

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1

FOR

KUNIA ROAD IMPROVEMENTS

VICINITY OF SOUTH KUPUNA LOOP TO VICINITY OF HONOWAI STREET

PROJECT NO. HWY-O-01-04

DISTRICT OF EWA

ISLAND OF OAHU

2004

Amend the Bid Documents as follows:

A. TABLE OF CONTENTS

1. Replace page 3 dated 12/30/03 with the attached page 3 dated r2/11/04.

B. SPECIAL PROVISIONS

1. Replace pages 645-1a thru 645-6a dated 9/19/00 with the attached pages 645-1a thru 645-6a dated r2/11/04.
2. Amend Section 650, Sub-Section 650.05, second paragraph to read as follows:

"The price includes full compensation for demolishing the existing sidewalk, curb, gutter, driveway, curb ramp; excavating; backfilling; installing reinforcing steel, concrete expansion joint materials, construction joints, special drop curbs or gutter or both, property side standard curb; preparing the surface and furnishing and installing detectable warning devices, and bed course material; and furnishing labor, materials, equipment, tools, and incidentals necessary to complete the work."

3. The attached page 712.38-1a dated r2/09/04 shall be incorporated and made a part of the Special Provisions.

HWY-O-01-04

DIVISION 700 - PAVEMENTS (Continued:)		
Section	Description	Pages
712	Miscellaneous	
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	Traffic Signal Standards	712.38-1a
	Traffic Signal Appurtenances	712.39-1a - 712.39-3a
	Pavement Markers	712.40-1a
	Preformed Pavement Marking Tape	712.53-1a
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713	Structural Steel and Related Material	713-1a - 713-3a
717	Cullet and Cullet-Made Materials	717-1a - 717-2a

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Wages and Hours of Employees on Public Works Law

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Surety Bid Bond

Sample Form Title Page

Contract

Performance Bond (Surety)

Performance Bond

Labor and Material Payment Bond (Surety)

Labor and Material Payment Bond

Chapter 104, HRS Compliance Certificate

SECTION 645 - TRAFFIC CONTROL DEVICES

Make the following amendments to said Section:

(I) Amend the title to read as **"SECTION 645 - WORK ZONE TRAFFIC CONTROL"**

(II) Amend **Table 645-I - For Traffic Control Plan** to read as follows:

TABLE 645-I - FOR TRAFFIC CONTROL PLAN							
POSTED SPEED LIMIT (M.P.H.)	SIGN SPACING (D) (FEET)	TAPER LENGTH (T) (FEET)		LONGI- TUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET)		
		W = 12' OR LESS	W = GREATER THAN 12'		TAPER	TANGENT	WORK AREA
20	250	200	W x 17	35	20	20	10
25	250	200	W x 17	55	25	25	10
30	250	250	W x 20	85	30	30	10
35	250	250	W x 20	120	35	35	10
40	500	350	W x 30	170	40	40	10
45	500	550	W x 45	220	45	45	10
50	1000	600	W x 50	280	50	50	10
55	1000	700	W x 55	335	55	55	10

W = width of lane or shoulder

(III) Amend **645.03 Construction Requirements** by adding the following:

"The Contractor shall furnish two changeable message boards for Construction Phase A and two changeable message boards for Construction Phases B and E as part of their traffic control work. Unless otherwise approved by the Engineer, work areas of this project are as defined by the project phasing plans.

The Contractor shall furnish minimum of two uniformed Police Officers with vehicles equipped with blue strobe lights per work area as part of their traffic control work. Unless otherwise approved by the Engineer, work areas of this project are as defined by the project phasing plans.

Traffic control devices including cones, barricades, warning signs with supports, lights, and temporary signals shall conform to 'The Hawaii Administrative Rules, Title 19, Subtitle 5, Chapters 127, 128 and 129', the MUTCD and Section 104 - Scope of Work. Reflectorization for protective devices such as cones, barricades, delineators, and signs, shall conform to Subsection 712.20 - Signs.

Do not use steel drums and steel barrels for traffic controls in construction and maintenance work zones.

As of 10/01/2000, all new barricades, signs with sign supports and vertical panels without lights shall require an FHWA approval letter certifying that the device is NCHRP Report 350 compliant. Do not use barricades, signs with sign supports, and other traffic control devices purchased before 10/01/2000 that are not certified to be NCHRP Report 350 compliant after 10/01/2003.

Upon request of the Engineer, furnish a self-certified NCHRP Report 350 compliant letter from the vendor for each type of single-piece traffic cone, single-piece drum, tubular marker and delineator.

(A) Signs

(1) General. Install signs ahead of the place where operations may interfere with the use of the road by traffic and at intermediate points where the new work crosses or coincides with an existing road.

Place such signs as specified by the contract and as specified and accepted by the Engineer.

Submit to the Engineer 8 sets of FHWA approval letter certifying that the signs and sign supports are NCHRP Report 350 compliant.

