STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1

FOR

Maunaloa Highway Resurfacing
Vicinity of Keonelele Avenue to Mahana

PROJECT NO. 460A-01-11MR

DISTRICT OF Molokai

ISLAND OF Molokai

FY 2011

Amend the bid documents as follows:

A. NOTICE TO BIDDERS

1. Revise the third paragraph on page NB-1 to read as follows:

   "The project includes resurfacing existing pavement; adjusting guardrail post; installation of rumble strips; installation of signs and pavement markings; cleaning of culverts; adjusting monuments; replacing existing guardrail terminal; application of crack seal, reconstructing weakened pavement areas, application of longitudinal joint stabilizer and all incidental work. Estimated construction cost is between $2million and $5million."

B. TABLE OF CONTENTS

1. Replace entire TOC dated 8/22/11 with the attached TOC dated r3/12/12

C. PROPOSAL SCHEDULE

1. Replace pages P-10 through P-13 dated 2/6/2012 with the attached pages P-10 through P-13 dated r3/12/2012

D. SPECIAL PROVISIONS

1. Replace page 312-1a dated 07/01/08 with attached pages 312-1a through 312-2a dated r3/12/12

2. Add pages 412-1a through 412-4a dated 3/16/12

E. PLANS

1. Replace Plan sheet No.6 with the attached Plan Sheet No. ADD.6

F. PRE-BID MEETING

1. Sign-in sheet (see attached)

2. Pre-Bid Meeting Minutes (see attached)

Please acknowledge receipt of this Addendum No.1 by recording the date of its receipt in the space provided on Page P-4 of the Proposal.

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

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END OF TABLE OF CONTENTS

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.1000	Installation, Maintenance, Monitoring and Removal of BMP	L.S.	L.S.	L.S.	$
209.2000	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	$ 10,000.00
312.0100	Hot Mix Glassphalt Base Course	1,400	Ton	$	$
401.0400	Hot Mix Asphalt (HMA) Pavement, Mix No. IV	4,000	Ton	$	$
408.0100	Crack Seal	F.A.	F.A.	F.A.	$ 100,000.00
412.0100	Longitudinal Joint Stabilizer	20,000	S.F	$	$
414.0100	Excavation of Weakened Pavement Areas	675	C.Y.	$	$
415.0100	Cold Planing	L.S.	L.S.	L.S.	$
603.1900	Clean Existing Culverts	F.A.	F.A.	F.A.	$ 30,000.00
606.0500	Terminal Section, Type FLEAT 350	L.S.	L.S.	L.S.	$
606.0600	Guardrail, Strong Post W-Beam with Post	L.S.	L.S.	L.S.	$
606.0700	Reset Guardrail	L.S.	L.S.	L.S.	$
613.0100	Adjusting Centerline and Reference Survey Monuments	9	Each	$	$

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
615.0100	Centerline Milled Rumble Strips	L.S.	L.S.	L.S.	$ _____
615.0200	Shoulder Milled Rumble Strips	L.S.	L.S.	L.S.	$ _____
615.0300	Edge Line Milled Rumble Strips	L.S.	L.S.	L.S.	$ _____
629.1009	4 - Inch Pavement Striping (Tape, Type II or Thermoplastic Hot Spray) White	L.S.	L.S.	L.S.	$ _____
629.1010	4 - Inch Pavement Striping (Tape, Type I or Thermoplastic Hot Spray) Yellow	L.S.	L.S.	L.S.	$ _____
629.1012	12 - Inch Pavement Striping (Tape, Type II or Thermoplastic Hot Spray) White	L.S.	L.S.	L.S.	$ _____
629.1013	4 - Inch Double Solid Yellow Pavement Striping (Tape, Type I or Thermoplastic Hot Spray)	L.S.	L.S.	L.S.	$ _____
629.2030	Type "C" Pavement Marker	L.S.	L.S.	L.S.	$ _____
629.2040	Type "D" Pavement Marker	L.S.	L.S.	L.S.	$ _____
629.2060	Type "H" Pavement Marker	L.S.	L.S.	L.S.	$ _____
629.2070	Type "J" Pavement Marker	L.S.	L.S.	L.S.	$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
630.0300	Type "A" Route Marker Assembly With Post	L.S.	L.S.	L.S.	$
631.3100	Regulatory Sign (10 Sq. Ft. or Less) With Post	L.S.	L.S.	L.S.	$
632.4000	Reflector Marker (Rm-3) Yellow With Steel Post	L.S.	L.S.	L.S.	$
632.4200	Reflector Marker (Rm-5) on Existing Guardrail	L.S.	L.S.	L.S.	$
632.7610	Mile Post Marker And Supplemental Route Number Plate (Bi - Directional) With Post	L.S.	L.S.	L.S.	$
643.0100	Maintenance of Existing Landscape Areas	F.A.	F.A.	F.A.	$ 5,000.00
645.2000	Traffic Control	L.S.	L.S.	L.S.	$
645.2100	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	F.A.	F.A.	F.A.	$ 10,000.00
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	$
696.6000	Field Office Trailer (Not to Exceed $32,000.00)	L.S.	L.S.	L.S.	$
696.6100	Project Site Laboratory Trailer (Not to Exceed $22,000.00)	L.S.	L.S.	L.S.	$
696.6200	Maintenance of Trailers	F.A.	F.A.	F.A.	$ 10,000.00

