STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1
For
KAUMALAPAU HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE
AIRPORT ROAD TO LANAI CITY
PROJECT NO. 440A-01-16M
DISTRICT OF LAHAINA
ISLAND OF LANAI

The following amendments shall be made to the Bid Documents:

A. NOTICE TO BIDDERS

Prospective bidders are hereby notified that receiving of sealed proposals scheduled for 2:00 P.M., March 03, 2016 is HEREBY POSTPONED until 2:00 P.M., March 10, 2016. The attached NOTICE TO BIDDERS shall be incorporated and made a part of the NOTICE TO BIDDERS.

B. SPECIFICATIONS

1. Replace Table of Contents dated 7/6/15 with the Table of Contents dated r2/23/16

2. Add Section - 621 Enhanced Vehicle Classification Traffic Counting System dated 2/23/2016

C. PROPOSAL SCHEDULE

1. Replace proposal schedule Pages P-11 to P-13 dated r1/15/2016 with the attached Proposal schedule pages P-11 to P-13dated r2/23/2016

D. PLANS

1. Replace plan Sheet #11 and Replace with plan Sheet # ADD.11

2. Replace plan Sheet #19 and Replace with plan Sheet # ADD.19

3. Add plan Sheet # ADD.19S-1

4. Add plan Sheet # ADD.19S-2

5. Replace plan Sheet #22 and Replace with plan Sheet # ADD.22

PRE-BID MEETING MINUTES is provided for information.

1. Meeting Minutes (attached)

2. Sign-in sheet (attached)

3. Questions & Answers / Clarifications (attached)

Please acknowledge receipt of this Addendum No. 1 by recording the date of its receipt in the space provided on page P-(x) of the Proposal.

FORD N. FUCHIGAMI
Director of Transportation

NOTICE TO BIDDERS
(Chapter 103D, HRS)

The receiving of SEALED BIDS for KAUMALAPAU HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE, AIRPORT ROAD TO LANAI CITY PROJECT NO. 440A-01-16M, DISTRICT OF LAHAINA, ISLAND OF LANAI, scheduled for 2:00 P.M., March 03, 2016, at the Contracts Office, Department of Transportation, 869 Punchbowl Street, Honolulu, Hawaii 96813, or at the Office of the District Engineer – Maui, 650 Palapala Drive, Kahului, Maui, 96732, is HEREBY POSTPONED until 2:00 P.M. March 10, 2016, at which time and places they will be publicly opened and read.

FORD N. FUCHIGAMI
for Director of Transportation

Addendum No. 1
Date: 2/25/2016

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END OF TABLE OF CONTENTS

Make the following section a part of the Standard Specifications:

SECTION 621 – ENHANCED VEHICLE CLASSIFICATION TRAFFIC COUNTING SYSTEM

621.01 Description. This work includes furnishing labor, materials, tools, machinery, and equipment necessary to restore enhanced vehicle classification traffic counting system (EVC System) complete in place according to the contract. The Contractor shall make improvements as shown in the contract including the following:

(A) Provide necessary provisions for traffic counting operations by installing classifications sensors (piezoelectric sensors), vehicle detector inductance loops (sensor loops) and cable wiring.

(B) Provide underground conduit systems including trench, structural excavations, backfilling, and restoration work.

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

(D) Conduct required testing of the sensor loops and piezoelectric sensors. Submit acceptance test procedures and criteria for acceptance test results to the Engineer. Notify the Engineer a minimum of one (1) week before the date scheduled for testing.

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

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

621.02 Materials.

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.

(A) Piezoelectric Sensors (Piezo Sensors).

(1) Piezo sensors shall meet the following conditions:

(a) A minimum operating life of one (1) year from the date of acceptance.

(b) Meet the requirements as outlined in FHWA No. DP-88-76-006.

(c) Be 12-feet in length (or as determined by the Engineer).

(d) Be manufactured complete with home-run cable (non-spliced).

