**STATE OF HAWAII**
**DEPARTMENT OF TRANSPORTATION**
**HIGHWAYS DIVISION**

**ADDENDUM NO. 3**

**for**

**PAVEMENT REPAIRS AT VARIOUS LOCATIONS**
**ISLAND OF HAWAII**
**PROJECT NO. HWY-H-01-18M**

The following amendments shall be made to the Bid Documents:

**A. TABLE OF CONTENTS**

Remove and replace the TABLE OF CONTENTS with the attached TABLE OF CONTENTS dated r3/7/18.

**B. SPECIAL PROVISIONS**

Remove and replace SECTION 621 with the attached SECTION 621 dated r3/7/18.

**C. PROPOSAL SCHEDULE**

Remove and replace PROPOSAL SCHEDULE pages P-11 to P-22 with the attached PROPOSAL SCHEDULE pages P-11 to P-22 dated r3/7/18.

Please acknowledge receipt of this Addendum No. 3 by recording the date of its receipt in the space provided on page P-4 of the Proposal.

JADE T. BUTAY
Director of Transportation

## TABLE OF CONTENTS

**END OF TABLE OF CONTENTS**

Make this Section a part of the Standard Specifications:

## "SECTION 621 – ENHANCED VEHICLE CLASSIFICATION TRAFFIC COUNTING SYSTEM

**621.01 Description.** The work includes furnishing labor, materials, tools, machinery, and equipment to repair any damages to the existing Enhanced Vehicular Classification (EVC) traffic counting system due to the paving work. The Contractor shall make repairs to the damaged system as ordered by the Engineer, including the following:

**(A)** Provide necessary provisions for traffic counting operations by installing and testing piezoelectric sensors, vehicle detector loops, installing conduit, cable wiring, providing electrical connections, warning sign and system integration and testing according to the contract.

**(B)** Provide underground conduit systems including trenching, structural excavation, furnish and install pull boxes, backfilling and restoration work.

**(C)** Conduct required testing for the vehicle detector loops and piezo sensors. Submit for acceptance test procedures and criteria for acceptance test results to the Engineer. Notify the Engineer a minimum of one week before the date scheduled for testing.

**(D)** Coordinate and arrange for inspection of work with the Engineer. Arrange for a representative from piezo sensor's manufacturer to supervise installation of piezo sensors.

**(E)** Turn over to the Engineer a complete and operating vehicle counting system according to the contract.

Furnish and install incidental parts necessary to complete the vehicular counting and classification system as though such parts were in the contract.

Electrical equipment shall conform to the NEMA Standards and this contract. Materials and workmanship shall conform to "National Electric Code", (the code); General Order Nos. 6, and 10 of the Hawaii Public Utilities Commission; ASTM standards; the ANSI and applicable revisions for all the above codes and standards and local ordinances that may apply.

**621.02 Materials.**

**(A) Enhanced Vehicular Classification (EVC) Traffic Counting System.** The EVC system is intended to count vehicle volume and

perform vehicle classification, including but not, limited to the 13 FHWA vehicle types, and data for environmental impact analysis per FHWA requirements.

**(1) General Requirements.** Install EVC system in each lane at the system's existing location. The EVC system contains a set of piezoelectric sensors and magnetic loop detectors. The EVC system will be used to classify the number of axles in accordance with FHWA requirements.

The EVC system shall also be capable of monitoring traffic volume data using one or more magnetic induction vehicle detector loops. Such loops shall be installed as called for in the submitted plans.

**(2) EVC System Components.** Installation and setup per manufacturer's recommendation for all sensors, lead-in cables, and related components.

**(a) Traffic Classification Data System Requirements.**

**1. In-Road Piezo and Classification Sensor System.** A Piezo Sensor System is the type of classification sensor system required for this project.

**(i)** The piezo sensors shall have an operating life of a minimum of one year from the date of acceptance. Sensor failure during this period shall require replacement of the faulty unit at the Contractor's expense for furnishing, delivering and installing the replacement equipment, system, and components including any traffic control measures required for the safe installation of the replacement sensor.

**(ii)** Install piezo sensors under the supervision of the manufacturer's representative for the Piezo system. All necessary components, process, system modifications, and installation requirements shall be provided as incidentals to the system.

**(iii)** Piezo Sensor System: The following are requirements for the Piezoelectric Sensor system:

**a)** Configuration: Install piezoelectric sensors in the roadway for each lane in both traffic directions.

**b)** Class 1 BL unencapsulated piezo-electric sensors must be supplied complete with custom length lead-in coaxial cable with pre-made termination connectors. The sensor design and installation technique must have been proven reliable in conditions (soil and environmental), similar to those in Hawaii.

