# STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

#### ADDENDUM NO. 1

**FOR** 

## KAUMUALII HIGHWAY INTERSECTION IMPROVEMENTS

#### AT LAUOHO ROAD AND KULI ROAD

PROJECT NO. 50C-01-18

DISTRICT OF KOLOA

ISLAND OF KAUAI

2022

Amend the Bid Documents as follows:

### A. SPECIAL PROVISIONS

a. Replace Section 694 – Portable Concrete Barrier and Inertial Barrier System dated 2/27/13 with the attached Section 694 – Portable Concrete Barrier and Inertial Barrier System dated r5/20/22.

## B. PROPOSAL

b. Replace Proposal Schedule dated 5/15/21 with the attached Proposal Schedule dated r5/20/22.

Attached are the "Minutes of the Pre-Bid Meeting" and Pre-Bid Meeting Attendance Sheet for your information.

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.

JADE T. BUTAY Director of Transportation

50C-01-18

**Addendum No. 1** 5/26/22

concrete sand conforming to ASTM-C-33 or equal.

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**Sand.** Sand placed into these modules should be washed

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Each Inertial Barrier System array shall be configured to provide a satisfactory average rate of deceleration (8 g's maximum preferred for each row) for errant vehicles in the weight ranges of 1810 to 4410 lbs. The inertial barrier system shall meet the requirements of NCHRP 350 for Test Level 3 for non-redirective gating crash cushions. For impact vehicles weighing between 1810 and 4410 lbs. and traveling at speeds of up to 62 mph, the maximum 24-inch occupant fail space velocity shall be less than 39 ft/sec and the vehicles' highest 10 millisecond occupants' ride-down acceleration shall be less than 20 g's.

The center of gravity of each properly filled module shall be at a height which will aid in controlling the pitch of standard passenger vehicles.

The components of the modules shall interface to prevent leakage of sand contained therein. The interface shall, however, permit drainage of excess water contained within the sand mass.

## 694.03 Construction Requirements.

## (A) Portable Concrete Barriers.

- (1) Fabrication. Construct the portable concrete barriers in accordance with contract plans and as modified herein. The barriers shall be in 20 foot segments. The identification and date of design shall be placed at the location shown in the plans. Modify date of design "Oct 2001" to "Oct 2001A". Prior to fabrication of the portable concrete barrier, submit detailed shop drawings to the Engineer for acceptance.
  - (a) Forms. Forms shall be according to Section 503 Concrete Structures.
  - **Concrete**. Use 5000 psi concrete with synthetic (b) structural fiber reinforcement (structural fiber). Use an amount of structural fiber that will result in an average residual strength of 265 pounds per square inch. ASTM C1399 shall determine average residual strength. Structural fiber shall be a system made of a twisted bundle combination of fully-oriented non-fibrillation monofilament and a fibrillating copolymer/polypropylene network fiber system. All material shall be 100% virgin material and shall be non-corrosive, non-magnetic and be 100% alkali proof. The fibers shall have a tensile strength not less than 90 ksi. Structural fiber shall have a nominal length of 2-1/4", gray in color to match the concrete and comply with or exceed ASTM C-1116. It shall have an aspect ratio (length divided by the equivalent diameter of the fiber) between 115 and

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165. The Engineer has determined and accepted that 7.5 pounds of Forta Ferro® fiber per cubic yard of concrete will result in 265 pounds per square inch average residual strength. When structural fiber is specified in pounds per cubic yard of concrete, it shall mean the specified dosage is an amount of Forta Ferro® fiber that will provide the required average residual strength. The dosage of another manufacture's structural fiber may not have the same results and shall be adjusted and accounted for. No additional compensation will be granted for the additional weight of fiber.

- (c) Placing Concrete. Moisten the form thoroughly and immediately prior to the placing of the concrete. Place the concrete in accordance with Section 503 Concrete Structures.
- (d) Curing. Steam or water-cure the portable concrete barriers in accordance with Subsection 504.03(G) Curing.
- (e) Handling. Do not handle the portable concrete barriers until the concrete has attained a compressive strength of more than 3,000 pounds per square inch. Use the lifting holes to hoist the portable concrete barrier. Do not use the drainage slots that are located at the bottom of the barrier to lift or move barricades. Repair or replace units damaged by improper handling at no increase in contract price and contract time.

