

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

**ADDENDUM NO. 2
for
KANEHOE WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-O-04-14M**

The following amendments shall be made to the Bid Documents:

A. SPECIFICATIONS

1. Replace **SECTION 619 - PLANTING**, Pages 619-1a to 619-11a dated 2/12/14 with the attached Pages 619-1a to 619-10a dated r6/16/14.
2. Replace **SECTION 659 – EROSION CONTROL MATTING**, Pages 659-1a to 659-6a dated 2/12/14 with the attached Pages 659-1a to 659-6a dated r6/17/14.

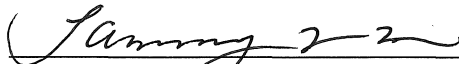
B. PROPOSAL

Replace Proposal Pages P-11 to P-20 dated 3/24/14 with the attached Pages P-11 to P-20 dated r6/16/14. Note that Item No. 619.0100 Kukui Tree (Aleurites moluccana, 15 Gal.) has been removed.

C. TABLE OF CONTENTS

Replace Table of Contents Pages 1 to 3 dated 5/18/14 with the attached Pages 1 to 3 dated r6/18/14.

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.



FORD N. FUCHIGAMI
Interim Director of Transportation

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1 Amend Section 619 – Planting to read as follows:
2

3 **“SECTION 619 - PLANTING**
4

5 **619.01 Description.** This section describes planting trees and ground cover.
6

7 **619.02 Materials.**
8

9 **(A) Plant Materials.** Ground cover shall be type and size shown in
10 contract documents or as specified by the Engineer.
11

12 **(1) Certification of Plants.** The Contractor's submission of a
13 bid shall constitute certification of availability of plants of required
14 type, size, and quantity.
15

16 **(2) Selection, Tagging, and Ordering of Plants.**
17

18 **(a)** Engineer will inspect plants at place of growth and
19 after delivery to the Project. Engineer will tag with
20 consecutively numbered plastic tamper resistant self-locking
21 seal with breaking strength of 55 pounds. Seals shall remain
22 on trees and only be removed by Engineer at completion of
23 the plant establishment period. Plants not conforming to
24 contract document requirements will be rejected.
25

26 **(b)** Contractor shall request plant inspection at least one
27 month prior to start of planting work. Contractor shall submit
28 a written request for inspection and documentation to
29 Engineer, not less than one month prior to start of planting
30 work, that all plant materials have been ordered.
31

32 **(3) Plant Names.** Ground cover shall be true to name and
33 follow standards for nomenclature adopted by *The American Joint*
34 *Committee on Horticultural Nomenclature*, and The Bernice P.
35 Bishop Museum's Special Publication No. 50, *In Gardens of*
36 *Hawaii*.
37

38 **(4) Condition of Plants.** Plants shall conform to specified
39 nomenclature, grades, and standards.
40

41 **(a) General.** Provide ground cover with normal habit of
42 growth, such as sound, healthy, vigorous, and free of
43 disease and insect infestation.
44

45 (b) **Container Grown Plants.** Plants shall be grown in
46 containers of specific size. Plant shall hold its root ball
47 without being root bound upon removal from container.
48

49 (c) **Native Plants.** The source of the native plants Uki
50 (*Cladium jamaicense*), *Carex* (*Carex wahuensis*), and 'Ilie'e
51 (*Plumbago zeylanica*) shall be collected from a site close to
52 the project sites. The plant nursery shall certify that the
53 source of the native plants is originally collected from the
54 Island of O'ahu. Certification of the plant material shall
55 include a map of the collection site.
56

57 (5) **Size of Plants.** Plants shall meet size indicated by minimum
58 and maximum height, and minimum and maximum spread, as
59 specified in the proposal.
60

61 (a) **Height.**
62

63 1. Height shall be defined as vertical
64 measurement from ground surface of plant in its
65 natural growing position in nursery.
66

67 2. Measurement of height shall stop where main
68 growth ends and shall not include fine or slender
69 terminal leader, twig or branch.
70

71 3. Range shall be specified for height of leggy
72 plants.
73

74 (b) **Spread.**
75

76 1. Spread shall be defined as horizontal
77 measurement of plant in its natural growing position in
78 nursery.
79

80 2. Measurement of spread shall not include fine
81 or slender terminal shoot.
82

83 3. Spread of plant shall be determined by
84 averaging smallest and largest measurements.
85 Smallest measurement shall not be less than 60
86 percent of largest.
87

88 (B) **Herbicides.** Herbicide use will not be allowed. A weed control
89 program will not be required for PID 207, PID 208, PID 210, and PID
90 1008. The Contractor will provide the Engineer with a weed control

program for the following sites:

(1) H-3 and Likelike Interchange.