**c)** Piezo Sensor shall be Class I Weigh in Motion Sensor, 12-foot length (or based on actual roadway width), complete with coaxial lead cable (non-spliced). The sensor shall have 16 gauge flat braided silver plated copper wire center core with highly compressed piezoelectric copolymer P(VDF-TrFE) and outer sheath of 0.16-inch thick brass meeting CDA-260 and ASTM B87-88 requirements. The sensor shall be approximately 0.26-inches wide with a maximum thickness of 0.063-inches (plus/minus 0.05 inches). Insulation resistance between core and shield shall be greater than 500M ohms. Piezoelectric coefficient shall be greater or equal to 20 pC/N nominal.

**1)** Embed piezo sensors in a grout with clips for mounting at six inch intervals. The sensors shall be of the type suitable for the application. Install piezo lead-in cables and piezo sensors in slots cut in the road surface, approximately 3/4-inch wide by two inches deep and provide supporting clips at six inch centers.

**2)** Lay sensor in a groove at one inch below the surface of the roadway or as recommended by the manufacturer. Secure sensor in

place along the entire length of the sensor in the slot by quick setting grout clips.

**3)** Sensor shall be manufactured to produce uniform, high amplitude piezoelectric output with signal to noise ratio of 10:1 minimum.

**4)** Groove shall be constructed in strict accordance with specifications of the manufacturer. Install sensor straight and flat in groove.

**5)** Epoxy fill voids of the groove. The epoxy grout fill shall be prepared in accordance with the manufacturer's instructions, and shall result in a concave finish approximately 1/16-inch above the surface of pavement or as shown on the plans. The grout curing requirements of the manufacturer shall be complied with and traffic loading shall not be permitted until the grout is fully cured.

**6)** Passive signal cable shall be RG 58 rated for underground direct burial, with outer jacket of 0.187-inch outside diameter and nominal capacitance of 27 pF/Ft, with factory termination to sensor and BNC connector. Each cable shall have field measured custom length to suit the installation conditions. In the event that the cables provided have insufficient length to reach the equipment harness inside the cabinet, the cables shall be rejected and splicing to lengthen the cable will not be allowed.

**7)** Install sensor in clean saw cut grooves in strict conformance to the

sensor manufacturer's installation requirements.

**8)** Hot tar shall not be used. Installation of encapsulating material shall be allowed to cure and shall be ground flat.

**9)** Do not allow traffic on the completed system until the manufacturer's representative approves all conditions of the installation with the acceptance by the Engineer. Thereafter, testing in accordance with the manufacturer's requirements shall be completed before public traffic is allowed.

**10)** Grooves shall be made by wet cutting. Dry cutting shall not be allowed.

**11)** Overall length of the passive cable shall be 300-feet maximum or as required. Provide loop of five feet in handhole for each cable.

**12)** In the event that heating of the encapsulating material is allowed by the Engineer, the temperature of the material shall not be allowed to exceed 170 degrees F. In the event that the temperature exceeds the maximum allowed, the entire sensor system installed shall be replaced.

**13)** Provide adequate power for all test equipment to meet the detailed and specific requirements of the manufacturer for all tests required for certification and acceptance. Provide all necessary equipment to perform the required tests.

**d)** One 12-foot piezoelectric sensors (or as determined by the Engineer) must be supplied for each lane for both directions.

**e)** The sensors shall be able to withstand at least one million cycles and interface with the counting equipment to perform the above mentioned, applications.

**f)** The sensors shall include all mounting hardware and installation grout. The supplied installation grout must be suitable for installation in both asphalt and Portland cement pavements. The installation grout must require no special equipment to facilitate installation. The grout must have a short curing time (less than 75 minutes) to minimize lane closure time. The grout should be of sufficient consistency to prevent "running" when being applied on road surfaces with a drainage cross-slope. Particulate matter within the grout must not separate or settle. The grout must not shrink during the curing process.

**(iv)** Sensor (inductive) loops shall be furnished and installed in each traffic lane, to measure speed and length of vehicles and also to classify vehicles in conjunction with the axle detectors.

**(v)** If the number and configuration of the in-roadway sensors, and sensor loops, need to be modified from the number and configuration shown in the field, the Contractor shall inform the State at the time of submitting the proposal, or earlier, and submit Shop Drawings of the revised configuration for approval.

**(vi)** Grout and Epoxy. The sensor manufacturer must approve and the Engineer must accept all grout and epoxy used for the sensor installation.

**(b) Vehicle Inductive Loops.** Install two vehicle inductive loops per lane for measuring volume, speed and vehicle length. The inductive loops shall be completely tested prior to shipment with no splices and ready to install. (Note: The lead-in wire(s) for the new inductive loops can be spliced (soldered connection/waterproof insulation) to an existing lead-in wires at the existing or new pull box. Ensure sufficient wire lengths for the piezo sensors must be provided to be able to connect wires into the terminal block inside cabinet without splices. HDOT or its representative will make the final connection into the terminal block inside the cabinet, however, the Contractor shall label the wires clearly to identify traffic direction, lane number, and sequence of loops and piezo sensors in each lane per direction).

