kapālama Station – (FD)209

Iwilei Station – (PE)210

Iwilei Station – (ID)210

Iwilei Station – (FD)211

Chinatown Station – (PE)212

Chinatown Station – (ID)212

Chinatown Station – (FD)213

Downtown Station – (PE)214

Downtown Station – (ID)214

Downtown Station – (FD)215

Civic Center Station – (PE)216

Civic Center Station – (ID)216

Civic Center Station – (FD)217

Kaka’ako Station – (PE)218

Kaka’ako Station – (ID)218

Kaka’ako Station – (FD)219

Ala Moana Center Station – (ID)220

Ala Moana Center Station – (PE)220

Ala Moana Center Station – (FD)221

Traffic Assessment and Design222

 All Stations – (PE)223

 All Stations – (ID)224

 All Stations – (FD)225

 Kalihi Station – (PE)226

 Kalihi Station – (ID)226

Kalihi Station – (FD)227

Kapālama Station – (PE)228

Kapālama Station – (ID)228

Kapālama Station – (FD)229

Iwilei Station – (PE)230

Iwilei Station – (ID)230

Iwilei Station – (FD)231

Chinatown Station – (PE)232

Chinatown Station – (ID)232

Chinatown Station – (FD)233

Downtown Station – (ID)234

Downtown Station – (PE)234

Downtown Station – (FD)235

Civic Center Station – (PE)236

Civic Center Station – (ID)236

Civic Center Station – (FD)237

Kaka’ako Station – (PE)238

Kaka’ako Station – (ID)238

Kaka’ako Station – (FD)239

Ala Moana Center Station – (PE)240

Ala Moana Center Station – (ID)240

Ala Moana Center Station – (FD)241

Specifications242

 Specifications – (PE)242

 Specifications – (ID)243

 Specifications – (FD)244

Design Support During Bidding (NTP #4)245

 Design Support During Bidding246

 Design Support During Bidding247

 All Consultants – All Stations247

Design Support During Construction (NTP #5)248

 Design Support During Construction249

 All Stations249

Design Support During Construction Geotechnical – All Stations	250
Public Involvement.....	251
Public Involvement – (SM)	252
Public Involvement – (PE)	253
Public Involvement – (ID)	254
Public Involvement – (FD)	255

01 DILLINGHAM AND KAKA'AKO STATION GROUP DESCRIPTION

The Dillingham and Kaka'ako Station Group (DKSG) is located in the 4.1-mile City Center section of the Honolulu Rail Transit Project (H RTP) alignment and consists of eight (8) elevated stations: Kalihi Station, Kapālama Station, Iwilei Station, Chinatown Station, Downtown Station, Civic Center Station, Kaka'ako Station, and Ala Moana Center Station.

The CONSULTANT shall provide architectural and engineering services necessary for the design and preparation of final construction plans, detailed specifications and other contract documents for the Dillingham and Kaka'ako Station Group (DKSG) Contract for the Honolulu Authority for Rapid Transportation (HART). Further information regarding requirements for ancillary spaces can be found in the Compendium of Design Criteria.

A general description of the Stations follows:

Kalihi Station

At Kalihi Station there are three (3) eligible Historic properties: Afuso House, Higa Four-plex and Teixeira House. The buildings will be demolished and adverse effects addressed as stated in the Programmatic Agreement (PA). There will be no adverse effect to Pang Craftsman-style house. The Secretary of Interior's Standards will be followed as deemed appropriate. The elevated station with two hundred forty (240) feet long side platforms is located in the median of Dillingham Boulevard and extends over the Mokauea Street intersection. Station entrance buildings are located in the corner parcels on both the mauka and makai sides of Dillingham Boulevard. There are two (2) elevated pedestrian walkways from each entrance building that provide access to the station platforms for the respective eastbound and westbound trains. There is no concourse level connecting the two (2) platforms. There are existing on-street bus stops on Dillingham Boulevard in either direction near station entrances.

The design of the station shall include the buildings' fare gate modules (including conduit for power and data) for future installation of Ticket Vending Machines (TVMs) and fare gates. Procurement and installation of TVMs and fare gates are not included in this contract. The entry buildings shall include the vertical circulation elements (stairs and elevators, but not escalators), janitor storage room, electrical closet, trash room, elevator machine room, and provisions for redundant elevators. The entry building on the mauka side of the guideway shall include a restroom. Pedestrian bridges connect the entry buildings directly to the station platforms. Canopies are to be included to shelter a part of each platform, the entry buildings, and the pedestrian bridges.

The makai entry building parcel also contains an ancillary structure with driveway access from Mokauea Street. The ancillary structure is a single-story building housing the Train Control and Communications Room (TCCR)/Uninterruptible Power Supply (UPS), electrical room and mechanical room. The transformer that provides power to the station is located between the ancillary structure and the makai station entry building.

Kapālama Station

Kapālama Station is directly adjacent to an eligible NRHP list property, Six Quonset Hut. The station's emergency egress is within the boundary of the historic property but has no physical impact. The Secretary of Interior's Standards will be followed as deemed appropriate. The elevated station with two hundred forty (240) feet long side platforms is located in the median of Dillingham Boulevard just Koko Head of Kokea Street. Station entrance buildings are located on both the mauka and makai sides of Dillingham Boulevard. An elevated pedestrian walkway

from each building provides access to the station platforms for the respective eastbound and westbound trains. There is no concourse level connecting the two (2) platforms. Passengers will need to use the crosswalks on Dillingham Boulevard to gain access to the station platform on the opposite side of the street. There are existing on-street bus stops on Dillingham Boulevard in either direction near the station entrances.

The design of the station shall include the buildings' fare gate modules (including conduit for power and data) for future installation of TVMs and fare gates. Procurement and installation of TVMs and fare gates are not included in this contract. The entry buildings shall contain the vertical circulation elements (stairs and elevators but not escalators), janitor storage room, electrical closet, trash room, elevator machine room, and provisions for redundant elevators. The entry building on the mauka side of the guideway shall include a restroom. Pedestrian bridges connect the entry buildings directly to the station platforms. Canopies are to be provided to shelter a part of each platform, the entry buildings, and the vertical circulation elements. Emergency egress stairs shall be provided near the Koko Head end of both platforms and offer ground-level exits to Dillingham Boulevard.

The mauka entry building parcel contains ancillary structure facilities with driveway access from Kokea Street. The ancillary structure is a single story building housing the TCCR/ UPS, electrical room, and mechanical room located on the mauka side of the station entrance. The transformer that provides power to the Station is located on the mauka side of the ancillary structure. The design scope of work shall include site work and infrastructure for the entry building and ancillary structure including a driveway and paved parking area for maintenance vehicles.

Iwilei Station

Iwilei Station is adjacent to an eligible NRHP listed property. The Historic Property is the Tamura Building (Institute for Human Services), located across Ka'aahi Street from the station, and the elevated station platform is adjacent to building. The Secretary of Interior's Standards will be followed as deemed appropriate. The elevated station with two hundred forty (240) feet long side platforms is located makai 'Ewa to the corner of Dillingham Boulevard and Ka'aahi Street. A single station entrance structure is located directly under the guideway approximately across from Ka'amalu Place with the entrance facing Dillingham Boulevard. A short-term kiss-and-ride parking lot is provided makai of the station. There are existing on-street bus stops on Dillingham Boulevard in either direction near the station entrance.

A concourse connects the ground-level to the platforms. However, movement from platform to platform can only be accomplished at the ground level. Two (2) sets of stairs and an elevator provide access from the concourse to each platform.

The design of the station shall include the building fare gate module (including conduit for power and data) for future installation of TVMs and fare gates. Procurement and installation of TVMs and fare gates are not included in this contract. The entry building shall contain vertical circulation elements (stairs and elevators but not escalators), janitor storage room, restroom, elevator machine room, and provisions for redundant elevators. Canopies are to be provided to shelter a part of each platform, the vertical circulation elements, and the entrance building.

An ancillary building is located on the makai side of the station entrance building directly under the guideway and contains the TCCR/UPS, electrical room, mechanical room, and trash room. The transformer that provides power to the Station is located adjacent to the kiss-and-ride parking lot. Access to the transformer site is provided from the kiss-and-ride parking lot.

Chinatown Station

This elevated station with two hundred forty (240) feet long side platforms is located in the median of Nimitz Highway just Ewa of Kekaulike Street. This station is on the edge of the Chinatown Special District (see Chinatown Special District Design Guidelines, City and County of Honolulu, April 1991) and within the Chinatown National Register Historic District (Site No, 80-14-9986), where there are contributing elements to the Chinatown Historic District. Per stipulation IV of the PA, the station design shall comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties, 36.C.F.R. pt. 68, and will make every reasonable effort to avoid adverse effects to the Chinatown Historic District.

A single station entrance structure is located on the mauka-Ewa corner of the Nimitz Highway and Kekaulike Street intersection. The entrance building connects to both station platforms via a concourse-level pedestrian bridge. The westbound platform may also be accessed through a platform-level pedestrian bridge from the entrance building. An elevator is provided between the eastbound platform and concourse. Accommodation of a redundant elevator is required on the pedestrian bridge. Canopies are provided to shelter a part of each platform, the entry building, and the vertical circulation elements. There are no existing bus stops on Nimitz Highway in either direction near the station entrance.

The design of the station shall include the building fare gate module (including conduit for power and data) for future installation of TVMs and fare gates. Procurement and installation of TVMs and fare gates are not included in this contract. The entry building shall contain vertical circulation elements (stairs and elevators, but not escalators), janitor room, trash room, restroom, elevator machine room, and provisions for redundant elevators.

A single-story ancillary building housing the TCCR/ UPS, electrical room, and mechanical room is attached to the mauka side of the entrance building. A service driveway from Kekaulike Street and parking apron is provided to serve the entrance and ancillary buildings. The transformer that provides power to the station is located on the north side of the mauka entrance building.

Downtown Station

The elevated station and two hundred forty (240) feet-long side platforms are located in the median of Nimitz Highway between Bishop and Alakea Streets. The station is in the Hawaii Capital Special District (see Hawaii Capital Special District Design Guidelines, City and County of Honolulu, April 1991) and near the Merchant Street National Register Historic District, and has to conform to the particular relevant requirements. The station entrance is sited on a landscaped plaza, adjacent to the Dillingham Transportation Building, which is listed on the National Registered Historic Places (NRHP no. 80-14-9900). The plaza is not a contributing element to the NRHP listed building but is part of the listed parcel. Per stipulation IV of the PA, the station design shall comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties, 36.C.F.R. pt. 68, and will make every reasonable effort to avoid adverse effects to the historic property. In addition, this station area is adjacent to a number of NRHP listed or eligible properties for which avoidance of adverse effects are also required: Aloha Tower (No. 80-14-9929), Irwin Park (No. 80-14-9829), Walker Park (eligible), and HECO Downtown Plant & Leslie A. Hicks Building (eligible).

The Station entrance buildings are located on both the mauka and makai sides of Nimitz Highway. Platform- and concourse-level elevated pedestrian walkways provide access from each entrance building to the station platforms as well as pedestrian access from one side of the highway to the other, respectively. There are existing bus stops on Alakea and Bishop Streets near the mauka entrance.

The design of the entry buildings shall contain the vertical circulation elements (stairs, elevators and escalators), janitor storage room, electrical closet, trash room, elevator machine room, and provisions for redundant elevators. The entry building on the mauka side of the guideway shall include a restroom located at the platform level. Canopies are to be provided to shelter a part of each platform, the pedestrian bridges, and the entry buildings.

The design of the station shall include the buildings' fare gate modules (including conduit for power and data) for future installation of TVMs and fare gates. The fare gates are located on the concourse and platform level as opposed to the ground level at most stations. Procurement and installation of TVMs and fare gates are not included in this contract.

The TCCR/UPS, electrical room and mechanical room are located within the makai entrance building. A service driveway and parking area is also provided at the makai entrance. The transformer that provides power to the station is located on the south side of the makai entrance building.

Civic Center Station

This elevated station with two hundred forty (240) feet long side platforms is located in the middle of Halekauwila Street between South and Keawe Streets. Because Halekauwila Street has only two through-lanes, the elevated guideway will be supported by concrete straddle bents with piers on each side of the roadway rather than in the median. A single station entrance building is located on the makai side of Halekauwila Street with the main entrance to the building facing South Street. An elevated pedestrian walkway from the entry building will provide access to the station platforms at the concourse level for the respective eastbound and westbound trains. Canopies are provided to shelter a part of each platform, the pedestrian bridges, and the entry buildings. Bus stops are located on Halekauwila Street and South Street near the station entrance.

The design of the station shall include the building fare gate module (including conduit for power and data) for future installation of TVMs and fare gates. Procurement and installation of TVMs and fare gates are not included in this contract. The entry building contains the vertical circulation elements (stairs, elevator, and an escalator) for access to the pedestrian bridge, janitor storage room, trash room, restroom, elevator machine room, and provisions for redundant elevators. Two sets of stairs and an elevator are supported by the platform and concourse structures to provide access to the westbound platform. Two sets of stairs, supported by the platform and concourse structures, and the elevator in the entry building provide access to the eastbound platform.

There are two ancillary facilities adjacent to the station entrance building. One is a single story building housing the TCCR/UPS, electrical room and mechanical room. The other is Systems Site #22; a Traction Power Substation (TPSS), HECO switchgear, and HECO station transformer. Both facilities are located Koko Head of the station entrance building with Systems Site #22 located farthest east. The design scope of work shall include site work and infrastructure for the entry building and ancillary facilities including a driveway and paved parking area for maintenance vehicles. While the TPSS, transformer, and switchgear will be provided by others, the station design shall include having them located within a screened or walled enclosure and coordinate through the interface process.

Kaka'ako Station

The Kaka'ako Station is elevated with two hundred forty (240) feet long side platforms located on the Koko Head side of Ward Avenue across Halekauwila Street. A single station entrance building is located below the guideway and

platforms and provides direct access to either platform. A landscaped plaza and main entry to the station building is located on the Ewa side of the building. Because the station is not above a roadway, access to the platforms is accomplished without a concourse. The design of the station shall include the building fare gate module (including conduit for power and data) for future installation of TVMs and fare gates. Procurement and installation of TVMs and fare gates are not included in this contract. The entry building design shall contain the vertical circulation elements (stairs and elevators, but not escalators), janitor storage room, staff room, trash room, restroom, elevator machine room, and provisions for redundant elevators. Canopies are to be provided to shelter a part of each platform and the entry building.

The TCCR/ UPS, electrical room and mechanical room are housed in a separate single story building located on the Koko Head side of the entrance building. The transformer that provides power to the station is located on the Koko Head side of the ancillary structure. There are existing on-street bus stops on Ward Avenue in both directions near the station entrance.

Ala Moana Center Station

This station is elevated with a two hundred forty (240) feet long center platform supported by straddle bents spanning Kona Street on the mauka side of Ala Moana Center. A station entry building is located on the mauka side of Kona Street, on the Koko Head side of Kona Iki Street, and contains vertical circulation elements (stairs, elevator, and escalator), a fare gate module, an electrical closet and elevator machine room. The entrance building serves to connect passengers to the concourse from which access to the platform is provided.

An ancillary building is also located on the mauka side of Kona Street. It is located on the Koko Head side of the station entrance building and houses the TCCR/ UPS, electrical room, mechanical room, janitor room, and trash room. A service driveway and parking area adjacent to the ancillary building is accessed from Kona Street. The transformer that provides power to the station is located next to the service driveway. Existing bus stops are located along both sides of Kona Street.

At ground level along Kona Street on the makai side of the station are many vertical circulation element access points to the concourse (two (2) stairs, an elevator, two (2) escalators, and provision for a future escalator).

The station's concourse level contains vertical circulation elements (elevator, escalators, and stairs) to access the platform, a staff room, janitor room, restroom, elevator machine room, and provisions for a redundant elevator to the platform. Fare gates are also located at the concourse level to account for the many access points to the station. The fare gate modules shall contain provisions (including conduit for power and data) for future installation of TVMs and fare gates. A fire protection screen is also provided ten (10) feet beyond the top and bottom landing of the Koko Head escalators. Access to and from the second level of the shopping center parking lot is also provided at the concourse. Fire protection screen glass is provided along the vertical circulation elements' boundary with the parking garage. Canopies are provided to shelter a part of the platform and the vertical circulation elements.

02 DESIGN PACKAGES AND DURATION OF THE CONTRACT

Design Duration Table

NTP #1a (40 days)	HART Review (10 days)	NTP #1b (90 days)	HART Review (30 days)	NTP #2 (120 days)	HART Review (30 days)	NTP #3 (60 days)	HART Review (30 days)	RFC (30 days)
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CONSULTANT scope and resultant fee reflects the schedule spreadsheet as has been provided by HART on March 20, 2013. The work in this DKSG Contract shall be phased to allow development of the design to occur in accordance with Federal Transit Administration (FTA) procedural requirements. The design phases shall be initiated by a Notice to Proceed (NTP) issued by HART. The duration of “days” outlined in this Scope of Work (SOW) shall mean **calendar days** unless otherwise noted. A total of six (6) NTPs are anticipated, as follows:

- NTP #1a – Workshop, Design Schedule and Schedule of Milestones (SM)
- NTP #1b – Revisions to Preliminary Engineering (PE)
- NTP #2 – Interim Design (ID)
- NTP #3 – Final Design (FD)
- NTP #4 – Design Support During Bidding
- NTP #5 – Design Support During Construction

Note that CONSULTANT shall proceed with due diligence to meet the Design Schedule/Durations described below. Design reviews by HART shall commence upon receipt and acceptance that the submittal package is complete. CONSULTANT to account for a ‘down’ period during HART reviews with the exception of ongoing meetings and interface efforts. All HART comments reviews to CONSULTANT on deliverables shall be internally reviewed by HART for consistency and completeness prior to their delivery to the CONSULTANT. The following description of the phases of work is as submitted to the CONSULTANT by HART, and reviewed by the CONSULTANT.

NTP #1a – Workshop, Design Schedule and Schedule of Milestones (SM)

The work to be performed under this NTP shall consist of the following activities:

- Provide HART within ten (10) working days of the conclusion of Primavera training and after the receipt of NTP #1a with a DRAFT Detailed Design Schedule and SM that includes all work for which the CONSULTANT expects to be compensated and a FINAL SM to HART by the conclusion of NTP#1a. The DRAFT Baseline Design Schedule and SM shall establish the logic of the design schedule and metric for HART’s review and concurrence prior to establishing the fully loaded SM. The SM is to be organized by NTP and shall serve as the basis for payment. The CONSULTANT’s Baseline Design Schedule must conform to the SM and include all review times required by HART. The CONSULTANT shall update the Baseline Design Schedule on a monthly basis. HART and the CONSULTANT shall reach agreement on the proposed Baseline Design Schedule and SM at which time HART will approve the SM and issue NTP #1b. The SM format shall follow the sample SM provided to the CONSULTANT.
- A three (3)-day Design Workshop is included in this phase, which shall include a (1) day visit to all the station sites with HART, GEC and CONSULTANT Team.

- The Right of Entry (ROE) permitting request process for field investigations, such as geotechnical work, topographic surveying, and potholing shall be initiated during this phase. The right of entry request format shall be completed by submitting CONSULTANT information as directed by HART, within 30 days or less after receipt of NTP #1a.
- Prepare an Environmental Compliance Plan (ECP) throughout the development of the design. Submit a Preliminary Draft ECP to HART.
- Prepare and update the Environmental Compliance Plan (ECP)
- Duration of NTP #1a is forty (40) days after receipt of NTP #1a.
- HART shall review (10 calendar days) after receipt of CONSULTANT'S NTP #1a submittal packages.
- Weekly PM meetings.
 - Burial Council and family descendants meetings are not included within the scope of CONSULTANT Meetings.

NTP #1b – Revisions to Preliminary Engineering (PE)

The work to be performed under this NTP shall consist of the following activities:

- Commencing with agreement on NTP #1a, CONSULTANT shall revise and prepare, at a minimum, those drawing sheets that are included in the PE drawings and to a similar level of detail. Submission shall be both electronically, (pdf and master CADD files submitted in CMS and on DVD), and hard copy, which shall include ten (10) copies of 8 ½ x 11 documents and ten (10) sets of half-sized drawings.
- Design Charrette comprising four (4) half-day reviews over a period of four (4) consecutive days
- Update Basis of Design (BOD) report.
- Weekly Design review and PM meetings, led by the Project/Design Manager, shall be held for all eight (8) stations concurrently as described in Task - All Stations Project Management (PE).
 - Burial Council and family descendants meetings are not included within the scope of CONSULTANT Meetings.
- Prepare presentation materials, including plans of all levels, a longitudinal and cross section, a maximum of five perspective renderings per station which communicate design intent, charts, PowerPoint slides and other appropriate information (data information, electronic media, material selections, etc) for a maximum of three (3) community presentations per station. The materials shall include displays of the layout and features of the stations. Presentation materials shall generally be at a 24" x 36" format with color and graphics legible from a distance.
- Perform cost estimation to ensure the design is within budget, including but not limited to contingency for design, risk and escalation.
- Ensure compliance of PE design and (Architectural) Station Module Concept Design drawings with FEIS/ROD, applicable codes, regulations, and design standards.
- Update the ECP from permits and HART comments received from NTP #1a. The ECP shall be approved by HART not less than 30 days prior to start of any field work, e.g. Survey, potholing or Geotechnical Work. The ECP shall be accepted by HART prior to submittal of the final revised preliminary design plans.

- Prepare geotechnical investigation planning and permitting documents along with field investigations for ground surveys, utility potholing, and geotechnical engineering
- Prepare Site Safety and Security Plan (SSSP) for HART review and approval prior to commencing field investigations.
- The schedule of the PE design process shall be as follows:
 - Duration for DKSG PE design is ninety (90) days.
 - HART shall review after receipt of CONSULTANT'S NTP #1b submittal packages.
 - Incorporation of HART's comments: Not to exceed thirty (30) days.
 - Duration for HART's review of the geotechnical planning documents may be expedited to 15 days after their receipt; at HART's sole discretion field work may be allowed to begin once HART comments have been discussed and while any necessary changes are being incorporated.

NTP #2 – Interim Design (ID)

CONSULTANT will be provided with a final Guideway contractor designs at the onset of NTP#2. The work to be performed under this NTP shall consist of the following activities:

- Commence ID drawings, detailed working drawings, outline draft specifications, and update BOD report. Master CADD files shall be submitted with pdf drawings in CMS and on DVD. Provide ten (10) copies of 8 ½ x 11 documents and ten (10) sets of half-sized drawings.
- Complete, or essentially complete, geotechnical investigations, i.e. drilling/sampling and laboratory testing, for respective station sites, document investigations in geotechnical data report(s) and develop geotechnical engineering design recommendations.
- Bi-weekly PM and Design review meetings held on alternate weeks and led by the Project/Design Manager, shall be held for all eight (8) stations concurrently as described in Task - All Stations Project Management (ID).
 - Burial Council and family descendants meetings are not included within the scope of CONSULTANT Meetings.
- Incorporate Project standard drawings, intent of Directive Drawings, details, and specifications provided by HART and develop Contract specific drawings, details, and specifications as required; provide consistent material selection that considers pedestrian safety, durability, ease of maintenance, resistance to vandalism, sustainability, site context, and aesthetic quality relating to the transit environment.
- Perform cost analysis to ensure that the design is within budget.
- Perform Constructability Reviews, led by the Project/Design Manager, for all eight (8) stations. Review shall consider sequencing and assemblage of major components; the construction schedule as it may relate to the guideway, how materials are delivered to the construction site, and how the construction will impact and/or mitigations to adjacent traffic, businesses and residences).
- Ensure compliance of ID design and (Architectural) Station Module Concept Design drawings with FEIS/ROD, applicable codes, regulations, and design standards.
- The schedule of the ID process shall be as follows
 - Duration for DKSG Interim Design is one hundred twenty (120) days.

- Final GDR(s) and Draft Geotechnical Engineering [design] Report (s) need to be provided to HART not less than 15 days prior to submittal of the substructure design and civil improvements components of the ID package.
- HART shall review after receipt of CONSULTANT'S NTP #2 submittal package.
- Incorporation of HART Comments: Not to exceed thirty (30) days.

NTP #3 – Final Design (FD)

The work to be performed under this NTP shall consist of the following activities:

- Finalize respective GERs and, depending on foundation system proposed, develop field testing procedures that shall be required of the Contractor for deep foundations test shafts or piles.
- Commence FD and preparation of construction contract documents, including specifications and updated BOD report. Master CADD files shall be submitted with pdf drawings in CMS and on DVD. Provide ten (10) copies of 8 ½ x 11 documents and ten (10) sets of half-sized drawings.
- Provide detailed construction contract documents to permit accurate estimating of construction quantities and costs and expedite construction activities.
- Bi-weekly PM and Design review meetings held on alternate weeks and led by the Project/Design Manager, shall be held for all eight (8) stations concurrently as described in Task - All Stations Project Management (FD).
 - Burial Council and family descendants meetings are not included within the scope of CONSULTANT Meetings.
- Ensure compliance of PE design and (Architectural) Station Module Concept Design drawings with FEIS/ROD, applicable codes, regulations, and design standards.
- DKSG Group of stations will be bid as a single package
- The duration of NTP #3, prior to submittal of camera-ready final documents to HART assumes the following:
 - Duration of DRAFT camera-ready Final Design documents is sixty (60) days.
 - HART's review thirty (30) days.
 - Duration for CONSULTANT to incorporate HART's final review comments and prepare final advertisement-ready ("ad-ready" = signed & sealed for permit use) construction documents suitable for obtaining building permit(s) and advertising for bid is thirty (30) days after receipt of comments from HART.
- Prepare presentation materials, including plans of all levels, a longitudinal and cross section, a maximum of five perspective renderings per station which clearly communicate design intent, charts, PowerPoint slides and other appropriate information (data information, electronic media, material selections, etc) for a maximum of three (3) community presentations per station. In addition one (1) flyover will be required after the completion of NTP#3. Intended quality is of an enhanced Sketchup model inserted into Google Earth reference material to describe the context. The materials shall include displays of the layout and features of the stations and a physical scale model of two (2) DKSG stations as selected by HART. Presentation materials shall generally be at a 24" x 36" format with color and graphics legible from a distance.
- Prepare finish and material color boards.

- Integrate and index drawings and specifications prepared by others for landscaping beneath the guideway that is between the station sites into the bid documents. CONSULTANT landscaping consultant to consolidate bid specifications.

NTP #4 – Design Support During Bidding

NTP#4 is expected to have a duration of 90 days. The work to be performed under this NTP shall consist of the following activities:

- Assist HART in the solicitation of the construction contract including provisions of technical design support for questions or RFI's posed by potential bidders.
- Duration is based on HART's advertisement and bidding schedule.
- Fees and expenses are to be included in the fee proposal.

NTP #5 – Design Support During Construction

NTP#5 is expected to have a duration of 1000 days. The work to be performed under this NTP shall consist of the following activities:

- Assist HART in resolving design issues during construction.
- Duration is based on HART's approved construction schedule.
- Fees and expenses are to be included in the fee proposal.

03 SCOPE OF WORK

The Task and Activity Description Sheets (see section 06) describe the work to be performed by the CONSULTANT team under this design assignment.

The DKSG Scope of Work (SOW) includes the design and preparation of PE, Interim, and Final construction plans, detailed specifications, design calculations, reports, and cost estimates as described. The FD work shall be based upon the existing drawings, HART's Standard and Directive Documents, the Module Concept Documents, and comply with CDC, ROD, and other reference documents. The Module Concept Documents shall supersede the preliminary engineering drawings provided by HART. CONSULTANT is required to reconcile discrepancies between the Module Concept Documents and the preliminary engineering drawings provided by HART. All contract documents shall be prepared in accordance with the Plans Standards, CADD procedures, and Quality Assurance Plan.

Sustainability

Utilize the H RTP Systemwide Sustainability Report and the principles of the U.S. Green Building Council's (USGBC) LEED® (Leadership in Energy and Environmental Design) Green Building Program throughout the station design process. The sustainability of the Project is to promote healthful, durable, affordable and environmentally sound practices in building design and construction. Note that the station structures will not be seeking LEED certification.

Professional Licenses

All work under the Contract shall be performed under the supervision of architects, landscape architects and professional engineers, licensed by the State of Hawai'i, Department of Commerce and Consumer Affairs, and suitably experienced in that work supervised. In addition, the Secretary of the Interior's Standards has Professional Qualifications which define a minimum education and experience required to perform identification, evaluation, registration, and treatment activities. The requirements are those used by the National Park Service and have been previously published in the Code of Federal Regulation 36 CFR Part 61.

04 PROJECT MANAGEMENT APPROACH

Management Approach

The Project Management goal is to implement and execute the DKSG assignment in an effective and efficient manner with an emphasis on Safety & Security, Quality, Budget and Schedule. This project shall receive the direct attention of the Principal-in-Charge, who shall ensure that the CONSULTANT'S office policies and procedures are followed. This is a fixed-price contract and therefore management of scope and design effort need to be carefully managed. In addition, the Design Leads shall oversee the adequacy of the technical solutions

The Project Manager shall develop a Project Management Plan and a Project Work Plan (The Project Guide) at the very outset of the assignment which shall define deliverables, code compliance, quality, user/client satisfaction, budget control and schedule control necessary to effectively manage all aspects of the Contract.