(B) Barricades

(1) General. Apply and install the barricades according to the contract.

Provide, erect, and maintain necessary barricades, suitable and sufficient lighting devices, signs and other traffic control devices, and precautions for the protection of the work and safety of the public.

Protect roadways closed to traffic, illuminate obstructions during hours of darkness, and provide warning signs to control and direct traffic according to the contract.

Submit to the Engineer 8 sets of FHWA approval letter certifying that the barricades are NCHRP Report 350 compliant.

Barricades shall be in good condition. Submit barricades for acceptance by the Engineer for use within the project limits according to this section. Barricade application and installation shall be according to the contract and as specified by the Engineer.

Provide sand bags if required or specified by the Engineer. All sand bags and their method of installation shall comply with the MUTCD and be accepted by the Engineer prior to use. Do not place sand bags on the striped barricade rail.

Install steady burn and/or flashing lamps on selected barricades used during hours of darkness. Locations shall be according to the contract and specified by the Engineer. Attach the lamps on the barricade ends closest to the traveled way. Lamps shall be visible to the motorist.

Do not install signs on barricades unless the sign on barricade system has been crash tested, accepted under NCHRP Report 350, and accepted by the Engineer.

The Contractor may use the accepted barricades for temporary detours, construction phasing, or other temporary traffic control work.

The Contractor may use the accepted barricades used in temporary detours or construction phasing for permanent locations according to the contract.

Upon completion of the construction work, leave the barricades in place, relocate the barricades, or remove and dispose the barricades according to the contract or as specified by the Engineer. Barricades left in place or relocated to new permanent locations shall become the property of the State. Barricades removed and disposed of shall become the property of the Contractor.

(2) Reflectorization. Reflectorize barricade rails and the attachment with reflective sheeting according to Subsection 712.20(C)(4) - Type III or IV Retroreflective Sheeting (High or specified and accepted by the Engineer.

Reflectorize both vertical faces of each barricade rail according to the contract.

(3) Color. Rails, frames, and braces shall be white. The front and back faces of barricade rails shall have 6-inch wide alternate colored and white stripes sloping downward toward the traveled way at an angle of 45 degrees with the vertical. The colored stripes shall be either orange or red according to the following requirements:

(a) Use orange and white stripes for construction, detour or maintenance work.

(b) Use red stripes and white stripes on roadways with no outlet such as dead-ends and cul-de-sacs ramps or lanes closed for operational purposes or permanent or semi-permanent closure or termination of a roadway.

(4) Maintenance. Keep the barricades in good condition throughout their usage during construction

(a) To remain their effectiveness and appearance, repair, clean, or replace the required barricades as specified by the manufacturer guidelines and as specified by the Engineer.

(b) Immediately replace, lost, stolen, or damaged barricades, lamps, and sand bags.

Clean and repair the barricades used during construction phasing, temporary detours or other temporary traffic control work before relocating to permanent locations according to the contract or as specified by the Engineer.

The Engineer will not make payment for repair work or cleaning of barricades. The Engineer shall decide the suitable condition of each barricade and when each barricade needs repairing or cleaning.

(C) Traffic Delineators Install traffic Delineators to show the temporary alignment of detour roads according to the contract or as specified by the Engineer.

Upon request of the Engineer, submit to the Engineer FHWA letter certifying that the device is NCHRP Report 350 complaint.

Maintain the traffic delineators and keep the traffic delineators clean and repair. Replace lost, stolen, or damaged traffic delineators immediately.

At the end of a detour phase, relocate the traffic delineators and keep the traffic delineators clean and in good condition to the next detour phase. At the end of the construction period, leave in place or remove the traffic delineators according to the contract or as specified by the Engineer. The traffic delineators will become the property of the Contractor when no longer required on the project.

(D) Cones Install traffic cones according to the contract or as specified by the Engineer.

Upon request of the Engineer, submit to the Engineer an FHWA approval letter certifying that the cones are NCHRP Report 350 complaint.

Maintain the traffic cones and keep traffic cones clean and in good repair. Replace lost, stolen, or damaged traffic cones as needed."

(IV) Amend 645.04 Method of Measurement to read as follows:

"645.04 Method of Measurement. The Engineer will measure Additional Police Officers And/Or Additional Traffic Control Devices such as hiring the services of additional Police Officers that the Engineer requested; furnishing, installing, maintaining and removing the additional devices; notifying in writing all of the residents in a one mile radius, and inserting the legal notices required by the Engineer on a force account basis according to the contract and as specified by the Engineer.

The Engineer will not measure the first two changeable message boards for Construction Phase A and the first two changeable message boards for Construction Phases B and E for payment.

The Engineer will not measure the first two uniformed Police Officers with vehicles equipped with blue strobe lights per work area, traffic control, barricade or barricade with lamp, traffic delineator, and construction and maintenance of detours for payment."