Each loop and its two lead-in-wires, shall be one continuous piece of #14 AWG, 19 strand bare copper, IMSA 51- conforming to the requirements of ASTM B-3 as manufactured by Berkshire Electric Cable Company or approved equal. The loop cable shall be continuous within the roadway. The loop itself includes four turns of wire of a size, as specified in the contract. Do not twist lead-in-wires from one loop pair with another loop pair.

Embed loop and lead-in-wires in a 3/8-inch minimum width saw-cut in the pavement. Saw cut depth to the top layer of wire shall be at least two inches deep. The saw cut groove shall be air blown to remove debris before installing the loop cable. Fill the saw cut groove with approved epoxy sealer. Install Vehicle Detector Loops such that they are centered in the lane relative to the final lane stripping. Replace loops not centered in each lane relative to the final lane stripping at no additional cost to the State.

**(c) EVC Controller Cabinet.** The new EVC controller cabinet shall house all required communications and control equipment necessary to control the EVC System and to remotely communicate with the Department of Transportation, Highways Division, Planning Branch via modem.

The EVC controller cabinet shall consist of a ground-mounted cabinet similar to a CALTRANS Model 332 Controller Cabinet or approved equal capable of housing and mounting the data collection unit.

Each 332 Cabinet shall meet the following additional requirements:

**1.** Cabinets fabricated from 0.125 anodized Aluminum.

**2.** Cabinet's Main Breakers shall be rated as 50 amps.

**3.** Front and back fluorescent lights activated upon opening any door.

**4.** Convenience GFI Receptacles.

**5.** Door locks of solid brass rim Best Lock Series 516RL3XA7559-606 including two keys.

**6.** Labeling by Silk-Screening only.

**7.** Attach one each 24 inch x 36 inch Cabinet Print in a weatherproof plastic jacket to front and back cabinet doors.

**8.** The cabinet shall be painted with an "anti-graffiti" type paint in conformance with Section 708 - Paints of the Standard Specifications.

Internal wiring shall be modified to meet the functional needs of the EVC System.

**(d) Electrical Conductors** shall be as follows:

**1.** Type 1 Home-Run Cable Tie in Loop Detector Stubs to the Cabinet. Polyethylene insulated, Stranded-Tinned-Copper14 AWG; 2 Conductor Cable; Stranded Tinned-Copper Drain Wire; Aluminum - Polyester Shielded; Polyethylene Jacketed; 600 Volts Rated; IMSA Spec. 50-2 Certified.

**2.** Type 2 Detector-Loop Cable for installation into the roadway sawcut; 12 AWG Stranded THHN; 600 Volts; inserted into a Polyethylene Tube, 0.25 inch max. diameter IMSA Spec 51-5 Certified.

Cable inclusive in the Detector Loop Bid.

**3.** The remaining cables required for the installation of the EVC station shall be as required by the manufacturer's requirements and recommendations.

**(e) Excavation Warning Signs.** The Contractor shall furnish and install two warning signs and appropriate mountings on each side of the roadway adjacent to the sensor lead-in cable runs or as close as possible. Signs and mountings shall conform to the requirements of Section 750.01 (Signs) of the Standard Specifications and Standard Plan TE-01. Signs shall be a minimum of 12 inches by 18 inches. Sign text shall read as follows:

WARNING
BURIED TRAFFIC SIGNAL LINES
NOTIFY HWY-PLANNING BRANCH AT
(808) 587-6352 BEFORE DIGGING/EXCAVATION

The first line of text shall be a minimum of two inches in height. Subsequent lines of text shall be one inch in height. No border is necessary, but a margin of 1/4 inch shall be maintained. For the letters and background, use black and yellow paints, respectively. The first line of text shall be centered. Subsequent lines shall also be centered, however, the Contractor shall have the option to more the wording within these lines to allow for best fit. Furnishing warning signs, mountings, and installation shall be incidental to the Contract.

**(B) Other Materials.** Concrete shall conform to the requirements of Section 601 - Structural Concrete. Other materials shall meet the requirements specified in the following:

| | |
|---|---|
| Trench Backfill Material | Subsection 703.21 |
| Conduits | Subsection 712.27 |
| Concrete Pull Box | Subsection 712.06(B) |
| Conductors and Cables | Subsection 770.06 |

**621.03 Construction Requirements.**

**(A) Equipment List and Drawings.** Submit the equipment list and drawings to the Engineer for acceptance.

**(B) Excavation and Backfill.** Excavation and backfill shall conform to Section 204 - Excavation and Backfill for Miscellaneous Facilities. Place the material from the excavation to prevent damage and obstruction to vehicular and pedestrian traffic and interference with surface drainage.