The Management Plan should include the following:

Communication / Coordination – The Project Manager is the sole point of contact and direct link between HART and the Design Team. The PM is responsible for the day-to-day contact between HART with respect to specific task issues and problems. The PM shall also coordinate communications with all other entities with an interest in the task. This protocol for communication shall be followed, particularly while performing field work, e.g. geotechnical investigations or surveys, where communication is kept to a minimum with folks on-site who may be a stakeholder in the project but are not project participants with decision-making authority.

Schedule / Budget Control – Upon notification to proceed, a Work Plan shall be developed by the PM based upon the accepted cost proposal. Each task and sub task shall be defined and incorporated into NTP 1a deliverables, staff shall be assigned and total hours shall be allocated to each sub task.

The PM shall also create a baseline schedule, using Primavera Software. This schedule shall be updated monthly as the work progresses to assess and identify activities that require additional resources, or may be started early. The schedule shall be provided to HART for their review in a monthly Progress Report.

Sufficient and Appropriate Staffing The Principal-in-Charge shall ensure that sufficient levels of staffing are maintained throughout the duration of the Contract to meet the approved schedule.

Approach to Estimates of Construction Cost

It is in the best interest of the public, and the intent of HART, that the entire Project designed by the CONSULTANT, be constructed within the funds allocated in the Construction Budget.

The "Construction Budget" stated for this Contract

- a. The amount of the appropriation budgeted for the construction contract package and exclusive of CONSULTANT fees and the 1% fee dedicated to art procurement for this scope of work is \$122.55 million in Year of Expenditure (YOE – YOE is based upon the midpoint of the contract execution date of November 8, 2015 and completion date of August 15, 2018)).
- b. Represents the maximum amount HART is authorized to spend for construction of this scope of work.
- c. Defined as the "Construction Budget".
- d. A limitation imposed on the CONSULTANT as to the amount of money allocated for the construction of this Contract.

Preparation of Estimates of Construction Cost

All Estimates of Construction Cost shall be provided in the format to be provided by HART. The CONSULTANT shall evaluate updated Estimates of Construction Cost at each milestone submittal and compare them to Contract Construction Budget. In the event the Project cannot be designed within the Construction Budget, without disregarding best practices of design and engineering or in the event the CONSULTANT is requested by any person, agency, or public body to make any changes in design involving quality or quantity, which will increase the cost of the work to an amount which is in excess of the Construction Budget limitation, the CONSULTANT shall give written notice, at once and in any event, within seven (7) days to HART. In the absence of an amendment to the design contract in writing, the CONSULTANT shall not design work at the request of any person, agency, or public body in which the estimated cost will be in excess of the amount of the Construction Budget. If estimates identify that Project costs are trending to exceed the budget, the CONSULTANT shall recommend changes to project elements to bring costs back in line with the Construction Budget.

In addition to the Construction Documents, the CONSULTANT shall submit in writing to HART a Final Estimate of Construction Cost. The CONSULTANT shall keep HART informed of any adjustments to previous Estimates of Construction Cost necessitated by changes in scope, requirements, or market conditions. The CONSULTANT shall provide a reconciliation to the variance between the previous estimate and current milestone estimate. All Estimates of Construction Cost prepared by the CONSULTANT shall contain such provisions for inflation or deflation as may be reasonably anticipated within the construction industry. The inflation or deflation factor shall be applied based upon the anticipated start date of construction or other date as identified by HART. Indirect costs and design or estimating contingency shall be consistent with HART standards.

Design to Construction Budget

It is the responsibility of the CONSULTANT to design the Project so that the estimate of construction cost shall not exceed the Construction Budget. Along with the construction documents, the CONSULTANT shall submit in writing to HART an estimate of construction cost. The CONSULTANT shall keep HART informed of any adjustments to previous estimates of construction cost necessitated by changes in scope, requirements, or market conditions. All estimates for construction cost prepared by the CONSULTANT shall contain such provisions for inflation or deflation as may be reasonably anticipated within the construction industry. The inflation or deflation factor shall be applied based upon the anticipated start date of construction or other date as identified by HART. Should the CONSULTANT'S Final Estimate of Construction Cost exceed the Construction Budget identified by HART, the CONSULTANT shall immediately give written notice to HART, who will either revise the budget to increase the Construction Budget or direct the CONSULTANT, without additional compensation, to revise the construction documents as necessary (and agreed to by HART) to comply with the Construction Budget for cost of the work. The CONSULTANT'S modifications shall be limited to the CONSULTANT'S responsibility under this Scope of Work.

Approach to Submittal Documents and Final Construction Contract Documents

The submittals (Interim Design and Final Design) and final Construction Contract documents developed by the CONSULTANT shall be of an appropriate layout, scale and clarity as determined by the CONSULTANT in order to convey the information for review by HART and construction by the CONTRACTOR. HART shall provide comment as needed when layout, scale and clarity are considered inappropriate. In particular, all station and ancillary building plans, elevations and sections shall include:

- Architectural floor and RCP plans of sufficient scale to indicate all room dimensions and notes in appropriate text size

- All corresponding discipline floor plans to match architectural scale
- Sheet layout of all corresponding discipline plans to have same match lines
- Architectural building elevations and sections to match scale of floor plans

The CONSULTANT shall submit 10 half-size hard paper copies of drawings for each PE, ID and FD progress and milestone submittal for review by HART.

05 REFERENCE DOCUMENTS

The following types of documents, but not limited to, will be provided to aide in the preparation of the Work:

Preliminary Engineering (PE) Documents

- PE Reference Documents
 - PE Drawings
 - ◆ *SV530-Vol4-AlaMoanaStation-101006.pdf*
 - ◆ *SV540-SE4-Kalihi-100225.pdf*
 - ◆ *SV540-SE5-Kapalama-100225.pdf*
 - ◆ *SV542-SG1-Iwilei-100201.pdf*
 - ◆ *SV542-SG2-Chinatown-100201.pdf*
 - ◆ *SV542-SG3-Downtown-100219.pdf*
 - ◆ *SV545-SG4-CivicCenter-100219.pdf*
 - ◆ *SV545-SG5-Kaka'ako-100219.pdf*
 - Station Module Concept Drawings
 - ◆ *SE4-Kalihi-Station Module Concept.pdf (3/9/2012)*
 - ◆ *SE5-Kapalama-Station Module Concept.pdf (3/9/2012)*
 - ◆ *SG1-Iwilei-Station Module Concept.pdf (3/9/2012)*
 - ◆ *SG2-Chinatown-Station Module Concept.pdf (3/9/2012)*
 - ◆ *SG3-Downtown-Station Module Concept.pdf (3/9/2012)*
 - ◆ *SG4-Civic Center-Station Module Concept.pdf (3/9/2012)*
 - ◆ *SG5-Kaka'ako-Station Module Concept.pdf (3/9/2012)*
 - ◆ *SG6-Ala Moana-Station Module Concept.pdf (3/9/2012)*
 - Redundant Elevator Study
 - ◆ *CONCEPTUAL-Part 2.All Stations.Add Elev-6Aug12.pdf*
- Architectural Outline Specifications
 - *HHCTCP-StationDesignContracts-OutlineSpecifications.pdf (9/11/2009)*
- PE Basis of Design Reports
 - *HHCTCP-BasisOfDesignReport-CityCenterStations-SG1-Iwilei.pdf (12/3/2010)*
 - *HHCTCP-BasisOfDesignReport-CityCenterStations-SG2-Chinatown.pdf (12/3/2010)*
 - *HHCTCP-BasisOfDesignReport-CityCenterStations-SG3-Downtown.pdf (12/3/2010)*
 - *HHCTCP-BasisOfDesignReport-DillinghamStations-SE4-Kalihi.pdf (12/3/2010)*

- *HHCTCP-BasisOfDesignReport-DillinghamStations-SE5-Kapalama.pdf* (12/3/2010)
- *HHCTCP-BasisOfDesignReport-Kaka'akoStations-SG4-Civic Center.pdf* (12/3/2010)
- *HHCTCP-BasisOfDesignReport-Kaka'akoStations-SG5-Kaka'ako.pdf* (12/3/2010)
- *HHCTCP-BasisOfDesignReport-Kaka'akoStations-SG6-Ala Moana.pdf* (12/3/2010)
- Drainage Reports
 - *HHCTCP City Center Preliminary Drainage Report 6-25-10.pdf*
 - *PreliminaryHydraulicAssessment_HHCTCPStreamCrossings_Draft_4-21-10.pdf*
- Guideway Value Engineering Report
 - *HHCTCP-Guideway Value Engineering Report.pdf* (4/1/2011)
- Station Value Engineering Report (DKSG Elements Only)
 - *HHCTCP-Station Value Engineering Report (DKSG Elements Only).pdf* (10/1/2010)
- Bus/Rail Integration Plan (Not included but currently being prepared)

H RTP Baseline Documents

- Compendium of Design Criteria
 - *HHCTCP Compendium of Design Criteria.pdf* (2/22/2010)
- Standard Specifications
 - *HHCTCP Standard Specifications Vol. 1.pdf (Division 1 not included)* (9/9/2010)
 - *HHCTCP Standard Specifications Vol. 2.pdf (Division 1 not included)* (9/9/2010)
- Directive Drawings
 - *RTD-Directive Drawings Conformed 101103.pdf* (11/3/2010)
- Plans Standards
 - *RTD Plans Standards.pdf* (10/16/2009)
- Project CADD Procedures
 - *RTD Project CADD Procedures.pdf* (10/16/2009)
- Standard Drawings
 - *RTD-Standard Drawings Conformed 101103.pdf* (11/3/2010)

Project-wide Documents

- Bus Fleet Management Plan
 - *HART-Bus Fleet Management Plan.pdf* (7/17/2012)
- Buy America Compliance Program Plan
 - *HART-Buy America Compliance Plan.pdf* (12/12/2012)

- Mitigation Monitoring Program
 - *HART-Mitigation Monitoring Plan (7/17/2012)*
- Programmatic Environmental Hazard Management Plan and Environmental Hazard Evaluation Draft
 - *HART-ProgrammaticEHMP&EHE-DRAFT.pdf (07/20/2012)*
- Project Management Plan
 - *HART-Project Management Plan.pdf (7/17/2012)*
- Quality Management Plan
 - *HART-QualityManagementPlan-Rev1.pdf (3/5/2012)*
- Real Estate Acquisition Management Plan
 - *HART-Real Estate Acquisition Management Plan (6/1/2012)*
- Safety & Security Certification Plan
 - *HART-Safety & Security Certification Plan.pdf (5/9/2012)*
- Safety & Security Management Plan
 - *HART-Safety & Security Management Plan.pdf (5/9/2012)*
- Construction Safety & Security Plan
 - *HHCTCP-Construction Safety & Security Plan.pdf (4/2/2011)*
- Design Language Pattern Book
 - *HHCTCP-Design Language Pattern Book.pdf (10/1/2008)*
- Interface Control Manual
 - *HHCTCP-Draft Interface Control Manual.pdf (10/21/2009)*
- Hazardous Material Technical Report
 - *HHCTCP-Hazardous Material Technical Report.pdf (8/15/2008)*
 - *HHCTCP-HazardousMaterialTechnicalReport_AppendixA.pdf (12/02/2007)*
- Interface Management Plan
 - *HHCTCP-InterfaceManagementPlan.pdf (6/30/2011)*
- Primary Control Report
 - *HHCTCP-Primary Control Report.pdf (6/25/10)*
- Signage & Wayfinding Systems Manual
 - *HHCTCP-Signage & Wayfinding Systems Manual.pdf (12/18/2009)*
- Systemwide Sustainability Report
 - *HHCTCP-Systemwide Sustainability Report.pdf (5/22/2009)*

Environmental Documents

- Attachment A ROD - Mitigation Monitoring Program
 - *Attachment A ROD - Mitigation Monitoring Program.pdf* (1/1/2011)
- Attachment B ROD - Final PA
 - *Attachment B ROD - Final PA Attachment 1 Part 1 correspondence*
 - ◆ *Attachment B ROD - Final PA Attachment 1 Part 1 correspondence.pdf*
 - Attachment B ROD - Final PA Attachment 1 Part 2 Historic Resources Parcel Maps-key-12
 - ◆ *Attachment B ROD - Final PA Attachment 1 Part 2 Historic Resources Parcel Maps-key-12.pdf* (6/18/2008)
 - Attachment B ROD - Final PA Attachment 1 Part 3 Historic Resources Parcel Maps-13-25
 - ◆ *Attachment B ROD - Final PA Attachment 1 Part 3 Historic Resources Parcel Maps-13-25.pdf* (6/18/2008)
 - Attachment B ROD - Final PA Attachment 1 Part 4 Historic Resources Parcel Maps-26-35
 - ◆ *Attachment B ROD - Final PA Attachment 1 Part 4 Historic Resources Parcel Maps-26-35.pdf* (6/18/2008)
 - Attachment B ROD - Final PA Attachment 2
 - ◆ *Attachment B ROD - Final PA Attachment 2.pdf* (1/1/2011)
 - Attachment B ROD - FINAL PA
 - ◆ *Attachment B ROD - FINAL PA Jan 2011 signed.pdf* (1/1/2011)
- Attachment C ROD - Comments on FEIS and Responses
 - *Attachment C ROD - Comments on FEIS and Responses.pdf* (1/1/2011)
- Attachment D ROD
 - *Attachment D ROD.pdf* (1/1/2011)
- Noise & Vibration
 - *6.2.07 Noise and Vibration.pdf* (10/1/2008)
- Final Programmatic Agreement
 - *Final Programmatic Agreement.pdf* (1/1/2011)
 - *The following reports will be made available in the near future:*
 - ◆ City Center Traditional Cultural Property Reports
 - ◆ City Center Archaeological Inventory Survey
 - ◆ City Center Archaeological Inventory Survey Plan
 - ◆ City Center Archaeological Inventory Survey Report
- Environmental Record of Decision and Letter
 - *ROD and transmittal ltr (signed) dated Jan 18 2011.pdf*

Geotechnical Reference Documents

- Geolabs-Hawaii; August 31, 1990; Geotechnical and Geological Reconnaissance, Honolulu Rapid Transit System - Waiawa to Waikiki and Manoa; W.O. 2473-00 [App C only hardcopy available]
 - *Geolabs1990ReconWork_PlanView[east and west].tif (6/1/1990)*
 - *GeotechReconnaissanceRpt_Geolabs [31Aug90].pdf*
- Geolabs-Hawaii; March 15, 1991; Honolulu Rapid Transit Development Project, System Design, Supply, Construction, and Operation & Maintenance, Geotechnical Engineering Exploration-Waiawa to Waikiki and Manoa, Ewa; W.O. 2366-00; Prepared for Department of Transportation Services, City and County of Honolulu
 - *Geolabs[1991forHRT].pdf (3/1/1991)*
- Pacific Geotechnical Engineers. Inc.; March 1992; Honolulu Rapid Transit Program, Task 17.01-40 – Report , Preliminary geotechnical Exploration – King Street Subway Alignment Study; Job No. 9300-01; Prepared for Department of Transportation Services, City and County of Honolulu, and ICF Kaiser Engineering, Inc.
 - *NA Sheet p2.1 hnl rapid transit.tif (3/18/1992)*
 - *NA Sheet p2.2 hnl rapid transit.tif (3/18/1992)*
 - *Prelim Geotechnical Exploration, King Street Subway, Honolulu.pdf(3/1/1992)*
- Geolabs; February 26, 2010; Geotechnical Data Report, City Center Segment – Middle Street to Ala Moana Center; W.O. 6000-00
 - *CityCenter.FdnTechlMemo.FinalVersion.pdf*
 - *GDR.Final.CityCenter.pdf*
- Dames & Moore; July 1991; Honolulu Rapid Transit Development Project, Hotel Street Subway Design, Supply and Construction, Geotechnical Basis For Proposal; Job No. 0442-120-011; Prepared for Department of Transportation Services, City and County of Honolulu.
 - *D-M-July91_Geotechnical Basis for Proposal-Job0442-120-011.pdf*
- Dames & Moore; July 1991; Honolulu Rapid Transit Development Project, Hotel Street Subway Design, Supply and Construction, Geotechnical Engineering Exploration; Job No. 0442-116-011; Prepared for Department of Transportation Services, City and County of Honolulu.
 - *D-M-July91_Geotechnical Engineering Exploration-Job0442-116-011.pdf*
- C.C. Ferrall; August 1976; Subsurface Geology of Waikiki, Moili'ili and Kaka'ako with Engineering Application; University of Hawaii Master's Thesis
 - *FerrelThesis_small.pdf (August 1976)*

Department of Planning and Permitting (DPP) Documents

The following documents can be downloaded from the DPP website under Planning or Applications and Forms.

ALA MOANA Neighborhood TOD Plan Community Survey [Results Report & Executive Summary](#) - November 2012

ALA MOANA Neighborhood TOD Plan [Vision & Principles](#) - October 2012

ALA MOANA Neighborhood TOD Plan [Community Workshop #1 Summary & Presentation](#) - August 7, 2012

ALA MOANA Neighborhood TOD Plan [Existing Conditions Report, Transportation Analysis Supplement & Market Study](#)

DOWNTOWN Neighborhood TOD Plan [Public Review Draft \(Executive Summary\) & Community Workshop #3 Summary](#)

KALIHI Neighborhood TOD Plan [Public Review Draft \(Executive Summary\) & Community Workshop #3 Summary](#)

[Chinatown Special District Design Guidelines](#)

[Hawai'i Capital District Design Guidelines](#)

06 TASK AND ACTIVITY DESCRIPTION SHEETS

The following section includes Activity Sheets containing the following:

- Activity Description
- Assumptions
- Inputs
- Deliverables

Project Management

The CONSULTANT shall be organized to provide a team structure that shall seamlessly integrate with HART. The team shall be populated with personnel with direct relevant experience in transit system design, with a particular emphasis on the unique requirements of this project: modular architecture, local geotechnical and civil expertise, as well as community outreach and coordination and design system integration.

- Coordination with HART and its General Engineering Consultant (GEC)
- Provide management and administration resources to provided day-to-day oversight of the design of the DKSG Contract
- Prepare a Project Management Plan (PMP)
- Coordinate meetings, design schedule, design cost monitoring, progress reporting, invoicing, and document control
- Consultant is required to follow HART's Quality Management Plan (QMP) and establish a Quality Assurance Plan (QAP) for the DKSG Contract, which shall follow the format and meet the requirements of the FTA Quality Assurance/Quality Control (QA/QC Guidelines).
- Comply with applicable sections of HART's Construction Safety and Security Plan (CSSP). The CONSULTANT shall submit a Site Specific Safety and Security Plan (SSSP) for the project
- Prepare Baseline Design Schedule and provide an update to HART using Primavera P6.

Non-CADD project correspondence, CADD drawings and other documentation shall be controlled using Primavera Contract Management System (CMS).

ACTIVITY DESCRIPTION		
NTP#:	Activity Responsibility:	Issue Date:
NTP #1a		
Activity:	WBS Code / ID Number:	Revision Number:
All Stations Project Management (SM)		0

A. Activity Description

1. Design Schedule
 - a) CONSULTANT shall prepare a design schedule using Primavera's P6, (using HART's current version) for each design discipline on the CONSULTANT's team, indicating all project milestones for each design phase. CONSULTANT shall incorporate HART's WBS and HART-dictated coding schemes on all schedule activities and milestones. HART will provide CONSULTANT with all base formats and available transit project data within 2 days of onset of NTP #1a.
 - b) The project Design Schedule shall identify the critical path issues for this design contract and shall provide the means to confirm design and review timetable, e.g. the schedule. The schedule of submittals identified in the Scope of Work shall be incorporated into the Design Schedule and shall provide a time-sensitive description of the expectations for performance.
 - c) The design schedule for NTP #1a shall be 40 days or less.
2. Primavera Licensing and Training
 - a) The CONSULTANT shall maintain one program license agreement for Oracle's Primavera P6 and Contract Manager.
 - b) HART Contract Management System (CMS) training to cover an overview of CMS, Interface data with other HART contracts, and procedures for invoices to receive payments.
 - c) The CONSULTANT's project scheduler shall attend all necessary training required at the outset of the project as required by HART, including Primavera CMS and other project-wide software
3. Develop Project Management Plan consistent with the Honolulu High-Capacity Transit Corridor Project (HHCTCP) PMP.
4. Site Visits and Workshops (A/E Disciplines as agreed to between HART and the CONSULTANT)
 - a) Attend single day 8 Station Site Visit with HART (to be accomplished during the three (3)-day Design Workshop below)
 - b) Attend three (3)-day Design Workshop
 - c) Workshop to include CONSULTANT'S design team members, HART staff, and GEC staff
 - d) Arrangements for the workshop, including venue and audio-visual equipment to be coordinated by CONSULTANT
 - e) HART & CONSULTANT to develop agenda for the workshop based on Architectural workshop, Site Visits, Community, History, Cultural, and Architectural research.
 - f) Contribute material to PowerPoint Presentation on DKSG Design Goals/Challenges/Initial Concepts
 - g) CONSULTANT PM/DM shall attend HART Safety and Environmental training/orientation
 - h) CONSULTANT shall comply with Project Safety and Security Management Plan (SSMP) and Safety and Security Certification Plan (SSCP) as mandated by FTA. CONSULTANT shall identify and track certifiable elements and certifiable items, participate on HART safety and security committees on an as-needed basis, and provide Design sign-off on all certifiable items by responsible engineer/architect.
5. Respond to HART comments within a timely manner.
6. Coordinate Right-of-Entry requests as described in other scope sections.
7. Schedule of Milestones
 - a) Prepare Project Schedule of Milestones (SM) that includes all work for which the CONSULTANT Team expects to be compensated. The SM is to be organized by NTP and shall serve as the basis for payment.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. PowerPoint Presentation
 2. Project Design Schedule in Primavera P6 format
 3. Schedule of Milestones
 4. Right-of-Entry Requests
 5. Project Management Plan
 6. Meeting notes for three (3)-day workshop
-

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: All Stations Project Management (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Design Coordination Meetings
 - a) Attend the four (4) half-day Architectural Design Charrette held on four (4) consecutive days with HART Architecture Team.
 - b) Progress Meetings shall be held with HART on a weekly schedule or fewer as mutually agreed upon. The agenda for these meetings shall include a review of work performed during the previous period; work planned in the current period, identified or anticipated issues and wherever possible applicable resolutions proposed. Each meeting shall include a written agenda, a specific purpose statement identifying elements on the schedule that must be resolved, and the key individuals from both the CONSULTANT and HART who should attend so that key issues can receive timely resolution. Copies (electronic) of all drawings, reports, renderings or displays that are required for review shall be provided at least two working days in advance of the meeting. Meeting minutes shall be distributed within five days of the meeting and shall include the party responsible for the performance of key activities or resolution of outstanding concerns, and a date required for such response. Minutes shall be prepared by the CONSULTANT and shall represent a continuous record of the preliminary engineering design and an on-going confirmation of the design schedule.
2. Design Schedule Monitoring and Control
 - a) The CONSULTANT shall prepare a design schedule using Primavera's P6, (using HART's current version) for each design discipline, milestone submissions, meetings, presentations and review durations for each design phase. The CONSULTANT shall incorporate HART's WBS and HART-dictated coding schemes on all schedule activities and milestones. HART will provide the CONSULTANT with the base formats and all applicable transit project data as needed for coordination.
 - b) The project Design Schedule shall identify the critical path issues for this design contract and shall provide the means to confirm design and review timetable, e.g. the schedule. The schedule of submittals identified in the Scope of Work shall be incorporated into the Design Schedule and shall provide a time-sensitive description of the expectations for performance. The contract proposes a design schedule consisting of NTP #1b with duration of 90 days.
3. Prepare Updated Schedule of Milestones
 - a) Prepare Project Schedule of Milestones (SM) that includes all work for which the CONSULTANT Team expects to be compensated. The SM is organized by NTP and shall serve as the basis for payment.
4. Document Controls
 - a) Non-CADD project correspondence and other documentation shall be controlled using HART's CMS.
 - b) The CONSULTANT shall utilize the CADD production guidelines established by HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design drawings, and communicate information to HART and other stakeholders. Standards include sheet organization, and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT shall use CMS for CADD drawing submittals. AutoCAD has been established as the project CADD platform.
 - c) The CONSULTANT shall utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
5. Monthly Progress Reporting and Invoicing
 - a) Monthly Progress Reports
 - i. Progress reports shall be submitted monthly and shall include identification of design progress, compliance with PA requirements, meetings attended, site visits, presentations, design issues that have arisen or are anticipated and their proposed resolution wherever possible, work performed in the preceding time period and work anticipated in the next time period. In addition, the reports shall document any design issues that may impact the design schedule or the construction budget, and specifically suggest methods of proactive

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: All Stations Project Management (ID)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Design Coordination Meetings
 - a) Progress Meetings shall be held with HART on a bi-weekly schedule. The agenda for these meetings shall include a review of work performed during the previous period; work planned in the current period, identified or anticipated issues and wherever possible applicable resolutions proposed. Each meeting shall include a written agenda, a specific purpose statement identifying elements on the schedule that must be resolved, and the key individuals from both the CONSULTANT and HART who should attend so that key issues can receive timely resolution. Copies (electronic) of all drawings, reports, renderings or displays that are required for review shall be provided at least two working days in advance of the meeting. Meeting minutes shall be distributed within five days of the meeting and shall include the party responsible for the performance of key activities or resolution of outstanding concerns, and a date required for such response. Minutes shall be prepared by the CONSULTANT and shall represent a continuous record of the interim design and an on-going confirmation of the design schedule.
2. Design Cost Monitoring and Control
 - a) The CONSULTANT shall monitor design budget weekly using Primavera (Contract Manager and P6). HART will provide the CONSULTANT with all program control requirements, detailed schedules from interfacing contracts, rail budget proposal list and cost data, baseline schedule format, invoicing formats, and the base format for the project work plan that is consistent with HART's Primavera requirements within 2 days of NTP #2. The CONSULTANT shall maintain one copy of Primavera Contract Manager and P6 Scheduling hours have been limited based on the above assumptions.
 - b) Cost monitoring output, earned value, shall follow HART's Work Breakdown Structure (WBS) for compliance with HART's payment terms.
3. Design Schedule Monitoring and Control
 - a) The CONSULTANT shall update design schedule using Primavera's P6, (using HART's current version) for each design discipline, milestone submissions, meetings, presentations and review durations for each design phase. The CONSULTANT shall incorporate HART's WBS and HART-dictated coding schemes on all schedule activities and milestones.
4. Prepare Updated Schedule of Milestones
 - a) Update Project Schedule of Milestones (SM), if necessary, to include all work for which the CONSULTANT Team expects to be compensated.
5. Monthly Progress Reporting and Invoicing
 - a) Monthly Progress Reports
 - i. Progress reports shall be submitted monthly and shall include identification of design progress, compliance with PA requirements, meetings attended, site visits, presentations, design issues that have arisen or are anticipated and their proposed resolution wherever possible, work performed in the preceding time period and work anticipated in the next time period.
 - ii. All documentation, reporting, auditing, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.
 - b) Monthly Invoices
 - i. Invoices shall be submitted monthly following the WBS format specified by HART. It is understood that invoice amounts shall be based on the Schedule of Milestones. All invoicing shall be via HART's CMS system, the content and format will be defined and provided by HART.
6. Document Controls
 - a) Non-CADD project correspondence and other documentation shall be controlled using HART's CMS.
 - b) The CONSULTANT shall utilize the CADD production guidelines established by HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design

drawings, and communicate information to HART and other stakeholders. Standards include sheet organization, and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT shall use CMS for CADD drawing submittals. AutoCAD has been established as the project CADD platform.

- c) The CONSULTANT shall utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
- 7. Project Controls and Administration
 - a) Administrative support for CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. shall be provided.
 - b) A Project Controller shall be responsible for financial monitoring & control reporting, invoicing and accounting.
- 8. Interim Design (ID) Submittal
 - a) The Project/Design Manager is responsible for coordinating and consolidating the ID submittal elements. These include, but are not limited to, all required reports, estimates of construction costs, drawings, contract technical specifications, and design calculations as detailed in the respective Deliverables required by discipline in Section 06 and are to be submitted as one package unless otherwise agreed to by HART.
- 9. Comments Matrix and Responses
 - a) HART will review and provide comment on the ID submittal. Submittal review comments will be provided to the CONSULTANT no later than 30 days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT shall respond to the comments within 14 days and also indicate a course of action to be taken for each comment. The PM/DM is responsible for consolidating and proofing all comment responses for the disciplines and submitting to HART as one response package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT shall incorporate the comments in the next submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated with the Final Design submission. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviations has been specifically requested in writing by the CONSULTANT and approved in writing by HART.

B. Assumptions

- 1. A maximum of thirty (30) days for outside agency reviews is assumed, and it is also assumed that the reviews would be concurrent with design work for the next NTP phase as applicable.