The Engineer will permit stacking of precast units with prior acceptance by the Engineer of the method to be employed by the Contractor.

(f) Accessories. Furnish, install maintain one RM-2 reflector marker on top of the concrete barrier (not RM-3 as shown on the Standard Plan), a longitudinal 4-inch by 20 feet permanent preformed pavement marking tape, Type I (color to match appropriate roadway pavement stripe) on the lower sloped side of the barrier facing traffic, and a steady burn amber lamp on each barrier unit. The longitudinal 4-inch permanent preformed pavement marking tape shall be installed on a surface that has the tape's manufacturer's recommended primer applied to it in a manner acceptable to the manufacturer and the Engineer.

Type II Barricade with a steady burn amber lamp on each barricade in accordance with MUTCD Chapter 6.

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- (g) Ownership. The portable concrete barriers and the portable concrete barrier end treatments shall become the property of the State upon completion of the project.
- (2) Installation. Erect all units as shown on the contract documents or as specified by the Engineer. Set the units in a vertical position, closely following the roadway grade. The units shall have a maximum of 1/4-inch offset in any direction between adjacent panels at the connections.

Horizontal alignment of the panels shall be such that any panel is not out of alignment by more than 1/2-inch from straight line. Furnish and install steel pins for connecting the barrier sections according to contract documents.

Do not leave barrier ends exposed to traffic, and shall provide treatment that complies with NCHRP 350 Test Level 3 criteria. Do not mix portable concrete barriers not constructed in accordance with the October 2001A design with barriers with newly constructed units within the same barrier installation.

Relocate any units or existing barriers during construction at the locations shown in the contract documents or as ordered by the Engineer.

Upon completion of the work, clean, repair, remove, haul, off load and store all units at the location shown in the contract documents or as ordered by the Engineer. If the final designation is not available when the units are ready to be removed, haul the units to an interim location or to an alternate Engineer designated location at no additional cost to the State.

The cleaning and repair of the units shall be performed regardless of cause, such as accidents, 'wear and tear' or improper handling by the Contractor during use. Repair all damaged unit back to its original configuration, i.e., undamaged condition. A damaged unit that, in the judgment of the Engineer, is considered irreparable shall be replaced with a new unit at no increase in contract price or contract time. The Engineer will inspect and find if all units are acceptable at the storage area designated in the contract documents or at a location designated by the Engineer. Any unit that is not cleaned or repaired to an acceptable condition shall be removed from the designated storage site and not returned until is made acceptable.

(3) Type II Barricades. Furnish, install and maintain Type II Barricades with lamp as channelizing devices. Spacing shall be in accordance with the requirements of MUTCD part 6. Their position shall comply with MUTCD Typical Application 5, found in part 6.

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ready to be removed, haul the units to an interim location or to an alternate Engineer designated location at no increase in contract price or contract time.

The cleaning and repair of the portable concrete barrier end treatments shall be performed regardless of cause, such as 'wear and tear' or improper handling by the Contractor during use. Repair shall include replacement of all damaged portions of the portable concrete barrier end treatment back to its original configuration. A portable concrete barrier end treatment damaged that, in the judgment of the Engineer, is considered irreparable shall be replaced with a new portable concrete barrier end treatment at no increase in contract price or contract time. All portable concrete barrier end treatments will be inspected and found acceptable by the Engineer before returning them to the area designated in the contract documents or as directed by the Engineer.

(10) The inertial barrier system (portable concrete barrier end treatment) shall become the property of the Contractor upon completion of the project.

## (C) Pavement Striping and Markers for Lane Shifting.

Furnish and install pavement striping and markings according to Section 629 - Pavement Markings, Subsection 629.03(C) - Temporary Pavement Markings. Do not use temporary pavement striping and markers. Striping shall be done in accordance with the contract documents or as directed by the Engineer. If no striping plan is provided, submit striping plan for review and acceptance by the Engineer a minimum of14 days prior to the setting of the units. Upon completion of the contract work, remove the lane shift striping and markers, and restore original striping and markers in accordance with the contract documents or as directed by the Engineer.