**(C) Installation.**

**(1)** Provide supervision for the EVC installation and testing of the entire EVC system.

**(a)** Install piezo (EVC) sensors under supervision of EVC system Contractor.

**(b)** Provide other work necessary such that the completed sensors are ready for HDOT's use.

**(2) Vehicle Detectors.** Install vehicle inductive loops as ordered by the Engineer and as required by the EVC system Contractor, or as recommended by the manufacturer.

**(3) Conduits.** Conduits, if any, shall be direct burial and concrete encased as shown in the contract. Conduits shall be PVC, Schedule 80.

Install the ducts to drain towards either one or both pullboxes. Conduits shall not drain towards the EVC Controller cabinet.

Intake directional changes in the conduits, such as bends and changes to clear obstructions with curved segments using accepted deflection couplings or with short lengths of straight ducts and couplings. The deflection angle between two adjacent lengths of ducts shall not exceed six degrees (6°). The bends shall not have a radius of less than 12 times the nominal size of the conduit. The Contractor may use factory-made ells.

Square and trim the ends after cutting to remove rough edges. The connections shall be of the solvent weld type. Make the solvent weld joints according to the conduit manufacturer's recommendations and as accepted.

Seal the ends of the duct with plugs at the end of each day of work, whenever problems interrupt the duct installation work and whenever ducts are subject to submergence in water.

Keep the conduits clean during construction.

Use only hand shovels in compacting concrete encasements. Cure the concrete for at least 72 hours before permitting vehicular traffic to run over the concrete.

Provide each conduit run with a No. 10 gage flexible, zinc coated pull wire extending through its entire length. Double an additional two feet back into the conduit at each end of the run. Conduits and sleeves entering pullboxes shall end flush in the wall with ends ground smooth. Plug the conduits and sleeves temporarily.

Give the exterior portions of the direct burial steel conduits not encased in concrete two coats of asphaltic base paint.

The entire length of a conduit run between pullboxes or standards shall be of one type of material.

The completed duct lines shall be subject to a field test. Pass a bullet-shaped test mandrel about 14 inches long with a diameter 0.5 inch less than the inside diameter of the ducts through the entire length of each duct run. The Engineer will consider scouring found on the mandrel deeper than one thirty-seconds inch an indication of burrs and/or obstructions in the duct run. Normal abrasion between the duct line and bottom of mandrel is not an indication of burrs and/or obstructions in the duct run. Remove such burrs and/or obstructions. Pass the test mandrel through again. Repeat the process until the Contractor gets a satisfactory result.

**(D) Electrical Service.** Electric power shall be 120 volts, 60 cycles. Install the service underground in a steel conduit of the size shown in the contract from the local power company's pole to the controller.

Furnish and install service connections such as conduits, weatherhead, wires and meter loop, and comply with the power company's requirement for electrical service. The cost of service connections shall be the responsibility of the contractor.

**(E) Inspection and Testing.**

**(1) Preliminary Arrangements.** The equipment shall be given requisite factory tests as necessary to determine that the workmanship and materials are free from defects and to establish that the design and construction are satisfactory.

Arrange for and conduct shop tests of the equipment to establish compliance of the contract documents and all applicable codes and standards. Furnish certified reports showing the results of all such tests. Test facilities shall be subject to prior inspection by the Engineer. Notify the Engineer at least 21 calendar days before the scheduled start of a test so that the Engineer may elect to witness any or all such tests. Furnish protection of equipment to prevent damage during the test period. All repair or replacement costs of any item damaged as a result directly or indirectly of the test will be at no cost to the State.

Unless otherwise noted in the contract documents, shop testing and inspection of the components or the complete system shall be in accordance with the Contractor's standard practice. Supply a list of all Contractor's standard testing with the equipment submittal. The Engineer shall not be charged for any of the preliminary testing.

**(2) Inspection.** The Engineer reserves the right to inspect all material during fabrication and before shipment and shall have access to the manufacturer's or Contractor's plant as required.

**(3) Tests.**

**(a)** After installation of piezo sensors, perform and furnish written test results for each piezo sensor showing:

**1)** Resistance: The resistance should be at least one MegaOhm.

**2)** Capacitance: The capacitance should range from five to 20 nano Farads.

**3)** Dissipation Factor: The reading should be less than 0.04.

Provide all testing equipment such as BK 875A or equivalent LCR meter, Fluke 75 or higher/equivalent multimeter, Megohmeter, and Scope meter or oscilloscope for the above tests.