(e) Have 16 gauge flat braided silver plated copper wire center core with highly compressed piezo-electric copolymerP (VDF-TrFE) and an outer sheath of 0.16" thick brass meeting CDA-260 as required by ASTM B87-88.

(f) Be approximately 0.26" wide with a maximum thickness of 0.063" (plus/minus 0.05").

(g) Have insulation resistance between core and shield greater than 500M ohms.

(h) Shall have a piezoelectric coefficient greater or equal to 20pc/N nominal.

(i) Have designs and installation techniques proven reliable in conditions (soil and environmental) similar to those in Hawaii.

(j) Be able to withstand at least one million cycles.

(k) Interface with the counting equipment to perform the applications required for the EVC System.

(l) Include all mounting hardware and AS475 axle sensor grout (or equivalent), used for installation.

(2) The lead cable from the piezo sensor stubs to the EVC cabinet shall meet the following conditions:

(a) Be manufactured complete with the piezo sensor.

(b) RG58 rated for underground direct burial.

(c) Have an outer jacket of 0.187" outside diameter.

(d) Possess nominal capacitance of 27 pF/Ft.

(e) Have pre-made (factory-made) termination connections.

(f) Be field measured so that the length suits the installation conditions.

(g) Have sufficient length to reach the EVC cabinet. In the event that the lead cable is too short to reach the EVC cabinet, splicing will only be allowed from the final pull box to the EVC cabinet. Splicing of the piezo sensor lead cable will only be allowed under this condition. Splicing must be done by use of a splice kit.

(3) The supplied AS475 axle sensor grout (or equivalent) shall meet the following conditions:

(a) Be suitable for installation in both asphalt and Portland cement pavements.

(b) Must require no special equipment to facilitate installation.

(c) Must have a short curing time (less than 75 minutes) to minimize lane closure time.

(d) Should be of sufficient consistency to prevent "running" when being applied on road surfaces.

(e) Particulate matter within the sealer must not separate or settle.

(f) Must be approved by the piezo sensor manufacturer and the Engineer.

(4) An appropriate in-road temperature sensor shall be supplied to provide temperature correction data for the piezo sensors. The temperature sensor shall be an in-road sensor, as approved by the Engineer.

(B) Sensor Loops.

(1) Sensor Loops shall meet the following conditions:

(a) 14 AWG Stranded THHN

(b) 600 Volts

(c) IMSA Spec 51-3 Certified.

(d) Be manufactured complete with lead-in and home-run cables (non-spliced).

(e) Include installation materials and epoxy loop sealant for installation.

(2) The lead cable shall meet the following conditions:

(a) Polyethylene insulated

(b) Stranded-Tinned-Copper 14 AWG

(c) 2 Conductor Cable

(d) Stranded Tinned-Copper Drain Wire

(e) Aluminum – Polyester Shielded

(f) Polyethylene Jacketed

(g) 600 Volts Rated

(h) IMSA Spec. 50-2 Certified.

(i) Have sufficient length so that the lead cable is complete. In the event that the cable is too short, splicing of the lead cable shall only be allowed from the final pull box to the EVC cabinet. Splicing of the sensor loop lead cable will only be allowed under this condition. Splicing must be done by use of a splice kit.

(3) The supplied epoxy loop sealant shall meet the following conditions:

(a) Shall be compatible with IMSA #51-3 loop detector wire.

(b) Be manufactured as ready to install and not require any mixing.

(c) Be manufactured as packaged in a tube so it can be applied by applicator gun.

(d) Be suitable for installation in both asphalt and Portland cement pavements.

(e) Must have a short curing time (less than 75 minutes) to minimize lane short lane closure time.

(f) Particulate matter within the sealer must not separate or settle.

(g) Must be approved by the Engineer.

(C) Conduits. The contractor shall use steel or PVC Schedule 80 electrical conduits for all exposed construction. PVC Conduits shall be used for all underground construction.

