

DEPARTMENT OF TRANSPORTATION

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August 15, 2003

04-SF-101-R 8.0/R 8.5
04-291004
ACNH-Q101(049)E

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in THE CITY AND COUNTY OF SAN FRANCISCO FROM SOUTH VAN NESS AVENUE TO MARKET STREET ON THE CENTRAL FREEWAY.

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 September 3, 2003.

This addendum is being issued to revise the Project Plans and the Notice to Contractors and Special Provisions.

Project Plan Sheets 52, 150, 151, 153, 159, 167, 168, 169, 170, 171, 172, 173, 176, and 206 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheet 53 is revised as follows:

The subtitle "Stage 3, Phase 1" is deleted.

Project Plan Sheet 54 is revised as follows:

The subtitle "Stage 3, Phase 2" is deleted.

Project Plan Sheet 55 is revised as follows:

The subtitle "Stage 3, Phase 3" is deleted.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the fifth paragraph is replaced with the following:

"Attention is directed to "OBSTRUCTIONS" of these special provisions regarding utility work on McCoppin Street and Market Street."

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Page 2
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In the Special Provisions, Section 10-1.19, "OBSTRUCTIONS," is replaced as attached.

In the Special Provisions, Section 10-1.57, "SEISMIC JOINT ASSEMBLY (MOVEMENT RATING EXCEEDING 100 mm)" is replaced as attached.

In the Special Provisions, Section 10-1.64, "STEEL STRUCTURES," the attached subsection, "WORKING DRAWINGS," is added after subsection "GENERAL".

In the Special Provisions, the attached "FEDERAL REQUIREMENT TRAINING SPECIAL PROVISIONS" is added at the end of Section 10-14, "FEDERAL REQUIREMENTS FOR FEDERAL-AID CONSTRUCTION PROJECTS."

To Proposal and Contract book holders:

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 UPS overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

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

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Office Engineer

Attachments

10-1.19 OBSTRUCTIONS

Attention is directed to Section 8-1.10, "Utility and Non-Highway Facilities," and Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

Attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workers and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 150 mm in diameter or pipelines operating at pressures greater than 415 kPa (gage); underground electric supply system conductors or cables, with potential to ground of more than 300 V, either directly buried or in a duct or conduit which do not have concentric grounded or other effectively grounded metal shields or sheaths.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include, but are not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	1-800-642-2444 1-800-227-2600
Underground Service Alert-Southern California (USA)	1-800-422-4133 1-800-227-2600

It is anticipated that the following utility facilities will be relocated prior to the dates shown:

Utility	Location	Date
PG&E - Guy Wire	T 11+83	03/1/04
PG&E - 250 mm Gas Line	MC 14+82	03/1/04
City of San Francisco - Sewer Line & MH	MC 14+88	03/1/04
Pacific Bell Telephone Calif. Corp. - 6 Telephone Cables	MC 14+91	03/1/04
City of San Francisco - 150 mm Water Line & Water Valve	MC 14+93	03/1/04
PG&E - 100 mm Gas Line	MC 14+94	03/1/04
City of San Francisco - Electrical Lines and Pull Boxes	MK 15+11	03/1/04
San Francisco Municipal Railway - Electrical Lines and Pull Boxes	MK 15+11	03/1/04
PG&E - Electrical Lines and Pull Boxes	MK 15+11	03/1/04
City of San Francisco Fire Hydrant and Water Valves	MK 15+15	03/1/04
PG&E - Gas Valve and Line	MK 15+16	03/1/04
AWSS - 450 mm Water Line	MK 15+18	03/1/04
City of San Francisco - 200 mm Water Line	MK 15+20	03/1/04

Installation of the following utility facilities will require coordination with the Contractor's operations. The Contractor shall make the necessary arrangements with the utility company, through the Engineer, and shall submit a schedule of work, verified by a representative of the utility company, to the Engineer. The schedule of work shall provide not less than the following number of working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications for the utility company to complete their work:

Utility (address)	Location	Working Days
San Francisco Municipal Railway - Overhead Muni Wire	T 11+25	20
City of San Francisco MH	MC 14+88	5
City of San Francisco - Water Valve	MC 14+93	5
City of San Francisco - "Path of Gold" Street Lighting	MK 15+11	20
PG&E - Electrical Pull Boxes	MK 15+11	10
San Francisco Municipal Railway - Electrical Pull Boxes	MK 15+11	10
City of San Francisco - Electrical Pull Boxes	MK 15+11	10
City of San Francisco Fire Hydrant and Water Valves	MK 15+15	7
PG&E - Gas Valve	MK 15+16	5

On McCoppin Street and Market Street, utility companies will be abandoning and relocating their facilities during this contract. The work is scheduled to be completed by March 1, 2004. The Contractor shall not schedule any work on McCoppin Street or Market Street, including the retaining walls crossing McCoppin Street, until after the abandonment/relocation work is complete.

In the event that the utility facilities mentioned above are not removed or relocated by the date specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by the date specified, the State will compensate the Contractor for the delays to the extent provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications, and not otherwise, except as provided in Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications.

The Contractor shall notify the Engineer in writing at least 30 days in advance of the date or dates that the interfering utility facilities are to be rearranged. The Engineer will, in turn, notify the owners of the utility facilities.