**(b)** After the installation of the inductive loop detectors, furnish written test results for each loop sensor showing:

**1)** Induced voltage (V)

**2)** f = Frequency of Loop (KHz)

**3)** L = Inductance of Loop (uH)

**4)** R = Resistance of Loop (Ohm)

**5)** Meg Test = Loop insulation resistance should be > 100M ohm

Correct any defects discovered as a result of the Static tests at no additional cost to the State.

**(4) Acceptance of EVC System.**

**(a)** The EVC system shall not be accepted and payment shall not be made until the system has successfully met the required testing.

**(b) Inspection.** The Owner reserves the right to inspect all material during fabrication and before shipment and shall have access to the manufacturer's or Contractor's plant as required.

**(5) Restoring Pavements and Other Improvements.** Restore the existing pavements and other improvements disturbed by excavation to their original condition according to the contract. Materials used for restoration work shall meet specifications match thickness, texture, and color whenever applicable. The grades of the restored surfaces shall match the existing grades.

**(6) Warranty.** Materials and equipment installed for permanent construction shall be new. Use first-class material and equipment throughout the performance of the contract.

Secure from the manufacturer(s), a warranty or warranties guaranteeing equipment from defects in materials, design and workmanship for not less than 12 months from the date of acceptance.

When requiring adjustments or repairs during the warranty period, adjust or repair the existing unit within 24 hours from the time of notification.

When requiring repairs that need factory corrections during the warranty period, replace the existing unit with an accepted temporary operational replacement unit within 24 hours from the time of notification until the Contractor can install the new unit. Install the new, identical non-defective unit within 30 days from the time of notification.

**621.04 Measurement.** The Engineer will measure the new Vehicular Counting and Classification System Sensor Replacement, if ordered by the Engineer, on a force account basis, in accordance with Subsection 109.06 – Force Account Provisions and Compensation.

**621.05 Basis of Payment.** The Engineer will pay for the accepted Vehicular Counting and Classification System Sensor Replacement at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for the following pay item when included in the proposal schedule:

| **Pay Item** | **Pay Unit** |
|---|---|
| Vehicular Counting and Classification System Sensor Replacement | Force Account" |

**END OF SECTION 621**

| PROPOSAL SCHEDULE – AREA 1 (EAST SIDE) | | | | | |
|---|---|---|---|---|---|
| ITEM NO. | ITEM | APPROX. QUANTITY | UNIT | UNIT PRICE | AMOUNT |
| 401.0100 | HMA Pavement, Mix No. V Leveling | 500 | Ton | $ _____ | $_____ |
| 401.0300 | 1-1/2 Inch HMA Pavement Overlay, Mix No. IV | 3,600 | Ton | $ _____ | $_____ |
| 401.0410 | 1-1/2 Inch HMA Pavement, Mix No. IV | 30,000 | SY | $ _____ | $_____ |
| 401.0420 | 2 Inch HMA Pavement, Mix No. IV | 30,000 | SY | $ _____ | $_____ |
| 401.0510 | 3 Inch HMA Pavement, Mix No. IV | 30,000 | SY | $ _____ | $_____ |
| 401.0610 | 4 Inch HMA Pavement, Mix No. IV | 10,000 | SY | $ _____ | $_____ |
| 401.0700 | Overtime Labor Premium | F.A. | F.A. | F.A. | $ 5,000.00 |
| 414.0110 | Reconstruction of Weakened Pavement Areas | 10,000 | SY | $ _____ | $_____ |
| 416.0150 | Scarify Existing Pavement | 30,000 | SY | $ _____ | $_____ |
| 417.1000 | Cut Cores in Existing Pavement | 5 | EA | $ _____ | $_____ |
| 604.0100 | Adjusting Manhole Cast Iron Frame and Cover | 20 | EA | $ _____ | $_____ |
| 621.0100 | Vehicular Counting and Classification System Sensor Replacement | F.A. | F.A. | F.A. | $ 15,000.00 |
| 623.0100 | Loop Detector Sensing Unit | 5 | EA | $ _____ | $_____ |

| PROPOSAL SCHEDULE – AREA 1 (EAST SIDE) | | | | | |
|---|---|---|---|---|---|
| **ITEM NO.** | **ITEM** | **APPROX. QUANTITY** | **UNIT** | **UNIT PRICE** | **AMOUNT** |
| 645.1000 | Electronic Message Board (per day) | 2 | EA | $ _____ | $_____ |
| | Sum of All Items (Area 1 – East Side)..... | | | | $ _____ |
| NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid. | | | | | |

# PREFERENCES FOR AREA 2

Bidders agree that preferences shall be taken into consideration to determine the low bidder in accordance with said Sections and the rules promulgated, however, the award of contract will be in the amount of the bid offered exclusive of any preferences.

## A. HAWAII PRODUCTS PREFERENCE

It is understood that certain Hawaii Products may be acceptable for use in this project and that, pursuant to Sections 103D-1002, HRS, which provides preference for Hawaii Products, a bidder proposing to use such Hawaii products shall so designate in the schedule provided below.