(1) Steel Conduits. Steel conduits shall meet the following conditions:

(a) Be manufactured of rigid metal conforming to ANSI Standard C80.1 and Article 344 of National Electrical Code.

(b) Exterior and interior surfaces of conduits and fittings shall be hot-dip zinc coated in accordance with AASHTO M232.

(c) Interior of conduit shall be continuous coating of zinc-chromate, lacquer, or enamel. Each length shall bear UL label.

(d) Six-inch conduit sample cut from center of standard length of conduit shall be submitted to Engineer for acceptance. Conduit will be tested in accordance with ASTM A239. Interior and exterior of conduit shall no show fixed deposit of copper after four one-minute immersions in standard copper sulfate solution.

(2) Plastic Conduits. Each length shall bear UL label.

(3) Duct Sealing Compound. Duct sealing compound shall conform to the following:

(a) Waterproof, rodent proof, nonoxidizing; noncorrosive to metals, rubber, plastic, lacquer, and paints; and non-hardening when subject to temperatures ranging from -30 degrees F to 150 degrees F. Foam sealant will not be allowed.

(b) Readily workable for thumbing into openings and forming into seals around wires inside conduits and openings around conduits.

(c) Clean, nonpoisonous and non-injurious to human skin.

(d) Seal against water, dust and air.

(e) Adhere to wood, glass, plastics, metal, rubber and painted surfaces.

(D) Other Materials.

Other materials shall meet the requirements specified in the following:

Structural Concrete	Section 601
Trench Backfill Material	Subsection 703.21
Conductors and Cables	Subsection 770.06

621.03 Construction Requirements.

(A) Equipment List and Drawings. Submit within seven days following contract award two copies of materials and equipment purchase requisition, including copies of the equipment list, manufacturer's brochures, catalog cuts, and shop drawings to the Engineer for acceptance.

Order materials and equipment immediately upon acceptance by the Engineer. If the Contract award is rescinded by the Department after ordering of materials and equipment, the Department will purchase ordered materials and equipment at cost based on invoices. Purchase price will include transportation cost and applicable State excise taxes. Purchase price will not include profit.

Upon completion and acceptance of work, submit an 'As Built' or corrected plan showing in detail the construction changes per Section 648 – Field Posted Drawings.

(B) Excavation and Backfill. Excavate and backfill in accordance with 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. The Contractor shall notify the State at least two weeks prior to installation of the new traffic counting equipment and electronics.

(1) Piezo Sensors. Piezo sensor installation shall meet the following conditions:

(a) Be supervised by the manufacturer's representative for the piezo sensors.

(b) Construction shall reflect the number and configuration for the piezo sensors as shown in the construction plans. If the

number and configuration need to be modified, 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.

(c) Installed within the roadway, two each per lane, in both traffic directions.

(d) Saw cuts shall be constructed in strict accordance with specifications of the manufacturer.

(e) Use ¾" thick blade to make a ¾" wide x 2" deep slots for the piezo sensor. The slots should be 12'8" long, or as approved by the Engineer.

(f) Use ¼" thick blade to make a ¼" wide slot for the piezo sensor lead cable. The depth of the slot shall be as shown on the plans.

(g) Saw cuts shall be made by wet cutting. Dry cutting shall not be allowed.

(h) Saw cuts shall be first vacuumed (by use of shop-vac) and then cleaned by the use of a pressure washer. Compressed air shall then be used to dry the slots and remove any additional debris before inserting the piezo sensors.

(i) Inspect saw cuts before inserting the piezo sensors. If any additional debris or moisture is observed use compressed air to dry the slots and remove any additional debris before proceeding with installation.

(j) Embed piezo sensors in epoxy sealant with clips for mounting at 6" intervals. Install piezo sensors in saw cuts in the road surface, approximately 3/4" wide x 2" deep.