C. Inputs

- 1. None

D. Deliverables

- 1. Meeting Agendas & Minutes
 - 2. Updated Design Schedule (Primavera P6)
 - 3. Monthly Progress Reports
 - 4. Monthly Invoices
 - 5. Comments Matrix and Responses
-

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: All Stations Project Management (FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Design Coordination Meetings
 - a) Progress Meetings shall be held with HART on a bi-weekly basis. The agenda for these meetings shall include a review of work performed during the previous period; work planned in the current period, identified or anticipated issues and wherever possible applicable resolutions proposed. Each meeting shall include a written agenda, a specific purpose statement identifying elements on the schedule that must be resolved, and the key individuals from both the CONSULTANT and HART who should attend so that key issues can receive timely resolution. Copies (electronic) of all drawings, reports, renderings or displays that are required for review shall be provided at least two working days in advance of the meeting. Meeting minutes shall be distributed within five days of the meeting and shall include the party responsible for the performance of key activities or resolution of outstanding concerns, and a date required for such response. Minutes shall be prepared by the CONSULTANT and shall represent a continuous record of the final design and an on-going confirmation of the design schedule.
2. Design Cost Monitoring and Control
 - a) The CONSULTANT shall monitor design budget weekly using Primavera (Contract Manager and P6). The CONSULTANT shall maintain one copy of Primavera Contract Manager and P6.
 - b) Cost monitoring output, earned value, shall follow HART's Work Breakdown Structure (WBS) for compliance with HART's payment terms.
3. Design Schedule Monitoring and Control
 - a) The CONSULTANT shall update design schedule using Primavera's P6, (using HART's current version) for each design discipline, milestone submissions, meetings, presentations and review durations for each design phase. The CONSULTANT shall incorporate HART's WBS and HART dictated coding schemes on all schedule activities and milestones.
4. Monthly Progress Reporting and Invoicing
 - a) Monthly Progress Reports
 - i. Progress reports shall be submitted monthly and shall include identification of design progress, compliance with PA requirements, meetings attended, site visits, presentations, design issues that have arisen or are anticipated and their proposed resolution wherever possible, work performed in the preceding time period and work anticipated in the next time period.
 - ii. All documentation, reporting, auditing, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.
 - b) Monthly Invoices
 - i. Invoices shall be submitted monthly following the WBS format specified by HART. It is understood that invoice amounts shall be based on the Schedule of Milestones. All invoicing shall be via HART's CMS system, the content and format will be defined and provided by HART.
5. Document Controls
 - a) Non-CADD project correspondence and other documentation shall be controlled using HART's CMS.
 - b) The CONSULTANT shall utilize the CADD production guidelines established by HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design drawings, and communicate information to HART and other stakeholders. Standards include sheet organization, and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT shall use CMS for CADD drawing submittals. AutoCAD has been established as the project CADD platform.
 - c) The CONSULTANT shall utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
6. Project Controls and Administration
 - a) Administrative support CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. shall be provided.

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- b) A Project Controller shall be responsible for financial monitoring & control reporting, invoicing and accounting.
 - 7. Final Design (FD) and "Ad-Ready" Submittal
 - a) The PM/DM is responsible for coordinating and consolidating the FD and Ad-Ready submittal elements. These include, but are not limited to, all required reports, estimates of construction costs, drawings, contract special provisions, and design calculations as detailed in the respective Deliverables required by discipline in Section 06 and are to be submitted as one package unless otherwise agreed to by HART.
 - 8. Comments Matrix and Responses
 - a) HART will review and provide comment on the FD submittal. Submittal review comments will be provided to the CONSULTANT no later than 30 days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT shall respond to the comments within 14 days and also indicate a course of action to be taken for each comment. The PM/DM is responsible for consolidating and proofing all comment responses for the disciplines and submitting to HART as one response package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT shall incorporate the comments in the next submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated with the Ad-Ready submission. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviations has been specifically requested in writing by the CONSULTANT and approved in writing by HART.
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B. Assumptions

- 1. None
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C. Inputs

- 1. None
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D. Deliverables

- 1. Final Design construction contract documents
 - 2. Comments Matrix and Responses
 - 3. One Ad-Ready hard copy of final drawings and one electronic copy on CD
 - 4. One Ad-Ready hard copy of contract special provisions and one electronic copy on CD
 - 5. Meeting Agendas & Minutes
 - 6. Updated Design Schedule (Primavera P6)
 - 7. Monthly Progress Reports
 - 8. Monthly Invoices
-

ACTIVITY DESCRIPTION		
NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: Project Management - All Stations Baseline Project Design Schedule (SM)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Prepare a Design Schedule in Primavera P6 to establish the schedule for the design activities and interface points of the DKSG Contract baseline. 2. Submit the Draft Design Schedule for HART review. 3. Modify the schedule based on HART's comments. 4. Submit the final resource-loaded Design Schedule using approved project budget amounts to HART. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Draft P6 Design Schedule 2. Final P6 Design Schedule 		

ACTIVITY DESCRIPTION

NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: Project Management - All Stations Schedule of Milestones (SM)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Prepare a Design Schedule in Primavera P6 to establish the schedule for the design activities and interface points of the DKSG Contract baseline.
2. Prepare a Draft Schedule of Milestones based on the baseline design schedule.
3. Submit the Schedule of Milestones for HART review.
4. Modify the Schedule of Milestones based on HART's comments and based on information from the design schedule.
5. Submit the final cost loaded Schedule of Milestones to HART.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Draft Design Schedule of Milestones
2. Final Design Schedule of Milestones

ACTIVITY DESCRIPTION		
NTP#: NTP #1a, 1b, 2, 3	Activity Responsibility:	Issue Date:
Activity: Project Management - All Stations Quality Assurance and Control	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Quality Assurance and Control support during the design phase of the Project NTP #1a, #1b, #2, and #3. Quality Assurance and Control for NTP #4 and NTP #5 are under a separate Activity.
2. This task item is associated with the development, maintenance, training, and enforcement of the Quality Assurance Plan (QAP) for the Dillingham and Kaka'ako Station Group (DKSG) Project. The QAP shall be developed to meet the requirements described in HART's Quality Management Plan (QMP). The QAP shall be submitted during NTP #1a and no design submittal shall be accepted without a HART approved QAP.
3. CONSULTANT shall review and approve the Quality Assurance Plans submitted by any subconsultant who opts to use their own QAP rather than adopting CONSULTANT's QAP.
4. All submittals must undergo a Quality Control review. This review shall be documented as described in the Quality Assurance Plan. As part of the Plan, all major milestone submittals shall be reviewed by Quality Assurance Personnel to ensure the proper Quality Control procedures have been followed.
5. As part of the QAP, each Discipline shall be required to submit QA/QC documentation in the form of a Checklist for each deliverable.
6. Participate in HART quality assurance audits.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. DKSG Project Quality Assurance Plan deliverable during NTP #1a
2. Meeting notes from the bi-weekly Quality Task-Force meetings
3. Geotechnical Quality Assurance Plan deliverable during NTP #1a
4. Quality Assurance Review – Preliminary Engineering
5. Quality Assurance Review – Interim Design
6. Quality Assurance Review – Final Design
7. Quality Audit Reports

Safety and Security

Develop a Site Safety and Security Plan (SSSP) to implement and maintain a safety and health program that complies with applicable local, state and federal occupational safety and health regulations. This plan shall interact with the CONSULTANT's overall safety and health program and be submitted to HART's Safety and Security Manager for review and acceptance

Complete Safety and Security Certification for design in accordance with HART's Safety and Security Certification Plan (SSCP) and the FTA Handbook for Transit Safety and Security Certification. HART will provide a PE guidance Certifiable Items List (CIL) to the contractor to develop and certify all applicable elements.

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: All Stations Site Safety and Security Plan (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Develop, implement and maintain a safety and health program that complies with applicable local, state and federal occupational safety and health regulations, including but not limited to the Hawaii Administrative Rules, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Division of Occupational Safety and Health Part 3, Construction Standards.
2. Be familiar with the Honolulu High-Capacity Transit Corridor Construction Safety and Security Plan (CSSP) current revision and comply with applicable sections, such as, but not limited to visitor control, public access, first aid/emergency response, safe work practices, personal protective equipment and safety and security reporting requirements. Prior to accessing the field (Project), all personnel must attend the HHCTCP HART/GEC Safety and Environmental Orientation.
3. Ensure employees, sub-consultants and/or subcontractors comply with applicable regulations and the Site Safety and Security Plan (SSSP) submitted by the Consultant for this Project.
4. The Consultant shall designate at least one person as the Safety and Security Representative (this may be a collateral duty position and/or prime sub-consultant designee) to be on-site any time field activities are taking place and is responsible to ensure the proper implementation of the SSSP. The Safety and Security Representative shall have completed the OSHA 10 Hour Construction Safety Outreach Program or equivalent and be a competent person for applicable subject matter, including but not limited to fall protection, excavation and trenching, the control of hazardous energy (LOTO), scaffolding and confined spaces.
5. Submit a SSSP which shall address field work-related hazards and mitigation measures for all field work (including sub-consultants) related hazards and mitigation measures. This plan shall take into account all work, including any activities subcontracted. This plan shall interact with the CONSULTANT's overall safety and health program and the draft plan shall be submitted to HART's Safety and Security Manager for review and acceptance 30 days prior to field work taking place. The plan shall include the following criteria:
 - a) Title, Signature and phone number of the Plan Preparer (this person must be a qualified person), Company Officer and Safety and Security Representative (SSR).
 - b) Background Information: Consultant name, contract name and number, description of work to be performed (with attention to field related work).
 - c) Responsibilities and Lines of Authority. Include a statement of the Prime Consultant's ultimate responsibility for the implementation of the SSSP. Identification and accountability of sub-consultants, subcontractors and personnel responsible for safety at all levels. Provide the SSR qualifications and letter of designation assigning the authority to carry out safety and security responsibilities. HART will review the qualifications for acceptance.
 - d) Safety Policy Statement detailing the Consultants commitment to providing a safe and healthful workplace for all employees and the general public.
 - e) Training. Provide a statement requiring completion of HART's Safety and Environmental Orientation for all personnel prior to accessing field work locations. List end user, competent or qualified person training requirements, as applicable.
 - f) List procedures for job site inspections and documentation. Include the assignment of this responsibility, frequency and documentation method.
 - g) List procedures for complying with applicable portions of the CSSP.
 - h) Emergency Planning. Describe emergency plan and means to ensure employees are not permitted to work alone and to ensure an effective means of emergency communication is provided, readily available and in working condition.
 - i) Describe method of providing drinking water, toilet and washing facilities.
 - j) First Aid and CPR training. Describe methods to ensure and provide copies of at least two employees on site who are qualified/certified to administer first aid and CPR and provisions of first aid kit (type/size).
 - k) Personal Protective Equipment. At minimum, but not be limited to all personnel, including visitors, on work site

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- locations associated with the Project shall wear the following minimum PPE:
- i. Head protection complying with ANSI Z89.1-2009 and ANSI Z89.2-2009 shall be worn at all times when on the work site.
 - ii. High visibility retro-reflective clothing (class 2 or 3) complying with ANSI/SEA 107, 23 CFR Part 634, MUTCD 6E-3, and 29 CFR 1926.201(a) shall be worn at all times within the traffic work zone.
 - iii. Eye protection complying with ANSI Z87.1-2003 shall be worn at all times when on the work site.
 - iv. Foot protection complying with ASTM F2413-05 or ANSI Z41-1999 shall be worn at all times when on the work site. Work boots are the preferred type of protective footwear. No tennis-type shoes are permitted.
 - v. Hearing protection with a Noise Reduction Rating (NRR) appropriate for the exposure shall be worn by personnel exposed to noise levels in excess of the 29 CFR 1926.101 Table D-2 Permissible Exposure Limit (PEL). When in the field, personnel must have hearing protection readily available for use.
- l) Hazardous substances. Describe when any hazardous substances are to be procured, used, stored or disposed. Provide a hazard communication program and describe how material safety data sheets (MSDS) will be made readily available for review. Employees shall have received training in hazardous substances being used and emergency equipment (such as eye wash) shall be readily available at the work area.
 - m) Describe how traffic control will be accomplished in accordance with the State of Hawaii Department of Transportation Standard Specifications and/or Manual for Uniform Traffic Control Devices (current edition).
6. Control of Hazardous Energy (Lockout/Tagout). Describe procedures to ensure adequate control of energy before an employee performs any inspection, servicing or maintenance on any equipment where the unexpected energizing or startup of the equipment could occur.
-

B. Assumptions

1. SSSP to be compliant with regulatory, CSSP and with CONSULTANT policies.
 2. The SSSP will be issued with the start of NTP 1b.
 3. The CONSULTANT is responsible for employee and sub-consultant compliance with applicable regulations and the SSSP
 4. Transmittal of the Safety and Security observations and incidents between the CONSULTANT and HART is to be carried out through the Integrated Safety Management System (ISMS). HART to provide access to this internet based system.
-

C. Inputs

1. CONSULTANT Company Safety and Health Manual
 2. HART Construction Safety and Security Plan current revision (CSSP)
 3. Various State and Federal occupational safety and health regulations.
 4. Hawaii Administrative Rules, Title 12, Department of Labor and Industrial Relations Subtitle 8, Division of Occupational Safety and Health Part 3
-

D. Deliverables

1. Draft Site Safety and Security Plan (SSSP)
 2. Final Site Safety and Security Plan (SSSP)
-

ACTIVITY DESCRIPTION

NTP#: NTP #1a, 1b, 2, 3	Activity Responsibility:	Issue Date:
Activity: All Stations Safety and Security Certification – All Stations (SM, PE, ID, FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Demonstrate for each NTP, within the project schedule, the integration and completion of safety and security certification activities, including the development and completion of Conformance Checklist.
2. Identify the representative assigned to manage and facilitate the Designer's implementation of the safety and security certification process.
3. Review and revise the initial Certifiable Elements List (CEL) and Certifiable Elements List (CIL, provide by HART, based on CONSULTANT's knowledge of required certifiable elements and items. Submit CEL and CIL to HART for review and acceptance by its Safety and Security Review Committee (SSRC).
4. Develop and support the development of safety and security analyses for safety and security certifiable elements as needed.
5. Support the resolution of identified safety hazards and security vulnerabilities identified through safety and security analyses for incorporation into the design.
6. Participate on safety and security committees and working groups established by HART to perform safety and security certification activities as requested.
7. Participate in HART Safety and Security Certification Audits.
8. Develop and submit for acceptance by HART's Safety and Security Review Committee the Safety and Security Conformance Checklist.
9. Support the closure of all identified safety hazards and security vulnerabilities.
10. Submit completed and signed Safety and Security Conformance Checklist to HART for review and acceptance.
11. Submit supporting verification documentation to demonstrate that the design has incorporated and complies with safety and security design criteria and requirements provided in the technical specifications and contract documents.

B. Assumptions

1. HART will provide PE-Phase Safety and Security Conformance Checklist.
2. Safety and Security Certification Audits will be performed by HART annually.

C. Inputs

1. HART Safety and Security Management Plan current revision (SSMP current revision)
2. HART Safety and Security Certification Plan current revision (SSCP)
3. FTA Handbook for Transit Safety and Security Certification (November 2012)
4. PE-Phase Safety and Security Conformance Checklist developed by HART

D. Deliverables

1. Schedule of Safety and Security Certification Activities
2. Qualifications of Design Safety and Security Certification Manager
3. Safety and Security Conformance Checklist for Final Design
4. Completed and Signed Safety and Security Conformance Checklist
5. Supporting Documentation for Verification

Design Management

The Station Design work for this Contract includes, but is not limited to:

- Station public spaces and ancillary structures as described in Section 01 Station Descriptions;
- Station finishes;
- Vertical circulation elements;
- Concourse and concourse supports, except within the limits of the guideway construction contract;
- Platform and platform canopy;
- Station Lighting, Heating, Ventilation & Air Conditioning (HVAC), electrical, grounding, fire protection and plumbing design;
- Site work, including demolition;
- Site landscaping and furnishings;
- Incorporation of guideway landscaping and furnishings design by the GEC's guideway landscape consultant;
- Coordination with the Transit Arts Program;
- Signage and graphics;
- Parking facilities; where stations must incorporate a 'kiss+ride' (Iwilei)
- Accommodation, location and attachment of safety and security systems and alarms;
- Coordinate and manage subconsultants (including civil, electrical, structural, etc.)
- Interface and coordination of design with other contracts through the Interface Manager;
- Coordination of design and interaction with stakeholders along alignment;
- Permitting;
- Participation in community outreach and public presentations; and
- Sustainable design practices.

ACTIVITY DESCRIPTION		
NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: All Stations Design Management	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Design Coordination Meetings
 - a) The CONSULTANT shall hold supplementary meetings with appropriate team members as determined by CONSULTANT. These meetings shall act as work sessions to focus on specific areas of the project that require attention or design issues that require resolution. In conjunction with the Interface Manager, appropriate meetings shall be held with the various approving City & State agencies and Utility Companies to assist in the review process. It is critical that the review process includes a onetime review by all agencies and utilities and an expedited review period.
 - b) PM/ Design Manager shall meet weekly with the Design Team Leaders.
2. Comments Matrix and Responses
 - a) HART will review and provide comments on the PE, ID and FD submittals. Submittal review comments will be provided to the CONSULTANT no later than 30 days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT shall respond to the comments within 14 days and also indicate a course of action to be taken for each comment. The Project/Design Manager is responsible for consolidating and proofing all comment responses from the disciplines and submitting to HART as one package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT shall incorporate the comments into the next submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviation has been specifically requested in writing by the CONSULTANT and approved in writing by HART.
3. PE, ID and FD Submittals
 - a) The Project/Design Manager is responsible for coordinating and consolidating the PE, ID and FD submittal elements from all the required disciplines. These include (but not limited to) all required reports, estimates of construction costs, contract drawings, contract specifications and design calculations as detailed in the respective Deliverables required by discipline in Section 06 and are to be submitted as one package unless otherwise scheduled or agreed to by HART. In the case of the Final Design Submittal, the PM/DM is responsible for consolidating, coordinating and packaging the signed and sealed final Construction Contract Documents (drawings, specifications, general and special conditions) from all disciplines into 'Camera-Ready' and 'Ad-Ready' packages. Throughout this Scope of Work document, references to Final Design documents, or similar language, shall mean Construction Contract Documents as defined in this Activity.
4. Primavera Licensing
 - a) The CONSULTANT shall maintain one program license agreement for Oracle's Primavera P6 and Contract Manager.
5. Sub-Consultant Management & Coordination
 - a) The CONSULTANT shall hold weekly coordination meetings or conference calls to review the responses to inquiries or comments from HART, disseminate information from HART and to discuss work effort and schedules. Specific design issues shall be identified in the coordination meeting agenda so that appropriate team members can be prepared to discuss and coordinate work, resolve outstanding problems and anticipate problematic design issues. The CONSULTANT's Project Manager shall periodically visit the offices of team members to monitor the dedicated participation of appropriate staff and to verify that Quality Control protocols are being followed.
6. Document Controls
 - a) Non-CADD project correspondence and other documentation shall be controlled using CMS.
 - b) The CONSULTANT shall utilize the CADD production guidelines established by HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design drawings, and communicate information to HART and other stakeholders. Standards include sheet organization,

and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT shall use CMS for CADD drawing submittals. AutoCAD (version to be determined by CONSULTANT and HART) has been established as the project CADD platform.

- c) The CONSULTANT shall utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
7. Training
- a) The CONSULTANT's project scheduler shall attend all necessary training required at the outset of the project as required by HART, including Primavera and other project wide software.

B. Assumptions

- 1. None

C. Inputs

- 1. None

D. Deliverables

- 1. Management activities are based off the Project Management Plan and the effort is distributed over the duration of the Activity.
-

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: All Stations Design Management (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Design Coordination Meetings
 - a) The CONSULTANT shall hold supplementary meetings with appropriate team members as determined by CONSULTANT. These meetings shall act as work sessions to focus on specific areas of the project that require attention or design issues that require resolution. In conjunction with the Interface Manager, appropriate meetings shall be held with the various approving City & State agencies and Utility Companies to assist in the review process. It is critical that the review process includes a onetime review by all agencies and utilities and an expedited review period.
 - b) PM/ Design Manager shall meet weekly with the Design Team Leaders.
2. Comments Matrix and Responses
 - a) HART will review and provide comments on the PE submittals. Submittal review comments will be provided to the CONSULTANT no later than 30 days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT shall respond to the comments within 14 days and also indicate a course of action to be taken for each comment. The Project/Design Manager is responsible for consolidating and proofing all comment responses from the disciplines and submitting to HART as one package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT shall incorporate the comments into the next submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviation has been specifically requested in writing by the CONSULTANT and approved in writing by HART.
3. PE Submittals
 - a) The Project/Design Manager is responsible for coordinating and consolidating the PE submittal elements from all the required disciplines. These include (but not limited to) all required reports, estimates of construction costs, contract drawings, contract specifications and design calculations as detailed in the respective Deliverables required by discipline in Section 06 and are to be submitted as one package unless otherwise scheduled or agreed to by HART. In the case of the Final Design Submittal, the PM/DM is responsible for consolidating, coordinating and packaging the signed and sealed final Construction Contract Documents (drawings, specifications, general and special conditions) from all disciplines into 'Camera-Ready' and 'Ad-Ready' packages. Throughout this Scope of Work document, references to Final Design documents, or similar language, shall mean Construction Contract Documents as defined in this Activity.
4. Primavera Licensing
 - a) The CONSULTANT shall maintain one program license agreement for Oracle's Primavera P6 and Contract Manager.
5. Sub-Consultant Management & Coordination
 - a) The CONSULTANT shall hold weekly coordination meetings or conference calls to review the responses to inquiries or comments from HART, disseminate information from HART and to discuss work effort and schedules. Specific design issues shall be identified in the coordination meeting agenda so that appropriate team members can be prepared to discuss and coordinate work, resolve outstanding problems and anticipate problematic design issues. The CONSULTANT's Project Manager shall periodically visit the offices of team members to monitor the dedicated participation of appropriate staff and to verify that Quality Control protocols are being followed.
6. Document Controls
 - a) Non-CADD project correspondence and other documentation shall be controlled using CMS.
 - b) The CONSULTANT shall utilize the CADD production guidelines established by HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design drawings, and communicate information to HART and other stakeholders. Standards include sheet organization,

and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT shall use CMS for CADD drawing submittals. AutoCAD (version to be determined by CONSULTANT and HART) has been established as the project CADD platform.

- c) The CONSULTANT shall utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
7. Training
- a) The CONSULTANT's project scheduler shall attend all necessary training required at the outset of the project as required by HART, including Primavera and other project wide software.

B. Assumptions

- 1. None

C. Inputs

- 1. None

D. Deliverables

- 1. Management activities are based off the Project Management Plan and the effort is distributed over the duration of the Activity.
-

NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: All Stations Design Management (ID)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Design Coordination Meetings
 - a) The CONSULTANT shall hold supplementary meetings with appropriate team members as determined by CONSULTANT. These meetings shall act as work sessions to focus on specific areas of the project that require attention or design issues that require resolution. In conjunction with the Interface Manager, appropriate meetings shall be held with the various approving City & State agencies and Utility Companies to assist in the review process. It is critical that the review process includes a onetime review by all agencies and utilities and an expedited review period.
 - b) PM/ Design Manager shall meet weekly with the Design Team Leaders.
2. Comments Matrix and Responses
 - a) HART will review and provide comments on the ID submittals. Submittal review comments will be provided to the CONSULTANT no later than 30 days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT shall respond to the comments within 14 days and also indicate a course of action to be taken for each comment. The Project/Design Manager is responsible for consolidating and proofing all comment responses from the disciplines and submitting to HART as one package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT shall incorporate the comments into the next submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART’s Design Criteria unless a deviation has been specifically requested in writing by the CONSULTANT and approved in writing by HART.
3. ID Submittals
 - a) The Project/Design Manager is responsible for coordinating and consolidating the ID submittal elements from all the required disciplines. These include (but not limited to) all required reports, estimates of construction costs, contract drawings, contract specifications and design calculations as detailed in the respective Deliverables required by discipline in Section 06 and are to be submitted as one package unless otherwise scheduled or agreed to by HART. In the case of the Final Design Submittal, the PM/DM is responsible for consolidating, coordinating and packaging the signed and sealed final Construction Contract Documents (drawings, specifications, general and special conditions) from all disciplines into ‘Camera-Ready’ and ‘Ad-Ready’ packages. Throughout this Scope of Work document, references to Final Design documents, or similar language, shall mean Construction Contract Documents as defined in this Activity.
4. Primavera Licensing
 - a) The CONSULTANT shall maintain one program license agreement for Oracle’s Primavera P6 and Contract Manager.
5. Sub-Consultant Management & Coordination
 - a) The CONSULTANT shall hold weekly coordination meetings or conference calls to review the responses to inquiries or comments from HART, disseminate information from HART and to discuss work effort and schedules. Specific design issues shall be identified in the coordination meeting agenda so that appropriate team members can be prepared to discuss and coordinate work, resolve outstanding problems and anticipate problematic design issues. The CONSULTANT’s Project Manager shall periodically visit the offices of team members to monitor the dedicated participation of appropriate staff and to verify that Quality Control protocols are being followed.
6. Document Controls
 - a) Non-CADD project correspondence and other documentation shall be controlled using CMS.
 - b) The CONSULTANT shall utilize the CADD production guidelines established by HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design drawings, and communicate information to HART and other stakeholders. Standards include sheet organization, and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT shall use CMS

for CADD drawing submittals. AutoCAD (version to be determined by CONSULTANT and HART) has been established as the project CADD platform.

- c) The CONSULTANT shall utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
7. Training
- a) The CONSULTANT's project scheduler shall attend all necessary training required at the outset of the project as required by HART, including Primavera and other project wide software.

B. Assumptions

- 1. None

C. Inputs

- 1. None

D. Deliverables

- 1. Management activities are based off the Project Management Plan and the effort is distributed over the duration of the Activity.
-

NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: All Stations Design Management (FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Design Coordination Meetings
 - a) The CONSULTANT shall hold supplementary meetings with appropriate team members as determined by CONSULTANT. These meetings shall act as work sessions to focus on specific areas of the project that require attention or design issues that require resolution. In conjunction with the Interface Manager, appropriate meetings shall be held with the various approving City & State agencies and Utility Companies to assist in the review process. It is critical that the review process includes a onetime review by all agencies and utilities and an expedited review period.
 - b) PM/ Design Manager shall meet weekly with the Design Team Leaders.
2. Comments Matrix and Responses
 - a) HART will review and provide comments on the PE, ID and FD submittals. Submittal review comments will be provided to the CONSULTANT no later than 30 days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT shall respond to the comments within 14 days and also indicate a course of action to be taken for each comment. The Project/Design Manager is responsible for consolidating and proofing all comment responses from the disciplines and submitting to HART as one package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT shall incorporate the comments into the next submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviation has been specifically requested in writing by the CONSULTANT and approved in writing by HART.
3. FD Submittals
 - a) The Project/Design Manager is responsible for coordinating and consolidating the FD submittal elements from all the required disciplines. These include (but not limited to) all required reports, estimates of construction costs, contract drawings, contract specifications and design calculations as detailed in the respective Deliverables required by discipline in Section 06 and are to be submitted as one package unless otherwise scheduled or agreed to by HART. In the case of the Final Design Submittal, the PM/DM is responsible for consolidating, coordinating and packaging the signed and sealed final Construction Contract Documents (drawings, specifications, general and special conditions) from all disciplines into 'Camera-Ready' and 'Ad-Ready' packages. Throughout this Scope of Work document, references to Final Design documents, or similar language, shall mean Construction Contract Documents as defined in this Activity.
4. Primavera Licensing
 - a) The CONSULTANT shall maintain one program license agreement for Oracle's Primavera P6 and Contract Manager.
5. Sub-Consultant Management & Coordination
 - a) The CONSULTANT shall hold weekly coordination meetings or conference calls to review the responses to inquiries or comments from HART, disseminate information from HART and to discuss work effort and schedules. Specific design issues shall be identified in the coordination meeting agenda so that appropriate team members can be prepared to discuss and coordinate work, resolve outstanding problems and anticipate problematic design issues. The CONSULTANT's Project Manager shall periodically visit the offices of team members to monitor the dedicated participation of appropriate staff and to verify that Quality Control protocols are being followed.
6. Document Controls
 - a) Non-CADD project correspondence and other documentation shall be controlled using CMS.
 - b) The CONSULTANT shall utilize the CADD production guidelines established by HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design drawings, and communicate information to HART and other stakeholders. Standards include sheet organization, and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT shall use CMS

for CADD drawing submittals. AutoCAD (version to be determined by CONSULTANT and HART) has been established as the project CADD platform.

- c) The CONSULTANT shall utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
7. Training
- a) The CONSULTANT's project scheduler shall attend all necessary training required at the outset of the project as required by HART, including Primavera and other project wide software.

B. Assumptions

- 1. None

C. Inputs

- 1. None

D. Deliverables

- 1. Management activities are based off the Project Management Plan and the effort is distributed over the duration of the Activity.
-

Design Workshop and Architectural Design Charrette

Commence design with a three (3)-day workshop to review station design concepts previously completed and, where necessary, update the design based on HART input. Participants shall include, but not limited to, the Consultant’s Project manager, Design Manager, Key Station Architects, Lead Disciplinary Engineering Managers, HART Staff and GEC staff.