If a bidder proposes to use Hawaii Products, the bidder must so designate in said schedule by entering the cost of such product in the appropriate space provided. Failure on the part of the bidder to designate the use of Hawaii products will automatically void any preference for that product.

Persons desiring to qualify product(s) not currently on the list, shall complete form SPO-38, *Certification for Hawaii Product Preference* in accordance with the Special Provisions of these specifications.

It is understood by the bidder that if the bidder elects to furnish qualified Hawaii Products, and is awarded the contract, then fails to use such products or meet the requirements of such preference, the bidder shall be subject to the statutory penalties, provided in Section 103D-1002, Hawaii Revised Statute, and such other remedies as may be available to the State.

**( ) Yes, I propose to use Hawaii Products and claim the Hawaii Products Preference. I have filled in the table on the following pages as applicable.**

## B. APPRENTICESHIP PROGRAMS PREFERENCE

In accordance with ACT 17, SLH 2009 – Apprenticeship Program, a 5% bid adjustment for bidders that are parties to apprenticeship agreements pursuant to Hawaii Revised Statutes (HRS) Section 103-55.6 may be applied to the bidder's price for evaluation purposes

Any bidder seeking this preference must be a party to an apprenticeship agreement registered with the Department of Labor and Industrial Relations at the time the offer is made for each apprenticeable trade the bidder will employ to construct the public works projects for which the offer is being made.

The bidder is responsible for complying with all submission requirements for registration of its apprenticeship program before requesting the preference.

**( ) Yes, I wish to be considered for the Apprenticeship Programs Preference. I have included Certification Form(s) 1 with my bid.**

## C. RECYCLED PRODUCT PREFERENCE

Recycled product preference shall not apply to this proposal.

## DESIGNATION OF APPROVED HAWAII PRODUCTS* TO BE USED
### *CONSTRUCTION PRODUCTS AND SOIL AMENDMENTS/PRODUCTS

| Product Category | Product Subcategory as applicable | Manufacturer | Cost FOB Jobsite, Unloaded Including Applicable General Excise & Use Taxes (a) | 10% (b) | Credit (a) x (b) |
|---|---|---|---|---|---|
| Aggregates – Basaltic Termite Barrier | | Ameron International Corporation (Oahu)(Maui) | $ | | $ |
| | | Pohaku Pa'a dba HC&D LLC (Oahu) | $ | | $ |
| Aggregates and Sand – Basalt, Rock, Cinder, Limestone and Coral | | Ameron International Corporation (Oahu)(Maui) | $ | | $ |
| | | CTS Earthmoving, Inc. (Hawaii) | $ | | $ |
| | | Delta Construction Corporation (Oahu) | $ | | $ |
| | | Edwin Deluz Trucking & Gravel LLC (Hawaii) | $ | | $ |
| | | Goodfellow Bros, Inc. (All Islands) | $ | | $ |
| | | Grace Pacific (Oahu) (Hawaii) (Kauai) | $ | | $ |
| | | GW Construction (Hawaii) | $ | | $ |
| | | Hawaiian Cement (Oahu) (Maui) | $ | | $ |
| | | Jas. W. Glover, Ltd. (Hawaii) (Kauai) | $ | | $ |
| | | Kauai Aggregates (Kauai) | $ | | $ |
| | | Pohaku Pa'a LLC dba HC&D LLC (Oahu) (Maui) | $ | | $ |
| | | Puna Rock Co., LTD. (Hawaii) | $ | | $ |
| | | Sanford's Service Center, Inc. (Hawaii) | $ | | $ |
| | | Sphere, LLC (Oahu) | $ | | $ |
| | | Tileco, Inc. (Oahu) (Hawaii) (Maui) (Kauai) | $ | | $ |
| | | Tri-L Construction, Inc. (Molokai) | $ | | $ |
| | | West Hawaii Concrete (Hawaii) | $ | | $ |
| | | Yamada and Sons, Inc. (Hawaii) | $ | | $ |
| Aggregates – Recycled Asphalt and Concrete | | Glover Honsador (Kauai) | $ | | $ |
| | | Grace Pacific (Oahu) | $ | | $ |
| | | Jas. W. Glover, Ltd. (Hawaii) (Oahu) | $ | | $ |
| | | West Oahu Aggregate Co. Inc. (Oahu) | $ | | $ |