(2) PID 209.

(C) Fertilizer.

(1) Commercial Fertilizer. Fertilizer shall be in new, clean, sealed, and properly labeled bags or containers. Fertilizer shall be protected from weather after delivery to the Project. Fertilizer shall be:

(a) Nitrogen, phosphoric acid, and potash (N-P-K) in percentages recommended in the Soil Analysis Report, uniform in composition, free flowing, and suitable for applications;

(b) Agriform 21-gram plant tablet conforming to criteria in (a) above.

(2) Organic Fertilizer. Fertilizer shall be in new, clean, sealed, and properly labeled bags or containers. Fertilizer shall be protected from weather after delivery to the Project. Fertilizer shall be nitrogen, phosphoric acid, and potash (N-P-K) in percentages recommended in the Soil Analysis Report, uniform in composition, free flowing, and suitable for application.

(3) Application Records. Records shall be kept by Contractor of dates of application, type of fertilizer used, quantities, and areas that were covered and shall be submitted to the Engineer within 24 hours of application.

(D) Mulch and Soil Amendments. Soil amendment shall be Hawaiian Earth Products "Menehune Mulch", Kellogg's "Nitrohumus Soil Conditioner", or approved equal. Compost shall comply with U.S. Composting Council specifications. Compost products comprised entirely of or containing more than 30 percent burnt sugar cane stalks (bagasse) by volume will not be accepted.

(E) Weed-blocking Geotextile. Weed-blocking geotextile shall be woven or non-woven, rot-proof, mildew and chemical resistant, delustered polypropylene product that allows passage of air, water, and fertilizer into soil but precludes growth of weeds.

135 **619.03 Construction.**

136
137 **(A) Codes and Standards.** Perform work in accordance with
138 applicable laws, codes, and regulations. Provide inspections and permits
139 required by Federal, State, and local government authorities.

140
141 **(B) Preparing Areas for Landscaping.**

142
143 **(1)** Remove trash, debris, and weeds from work area. Planting
144 areas shall be free from loose stones greater than 1/2-inch in
145 diameter. Dispose of material outside the Right-Of-Way as
146 specified in Section 201 – Clearing and Grubbing.

147
148 **(2)** Perform clearing and grubbing work in accordance with
149 Section 201 – Clearing and Grubbing. Within the project limits,
150 clear the project area to finish grade. Trees and shrubs are to
151 remain unless noted otherwise. Removal of stumps and roots will
152 not be required.

153
154 **(3)** No excavation will be allowed within the Project limits for PID
155 207, PID 208, PID 209, PID 210, and PID 1008.

156
157 **(4)** Excavation will be allowed within the Project limits for the
158 H-3 and Likelike Interchange site.

159
160 **(5)** No chemical herbicide shall be applied within the Project
161 limits.

162
163 **(C) Soil Preparation.** Prepare soil in accordance to Section 618 – Soil
164 Preparation.

165
166 **(D) Planting Soil.** Place planting soil as specified in Section 617 –
167 Planting Soil.

168
169 **(E) Adding Fertilizer and Amendments.**

170
171 **(1)** Uniformly distribute fertilizer and amendments as
172 recommended by the Soil Analysis Report as specified in Section
173 617 – Planting Soil and Section 618 – Soil Preparation.

174
175 **(2)** Do not add soil amendment when slope is steeper than
176 3H:1V.

177
178 **(F) Coordination of Work.** Adjust planting work for conformance with
179 ground and weather conditions. Planting operations shall coincide with
180 the “wet” season which typically occurs during the months of December

through March. Plant so that finished grades of planted areas are properly related to finished elevations of adjacent pavements, structures, and existing grades.

(G) Herbicides. Herbicide use will not be allowed. A weed control program will not be required for PID 207, PID 208, PID 210, and PID 1008. The Contractor will provide the Engineer with a weed control program for the following sites:

(1) H-3 and Likelike Interchange.