(k) Lay piezo sensor in saw cut at 1-1/4" below the surface of the roadway or as recommended by the manufacturer. Install piezo sensor straight and flat in saw cut. Secure sensor in place along the entire length of the sensor in the slot by quick setting epoxy sealant clips.

(l) Fill voids of the piezo sensor saw cuts with AS475 axle sensor grout (or equivalent). The AS475 axle sensor grout (or equivalent) shall be prepared in accordance with the manufacturer's instructions, and shall result in a finish approximately 1/16" above the surface of pavement or as shown

on the plans. The sealant curing requirements of the manufacturer shall be complied with and traffic loading shall not be permitted until the sealant is fully cured.

(m) Hot tar shall not be used.

(n) 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.

(o) Overall length of the piezo sensor lead cable shall be 300-feet maximum. Provide loop of 5-feet in handhole for each cable. In the event that the cables provided have insufficient length to reach the equipment harness inside the cabinet, the cables shall be rejected. Splicing to lengthen the cable will not be allowed, except from the final pull box to the EVC cabinet. Splicing must be done by use of a splice kit.

(p) 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 piezo sensor system installed shall be replaced.

(q) 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.

(r) The in-road temperature sensor shall be installed according to the manufacturer's installation instructions, as approved by the Engineer.

(2) Sensor Loops.

(a) Install two sensor loops in each traffic lane, to measure speed and length of the vehicles and also to classify vehicles in conjunction with the axle detectors. Refer to the configuration shown in the construction plans.

(b) If the number and configuration of the sensor loops need to be modified from the number and configuration shown in the constructions plans, 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.

(c) New sensor loops shall be tested prior to shipment, with no splices, and ready to install.

(d) Embed sensor loop and lead-in-wires in a 3/8" minimum width saw-cut in the pavement. Saw cut depth to the top layer of wire shall be at least 2" deep. The saw cut groove shall be air blown to remove debris before installing the loop cable. Fill the saw cut groove with loop sealant.

(e) Install sensor loops such that they are centered in the lane relative to the final lane striping. Replacement of sensor loops not centered in each lane relative to the final lane striping will be done at no additional cost to the State.

(f) The sensor loop cable shall be continuous within the roadway. The sensor loop itself includes four (4) turns of wire of a size, as specified in the contract.

(g) Embedded lead-in cables shall be twisted five twists per foot.

(h) Do not twist lead-in-wires from one sensor loop pair with another sensor loop pair.

(i) The lead-in wires for the sensor loops can be spliced (as directed by the Engineer) to new lead-in cables at the pull box. The splice shall be made by the use of a splice kit. The splice kit shall be utilized in accordance with the manufacturer's specifications. The splice shall be inspected by the Engineer before acceptance. Ensure sufficient wire lengths are provided to be able to connect wires into the terminal block inside cabinet without splices.

(j) 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. All labeling at the pull box and cabinet must be consistent.

(k) Splice points of cables must be suspended near the top of the pull box with j-hook or equivalent.

(3) Pull Boxes.

(a) Use existing pull boxes as indicated in the contract documents. Carefully excavate around areas of existing pullbox to identify conduit locations.

(b) Restore excavated area around pull boxes so that covers are level with curb or sidewalk grade or 1" above existing ground.

(4) Conduits.

(a) Pull sensor lead cables using existing conduits to the existing pullbox.

(b) 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.

(c) Keep the conduits clean during construction.

(d) 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.

(e) Provide each conduit run with a No. 10 gage flexible, zinc-coated pull wire extending through its entire length. Double an additional five (5) feet back into the conduit at each end of the run. Conduits and sleeves entering pull boxes shall end flush in the wall with ends ground smooth. Plug the conduits and sleeves temporarily.

(f) The completed duct lines shall be subject to a field test. Pass a bullet-shaped test mandrel about fourteen (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 of an 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.

(g) The Contractor shall seal the wire splicing made within the pullbox with a splice kit. The Contractor shall tag and identify all wire splicings clearly.