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
699.1000	Mobilization (Not to exceed 6% of the Sum of all items excluding the bid price of this item, and force account items)	L.S.	L.S.	L.S.	$ _____
	Sum of All Items				$ _____
	NOTE: Bidders must complete all unit prices. Failure to do so may be grounds for rejection of bid.				

SECTION 312 – HOT MIX GLASSPHALT BASE COURSE

Make the following amendments to said Sections:

(I) Amend **Section 312.03(C) Compaction** by revising the second paragraph, from line 102 to 105, to read as follows:

"Compact mixture immediately upon completion of spreading operations to density of not less than 92.0 percent of maximum theoretical specific gravity in accordance with AASHTO T 209, modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate."

(II) Amend **Section 312.04 Measurement**, from line 116 to 117 to read as follows:

"**312.04 Measurement.**

(A) The Engineer will measure HMGB course per ton in accordance with contract documents."

(III) Amend **Section 312.05 Payment**, from line 119 to 139, to read as follows:

"**312.05 Payment.** The Engineer will pay for the accepted pay items listed below 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 of the following pay item when included in the proposal schedule:

Pay Item	Pay Unit
(A) Hot Mix Glassphalt Base Course	Ton

(1) 80% of the contract unit price upon completion of submitting a job-mix formula acceptable to the Engineer; preparing the surface, spreading, and finishing the mixture; and compacting the mixture by rolling;

(2) 20% of the contract unit price upon completion of cutting samples from the compacted pavement for testing; placing and

compacting the sampled area with new material conforming to the surrounding area; protecting the pavement; and final analysis."

END OF SECTION 312

Add Section 412 – Longitudinal Joint Stabilization:

"SECTION 412 – LONGITUDINAL JOINT STABILIZATION

412.01 Description. This work includes furnishing and placing longitudinal joint stabilizer on hot mix asphalt concrete pavements.

412.02 Material. The longitudinal joint stabilizer shall meet the following:

The longitudinal joint stabilizer shall be polymerized cationic emulsion composed of a maltene petroleum resin oil base and SBR co-polymer uniformly emulsified with water.

Emulsion	Test Method	Requirements Min	Max
Residue, % W[1]	ASTM D 244 (Mod)	39	44
Miscibility[2]	ASTM D 244 (Mod)	No Coagulation	
Particle Charge	ASTM D 244	Positive	
Residue from Distillation			
Flash Point, COC °C	ASTM D 92	200	-
Viscosity @ 60°C, cSt	ASTM D 445	100	200
Asphaltenes, %w	ASTM D 2006-70	-	1.00
Maltene Dist. Ratio	ASTM D 2006-70	0.2	0.8
$\frac{PC + A_1}{S + A_2}$[5]			
PC/S Ratio[5]	D 2006-70	0.5	-
Saturated Hydrocarbons, S[5]	D 2006-70	21	28
Polymer			
Charge		Positive	
Monomer Ratio, Butadiene/Styrene		76/24	
Solids Content, percent by weight		63	
Coagulum on 80 mesh screen			
Maximum percent by weight		0.1	
Mooney Viscosity of Polymer			
(ML 4 @ 212°F) minimum		100	
pH of Polymer		5.0	
Weight per gallon			
Wet pounds @ 63% solids content		7.94	

[1] ASTM D 244 Evaporation test for percent of residue is made by heating 100 gram sample to 149°C (300°F) until foaming ceases, then cool immediately and calculate results.

[2] Test procedure identical with ASTM D 244 except that .02 Normal Calcium

Chloride solution shall be used in place of distilled water.

[5] Chemical composition by ASTM D 2006-70
PC = Polar Compounds A_1 = First Acidaffins A_2 = Second Acidaffins
S = Saturated Hydrocarbons

Submit certificate of compliance for longitudinal joint stabilizer accompanied by substantiating test data.

412.03 Construction.

(A) Test Strip. Prior to production, spread longitudinal joint stabilizer at various application rates between 0.07 to 0.25 gallons per square yard to determine the rate of application where the longitudinal joint stabilizer has the capability to fully penetrate the asphalt pavement surface and be absorbed within 30 minutes of application. No surface coating shall remain within 30 minutes of application. Apply longitudinal joint stabilizer under typical project environmental conditions at a test strip location determined by the Engineer. Manufacturer's representative shall be present for determination of application rate.

