STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 2

FOR

HAWAII BELT ROAD SAFETY IMPROVEMENTS IN THE VICINITY OF PAPAIKOU MILL ROAD

PROJECT NO. 19J-01-10

DISTRICTS OF SOUTH HILO ISLAND OF HAWAII

FY 2010

Amend the bid documents as follows:

1. **PRE-BID MEETING**

   A pre-bid meeting was held on May 2, 2011. Attached is a copy of meeting sign-in sheet, and responses to prospective bidder's questions for your information.

2. **SPECIAL PROVISIONS**

   a. Replace Table of Contents Pages 1 through 2 dated 01/27/11 with the attached Pages 1 through 2 dated r5/12/11.

   b. Replace Pages 615-1a through 615-2a dated 11/04/10 with the attached Page 615-1a through 615-2a dated r5/12/11.

   c. Replace Pages 623-1a dated 02/01/11 with the attached Page 623-1a dated r5/12/11.

   d. Replace Pages 695-1a through 695-3a dated 02-01-11 with the attached Page 695-1a through 695-4a dated r5/12/11.

3. **PROPOSAL SCHEDULE**

   a. Replace Page P-10 through P-12 dated 1/27/11 with the attached Pages P-10 through P-12 dated r5/12/11.

4. **PLANS**

a. Replace Plan Sheets No. 11, 13, 14, 15, 19 and 22 with the attached Plan Sheet No. ADD. 11, 13, 14, 15, 19 and 22.

Please acknowledge receipt of this Addendum No. 2 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

PRE-BID MEETING ATTENDANCE SIGN-IN SHEET

Project Name: Hawaii Belt Road Safety Improvements, in the Vicinity of Papaikou Mill Road

Project No.: 19J-01-10

Date: May 2, 2011 (9:00 AM)

Name	Agency/Business	Phone No.	Fax. No.
Julienne Fronda	DOT-HWY-TD	692-7681	
PETER CHAN	DOT HWY-TD	692-7680	
Cole Millare	GP Roadway Solutions	216-2456	

HAWAII BELT ROAD SAFETY IMPROVEMENTS
IN THE VICINITY OF PAPAIKOU MILL ROAD
Project No. 19J-01-10

May 2, 2011 Pre-Bid Meeting:

See sign-in sheet for names of prospective bidders attended the meeting.

Questions Submitted by Prospective Bidders:

Plans:

A. Sheet No. 11 – Callouts are missing for proposed pavement striping and rumble strip work.

Revised plan to show callouts for pavement striping and rumble strip work.

B. Sheet No. 11 – Would the existing metal sign posts for designation signs (e.g., D1-2A to D1-2D) be replaced with new ones ?

Revised plan and sign keys. The existing metal sign posts shall remain in place. Contractor shall clean and paint the posts, and install new signs.

C. Sheet No. 14 – The pavement words "SCHOOL" and "PED" together would have exceeded the lane width…please verify.

Revised plan to show "PED X-ING AHEAD". When approaching a designated school crossing, the pavement words shall be changed to "SCHOOL X-ING AHEAD".

D. Sheet No. 19 – Would product substitution be allowed for the driver feedback speed sign ?

The display system callout has been revised to read: "RU2 FAST 375, IDC SPEEDCHECK 1820 OR EQUAL".

Also, the callout for "Type I Signal Standard" height has been revised to read: "16 Ft. +/-", to be consistent with the height dimension shown.

E. Sheet No. 22 – Could the RM-5 Reflector Marker be made of plastic ?

Revised plan to allow RM-5 Reflector Marker to be made of galvanized steel or plastic.

Specifications:

F. Special Provisions Sec. 615.03 (D) – Would the milling waste materials become property of the State, and where would the materials be delivered to ?

Revised Sec. 615.03 (D) to clarify that the waste materials will become State property, and Contractor shall deliver the waste materials as directed by the Engineer to location(s) within 10-mile radius of project site.

