



Addendum No. 1  
Page 2  
April 29, 2008

02-TRI-299-18.7-18.9  
02-OE1504

This office is sending this addendum by GSO overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum is available for the contractor's use on the Internet Site:

**[http://www.dot.ca.gov/hq/esc/oe/weekly\\_ads/addendum\\_page.html](http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html)**

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 Katrina Pierce for**

JODY JONES,  
District 3 Director

Attachments

#### **10-1.24 CONCRETE STRUCTURES**

Portland cement concrete structures shall conform to the provisions in Section 51, "Concrete Structures," of the Standard Specifications and these special provisions.

Bar reinforcing steel for use in retaining wall shall conform to the provisions in Section 52-1.02B, "Epoxy-coated Reinforcement," of the Standard Specifications.

Full compensation for epoxy-coated bar reinforcement shall be considered as included in the contract price paid per cubic yard for retaining wall of the type or types listed in the Engineer's Estimate and no separate payment will be made therefor.

#### **10-1.27 PREPARE AND STAIN CONCRETE**

This work shall consist of preparing and staining concrete surfaces where shown on the plans in conformance with the provisions in Section 59-1.06, "Painting Concrete," of the Standard Specifications and these special provisions.

Concrete stain shall be a water-based solution of metallic salts that penetrate and react with concrete to produce insoluble, abrasion-resistant color deposits. The stain shall contain dilute acid to etch concrete surfaces so that the staining ingredients can penetrate the concrete.

Concrete stain shall be formulated and applied so that the final colors of the stained concrete are in conformance with the provisions in "Coloring" of these special provisions.

The Contractor shall submit a copy of the stain manufacturer's recommendations and written application instructions to the Engineer not less than 7 days before applying concrete stain to test panels.

New concrete surfaces to be stained shall be cured in conformance with the provisions in Section 90-7.03, "Curing Structures," of the Standard Specifications and these special provisions.

The Contractor shall seal joints between concrete surfaces to be stained and metal surfaces that are galvanized or painted with a polysulfide or polyurethane sealing compound conforming to the requirements in ASTM Designation: C 920, Type S, Grade NS, Class 25, Use M. The color of the sealant shall match Federal Standard 595B No. 36280.

Immediately before commencing work, the Contractor shall test concrete surfaces to be stained for acceptance of stain in conformance with the manufacturer's recommendations. Areas that resist accepting stain shall be cleaned as approved by the Engineer.

The Contractor shall apply the concrete stain in conformance with the manufacturer's recommendations and these special provisions. The stain shall be applied uniformly, working to avoid excessive rundown. The stain shall be worked into the concrete surface in circular motions with a nylon-bristled brush. Drips, puddles, or other irregularities shall be worked into the concrete.

After the last coat of stain has dried, the Contractor shall rinse stained surfaces with water and wet scrub surfaces with a stiff bristled nylon brush until the rinse water runs clear.

The Contractor shall protect adjacent surfaces during concrete staining operations.

Prepare and stain concrete will be measured by the square foot.

The contract price paid per square foot for prepare and stain concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing of and applying stain to concrete surfaces, complete in place, including construction of test panels, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### **10-1.32 CONCRETE BARRIER**

Concrete barriers shall conform to the provisions in Section 83-2, "Barriers," of the Standard Specifications and these special provisions.

Concrete barrier (Type 736A) shall be treated using the "Form Liners" method in conformance with "Architectural Surface (Textural Concrete)," of these special provisions.

Concrete for use in concrete barriers shall contain not less than 675 pounds of cementitious material per cubic yard and shall be air-entrained concrete in conformance with the provisions in "Materials" of these special provisions.

Bar reinforcing steel for use in concrete barriers shall conform to the provisions in Section 52-1.02B, "Epoxy-coated Reinforcement," of the Standard Specifications.

Concrete barriers on bridges or walls shall be cured in conformance with the provisions in Section 90-7.01A, "Water Method," of the Standard Specifications.

Full compensation for epoxy-coated bar reinforcement shall be considered as included in the contract price paid per linear foot for concrete barrier of the type or types listed in the Engineer's Estimate and no separate payment will be made therefor.