ACTIVITY DESCRIPTION		
NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: All Stations Design Workshop (SM)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. CONSULTANT shall hold a three (3) day design workshop.
 - a) CONSULTANT to secure the venue, site visit transportation, and arrangements for audio-video equipment for the workshop.
 - b) CONSULTANT to organize and hold the workshop.
2. Prior to the Workshop, CONSULTANT shall:
 - a) Review reference documents.
 - b) Prepare the Workshop agenda and modify as needed per HART’s comments.
 - c) Prepare presentation boards of existing materials, including the site plans and alignment of the entire corridor, DKSG station site plans, building plans, sections, elevations, 3D images and site photos relevant to this station group.
 - d) Review the status of design for the City Center Guideway Contract and report any known and potential coordination issues.
3. The proposed Workshop agenda is as identified below:
 - a) HART to provide a summary review of the current status of the Station designs and issues associated with each Station.
 - b) The Stations will be reviewed in general to identify the design intent for items that will have continuity and items that will be variable.
 - c) Visit each individual site and identify known challenges and opportunities at each site
 - d) The Stations will be reviewed individually and discussed in regards to the unique aspect of each.
 - i. Areas that are desired to reflect the neighborhood or historic character of each Station will be discussed.
 - e) Open discussion and break out groups by Discipline/Station.
4. Key stakeholders participating shall include:
 - a) CONSULTANT’s Project Manager/Design Manager, Architectural Managers, and Structural Manager, HART staff, GEC staff, other stakeholders or staff as identified by HART.
5. Follow-up activities shall include:
 - a) Prepare meeting minutes, document design decision/action items and identify timetable for completion of action items.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Design Workshop meeting minutes with exhibits presented or developed during the workshop, including electronic files of photos from site visits.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Design Workshop All Stations Architectural Design Charrette (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. CONSULTANT shall hold a four (4) half day Design Charrette to occur on four (4) consecutive days.
 - a) CONSULTANT to secure the venue and arrangements for audio-video equipment for the charrette.
 - b) CONSULTANT to organize and hold the charrette.
2. Prior to the Design Charrette, CONSULTANT shall:
 - a) Review reference documents.
 - b) Prepare the Design Charrette agenda and modify per HART's comments.
 - c) Prepare presentation boards of existing materials, including the site plans and alignment of the entire corridor, DKSG station site plans, building plans, sections, elevations, 3D images and site photos relevant to the station group. Materials to depict the CONSULTANT's interpretation of Project input and criteria that address the layout, functioning and architectural character of each station as well as any options thereto.
 - d) Review the status of design for the City Center Guideway Contract and report any known and potential coordination issues.
3. The proposed Design Charrette agenda is as identified below:
 - a) CONSULTANT to provide a summary review critique of the current status of the Station designs and assessment of the issues associated with each Station and site.
 - b) The Stations will be reviewed individually and discussed in regards to the unique aspect of each.
 - i. Areas that are desired to reflect the neighborhood or historic character of each Station
 - ii. Programmatic Agreement requirements for each station.
 - c) CONSULTANT shall present architectural schemes, discuss the benefits and limitations and provide recommendations for each station.
 - d) Based on HART/GEC input, CONSULTANT shall revise and refine the schemes and present updated materials for discussion.
 - e) Seek agreement on preferred schemes and/or resolve actions to address design issues identified.
 - f) The Stations shall be reviewed in detail to identify the design intent for items that shall have continuity and items that shall be variable.
4. Key stakeholders participating shall include:
 - a) CONSULTANT's Project Manager/Design Manager, Architectural Managers, and Structural Manager/Designers, HART staff, GEC staff, other stakeholders or staff as identified by HART.
5. Follow-up activities shall include:
6. Prepare meeting minutes, document design decision/action items, and identify timetable for completion of action items.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Design Charrette meeting minutes with electronic files of exhibits presented or developed during the charrette.

Environmental

Prepare an Environmental Compliance Plan (ECP) that addresses how compliance and documentation shall be achieved in design and construction, including the design review process to address pertinent mitigation measures and permits specified in the Project's Mitigation Monitoring Program (baselined July 17, 2012), including the FEIS, the Record of Decision (ROD) and the Programmatic Agreement (PA). The Consultant shall prepare environmental constraint maps as directed by HART as part of the ECP. Prepare application(s) for pertinent environmental permits and related design plans that reflects achievement of environmental compliance. The Consultant shall update the ECP, as needed, when new or modified mitigation or environmental compliance conditions are developed during the term of the Contract. The Consultant shall be responsible for preparing additional environmental documentation, in compliance with the National Environmental Policy Act (NEPA) and State of Hawai'i Chapter 343 for all post ROD changes and environmental clearances requirements specified by permit conditions or post-award design changes, as required.

ACTIVITY DESCRIPTION		
NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: All Stations Environmental (SM)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Prepare and update the Environmental Compliance Plan (ECP) throughout the development of the design:
 - a) The ECP shall detail the project's environmental objectives and targets for design with the goal of executing the work in an environmentally-sound manner in compliance with all federal, state, and local laws; regulations; permit conditions; and commitments recorded in the MMP (baselined July 17, 2012), FEIS, ROD, FAA ROD, and PA, including identification of tree conflicts as determined by CONSULTANT. Due to the complexity of PA requirements for stations in proximity to historic districts and properties as well as archaeologically sensitive areas (for cultural resources and potential Native Hawaiian burials) throughout the City Center Section, the ECP must include particular attention to those issues.
 - b) The ECP shall outline procedures and protocols for achieving environmental compliance, including site selections and design of reinternment (re-burial) sites, environmental controls, training, monitoring, description of environmental team meetings, and documentation of compliance during design and subsequent construction phases.
 - c) The ECP shall describe the roles and responsibilities and reporting relationships for both the CONSULTANT and HART environmental staff, including how coordination shall occur.
 - d) The ECP shall detail protocols and reviews that occur during the design phase.
 - e) The ECP shall contain a list of potentially required environmental permits, waivers, and approvals.
 - f) The ECP shall list regulatory agencies with an interest in the project and describe reporting requirements and provide points of contact.
 - g) The ECP shall establish and describe a record system.
 - h) The ECP shall establish a procedure to ensure that environmental compliance objectives are carried forward through the bidding and construction phases, including ensuring that all environmental compliance conditions are incorporated into the contract special provisions.
 - i) ECP shall outline a process for achieving environmental compliance for any proposed design changes.
2. Environmental Compliance Reviews during Design:
 - a) Environmental compliance staff shall collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, and Section 106 PA requirements are adequately incorporated into the Station designs.
 - b) Environmental compliance reviews shall be conducted as per the procedures established in the ECP.
3. Prepare and submit Preliminary Draft ECP.
4. Attend design team coordination, review, and interface meetings as needed.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Tax Map Key (TMK) List and any additional information as required for ROE.
2. Preliminary Draft (Rev. A) ECP Submittal
3. Environmental Compliance Review Tracking Document for SM design

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: All Stations Environmental (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Environmental Compliance Reviews during Design:
 - a) Environmental compliance staff shall collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, and Section 106 PA requirements are adequately incorporated into the Station designs.
 - b) Environmental compliance reviews shall be conducted as per the procedures established in the ECP, or as agreed upon between the CONSULTANT and HART.
2. Update ECP with permit conditions from permits and HART comments received during NTP #1a. The ECP shall be approved by HART not less than 30 days prior to start of any field work, e.g. Survey, potholing or Geotechnical Work. The ECP shall be accepted by HART prior to submittal of the final revised preliminary design plans
3. Attend design team coordination, review, and interface meetings as needed.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Baseline (Rev. 0) ECP Submittal
2. Technical memo to accompany the design submission, describing mitigation measures included in the design and confirming Environmental compliance.
3. Environmental Compliance Plan checklist
4. Environmental Compliance Review Tracking Document for PE design

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: All Stations Environmental (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Environmental Compliance Reviews during Design: <ol style="list-style-type: none"> a) Environmental compliance staff shall collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, FAA ROD, and Section 106 PA requirements are adequately incorporated into the Station designs. b) Environmental compliance reviews shall be conducted as per the procedures established in the ECP. 2. Update ECP with permit conditions from permits received during NTP #1b. 3. Attend design team coordination, review, and interface meetings as needed. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Technical memo to accompany the design submission, describing mitigation measures included in the design and confirming Environmental compliance. 2. Updated ECP (Rev. 1) 3. Environmental Compliance Plan checklist 4. Environmental Compliance Review Tracking Document for ID submittal 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: All Stations Environmental (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Environmental Compliance Reviews during Design <ol style="list-style-type: none"> a) Environmental compliance staff shall collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, FAA ROD, and PA requirements are adequately incorporated into the Station designs. b) Environmental compliance reviews shall be conducted as per the procedures established in the ECP. 2. Update ECP with permit conditions from permits received during NTP #2. 3. Attend design team coordination, review, and interface meetings as needed. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Technical memo to accompany the design submission, describing mitigation measures included in the design and confirming Environmental compliance. 2. Updated ECP (Rev. 2) 3. Environmental Compliance Plan checklist 4. Environmental Compliance Review Tracking Document for FD submittal 5. Final ECP for incorporation into the construction contract documents 		

Permits

The Consultant shall prepare all applicable permit applications, pay applicable permit fees, obtain permits as necessary and comply with all permit conditions related to this SOW, including but not limited to, field activities by the CONSULTANT, and construction and field activities to be performed by the construction contractor, as suitable. This may include, but is not limited to, building permits, stockpiling, grading, etc. The CONSULTANT shall be responsible to input all permits obtained into CMS and report the compliance to the conditions.

ACTIVITY DESCRIPTION		
NTP#:	Activity Responsibility:	Issue Date:
NTP #1a, 1b, 2, 3		
Activity:	WBS Code / ID Number:	Revision Number:
All Stations Permits		0

A. Activity Description

1. Environmental Permitting for Construction Activities
 - a) CONSULTANT shall prepare and submit NPDES Construction Storm water notification (NOI-C)
2. CONSULTANT shall prepare and submit applications for the following permits and clearances as necessary:
3. Utility Relocation
 - a) NPDES Form C as necessary
 - b) Identify and obtain appropriate MS4 Approvals
 - c) City and County of Honolulu Street Usage Permit
 - d) DOT Highway Usage Permit
4. Permanent Construction
 - a) NPDES Form C, F and G as necessary
 - b) Identify and obtain appropriate MS4 Approvals
 - c) Flood Hazard District Compliance
 - d) Coordination for construction to cross or enter State Energy Corridor
 - e) Sewer Connections
 - f) Water Connections
 - g) Storm Drain Connections
 - h) Land Use Permits
 - i) Noise Permit as necessary
 - j) Noise Variance as necessary
 - k) City and County of Honolulu Street Usage Permit
 - l) DOT Highway Usage Permit
 - m) City Grading, grubbing, stockpiling, trenching (including permits for lay down yards)
 - n) Landscaping Plans affecting HDOT roadways
 - o) Disability and Communications Access Board
 - p) City Building Permit
 - i. Department of Planning and Permitting for Buildings, Electrical, Plumbing and Sidewalk
 - ii. Fire Department- HFD- for fire suppression systems
 - q) HECO for building Electrical service
 - r) Telcom for non-Core System communications

B. Assumptions

1. CONSULTANT shall provide information as needed, and fill out applications for Noise and Noise Variance Permits for Design activities. HART will be responsible for Permit submission.
2. Grading Permit: CONSULTANT shall obtain grading plan approvals, DKSG contractor shall obtain and pay for grading permit.
3. Trenching Permit: CONSULTANT shall obtain sitework plan approvals. DKSG contractor shall obtain and pay for Trenching Permit..
4. CONSULTANT shall provide information as needed and fill out applications for Street Usage Permits for Design activities. HART will be responsible for Permit submission.

C. Inputs

1. None

D. Deliverables

1. Draft Permit/Clearance Applications
2. Final Permit/Clearance Applications

Interface, Coordination and Management

Interface with Other Contractors

Extensive and continual interface and design coordination with other Contracts is essential for the DKSG Contract. HART has been interfacing with adjacent Contractors/Designers prior to DKSG Consultant being selected. The Consultant shall be responsible for designing the stations within the limitations of HART response to the interface questions (RFIDs) to the extent possible. This interface includes, but is not limited to:

Core Systems Contract

The Core Systems Contractor (CSC) will be responsible for train communications, control and signaling; traction electrification, platform edge doors/gates, passenger vehicles, fare vending systems and device locations, fire alarm access control, VMS, telephone, CCTV, and network communications. The Dillingham and Kaka'ako Station Group Design Consultant shall design and prepare contract documents for embedded conduits and other embedded components, blockouts, structural supports and mountings, and other enclosures and finishes as needed for systems' equipment. Final installation of some systems may occur in the future after Station construction is complete.

City Center Guideway Contract

Interface is required between the City Center Guideway Contractor/Consultant and the Dillingham and Kaka'ako Station Group Design Consultant in the station areas. The design of guideway superstructure, columns, foundations, temporary landscaping, systems conduits, certain Station platform support structures and concourse support structures within the limit of the guideway right-of-way is part of the City Center Guideway scope of work and not included in this Contract except for interface and coordination. Site grading, roadway, drainage, systems conduits, and other site features within the Station area are part of this scope of work.

Elevators and Escalators

The Dillingham and Kaka'ako Station Group Design Consultant shall interface with HART's designated contractor who will be furnishing, installing, and testing Station elevator and escalator equipment within the Dillingham and Kaka'ako Station Group contract. The Dillingham and Kaka'ako Station Group Design Consultant shall incorporate Architectural Standards and Directive Drawings, furnished by HART, which shall provide dimensions for hoist ways and floor openings, elevator and escalator equipment criteria and cladding material. HART will furnish and install all elevators and escalators in a separate contract that will be in force prior to start of construction of the DKSG facilities

Transit Arts Program

HART's Transit Arts Program is intended to integrate art into transit station designs during the design process rather than add artwork after the process is complete. The Dillingham and Kaka'ako Station Group Design Consultant shall be required to interface with HART's Transit Arts Program personnel and selected artist(s) to integrate artwork into the design of the stations and station sites.

Coordination with Others

Extensive and continual design coordination with HART, GEC, including GEC sub consultants, third parties, utilities, government agencies, public and private owners, environmental, section 106 and the PA are essential for the DKSG Contract. This coordination includes, but is not limited to:

Public Involvement

Coordination is required with HART's Public Involvement team for the required Community Meetings. The Dillingham and Kaka'ako Station Group Design Consultant shall support and participate in community presentations or meetings hosted by HART to present station design, compatibility with historic context sites, and convey information to the public.

Programmatic Agreement

Coordination with HART is required to ensure compliance with and implementation of the H RTP Programmatic Agreement. This includes providing support materials and staff (if requested) for consulting party workshops as identified in Section 106 Consulting Parties to the section 106PA.

Public and Private Utilities

Coordinate points of service, utility relocation, sizing and connection points, etc.

System wide Landscape Design

Coordinate with the GEC landscape design consultant for proposed permanent irrigation and landscaping along the Project alignment in median areas occurring under and adjacent to the guideway and adjacent to the Stations

Station Signage Design

The CONSULTANT shall be responsible for incorporating signs, attachment, conduit, lighting and other requirements for locations indicated by HART Signage and Wayfinding Systems Manual and Standard Drawings. Coordinate with the GEC signage designer for sign face, message, and submittal responses.

Public and Private Property Owners and Businesses

Provide construction staging plans or traffic impact plans, to adjacent or affected property owners and businesses where requested by HART.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b, 2, 3	Activity Responsibility:	Issue Date:
Activity: Interface, Coordination and Management All Stations (SM, PE, ID, FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

Provide interface and coordination in conformance with the Interface Management Plan. CONSULTANT shall interface and coordinate with HART contractors and designers and other stakeholders, including:

1. Interface and coordination with other HART Consultants and Contractors:
 - a) Interface with the Core Systems Contractor (CSC) for the communication and control, traction power electrification, train control and signaling, platform edge doors/gates, fare vending systems, devices locations and other systems as required. Interface with CSC for requirements for embedded conduits and other embedded components, block outs, structural supports and mountings and other rough-ins, and other enclosures and finishes as needed.
 - b) Interface with the City Center Guideway contract design team in the eight (8) Station areas.
 - c) Interface with Elevators and Escalators Contract for the furnishing, installation and testing of the Station elevator and escalator equipment by the Elevators and Escalators Contractor. HART furnished Standards and Directive Drawings will provide dimensions for hoist ways and floor openings, elevator and escalator equipment criteria. Furnishing and installation of all elevators and escalators will be by a separate HART Contractor.
 - d) HART's Transit Arts Program is intended to integrate art into transit station designs during the design process rather than add artwork after the process is complete. The Dillingham and Kaka'ako Station Group Design Consultant shall be required to work with HART's Transit Arts Program personnel and selected artist(s) to integrate artwork into the design of the stations and station sites.
2. Coordinate with Government Agencies:
 - a) State of Hawaii, Department of Transportation, Highways Division
 - b) Honolulu Department of Transportation Services
 - c) Department of Planning and Permitting
 - d) Department of Environmental Services
 - e) Board of Water Supply
 - f) City and County of Honolulu
 - g) Fire Department
 - h) State of Hawaii, DILR Elevator Safety Inspection Branch
 - i) State of Hawaii, Department of Health
 - j) State of Hawaii, Department of Land and Natural Resources.
3. Coordinate with Public and Private Utilities for points of service, utility relocation, sizing and connection points, etc., with various utility owners, including:
 - a) Hawaiian Electric Company (HECO)
 - b) City and County of Honolulu (Dept. of Planning & Permitting, Dept. of Environmental Services, Dept. of Design & Construction, and Dept. of Transportation Services)
 - c) Board of Water Supply
 - d) State of Hawaii Department of Transportation - Highways Division
 - e) Network Enterprise Center
4. Coordinate with Public and Private Property Owners and Businesses:
 - a) Coordinate design and construction staging plan traffic impacts with adjacent or affected property owners and businesses.
 - b) Coordinate Stations with other known projects along the section. Entities will be limited to those quantified/determined prior to the end of NTP#1b. For the purposes of CONSULTANT scope these are currently, including, but not limited to:
 - i. Ala Moana Center
 - ii. Stanford Carr Development at Civic Center Station
 - iii. Kaka'ako Station

-
5. Coordination with HART/GEC:
 - a) Coordinate with HART regarding work by others with the various stakeholders and other systemwide issues.
 - b) Systemwide Landscaping Design - Coordinate with HART's designer for proposed permanent irrigation and landscaping in adjacent to the Stations.
 - c) Station Signage Design - Coordinate with HART's signage designer for sign face and message. The CONSULTANT shall be responsible for incorporating signs, attachment, conduit, lighting, and other requirements for locations indicated by HART's Signage and Wayfinding Systems Manual for inclusion in this contract.
 - d) Public Involvement - Coordination is required with HART's Public Involvement team for the required Community Meetings, Consulting parties' meetings, and stakeholder workshops. Attend meetings that will be in parallel with the community presentations, consulting party meetings, and workshops to coordinate the preparation of materials and attendance. The Dillingham and Kaka'ako Station Group Design Consultant shall support and participate in community presentations or meetings hosted by HART to present station design and convey information to the public. Burial Council and family descendants meetings are not included within the scope of CONSULTANT Meetings.
 6. Follow Environmental and Public Involvement tasks to coordinate project compliance with Section 106 of the National Historic Preservation Act in compliance with the H RTP PA Stipulation IV under direction of the HART Planning and Environment staff.
 7. Develop Passenger Station Interface Control Manual.
 8. Develop, submit, and update Interface Matrix identifying interfaces with affected contracts.
 9. For all Phases, attend, review and participate in bi-weekly interface definition meetings with the City Center Guideway Designer.
 10. For all Phases, attend, review and participate in bi-weekly interface definition meetings with the Core Systems Contractor (CSC).
 11. For all Phases, attend, review and participate in interface meetings with "other interfacing parties" including Elevators & Escalators Contractor and Transit Art design, as needed.
 12. Participate in monthly detailed Interface Resolution Meetings.
 13. Generate and respond to RFIDs.
 14. Notify HART of any changes and/or new requirement that arises as a result of the interface process and/or Consultant's design development that may affect or result in a change in Contract with other interfacing parties. Provide justification for the changes and/or new requirements.
 15. Confirm interfacing partner ICDs.
 16. Create ICDs for interfacing partner confirmation at submission of Final Design documents.
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B. Assumptions

1. None
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C. Inputs

1. RFID responses generated by the DKSG Interim Final Designer.
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D. Deliverables

1. Draft and final DKSG Passenger Station Interface Control Manual
 2. Update the DKSG Passenger Station Interface Control Manual
 3. Passenger Station Interface Matrix
 4. Generate and respond to RFIDs
 5. Generate Interface Control Documents (ICDs)
 6. Confirmation of interfacing partner ICDs
-

Cost Estimating

It is in the best interest of the public, and the intent of HART, that the Project designed by the CONSULTANT, be constructed within the funds allocated in the Construction Budget. At each submittal, prepare material quantity take-offs and a construction cost estimate to assess the design's adherence to HART's budget. Adjust the design as necessary to maintain compliance with the budget. It shall be the responsibility of the CONSULTANT to design the Project so that the Estimate of Construction Cost shall not exceed the Construction Budget. Format for the material quantity take-offs will be provided by HART. HART will provide the initial unit cost information; subsequent Cost Estimating shall be based on unit cost development and updated by the CONSULTANT at each milestone submittal and compared to the Project Construction Budget.

ACTIVITY DESCRIPTION		
NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: Estimate of Construction Cost All Stations (SM)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Prepare a Construction Cost Budget Validation of the current HART Construction Budget. 2. Reconcile the Budget Validation cost estimate with the current HART Construction Budget. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Budget Validation Engineering Estimate of Construction Costs Submittal 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Estimate of Construction Cost All Stations (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Prepare a Preliminary Engineering estimate of construction cost based on building areas, Updated Preliminary Engineering documents, concept drawings or sketches, and site information. The cost opinion shall be prepared in the system format to prepare for design stage cost management and can be converted to the format provided by HART. 2. Reconcile CONSULTANT PE estimate with the Preliminary Engineering estimate of construction cost. 3. Align the Preliminary Engineering estimate of construction cost with HART's project Construction Budget. Alert the design team if the estimate of construction cost is in excess of project Construction Budget. 4. Develop cost savings recommendations for all building systems. 5. Coordination with the design team, and their assistance with the estimate of construction, shall include a review of the design by the cost estimator and the design team to verify the Stations are constructible. 6. Provide a single revision to the opinion of construction cost to incorporate review comments from the Design team and/or HART. 7. Attend design team coordination, review and interface meetings as needed. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Preliminary Engineering Estimate of Construction Costs Submittal 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Estimate of Construction Quantities and Cost All Stations (ID)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Prepare an Interim Design estimate of construction cost near the end of Interim Design stage. The cost opinion shall be prepared in the format provided by HART. 2. Reconcile the Interim Design estimate of construction cost with the CONSULTANT PE estimate. 3. Align the Interim Design estimate of construction cost with HART's project Construction Budget. Alert the design team if estimate of construction cost is in excess of project Construction Budget. 4. If necessary, develop cost savings recommendations for all building systems. 5. Provide a single revision to the opinion of estimate of construction cost to incorporate review comments from the Design team and/or Owner. 6. Attend design team coordination, review and interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Interim Design Estimate of Construction Cost Submittal 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Estimate of Construction Quantities and Cost All Stations (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Prepare an estimate of construction cost near the end of Final Design stage. The cost opinion shall be prepared in the format provided by HART. 2. Reconcile the Final Design estimate of construction cost with the CONSULTANT ID estimate. 3. Provide cost study for potential additive or deductive alternates as identified by the Design Team. 4. Provide a single revision to the opinion of the estimate of construction cost to incorporate review comments from the Design team and/or Owner. 5. Attend design team coordination, review and interface meetings as needed. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Final Design Estimate of Construction Cost Submittal 		

Geotechnical Exploration and Design

Geotechnical exploration shall be conducted for all site improvements within Station sites. Coordination with the City Center guideway designers for geotechnical information shall be required to the extent practicable. Geotechnical data from previous investigations for the guideway prepared by HART and from other readily available soils reports for other projects in the immediate vicinity shall be provided to plan the explorations program. The geotechnical engineer shall develop and conduct a site specific geotechnical exploration for each station.

Archaeological and Cultural Monitoring

During the drilling operations, the field engineer or geologist shall visually review the cuttings and samples obtained from the borings to observe for indications of potential archaeological remnants. HART will provide Archaeological and Cultural Monitoring at all drill sites. The exploration schedule shall be coordinated with the appropriate HART staff. If, at any time, during the course of drilling there is or suspected to be an inadvertent discovery of human skeletal remains, the procedures outlined in the ECP shall be followed.

ACTIVITY DESCRIPTION		
NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: Geotechnical All Stations – (SM)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Geotechnical payment schedule milestones, project management controls, and subcontracts for geotechnical subcontractors will be prepared, as appropriate. 2. Participate in the specified Design Workshop to discuss geotechnical related design issues that may arise during the workshop. 3. Descriptions of the geotechnical field exploration planned at the eight (8) DKSG stations and preliminary proposed boring location plans will be prepared and submitted for right-of-entry requests. The preliminary proposed boring plans will be prepared based on available station Preliminary Engineering and Station Module Concept drawings. HART's Request for Right of Entry form will be completed and submitted. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 2. Workshop will be held in Honolulu at CONSULTANT's or HART/GEC's office. 3. CAD files of the preliminary engineering drawings and aerial photos will be provided to the CONSULTANT. 4. Percolation testing in support of stormwater management facilities is not included. 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Letters describing the proposed geotechnical field exploration including a proposed boring location and general description of the planned subsurface exploration for each station. 2. Completed HART Request for Right of Entry forms. 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical All Stations – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Readily available information on subsurface and geologic conditions at and/or near the site shall be researched and reviewed.
2. The geotechnical design approach that shall be used to develop geotechnical recommendations for the each station shall be incorporated into a Geotechnical Planning Report (GPR) that shall include all eight (8) Stations within the Dillingham and Kaka'ako Station Group (DKSG) project.
3. Proposed boring location and the description of subsurface exploration plans that were developed in NTP#1a will be incorporated into a Geotechnical Investigation Work Plan (GIWP) that shall include all eight Stations within the DKSG. The GIWP shall be in general conformance with HART Project Specification section 02 32 00 Geotechnical Investigation.
4. A Laboratory testing plan will be developed and included in the GIWP. The laboratory plan shall include the Laboratory Testing Contractor Qualifications and sample storage plan. A health and safety plan (HASP) will be prepared that will include all eight (8) Stations within the DKSG.
5. Site Specific Best Management Practices (BMP) plans will be prepared based on the site surface conditions anticipated at each Station site. The BMP will be limited to measures planned within the work area of each boring.
6. Preliminary geotechnical analysis shall be performed based on the available geotechnical data, and preliminary recommendations will be developed for site preparation and grading, and foundation support for the each station.
7. A technical memorandum shall be prepared to summarize the preliminary foundation recommendations for all eight (8) stations. Preparing separate memos for each station is not included in this SOW.
8. Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
9. Geotechnical consultant will attend select design team coordination, review and interface meetings in Honolulu, as needed.
10. HDOT and City permits for geotechnical field investigations located within State, and City right-of-ways and/or properties will be completed and obtained, as applicable. These permits are limited to HDOT Permit for the Occupancy & Use of State Highway Right-of-Way (DOT 4-689), Permit to Perform Work Upon State Highways (DOT 4-222), and City Street Usage and Excavation permit, as applicable.
11. Test boring locations will be staked-out and checked for underground utilities by reviewing available utility plans, checking with the Hawaii One Call Center, and performing field toning using geophysical methods, as appropriate.
12. After approval of the GPR, GIWP, HASP, and BMP plan, the subsurface exploration for the DKSG will be started per the GIWP.
13. The test borings will be performed under the observation of engineering personnel who will maintain logs of the subsurface materials that are encountered, and obtain soils samples and rock cores, as appropriate.
14. Left-over soil cuttings, drilling fluids, and safety disposables will be placed in DOT approved 55-gallon steel drums and stored at the site until their contents can be tested, and arrangements are made to take this material to an on-island landfill and/or local disposal facility.
15. Borings without piezometers will be backfilled with a cement, bentonite, and water mixture after they are completed. The backfilling will be in general conformance with the Hawaii Well Construction & Pump Installation Standards, Part 3 Well Abandonment/Sealing.
16. The top of the borings will be patched with cold mix asphaltic concrete (AC) or concrete depending on existing surface conditions and at least equal to the existing pavement section.