**694.04 Method of Measurement.** The Engineer will not measure Contractor-furnished portable concrete barriers and inertial barrier modules.

The Engineer will not measure installing, maintaining, and subsequently removing lane shift pavement striping and markers for payment.

**694.05 Basis of Payment.** The Engineer will pay for the accepted Contractor-furnished portable concrete barriers on a contract lump sum basis. The price includes full compensation for work prescribed in this section and the contract documents.

The Engineer will not pay separately for installing, maintaining, relocating, and subsequently removing the portable concrete barriers. The price includes full compensation for preparing beds; hauling and setting portable concrete barriers; installing connector pins; maintaining reflector markers, lamps, and permanent preformed pavement marking tape; cleaning and relocating portable concrete barriers during construction; cleaning and hauling the portable concrete barriers after completion of the project to the designated locations or as directed by the Engineer; and furnishing labor, materials, tools, equipment and incidentals necessary to complete the work.

The Engineer will pay for the accepted inertial barrier modules on a contract lump sum basis. The price includes full compensation for work prescribed in this section and the contract documents.

The Engineer will not pay separately for installing, maintaining, relocating, and subsequently removing the inertial barrier modules. The price includes full compensation for submitting a list of materials and equipment to be incorporated in the work; grading and compacting the ground; furnishing, assembling, and installing an inertial barrier system; relocating inertial barrier modules to locations specified in the contract; filling each installed inertial barrier module with sand; removal and disposal of sand; cleaning and hauling the empty modules to the designated locations or as directed by the engineer upon completion of the project, and furnishing labor, materials, tools, equipment and incidentals necessary to complete the work.

The Engineer will not pay separately the pavement striping and markers for lane shifting. The Engineer will consider the cost for the lane shift pavement striping and markers included in the contract price for portable concrete barrier. The price includes full compensation for submitting the striping plans; removing the existing pavement striping and markers; installing the lane shift pavement striping and markers; removing the lane shift striping and markers; and restore original striping and markers according to the contract or as directed by the Engineer; and furnishing labor, materials, tools, equipment and incidentals necessary to complete the work.

The Engineer will make payment under:

Contractor-Furnished Portable Concrete Barrier

Lump Sum

Inertial Barrier Module Lump Sum

The Engineer will make partial payments as follows:

(1) Pay 40% of the amount bid when the barrier are furnished and delivered to the jobsite and prepared the ground for installation.

- **(2)** Pay 20% of the amount bid when the barrier are assembled and installed at the initial location shown in the contract documents.
  - (3) Divide 30% of the amount bid by the number of months remaining in the contract. Pay that percentage each month, when barriers are satisfactorily relocated and maintained during construction, and damaged barriers replace.
  - (4) Pay the remainder of the contract amount upon removal and delivery of the barriers and modules after completion of the project or as directed by the Engineer."

#### **END OF SECTION 694**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
201.0100	Clearing and Grubbing	2,000	SY	\$	\$
203.0100	Roadway Excavation	2,700	CY	\$	\$
203.0200	Borrow Excavated Material	220	CY	\$	\$
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	LS	LS	LS	\$
209.0200	Additional Water Pollution, Dust, and Erosion Control	FA	FA	FA	\$ _50,000.00
304.0100	Aggregate Base	2100	CY	\$	\$
401.0400	HMA Pavement Mix No. IV	450	TN	\$	\$
401.0410	PMA Pavement Mix No. IV	650	TN	\$	\$
401.9000	Pavement Smoothness Incentive	Allow	Allow	allow	\$1,900.00
415.0110	Cold Planing	5200	SY	\$	\$
503.0100	Concrete in Retaining Wall No. 2	45	CY	\$	\$
507.1010	Railing Type "A"	168	LF	\$	\$
603.0100	Clean Existing Culverts	FA	FA	FA	\$ _20,000.00
603.0200	Bed Course Material for Culvert	35	CY	\$	\$