## **ARCHITECTURAL SURFACE (TEXTURED CONCRETE)**

Architectural surface textures listed below are required at concrete surfaces shown on the plans:

- A. Concrete Barrier (Type 736A)
- B. Retaining Wall (Type 1)

Architectural textures for concrete surfaces of barriers and retaining wall shall conform to the details shown on the plans and the provisions in Section 51, "Concrete Structures," of the Standard Specifications and these special provisions.

### **Surface Texture**

Surface texture for the concrete barrier and retaining wall shall include a random stone pattern applied to the exterior face of the retaining wall and both sides of the barrier. The lowest 3 inches of barrier (traveled way side) shall not receive surface texture. Texture shall conform to the details shown on the plans. Concrete barrier shall have chamfered top edges. The simulated joints between simulated stones shall vary in width and depth, with a minimum width of 0.2 inch and a maximum width of 0.8 inch, and a minimum depth of 0.4 inch and a maximum depth of 1.0 inch. The maximum surface differential across the projected face of the concrete barrier between adjacent simulated stones shall be 0.2 inch. The architectural texture pattern shall have a horizontal repetition of not less than 8 feet and shall not repeat vertically.

Texture for panels shall be generated from casts made from real stone.

### **Coloring**

Coloring for the concrete barrier and retaining wall shall include a minimum of four applied colors and sealant. Color shall include integral color as well as concrete stain or concrete paint, in conformance with "Prepare and Stain Concrete" of these special provisions. Sealant shall be as recommended by the manufacturer of the color. Colors shall include a minimum of three gray tones and a single tan tone. Gray colors shall be similar to July 1994 Federal Standard 595B Colors 36314, 26231, and 26008. The tan color shall be similar to July 1994 Federal Standard 595B Color 30318. Federal Standard Color 26231 shall be applied integrally to the concrete mix. The remaining colors shall be applied to the surface treatment of the concrete. Surface colors shall be applied to the stone pattern at the following percentages: 20% (light gray) Federal Standard Color 36314, 35% (medium gray) Federal Standard Color 26231, 35% (dark gray) Federal Standard Color 26008, 10% (tan) Federal Standard Color 30318. Simulated joints shall match Federal Standard Color 26231. The stones surface colors shall not be applied to the simulated joint lines. Surface coloring shall be applied in a random appearing pattern to the individual simulated stones with varying application rates to simulate the look of the natural stone in the local vicinity.

### **Test Panels**

Two test panels shall be successfully completed at a location approved by the Engineer. Two 4 foot by 3 foot by 1 foot test panels of the stone pattern texture with color applied shall be submitted for approval. Each test panel shall be exposed to direct sunlight for a minimum period of 7 calendar days after color is applied. The Contractor shall provide the Engineer with 1 gallon of each of the final approved color and sealant products.

The personnel who create the test sections and test panels shall be the same personnel installing the architectural treatment in the field. The Contractor shall provide documentation of employees names to the Engineer.

Prior to preparing test panels, the Contractor shall submit to the Engineer for approval architectural drawings showing the pattern and dimensions of the architectural treatment and color chip samples. Concrete barrier and retaining wall shall not be architecturally treated prior to written approval of the test panels by the Engineer.

### **Form Liners**

Form liners shall be used for textured concrete surfaces and shall be installed in conformance with the manufacturer's recommendations, unless other methods of forming textured concrete surfaces are approved by the Engineer. Form liners shall be manufactured from an elastomeric material or a semi-elastomeric polyurethane material by a manufacturer of commercially available concrete form liners. No substitution of other types of form liner material will be allowed. Form liners shall leave crisp, sharp definition of the architectural surface. Recurring textural configurations exhibited by repeating, recognizable shadow patterns shall be prevented by proper casting of form liner patterns. Textured concrete surfaces with such recurring textural configurations shall be reworked to remove such patterns until approved by the Engineer or the concrete shall be replaced.