(2) PID 209.

(H) Preparing for Planting. Do not plant until site has been prepared, is neat and orderly, and Engineer accepts site for planting.

(I) Planting.

(1) **Locating Plants.** The Contractor will place target for plant locations with stakes or other markers as directed by the Engineer. Contractor will provide labor, materials, and transportation needed by the Engineer to locate plants.

(2) **Plant Holes.** Place plants in plant pits as indicated in the contract documents. Break up coral, rock, and hardpan to depth not less than 12 inches below normal bottom of pit. Contractor shall ensure adequate drainage of planting pit prior to commencing planting operations.

(3) **Setting Container Plants.** Perform planting without delay to prevent foliage from effects of evaporation and drying. Prune bruised or broken roots with clean cut at time of planting.

(a) Set plants to keep soil surface level within planting pit.

(b) Use appropriate excavated material to continue filling plant pits. Set plant plumb, brace rigidly in position, and tamp backfill mix solidly around root ball. After pit is 3/4 full, water thoroughly to saturate root ball.

(c) Distribute plant tablets or comparable fertilizer within pit in accordance with manufacturer's instructions. Continue filling pit to finished grade with backfill mix.

(d) When plant pit is filled, form saucer berm around plants as necessary or as noted on details.

(e) Water immediately after planting until soil around and below root ball is thoroughly saturated.

(4) **Removing Surplus Excavated Material.** Dispose of surplus excavated material from tree pits and shrub holes as specified in Section 203 – Excavation and Embankment.

(5) **Cleanup.** Remove and dispose of empty containers and accumulated debris when planting is completed.

(J) **Planting Period.** Planting period extends 90 days from date Engineer accepts site. When area has a mixture of grass and ground covers, planting period shall not start until all ground covers and grass in the area are planted and accepted by the Engineer. Replace plants that fail to develop healthy growth or die during the planting period. Provide and install replacements within two weeks of receiving notification from Engineer that plants are unacceptable. Apply fertilizer at time of planting and at the rate and frequency recommended by the Soil Analysis Report as specified in Section 617 – Planting Soil and Section 618 – Soil Preparation.

(1) **Native Plants.** Provide a list of recommended fertilizers, application rates, and application schedule for fertilizer to the Engineer for review and acceptance. The list of recommended fertilizers, application rates, and application schedule for fertilizer shall be from the native plant nursery that plants were obtained. Exercise caution when fertilizing to avoid burning plants. Notify the Engineer, in writing, 24 hours in advance of fertilization. If satisfactory growth is attained before 90 days, Contractor may submit written request for earlier end of planting period.

(K) **Pre-emergent Herbicide.** Use of pre-emergent herbicides will not be allowed. The Contractor will provide the Engineer with a weed control program for the H-3 and Likelike Interchange site, and PID 209.

(L) **Pruning.** Prune existing trees that will be included in landscape. Trees should be pruned when necessary during the construction phase.

(1) Remove by methods acceptable to the Engineer, no more than 20 percent of the canopy from trees, preserving natural shape and characteristics of the trees. Canopy removal shall be completed during the clearing and construction phase. Broken or badly bruised branches shall be removed with a clean cut during the construction phase, before wounds are allowed to dry out.

(2) Pruning work must be done by or under the direct supervision of a qualified arborist. Trim in accordance with publication ISBN 1-881956-07-5, "Tree Pruning Guidelines," of the International Society of Arboriculture. Dispose of cuttings outside the Right-of-Way.

(M) Watering.

(1) Water all newly planted areas in quantity and frequency necessary to sustain plant growth. Install a temporary irrigation system. Contractor will be responsible for determining and establishing the water source and delivery method to the Project site. Replace watering equipment that cause erosion or runoff. Water will be considered an incidental cost.

(2) If there is slope erosion or movement of silt, remove displaced material immediately. Restore areas that are eroded to a depth greater than two inches of original grade or width greater than three inches. Cost to repair erosion due to watering shall be borne by the Contractor.

(N) Plant Establishment Period.

(1) Planting period of 90-days plus a 9-month plant establishment period as per HDOT Standard Specifications.