G. Special Provisions Sec. 623.05 – Would solar-powered flashers be allowed instead of hard-wired flashers ?

Existing flashers are hard-wired to existing electrical line. Revise specifications to clarify new flashers are to be hard-wired.

H. Special Provisions Sec. 695 – Driver Feedback Speed Sign. The specs may have been a mix of several sign specs, with inconsistent equipment and/or performance requirements.

Will revise the entire Special Provisions Sec. 695.

I. Special Provisions Sec. 695 (B) – Would the speed sign be required to have different display for weekends and holidays ?

No. The speed sign will not be required to have different displays for different time or day.

J. Special Provisions Sec. 695 (B)(1) – Would speed sign using a full-matrix solid-state numeric display be allowed ?

Revised specifications to allow both full-matrix and seven-segment numeric displays.

K. Special Provisions Sec. 695 (D)(3) – Would the required timer be equipped with a 24-hour clock or 365-day clock ?

The timer requirement will be eliminated, as the sign will not be used on a time-specific basis.

L. Special Provisions Sec. 695 (E)(2) – Is training (2 hours) be required as a part of the bid ?

Potential bidder shall provide 2-hour training as directed by the Engineer for the HDOT Highways Div. Hawaii District personnel.

M. Proposal Schedule Sht. P-11 – Missing contract item for pavement striping work.

Revised Proposal Schedule to include item: Type "H" Pavement Markers.

TABLE OF CONTENTS

END OF TABLE OF CONTENTS

Make the following Section a part of the Standard Specifications:

"SECTION 615 – MILLED RUMBLE STRIP

615.01 Description. This section describes constructing Centerline, Shoulder, and Edgeline Milled Rumble Strips (MRS) in HMA pavement.

615.02 Materials. None.

615.03 Construction.

(A) Submittal. Method of constructing the milled rumble strip shall be submitted to the Engineer for acceptance. Meeting shall be scheduled 14 days before start of construction work. Discuss sequence of work plans, and proposal for dust control.

(B) Equipment. Milling equipment shall be equipped with a rotary-type cutting head with cutting tips arranged in a pattern as to provide a relatively smooth cut, approximately 1/16 inches between peaks and valleys.

The cutting head(s) shall be on a suspension independent from the power unit to allow the head(s) to self-align with surface slopes and irregularities.

The machine shall have a guidance system that provides consistent alignment of each cut in relation to the roadway and provide uniformity and consistency throughout the project.

(C) Longitudinal Spacing. The Milled Rumble Strips (MRS) shall be placed perpendicular to the roadway with longitudinal spacing as follow:

16-Inch Centerline MRS:	20 inch on-center
Double 10-Inch Centerline MRS:	12 inch on-center
Shoulder MRS:	12 inch on-center
Edgeline MRS:	12 inch on-center

The 20 inch on-center longitudinal spacing for 16-Inch Centerline MRS is designed to accommodate multiple centerline pavement striping and raised pavement marker configurations. It will allow placement of raised pavement markers between the concave depressions.

(D) Milling Operations. Clean pavement surface before constructing the rumble strips. Mill the concave depressions to the dimensions shown in the plans.

Align the concave depressions as shown in the plans. Alignment of milled rumble strips shall not deviate from the plans more than ± 2 inches.

After the concave depressions are milled into the pavement surface, use a power broom or sweeper/vacuum to collect the waste material resulting from the milling operations.

The milling waste materials shall become the property of the State. Contractor shall deliver the waste materials as directed by the Engineer to location(s) within 10-mile radius of project site at no increase in contract price or contract time.

615.04 Measurement. Milled Rumble Strip will be paid on a contract lump sum basis. Measurement for payment will not apply.

615.05 Payment. The Engineer will pay for the accepted milled rumble strip on a contract 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:

Pay Item	**Pay Unit**
Double 10-Inch Milled Rumble Strip, Centerline	Lump Sum"

END OF SECTION 615

SECTION 623 – TRAFFIC SIGNAL SYSTEM

Make the following amendments to said Section:

(I) Amend **Subsection 623.04 – Measurement** from lines 578 to 579 to read as follows:

"623.04 Measurement. The Engineer will measure the LED flasher assembly per each complete in place."