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
603.0300	24-Inch Reinforced Concrete Pipe, Class III	330	LF	\$	\$
604.0300	Type 61614P Grated Drop Inlet, 8 Feet to 8.99 Feet	4	EA	\$	\$
604.0400	Type A Storm Drain Manhole, 5 Feet to 5.99 Feet	1	EA	\$	\$
606.2006	Guardrail, 31-Inch Strong Post Midwest Guardrail System with 8-Feet Post and 8-Inch Offset Block	238	LF	\$	\$
606.2066	Guardrail, 31-Inch Strong Post Midwest Guardrail System with 8-Feet Post and No Offset Block	513	LF	\$	\$
606.7000	W-Beam End Section (Rounded RWE03a)	5	LF	\$	\$
606.7500	MGS Transition to Strong Post Guardrail with 8-Feet Post and 8-Inch Offset Block	29	LF	\$	\$
612.0100	Grouted Rubble Paving	300	CY	\$	\$
629.1004	4-Inch Pavement Striping (Tape, Type III or Thermoplastic Extrusion)	330	LF	\$	\$
629.1010	Double 4-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion	300	LF	\$	\$
629.1012	Double 4-Inch Pavement Striping (Tape, Type II or Thermoplastic Extrusion)	1,800	LF	\$	\$

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.1022	6-Inch Pavement Striping (Tape, Type II or Thermoplastic Extrusion)	2,300	LF	\$	\$
629.1030	8-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion)	200	LF	\$	\$
629.1052	12-Inch Pavement Striping (Tape, Type II or Thermoplastic Extrusion)	220	LF	\$	\$
629.1054	12-Inch Pavement Striping (Tape, Type III or Thermoplastic Extrusion)	60	LF	\$	\$
629.1100	Pavement Word (Tape, Type III or Thermoplastic Extrusion)	4	EA	\$	\$
629.1110	Pavement Arrow (Tape, Type III or Thermoplastic Extrusion)	6	EA	\$	\$
629.2020	Type C Pavement Marker	150	EA	\$	\$
629.2030	Type D Pavement Marker	50	EA	\$	\$
629.2040	Type F Pavement Marker	2	EA	\$	\$
629.2050	Type H Pavement Marker	400	EA	\$	\$
631.0100	Regulatory Sign (10 Sq. Ft. or Less) with Post	4	EA	\$	\$

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
631.0200	Warning Sign (10 Sq. Ft. or Less) with Post	4	EA	\$	\$
631.0400	Supplemental Plaque	4	EA	\$	\$
632.0120	Reflector Marker (RM-3)	11	EA	\$	\$
632.0500	Milepost Marker with Post (Bi-directional)	1	EA	\$	\$
632.1010	Type II Object Marker (OM2-2H)	5	EA	\$	\$
632.1050	Type V Object Marker (OM-5)	8	EA	\$	\$
639.0100	Curb, Type 6	200	LF	\$	\$
641.0100	Hydro-Mulch Seeding	800	SY	\$	\$
643.0110	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ _30,000.00
645.1000	Traffic Control	LS	LS	LS	\$
645.2000	Additional Police Officers, Additional Traffic Control Devices, and Additional Advertisements	FA	FA	FA	\$ <u>50,000.00</u>
648.1000	Field-Posted Drawings	LS	LS	LS	\$
663.0100	Erosion Control Matting	800	SY	\$	\$

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
671.1000	Protection of Threatened and Endangered Species	FA	FA	FA	\$ 10,000.00
694.0100	Contractor-Furnished Portable Concrete Barrier	LS	LS	LS	\$
694.0200	Inertial Barrier Module	LS	LS	LS	\$
699.1000	Mobilization (Not to Exceed 6% Percent of the Sum of All Items Excluding the Bid Price of this Item)	LS	LS	LS	\$

Sum of All Items \$ _	
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- 1.0 Bids shall include all Federal, State, County and other applicable taxes and fees.
- 2.0 The Sum of All Items will be used to determine the lowest responsible bidder.
- 3.0 If a discrepancy occurs between unit bid price and the bid price, the unit bid price shall govern.

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

#### MINUTES OF THE PRE-BID MEETING

**PROJECT:** Kaumualii Highway Intersection Improvements

at Lauoho Road and Kuli Road District of Koloa, Island of Kauai

**PROJECT NO.:** 50C-01-18

LOCATION: Microsoft Teams Video Conference

**DATE & TIME:** May 12, 2022 at 10:00 A.M.

IN ATTENDANCE: Eric Fujikawa HDOT – HWY-K

Bernie Vargas HDOT – HWY-K
Jason Ames Grace Pacific LLC
James Hasenyager Cushnie Const. Co. Inc.