(h) The Contractor shall seal the ends of the conduits completely to keep out moisture.

(5) Wiring.

(a) Wiring shall conform to the appropriate articles of the Code. Arrange the wiring within assemblies, and pull boxes neatly. Encase the wiring installed underground in conduits. Before installing the wires and cables in conduits, pull a wire brush, swab and mandrel through each conduit for the removal of extraneous matter and verification of the absence of obstructions and debris from the conduit system.

(b) Furnish the cables on reels and handle the cables with great care to avoid damage to the conductors or the jacket. Pull the cables directly from their cores or reels into the conduits. Do not pull off and lay the cables on the ground before installation. Make the pulls in one direction only. Lubricants used shall be as recommended by the cable manufacturer or accepted by the Engineer. Do not leave the wires or cables under tension nor tight against bushings or fittings.

(c) The Contractor shall pull the cable in the conduit with a cable grip designed to provide a firm hold on the exterior covering of the cable. The Contractor shall pull the cable with a minimum of dragging on the ground or pavement. The Contractor shall use powdered soapstone, talc, or other acceptable lubricants to ease the pulling of the cable.

(d) Remove the damaged ends resulting from the use of pulling grips soon after pulling the cable. Maintain the cable end seals. Do not pull the open ended cables through the conduits. Cables shall be continuous from pulling point to pulling point. The Engineer will not permit splices within the continuous conduit sections. Tape or seal the ends of the spare conductors as accepted.

(e) Splicing shall be made by use of a splice kit.

(f) Coil neatly, at least 5 feet of slack conductor or cable near each cabinet foundation, at both ends of each conductor and cable run, and at least 2 feet of slack at each traffic signal box.

(g) The Contractor shall tape the cable ends to exclude moisture. The cable ends shall remain taped until the Contractor attaches the terminal equipment. The Contractor shall submit brochures for cable connections in terminal cabinets for acceptance.

(h) The Contractor shall tag and label all lead-in cables in the cabinet and the pull box permanently according to the contract. The Contractor shall place two (2) additional pull lines through each conduit to facilitate any future replacement of the lead-in cables.

(D) Bonding and Grounding.

(1) Secure metallic conductor and cable sheaths, and conduits, mechanically and electrically to form continuous system.

(2) Ground system in accordance with the NEC and as specified herein. Provide No. 8 AWG copper wire or equivalent copper strap of same cross-sectional area for bonding and grounding jumpers.

(3) Ground conduits and neutral wires at service points as required in accordance with the NEC, using No. 6 AWG or equal for grounding conductors.

(4) Install copper-clad steel or pure copper ground rod 5/8-inch diameter by 8 feet long alongside each traffic signal standard and controller concrete base.

(5) Connect grounding rods with No. 6 AWG wire to No. 8 AWG ground wire loop and power system neutral.

(6) On wood poles, ground equipment mounted less than 8 feet above ground surface.

(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 necessary.

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 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 the 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 all 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 1 MegaOhm.

2) Capacitance: The capacitance should range from 5 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.

(F) Restoring Pavements and Other Improvements. Restore the existing pavements and other improvements to their original condition according to the contract. Materials used for restoration work shall meet be equal or better in quality than the materials the Contractor will replace and matching in thickness, texture, and color whenever applicable. The grades of the restored surfaces shall match the existing grades or as indicated in the contract plans.

(G) Warranty. Materials and equipment installed for permanent construction shall be new. The contract contemplates the use of 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 twelve (12) months from the date of acceptance.

When requiring adjustments or repairs during the warranty period, adjust or repair the existing unit within twenty-four (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 twenty-four (24) hours from the time of notification until the Contractor can install the new unit. Install the new, identical non-defective unit within thirty (30) days from the time of notification.

621.04 Method of Measurement. The Enhanced Vehicular Classification (EVC) Traffic Counting System will be paid for on a lump sum basis. Measurement for payment will not apply.