During plant establishment period for all sites, water, fertilize, prune ground covers, and apply pesticide when required. Weeding will be required in the following areas:

(a) **H-3 and Likelike Interchange.** Weeding is required for all newly planted areas, inclusive of bioswale.

(b) **PID 209.** Weeding is required for all newly planted areas.

(2) **Barricades.** Where safety allows, set up barricades after planting to keep foot and vehicular traffic out of newly planted areas.

(3) **Watering.** Water to keep planted areas moist but not oversaturated, and to ensure good growth. Regulate quantity of water being applied to prevent erosion and formation of gullies. Immediately replace watering equipment that causes erosion, runoff, or formation of gullies.

319 (4) **Fertilizing.** In addition to fertilizing during the planting
320 period, apply fertilizer at the rate and frequency recommended by
321 the Soil Analysis Report as specified in Section 618 – Soil
322 Preparation.

323
324 (a) **Native Plants.** Contractor shall continue to use the
325 list of recommended fertilizers, application rates, and
326 schedule of fertilizer application from the native plant nursery
327 initially provided to the Engineer.

328
329 (b) Notify the Engineer, in writing, 24 hours in advance of
330 fertilizer application.

331
332 (5) **Controlling Weeds.**

333
334 (a) Weeding will not be required for PID 207, PID 208,
335 PID 210, and PID 1008.

336
337 (b) **H-3 and Likelike Interchange.** Keep new planting
338 areas at least 90 percent free of weeds and grass
339 considered undesirable by the Engineer. Remove weeds by
340 pulling roots. Do this daily if necessary. Deposit trash in
341 appropriate container, remove from the project site, and
342 dispose of offsite. Chemical weed control will not be
343 allowed.

344
345 (c) **PID 209.** Keep new planting areas at least 90 percent
346 free of weeds and grass considered undesirable by the
347 Engineer. Remove weeds by pulling roots. Do this daily if
348 necessary. Deposit trash in appropriate container, remove
349 from the project site, and dispose of offsite. Chemical weed
350 control will not be allowed.

351
352 (6) **Disease or Insect Infestation.**

353
354 (a) Inspect plants weekly for disease or insect damage.
355 Treat infected plants immediately.

356
357 (b) Remove damaged or diseased growth from shrubs.

358
359 (c) In all cases, ensure treatment of disease or insect
360 infestation is not detrimental to the health and continued
361 development of plants, especially native plant species.
362

(7) **Dead or Dying Plants.** Immediately remove plants that are not in a vigorous, thriving condition. Replace with plants of same type and size as was originally planted.

The Engineer will credit the Contractor plant establishment days when work is done in accordance with the contract documents and when the Engineer determines that no work is required, regardless of whether the Contractor actually performs plant establishment work. The Engineer will not credit the Contractor with plant establishment days when the Engineer determines that work is necessary but the Contractor fails to adequately perform plant establishment work.

(O) **Acceptance.** Acceptance, if granted, will be at the end of the plant establishment period. Engineer will base acceptance on 98 percent minimum coverage with health, well-established ground cover. Plants shall be in healthy growing condition.

Engineer will schedule semi-final inspection to decide acceptability 90 days before end of plant establishment period. At this time, Engineer will notify the Contractor of plants that need to be replaced and other apparent deficiencies

Final inspection will be held 90 days after Contractor provides plant replacements.

619.04 Measurement. The Engineer will measure ground cover per item in accordance with the contract documents.

619.05 Payment. The Engineer will pay for the accepted pay items listed below at the contract price per pay unit. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Carex (<i>Carex wahuensis</i>), 6" Pots)	Each
Uki (<i>Cladium jamaicense</i> , 6" Pots)	Each
'Ilie'e (<i>Plumbago zeylanica</i> , 1 Gal.)	Each

Partial Payment Schedule For Planting Period With Plant Establishment Period. The Engineer will pay for:

(A) 60 percent of the contract bid price upon completion of planting.

- 410
411 (B) 15 percent of the contract bid price in three monthly payments of 5
412 percent for satisfactory progress during the planting period.
413
414 (C) 20 percent of the contract bid price in eight equal monthly
415 payments of 2-1/2 percent for satisfactory progress during the plant
416 establishment period.
417
418 (D) 5 percent of the contract bid price at final acceptance of the plant
419 establishment period.
420

421 The Engineer will pay for planting soil as specified in Section 617 –
422 Planting Soil.”
423
424

END OF SECTION 619

1 Make this section a part of the Standard Specifications.

2
3 **“SECTION 659 – EROSION CONTROL MATTING**

4
5 **659.01 Description.** This section describes furnishing and installing erosion
6 control matting on slopes equal to or greater than 3H:1V within the project limits
7 according to the contract documents.