B. Assumptions

1. Duration for HART's review of the GPR, GIWP, HASP, BMP plan, and associated submittals will be 30 days. If needed, requests can be made to expedite review to 15 days after receipt of these documents, and CONSULTANT will be allowed to start its field work once HART comments have been discussed and resolved in concept and while

-
- any necessary changes are being made.
2. HART will provide Right of Entry to private properties that are affected by the DKSG within 30 days of the start of NTP#1b.
 3. Available geotechnical investigation data for the Civic Center Section Utilities and Guideway contract will be provided to CONSULTANT at the start of NTP #1b. Data that becomes available after work plans are finalized will be incorporated to the extent practicable.
 4. Subsurface materials and ground water at the DKSG sites and the soil cuttings, drilling fluids, and soil samples are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination and will be accepted by local on-island landfills for disposal. Sampling, testing, storing, handling, transporting, and disposal of any hazardous and/or toxic materials, asbestos, PCBs, radioactive materials, and hydrocarbon contaminated materials and contaminated drilling cuttings and fluids from the borings is not included within this SOW and is the responsibility of HART.
 5. HART will dispose of all drilling spoils, drilling fluids and surplus or left-over soil samples regardless of whether contaminated or not, at no cost to the CONSULTANT.
 6. Level D of personal protective equipment (PPE) for field personnel.
 7. Archaeological and cultural monitoring, if required, to be provided by HART at no cost to CONSULTANT.
 8. The DKSG Station sites are clear of unexploded ordnance (UXO).
 9. Attend select design team coordination, review, and interface meetings and participate in select conference calls, as needed.
 10. Not included: Preparing a storm water pollution prevention plan (SWPPP) and applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
 11. Not included: Developing and implementing a BMP plan for the entire station sites and for the fixed guideway improvements.
 12. The drill rigs for the borings may be left at the site and over each boring until the field exploration program has been completed. Daily demobilization of the drill rig and its associated equipment is not included. Storage of drill rigs and supporting equipment, samples and 55 gallon drums will be allowed on HART-owned property at no cost to the CONSULTANT.
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C. Inputs

1. City Center Section Utilities and Guideway contract geotechnical data.
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D. Deliverables

1. Draft and final GPR (for all eight (8) Stations within the DKSG)
 2. Draft and final GIWP (for all eight (8) Stations within the DKSG)
 3. Draft and final Geotech HASP (for all eight (8) Stations within the DKSG)
 4. Draft and final Laboratory Testing Plan (for all eight (8) Stations within the DKSG)
 5. Drilling Contractor Qualifications (for all eight (8) Stations within the DKSG)
 6. Technical memorandum with preliminary recommendations for each station
 7. Progress report on subsurface exploration, if started during NTP#1b.
-

ACTIVITY DESCRIPTION		
NTP#:	NTP #2	Activity Responsibility:
Issue Date:		
Activity:	Geotechnical All Stations – (ID)	WBS Code / ID Number:
		Revision Number: 0

A. Activity Description

1. Continue and complete subsurface exploration per the GIWP.
2. Perform laboratory testing on selected soil samples and rock cores obtained from the borings to determine engineering properties of the subsurface materials.
3. Perform engineering analysis and develop recommendations for site preparation and grading, foundation support, retaining structures, and pavements.
4. Prepare stand alone Geotechnical Data Report (GDR) for each station that will include the field and laboratory test results and hammer energy transfer ratio measurements.
5. Prepare stand alone Geotechnical Engineering Report (GER) for each station that will include interpretation of the field and laboratory test data. The GER will include discussion and recommendations for site preparation and grading, foundation support, retaining structures, and pavements for each station.
6. Provide consultation to CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
7. Attend select design coordination meetings and participate in select conference calls. Attend a design review meeting with HART and select interface meetings, if needed.
8. Review geotechnical related sections of the ID submittal plans and specifications to check that the intent of the geotechnical recommendations of the GERs have been properly reflected in the Contract Documents.

B. Assumptions

1. The boring sites are accessible to truck mounted drill rigs.
2. The drill rigs for the borings may be left at the site and over each boring until the field exploration program has been completed. Daily demobilization of the drill rig and its associated equipment is not included.
3. Subsurface materials and ground water and the soil cuttings, drilling fluids, and soil samples at the DKSG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination and will be accepted by local on-island landfills for disposal. Sampling, testing, storing, handling, transporting, and disposal of any hazardous and/or toxic materials, asbestos, PCBs, radioactive materials, and hydrocarbon contaminated materials and contaminated drilling cuttings and fluids from the borings is not included within this SOW and is the responsibility of HART.
4. Level D of personal protective equipment (PPE) for field personnel and drill crew.
5. HART will dispose of all drilling spoils, drilling fluids and surplus or left-over soil samples regardless of whether contaminated or not, at no cost to the CONSULTANT.
6. Archaeological and cultural monitoring, if required, to be provided by HART at no cost to CONSULTANT.
7. The DKSG Station sites are clear of unexploded ordnance (UXO).
8. CONSULTANT will be allowed to store the soil cuttings and drilling fluids from the borings at the Makai Entry Structure site of the Kalihi Station and at other HART-approved locations at no cost to the CONSULTANT if storage at a particular DKSG site is not allowed until this material can be tested, and moved to a HART-owned property.
9. Assessing the environmental aspects of the DKSG sites including tasks such as sampling and analytical testing to check for hazardous and/or toxic materials, asbestos, PCBs, radioactive materials, and hydrocarbon contamination is not included within this SOW.
10. Checking on the as-built conditions of existing building and structure foundations, and underground utilities is not included within this SOW.
11. Seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA), are not included within this SOW.
12. NPDES, NOI, SWPPP, and noise permits, traffic control plans, building permits, historic preservation, environmental assessments, and other permits, plans, and approvals that may be required are not included within this SOW.

C. Inputs

-
1. None
-

D. Deliverables

1. Progress report on subsurface exploration.
 2. Draft and final GDR
 3. Draft and final GER
 4. gINT files of the logs
-

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Consultation shall be provided to the CONSULTANT’s design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations. 2. Geotechnical related sections of the final plans and specifications will be reviewed to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents. 3. Deep foundations’ pre-construction test requirements will be developed and test locations will be selected in coordination with the CONSULTANT’s design engineers for sites where deep foundations are to be used. 4. Attend and participate in select design team coordination meetings and conference calls, as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Deep foundations pre-construction test locations and procedural requirements at station sites where deep foundations are to be used. 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Same as "NTP #1b Geotechnical All Stations (PE)" with the addition of the following: 2. Subsurface conditions at the Kalihi Station will be explored by performing the following test borings: <ol style="list-style-type: none"> a) Mauka Entry Structure: Two (2) test borings, each to a depth of about 75 to 100 feet below existing grades. b) Makai Entry Structure: Two (2) test borings, each to a depth of about 75 to 100 feet below existing grades. c) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 50 feet below existing grades. 3. Shear wave velocity testing will be performed in one of the test borings for this station to obtain data on shear wave velocity characteristics to a depth of about 100 feet below existing grades. 4. A piezometer will be installed at each entry structure site to measure the groundwater table. A data logger will be installed in each piezometer to obtain groundwater level data. Groundwater level data from the piezometers will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometers will be removed and the holes will be backfilled with a cement, bentonite, and water mixture. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical 'All Stations' (PE) 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical 'All Stations' (PE) 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Incorporate into deliverables for NTP#1b Geotechnical 'All Stations' (PE) 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kalihi Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kalihi Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical 'All Stations' (PE) with the addition of the following: 2. Subsurface conditions at the Kapalama Station will be explored by performing the following test borings: <ol style="list-style-type: none"> a) Mauka Entry Structure: Two (2) test borings, each to a depth of about 200 feet below existing grades. b) Makai Entry Structure: Two (2) test borings, each to a depth of about 200 feet below existing grades. c) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 100 feet below existing grades. d) Entry Stairs and Pedestrian Bridges: Two (2) soil test borings, each to a depth of about 75 feet below existing grades. 3. A piezometer will be installed at each entry structure site to measure the groundwater table. A data logger will be installed in each piezometer to obtain groundwater level data. Groundwater level data from the piezometers will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometers will be removed and the holes will be backfilled with a cement, bentonite, and water mixture. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical 'All Stations' (PE) 2. In place shear wave testing is not included within this SOW. 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical 'All Stations' (PE) 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Incorporate into deliverables for NTP#1b Geotechnical 'All Stations' (PE) 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical ‘All Stations’ (PE) with the addition of the following: 2. Subsurface conditions at the Iwilei Station will be explored by performing the following test borings: <ol style="list-style-type: none"> a) Station Entry Structure: Two (2) test borings, each to a depth of about 75 to 100 feet below existing grades. b) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 75 feet below existing grades. c) Kiss and ride parking lot: Two (2) test borings, each to a depth of about 15 feet below existing grades. 3. A piezometer will be installed at the entry structure site to measure the groundwater table. A data logger will be installed in the piezometer to obtain groundwater level data. Groundwater level data from the piezometer will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometer will be removed and the hole will be backfilled with a cement, bentonite, and water mixture. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical ‘All Stations’ (PE) 2. In place shear wave testing is not included within this SOW. 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. Same as NTP#1b Geotechnical ‘All Stations’ (PE) 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Incorporate into deliverables for NTP#1b Geotechnical ‘All Stations’ (PE) 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Same as NTP#1b Geotechnical 'All Stations' (PE) with the addition of the following:
2. Subsurface conditions at the Chinatown Station will be explored by performing the following test borings:
 - a) Station Entry Structure: Two (2) test borings, each to a depth of about 100 feet below existing grades.
 - b) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 75 feet below existing grades.
3. A piezometer will be installed at the entry structure site to measure the groundwater table. A data logger will be installed in the piezometer to obtain groundwater level data. Groundwater level data from the piezometer will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometer will be removed and the hole will be backfilled with a cement, bentonite, and water mixture.

B. Assumptions

1. Same as NTP#1b Geotechnical 'All Stations' (PE)
2. In place shear wave testing is not included within this SOW.

C. Inputs

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

D. Deliverables

1. Incorporate into the deliverables for NTP#1b Geotechnical 'All Stations' (PE)

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Same as NTP#1b Geotechnical 'All Stations' (PE) with the addition of the following:
2. Subsurface conditions at the Downtown Station will be explored by performing the following test borings:
 - a) Mauka Entry Structure: Two (2) test borings, each to a depth of about 100 to 120 feet below existing grades.
 - b) Makai Entry Structure: One (1) test boring, to a depth of about 100 feet below existing grades.
 - c) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 100 feet below existing grades.
3. Shear wave velocity testing will be performed in one of the test borings for this station to obtain data on shear wave velocity characteristics to a depth of about 100 feet below existing grades.
4. A piezometer will be installed at each entry structure site to measure the groundwater table. A data logger will be installed in each piezometer to obtain groundwater level data. Groundwater level data from the piezometers will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometers will be removed and the holes will be backfilled with a cement, bentonite, and water mixture.

B. Assumptions

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

C. Inputs

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

D. Deliverables

1. Incorporate into deliverables for NTP#1b Geotechnical 'All Stations' (PE)

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Same as NTP#1b Geotechnical 'All Stations' (PE) with the addition of the following:
2. Subsurface conditions at the Civic Center Station will be explored by performing the following test borings:
 - a) Station Entry Structure: Three (3) test borings, each to a depth of about 100 to 120 feet below existing grades.
 - b) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 110 feet below existing grades.
3. Shear wave velocity testing will be performed in one of the test borings for this station to obtain data on shear wave velocity characteristics to a depth of about 100 feet below existing grades.
4. A piezometer will be installed at the entry structure site to measure the groundwater table. A data logger will be installed in the piezometer to obtain groundwater level data. Groundwater level data from the piezometer will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometer will be removed and the hole will be backfilled with a cement, bentonite, and water mixture.

B. Assumptions

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

C. Inputs

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

D. Deliverables

1. Incorporate into deliverables for NTP#1b Geotechnical 'All Stations' (PE)

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables		
1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables		
1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kaka'ako Station – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Same as NTP#1b Geotechnical 'All Stations' (PE) with the addition of the following:
2. Subsurface conditions at the Kaka'ako Station will be explored by performing the following test borings:
 - a) Station Entry Structure: One (1) test boring, to a depth of about 100 to 120 feet below existing grades.
 - b) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 100 to 120 feet below existing grades.
 - c) Plaza: Two (2) test borings, each to a depth of about 15 to 20 feet below existing grades.
3. Shear wave velocity testing will be performed in one of the test borings for this station to obtain data on shear wave velocity characteristics to a depth of about 100 feet below existing grades.
4. A piezometer will be installed at the entry structure site to measure the groundwater table. A data logger will be installed in the piezometer to obtain groundwater level data. Groundwater level data from the piezometer will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometer will be removed and the hole will be backfilled with a cement, bentonite, and water mixture.

B. Assumptions

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

C. Inputs

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

D. Deliverables

1. Incorporate into deliverables for NTP#1b Geotechnical 'All Stations (PE)'

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kaka'ako Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Kaka'ako Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Geotechnical Ala Moana Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Same as NTP#1b Geotechnical 'All Stations' (PE) with the addition of the following:
2. Subsurface conditions at the Ala Moana Center Station will be explored by performing the following test borings:
 - a) Mauka Entry Structure: Two (2) test borings, each to a depth of about 100 feet below existing grades.
 - b) Ancillary Structure for TCCR/UPS: One (1) test boring, to a depth of about 100 feet below existing grades.
3. A piezometer will be installed at the entry structure or TCCR/UPS building site to measure the groundwater table. A data logger will be installed in the piezometer to obtain groundwater level data. Groundwater level data from the piezometer will be collected once a week for a period of about one month after the completion of the borings. After the monitoring, the piezometer will be removed and the hole will be backfilled with a cement, bentonite, and water mixture.

B. Assumptions

1. Same as NTP#1b Geotechnical 'All Stations' (PE)
2. In place shear wave testing is not included within this SOW.

C. Inputs

1. Same as NTP#1b Geotechnical 'All Stations' (PE)

D. Deliverables

1. Incorporate into deliverables for NTP#1b Geotechnical 'All Stations' (PE)

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Geotechnical Ala Moana Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
B. Assumptions 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
C. Inputs 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		
D. Deliverables 1. Same as NTP#2 Geotechnical 'All Stations' (ID)		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Geotechnical Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
B. Assumptions 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
C. Inputs 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		
D. Deliverables 1. Same as NTP#3 Geotechnical 'All Stations' (FD)		

Topographic Survey

Provide additional topographic survey, as required, to verify and supplement HART’s provided topographic survey and controls. Prepare site controls and property Right-of-Way (ROW) plans to identify additional right-of-way or easements required.

- Perform topographic survey and controls and prepare contract document base map.
- Prepare site controls and ROW plans to identify additional right-of-way or easement. CONSULTANT will provide survey based upon the site layouts provided in the documents provided by HART prior to April 11, 2013.

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey All Stations – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Recover project Primary Survey Controls, and set additional survey controls as required.
2. Verify that horizontal and vertical controls conform to requirements specified in the Project Design Criteria.
3. Meetings/reviews.
4. Research survey data, boundaries, and utilities.
5. Perform boundary survey for station site; establish and stake boundary corners.
6. Perform additional topographic/utilities location surveying as needed for Station, utilities, and MOT design.
7. Geotechnical survey support – stake proposed boring locations as directed, and record coordinates and elevations at boring locations after drilling to determine their as-drilled locations, coordinates and elevations.
8. Locate toning lines and add to topographic survey/utilities location survey.
9. Attend design team coordination, review and interface meetings as needed.

B. Assumptions

1. All subdivision applications, condemnation and acquisition of property will be completed by HART.
2. HART will provide all available topographic and boundary surveys, including ongoing potholing and utility location/relocation work.

C. Inputs

1. None

D. Deliverables

1. Topographic/Utilities survey for each of the proposed Station locations at an appropriate scale and in an AutoCAD format
2. Coordinate and Elevation List for proposed boring locations
3. Topographic/Utilities survey update to included utilities toning marks

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey All Stations – (ID)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Meetings/reviews. 2. Research survey data, boundaries, construction easements, ROW information. 3. Office calculations, drafting of ROW/construction easement maps. 4. Attend design team coordination, review and interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. CONSULTANT scope and fee does not include Title Searches as part of this SOW. 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Right-of-Way Maps. 2. Construction Easement Maps and Descriptions. 3. Parcel Staking. 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Kalihi Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'.		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Kaka'ako Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Kaka'ako Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Ala Moana Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Topographic Survey Ala Moana Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

Civil Design

- Design and develop civil plans showing street or roadway restoration details, grading, drainage and paving plans, plazas, and details for the Station areas, utility installations or relocations, plans indicating additional right-of-way or easements, as necessary, demolition plans (including tree removal), and prepare hydrology and drainage reports as necessary. Design and prepare contract documents for site work including streets, driveways, parking lots, transit facilities, and pedestrian facilities for station areas that are not part of the City Center Guideway contract. Civil design by the CONSULTANT will be based upon the project limits provided in the documents provided by HART prior to March 20, 2013..
- Prepare hydrology and drainage reports (including hydrology, flood hazard mapping, assessment, permanent BMPs, and mitigation design as necessary).
- Design and prepare grading, drainage and paving contract documents for station site and station parking areas.
- Design and prepare contract documents for minor demolition, including tree removal. Coordinate with City Center Guideway contract that will demolish building structures on station sites.
- Prepare right-of-way or easement plans.
- Evaluate requirements to protect adjacent buildings or existing structures that may be affected by station construction.
- Prepare composite utilities rearrangement and utility service connections contract documents and coordinate connections with the respective utilities.
- Perform additional pothole investigation as needed.
- Prepare lighting plans for station areas that are not part of the City Center Guideway contract.

ACTIVITY DESCRIPTION		
NTP#:	NTP #1b	Activity Responsibility:
Issue Date:		
Activity:	Civil Design All Stations – (PE)	WBS Code / ID Number:
Revision Number:		0

A. Activity Description

1. Review and begin update to plans and Basis of Design Report from HART Preliminary Engineering (PE) Documents.
2. Review and update Preliminary Engineering plans and Basis of Design Report to incorporate March, 2012 conceptual design sketches with respect to Station footprint and site layout requirements.
3. Coordinate with HART/DTS and review Bus/Rail Integration Plan to establish pedestrian, bus and handivan requirements.
4. Interface through Interface Manager with the City Center Guideway Contract in the Station areas. Confirm interface location with respect to site grading, roadway, bus and handivan parking locations, drainage, utilities and other site features within the Station areas' scope of work, inclusive of demolition.
5. Request additional as-built plan/mapping information from respective utility companies, HDOT, City, NCTAMS and NEC not obtained by City Center Guideway Contract.
6. Review the PE Utility Plan drawings and coordinate locations for sub-surface investigation to locate civil utility lines, electrical transformers and electrical and communications duct lines.
7. Research available plans, including electronic files compiled for the PE drawing set, to verify utility locations indicated on the PE Utilities Plan drawings.
8. Tabulate depth information gleaned from sub-surface investigation for use with civil utility and duct line profiles.
9. Conduct site visits at all proposed Station locations and note any changes in conditions since the PE conditions and any underground impacts.
10. Develop flood hazard boundary map showing station site layout and relationship of station site and adjacent surrounding areas to established FEMA/DPP flood hazard boundaries. Flood hazard boundaries shall be based on the latest adopted City and County of Honolulu Flood Insurance Rate Maps (FIRM) and Flood Insurance Study.
11. Conduct flood hazard assessment of station site. Assessment shall include a description of regulatory requirements applicable to development in flood hazard zone(s) pertinent to the proposed station site. The assessment shall also address how the proposed station development shall comply with applicable City and County of Honolulu Department of Planning and Permitting (DPP) and FEMA flood hazard district provisions and development standards.
12. If required to comply with flood hazard district regulations, develop preliminary-engineering (PE)-level flood hazard mitigation measures for all affected site infrastructure for incorporation into final design of station site.
13. Include flood hazard mapping, assessment, and applicable PE-level mitigation in drainage report and submit to DPP for review and approval.
14. Delineate and define additional topographic survey requirements.
15. The CONSULTANT shall update the utility plans from the PE drawing set based on the information obtained thru as-built research, sub-surface investigation, and initial design coordination.
16. Develop preliminary design of site geometrics and develop conceptual grading for the Station, inclusive of sections through site based on information gathered above and in coordination through Interface Manager with City Center Guideway design team.
17. Coordinate final grade requirements with building and landscape architects, and check site distance.
18. Coordinate relocation of the existing utilities impacted within Station site with electrical, communication, fire protection, systems and irrigation requirements along with the Station structural footprint.
19. Verify and update PE drainage report for the site. Ensure compliance with City and State drainage standards, as applicable. Include conceptual drainage details and conceptual permanent BMP reports.
20. Prepare a permit checklist requirement and verify with HART, City, State, and Federal agencies.
21. Perform QA/QC per QAP.
22. Attend design team coordination, review and interface meetings as needed.
23. Review and provide responses to HART comments for submittals.

B. Assumptions

1. CONSULTANT scope and fee does not include time to submit LOMAR's to FEMA.

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2. Infrastructure layout and site plan shown on provided PE plans is feasible for this level of design completeness.
 3. Planning and design of site improvements required for neighboring or acquisition properties is not included.
 4. CONSULTANT has provided a limited allowance within project fee for subsurface utility engineering; including keyholing, potholing and other investigative methods to determine actual location, elevation and sizes of existing infrastructure at specific points. CONSULTANT shall coordinate with surveyor to identify locations where subsurface utility exploration is required.
 5. HART will provide all available record documents, as-built drawings and plans within the vicinity of the stations.
 6. LEED certification is excluded.
 7. The CONSULTANT shall confirm location of roadway setbacks within the project's public street frontage and shall consult with the Department of Planning and Permitting regarding related roadway widening improvements. Design and permitting of required roadway widening improvements including subdivision and deferral of improvements is not included here and is assumed to be part of other HART projects.
 8. Existing sewer infrastructure is adequate for proposed sewer flows and sewer connection to the City system will be allowed. Major offsite sewer system capital improvements, including analysis of existing systems are excluded.
 9. Existing drainage infrastructure is adequate for proposed drainage peak flows and connection to the City system will be allowed. Major offsite drainage system capital improvements, including analysis of existing systems are excluded.
 10. Existing water infrastructure is adequate for proposed water demand for fire protection, domestic and irrigation needs, and connection to the City system will be allowed. Major offsite water system capital improvements, including analysis of existing systems are excluded.
-

C. Inputs

1. None
-

D. Deliverables

1. Updated Preliminary Engineering drawings
 2. Contract Standard Specification Title Listing (Table of Contents only)
 3. Draft Basis of Design Report
 4. Draft Drainage Report.
 5. QA/QC Documentation
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ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design All Stations – (ID)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Incorporate comments from the PE review.
2. Design development and implementation of the construction contract drawings ID set based upon NTP #1b Submission.
3. The State, City and Project standard details shall be incorporated and project specific details developed as needed.
4. Revise Basis of Design Report and Drainage Report based on comments and update with current design.
5. Prepare a comments matrix and response for the ID.
6. Incorporate additional topographic survey and information to base.
7. Coordinate final grade requirements with building and landscape architects. Vehicular turning movements and site distances in parking areas and roadways shall be checked.
8. Coordinate site utilities with electrical, communication, fire protection, systems and irrigation requirements.
9. Prepare DKSG Station specific ID plans and specifications for the following:
 - a) Site Plan and Geometrics
 - b) Site Demolition Plan
 - c) Utility Demolition and Relocation Plan
 - d) Grading Plans and Sections
 - e) Roadway Plans & Profiles
 - f) Parking Plan & Sections
 - g) Potable Water Plans & Profiles
 - h) Sewer Plans & Profiles
 - i) Storm Drain Plans & Profiles
 - j) Site Signage and Striping Plans
 - k) Details
 - l) Drainage Report
10. Site plans shall include designs for bus, handivan, and other parking facility elements (on site or on street); incorporate ADA features; and contain signing and striping details.
11. Perform QA/QC per QAP.
12. Attend design team coordination, review and interface meetings as needed

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. ID Plans and Specifications
2. ID Comments Matrix and Response
3. Revised Basis of Design Report
4. Revised Drainage Report
5. Water and Sewer Hydraulic Calculations
6. QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Incorporate comments from the Interim Design submission review. 2. Design development and implementation of the construction contract drawings FD set. 3. Revise Basis of Design Report and Drainage Report based on comments and update with current design. 4. If required to comply with flood hazard regulatory requirements, complete final design of flood hazard mitigation. 5. Prepare a comments matrix and response for the FD. 6. Incorporate comments from the FD submittal. 7. Complete the FD and camera-ready construction contract drawings. 8. Process plans for agency approval. 9. Provide support for the preparation of presentation materials for a community presentation. 10. Perform QA/QC per QAP. 11. Attend design team coordination, review and interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Station FD Drawings, Specifications, Basis of Design Report, Drainage Report, Water and Sewer Calculations 2. If required, Flood Hazard Certification. 3. Ad-Ready Station Construction Contract Documents 4. Final Design Comments Matrix and Response 5. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Kalihi Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Kalihi Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Interface through the Interface Manager with the City Center Guideway and Core Systems Contracts in the Station areas. Confirm interface location with respect to site grading, roadway, bus and handivan parking locations, drainage, utilities, Systems facilities and other site features within the Station areas' scope of work, inclusive of demolition. 3. Develop Preliminary Engineering level design location of TPSS ground grid arrangement and conduit and routing from the TPSS to Station area boundaries scope of work and coordinate through the Interface Manager with the City Center Guideway and Core Systems Contracts for connection points. 		
B. Assumptions <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Prepare and coordinate Interim Design level plans and specifications for the design of conduit, routing, ground grid arrangement, and profiles from the TPSS to Station area boundaries scope of work and coordinate through the Interface Manager with the City Center Guideway and Core Systems Contracts for connection points. 		
B. Assumptions <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Kaka'ako Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Kaka'ako Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Kaka'ako Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Civil Design Ala Moana Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Civil Design Ala Moana Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Civil Design Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

Structural Design

- Perform final structural analysis and design, including the preparation of contract documents showing foundations, substructure, superstructure, and structural details for all station support structures (exclusive of the guideway) and support of architectural finishes, and artwork if provided as part of the contract.
- Coordinate station structure designs (including elevator and escalator pits) to incorporate flood protection.
- Coordinate and interface with the City Center Guideway contractors/consultants.
- Coordinate through Interface Manager interface with the Core Systems Contractor
- Evaluate requirements to protect adjacent buildings or existing structures that may be affected by Station construction.
- The CONSULTANT shall specify the geometry, architectural and structural requirements for the fabric canopies. The fabric and cable supports shall be designed by the suppliers SSER (Specialty Structural Engineer of Record). The CONSULTANT will review the construction submittals for conformance with design intent and loads imparted on the structure at points of attachment.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design All Stations – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Review and begin update to plans and Basis of Design Report from HART Preliminary Engineering (PE) Documents.
2. Review and update Preliminary Engineering plans and Basis of Design Report to incorporate any design changes, (Architectural) station module concept design or design reference updates.
3. Coordinate preliminary design documents with HART, GEC & Core Systems Interface, and Public & Private Utility/ Property Owner input.
4. Preliminary Study and Optimization with use of project design directives and standards applicable for platform structure and canopy support.
 - a) Structural Analysis and Design of Platform access structure, pedestrian bridges, platform structure, canopy structure and canopy column/framing.
 - b) Review of Guideway structure impact on station structural design:
 - c) Preliminary design to confirm foundation size and locations for platform support.
 - d) Confirm design directive assumptions for canopy support structure components.
 - e) Preliminary structural design of elevated walkway, major member sizing, and arrangement, and locations of end slip connections at expansion joint locations.
 - f) Coordinate through Interface Manager with Core Systems Contractor to design the platform to sustain loads associated with platform screen gates.
 - g) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
 - h) Coordinate through Interface Manager with City Center Guideway Designer updated station loads imposed onto the guideway.
5. Study of preliminary design documents and optimization of Station ancillary structures:
 - a) Review structural gravity and lateral load resisting systems of entry structures for completeness and optimization, including future escalator supports.
 - b) Provide accommodation for future redundant elevators.
 - c) Provide preliminary coordination for site structures (water, wastewater, drainage, lights, and retaining walls) and landscape design.
 - d) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
 - e) Develop preliminary design drawings for Ancillary Building.
6. Review design requirements and create a list of applicable standard specifications that apply to Station and identify project specific specifications needed for this Station's design package.
7. Perform QA/QC per QAP.
8. Incorporate HART review comments into Preliminary Engineering documents.
9. Attend design team coordination, review, and interface meetings as needed.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Updated Preliminary Engineering drawings to show structural layout with dimensions and major elements section properties and dimensions.
2. Contract Standard Specification Title Listing (Table of Contents only)
3. Structural elements of Basis of Design report
4. QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design All Stations – (ID)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Check Basis of Design and Design Criteria based on Preliminary Engineering design submittal and revise to incorporate comments for ID submittal.
2. Design Development and implementation of the construction contract drawings.
3. Perform structural analysis and design of supporting structures:
 - a) Structural Analysis and Design of Platform access structure, pedestrian bridges, platform structure, canopy structure and canopy column/framing.
 - b) Designing all connections and secondary elements. Develop design concepts for connections and arranging elements shall be developed and reviewed for consistency with applicable design directives.
 - c) Incorporate HART review comments from preliminary design review, in addition the structural drawings shall be checked against the design calculations for coordination and that applicable project standard details have been used in the design drawings.
 - d) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
 - e) Coordinate through the Interface Manager with the City Center Guideway Designer as needed, including updating station loads imposed onto the guideway.
4. Perform structural analysis and design of Station, pedestrian bridges and Ancillary structures:
 - a) Develop the design of all connections and secondary elements, including consideration for loading from the future escalator and elevator. Design concepts for connections and arranging elements shall be developed and reviewed for consistency with applicable design directives.
 - b) Provide structural framing that accommodates future redundant elevators.
 - c) Provide coordination for site structures (water, wastewater, drainage, lights, and retaining walls) and landscaping.
 - d) Incorporate HART review comments from preliminary design review in the structural drawings, in addition verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directives.
5. Coordinate use of project standard specifications and prepare project specific specifications.
6. Prepare comments matrix and response for the interim design.
7. CONSULTANT shall perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. To assure constructability, provide a construction method on the design plans for large elements that need to be erected in sequence and/or have an impact to MOT, such as erection of pedestrian bridges, platform girders or any other major station element.
8. Construction means, methods and construction job site safety shall remain the responsibility of the construction contractor.
9. Perform QA/QC per QAP.
10. Attend design team coordination, review, and interface meetings as needed.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Interim Design level drawings
2. Interim Design Comments Matrix Response
3. Revised Basis of Design (structural sections)
4. Project specific specifications and standard details listed

-
5. Interim Structural Calculations
 6. QA/QC Documentation
-

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Finalize structural analysis and design supporting structures including all connections and secondary elements. 2. Incorporate HART review comments from Interim Design review; in addition, the structural drawings shall be checked against the final design calculations for coordination. 3. Check for material consistency in project-specific details with project standard details and design directives throughout drawings. 4. Finalize structural analysis and design of Station, pedestrian bridges and Ancillary structures, including all connections and secondary elements, including consideration for loading from the future escalator. 5. Provide coordination for site structures (water, wastewater, drainage, lights, and retaining walls) and landscaping. 6. Incorporate HART review comments from interim and then final design reviews into the structural drawings, in addition, verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directive drawings. 7. Finalize project standard specifications list, markups and project specific specifications sections. 8. Revise Basis of Design. 9. Coordinate work through the Interface Manager with the Core Systems Contractor and the City Center Guideway Designer. 10. Perform QA/QC per QAP. 11. Verify findings of independent review of the guideway-supported structure and the Station structures have been incorporated into the design documents. 12. Attend design team coordination, review, and interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Final Design construction documents 2. Final Basis of Design (structural sections) 3. Final project specific specifications and standard details list 4. Ad-Ready Station Construction Contract Drawings 5. Final Design Comments Matrix and Response 6. Final Structural calculations 7. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Kalihi Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Kalihi Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'.		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations' 2. Coordinate with Core Systems Contractor concrete slab for TPSS.		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations' 2. Update and Coordinate with Core Systems Contractor concrete slab for TPSS.		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Kaka'ako Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Kaka'ako Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Kaka'ako Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Structural Design Ala Moana Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Structural Design Ala Moana Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Structural Design Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

Architectural Design

Develop the architectural design and aesthetic treatment of each of the Stations consistent with the principles of the Design Language Pattern Book, Landscaping, Specifications, Code checklist, Basis of Design and Visuals. The requirements of the design shall include site planning for the Stations and only adjacent systems elements as indicated in Section 01, Station Descriptions, entry structures, pedestrian bridges, boarding platforms, canopies, vertical circulation, pedestrian plazas, walks, shelters, park-and-ride facilities (Iwelei Station only) and drives. The CONSULTANT shall develop an Accessibility Compliance Report addressing relevant subject areas identified in the provisions of the Americans with Disabilities Act (ADA) and summarize how these requirements are met by the Preliminary Engineering.