| | | | | | |
|---|---|---|---|---|---|
| Asphalt and Paving Materials | | Ala Imua LLC (Oahu) | $ | | $ |
| | | Black Maui Rose LLC (Maui) | $ | | $ |
| | | Black Plumeria LLC (Oahu) | $ | | $ |
| | | GP Roadway Solutions, Inc. (All Islands) | $ | | $ |
| | | Grace Pacific Corporation (Hawaii) (Oahu) (Kauai) | $ | | $ |
| | | Halawa Asphalt LLC (Oahu) | $ | | $ |
| | | Jas. W. Glover, Ltd. (Hawaii) (Kauai) | $ | | $ |
| | | Maui Asphalt X-IV, LLC (Maui) (Molokai) | $ | | $ |
| | | Maui Paving LLC (Maui) (Molokai) | $ | | $ |
| | | Road and Highway Builders (Oahu) | $ | | $ |
| | | Walker-Moody Pavement Products & Equipment (All Islands) | $ | | $ |
| | | Yamada and Sons, Inc. dba YS Rock and Con-Agg of Hawaii (Hawaii) | $ | | $ |
| Cement and Concrete Products | | Ameron International Corporation (Oahu) (Maui) | $ | | $ |
| | | BOMAT, Ltd. (All Islands) | $ | | $ |
| | | Glover Honsador (Kauai) | $ | | $ |
| | | Hawaiian Cement (Oahu)(Maui) | $ | | $ |
| | | Island Ready Mix Concrete, Inc. (Oahu) | $ | | $ |
| | | Jas. W. Glover, Ltd. (Hawaii)(Kauai) | $ | | $ |
| | | Jensen Enterprises (All Islands) | $ | | $ |
| | | Kiewit Infrastructure West Co. (Oahu) | $ | | $ |
| | | Kohala Coast Concrete & Precast LLC (Hawaii) | $ | | $ |
| | | Pohaku Pa'a LLC dba HC&D LLC (Oahu) (Maui) | $ | | $ |
| | | Road and Highway Builders, LLC (Oahu) | $ | | $ |
| | | Tri-L Construction, Inc. (Molokai) | $ | | $ |
| | | O. Thronas, Inc. (Kauai) | $ | | $ |
| | | Tileco, Inc. (Oahu)(Hawaii)(Maui)(Kauai) | $ | | $ |
| | | West Hawaii Concrete (Hawaii) | $ | | $ |
| | | Yamada and Sons, Inc. (Hawaii) | $ | | $ |

| | | | | | |
|---|---|---|---|---|---|
| Precast Concrete Products | | Aloha Precast, Inc.<br>(All Islands) | $ | | $ |
| | | Ameron International Corporation<br>(Oahu) | $ | | $ |
| | | GPRM Prestress LLC<br>(All Islands) | $ | | $ |
| | | Hawaii Concrete Products, Inc.<br>(Oahu) | $ | | $ |
| | | Hawaii Precast, Inc.<br>(All Islands) | $ | | $ |
| | | Kohala Coast Concrete & Precast LLC<br>(Hawaii) | $ | | $ |
| | | Ramtek Fabrication Co., Inc.<br>(All Islands) | $ | | $ |
| | | Walker Industries, Ltd.<br>(Oahu)(Hawaii)(Maui)(Kauai) | $ | | $ |
| Environmental Sewage – Treatment Innovative System (ESIS) | | Environmental Waste Management Systems, Inc. (Oahu)(Hawaii)(Maui)(Kauai) | $ | | $ |
| | Septic Tanks | Ameron International Corporation<br>(Oahu) | $ | | $ |
| | | Walker Industries, Ltd.<br>(All Islands) | $ | | $ |
| Hot Dip Galvanizing | | Universal Associates, Inc.<br>(Oahu) | $ | | $ |
| Metal Roofing and Flashing – Preformed | | HPM Building Supply (All Islands) | $ | | $ |
| Pipes – Aluminum and Galvanized | Pipes – Misc. | Ameron International Corporation<br>(Oahu) | $ | | $ |
| Aluminum Floating Dock – Misc. | | Bluewater Marine and Dock Specialties<br>(All Islands) | $ | | $ |
| | | High Seas Welding LLC dba JS Marine<br>(All Islands) | $ | | $ |
| Signs – Traffic, Regulatory & Construction | | GP Roadway Solutions, Inc.<br>(All Islands) | $ | | $ |
| | | Safety Systems and Signs Hawaii, Inc.<br>(All Islands) | $ | | $ |
| Veneer | | Big Rock Manufacturing<br>(All Islands) | $ | | $ |

| | | | | | |
|---|---|---|---|---|---|
| Soil Amendments, Mulch, Compost | | Eko Systems Inc. (Oahu) (Maui) (Hawaii)(Kauai) | $ | | $ |
| | | Island Topsoil LLC (All Islands) | | | |
| | | Kauai Nursery & Landscaping, Inc. (All Islands) | $ | | $ |
| | | Molokai Seed Co. (All Islands) | $ | | $ |
| | | Sanford's Service Center, Inc. (Hawaii) | $ | | $ |
| Compost Filter | | EnviroTech BioSolutions Hawaii, Inc. (All Islands) | $ | | $ |
| | | Certified Erosion Control Hawaii LLC (All Islands) | $ | | $ |
| | | TOTAL FOR AREA 2 | $ | | $ |