8
9 **659.02 Materials.**

10
11 **(A) Erosion Control Matting.**

12
13 (1) The minimum requirements for the erosion control matting
14 (ECM) will meet or exceed the following:

15
16 Erosion control matting shall be a machine-produced three-
17 dimensional, lofty, woven polypropylene geosynthetic specially
18 designed for erosion control applications on steep slopes and
19 vegetated waterways. The matrix will be composed of polypropylene
20 monofilament yarns woven into a uniform configuration of resilient
21 pyramid-like projections. The material will exhibit very high interlock
22 and reinforcement capacity with both soil and root systems.

23
24 Erosion control matting shall have the following physical
25 properties. Values must indicate Minimum Average Roll Value
26 (MARV) calculated as the typical minus two standard deviations.
27 Statistically, MARV yields a 97.7% degree of confidence that any
28 sample taken during quality assurance testing will exceed the value
29 reported.
30

Property	Test Method	Units
Mass/Unit Area	ASTM D-6566	13.5 oz/yd ²
Thickness	ASTM D-6525	0.4 inches
Light Penetration (% Passing)	ASTM D-6567	15% max.
Color	Visual	Green
Tensile Strength (Grab)	ASTM D-6818	4000 x 3000 lb/ft
Tensile Elongation	ASTM D-6818	40 x 35%
Resiliency	ASTM D-6524	80%
Flexibility	ASTM D-6575	0.534 in-lb (avg)
UV Resistance	ASTM D-4355	90%

Property	Test Method	Units
(% Retained 6,000 hrs)		
UV Resistance (% Retained 10,000 hrs)	ASTM D-4355	85%
Velocity (Fully Vegetated)	Large Scale	25 ft/sec
Velocity (65-70% Vegetated)	Large Scale	16 ft/sec
Velocity (20-30% Vegetated)	Large Scale	12 ft/sec
Shear Stress (Fully Vegetated)	Large Scale	16 lb/ft ²
Shear Stress (65-70% Vegetated)	Large Scale	12 lb/ft ²
Shear Stress (20-30% Vegetated)	Large Scale	5 lb/ft ²
Mannings "n" (Unvegetated)	Calculated (Large Scale Flexible Channel Lining With Depth of 6 to 12 Inches)	0.028
Seedling Emergence	ECTC Draft Method #4	296%
Roll Sizes		8.5 ft x 90 ft

(B) Ground Anchoring Devices. Length: Minimum 12 inches for clay soils and 18 inches for sandy soils. The length of the ground anchoring devices shall be determined by the Engineer.

(C) Percussion Driven Anchor.

Earth percussion anchors with minimum drive depth of 36 inches to provide permanent tie down of erosion control matting to slope in the locations specified in the drawings. The earth percussion anchor components shall be made of materials suitable to resist corrosion and UV degradation particularly at the soil/air interface. The anchor head shall have smooth edges and be shaped in a bullet-like configuration with the driving end tapering to a rounded point, so that the anchor head will not cut or break erosion control matting materials and will minimize abrasion and installation damage to the erosion control matting. The anchor shall consist of a self-setting wedge grip used to lock and hold the loading applied to the anchor. Copper ferrule mechanisms for load locking anchors will not be accepted. The earth percussion anchors shall meet the following requirements:

TYPE B1 ANCHORS

PHYSICAL	
Anchor Head Length	4.76 Inches
Anchor Head Width	1.61 Inches
Anchor Head Bearing Area	6.39 Inches
Anchor Head Weight	0.22 Pounds

ENDURANCE/COMPONENT MATERIALS	
Anchor Head	Gravity Die Cast Aluminum
Cable Tendon	4mm diameter x 1.5m & 2.5m long, Grade 316 Stainless Steel
Load Bearing Plate	6" dia., UV-Stabilized Plastic
Load-Lock Mechanism	4mm Conical Wedge Grip, Stainless
Crimped Ferrule	Copper

