

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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Be energy efficient!*

November 8, 2013

11-SD-15, 94-Var
11-282404
Project ID 1100000314
NHP-X073(103)E

Addendum No. 4

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN DIEGO COUNTY AT VARIOUS LOCATIONS.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Thursday, November 14, 2013.

This addendum is being issued to revise the project plans, the *Notice to Bidders and Special Provisions*, and the *Bid book*.

Project plan sheets 28, 29, 39, 40, 41, 42, 43 and 44 are replaced and attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 68, "SUBSURFACE DRAINS," is replaced as attached.

In the *Bid book*, in the "Bid Item List," Items 27, 28, 80, 84, 88, 89 and 95 are replaced as attached.

To *Bid book* holders:

In the *Bid book*, pages 4, 6 and 7 of the "Bid Item List" are replaced as attached. The attached Bid Item List is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the *Notice to Bidders* section of the *Notice to Bidders and Special Provisions*.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the *Bid book*.

Submit bids in the *Bid book* you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This addendum and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/11/11-282404

If you are not a *Bid* book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

A handwritten signature in black ink, appearing to read 'Laurie Berman', with a long horizontal flourish extending to the right.

LAURIE BERMAN
District Director

Attachments

68 SUBSURFACE DRAINS

Add to section 68-2.02F:

68-2.02F(5) Class 4 Permeable Material

Class 4 permeable material for use in, around, Austin Sand Filters, and Infiltration systems must consist of hard, durable, clean sand, gravel, or crushed stone and must be free from organic material, clay balls, or other deleterious substances.

The percentage composition by weight of Class 4 permeable material in place must comply with the grading requirements shown in the following table:

Sieve sizes	Percentage passing
2"	100
1-1/2"	95-100
3/4"	50-100
1/2"	--
3/8"	15-55
No. 4	0-25
No. 8	0-5
No. 100	0

Class 4 permeable material must have a durability index of not less than 40.

At least 5 days before placing Class 4 permeable material, submit a certificate of compliance for gradation of the material.

No more than 5 days after placing Class 4 permeable material, submit:

1. At least one ASTM D 6913 test on the permeable material at an authorized location from the material delivered to the project.
2. Verification that the placed permeable material complies with the grading requirements

Prior to placement, wash Class 4 permeable material:

1. To remove silt and clay particles.
2. With potable water equal to at least four times the volume of the material to be placed.

After placement, wash Class 4 permeable material:

1. With potable water.
2. Until the discharged water has a turbidity reading of:
 - a. 30 NTU or less for jobs within the Tahoe Hydrologic Unit
 - b. 200 NTU or less for jobs outside of the Tahoe Hydrologic Unit

You must capture and dispose of the wash water. Dispose of wash water outside of the state right of way. Class 4 permeable material used in Infiltration Systems does not have to be washed after placement, only prior.

68-2.02F(6) Class 5 Permeable Material

Class 5 permeable material for use in media filters must consist of hard, durable, clean sand, and must be free from organic material, clay balls, or other deleterious substances.

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REPLACED PER ADDENDUM NO. 4 DATED NOVEMBER 8, 2013

The percentage composition by weight of Class 5 permeable material in place must comply with the grading requirements shown in the following table:

**Class 5 Permeable Material
Grading Requirements**

Sieve sizes	Percentage passing
3/8"	100
No. 4	95-100
No. 8	80-100
No. 16	45-85
No. 30	15-60
No. 50	3-15
No. 100	0-4
No. 200	0

Standard ASTM 6913	Range
Effective Particle size (ES)=(D ₁₀)	0.0098"-0.0197"
Uniformity Coefficient U _c = (D ₆₀ /D ₁₀)	< 4

Class 5 permeable material must have a durability index of not less than 40.

At least 5 days before placing Class 5 permeable material, submit a certificate of compliance for gradation of the material.

No more than 5 days after placing Class 5 permeable material, submit:

1. At least one ASTM D 6913 test on the permeable material at an authorized location from material delivered to project.
2. Verification that the placed permeable material complies with the grading requirements

Prior to placement, wash Class 5 permeable material:

1. To remove silt and clay particles.
2. With potable water equal to at least four times the volume of the material to be placed.

After placement, wash Class 5 permeable material:

1. With potable water.
2. Until the discharged water has a turbidity reading of:
 - b. 200 NTU or less for jobs outside of the Tahoe Hydrologic Unit

You must capture and dispose of the wash water. Dispose of wash water outside of the state right of way.