- A maximum of four (4) PA Workshops and six (6) Community Meetings is to be included. Each station shall be involved in two (2) PA Workshops and three (3) Community Meetings. At each community presentation or meeting, four (4) Stations shall be presented. Attendance by the CONSULTANT as defined in Public Involvement.
- Design and prepare contract documents for station public and ancillary spaces, architectural finishes, vertical circulation elements, and station site design, including park and ride facilities, signage and wayfinding and artwork.
- Develop an accessibility report indicating how the project complies with the provisions of the Americans with Disabilities Act (ADA).
- Upon completion of the Final Design, Create a 1/8"=1'-0" physical scale model of two (2) DKSG stations as selected by HART. CONSULTANT to provide a durable base with Plexiglas cover, protective shipping case(s) with casters shall also be provided to allow for HART to transport the models.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design All Stations – (PE)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Review PE drawings, Station Module Concept and prepare PE design drawings. Include development and integration of HART Directive Drawing 2. Propose design improvements as part of PE design and design development. 3. Coordinate station design with City Center Guideway design group. CONSULTANT to be provided with one (1) Guideway design at onset of NTP#2 phase and accurate in placement in three-dimensions. Subsequent modifications to guideway design which impact station design do not form part of this SOW. 4. Coordinate consulting engineering and landscape preliminary design drawings. 5. Coordinate with Civil Engineering and Landscape Architecture regarding the update of site plans, utilities, landscape, and site features 6. Review and confirm compliance of PE Design with FEIS/ROD, applicable codes, regulations and design standards. 7. Revise and update Basis of Design Report 8. Coordinate through Interface Manager with Core Systems Contractor on location and mounting of systems elements, including communications interface cabinets, telephones, speakers, variable-message signs, access control and intrusion detection devices, platform screen gates (PSGs), fare vending machines, and fare gates within the station Limits of Construction. 9. Review canopy design for consistency with station design concepts and interdisciplinary coordination requirements. 10. Coordinate through Interface Manager with Core Systems Contractor on location and routing of conduit between TCCR and systems elements throughout the station facility. 11. Coordinate treatment of end-of-platform barrier to integrate with PSGs. 12. Work with HART's selected artist(s) to integrate artwork, spatial and infrastructure requirements into the design of the stations and station site. Work with the Transit Arts Administrator and HART's Chief Architect during the design process to identify art opportunities and to incorporate the artwork, the design of educational and interpretive programs, materials and signage displays into the design and Contract Documents. 13. Prepare illustrative materials representative of the project including rendered plans of all levels, one (1) longitudinal and one (1) cross section and two (2) longitudinal elevation drawings, and a maximum of five (5) three-dimensional renderings for PA Workshops and Community Meetings. 14. Perform QA/QC per QAP. 15. Attend design team coordination meetings and interface meetings as needed for station design. 		
<p>A. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>B. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Deliverables</p> <ol style="list-style-type: none"> 1. Plans, elevations and section developed to Preliminary Engineering level including, but not limited to: <ol style="list-style-type: none"> a) Site Plan b) Floor Plans (including TCCR/UPS ancillary building, as applicable) c) Roof Plans d) Reflected Ceiling Plans e) Elevations, all four (4) major sides f) Building Sections, two (2) 2. Integrate updated HART Directive Drawings and Standard drawings as applicable 		

-
3. Updated Basis of Design (Summary of areas and narratives)
 4. Code Compliance Checklist
 5. ADA Compliance Report
 6. Outline Specifications
 7. Egress diagrams and calculations
 8. QA/QC Documentation
-

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design All Stations – (ID)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Develop Preliminary Engineering to Interim Design level of completion.
2. Prepare Station Group Interim Design plans, specifications and incorporation of H RTP baseline drawings and reference materials provided:
 - a) H RTP Compendium of Design Criteria
 - b) H RTP Standard Station Specifications
 - c) H RTP Directive Drawings
 - d) H RTP Plans Standards
3. Prepare signage design and layout drawings, schedule, attachment and other requirements using HART's Signage and Wayfinding Systems Manual. Develop signage layout in coordination with lighting and the locations of Core Systems Contractor peripheral devices.
3. Incorporate and track comments from the NTP #1b Preliminary Engineering submission.
4. Coordinate station design with Core Systems Contractor and City Center Guideway design group. CONSULTANT to be provided with one (1) Guideway design at onset of NTP#2 phase and accurate in placement in three-dimensions. Subsequent modifications to Guideway design which impacts station design do not form part of this SOW.
5. Update Basis of Design Report to Interim Design level of completion.
6. Prepare an ADA accessibility report indicating the accessible routes and features of each station that indicate how ADA accessibility guidelines were utilized.
 - a) Follow ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).
 - b) Coordinate with HART the requirements of State Disability Communication Access Board.
7. Design and coordinate station canopies to provide necessary equipment, fixtures, etc., that conceals required power and communication conduit lines.
8. Assemble and consolidate Contract Specifications in CSI 2004 Masterformat:
 - a) Review HART Standard Specifications and edit for project specific requirements.
 - b) Prepare new specification sections where required
9. Prepare signage design and layout drawings, schedule, attachment and other requirements using HART's Signage and Wayfinding Systems Manual.
10. Coordinate consulting engineering and landscape preliminary design drawings.
11. Assist in preparation of cost estimate.
12. Provide material and product information (including material boards, cut sheets and/or samples) for HART review.
13. Perform a constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability.
14. Perform QA/QC reviews per approved QAP.
15. Prepare a comments matrix and response for the interim design.
16. Prepare illustrative materials representative of the project including rendered plans of all levels, one (1) longitudinal and one (1) cross section and two (2) longitudinal elevation drawings, and a maximum of five (5) three-dimensional renderings for PA Workshops and Community Meetings.
17. Attend two (2) Public Involvement meetings, and assist with presentation materials.
18. Work with HART's selected artist(s) to integrate artwork spatial and infrastructure requirements into the design of the stations and station site. Work with the Transit Arts Administrator and HART's Chief Architect during the design process to identify art opportunities and to incorporate the artwork, the design of educational and interpretive programs, materials and signage displays into the design and Contract Documents. CONSULTANT SOW and fee is contingent on the basis that all station integrated art is finalized prior to the onset of NTP#3.
19. Attend design team coordination meetings and interface meetings as needed for station design.

B. Assumptions

1. None

C. Inputs

1. None
-

D. Deliverables

1. Plans, elevations and sections developed to Interim Design level including, but not limited to:
 - a) Door, window and louver schedules
 - b) Typical construction design details
 - i. Platform slab and topping and joint details
 - ii. Guardrail details
 - iii. Curb details
 - iv. Tactile Tile details
 - v. Drain details
 - vi. Block-out details for platform component systems
 - vii. Canopy details
 - viii. Canopy support details for component systems
 - c) Partition/wall types/roof and floor assemblies/schedules
 - d) Door/Window/Louver details
 - e) Finish schedules
 - f) Signage plans and schedules
 - g) CSC peripheral devices
 2. Specifications
 3. Interim Design Constructability Review Documents
 4. Interim Design Comments Matrix and Response
 5. Updated colored landscape and site plan, architectural floor plans and conceptual perspective renderings/visualizations for public meetings
 6. Primary material board-electronic format and actual material samples
 7. Updated Basis of Design (Summary of areas and narratives)
 8. Updated Code Compliance Checklist
 9. Updated ADA Compliance Report
 10. Updated Egress diagrams and calculations
 11. Two (2) Community Presentations
 12. QA/QC Documentation
-

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Incorporate comments from the Interim Design submittal to HART.
2. Design effort and deliverables to Final Design level in preparation of issuance of bid and permit contract documents.
3. Prepare Station Group Final Design plans for final HART review.
4. Coordinate final specifications preparation.
5. Coordinate station design work with Core Systems Contractor.
6. Incorporate final HART comments and complete the final design and camera-ready construction contract documents.
7. Assist in submittal and processing plans for agency approval of building permit.
8. Assist in update of final cost estimate.
9. Revise/complete Basis of Design document.
10. Coordinate station design with Core Systems Contractor and City Center Guideway design group. CONSULTANT to be provided with one (1) Guideway design at onset of NTP#2 phase and accurate in placement in three-dimensions. Subsequent modifications to guideway design which impact station design do not form part of this SOW.
11. Attend four (4) Public Involvement meetings, and assist with presentation materials.
12. Finalize integration of spatial and infrastructure requirements of Art incorporation by Artist(s) and work with HART Art Consulting team to include the artwork design, educational and interpretive programs, materials and signage displays, detailing, specifications, and attachment into the Contract Documents. Artist's finalized documentation will be included as a distinct package within the CONSULTANT's Final Design deliverable.
13. Include deconstruction/demolition Work as needed in the Contract Documents and Manual for the properties impacted by station related work.
14. Perform QA/QC review per QAP.
15. Prepare illustrative materials representative of the project including rendered plans of all levels, one (1) longitudinal and one (1) cross section and two (2) longitudinal elevation drawings, and a maximum of five (5) three-dimensional renderings, and one 3D flyover as described in Section 02 for PA Workshops and Community Meetings.
16. Prepare finish and material color boards for presentation to the reviewers sufficiently prior to the Camera-Ready submittal. The finish and material color boards shall include original color samples of all interior and exterior finish materials, including paint applications. Color board samples shall reflect all actual finish textures, patterns and colors required as specified. Identify each item on the finish and material color boards and key to elevations and/or renderings to provide a clear indication of how and where each item will be used.
17. Attend design team coordination, review, and interface meetings as needed for station design.
18. Define anticipated Limits of Construction, including connections to utilities in conjunction with coordinated requirements of the design team.

B. Assumptions

1. All station integrated art is finalized prior to the onset of NTP#3

C. Inputs

1. None

D. Deliverables

1. Camera-Ready Station Final Construction Contract Documents
 - a) Construction Contract Drawings
 - b) Construction Contract Specifications
2. Finish and material color boards
3. Final Basis of Design document
4. Final Design Comments Matrix and Response
5. Final Sustainability Report
6. Final Accessibility Report

-
7. Four (4) Community Presentations
 8. 'Ad-Ready' (Signed and sealed) Final Station Construction Contract documents, including specifications
 9. Colored landscape and site plan, architectural floor plans, perspective renderings and visualizations for public meetings
 10. CADD/electronic files
 11. Final Code Compliance Report and Drawings including Egress diagrams and calculations
 12. Final QA/QC Documentation
-

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Review and confirm compliance of PE Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' except as noted. This station lies within the boundary or directly adjacent to eligible or NRHP listed property. The PA requires this station to comply with the Secretary of the Interior Standards for Historic Preservation, 36 C.F.R. pt. 68. 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kalihi Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kalihi Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations' except as noted. 2. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards.		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Review and confirm compliance of PE Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' except as noted. This station lies within the boundary or directly adjacent to eligible or NRHP listed property. The PA requires this station to comply with the Secretary of the Interior Standards for Historic Preservation, 36 C.F.R. pt. 68. 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> 1. Same as 'All Stations' 2. Final QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Review and confirm compliance of PE Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' except as noted. This station lies within the boundary or directly adjacent to eligible or NRHP listed property. The PA requires this station to comply with the Secretary of the Interior Standards for Historic Preservation, 36 C.F.R. pt. 68. 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Review and confirm compliance of PE Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' except as noted. This station lies within the boundary or directly adjacent to Chinatown Special District. The PA requires this station to comply with the Secretary of the Interior Standards for Historic Preservation, 36 C.F.R. pt. 68. 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> Same as 'All Stations' except as noted. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION

NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Same as 'All Stations' except as noted.
2. Review and confirm compliance of PE Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards.

B. Assumptions

1. Same as 'All Stations' except as noted.
2. The station is within the boundary or directly adjacent to the Hawaii Capital Special District and has to conform to the particular requirements. The station entrance is sited on a landscaped plaza, adjacent to the Dillingham Transportation Building, a National Registered Historic Places (NHRP). The plaza is not a contributing element to the NRHP listed building but is part of the parcel listed. The PA requires this station to comply with the Secretary of the Interior Standards for Historic Preservation, 36 C.F.R. pt. 68.

C. Inputs

1. Same as 'All Stations'

D. Deliverables

1. Same as 'All Stations'

ACTIVITY DESCRIPTION

NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Same as 'All Stations' except as noted.
2. Update and confirm compliance of ID Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards.

B. Assumptions

1. Same as 'All Stations'

C. Inputs

1. Same as 'All Stations'

D. Deliverables

1. Same as 'All Stations'

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Update and confirm compliance of FD Design with PA, FEIS/ROD, Secretary of the Interior Standards for Historic Preservation, applicable codes, regulations and design standards. 		
B. Assumptions <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations' except as noted. 2. Coordinate with Core Systems Contractor concrete slab for TPSS and screened or walled enclosure.		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations' except as noted. 2. Update and Coordinate with Core Systems Contractor concrete slab for TPSS and enclosure.		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kaka'ako Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kaka'ako Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Kaka'ako Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Architectural Design Ala Moana Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Architectural Design Ala Moana Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Architectural Design Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

Mechanical, Fire Protection and Plumbing Design

Perform mechanical calculations and final design of mechanical systems and prepare contract documents for HVAC, plumbing and fire suppression systems.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design All Stations – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Develop Preliminary Engineering design level documents of air conditioning systems and ventilation systems for spaces requiring climate control HVAC, plumbing, sanitary drainage, storm drainage, and fire protection systems. 2. Review mechanical design criteria, directive drawings, specifications and accepted value engineering recommendations <ol style="list-style-type: none"> a) Review information from Core Systems Contractor and Elevator and Escalator Contractor. b) Review current site plans and utility connection points from Guideway Design-Build Contractor 3. Coordinate through Interface Manager with Core System Contractor, Elevator and Escalator Contractor, and Electrical Engineer for air conditioning and ventilation requirements. 4. Perform QA/QC per QAP. 5. Revise/ update Basis of Design Report. 6. Review and provide responses to HART comments for submittals. 7. Attend design team coordination meetings and interface meetings as needed. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Preliminary Engineering mechanical, fire protection and plumbing design plans 2. Input to Basis of Design Report 3. Contract Standard Specification Title listing (Table of Contents only). 4. Draft quantity takeoff for mechanical utilities shown on the preliminary engineering plans 5. Preliminary Mechanical, fire protection and plumbing design calculations for all systems 6. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design All Stations – (ID)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Incorporate comments from the Preliminary Engineering revisions. 2. Develop Preliminary Engineering documents to Interim Design level of completion. 3. State, City and Project standard details shall be incorporated and project specific detail developed as needed. 4. Coordinate equipment locations, weight and electrical rating with various consultants. 5. Coordinate and review available water pressure with civil for fire protection standpipe systems. 6. Revise the Basis of Design Report to Interim Design level of completion. 7. Prepare a comments matrix and response for the interim design. 8. Perform QA/QC per QAP. 9. Prepare Station Group Interim Design plans and specifications for the following: <ol style="list-style-type: none"> a) Air conditioning and ventilation system plans for spaces that require climate control b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, janitor rooms, elevator pits and, floor drains, hose bibs, etc. for all spaces requiring plumbing and sanitary drainage. c) Canopy and roof drainage plans and downspouts d) Coordinate with Interface Manager to incorporate Guideway drainage plans at Stations e) Fire suppression protection (fire standpipe system, fire sprinkler and fire extinguishers) plans f) Fire alarm plan related to fire suppression protection and mechanical systems 10. Attend design team coordination meetings and interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Interim Design level mechanical design drawings and specifications with all disciplines compiled into one document 2. Interim mechanical, fire protection and plumbing design calculations for all systems 3. Interim Design Comments Matrix and Response 4. Updated Basis of Design 5. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Incorporate comments from the Interim Design. 2. Prepare Specific Station Group Final Design plans, quantity estimates and specifications for the following: <ol style="list-style-type: none"> a) Air conditioning and ventilation system plans, calculations and loads for spaces that require climate control b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, janitor rooms, elevator pits and, floor drains, hose bibs, etc. for all spaces requiring plumbing and sanitary drainage. c) Canopy and roof drainage plans and downspouts d) Coordinate with Interface Manager to incorporate Guideway drainage plans at Stations e) Fire suppression protection (fire standpipe system, fire sprinkler and fire extinguishers) plans f) Fire alarm plan related to fire suppression protection and mechanical systems 3. Finalize and coordinate equipment locations, weight and electrical rating with various consultants. 4. Finalize and coordinate and review available water pressure with civil for fire protection standpipe systems. 5. Complete the final design and camera-ready construction contract drawings. 6. Incorporate comments from the camera-ready final design and complete the final advertisement-ready construction contract drawings. 7. Assist in processing plans for agency approval. 8. Revise Basis of Design. 9. Attend design team coordination meetings and interface meetings as needed. 10. Coordinate with Core Systems Contractor. 11. Provide support for the preparation of any presentation materials for a community presentation. 12. QA/QC review per QAP. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Camera-Ready Final Design Mechanical, Fire Protection and Plumbing Engineering Construction Contract Documents, including specifications 2. Final Basis of Design 3. Final project specific specifications and standard details list 4. Final Design level mechanical, fire protection and plumbing design calculations for all systems 5. Camera-Ready Station Final Construction Contract Documents 6. Ad-Ready (Signed and sealed) Final Station Construction Contract documents, including specifications 7. Final Design Comments Matrix and Response 8. Final QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kalihi Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kalihi Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Civic Center Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Civic Center Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kaka'ako Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kaka'ako Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Kaka'ako Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Ala Moana Center Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Ala Moana Center Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Mechanical, Fire Protection and Plumbing Design Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

Electrical Design

Design and prepare contract documents for lighting, power distribution, and grounding in the station area. Design shall also include conduits for CSC use.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design All Stations - (PE)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Develop Preliminary Engineering level design based on current conceptual designs from the reference documents.
2. Prepare lighting concept in accordance with the Compendium of Design Criteria including lighting for major areas, light levels and preliminary lighting fixture schedule
3. Coordinate site plans and utility connection points through Interface Manager with the City Center Guideway Section Designer.
4. Coordinate through Interface Manager with Core Systems Contractor and design the duct bank between interface pull boxes provided by guideway contractors to train control and communications rooms (TCCR).
5. Submit Hawaiian Electric Company utility service requests.
6. Coordinate with Civil discipline and recommend a location of the Station electrical transformer
7. Set up introductory meeting with HECO.
8. Perform QA/QC per QAP.
9. Revise/ update Basis of Design Report.
10. Review and provide responses to HART comments for submittals.
11. Attend design team coordination meetings and interface meetings as needed.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Preliminary Engineering electrical design plans
2. Lighting plans, schedules and calculations
3. Input to Basis of Design Report
4. Contract Standard Specifications Titles list (Table of Contents only).
5. QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design All Stations – (ID)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Incorporate comments from the Preliminary Engineering revisions.
2. Develop Preliminary Engineering documents to Interim Design level of completion.
3. The State, City and Project standard details shall be incorporated and project specific detail developed as needed.
4. Coordinate equipment locations, weight and electrical rating with various consultants.
5. Prepare Interim Design level plans and specifications for the following:
 - a) Electric and communication site plans and profiles including, Core System electrical/communication provisions, and connections to City Center guideway infrastructure provisions.
 - b) Electrical and communications utility relocation, electric service connection, payphone connection (from the connection point of HTI's existing facility to a pullbox within station entrance plaza) plans.
 - c) Station power, emergency power, grounding and lighting plans.
 - d) Conduit routings through station for power, lighting, and CSC.
 - e) Station single-line diagrams
 - f) Station Core System Contract communication conduit provisioning plans
 - g) Site lighting plans including lighting for artwork and signage.
 - h) Prepare lightning protection analysis.
 - i) Coordinate design with Elevator and Escalator Contractor.
6. Revise the Basis of Design Report to Interim Design level of completion.
7. Prepare a comments matrix and response for the interim design.
8. Perform QA/QC per QAP.
9. Attend design team coordination meetings and interface meetings as needed.

B. Assumptions

1. None.

C. Inputs

1. None

D. Deliverables

1. Interim Design level electrical design drawings and specifications with all disciplines compiled into one document
2. Interim Design Comments Matrix and Response
3. Updated Basis of Design (electrical sections)
4. Lightning Protection Analysis
5. Lighting calculations that demonstrate compliance with Compendium of Design (CDC) Ch 20 requirements.
6. Power design calculations described in CDC Ch 20.
7. QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Incorporate comments from the Interim Design. 2. Prepare Specific Station Group Final Design plans, quantity estimates and specifications for the following: <ol style="list-style-type: none"> a) Electrical and communications site plans and profiles including electrical/communications relocations, electric service connection, and Core Systems electrical/communication b) Station power, emergency power, grounding and lighting plans c) Station single-line diagrams d) Site Lighting Plan e) Details/notes describing conduit and light fixture mounting in public spaces. 3. Complete the final design and camera-ready construction contract drawings. 4. Incorporate comments from the camera-ready final design and complete the final advertisement-ready construction contract drawings. 5. Process plans for agency approval. 6. Coordinate through Interface Manager with Core Systems Contractor. 7. Revise Basis of Design. 8. Attend design team coordination meetings and interface meetings as needed. 9. Provide support for the preparation of any presentation materials for a community presentation. 10. QA/QC review per QAP. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Camera-Ready Final Design Electrical Engineering Construction Contract Documents, including specifications 2. Final Basis of Design 3. Final project specific specifications and standard details list 4. Ad-Ready (Signed and sealed) Final Station Construction Contract documents, including specifications 5. Hawaiian Electric Company service proposal 6. Final Design Comments Matrix and Response 7. Final QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kalihi Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kalihi Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kalihi Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Develop Preliminary Engineering level design of the TPSS location and boundaries of grounding grid to the Core System source and guideway. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Prepare and coordinate Interim Design level plans and specifications for TPSS ground grid arrangement. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Prepare and coordinate Specific Station Group Final Design plans and specifications for TPSS ground grid arrangement. 		
B. Assumptions <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs <ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables <ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kaka'ako Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kaka'ako Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Kaka'ako Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Electrical Design Ala Moana Center Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Electrical Design Ala Moana Center Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Electrical Design Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

Station Landscape Architectural Design

Develop landscape architectural design for Station plazas, on-site walkways, and parking in the station areas. The landscape plan shall include service and decorative paving, plant materials, irrigation, and related control. The landscape aesthetic concepts should be coordinated with architectural design and be consistent with the Design Language Pattern Book, Compendium of Design Criteria, and Programmatic Agreement.

- Design and prepare final landscaping, architectural site paving, on-site walkways and irrigation contract documents for stations.
- Incorporate the final landscape and irrigation design for medians and curb strips along the transit corridor connecting the stations. The General Engineering Consultant’s landscape architect shall prepare the design and contract documents of the guideway landscape areas.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design All Stations – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Review Schematic Landscape Architectural Plans and Basis of Design Report. 2. Conduct Site Investigation relative to Station improvements. 3. Obtain relevant plans and documents for adjacent or surrounding community improvements. 4. Develop Preliminary Landscape Architectural Plans to incorporate updated planning and design concepts, including site furnishings, hardscape, irrigation and plantings. 5. Coordinate all work with related disciplines, team members, and adjacent System-wide landscape architect. 6. Review and confirm all improvements are in conformance to applicable codes, ordinances, and State and City Street and Highway design guidelines as it pertains to landscaping. 7. Assess and document existing vegetation to be preserved, relocated, and removed. 8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan. 9. Perform QA/QC per QAP. 10. Revise and update Basis of Design Report to incorporate updated planning and design concepts. 11. Review and provide responses to HART comments for submittals. 12. Attend design team coordination meetings and interface meetings as needed. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. None 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Preliminary Engineering level Landscape Architectural Plans 2. Colored Schematic Landscape Plan 3. Plan Palette and landscape images to further convey the intent of the design. 4. Update to Basis of Design Report 5. Contract Outline Specifications 6. Environmental Compliance Plan checklist 7. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design All Stations- (ID)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Incorporate comments from Preliminary Engineering revisions. 2. Develop Preliminary Engineering documents to Interim Design level of completion. 3. Incorporate HART, State, City and Project standard details into project specific details as needed. 4. Coordinate all work with related disciplines and team members. 5. Prepare Station Group Interim Design plans and specifications for the following: <ol style="list-style-type: none"> a) Exterior Non-Vehicular Paving and Hardscape b) Landscape Irrigation Systems c) New Plantings d) Site Furnishings 6. Study and analyze landscaping and irrigation demand with respect to LEED Water Efficiency credits. 7. Revise the Basis of Design Report to Interim Design level of completion. 8. Revise Quantity Estimates based on Interim Design documents. 9. Review cost estimates. 10. Prepare a comments matrix and response for interim design. 11. Perform QA/QC per QAP. 12. Attend design team coordination meetings and interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Landscape Architectural Interim Design level Plans to include: <ol style="list-style-type: none"> a) Landscape Site Plan b) Landscape Paving Plan c) Landscape Planting Plan, Plant List, Notes, and Details d) Landscape Irrigation Plan, Legend, Notes, and Details e) Landscape Planting and Irrigation Specifications 2. Updated colored landscape and site plan renderings/visualizations for public meetings 3. Update Basis of Design Report 4. Interim Design Comments Matrix and Response 5. QA/QC Documentation 		

ACTIVITY DESCRIPTION

NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Incorporate comments from the Interim Design review.
2. Prepare Specific Station Group Final Design Landscape Architectural Design Plans, Quantity Estimates, and Specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
3. Submit Final Design (FD) and camera-ready construction contract documents for review and comment.
4. Incorporate comments from the camera-ready final design and complete the final advertisement-ready construction contract drawings.
5. Coordinate all work with related disciplines and team members.
6. Assist in processing plans for agency approval.
7. Revise and Provide input to Final Basis of Design Report.
8. Review Final Cost Estimates.
9. Prepare a comments matrix and response for final design.
10. Attend design team coordination meetings and interface meetings as needed.
11. Provide support for the preparation of any presentation materials for a community presentation.
12. QA/QC review per QAP.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Camera-Ready Final Design Landscape Architectural Design Construction Contract Documents, including specifications
2. Final Basis of Design
3. Final project specific specifications and standard details list
4. Ad-Ready (Signed and sealed) Final Station Construction Contract documents, including specifications
5. Final Design Comments Matrix and Response
6. Final QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kalihi Station– (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kalihi Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Same as 'All Stations' except as noted. 2. Develop Preliminary Landscape Architectural Plans to incorporate updated planning and design concepts, including site furnishings, hardscape, irrigation, plantings, and TPSS. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
B. Assumptions		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
C. Inputs		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Same as 'All Stations' 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kaka'ako Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kaka'ako Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Kaka'ako Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Ala Moana Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Ala Moana Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Station Landscape Architectural Design Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

Traffic Assessment and Design

Prepare a Traffic Assessment Report (TAR) to address vehicular, bike, and pedestrian circulation around the stations. Recommend the accesses' configuration and control. Identify traffic impacts and propose measures to mitigate. Coordinate with the review agencies to get their approvals on the station accesses.