Randy Stevens Global Specialty

The meeting started at 10:00 A.M. Project Engineer, Bernie Vargas began the meeting with an introduction and gave a brief overview of the project.

Anything said at this meeting is for clarification purposes only, the bid documents shall govern over anything said today and discrepancies shall be clarified by addendum.

All questions resulting from this meeting were directed to be submitted through HIePRO and will be answered through an addendum.

The following questions were raised at the meeting:

**Question #1**: How long is the contract and what is the liquidated damages?

**Response**: Contract completion time is 120 working days and liquidated damages for failure to complete the work or portions of the work on time is \$3,000.00.

**Question #2**: What are the barrier requirements?

**Response**: We will be requiring use of portable concrete barrier as specified in the contract documents.

**Question #3**: Are there any right of entries executed for the neighboring property?

**Response**: No right of entry was executed. Contractor will be responsible for obtaining permission to the neighboring property, if needed.

**Question #4**: Do you have any contact information of the property owner that can be shared?

**Response**: No. We do not have any information of the property owner.

The following questions (RFI's) were received by HDOT after the meeting:

**Question #1:** Can used signs, posts and hardware be used for Advisory and Construction Signs if they are required for the project?

**Response**: Advisory sign are not required for this project. Construction signs shall be new.

Question #2: Will the edge of pavement line change from 4" to 6" in a addendum?

**Response**: 6" edge line striping will be installed. This will be addressed via Addendum No. 1.

**Question #3:** For Pay Item 694.0200 Inertial Barrier Module can Traffix Sled end treatment (MASH) be used in lieu of Sand Crash Barrels?

Response: No.

**Question #4**: Can you please provide a detail for the concrete barriers and inertial barrier modules?

**Response**: Refer to Note No. 22 of Plan Sheet No. 3 – General Notes and Legend

**Question #5:** Can you please provide a pay item and detail for "New Metal Railing (168')" called out on sheets 19 & 20?

**Response**: Pay Item for Metal Railing will be addressed via Addendum No. 1.

**Question #6:** Can you please clarify what pay item the Object Marker (OM-5) is paid under?

**Response**: Pay Item for Object Marker (OM-5) will be addressed via Addendum No. 1.

With no further questions or comments, the pre-bid meeting was adjourned at 11:16 A.M.

The minutes of the meeting will be distributed in Addendum No. 1 of the Contract Plans. Contractors will be notified via HIePRO when the addendum will be available.

**Meeting Summary** 

Total Number of Participants 6

Meeting Title Pre-Bid Conference: Kaumualii Hwy Intersection Improvements, Vicinity of Lauho Rd and Kuli Rd

 Meeting Start Time
 5/12/2022, 9:47:46 AM

 Meeting End Time
 5/12/2022, 11:16:55 AM

Meeting Id f9fa8f49-f8e0-4d1e-a061-b19ea247acb3

Full Name	Join Time	Leave Time	Duration	Email	Role
Vargas, Bernie P	5/12/2022, 9:47:46 AM	5/12/2022, 11:16:55 AM	1h 29m	bernie.p.vargas@hawaii.gov	Presenter
Jason Ames	5/12/2022, 9:56:30 AM	5/12/2022, 10:19:00 AM	22m 29s	james@gracepacific.com	Presenter
James Hasenyager	5/12/2022, 9:56:32 AM	5/12/2022, 10:18:47 AM	22m 15s	james@cushniecci.com	Presenter
Fujikawa, Eric I	5/12/2022, 10:01:29 AM	5/12/2022, 10:18:55 AM	17m 25s	eric.i.fujikawa@hawaii.gov	Organizer
18085515565	5/12/2022, 10:12:01 AM	5/12/2022, 10:18:46 AM	6m 44s		Attendee
Randy Stevens	5/12/2022, 10:13:53 AM	5/12/2022, 10:18:49 AM	4m 55s	rstevens@globalspecialty.net	Presenter