Place Class 5 permeable material:

1. In a manner that will not damage or cause permanent displacement of the filter fabric.
2. Using methods that will produce a finished surface as shown.

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REPLACED PER ADDENDUM NO. 4 DATED NOVEMBER 8, 2013

Add to section 68-2.02G:

Use Filter Fabric Class D

Replace section 68-2.02H with:

68-2.02H Infiltration System

68-2.02H(1) General

Infiltration System must consist of one of these products or equal:

1. Stormtank™ by Brentwood Industries
2. Raintank by Pine Hill Plastic, Inc.
3. ACO Stormtank, by ACO Polymer Products, Inc

The contractor must have the manufacturer of one of these products or equal, supply shop drawings and structural load analysis consistent with section 3 of the Caltrans Bridge Design Specifications. The load calculations must be stamped by a California Registered Engineer. The load analysis must be consistent with HS-20 loading. The shop drawing and calculations must be submitted to the resident engineer for review and approval by the District Structures representative. The submittal must be submitted 30 days prior to construction for review by the Caltrans representative.

All products used as permeable material geocomposite must have a void space of 90% or greater.

Permeable material must be placed in a even 18" layer under the entire Infiltration System modules area, rolled in level layer.

Each pipe inlet and outlet to the Infiltration System shall have Flap gates installed. Flap gates must be Waterman SSF-41; Golden Harvest, Inc., GH-39P Stainless Steel Circular Discharge Flap Gate; Fontaine Industries, Series 60 Stainless Steel (316) Circular Flap Gate; Plasti-fab, Inc., Stainless Steel Body Neoprene Circular Flap Gate, or equal. Cracking pressure required to open the 18" flap gate inside the Infiltration System shall be no more than 0.5 psi.

68-2.02H(2) Class 4 Permeable Material

Use Class 4 permeable material or insert table for alternative gradations to meet site specific needs.

Add to 68-2.03

Construction of Infiltration System must follow the guidelines and instructions from the manufacturer or as approved by the engineer if any of the construction methods deviate from manufacturer recommendations. All deviations in construction will be submitted to the Resident Engineer 30 days prior to construction for approval. The permeable material and fabric will be those included in the specification. Excavation and the design of the shoring system used in construction, is the responsibility of the contractor.

Add to 68-2.04

Payment for Infiltration System shall include all the items required for the construction of this system as per manufacturer recommendations including but not limited to infiltration modules, filter fabric, permeable material.

Any specialty items not included here, but are required by the manufacturer for the operation and maintenance of the Infiltration System must be included in the price for each system.

CONTACT NO. 11-282404

REPLACED PER ADDENDUM NO. 4 DATED NOVEMBER 8, 2013

**Replace section 68-5 with:
68-5 PERMEABLE MATERIAL BLANKET**

68-5.01 GENERAL

Section 68-5 includes specifications for installing permeable material blankets.

68-5.02 MATERIALS

Permeable material for permeable material blanket must be Class 4 and must comply with section 68-2 except for payment.

Filter fabric must comply with section 88-1.02B.

68-5.03 CONSTRUCTION

Place filter fabric as follows:

1. Ensure the subgrade complies with the compaction and elevation tolerance specified for the material involved before placing the filter fabric on the subgrade.
2. Handle and place filter fabric under the manufacturer's instructions.
3. Align and place the fabric without wrinkles.
4. Overlap or stitch adjacent borders of the fabric from 12 to 18 inches. The preceding roll must overlap the following roll in the direction the permeable material is being spread or must be stitched. If the fabric is joined by stitching, the fabric must be stitched with yarn of a contrasting color. The size and composition of the yarn must be as recommended by the fabric's manufacturer. The stitches must number 5 to 7 per 1 inch of seam.
5. Cover the fabric with the planned thickness of permeable material or aggregate subbase material as shown within 24 hours after the filter fabric has been placed.
6. Maintain a minimum of 6 inches of the material between the fabric and your equipment during spreading and compaction of the permeable material and aggregate subbase. Where embankment material is to be placed on the filter fabric, maintain a minimum of 18 inches of embankment material between the fabric and your equipment. Do not operate or drive equipment or vehicles directly on the filter fabric.

68-5.04 PAYMENT

Class 4 Permeable material (blanket) is measured by the dimensions shown.

