

DEPARTMENT OF TRANSPORTATION

ESC/OE MS #43
1727 30TH Street, 2ND Floor
Sacramento, CA 95816



July 21, 2000

07-LA-5-100.2,100.5
07-1X1104
ACIM-35G4(004)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in LOS ANGELES COUNTY NEAR CASTAIC AT 1.6 km SOUTH OF VIOLIN ROAD UNDERCROSSING.

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 July 27, 2000.

This addendum is being issued to revise the Notice to Contractors and Special Provisions and the Proposal and Contract.

In the Special Provisions, Section 10-1.19, "EROSION CONTROL (BLANKET)," is revised as attached.

In the Proposal and Contract, the Engineer's Estimate Items 15, 16, 18, and 19 are revised as attached.

To Proposal and Contract book holders:

Replace Page 3 of the Engineer's Estimate in the Proposal with the attached revised Page 3 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

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

Submit bids in the Proposal and Contract 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.

This office is sending this addendum by confirmed facsimile to all book holders to ensure that each receives it.

If you are not a Proposal and Contract 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,

ORIGINAL SIGNED BY

NICK YAMBAO, Chief
Office of Plans, Specifications & Estimates
Division of Office Engineer

Attachments

10-1.19 EROSION CONTROL (BLANKET)

Erosion control (blanket) shall conform to the details shown on the plans, the provisions in Section 20-3, "Erosion Control," of the Standard Specifications and these special provisions.

Erosion control (blanket) work shall consist of applying seed, fiber, endomycorrhizal inoculum, and compost and installing erosion control blanket to embankment slopes, excavation slopes and other areas designated by the Engineer.

MATERIALS

Materials shall conform to the provisions in Section 20-2, "Materials," of the Standard Specifications and these special provisions.

Seed

Seed shall conform to the provisions in Section 20-2.10, "Seed," of the Standard Specifications. Individual seed species shall be measured and mixed in the presence of the Engineer.

Seed not required to be labeled under the California Food and Agricultural Code shall be tested for purity and germination by a seed laboratory certified by the Association of Official Seed Analysts or by a seed technologist certified by the Society of Commercial Seed Technologists.

Seed shall have been tested for purity and germination not more than one year prior to application of seed.

Results from testing seed for purity and germination shall be furnished to the Engineer prior to applying seed.

Seed shall be delivered to the job site in unopened separate containers with the seed tag attached. Containers without a seed tag will not be accepted.

A sample of approximately 30 g of seed will be taken from each seed container by the Engineer.

Legume Seed

Legume seed shall be pellet-inoculated or industrial-inoculated and shall conform to the following:

- A. Pellet-inoculated seed shall be inoculated in conformance with the provisions in Section 20-2.10, "Seed," of the Standard Specifications.
- B. Inoculated seed shall have a calcium carbonate coating.
- C. Pellet-inoculated seed shall be sown within 90 days after inoculation.
- D. Industrial-inoculated seed shall be inoculated with Rhizobia and coated using an industrial process by a manufacturer whose principal business is seed coating and seed inoculation.
- E. Industrial-inoculated seed shall be sown within 180 calendar days after inoculation.
- F. Legume seed shall consist of the following:

LEGUME SEED

Botanical Name (Common Name)	Percent Germination (Minimum)	Kilograms Pure Live Seed Per Hectare (Slope Measurement)
Lotus Scoparius (Deerweed)	30	1.0
Lupinus bicolor (Pygmy-leaved Lupine)	40	1.0

Non-Legume Seed

Non-legume seed shall consist of the following:

NON-LEGUME SEED		
Botanical Name (Common Name)	Percent Germination (Minimum)	Kilograms Pure Live Seed Per Hectare (Slope Measurement)
Artemisia Californica (California Sagebrush)	25	0.3
Elymus Glaucus Anderson (Blue Wildrye)	40	4.5
Bromus Carinatus (Cucamonga)	40	4.5
Eriogonum Fasciculatum (Buckwheat)	5	1.0
Eriophyllum confertiflorum (Golden Yarrow)	30	.3
Eschscholzia Californica (California Poppy)	30	2.0
Melica Californica (California Melic)	30	3.5
Nassella Pulchra (Purple Needlegrass)	30	4.5
Salvia Apiana (White Sage)	25	0.6
Vulpia Microstachys (Small Fescue)	30	4.0

Compost

Compost shall be derived from green material consisting of chipped, shredded or ground vegetation or clean processed recycled wood products or a Class A, exceptional quality biosolids composts, as required by the United States Environmental Protection Agency (EPA), 40 CFR, Part 503c regulations or a combination of green material and biosolids compost. The compost shall be processed or completed to reduce weed seeds, pathogens and deleterious material, and shall not contain paint, petroleum products, herbicides, fungicides or other chemical residues that would be harmful to plant or animal life. Other deleterious material, plastic, glass, metal or rocks shall not exceed 0.1 percent by weight or volume. A minimum internal temperature of 57°C shall be maintained for at least 15 continuous days during the composting process. The compost shall be thoroughly turned a minimum of 5 times during the composting process and shall go through a minimum 90-day curing period after the 15-day thermophilic compost process has been completed. Compost shall be screened through a maximum 6 mm screen. The moisture content of the compost shall not exceed 35 percent. Moisture content shall be determined by California Test 226. Compost products with a higher moisture content may be used provided the weight of the compost is increased to equal the compost with a moisture content of 35 percent. Compost will be tested for maturity and stability with a solvita test kit. The compost shall measure a minimum of 6 on the maturity and stability scale.