Develop a Traffic Management Plan and construction staging drawings to maximize the area available for construction, minimize traffic disruption for both vehicular and pedestrian movement and maximize accessibility to adjacent properties and businesses. Prepare Maintenance of Traffic (MOT) drawings for construction and identify where permits are required for access.

- Develop Construction Staging Plan to maximize the area available for construction, minimize traffic disruption for both vehicular and pedestrian, and maximize accessibility to adjacent properties and businesses, and to ensure constructability.
- Develop maintenance of traffic (MOT) plans for construction to maximize the area available, minimize traffic disruption for pedestrian and vehicular movement, and maximize accessibility to adjacent properties and businesses.
- Identify permits required for access and responsibility.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design All Stations – (PE)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Review Preliminary Engineering plans and Basis of Design report. 2. Review DKSG Bus Rail Integration Plan. 3. Develop plans to Preliminary Engineering level of design. 4. Provide input and review of site layout to the design team for traffic related issues. 5. Prepare a Traffic Assessment Report (TAR) to mitigate the station's traffic impacts and to recommend the station accesses' configuration and control. TAR to include intersection level traffic impacts for future with and without stations. 6. Coordinate with traffic review agencies to obtain the station accesses' tentative approval. 7. Respond to HART comments as applicable. 8. Perform QA/QC per QAP. 9. Revise and update Basis of Design Report. 10. Review and provide responses to HART comments for submittals. 11. Attend design team coordination meetings and interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. HART, Compendium of Design Criteria. Chapter 6, Section 4 2. HART, Compendium of Design Criteria. Chapter 7, Traffic 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Preliminary engineering plans 2. Update to Basis of Design Report 3. Contract Standard Specifications Titles list (Table of Contents only). 4. Traffic Assessment Report 5. Tentative approval of the station accesses from traffic review agencies 6. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design All Stations – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
<ol style="list-style-type: none"> 1. Incorporate comments from Preliminary Engineering revisions. 2. Develop Preliminary Engineering documents to Interim Design level of completion. 3. Incorporate HART, State, City and Project standard details into project specific details as needed. 4. Coordinate all work with related disciplines and team members. 5. Review City Center MOT Plan. 6. Prepare Preliminary Maintenance of Traffic (PMOT) report, plans and specifications in accordance with State DOT's Management Guidelines and Work Zone Safety and Mobility Process. The MOT plans shall incorporate lane closures necessary for demolition and/or site work preparation, erection of concourse, accommodations for utility connections, placement of station platform components, construction area staging, and other construction activities requiring roadway lane closures. 7. Identify anticipated work flow and schedules. 8. Conduct work zone impact analysis 9. Include viable strategies for temporary traffic control and detour plans as required by the CCH Traffic Review Branch approval process. 10. Through Interface Manager provide coordination with City Center Guideway Designer and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS). 11. Coordinate with HDOT and determine acceptable lane closure periods and prepare detailed traffic control/detour plans for installation of the pedestrian bridge and station structure/platform. 12. Revise the Basis of Design Report to Interim Design level of completion. 13. Revise Quantity Estimates based on Interim Design documents. 14. Review cost estimates. 15. Prepare a comments matrix and response for interim design. 16. Perform QA/QC per QAP. 17. Attend design team coordination meetings and interface meetings as needed. 		
B. Assumptions		
<ol style="list-style-type: none"> 1. None 		
C. Inputs		
<ol style="list-style-type: none"> 1. HART, Compendium of Design Criteria. Chapter 7, Traffic 2. The latest City Center-design submittals for the guideway including drawings and basis of design. 		
D. Deliverables		
<ol style="list-style-type: none"> 1. Preliminary MOT Report 2. Interim Design Traffic Control Plans 3. Station Interim Design Drawings, Special Provisions, and Specification 4. Update Basis of Design Report (MOT sections) 5. Interim Design Comments Matrix and Response 6. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design All Stations – (FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Incorporate comments from the Interim Design review.
2. Prepare Final MOT Station Group Final Design level plans, Quantity Estimates, and Specifications.
3. Prepare Traffic Control and Detour Plans (TCP) in accordance with State DOT's Hawaii Standard Specifications (HSS) Section 645 and the MUTCD for the Station.
4. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
5. Update Maintenance of Traffic (MOT) Report.
6. Provide coordination through Interface Manager with the City Center Guideway Designer, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).
7. Coordinate with HDOT and determine acceptable lane closure periods and prepare detailed traffic control/detour plans for installation of the pedestrian bridge and station structure/platform.
8. Submit Final Design (FD) and camera-ready construction contract documents for review and comment.
9. Incorporate comments from the camera-ready final design and complete the final advertisement-ready construction contract drawings.
10. Coordinate all work with related disciplines and team members.
11. Assist in processing plans for agency approval.
12. Revise and Provide input to Final Basis of Design Report.
13. Review Final Cost Estimates.
14. Prepare a comments matrix and response for final design.
15. Attend design team coordination meetings and interface meetings as needed.
16. QA/QC review per QAP.

B. Assumptions

1. None

C. Inputs

1. HART, Compendium of Design Criteria. Chapter 7, Traffic
2. The latest City Center design submittals for the guideway including drawings and basis of design

D. Deliverables

1. Camera-Ready Final Design Construction Contract Documents, including specifications
2. Final Basis of Design
3. Final MOT Report
4. Ad-Ready (Signed and sealed) Final Station Construction Contract documents, including specifications
5. Final Design Comments Matrix and Response
6. Final QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kalihi Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kalihi Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kalihi Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kapālama Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kapālama Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kapālama Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Iwilei Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Iwilei Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Iwilei Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Chinatown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Chinatown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Chinatown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Downtown Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Downtown Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Same as 'All Stations'		
B. Assumptions 1. Same as 'All Stations'		
C. Inputs 1. Same as 'All Stations'		
D. Deliverables 1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Downtown Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Civic Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Civic Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Civic Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kaka'ako Station - (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kaka'ako Station - (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Kaka'ako Station - (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Ala Moana Center Station – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations' except as noted.		
2. Coordinate with HART/DTS/OTS and develop temporary bus operational concepts.		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Ala Moana Center Station – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Traffic Assessment and Design Ala Moana Center Station – (FD)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description		
1. Same as 'All Stations'		
B. Assumptions		
1. Same as 'All Stations'		
C. Inputs		
1. Same as 'All Stations'		
D. Deliverables		
1. Same as 'All Stations'		

Specifications

At each submittal, prepare detailed specifications, appropriate as based upon the design completeness for the submittal, for the construction bid documents using HART’s Special Provisions and Standard Specifications for guidance.

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Specifications – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Review Station Drawing packages; identify & tabulate changes in Materials, Finishes & Equipment. 2. Review Standard Specifications and compile applicable Standard Specification Title Listing. 3. Coordinate design for all eight (8) stations and prepare one specification package for all Station drawing packages. 4. Perform QA/QC per QAP. 		
B. Assumptions <ol style="list-style-type: none"> 1. None 		
C. Inputs <ol style="list-style-type: none"> 1. None 		
D. Deliverables <ol style="list-style-type: none"> 1. Preliminary Engineering level Contract Standard Specification Title Listing (Table of Contents only). 2. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #2	Activity Responsibility:	Issue Date:
Activity: Specifications – (ID)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. Incorporate comments from Preliminary Engineering revisions. 2. Review Station Drawing packages and establish changes in materials, finishes & equipment. 3. Document status of selected materials from previous milestone submission. 4. Review and edit HART General Provisions, Division 1 Specifications and Standard Specifications to Interim Design level of completion. 5. Write new specifications sections necessary to adequately convey Station design. 6. Prepare a comments matrix and response for interim design. 7. Perform QA/QC per QAP. 		
B. Assumptions <ol style="list-style-type: none"> 1. None 		
C. Inputs <ol style="list-style-type: none"> 1. None 		
D. Deliverables <ol style="list-style-type: none"> 1. Interim Design level Specifications 2. Interim Design Comments Matrix and Response 3. QA/QC Documentation 		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Specifications – (FD)	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Incorporate comments from the Interim Design review
2. Review Station Drawing packages; establish changes in materials, finishes & equipment. Document status of selected materials from previous submittal.
3. Write complete specifications sections necessary to convey Station design.
4. Coordinate design for all eight (8) Stations.
5. Submit Final Design (FD) and camera-ready specifications for review and comment.
6. Incorporate comments from the camera-ready final design and complete the final advertisement-ready specifications.
7. Coordinate all work with related disciplines and team members.
8. Final formatting and word processing of each Specification.
9. Prepare a comments matrix and response for final design.
10. QA/QC review per QAP.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Camera-Ready Final Design Specification Submittal
2. Ad-Ready (Signed and sealed) Final Station Design Specification Submittal for Construction Contract Documents.
3. Final Design Comments Matrix and Response
4. Final QA/QC Documentation

Design Support During Bidding (NTP #4)

The CONSULTANT shall provide support for the bidding period during HART's solicitation of the DKSG Construction Contract and may be requested to assist HART in during the evaluation bid process. Upon request, assist HART in resolving design questions and preparing addenda during the construction solicitation process.

Printing of Contract Drawings shall be by HART. All documentation, reporting, auditing, etc. as required by the FTA shall be performed by HART with input from the CONSULTANT.

ACTIVITY DESCRIPTION		
NTP#: NTP #4	Activity Responsibility:	Issue Date:
Activity: Design Support During Bidding	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Work under this NTP may include the following when requested by HART. 2. Bid Support: Provide engineering support during bidding to include response to questions, preparation of addenda and support to HART in the evaluation of the general format of the bids. This work shall include the following work items up to the available allowance. <ol style="list-style-type: none"> a) Attend an a Pre-Bid Conference and Site Tour b) Assist in preparing responses to bidders' questions, RFI's, and prepare addenda as requested. c) Prepare and issue mark-ups of documents requiring revisions. 3. Provide technical management and support staff to supplement HART Project teams. The CONSULTANT shall hold meetings or conference calls as needed to review the contractor responses to inquiries or comments from HART and to discuss Bid Support work effort and schedules. 4. Monitor the design allowance weekly using Primavera (Contract Manager and P6) with output following HART Work Breakdown Structure (WBS) for compliance with HART's payment terms. 5. Prepare updated Schedule of Milestones (SM), if necessary, to include all work for which the CONSULTANT expects to be compensated. 6. Submit monthly Progress Reports to include identification of Bid Support Services provided and monthly Invoices following the WBS form specified by HART. 7. Document Controls: Non-CADD project correspondence and other electronic documentation and media shall be controlled using Contract Management System Software (CMS) and used by HART, Consultants, and Contractors, in accordance with HART's procedures. 8. Provide administrative support, CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. The CONSULTANT shall provide a Project Controller to be responsible for financial monitoring & control reporting, invoicing and accounting. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Responses to bidder Inquiries and RFIs 2. Addenda. 3. Meeting Agendas & Minutes 4. Monthly Progress Reports 		

ACTIVITY DESCRIPTION		
NTP#: NTP #4	Activity Responsibility:	Issue Date:
Activity: Design Support During Bidding All Consultants – All Stations	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Provide consultation during the solicitation of the DKSG construction contract to assist in developing responses to related questions or Requests for Information (RFIs) posed by potential bidders.		
B. Assumptions 1. None		
C. Inputs 1. None		
D. Deliverables 1. None		

Design Support During Construction (NTP #5)

HART shall conduct a single solicitation for construction of all eight (8) stations designed under this scope of work. The construction periods are to be determined. Upon issuance of NTP #5, the CONSULTANT shall provide limited design support during the construction phase including, but not limited to: shop drawing review and approval; material samples / mock-up review and approval; responding to contractor RFIs, periodic inspections; development of punch lists; resolution of punch lists; final acceptance of finishes, participate in various meetings, and preparation of as-built drawings based on mark-ups from the construction contractor(s). Upon request, assist HART in resolving design issues during construction.

Construction Management is not included in this scope of work. HART will manage the Submittal and RFI logs, as well as the distribution and transmission of Submittals and RFI's to/from all affected parties.

The CONSULTANT shall provide construction support services at the request of HART only.

ACTIVITY DESCRIPTION		
NTP#: NTP #5	Activity Responsibility:	Issue Date:
Activity: Design Support During Construction All Stations	WBS Code / ID Number:	Revision Number: 0

A. Activity Description

1. Work under this NTP may include the following when requested by HART.
2. Review shop drawings and submittals for conformance to the design documents.
3. Respond to requests for information (RFI).
4. Respond to and support Requests for Interface Data (RFIDs) and Participate in Interface Resolution Meetings either by phone or in the field office.
5. Attend and participate in Project meetings at HART or Contractor field office to discuss issues and status.
6. Make field visits to observe construction progress.
7. Develop designs, sketches and details as necessary to appropriately address unforeseen site conditions.
8. Respond to Contractor Non-Conformance Reports, including:
 - a) Technical review and analysis of as-built condition
 - b) Possible redesign to accommodate as-built conditions
 - c) Development of replacement design
9. Evaluate Contractor-initiated Value Engineering Proposals.
10. Review technical adequacy, quantities and Costs of Contractor-initiated change proposals.
11. Prepare CADD files of consolidated As-Built Drawings for each station that accurately reflect the final conditions based on the Contractor provide As-Built, red line drawings.
12. Monitor the design allowance weekly using Primavera (Contract Manager and P6) with output following HART Work Breakdown Structure (WBS) for compliance with HART's payment terms.
13. Prepare updated Schedule of Milestones (SM), if necessary, to include all work for which the CONSULTANT expects to be compensated.
14. Submit monthly Progress Reports to include identification of Bid Support Services provided and monthly Invoices following the WBS format specified by HART.
15. Non-CADD project correspondence and other electronic documentation and media shall be controlled using Contract Management System Software (CMS) and used by HART, Consultants, and Contractors, in accordance with HART's procedures.
16. Provide administrative support, CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. The CONSULTANT shall assign a Project Controller to be responsible for financial monitoring and control reporting, invoicing and accounting.

B. Assumptions

1. None

C. Inputs

1. None

D. Deliverables

1. Meeting Minutes and Management Reports
2. Responses to Contractor Shop Drawings and Submittals
3. Consolidated As-Built Drawings in an electronic CADD format
4. Responses to RFI's
5. Responses to RFID's
6. Evaluate Change Order Proposals
7. Responses to Contractor Non-Conformance Reports

ACTIVITY DESCRIPTION		
NTP#: NTP #5	Activity Responsibility:	Issue Date:
Activity: Design Support During Construction Geotechnical – All Stations	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Provide design support to review geotechnical related submittals and RFIs. 2. At stations where shallow foundations are used, conduct select site visits during foundation construction to observe subsurface conditions and bearing materials encountered during foundation excavations. 3. At stations where deep foundations are used, conduct select site visits during deep foundation test programs and load testing, and during production deep foundation installations. 4. During site earthwork, conduct select site visits to observe subgrade materials and site preparation. 5. Provide design support to assist in resolving geotechnical related technical issues during construction. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. Site visits for shallow foundations and site earthwork do not exceed two (2) hours at the site per visit. 2. Site visits for deep foundation installations and load testing do not exceed four (4) hours at the site per visit. 3. The total number of site visits during foundation installation and testing and earthwork construction does not exceed six (6) visits per station. 4. Geotechnical special inspection of earthwork and foundation installations, construction management (CM) and construction administration (CA) services, quality control (QC) monitoring and materials testing, and deep foundation load and integrity testing are excluded from this SOW. 5. Attendance at pre-construction meetings, Owner, Architect and Contractor (OAC) meetings, public informational meetings and other construction-related meetings are excluded from this SOW. 6. Review and consultation regarding variance requests, change orders, and value-engineering cost proposals are excluded from this SOW. 7. Technical support regarding contractor means and method, such as excavation shoring, underpinning, sheeting, temporary crane supports and dewatering systems are excluded from this SOW. 8. Preparation of as-built drawings is excluded from this SOW. 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Site Visit reports during foundation and earthwork construction 		

Public Involvement

Support and participate in community presentations or meetings hosted by HART to present Station designs. Provide illustrative material such as plans and perspective drawings and other pertinent documents to help convey information to the public. A maximum of four (4) PA Workshops and six (6) Community Meetings is to be included. Each station shall be involved in two (2) PA Workshops and three (3) Community Meetings. At each community presentation or meeting, four (4) Stations shall be presented.

HART must be notified of all media inquiries received by the CONSULTANT and all responses must be approved by HART.

- Support HART in community meetings and workshops.
- Provide illustrative materials such as plans, sketches, and models.

ACTIVITY DESCRIPTION		
NTP#: NTP #1a	Activity Responsibility:	Issue Date:
Activity: Public Involvement – (SM)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description 1. Attend the NTP#1a Design Workshop. 2. Assist with the gathering of informational materials for the Workshop. 3. Attend design team coordination, review and Interface meetings as needed.		
B. Assumptions 1. None		
C. Inputs 1. None		
D. Deliverables 1. Public Involvement Support		

ACTIVITY DESCRIPTION		
NTP#: NTP #1b	Activity Responsibility:	Issue Date:
Activity: Public Involvement – (PE)	WBS Code / ID Number:	Revision Number: 0
A. Activity Description <ol style="list-style-type: none"> 1. The CONSULTANT shall meet and coordinate with HART Public Involvement representatives to provide information and relevant updates as requested by HART. 2. Attend the NTP#1b Design Workshop. 3. Prepare for Design Workshops, PA and Community Meetings – The CONSULTANT shall prepare agenda, minutes and debrief after meetings as directed. Follow up on requests, coordinate with team members (internal) and external partners. CONSULTANT shall deliver to HART draft design package in electronic format seven (7) days in advance of PA and Community meetings for HART review. CONSULTANT Design Manager and Station Design Lead(s) for stations under review in specific meeting shall at minimum attend. 4. Meeting with Public and Private Organizations – The CONSULTANT shall meet with a maximum of five (5) public and private organizations, as directed by HART. CONSULTANT shall provide materials (such as maps, renderings, agendas, or digital media for incorporation into PowerPoint slides and brochures) for these meetings as directed and support HART with logistics as needed. The CONSULTANT shall also provide follow-up response or action when needed. 5. Assist with general public involvement: <ol style="list-style-type: none"> a) Participate in internal coordination meetings with CONSULTANT and HART communication’s staff, when appropriate as requested by HART; b) Assist where appropriate in the review and comment of news releases, fact sheets, and other communication materials; and c) Assist with support with public involvement, as needed. 6. Attend design team coordination, review and Interface meetings as needed as determined by CONSULTANT’s PM/DM. 		
B. Assumptions <ol style="list-style-type: none"> 1. None 		
C. Inputs <ol style="list-style-type: none"> 1. None 		
D. Deliverables <ol style="list-style-type: none"> 1. Public Involvement Support 		

ACTIVITY DESCRIPTION		
NTP#:	Activity Responsibility:	Issue Date:
NTP #2		
Activity:	WBS Code / ID Number:	Revision Number:
Public Involvement – (ID)		0
A. Activity Description		
<ol style="list-style-type: none"> 1. Prepare for a total of two (2) community presentations, one that includes the four stations in the Dillingham area and one the four stations in the Kaka’ako area. 2. The CONSULTANT shall attend and meet with HART Public Involvement representatives to provide information and relevant updates as requested by HART. 3. Prepare for PA and Community Meetings – The CONSULTANT shall prepare agenda, minutes and debrief after meetings as directed. Follow up on requests, coordinate with team members (internal) and external partners. CONSULTANT shall deliver to HART draft design package in electronic format seven (7) days in advance of PA and Community meetings for HART review. CONSULTANT Design Manager and Station Design Lead(s) for stations under review in specific meeting shall at minimum attend. 4. Meeting with Neighborhood Boards – The CONSULTANT shall attend Neighborhood Board meetings and present or speak at Neighborhood Board meetings when requested to do so by HART. 5. Prepare for Neighborhood Board meetings - The CONSULTANT shall write minutes/debrief after the Neighborhood Board meetings when requested by HART. Follow up on items related to the CONSULTANT’s work for Neighborhood Board meetings when applicable. 6. Meeting with Public and Private Organizations - The CONSULTANT shall meet with a maximum of five (5) public and private organizations, as directed by HART. CONSULTANT shall provide materials (such as maps, renderings, agendas, or digital media for incorporation into PowerPoint slides and brochures) for these meetings as directed and support HART with logistics as needed. The CONSULTANT shall also provide follow-up responses or action when needed. 7. Coordinate collection of presentation materials, including plans, rendered elevations, PowerPoint slides and other appropriate information indicating the features of the Interim Design for a community presentation. 8. Provide informational materials on the Stations Interim design and features, subject to HART’s approval. <ol style="list-style-type: none"> a) Provide support to HART as needed for two (2) community meetings on the Station design, one for each of the four Stations in the Dillingham area and one for each of the four stations in the Kaka’ako area in conjunction with the PA: <ol style="list-style-type: none"> i. Coordinate location – logistics; ii. Capture questions from audience; follow up responses; and iii. Advertise for community meetings. b) Assist with general public involvement: <ol style="list-style-type: none"> i. Participate in internal coordinating meetings with CONSULTANT and HART communication’s staff, when appropriate; ii. Assist where appropriate in the review and comment of news releases, fact sheets, and other communication materials; and iii. Assist with support with public involvement, as needed. 9. Support HART in preparing presentation boards, powerpoint slides, etc. by providing data, renderings, drawings, etc. Attend two (2) PA community presentations on the Station designs. 10. Attend design team coordination meetings, review and Interface meetings as needed. 		
B. Assumptions		
1. None		
C. Inputs		
1. None		
D. Deliverables		
1. Public Involvement Support		

ACTIVITY DESCRIPTION		
NTP#: NTP #3	Activity Responsibility:	Issue Date:
Activity: Public Involvement – (FD)	WBS Code / ID Number:	Revision Number: 0
<p>A. Activity Description</p> <ol style="list-style-type: none"> 1. Prepare for a total of two (4) community presentations, one that includes the four stations in the Dillingham area and one that includes the four stations in the Kaka’ako area. 2. The CONSULTANT shall attend and meet with HART Public Involvement representatives to provide information and relevant updates as requested by HART. 3. Prepare for PA and Community Meetings - The CONSULTANT shall prepare agenda, minutes and debrief after meetings as directed. Follow up on requests, coordinate with team members (internal) and external partners. CONSULTANT shall deliver to HART draft design package in electronic format seven (7) days in advance of PA and Community meetings for HART review. CONSULTANT Design Manager and Station Design Lead(s) for stations under review in specific meeting shall at minimum attend. 4. Meeting with Neighborhood Boards – The CONSULTANT shall attend Neighborhood Board meetings and present or speak at Neighborhood Board meetings when requested to do so by HART. 5. Prepare for Neighborhood Board meetings – The CONSULTANT shall write minutes/debrief after the Neighborhood Board meetings when requested by HART. Follow up on items related to the CONSULTANT’s work for Neighborhood Board meetings when applicable. 6. Meeting with Public and Private Organizations – The CONSULTANT shall meet with a maximum of five (5) public and private organizations, as directed by HART. CONSULTANT shall provide materials (such as maps, renderings, agendas, or digital media for incorporation into PowerPoint slides and brochures) for these meetings as directed and support HART with logistics as needed. The CONSULTANT shall also provide follow-up response or action when needed. 7. Coordinate collection of presentation materials, including plans, rendered elevations, PowerPoint slides and other appropriate information indicating the features of the Final Design (FD) for a community presentation. 8. Provide informational materials on the Stations Final design and features, subject to HART’s approval. <ol style="list-style-type: none"> a) Provide support to HART as needed for two (2) community meetings, one for the four stations in the Dillingham area and one for the four stations in the Kaka’ako area in conjunction with the PA: <ol style="list-style-type: none"> i. Coordinate location – logistics; ii. Capture questions from audience; follow up responses; and iii. Advertise for community meetings. b) Assist with general public involvement: <ol style="list-style-type: none"> i. Participate in internal coordinating meetings with CONSULTANT and HART communication’s staff, when appropriate; ii. Assist where appropriate in the review and comment of news releases, fact sheets, and other communication materials; and iii. Assist with support with public involvement, as needed. 9. Support HART in preparing presentation boards, powerpoint slides, etc. by providing data, renderings, drawings, etc. Attend two (2) PA community presentations on the Station designs. 10. Attend design team coordination meetings, review and Interface meetings as needed. 		
<p>B. Assumptions</p> <ol style="list-style-type: none"> 1. None 		
<p>C. Inputs</p> <ol style="list-style-type: none"> 1. None 		
<p>D. Deliverables</p> <ol style="list-style-type: none"> 1. Public Involvement Support 		

**SPECIAL PROVISIONS
EXHIBIT 2A**

HONOLULU RAIL TRANSIT PROJECT

**STATION DESIGN CONSULTANT
DILLINGHAM AND KAKA'AKO STATION GROUP**

CONTRACT COST

**EXHIBIT 2A
CONTRACT COST**

<u>Notice to Proceed</u>	<u>Cost</u>
1a: PREPARE SCHEDULE OF MILESTONES	\$1,305,204
1b: REVISION TO PRELIMINARY ENGINEERING (PE)	\$4,593,942
2: INTERIM DESIGN (ID)	\$5,763,606
3: FINAL DESIGN (FD)	\$3,023,242
4: DESIGN SUPPORT DURING BIDDING	\$696,948
5: DESIGN SUPPORT DURING CONSTRUCTION	<u>\$2,114,497</u>
Sub Total	\$17,497,439
General Excise Tax	<u>\$824,479</u>
Total Contract Amount	\$18,321,918

**SPECIAL PROVISIONS
EXHIBIT 2B**

HONOLULU RAIL TRANSIT PROJECT

**STATION DESIGN CONSULTANT
AIRPORT STATION GROUP**

COMPENSATION AND INVOICING

**EXHIBIT 2B
COMPENSATION AND INVOICING**

1. The CONSULTANT will be paid periodically by HART for authorized and satisfactorily completed Work under this Agreement based on an approved Schedule of Milestones. Such payment shall be full compensation for Work performed, for all supervision, labor, supplies, materials, equipment or use thereof, taxes, and for all other necessary incidentals.

2. The CONSULTANT shall submit a proposed Schedule of Milestones within forty (40) working days after receipt of NTP #1a. The Schedule of Milestones is to be organized by NTP and will identify the Scope of Work (“SOW”) activity code, describe the activity, specify the associated fixed-price amount and specify the estimated completion date. The CONSULTANT’s Baseline Design Schedule must be conformed to the Schedule of Milestones. HART and the CONSULTANT shall reach agreement on the proposed Schedule of Milestones at which time HART will approve the Schedule of Milestones. HART’s approved Schedule of Milestones shall be added to the Agreement by contract amendment and become part of the Agreement by amending Exhibit 2B-1 to these Special Provisions. In no event shall compensation exceed the amounts listed in the Schedule of Milestones or the Total Contract Amount.

3. **Payment Schedule.** Upon completion of Milestones for which NTP has been issued, the CONSULTANT shall submit to HART invoices for payment for Project Work completed based on the mutually-agreed Schedule of Milestones. Within thirty (30) days of receipt of invoice, and upon approval of the work satisfactorily completed and amount billed, HART will pay the invoice as approved. At no time shall the total cumulative amount paid for the Project Work exceed the Total Contract Amount. **The CONSULTANT shall notify HART in writing no later than ten (10) days after expending seventy five percent (75%) of the Total Contract Amount.**

**EXHIBIT 2B-1
PROJECT PAYMENT SCHEDULE**

	<u>Amount</u>
NTP #1a Schedule of Milestones	\$1,305,204
NTP #1b Revision to Preliminary Engineering	\$4,593,942
NTP #2 Interim Design (ID)	\$5,763,606
NTP #3 Final Design (FD)	\$3,023,242
NTP #4 Design Support During Bidding	\$696,948
NTP #5 Design Support During Construction	\$2,114,497
General Excise Tax	<u>\$824,479</u>
Total Contract Amount	\$18,321,918

Upon issuance of NTP #1a, the CONSULTANT is to provide a Schedule of Milestones to HART within forty (40) days, which are to be organized by the NTPs provided above, and which shall specify Pay Items, Pay Item descriptions, Pay Item Values, and planned or actual achievement dates. HART's approved Schedule of Milestones shall be added to the Agreement by contract amendment and become part of the Agreement by amending this Exhibit 2B-1. Payment to the CONSULTANT shall be based on satisfactory completion of a milestone in accordance with the approved Schedule of Milestones and NTPs and shall not exceed the amounts provided above plus the appropriate General Excise Tax for completion of each NTP.

EXHIBIT 3
CERTIFICATION REGARDING CONFLICT OF INTEREST

“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a potential Contractor (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation (HART); or the potential Contractor’s objectivity in performing the Contract Work would or might be otherwise impaired; or the potential Contractor has an unfair competitive advantage.