(V) Amend 645.05 Basis of Payment to read as follows:

"645.05 Basis of Payment. The Engineer will pay for the accepted Additional Police Officers And/Or Additional Traffic Control Devices on a force account basis according to Subsection 109.04 - Extra and Force Account Work. The Engineer will compute the actual amount paid for force account work according to Subsection 109.04 - Extra and Force Account Work. The amount may be more or less than the estimated amount shown in the proposal. The force account work includes hiring the services of additional Police Officers beyond the two minimum required that the Engineer requested; furnishing, installing, maintaining and removing the additional devices; notifying in writing all of the residents in a one mile radius, inserting the legal notices; furnishing labor, materials, tools, equipment, and incidentals necessary to complete the work. The Contractor shall submit a paid invoice for the legal notice.

The Engineer will make payment under:

Pay Item	Pay Unit
Additional Police Officers And/Or Additional Traffic Control Devices	Force Account

The Engineer will not pay for the first two changeable message boards for Construction Phase A and the first two changeable message boards for Construction Phases B and E as part of their traffic control work. The Engineer will consider the cost for these changeable message boards for these Construction Phases as included in the contract price of the various contract items.

The Engineer will not pay for the first two Police Officers with vehicles equipped with blue strobe lights per work area separately. The Engineer will consider the cost for the first two Police Officers with vehicles equipped with blue strobe lights per work area as included in the contract price of the various contract items. The cost includes hiring the services of the Police Officers.

The Engineer will not pay for Traffic Control separately. The Engineer will consider the cost for Traffic Control as included in the contract price of the various contract items. The cost is for hiring the services of the flaggers and/or police officers; furnishing, installing, maintaining and removing all traffic controls shown in the traffic control plans; and furnishing labor, materials, tools, equipment, and incidentals necessary to complete the work.

The Engineer will not pay for Barricade or Barricade With Lamp separately. The Engineer will consider the cost for Barricade or Barricade With Lamp as included in the contract price of the various contract items. The cost is for furnishing, delivering, installing, maintaining, relocating, and removing the barricade and furnishing and installing sand bags and other accepted weights; and furnishing labor, materials, tools, equipment, and incidentals necessary to complete the work.

The Engineer will not pay for delineators separately. The Engineer will consider the cost for delineators as included in the contract price of the various contract items. The cost is for furnishing; installing; cleaning; maintaining correct placement; removing when required; and furnishing and installing sand bags or other accepted weights; and furnishing labor, materials, tools, equipment, and incidentals necessary to complete the work.

The Engineer will not pay for construction and maintenance of detours separately. The Engineer will consider the cost for construction and maintenance of detours as included in the contract price of the various contract items. The cost is for replacing installed traffic delineators that are lost, stolen, or damaged and not due to the Contractor's negligence; relocating of traffic delineators to the next detour phase; and furnishing labor, materials, tools, equipment, and incidentals necessary to complete the work."

(V) Replace Figures 1 through 6 dated 5/01/93 with the attached Figure 1 dated r11/97, Figure 2 dated r2/97 and Figures 3 through 7 dated r10/96.

SECTION 712 - MISCELLANEOUS

Make the following amendments to said Section:

- (I) Amend **712.38(C) Standard Specifications** to read as follows:

“(C) Standard Specifications. Traffic signal standards and appurtenances shall conform to the 2001 AASTHO ‘Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals’, 4th Edition, and the 2002 interim revisions, published by the American Association of State Highway and Transportation Officials.

In addition, the following modifications to the 2001 AASTHO ‘Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals’ shall be used in the design and manufacture of traffic signal standards:

- (1) **Basic Wind Speed** [Article 3.8.2] to determine the design wind pressure shall be 105 mph.
- (2) **Wind Importance Factor** [Article 3.8.2] noted in Table 3-2 used to determine the design wind pressure for traffic signal support structures shall be based on a recurrence interval of 25 years.
- (3) **Fatigue Importance Factors** [Article 11.6] noted Table 11-1 for traffic signal support structures shall be based Fatigue Category I - for all structures where failure would result in the structure falling onto the travelway.
- (4) **Galloping** [Article 11.7.1]. Traffic signal support structures shall be designed for galloping-induced cyclic loads unless approved vibration mitigation devices are installed.
- (5) **Natural Wind Gust** [Article 11.7.3]. Traffic signal support structures shall be designed to resist an equivalent static natural wind gust pressure. For unusual or differing exposure conditions, the equivalent static natural wind gust pressure should be increased using references noted in the specifications.
- (6) **Truck-Induced Gust** [Article 11.7.4]. Traffic signal support structures shall be designed to resist an equivalent static truck gust pressure range based on a truck speed of 65 mph. At the option of the State of Hawaii, Department of Transportation, a lower truck speed may be used in areas with design speeds not exceeding 45 mph.”

END OF SECTION