Form liners shall have the following properties:

<b>Description</b>	<b>ASTM Designation:</b>	<b>Range</b>
Elastomeric material		
Shore A hardness	D 2240	20 to 65
Tensile strength (MPa)	D 412	0.9 to 6.2
Semi-elastomeric polyurethane		
Shore hardness	D 2240	55 to 65
Tensile strength (MPa)	D 2370	18 minimum

Cuts and tears in form liners shall be sealed and repaired in conformance with the manufacturer's recommendations. Form liners that are delaminated from the form liner shall not be used. Form liners with deformations to the manufactured surface caused by improper storage practices or any other reason shall not be used.

Form liners shall extend the full length of texturing with transverse joints at 8 foot minimum spacing. Small pieces of form liners shall not be used. Grooves shall be aligned straight and true. Grooves shall match at joints between form liners. Joints in the direction of grooves in grooved patterns shall be located only in the depressed portion of the textured concrete. Adjoining form liners shall be butted together without distortion, open cracks or offsets at the joints. Joints between liners shall be cleaned before each use to remove any mortar in the joint.

Adhesives shall be compatible with the form liner material and with concrete. Adhesives shall be approved by the form liner manufacturer. Adhesives shall not cause swelling of the form liner material.

#### **Releasing Form Liners**

Products and application procedures for form liner release agents shall be approved by the form liner manufacturer. Release agents shall not cause swelling of the form liner material or delamination of the form liner. Release agents shall not stain the concrete or react with the form liner material. Release agent shall coat form liner with a thin film. Following application of release agent, the form liner surface shall be cleaned of excess amounts of release agent using compressed air. Buildup of release agent caused by reuse of a form liner shall be removed at least every 5 uses.

Form liners shall release without leaving particles or pieces of form liner material on concrete and without pulling or breaking concrete from the textured surface. The concrete and textured surfaces exposed by removing form liners shall be protected from damage.

#### **Curing**

Concrete barriers and retaining wall with architectural texture shall be cured in conformance with the provisions in Section 90-7, "Water Method," or "Forms-In-Place Method" of the Standard Specifications. Seals and curing compounds shall not be used.

#### **Measurement and Payment**

Full compensation for architectural surface (textured concrete) on the concrete barrier as shown on the plans and as specified in the special provisions shall be considered as included in the contract price paid per linear foot for concrete barrier of the type or types listed in the Engineer's Estimate and no separate payment will be made therefor.

Full compensation for architectural surface (textured concrete) on the retaining wall as shown on the plans and as specified in the special provisions shall be considered as included in the contract price paid per cubic yard for Class I concrete (retaining wall) and no separate payment will be made therefor.

**ENGINEER'S ESTIMATE  
02-0E1504**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	260201	CLASS 2 AGGREGATE BASE	CY	290		
22	390132	HOT MIX ASPHALT (TYPE A)	TON	1,260		
23	394073	PLACE HOT MIX ASPHALT DIKE (TYPE A)	LF	1,160		
24	394077	PLACE HOT MIX ASPHALT DIKE (TYPE F)	LF	210		
25	510408	CLASS 1 CONCRETE (RETAINING WALL)	CY	33		
26 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	9.4		
27 (S-F)	520101	BAR REINFORCING STEEL	LB	4,373		
28 (S)	560248	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	27		
29	566011	ROADSIDE SIGN - ONE POST	EA	4		
30	597601	PREPARE AND STAIN CONCRETE	SQFT	550		
31	665017	18" CORRUGATED STEEL PIPE (.079" THICK)	LF	50		
32	665023	24" CORRUGATED STEEL PIPE (.079" THICK)	LF	38		
33	721009	ROCK SLOPE PROTECTION (FACING, METHOD B)	CY	6.7		
34 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	LB	956		
35	820108	DELINEATOR (CLASS 2)	EA	12		
36	820112	MARKER (CULVERT)	EA	8		
37	820134	OBJECT MARKER (TYPE P)	EA	2		
38 (S)	832001	METAL BEAM GUARD RAILING	LF	150		
39 (S)	832070	VEGETATION CONTROL (MINOR CONCRETE)	SQYD	150		
40 (S)	839541	TRANSITION RAILING (TYPE WB)	EA	2		