(II) Amend **Subsection 623.05 – Payment** from lines 581 to 594 to read as follows:

"623.05 Payment. The Engineer will pay for the accepted flasher (Yellow LED) assembly at the contract unit price per each complete in place. The price includes full compensation for removing the existing flasher, submitting the equipment list and drawing; assembling flasher controller to the existing utility pole; hard-wiring to existing electrical power source; bonding and grounding; testing; providing turn-on service; submitting warranty; and furnishing equipments, tools, labor, materials and other incidentals necessary to complete the work.

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

Pay Item	**Pay Unit**
Flasher (Yellow LED) Assembly	Each"

END OF SECTION 623

Make the following Section a part of the Standard Specification:

"SECTION 695 – DRIVER FEEDBACK SPEED SIGN

695.01 Description. This work includes furnishing and installing a speed measurement and display system with post, foundation, mounting assembly, solar panel assembly, battery housing assembly, deep cycle solar rated battery, cabinet, and incidental work necessary to complete the work.

695.02 Materials.

(A) General. The Driver Feedback Speed Sign is a dynamic numeric sign that gives motorists passing through a speed zone, real time feedback as to their vehicle's speed via radar speed detection. The vehicle speed is to be detected via a radar module mounted within the sign enclosure.

(1) Sign Background: The sign background surface shall be standard YELLOW 3M Scotchlite Reflective Sheeting or equivalent;

(2) Sign size shall be minimum 36" wide by 48" high;

(3) Lettering: "YOUR SPEED" shall be printed in two lines using minimum 6" high letters;

(4) Sign material shall be .09" aluminum;

(5) Enclosure shall be made of .09" aluminum. Outer surfaces of enclosure shall be coated with UV resistant coating;

(6) Display window shall be made of shatter resistant polycarbonate;

(7) Housing shall be provided with tamper proof fasteners;

(8) Housing shall be weather proof to NEMA 3R specifications or better;

(9) Housing shall be of non-sealed, ventilated type to prevent accumulation of moisture;

(B) Display.

(1) Speed display shall consist of either a full-matrix or 2 seven-segment solid-state LED numeric displays;

(2) Numeric characters shall be 18" in height;

(3) The numeric display shall consist of discrete LEDs which are individually aimed to provide even light distribution within the viewing area;

(4) Light intensity shall adjust automatically to provide optimum view ability under all ambient light conditions;

(5) Numeric speed display portion of sign shall be designed to avoid distracting the attention of motorists away from the road, by prevention of viewing from acute angles outside the motorist's normal forward field of view. Viewable area shall enclose an area up to a maximum included angle of 30 degrees from the roadside.

(6) The display shall operate in two modes:

(a) Steady numeric character and;

(b) Flashing speed violator alert;

(7) The LED display panel shall have a ten (10) year warranty;

(8) All other components shall have a two (2) year warranty;

(C) Solar Power.

(1) Solar powered signs shall be capable of fully autonomous operation 24 hours per day, 365 days per year;

(2) Solar Panels shall be 12 volt industry standard items;

(3) Battery shall be solar industry standard 12 volt deep cycle solar rated. Battery capacity shall be at least 20 times the normal anticipated nightly capacity drain;

(4) Battery housing assembly shall be weather proof and be protected from water intrusion;

(5) Charging Control System shall be a solar industry standard item with temperature compensating charging voltage;

(D) Cabinet.

(1) The cabinet shell shall be powder coat painted;

(2) The cabinet shall be vandal and tamper resistant (this included assembly hardware);

(3) The cabinet shall house the display, radar gun (K-band one-way, approach only) power supply and controller;

(E) Controller.

(1) The controller shall be capable of taking radar generated speed input and displaying it on the sign;

(2) The controller shall have a lockable, vandal resistant switch to allow for control "on"/"off' toggle control of the sign at the sign location;

(F) Manufacturer to provide the following:

(1) With the bid, the manufacturer shall supply a certificate of conformance to the specification standards outlined in these specifications.