621.05 Basis of Payment. The Engineer will pay for the accepted EVC system on a lump sum basis. 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
EVC Traffic Counting System	Each

END OF SECTION 621

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.0500	Installation, Maintenance, Monitoring, and Removal of BMP	L.S.	L.S.	L.S.	$
209.0510	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	$ 15,000.00
301.0500	Hot Mix Asphalt Base Course	500	Ton	$	$
401.0500	Hot Mix Asphalt (HMA) Pavement, Mix No. IV	6,000	Ton	$	$
408.0500	Crack Seal of Exisiting Pavement (Type 1)	F.A.	F.A.	F.A.	$ 125,000.00
413.0500	Longitudinal Joint Stabilizer	63,000	S.F.	$	$
414.0500	Excavation of Weakened Pavement Areas	250	C.Y.	$	$
415.0500	Cold Planing (70,000 S.Y.)	L.S.	L.S.	L.S.	$
603.0500	Clean Exisiting Culverts	F.A.	F.A.	F.A.	$ 8,000.00
604.0500	Adjusting Water Valve Cast Iron Frame and Cover	3	Each	$	$
604.0510	Adjusting Sewer Manhole Cast Iron Frame and Cover	2	Each	$	$
613.0500	Adjust centerline and Reference Survey Monuments	6	Each	$	$
621.0500	Enhanced Vehicle Classification Traffic Couning System Replacement at Sta. 211+60	1	Each	$	$
629.0500	4 - Inch Pavement Striping (Tape, Type II or Thermoplastic Extrusion)(White)	L.S.	L.S.	L.S.	$
629.0510	8 - Inch Pavement Striping (Tape, Type II or Thermoplastic Extrusion) (White)	L.S.	L.S.	L.S.	$

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.0520	12 - Inch Pavement Striping (Tape, Type II or Thermoplastic Extrusion) (White and Yellow)	L.S.	L.S.	L.S.	$ _____
629.0530	4 - Inch Double Solid Yellow Pavement Striping (Tape, Type II or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$ _____
629.0540	Type "J" Pavement Marker	L.S.	L.S.	L.S.	$ _____
629.0550	Type "C" Pavement Marker	L.S.	L.S.	L.S.	$ _____
629.0560	Type "D" Pavement Marker	L.S.	L.S.	L.S.	$ _____
629.0570	Type "DB" Pavement Marker	L.S.	L.S.	L.S.	$ _____
629.1016	Crosswalk Marking (Tape, Type II or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$ _____
630.0500	Type "A" Route Marker Assembly With Post	L.S.	L.S.	L.S.	$ _____
630.0510	Type "B" Route Marker Assembly With Post	L.S.	L.S.	L.S.	$ _____
630.0520	Street Name Sign	L.S.	L.S.	L.S.	$ _____
630.0530	Replacement of Existing Sign Panel with New Destination Sign Panel	L.S.	L.S.	L.S.	$ _____
631.0500	Construction sign with Steel Post	L.S.	L.S.	L.S.	$ _____
631.0510	Regulatory Sign (10 Sq. Ft. or Less) With Steel Post	L.S.	L.S.	L.S.	$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
631.0520	Warning Sign (10 Sq. Ft. or Less) With Steel Post	L.S.	L.S.	L.S.	$
631.0530	Miscellaneous Sign (More than 10 Sq. Ft.) With Steel Post	L.S.	L.S.	L.S.	$
632.0500	Reflector Marker (Rm-3) Yellow Without Post	L.S.	L.S.	L.S.	$
632.0510	Reflector Marker (Rm-4) Yellow With Steel Post	L.S.	L.S.	L.S.	$
632.0520	Mile Post Marker And Supplemental Route Number Plate (Bi - Directional) With Post	L.S.	L.S.	L.S.	$
643.0500	Maintenance of Existing Landscape Areas	F.A.	F.A.	F.A.	$ 50,000.00
645.0500	Traffic Control	L.S.	L.S.	L.S.	$
645.0510	Additional Police Officers, Additional Traffic Control Devices, And Advertisement	F.A.	F.A.	F.A.	$ 10,000.00
648.0500	Field-Posted Drawings	L.S.	L.S.	L.S.	$
696.0500	Maintenance of Trailers	F.A.	F.A.	F.A.	$ 50,000.00
696.0510	Field Office Trailer (Not to Exceed $ 32,000.00)	L.S.	L.S.	L.S.	$
699.0500	Mobilization (Not to exceed 6% of the Sum of all items excluding the bid price of this item.)	L.S.	L.S.	L.S.	$
	Sum of All Items				$