PERFORMANCE	
Load Range (Cohesive Through Non Cohesive Soils)	Up to 500 Pounds
Embedment Depth	Up to 7 Feet Refer to Plans for Depth

MECHANICAL	
Ultimate Strength	2,200 Pounds

TYPE B2 ANCHORS

PHYSICAL	
Anchor Head Length	6.73 Inches
Anchor Head Width	2.28 Inches
Anchor Head Bearing Area	12.71 Inches
Anchor Head Weight	0.66 Pounds

ENDURANCE/COMPONENT MATERIALS	
Anchor Head	Gravity Die Cast Aluminum
Cable Tendon	6mm diameter x 4m long, Grade 316 Stainless Steel
Load Bearing Plate	6" dia., UV-Stabilized Plastic
Load-Lock Mechanism	4mm Conical Wedge Grip, Stainless
Crimped Ferrule	Copper

PERFORMANCE	
Load Range (Cohesive Through Non Cohesive Soils)	Up to 1,000 Pounds
Embedment Depth	7 to 12 Feet Refer to Plans for Depth

MECHANICAL	
Ultimate Strength	4,200 Pounds

659.03 Construction Requirements.

(A) Preparation of Slope. Clear and grub in accordance with Section 201 - Clearing and Grubbing.

Shave existing ruts to form a constant and even slope to match the overall grade in accordance with Section 208 – Leveling Surfaces. The repaired slope shall be finished such that no voids exist between the soil surface and the erosion control matting.

Hydro-mulch in accordance with Section 641 – Hydro-Mulch Seeding.

(B) Erosion Control Matting. Install erosion control matting in accordance with the following slope criteria:

(1) Slopes less than 3H:1V. No erosion control matting is required.

(2) Slopes equal to 3H:1V or steeper. Install erosion control matting using pins or percussion driven anchors as indicated on the plans and in accordance with the manufacturer's installation design guidelines.

Construct 300 mm x 300 mm (12 inches x 12 inches) minimum anchor trench at the top of slope and install erosion control matting. Extend the erosion control matting 900 mm (three feet) over the crest of the slope and secure into the anchor trench with the anchoring devices recommended by the manufacturer. Install recommended anchoring devices along the bottom of the trench at 12 inches on center. Backfill and compact the anchor trench with specified soil or as directed by the Engineer.

Unroll the erosion control matting downslope, overlapping adjacent rolls a minimum of 150 mm (6 inches). Lay material loosely, maintaining direct contact with the soil. Secure the erosion control matting with ground anchoring devices and/or percussion driven

anchors in accordance with the manufacturer's installation guidelines. The installed anchors shall achieve no less than 200 pounds holding capacity in the existing prepared site soil conditions. Random load sampling shall be done on 10 percent of all the installed anchors to insure selected anchors meet the necessary holding requirements. In the event the necessary load requirements are not met, a greater length tendon or larger anchor may be required. The anchor manufacturer's advice should be consulted.

When erosion control matting does not run the entire length of the slope, a seam shall be created by shingling the top roll over the bottom a minimum of 12 inches. Seams shall be secured in accordance with the manufacturer's recommendations.

Erosion control matting shall be visually inspected by the Engineer 1 month and 3 months after installation to confirm that the matting is in direct contact with the surface subgrade. Locations that are not in direct contact may require additional pins and/or anchors.

Placement of the hydro-mulch and erosion control matting shall be in the sequence recommended by the manufacturer.

Placement of trees and shrubs through the erosion control matting shall be done in accordance with the manufacturer's guidelines and in the sequence recommended by the manufacturer.

659.04 Method of Measurement. The Engineer will measure erosion control matting per square yard in accordance with the contract documents.

The Engineer will measure and pay for clearing and grubbing, shaving ruts, and hydro-mulching in accordance to their respective sections.

659.05 Basis of Payment. The Engineer will pay for the accepted erosion control matting at the contract unit price per square yard. 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
Erosion Control Matting	Square Yard

144 The Engineer will pay for:

145
146 (1) 40% of the contract bid price upon completion of furnishing the
147 erosion control matting.

148
149 (2) 60% of the contract bid price upon completion of placing the erosion
150 control matting.”