| PROPOSAL SCHEDULE – AREA 2 (WEST SIDE) | | | | | |
|---|---|---|---|---|---|
| ITEM NO. | ITEM | APPROX. QUANTITY | UNIT | UNIT PRICE | AMOUNT |
| 401.0100 | HMA Pavement, Mix No. V Leveling | 500 | Ton | $ _____ | $_____ |
| 401.0300 | 1-1/2 Inch HMA Pavement Overlay, Mix No. IV | 3,600 | Ton | $ _____ | $_____ |
| 401.0410 | 1-1/2 Inch HMA Pavement, Mix No. IV | 30,000 | SY | $ _____ | $_____ |
| 401.0420 | 2 Inch HMA Pavement, Mix No. IV | 30,000 | SY | $ _____ | $_____ |
| 401.0510 | 3 Inch HMA Pavement, Mix No. IV | 30,000 | SY | $ _____ | $_____ |
| 401.0610 | 4 Inch HMA Pavement, Mix No. IV | 10,000 | SY | $ _____ | $_____ |
| 401.0700 | Overtime Labor Premium | F.A. | F.A. | F.A. | $ 5,000.00 |
| 414.0110 | Reconstruction of Weakened Pavement Areas | 10,000 | SY | $ _____ | $_____ |
| 416.0150 | Scarify Existing Pavement | 30,000 | SY | $ _____ | $_____ |
| 417.1000 | Cut Cores in Existing Pavement | 5 | EA | $ _____ | $_____ |
| 604.0100 | Adjusting Manhole Cast Iron Frame and Cover | 20 | EA | $ _____ | $_____ |
| 621.0100 | Vehicular Counting and Classification System Sensor Replacement | F.A. | F.A. | F.A. | $ 15,000.00 |
| 623.0100 | Loop Detector Sensing Unit | 5 | EA | $ _____ | $_____ |

| PROPOSAL SCHEDULE – AREA 2 (WEST SIDE) | | | | | |
|---|---|---|---|---|---|
| **ITEM NO.** | **ITEM** | **APPROX. QUANTITY** | **UNIT** | **UNIT PRICE** | **AMOUNT** |
| 645.1000 | Electronic Message Board (per day) | 2 | EA | $ _____ | $_____ |
| | Sum of All Items (Area 1 – West Side)..... | | | | $ _____ |

NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.

# PROPOSAL SUMMARY

| | AMOUNT |
|---|---|
| SUM OF ALL ITEMS – AREA 1 | $_____ |
| SUM OF ALL ITEMS – AREA 2 | $_____ |

## PROPOSAL SCHEDULE

The bidder is directed to Subsection 105.16 – Subcontracts.

If the bid price for any proposal item having a maximum allowable bid indicated therefore in any of the contract documents is in excess of such a maximum amount, the bid price for such proposal item shall be adjusted to reflect the limitation thereon. The comparison of bids to determine the successful bidder and the amount of contract to be awarded shall be determined after such adjustments are made, and such adjustments shall be binding upon the bidder.

The bidder is directed to Section 717 – Cullet and Cullet-Made Materials regarding recycling of waste glass.

The "SUM OF ALL ITEMS" for each area will be used to determine the lowest responsible bidder for each area.

Notes:

1. Bid prices are for travel time, mileage and furnishing all labor, tools, traffic controls, all, applicable taxes, fees and equipment necessary for all work shown and called for in accordance with the true intent and meaning of the specifications.

2. Bidder may bid on any or all groups. To be considered, bidder must submit a bid for all items within a group. Separate contracts will be awarded for each area. If a bidder is determined the lowest bidder for multiple areas, one combined contract will be awarded.

3. Any contract which is awarded shall be an open-ended contract since the exact value of work to be performed during the contract period cannot be determined beforehand. The unit price for each item of work on any particular work order shall be that which corresponds to the quantity of work for that item actually performed for each work order.

4. As indicated in the Proposal Schedule, all bid items are divided into payment categories, depending upon the quantities of work. The payment category for each bid item shall be based upon the sum of all work and materials required to perform the required repairs which are issued on a "single work order." A single work order shall be a work order submitted by the Contractor for work that can be performed by the Contractor without relocating a distance of more than 5,280 feet between any two adjacent repair conditions.

5. The "Approx. Quantity" on the proposal schedules reflect a typical quantity for each repair location to be used for bidding purposes.

6. Preference for Hawaii Products – It should be noted that Act 175, SLH 2009 has changed the application and penalties related to claiming the use of Hawaii products.