Endomycorrhizal Inoculum

Endo (arbuscular) mycorrhizal inoculum shall be registered by the California Department of Food and Agriculture and consist of spores, mycelium, and mycorrhizal root fragments in a solid carrier suitable for handling by hydro-seeding or dry seeding equipment. The carrier shall be the material in which the inoculum was originally produced, and may include organic materials, vermiculite, perlite, calcined clay, or other approved materials consistent with mechanical application and with good plant growth.

Each endomycorrhizal inoculum shall carry a supplier's guarantee of 80,000 propagules minimum per kilogram. The minimum propagule count shall be shown on each label provided. If more than one fungal species is claimed by the supplier, the label shall include a guarantee for each species of mycorrhizal fungus claimed.

A sample of approximately 28 grams of inoculum will be taken from each inoculum container by the Engineer. The number of propagules will be determined by laboratory testing. Propagules shall include live spores, mycelial fragments, and viable mycorrhizal root fragments.

Endomycorrhizal inoculum shall be stored, transported and applied at temperatures of less than 32° C (90° F).

Erosion Control Blanket

Erosion control blanket shall consist of straw or wood excelsior mats secured in place with wire staples and shall conform to the following:

- A. Blanket material shall consist of machine produced mats of curled coconut fiber. The erosion control blanket shall be of consistent thickness and the wood fiber shall be evenly distributed over the entire area of the blanket. The coconut fiber matrix shall be stitch-bonded between a bottom netting of UV stabilized polypropylene 4.2 kg/100 square meter mesh and a crimped intermediate net of UV stabilized polypropylene 9.8 kg/100 square meter mesh, then overlaid with a top net. The top net of the blanket shall be covered with a UV stabilized polypropylene 4.2kg/100 square meter mesh. The blanket shall be smolder resistant without the use of chemical additives and shall be non-toxic and non-injurious to plant and animal life. Erosion control blanket shall be furnished in rolled strips, 2000 mm in width, and shall have an average mass of 0.5 kg/square meter (+-) 10 percent at the time of manufacture.
- B. Staples for erosion control blankets shall be made of 11-gage minimum steel wire and shall be U-shaped with 200-mm legs and 50-mm crown.

APPLICATION

Erosion control (blanket) materials shall be placed in 2 separate applications as follows:

- A. The first application shall consist of applying seed, fiber, compost, and endomycorrhizal inoculum at the following rates and in the following sequence:
 - 1. Seed, fiber, compost and mycorrhizal inoculum shall be applied at the rates indicated in the following table. If hydro-seeding equipment is used to apply seed, fiber, compost and mycorrhizal inoculum , the mixture shall be applied within 60 minutes after the seed has been added to the mixture.

Material	Kilograms Per Hectare (Slope Measurement)
Non-Legume Seed	25.2
Legume Seed	2.0
Compost	2300
Fiber	600
Endomycorrhizal Inoculum	91

- B. The second application shall consist of installing the erosion control blanket over the seed, fiber, compost and mycorrhizal inoculum application.
- C. Erosion control blanket strips shall be placed loosely on the slope with the longitudinal joints perpendicular to the slope contour lines. Longitudinal and transverse joints of blankets shall be butted snugly against adjacent strips or overlapped according to the manufacturer's recommendations and stapled. Staples shall be driven perpendicular to the slopes, and shall be located and spaced in conformance with the manufacturer's instructions. Ends of the blankets shall be secured in place in conformance with the manufacturer's instructions.

MEASUREMENT AND PAYMENT

The quantity of erosion control (blanket) will be determined by the square meter from actual slope measurement of the area covered by the erosion control blanket.

The contract price paid per square meter for erosion control (blanket) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing erosion control blanket, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The contract price paid per kilogram for mycorrhizal inoculum shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in applying mycorrhizal inoculum for erosion control, complete in place, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The contract price paid per kilogram for compost (erosion control) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in applying compost for erosion control, complete in place, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

ENGINEER'S ESTIMATE
07-1X1104

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	018766	TEMPORARY FENCE (TYPE ESA)	M	640		
2 (S)	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
3 (S)	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
4	120165	CHANNELIZER (SURFACE MOUNTED)	EA	14		
5	129000	TEMPORARY RAILING (TYPE K)	M	200		
6	129100	TEMPORARY CRASH CUSHION MODULE	EA	28		
7	150771	REMOVE ASPHALT CONCRETE DIKE	M	15		
8	150806	REMOVE PIPE	M	9		
9	151536	RECONSTRUCT FENCE (TYPE BW)	M	65		
10	151572	RECONSTRUCT METAL BEAM GUARD RAILING	M	15		
11	190101	ROADWAY EXCAVATION	M3	60		
12	019055	LEAD COMPLIANCE PLAN	LS	LUMP SUM		
13	197010	PLACE AND COMPACT EMBANKMENT	M3	5850		
14 (S)	202011	MULCH	M3	315		
15 (S)	018767	COMPOST (EROSION CONTROL)	KG	930		
16 (S)	203001	EROSION CONTROL (BLANKET)	M2	4050		
17 (S)	203014	FIBER (EROSION CONTROL)	KG	250		
18 (S)	203045	PURE LIVE SEED (EROSION CONTROL)	KG	11		
19 (S)	018768	ENDOMYCORRHIZAL INOCULUM	KG	36		
20 (S)	204001	PLANT (GROUP A)	EA	710		