151
152 **END OF SECTION 659**

H-3 AND LIKELIKE INTERCHANGE**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTIT	UNIT	UNIT PRICE	AMOUNT
206.0100	Excavation for Drainage Structures	1,338	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	\$ 20,000.00
212.0100	Archaeological Monitoring Services	FA	FA	FA	\$ 30,000.00
304.0100	Aggregate Base Course	82	CY	\$ _____	\$ _____
503.0100	Concrete Settling Basin	LS	LS	LS	\$ _____
603.0100	24-inch Reinforced Concrete Pipe, Class III or 24-inch HDPE Pipe, Type S	70	LF	\$ _____	\$ _____
603.0200	18-inch Reinforced Concrete Pipe, Class III or 18-inch HDPE Pipe, Type S	23	LF	\$ _____	\$ _____
604.0100	Type 1A-9 Grated Drop Inlet, 3 feet to 5 feet	1	EA	\$ _____	\$ _____
605.0100	6-Inch Underdrain	224	LF	\$ _____	\$ _____
605.0200	Underdrain Outlet	1	EA	\$ _____	\$ _____
605.0300	Cleanout	4	EA	\$ _____	\$ _____

611.0100	Hand-Laid Riprap	88	CY	\$ _____	\$ _____
617.0100	Imported Planting Soil	8	CY	\$ _____	\$ _____
618.0100	Soil Preparation	755	SY	\$ _____	\$ _____
618.0200	Imported Compost	75	CY	\$ _____	\$ _____
619.0100	Carex (Carex wahuensis, 6" Pots)	945	EA	\$ _____	\$ _____
619.0200	Uki (Cladium jamaicense, 6" Pots)	1,400	EA	\$ _____	\$ _____
619.0300	Illie'e (Plumbago zeylanica, 1 Gal.)	3,625	EA	\$ _____	\$ _____
641.0100	Hydro-Mulch Seeding	580	SY	\$ _____	\$ _____
643.0100	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ 10,000.00
645.0100	Traffic Control	LS	LS	LS	\$ _____
645.0200	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	FA	FA	FA	\$ 10,000.00
648.0100	Field-Posted Drawings	LS	LS	LS	_____
680.0100	Coarse Sand	10	CY	\$ _____	\$ _____
699.0100	Mobilization (Not to Exceed 6% of the Sum of All Items (H- 3 and Likelike Interchange) Excluding the Bid Price of this Item)	LS	LS	LS	\$ _____
SUM OF ALL ITEMS (H-3 and Likelike Interchange)					\$ _____

PID 207 PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTIT	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	LS	LS	LS	\$ _____
209.0200	Additional Water Pollution, Dust, and Erosion Control	FA	FA	FA	\$ 20,000.00
503.0100	Concrete Structures, Inlet Retrofit	LS	LS	LS	\$ _____
603.0100	Cleaning Existing Culverts	FA	FA	FA	\$ 20,000.00
641.0100	Hydro-Mulch Seeding	1,580	SY	\$ _____	\$ _____
643.0100	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ 10,000.00
645.0100	Traffic Control	LS	LS	LS	\$ _____
645.0200	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	FA	FA	FA	\$ 10,000.00
648.0100	Field-Posted Drawings	LS	LS	LS	\$ _____
682.0100	Storm Water Treatment System (Type 2) - Filter Baskets	3	EA	\$ _____	\$ _____
682.0200	Maintenance of Storm Water Treatment System (Type 2) - Filter Baskets	12	Month	\$ _____	\$ _____
683.0100	Vegetated Wall	1,580	SY	\$ _____	\$ _____

699.0100	Mobilization (Not to Exceed 6% of the Sum of All Items (PID 207) Excluding the Bid Price of this Item)	LS	LS	LS	\$ _____
SUM OF ALL ITEMS (PID 207)					\$

PID 208 PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTIT	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	LS	LS	LS	\$ _____
209.0200	Additional Water Pollution, Dust, and Erosion Control	FA	FA	FA	\$ 20,000.00
641.0100	Hydro-Mulch Seeding	450	SY	\$ _____	\$ _____
643.0100	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ 10,000.00
645.0100	Traffic Control	LS	LS	LS	\$ _____
645.0200	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	FA	FA	FA	\$ 10,000.00
648.0100	Field-Posted Drawings	LS	LS	LS	\$ _____
683.0100	Vegetated Wall	450	SY	\$ _____	\$ _____
699.0100	Mobilization (Not to Exceed 6% of the Sum of All Items (PID 208) Excluding the Bid Price of this Item)	LS	LS	LS	\$ _____
SUM OF ALL ITEMS (PID 208)					\$ _____