CONTACT NO. 11-282404

REPLACED PER ADDENDUM NO. 4 DATED NOVEMBER 8, 2013

**BID ITEM LIST
11-282404**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	43		
22	153215	REMOVE CONCRETE (CURB AND GUTTER)	LF	85		
23	026545	REMOVE CONCRETE DITCH	LF	120		
24	153221	REMOVE CONCRETE BARRIER	LF	240		
25	155232	SAND BACKFILL	CY	60		
26	160102	CLEARING AND GRUBBING (LS)	LS	LUMP SUM	LUMP SUM	
27	190101	ROADWAY EXCAVATION	CY	5,630		
28	190105	ROADWAY EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)	CY	850		
29 (F)	192001	STRUCTURE EXCAVATION	CY	118		
30	192053	STRUCTURE EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)	CY	290		
31	026546	DITCH EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)	CY	550		
32	200002	ROADSIDE CLEARING	LS	LUMP SUM	LUMP SUM	
33	200052	PRUNE EXISTING PLANTS	LS	LUMP SUM	LUMP SUM	
34	202004	IRON SULFATE (LB)	LB	3,880		
35	202011	MULCH	CY	320		
36	202035	FERTILIZER (PACKET)	EA	400		
37	202036	SLOW RELEASE OR CONTROLLED RELEASE FERTILIZER	LB	3,070		
38 (F)	204008	PLANT (GROUP H)	EA	440,923		
39	204011	PLANT (GROUP K)	EA	12		
40	204022	PLANT (GROUP Z)	EA	5		

BID ITEM LIST

11-282404

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	208480	SPRINKLER (TYPE C-2 MOD)	EA	92		
62	208575	2" GATE VALVE	EA	9		
63	208576	2 1/2" GATE VALVE	EA	7		
64 (F)	208595	1" PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	LF	7,139		
65 (F)	208596	1 1/4" PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	LF	4,478		
66 (F)	208597	1 1/2" PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	LF	2,237		
67 (F)	208598	2" PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	LF	2,233		
68 (F)	208599	2 1/2" PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	LF	3,692		
69 (F)	208600	3" PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	LF	1,049		
70	026548	TEMPORARY IRRIGATION SUPPLY LINE	LF	250		
71	210110	IMPORTED TOPSOIL (CY)	CY	460		
72	210350	FIBER ROLLS	LF	2,910		
73	210600	COMPOST	SQFT	14,000		
74	210630	INCORPORATE MATERIALS	SQFT	14,000		
75	260203	CLASS 2 AGGREGATE BASE (CY)	CY	170		
76	374002	ASPHALTIC EMULSION (FOG SEAL COAT)	TON	0.4		
77	390132	HOT MIX ASPHALT (TYPE A)	TON	270		
78	394076	PLACE HOT MIX ASPHALT DIKE (TYPE E)	LF	40		
79	397005	TACK COAT	TON	0.4		
80 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	78		

BID ITEM LIST

11-282404

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	620060	12" ALTERNATIVE PIPE CULVERT	LF	360		
82	620100	18" ALTERNATIVE PIPE CULVERT	LF	180		
83	620140	24" ALTERNATIVE PIPE CULVERT	LF	490		
84	620180	30" ALTERNATIVE PIPE CULVERT	LF	240		
85	680902	6" PERFORATED PLASTIC PIPE UNDERDRAIN	LF	650		
86	026549	FLAP GATE	EA	22		
87	026550	INFILTRATION SYSTEM	EA	4		
88 (F)	026551	CLASS 4 PERMEABLE MATERIAL (BLANKET)	CY	70		
89 (F)	026552	CLASS 5 PERMEABLE MATERIAL	CY	78		
90	026553	JACKED 36" WELDED STEEL PIPE CASING	LF	30		
91	705315	24" ALTERNATIVE FLARED END SECTION	EA	2		
92	707467	36" REINFORCED CONCRETE PIPE RISER	LF	43		
93 (F)	721028	ROCK SLOPE PROTECTION (NO. 2, METHOD B) (CY)	CY	2.2		
94	721431	CONCRETE (CONCRETE APRON)	CY	3		
95 (F)	722020	GABION	CY	23		
96	026554	FILTER FABRIC CLASS D	SQYD	390		
97 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	11,355		
98	800100	TEMPORARY FENCE	LF	290		
99	800360	CHAIN LINK FENCE (TYPE CL-6)	LF	76		
100	839701	CONCRETE BARRIER (TYPE 60)	LF	250		