(B) Weather Limitations. Application of longitudinal joint stabilizer will not be allowed under the following conditions:

(1) On wet surfaces, as determined by the Engineer.

(2) When surface temperature is below 40 degrees Fahrenheit.

(3) When weather conditions prevent proper method of construction.

(C) Equipment.

(1) **General.** Keep equipment, tools, and machinery clean and maintained in satisfactory condition.

(2) **Longitudinal Joint Stabilizer Application Equipment.** Use a self-propelled distributor truck with pneumatic tires or other approved applicator to spread the longitudinal joint stabilizer. The distributor truck or applicator shall be designed and equipped to distribute the longitudinal joint stabilizer uniformly on variable widths of surface at readily determined and controlled rates from 0.07 to 0.25 gallons per square yard of surface. Variation from any specified rate shall not exceed five percent.

Distributor truck or applicator shall include full circulation spray bars, pump tachometer, volume measuring device and a hand hose attachment suitable for applying longitudinal joint stabilizer manually

to cover areas inaccessible to the distributor. The application of the longitudinal joint stabilizer shall be controlled by a computerized control system that maintains a constant application rate regardless of the forward speed of the distributor unit. The distributor truck or applicator shall be equipped to circulate and agitate the joint stabilizer within the tank.

Check distributor equipment, accuracy of application rate and distribution uniformity when directed by the Engineer.

(3) Sand Application Equipment. Use a truck equipped with a spreader that allows the sand to be uniformly distributed on the pavement. The spreader shall be adjustable so as to accommodate various treatment widths.

(D) Application of Longitudinal Joint Stabilizer. Whenever practical, apply the longitudinal joint stabilizer within 24 hours of completion of the pavement section and before the pavement is opened to traffic. Apply the longitudinal joint stabilizer at the temperature recommended by the manufacturer and at the pressure required for proper distribution so all points of the area to be treated receive uniform distribution. Commence distribution with a running start to ensure full rate of spread over the entire area to be treated. Areas inaccessible to the distributor or inadvertently missed shall receive additional treatment by hand sprayer application.

Grades or super elevations that may cause excessive runoff shall have the required amounts of longitudinal joint stabilizer applied in two applications. Where more than one application is to be made, apply succeeding applications as directed by the Engineer once penetration of the preceding application is complete.

(E) Application of Sand. If a significant amount of longitudinal joint stabilizer residue remains on the surface of the treated area after a 30 minute period or if blotting of misapplied joint stabilizer is required, apply a light coating of dry sand to the surface. Sweep and remove sand prior to opening the area to traffic.

412.04 Measurement. The Engineer will measure longitudinal joint stabilizer per square foot in accordance with the contract documents.

412.05 Payment. The Engineer will pay for the accepted longitudinal joint stabilizer at the contract unit price basis, 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
Longitudinal Joint Stabilizer	Square Foot

The Engineer will pay 100 percent of the contract bid price upon completion of the longitudinal joint stabilizer application."

END OF SECTION 412

Pre-Bid Meeting Minutes

Project: Maunaloa Highway Resurfacing, Vicinity of Keonelele to Mahana

Project No.: 460A-01-11MR

1. Pre-bid meeting was held on March 12, 2012 at 10:00 A.M in the Maui District Conference Room at 650 Palapala Drive, Kahului. The participants were: David Ortega, of Maui Paving LLC, Brett Ueno of Maui Master, Fred Gutierrez and Crisanto Ragasa of State Highways

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

3. Contractors recommended changing the payment item of Hot Mix Glassphalt Base Course from lump sum to ton. **Response: Changes will address in addendum No.1**

4. The description on the proposal states that the mobilization is not to exceed 10%. However, the description in the specs states that the calculation for mobilization is not to exceed 6%. **Response: Changes will address in addendum No 1**

5. The Contractors were reminded that there will be an additional item in the proposal schedule and a typical section will be added in the project plans for "Longitudinal Joint Stabilizer." This will be included in Addendum No. 1

6. Meeting was adjourned at 10:30 A.M.

Respectfully Submitted,

Crisanto Ragasa
Design Engineer

SIGN IN SHEET – PRE-BID MEETING

March 12, 2012 @ 10:00 am
MAUI DISTRICT OFFICE

Maunaloa Highway Resurfacing
Vicinity of Keonelele Avenue to Mahana
Project No. 460A-01-11MR

NAME	COMPANY	PH. NO./FAX	E-MAIL
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~~2. Ferdinand Cajigal~~	~~DOT~~	~~do~~	~~Ferdinand.cajigal@hawaii.gov~~
3. David Ortega	Maui Paving LLC	877 2755	dortega@gmcpacificcorp.com
4. Brett Ueno	Maui Master Builders	269 - 2207	brettueno@gmail.com
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