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

Pre-Bid Meeting Minutes

Project:

Kaumalapau Highway
Pavement Preventive Maintenance

Project No.: 440A-01-16M

Pre-bid meeting was held on Thursday, February 11, 2016 at 11:00 A.M at the Maui District Conference Room at 650 Palapala Drive, Kahului.

1. Scope of project was discussed and then opened floor for questions.

Meeting was adjourned at 9:30 A.M.

Respectfully Submitted,

Christopher P. Della
Design Engineer

SIGN IN SHEET – PRE-BID MEETING

Thursday, February 11, 2016 @ 9:00 A.M.
Maui District Office

Kaumalapau Highway Pavement Preventive Maintenance
Airport Road to Lanai City

Project No.440A-01-16M

	NAME	COMPANY	PH. NO./FAX	E-MAIL
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Questions & Answers / Clarifications

1.) Bid Item 401.0510 - Hot Mix Asphalt (HMA) Pavement, Mix No. IV at Guardrail Under, Behind Guardrail and Beyond End Terminals - I didn't see any guardrail on this stretch of road, either on plans or on Google Maps. Please remove line item from bid.

Deleted Paving under the guard rail 401.0510

2.) Bid Item 631.0500 - Construction Sign with Post - there is an extra line in the proposal amount section. Please revise.

Updated Proposal schedule is attached.

3. Construction signs: please confirm that the amount of signs to be installed is what is shown on the signing plans. Page 16 note 9 states to install signs as directed by the engineer. The bid item is LS so there is no way to verify the amount to be installed at bid time.

Refer to sheets: 16, 20, and 26

4.) Construction signs: do the construction signs require type II OM on the post or any type of reflector?

It can be Type II OM or RM3

5.) Street name signs: are the street name signs being replaced? If so, please provide details of the signs for pricing purposes. Also, is there a pay item for these or are they incidental to the other bid items? Some of the stop signs do not have the street names on them as indicated on the plans

Refer to the Standard plans

6.) There are 2 "Adopt–a-Hwy" signs. Please provide the size of these signs, typically it is more than 10 sf, will there be a bid item for this signs?

It shall fall under Miscellaneous Sign

7.) Destination signs, there are no bid items for payment of these signs, will there be any?

There is a line item for Destination signs

8.) Destination signs please provide exact details on the required sign material and mounting. Are these signs to be flat panel signs or extruded panels, what is the required post mounting for each sign. Example: existing D-1 is extruded panel mounted on 3 flange channel post. Existing D-2 is flat panel mounted on 2 square tube post.

Please refer to the Standard plans.

9.) Sheet 20, approximate sta 179+30 plans show replacing a "Historic" sign, please provide details and mounting requirements for pricing purposes. Will there be a bid item for this sign?

Please refer to the Standard plans.

10.) Are DOT specs 645.03 are advisory signs required to be installed, if so, how many are required?

If plans call for advisor signs please include them in your bid.

11.) Bid item 632.0520 for RM-4 reflector markers 4 each. We cannot find where these are installed on the plans, please clarify where these are installed so we can confirm the quantity to bid on since the item is LS.

It is found on Sheet 22