PID 209 PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTIT	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	LS	LS	LS	\$ _____
209.0200	Additional Water Pollution, Dust, and Erosion Control	FA	FA	FA	\$ 20,000.00
641.0100	Hydro-Mulch Seeding	3,030	SY	\$ _____	\$ _____
643.0100	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ 10,000.00
645.0100	Traffic Control	LS	LS	LS	\$ _____
645.0200	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	FA	FA	FA	\$ 10,000.00
648.0100	Field-Posted Drawings	LS	LS	LS	\$ _____
659.0100	Erosion Control Matting	3,030	SY	\$ _____	\$ _____
699.0100	Mobilization (Not to Exceed 6% of the Sum of All Items (PID 209) Excluding the Bid Price of this Item)	LS	LS	LS	\$ _____
SUM OF ALL ITEMS (PID 209)					\$ _____

PID 210 PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTIT	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	LS	LS	LS	\$ _____
209.0200	Additional Water Pollution, Dust, and Erosion Control	FA	FA	FA	\$ 20,000.00
503.0100	Concrete Structures, Inlet Retrofit	LS	LS	LS	\$ _____
603.0100	Cleaning Existing Culverts	FA	FA	FA	\$ 5,000.00
641.0100	Hydro-Mulch Seeding	1,506	SY	\$ _____	\$ _____
643.0100	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ 10,000.00
645.0100	Traffic Control	LS	LS	LS	\$ _____
645.0200	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	FA	FA	FA	\$ 10,000.00
648.0100	Field-Posted Drawings	LS	LS	LS	\$ _____
682.0100	Storm Water Treatment System (Type 2) - Filter Baskets	5	EA	\$ _____	\$ _____
682.0200	Maintenance of Storm Water Treatment System (Type 2) - Filter Baskets	12	Month	\$ _____	\$ _____
683.0100	Vegetated Wall	1,506	SY	\$ _____	\$ _____

699.0100	Mobilization (Not to Exceed 6% of the Sum of All Items (PID 210) Excluding the Bid Price of this Item)	LS	LS	LS	\$ _____
SUM OF ALL ITEMS (PID 210)					\$

PID 1008
PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTIT	UNIT	UNIT PRICE	AMOUNT
206.0100	Excavation for Drainage Structures	500	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	\$ 20,000.00
304.0100	Aggregate Base Course	98	CY	\$ _____	\$ _____
603.0100	Cleaning Existing Culverts	FA	FA	FA	\$ 2,500.00
641.0100	Hydro-Mulch Seeding	500	SY	\$ _____	\$ _____
643.0100	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ 10,000.00
645.0100	Traffic Control	LS	LS	LS	\$ _____
645.0200	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	FA	FA	FA	\$ 10,000.00
648.0100	Field-Posted Drawings	LS	LS	LS	\$ _____
681.0100	Storm Water Treatment System (Type 1) - Baffle Box	1	EA	\$ _____	\$ _____
681.0200	Maintenance of Storm Water Treatment System (Type 1) - Baffle Box	12	Month	\$ _____	\$ _____

682.0100	Storm Water Treatment System (Type 2) - Filter Baskets	2	EA	\$ _____	\$ _____
682.0200	Maintenance of Storm Water Treatment System (Type 2) - Filter Baskets	12	Month	\$ _____	\$ _____
683.0100	Vegetated Wall	500	SY	\$ _____	\$ _____
694.0100	Project Sign	LS	LS	LS	\$ _____
696.0100	Maintenance of Trailers	FA	FA	FA	\$ 5,000.00
696.0200	Field Office Trailer (Not to Exceed \$32,000.00)	LS	LS	LS	\$ _____
699.0100	Mobilization (Not to Exceed 6% of the Sum of All Items (PID 1008) Excluding the Bid Price of this Item)	LS	LS	LS	\$ _____
SUM OF ALL ITEMS (PID 1008)					\$ _____
a. SUM TOTAL OF ALL SITES					\$ _____
NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bids.					