(2) The manufacturer shall provide a minimum of two (2) hours training as directed by the Engineer to the HDOT Highways Division Hawaii District personnel, Included but not limited to training films, product information, material application, equipment operation, wiring diagram, and operation manual(s).

(3) The manufacturer shall have an "in state' representative that can provide post construction maintenance services to the State, if required.

695.03 Method of Measurement. The Engineer will not measure the driver feedback speed sign for payment.

695.04 Basis of Payment. The Engineer will pay for the accepted driver feedback speed signs at the contract lump sum price, complete in place.

The price includes full compensation for furnishing and installing driver feedback speed signs; furnishing the warranty; excavating and backfilling; providing and installing mounting pole and foundation which can accommodate a R2-1 speed-limit sign; mounting assembly; wiring; solar power system; battery housing assembly; deep cycle rated solar battery; cabinet; controller; radar module; and appurtenances necessary for operation; testing; training; and furnishing materials, equipment, tools, labor and other incidentals necessary to complete the work.

The Engineer will make payment under:

Pay Item	Pay Unit
Driver Feedback Speed Sign	Lump Sum

The Engineer will pay for the R2-1 speed-limit sign in accordance with and under Section 631 – Traffic Control Regulatory, Warning, and Miscellaneous Signs."

END OF SECTION 695

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	L.S.	L.S.	L.S.	$_____
209.0200	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	$ 10,000.00
606.3000	Guardrail Type 3 - Single with 6-Foot Steel Post	L.S.	L.S.	L.S.	$_____
606.7100	Terminal Section Fleat-350	L.S.	L.S.	L.S.	$_____
606.7200	Terminal Section Type-G Modified	L.S.	L.S.	L.S.	$_____
615.0110	Double 10-Inch Milled Rumble Strip, Centerline	L.S.	L.S.	L.S.	$_____
623.0100	Flasher (Yellow LED) Assembly (One-Way, 12-Inch Mounted on Utility Pole)	2	Each	$_____	$_____
629.1011	Double 4-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1013	4-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1016	8-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1022	24-Inch Pavement Striping (Tape, Type III or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.1030	Crosswalk Marking (Tape, Type III or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1050	Pavement Word (Tape, Type III or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.2010	Type "A" Pavement Markers	L.S.	L.S.	L.S.	$_____
629.2020	Type "C" Pavement Markers	L.S.	L.S.	L.S.	$_____
629.2040	Type "D" Pavement Markers	L.S.	L.S.	L.S.	$_____
629.2070	Type "H" Pavement Markers	L.S.	L.S.	L.S.	$_____
629.2080	Type "J" Pavement Markers	L.S.	L.S.	L.S.	$_____
630.0200	New Destination Sign (Ground Mounted) with Post(s)	L.S.	L.S.	L.S.	$_____
631.5001	Warning Sign (10 Square Feet or Less)	L.S.	L.S.	L.S.	$_____
631.5101	Warning Sign (10 Square Feet or Less) with Post(s)	L.S.	L.S.	L.S.	$_____
631.5301	Warning Sign (Greater than 10 Square Feet) with Post(s)	L.S.	L.S.	L.S.	$_____
631.5400	Street Name Sign	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
632.0100	Reflector Marker (RM-5, White) Mounted on Existing Guardrail	L.S.	L.S.	L.S.	$_____
645.1000	Traffic Control	L.S.	L.S.	L.S.	$_____
645.2000	Additional Police Officers And/or Additional Control Device	F.A.	F.A.	F.A.	$ 10,000.00
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	$_____
651.0100	Delineation Curb System	L.S.	L.S.	L.S.	$_____
695.0100	Driver Feedback Speed Sign	L.S.	L.S.	L.S.	$_____
699.1000	Mobilization (Not to Exceed 10 Percent 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 and amounts. Failure to do so may be grounds for rejection of bid.