On behalf of PERKINSTWILL I certify that:
(Name of Offeror)

(Check one)

The Offeror does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

() The Offeror has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, HART may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Offeror with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.



[Handwritten Signature]
7/17/13

[Handwritten Signature]
(Signature of Authorized Official)

KAY KORNOVICH
(Print Name)

7/17/13
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

PERKINS + WILL intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to T.S. Dye & Colleagues, Archaeologists
(Name of Subcontractor/Consultant)

to perform the following type of work:

Section 106 compliance

The minimum value of the Subcontract is \$0.00.

The Subcontractor/Consultant _____ is x is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:

[Signature]
(Signature)

KAY KORNOVICH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:

[Signature]
Confirmed by: (Signature)

Thomas S. Dye
(Printed Name)

President
(Title)

7/23/13
(Date)

Honolulu Rail Transit Project

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

Perkins + Will _____ intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to Rider Levett Bucknall

(Name of Subcontractor/Consultant)

to perform the following type of work:

Cost estimating/cost management/cost consulting

_____.

The minimum value of the Subcontract is \$533,766.00 (INCLUDING NET)

The Subcontractor/Consultant _____ is x is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:

Kay Kornovlch
(Signature)

KAY KORNOVLCH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:

Maelyn Uyehara
Confirmed by: (Signature)

Maelyn Uyehara
(Printed Name)

Principal
(Title)

19 July 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

_____ Perkins + Will _____ intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to Baldrige & Associates Structural Engineering, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Perform final structural analysis and design, including the preparation of contract documents showing foundations, substructure, superstructure, and structural details for all station support structures (exclusive of the guideway) and support of architectural finishes, and artwork if provided as part of the contract.

The minimum value of the Subcontract is \$1,156,647.00 (INCLUDING NET)

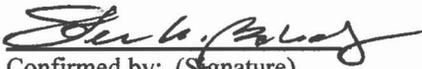
The Subcontractor/Consultant _____ is is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:

For the Subcontractor/Subconsultant:


(Signature)


Confirmed by: (Signature)

KAY KORNOVICH
(Printed Name)

Steven Baldrige
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

President
(Title)

7.23.2013
(Date)

July 23, 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

Perkins + Will intends to subcontract Work for the Dillingham and Kaka'ako Station Group Project to PBR Hawaii & Associates, Inc. to perform the following type of work:

- Landscape Architecture
- Environmental Compliance Plan related to Station Design

The minimum value of the Subcontract is \$938,951.00 (INCLUDING NET)

The Subcontractor/Consultant is not a certified DBE firm.

For the Consultant:

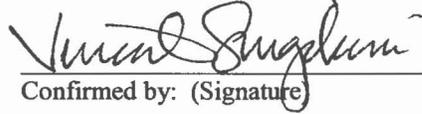

(Signature)

KAY KORNOVICH
(Printed Name)

PRINCIPAL & VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

for R. Stan Duncan
(Printed Name)

Executive Vice-President
(Title)

July 19, 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

PERKINS + WILL intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to The Traffic Management Consultant

to perform the following type of work:

preparation of traffic assessment reports, traffic management plans, and maintenance of traffic plans.

The minimum value of the Subcontract is \$156,300.00 (INCLUDING GET)

The Subcontractor/Consultant The Traffic Management Consultant is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:

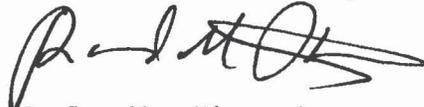

(Signature)

KAY KORNOVICH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Randall S. Okaneku
(Printed Name)

Principal
(Title)

July 22, 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

Perkins +Will intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to Bennet Group Strategic Communications
(Name of Subcontractor/Consultant)

to perform the following type of work:

Bennet Group will provide strategic communications support to the project team, including media and community relations, public affairs, media training, creative materials development, and crisis and issues management, as needed.

The minimum value of the Subcontract is \$96,150 (INCLUDING GST)

The Subcontractor/Consultant is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:


(Signature)

KAY KORNOVIKH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Joan Bennet
(Printed Name)

President & CEO
(Title)

7/19/13
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

PERKINS +WILL intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to Mason Architects, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:
Historic preservation consulting services

The minimum value of the Subcontract is. \$28,010.00 (INCLUDING GET)

The Subcontractor/Consultant _____ is X is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:

Kay Kornovich
(Signature)

KAY KORNOVICH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:

Glenn E. Mason
Confirmed by: (Signature)

Glenn E. Mason
(Printed Name)

President
(Title)

19 July 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

Perkins+Will

_____ intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to ControlPoint Surveying, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Topographic Survey and AutoCAD Mapping

The minimum value of the Subcontract is \$589,089.00 (INCLUDING NET)

The Subcontractor/Consultant _____ is x _____ is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:



(Signature)

KAY KORNOVICH

(Printed Name)

PRINCIPAL + VICE PRESIDENT

(Title)

7.23.2013

(Date)

For the Subcontractor/Subconsultant:



Confirmed by: (Signature)

Yue-Hong "Ed Yeh"

(Printed Name)
President

(Title)
July 19, 2013

(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

PERKINS + WILL intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to GROUP 70 INTERNATIONAL, INC.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Civil site work for station group including civil design for prelim, interim, and final design with bidding
and construction observation support.

The minimum value of the Subcontract is \$1,485,339 (INCLUDING NET)

The Subcontractor/Consultant _____ is X is not a certified DBE firm.

If certified, indicate certifying entity: _____. Include a name and telephone
number for certifying entity _____.

For the Consultant:

[Signature]
(Signature)

KAY KORNOVICH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:

[Signature]
Confirmed by: (Signature)

Paul T. Matsuda
(Printed Name)

Principal
(Title)

July 19, 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

Perkins + Will intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to Shannon & Wilson, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Geotechnical engineering services, including subsurface explorations, laboratory testing, and
developing foundation design recommendations. Geotechnical Data and Engineering Reports will be
prepared summarizing the results of the work.

The minimum value of the Subcontract is \$1,363,344 + \$64,241 (GET) = \$1,427,585

The Subcontractor/Consultant is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:


(Signature)

KAY KORNOVICK
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Gerard J. Buechel
(Printed Name)

President
(Title)

July 17, 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

PERKINS + WIL intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to WSP Hawaii, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Mechanical and electrical engineering design services.

The minimum value of the Subcontract is \$704,108.00 (INCLUDING NET)

The Subcontractor/Consultant is is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____ .

For the Consultant:


(Signature)

RAY KORNDVICH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Gene Albano
(Printed Name)

President
(Title)

July 18, 2013
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

PERKINS + WILL intends to subcontract Work for the
Dillingham and Kaka'ako Station Group Project to URBAN WORKS, INC.
(Name of Subcontractor/Consultant)

to perform the following type of work:

ARCHITECTURAL DESIGN SERVICES, INCLUDING INTERFACE MGMT.

The minimum value of the Subcontract is \$1,067,097.00. (INCLUDING G&E)

The Subcontractor/Consultant _____ is X is not a certified DBE firm.

If certified, indicate certifying entity: _____ . Include a name and telephone
number for certifying entity _____.

For the Consultant:

[Signature]
(Signature)

KAY KORNOVICH
(Printed Name)

PRINCIPAL + VICE PRESIDENT
(Title)

7.23.2013
(Date)

For the Subcontractor/Subconsultant:

[Signature]
Confirmed by: (Signature)

Lorri Matsunaga, AIA
(Printed Name)

Vice President
(Title)

7.17.2013
(Date)

EXHIBIT 5
CERTIFICATE REGARDING INELIGIBLE CONTRACTORS

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, KAY KORNOVICH PRINCIPAL VICE PRESIDENT, hereby
(Name of Certifying Officer) (Title of Certifying Officer)

certify that PERKINSTWILL :
(Name of Contractor)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in the Honolulu Authority for Rapid Transportation Project.
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.



[Handwritten Signature]
7/17/13

[Handwritten Signature]
Signature of Certifying Officer

PERKINSTWILL
Name of Contractor

1221 SECOND AVE #200
Street Address of Contractor

SEATTLE, WA 98101
City, State, Zip

206.381.6000
Telephone Number of Contractor

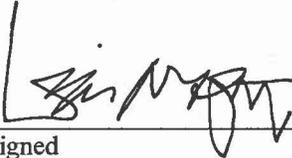
(Note: The above certification merely certifies that an Offeror and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions**

- 1) The prospective lower tier participant (Subcontractor/Subconsultant) certifies, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in Dillingham and Kaka'ako Station Group Final Design Contract by any federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)



Signed

Lornin Matsunaga, AIA

Typed or Printed Name

Urban Works, Inc.

Company Name

7.17.2013

Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)



Signed

Gene Albano

Typed or Printed Name

WSP Hawaii, Inc.

Company Name

July 18, 2013

Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
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(60 FR 33042, 33064, June 26, 1995)


Signed

Gerard J. Buechel
Typed or Printed Name

Shannon & Wilson, Inc.
Company Name

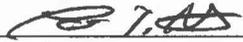
July 17, 2013
Date

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(60 FR 33042, 33064, June 26, 1995)



Signed

Paul T. Matsuda

Typed or Printed Name

GROUP 70 INTERNATIONAL, INC.

Company Name

July 19, 2013

Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)



Signed

Yue-Hong "Ed" Yeh

Typed or Printed Name

ConrolPoint Surveying, Inc.

Company Name

July 19, 2013

Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)



Signed _____

Glenn E. Mason _____

Typed or Printed Name

Mason Architects, Inc. _____

Company Name

19 July 2013 _____

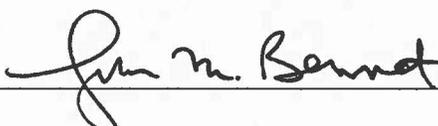
Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)


Signed

JOAN M. BENNET
Typed or Printed Name

BENNET GROUP
Company Name

7/18/13
Date

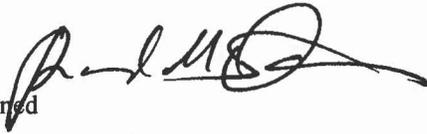
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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)

Signed



Randall S. Okaneku
Typed or Printed Name

The Traffic Management Consultant
Company Name

July 22, 2013
Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions**

- 1) The prospective lower tier participant (Subcontractor/Subconsultant) certifies, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in Dillingham and Kaka'ako Station Group Final Design Contract by any federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)


Signed

for R. Stan Duncan
Typed or Printed Name

PBR Hawaii & Associates, Inc.
Company Name

July 19, 2013
Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions**

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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)


Signed

Steven Baldrige
Typed or Printed Name

Baldrige & Associates Structural Engineering, Inc.
Company Name

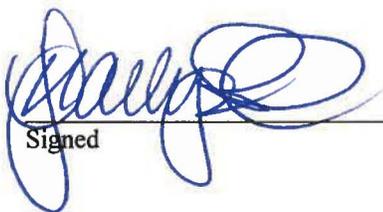
July 23, 2013
Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions**

- 1) The prospective lower tier participant (Subcontractor/Subconsultant) certifies, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in Dillingham and Kaka'ako Station Group Final Design Contract by any federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)



Signed _____

Maelyn Uyehara

Typed or Printed Name

Rider Levett Bucknall

Company Name

19 July 2013

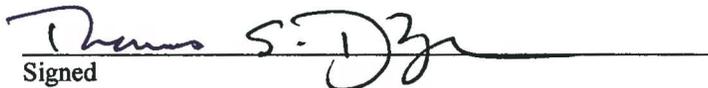
Date

EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
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- 1) The prospective lower tier participant (Subcontractor/Subconsultant) certifies, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in Dillingham and Kaka'ako Station Group Final Design Contract by any federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)


Signed

Thomas S. Dye _____
Typed or Printed Name

T. S. Dye & Colleagues, Archaeologists, Inc. ____
Company Name

7/19/13 _____
Date

EXHIBIT 7

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) **No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned,** to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) **If any funds other than Federal appropriated funds have been paid or will be paid** to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying," 61 Federal Regulations 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)].

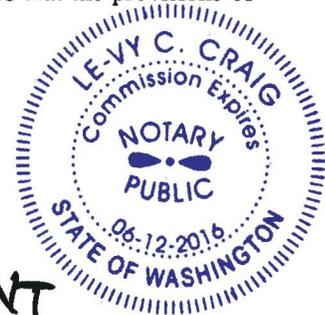
(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. §1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

The CONSULTANT, PERKINSTWILL, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: PERKINSTWILL
Signature: [Handwritten Signature]
Print Name: KAY KORNOVICH
Title: PRINCIPAL & VICE PRESIDENT
Date: 7/17/13



[Handwritten Signature] 7/17/13

NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.

EXHIBIT 8

HONOLULU RAIL TRANSIT PROJECT

**DILLINGHAM AND KAKA'AKO STATION GROUP
FINAL DESIGN CONTRACT**

FEDERAL REQUIREMENTS

Table Of Contents

1.0 General..... - 3 -

1.1 NO GOVERNMENT OBLIGATION TO THIRD PARTIES - 3 -

1.2 PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS - 3 -

1.3 ACCESS TO RECORDS AND REPORTS..... - 3 -

1.4 FEDERAL CHANGES..... - 4 -

1.5 CIVIL RIGHTS REQUIREMENTS - 4 -

1.6 DISADVANTAGED BUSINESS ENTERPRISES (DBE) - 5 -

1.7 GOVERNMENT-WIDE DEBARMENT AND SUSPENSION (NON-PROCUREMENT).. - 6 -

1.8 LOBBYING - 7 -

1.9 CLEAN AIR REQUIREMENTS..... - 7 -

1.10 CLEAN WATER REQUIREMENTS - 7 -

1.11 FLY AMERICA REQUIREMENTS..... - 7 -

1.12 ENERGY CONSERVATION REQUIREMENTS..... - 7 -

1.13 RECYCLED PRODUCTS..... - 8 -

1.14 ADA ACCESS..... - 8 -

1.15 SEISMIC SAFETY..... - 8 -

1.16 TEXT MESSAGING WHILE DRIVING..... - 8 -

1.17 SENSITIVE SECURITY INFORMATION - 9 -

1.18 INCORPORATION OF FTA TERMS - 9 -

Attachment 1.6 a) - DBE PARTICIPATION REPORT.....-10 -

Attachment 1.6 b) - FINAL REPORT DBE PARTICIPATION-11 -

INSTRUCTIONS FOR COMPLETION OF THE FINAL REPORT OF DBE PARTICIPATION.....-12 -

FEDERAL REQUIREMENTS

1.0 GENERAL

The CONTRACTOR understands that Federal laws, regulations, policies, and related administrative practices applicable to this Agreement on the date signed may be modified from time to time. The CONTRACTOR agrees that the most recent of such Federal requirements will govern the administration of the Agreement at any particular point in time, except if HART issues a written determination otherwise. To achieve compliance with changing Federal requirements, the CONTRACTOR agrees to include notice in each subcontract that Federal requirements may change and that the changed requirements will apply to the subcontract as required.

1.1 No Government Obligation to Third Parties

(a) HART and the CONTRACTOR acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Agreement, absent the express written consent by the Federal Government, the Federal Government is not a party to this Agreement and shall not be subject to any obligations or liabilities to HART, the CONTRACTOR, or any other party (whether or not a party to that Agreement) pertaining to any matter resulting from the underlying Agreement.

(b) The CONTRACTOR agrees to include the above clause in each subcontract. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

1.2 Program Fraud and False or Fraudulent Statements and Related Acts

(a) The CONTRACTOR acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 *et seq.* and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying Agreement, the CONTRACTOR certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying Agreement or the FTA assisted project for which this Agreement work is being performed. In addition to other penalties that may be applicable, the CONTRACTOR further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the CONTRACTOR to the extent the Federal Government deems appropriate.

(b) The CONTRACTOR also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a Agreement connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. Chapter 53, the Federal Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l) on the CONTRACTOR, to the extent the Federal Government deems appropriate.

(c) The CONTRACTOR shall include the above two clauses in each subcontract. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

1.3 Access to Records and Reports

(a) The CONTRACTOR shall provide HART, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and

records of the CONTRACTOR which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts and transcriptions. The CONTRACTOR shall, pursuant to 49 C.F.R. § 633.17, provide the FTA Administrator or his authorized representatives, including any Project Management Oversight Contractor, access to the CONTRACTOR's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. § 5302(a)(1), which is receiving federal financial assistance through the programs described at 49 U.S.C. §§ 5307, 5309 or 5311.

(b) The CONTRACTOR shall permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(c) The CONTRACTOR shall maintain all books, records, accounts and reports required under this Agreement for a period of not less than three years after the date of termination or expiration of this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case the CONTRACTOR shall maintain the same until HART, the FTA Administrator, the Comptroller General of the United States, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

1.4 Federal Changes

The CONTRACTOR shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between HART and the FTA, as they may be amended or promulgated from time to time during the term of this Agreement. The CONTRACTOR's failure to so comply shall constitute a material breach of this Agreement.

1.5 Civil Rights Requirements

The CONTRACTOR shall comply with the following requirements and include the following requirements in each subcontract, modified only if necessary to identify the affected parties:

(a) Nondiscrimination. In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the CONTRACTOR shall comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

(b) Equal Employment Opportunity. The following equal employment opportunity requirements apply to the underlying Agreement:

(1) Race, Color, Creed, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the CONTRACTOR shall comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Agreement Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 *et seq.*, (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The CONTRACTOR shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other

forms of compensation; and selection for training, including apprenticeship. In addition, the CONTRACTOR shall comply with any implementing requirements FTA may issue.

(2) Age. In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, the CONTRACTOR shall refrain from discrimination against present and prospective employees for reason of age. In addition, the CONTRACTOR shall comply with any implementing requirements FTA may issue.

(3) Disabilities. In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the CONTRACTOR shall comply with the requirements of the U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the CONTRACTOR shall comply with any implementing requirements FTA may issue.

(4) Access for Individuals with Disabilities. The CONTRACTOR shall comply with 49 U.S.C. § 5301(d), which states the Federal policy that elderly individuals and individuals with disabilities have the same right as other individuals to use public transportation services and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement transportation accessibility rights for elderly individuals and individuals with disabilities.

1.6 Disadvantaged Business Enterprises (DBE)

(a) DBE Assurances. The CONTRACTOR and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The CONTRACTOR shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of U.S. DOT-assisted Agreements. Failure by the CONTRACTOR to carry out these requirements is a material breach of this Agreement, which may result in termination of this Agreement or such other remedy, as HART deems appropriate.

The above paragraph shall be included in each subcontract the CONTRACTOR signs with a subcontractor.

(b) Prompt Payment. The CONTRACTOR shall pay all subcontractors (DBEs and non-DBEs) for satisfactory performance of their subcontracts no later than ten (10) days from receipt of payment by HART. Full and prompt payment by the CONTRACTOR to all subcontractors shall include retainage, if applicable.

(c) DBE Goal. HART has established an overall DBE goal of 13.00% for the duration of this agreement and a separate contract goal has not been established for this procurement. DBE firms and small businesses shall have an equal opportunity to participate in the agreement. The CONTRACTOR shall adhere to the following requirements:

(1) Take affirmative steps to use as many of the race-neutral means of achieving DBE participation identified at 49 C.F.R. § 26.51(b) as practicable to afford opportunities to DBEs to participate in the Agreement. A race-neutral measure is one that is, or can be, used to assist all small businesses.

(2) A DBE firm must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work; and

(3) A DBE firm must be certified by the Hawai'i State Department of Transportation before its participation is reportable under paragraph (d) below;

(d) Reports to HART. The CONTRACTOR shall report its DBE participation obtained through race-neutral means throughout the period of performance. The CONTRACTOR shall submit the "DBE PARTICIPATION REPORT" reflecting payments made by the CONTRACTOR to DBE subcontractors. Payments to the CONTRACTOR will not be processed if the DBE PARTICIPATION REPORT is not properly completed and attached. The DBE PARTICIPATION REPORT shall be prepared in the format set forth in ATTACHMENT 1.6 a) to this Exhibit.

(e) Records. On request, the CONTRACTOR shall make available for inspection, and assure that its subcontractors make available for inspection:

- (1) Records of prompt payments made in accordance with Section 1.6(b), above;
- (2) The names and addresses of DBE subcontractors, vendors, and suppliers under this Agreement;
- (3) The dollar amount and nature of work of each DBE subcontractor;
- (4) The social/economic disadvantaged category of the DBE firms, i.e. Black American, Hispanic American, Native American, Subcontinent Asian American, Asian Pacific American, Non-Minority Women, or Other; and
- (5) Other related materials and information.

(f) The CONTRACTOR shall promptly notify HART, whenever a DBE subcontractor performing work related to this Agreement is terminated or fails to complete its work. The CONTRACTOR shall also promptly notify HART of a DBE subcontractor's inability or unwillingness to perform and provide reasonable documentation.

1.7 Government-Wide Debarment and Suspension (Non-procurement)

(a) This Agreement is a covered transaction for purposes of 2 C.F.R. § 180.220(b) and 2 C.F.R. § 1200.220. As such, the CONTRACTOR is required to verify that none of the CONTRACTOR, its principals, as defined at 2 C.F.R. § 180.995, or affiliates, as defined at 2 C.F.R. § 180.905, are excluded or disqualified as defined at 2 C.F.R. § 180.940 and 2 C.F.R. § 180.935.

(b) The CONTRACTOR is required to comply with 2 C.F.R. 180, Subpart C, as supplemented by 2 C.F.R. 1200, Subpart C, and must include the requirement to comply with 2 C.F.R. 180, Subpart C, as supplemented by 2 C.F.R. 1200, Subpart C, in any lower tier covered transaction equal to or exceeding \$25,000 it enters into. By signing the Agreement, the CONTRACTOR certifies as follows:

The certification in this clause is a material representation of fact relied upon by HART. If it is later determined that the CONTRACTOR knowingly rendered an erroneous certification, in addition to remedies available to HART, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The CONTRACTOR agrees to comply with the requirements of 2 C.F.R. 180, Subpart C, as supplemented by 2 C.F.R. 1200, Subpart C, throughout the Agreement period. The CONTRACTOR further agrees to include a provision requiring such compliance in its lower tier covered transactions equal to or exceeding \$25,000.

1.8 Lobbying

The "CERTIFICATION REGARDING LOBBYING," as executed by the CONTRACTOR in Exhibit 7 of the Special Provisions is incorporated herein by reference. The CONTRACTOR and its subcontractors at every tier shall comply with U.S. DOT regulations, "New Restrictions on Lobbying," 49 C.F.R. Part 20, modified as necessary by 31 U.S.C. § 1352, which requires that no Federal appropriated funds shall be used to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal Agreement, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal Agreement, grant, or award covered by 31 U.S.C. § 1352. Such disclosures are forwarded from tier to tier up to HART.

1.9 Clean Air Requirements

(a) The CONTRACTOR shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The CONTRACTOR shall report each violation to HART and understands and agrees that HART will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.

(b) The CONTRACTOR shall include the above clause in each subcontract exceeding \$100,000.

1.10 Clean Water Requirements

(a) The CONTRACTOR shall comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 et seq. The CONTRACTOR shall report each violation to HART and understands and agrees that HART will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.

(b) The CONTRACTOR shall include the above clause in each subcontract exceeding \$100,000.

1.11 Fly America Requirements

(a) The CONTRACTOR shall comply with 49 U.S.C. § 40118 (the "Fly America Act") in accordance with the General Services Administration's regulations at 41 C.F.R. Parts 301-10, which provide that HART and sub-recipients of Federal funds and their consultants are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The CONTRACTOR shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements.

(b) The CONTRACTOR shall include the requirements of this section in all subcontracts that may involve international air transportation.

1.12 Energy Conservation Requirements

(a) The CONTRACTOR shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

(b) The CONTRACTOR shall include the above clause in each subcontract at every tier. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to the provisions.

1.13 Recycled Products

The CONTRACTOR agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act as amended (42 U.S.C. § 6962), including but not limited to the regulatory provisions of 40 C.F.R. Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 C.F.R. Part 247.

1.14 ADA Access

The CONTRACTOR shall comply with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 et seq., which requires that accessible facilities and services be made available to individuals with disabilities; and with the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to individuals with disabilities, and any subsequent amendments to these laws. In addition, the CONTRACTOR agrees to comply with all applicable implementing Federal regulations and directives and any subsequent amendments thereto.

1.15 Seismic Safety

The CONTRACTOR shall ensure that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in the U.S. Department of Transportation's Seismic Safety Regulations (49 C.F.R. Part 41) and shall certify to compliance to the extent required by the regulation. The CONTRACTOR also agrees to ensure that all work performed under this Agreement including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the Project.

1.16 Text Messaging While Driving

In accordance with Executive Order No. 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, 23 U.S.C.A. § 402 note, and DOT Order 3902.10, Text Messaging While December 30, 2009, the CONTRACTOR is encouraged to comply with the terms of the following:

(a) Definitions.

(1) "Driving" means operating a motor vehicle on a roadway, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise. "Driving" does not include being in your vehicle (with or without the motor running) in a location off the roadway where it is safe and legal to remain stationary.

(2) "Text Messaging" means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include the use of a cell phone or other electronic device for the limited purpose of entering a telephone number to make an outgoing call or answer an incoming call, unless the practice is prohibited by State or local law.

(b) Safety. The CONTRACTOR is encouraged to:

(1) Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving:

(i) CONTRACTOR-owned or CONTRACTOR-rented vehicles or Government-owned, leased or rented vehicles;

(ii) Privately-owned vehicles when on official Project related business or when performing any work for or on behalf of the Project; or

(iii) Any vehicle, on or off duty, and using an employer supplied electronic device.

(2) Conduct workplace safety initiatives in a manner commensurate with the CONTRACTOR's size, such as:

(i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

(ii) Education, awareness, and other outreach to employees about the safety risks associated with text messaging while driving.

(3) Include this Special Provision in its subagreements with its subrecipients and third party contracts and also encourage its subrecipients, lessees, and third party contractors to comply with the terms of this Special Provision and include this clause in each subagreement, lease, and subcontract at each tier financed with Federal assistance provided by the Federal Government.

1.17 Sensitive Security Information

The CONTRACTOR, as a third party contractor must protect, and take measures to ensure that its subcontractors at each tier protect, "sensitive security information" made available during the administration of a third party contract or subcontract to ensure compliance with 49 U.S.C. § 40119(b) and implementing U.S. DOT regulations, "Protection of Sensitive Security Information," 49 C.F.R. Part 15, and with 49 U.S.C. § 114(r) and implementing Department of Homeland Security regulations, "Protection of Sensitive Security Information," 49 C.F.R. Part 1520.

1.18 Incorporation of FTA Terms

(a) The Special Provisions include, in part, certain Standard Terms and Conditions required by the U.S. DOT, whether or not expressly set forth in the preceding provisions. All contractual provisions required by the U.S. DOT, as set forth in FTA Circular 4220.1F are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The CONTRACTOR shall not perform any act, fail to perform any act, or refuse to comply with any HART requests which would cause HART to be in violation of the FTA terms and conditions.

(b) The CONTRACTOR shall include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

ATTACHMENT 1.6 a) – DBE PARTICIPATION REPORT

DBE PARTICIPATION REPORT				
This report shall be submitted with each invoice as a condition of payment under this Contract.				
Project Name:				
Contract No:		Consultant Name:		
Federal ID No.: (OWP WE #, FTA Grant #, FHWA Project #)		Contract Amount (including amendments):	\$	
Period Covered By This Report:	Current (Invoice # _____)		Total to Date	
Total Invoice Amount	(A) \$		(B) \$	
Payment Requested:	DBE? (Yes/No) DBE Code (if "Yes")	Prior Amount*	Current Amount*	Total Amount to Date*
Prime Consultant		\$	\$	\$
Subcontractors (attach additional sheets as needed):				
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
TOTALS		\$	\$	(C) \$
DBE Participation to Date (C/B)	%			

****Insert dollar amounts for DBEs only***

ATTACHMENT 1.6 b) - FINAL REPORT OF DBE PARTICIPATION

This report must be submitted by the Contractor with the final invoice or request for payment under this contract.

Project Title: _____

Contractor Name: _____

Project No.: _____ Contract No.: _____

Period Covered by this Report: _____

Contract Amount (including amendments): \$ _____

Final Payment Amount: \$ _____ Invoice No.: _____

Total Payment to DBE: \$ _____

All Subcontractors (DBE and non-DBE) & DBE Suppliers or Manufacturers	Type of Service or Materials Provided	Subcontract Amount
Name Address Telephone No.		

Add additional sheets as necessary.

Signature

Print Name & Title

**ATTACHMENT 1.6 b) - INSTRUCTIONS FOR COMPLETING THE
FINAL REPORT OF DBE PARTICIPATION**

All subcontractors, suppliers and manufacturers should be listed on the FINAL REPORT OF DBE PARTICIPATION in the same order as listed in the proposal.

Project Title:	Self Explanatory
Project No.:	Self Explanatory
Period Covered by this Report:	Same period as invoice period
Consultant Name:	Self-Explanatory
Contractor No:	Self-Explanatory
Contract Amount (including amendments):	Less Mobilization, Force Account Items and Allowance Items Amendments should be listed separately with an explanation of how it was allocated to DBEs and non-DBEs
Invoice No.:	Self-Explanatory
Final Payment Amount:	Self-Explanatory
Total Payment to DBE	Total \$ amount paid to DBE