The utility facilities listed in the following table, and other utility facilities that possibly exist at locations which might interfere with the drilling operations or substructure construction, will not be rearranged in advance of or during construction operations. Should the Contractor desire to have any of the utility facilities rearranged or temporarily deactivated for his convenience, the Contractor shall make the necessary arrangements as provided in Section 8-1.10:

Utility Facility	Location
Telephone Lines	Central Viaduct (Replace) Bridge No. 34-0077 Retaining Walls at Abut 11

Full compensation for conforming to the requirements of this section, not otherwise provided for, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

10-1.57 SEISMIC JOINT ASSEMBLY (MOVEMENT RATING EXCEEDING 100 mm)

Seismic joint assemblies shall consist of steel deck plates, channel assemblies, support plates, self-consolidating concrete, sealing elements, gutter, and anchorage components and shall be fabricated and installed in conformance with the details shown on the plans, Section 51, "Concrete Structures," and Section 55, "Steel Structures," of the Standard Specifications and these special provisions.

WORKING DRAWINGS

The Contractor shall submit working drawings for each seismic joint assembly to the Office of Structure Design (OSD) in conformance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications.

Working drawings shall include complete details, information, and drawings of the seismic joint assemblies and anchorage components and the method, materials, equipment, and procedures of fabrication and installation that the Contractor proposes to use.

Working drawing submittals shall include the following:

- A. All ASTM or other material designations.
- B. Sections showing all materials composing the seismic joint assembly with complete details of all individual components including welded splices and connections, and the measures to prevent steel plate from distortion during fabrication, shipping and installation..
- C. Fabrication plans including all details, elevations, and sections of the seismic joint assembly as shown on the plans. All dimensions and design tolerances shall be specified. Fabrication plans for the sizes of deck plates and support plates shall take into account roadway super elevations and longitudinal gaps between the plates for sealing elements.
- D. List of coating system for seismic joint assemblies identifying cleaning and painting of all steel components as specified in these special provisions.
- E. Shipping plans including the handling of the seismic joint assemblies during transportation.
- F. Storage plans for manufacture storage, interim storage, and on-site storage details including temporary support for the seismic joint assemblies.
- G. Joint installation plans including methods, materials, equipment, sequence, lifting mechanisms and locations, details of temporary anchorage during setting, temperature adjustment devices, method to maintain full contact between deck plates and support plates during and after installation, installation details at curbs, seal installation details, and other procedures that the Contractor proposes to use for installation of the seismic joint assemblies.
- H. Anchorage components including concrete blockout details and any additions or rearrangements of the reinforcing steel from that shown on the plans.
- I. Self-consolidating concrete mix design and placement procedures. The Contractor's proposed self-consolidating concrete mix design submittals shall include test results for slump flow, slump flow time to a 500 mm diameter, stability of the concrete mixture, and compressive strengths at 7 and 28 days
- J. Details and procedures of the mock-up construction to demonstrate self-consolidating concrete.

For initial review, 5 sets of drawings shall be submitted. After review, between 6 and 12 sets, as requested by the Engineer, shall be submitted to OSD for final approval and use during construction.

The working drawings shall be supplemented with complete calculations for the particular seismic joint assembly, when requested by the Engineer. Working drawings shall be either 279 mm x 432 mm or 559 mm x 864 mm in size and each drawing and calculation sheet shall include the State assigned designations for the contract number, bridge number, full name of the structure as shown on the contract plans, and District-County-Route-Kilometer Post. The design firm's name, address, and phone number shall be shown on the working drawings.

The working drawings shall be stamped and signed by an engineer who is registered as a Civil Engineer in the State of California. The Contractor shall allow the Engineer 4 weeks to review the drawings after a complete set has been received.

At the completion of the seismic joint assembly, the Contractor shall submit one set of corrected working drawings to the Engineer. As-built drawings shall be 279 mm x 432 mm in size, printed on 75-g/m² minimum bond paper, and shall show as-built conditions.

The final approval of the Contractor's mix design for self-consolidating concrete is contingent upon the successful mock-up construction as specified in "Demonstration Pours" herein.

MATERIALS

Attention is directed to "Welding Quality Control" in these special provisions. Welding shall conform to AWS D1.5.

Steel deck plates, channel assemblies, and support plates shall conform to the requirements of ASTM Designation: A 709 or A 709M Grade 345. Bolts, nuts and washers shall conform to the requirements of ASTM Designation: A 325 or A 325M.

Sealing elements shall be 2 component silicone sealant that meets the requirements of Type A and AL seal in Section, 51-1.12F(3), "Materials and Installation," of the Standard Specifications. Sealing elements shall conform to the details shown on the plans and shall be continuous without splices.

Reinforcing steel shall conform to the provisions in "Reinforcement" of these special provisions.

Neoprene sheet shall conform to Section 51-1.145, "Strip Waterstops," of the Standard Specifications.

Elastomeric washers shall conform to the requirements specified in Section 51-1.12H(1), "Plain and Fabric Reinforced Elastomeric Bearing Pads," of the Standard Specifications.

Self-consolidating concrete shall be flowing concrete capable of spreading, without segregation, to a level state without the use of internal or external vibrators.

In addition to the chemical admixtures listed on the Department's current list of approved brands of admixtures that may be used, the Contractor may use a viscosity modifying admixture made by a chemical admixture manufacturer for the purpose of producing a self-consolidating concrete. The use of the viscosity modifying admixture shall be in accordance with the manufacturer's recommendations and compatible with all other components that make up the self-consolidating concrete. The combined aggregate grading shall be any of the four maximum size grading limits specified in Section 90-3.04, "Combined Aggregate Gradings," of the Standard Specifications.

The Contractor's proposed mix design shall be pre-qualified for use in the demonstration pour by trial batch reports in conformance with Section 90-9 "Compressive Strength" of the Standard Specifications except that the consistency shall be measured by the slump flow test and bleeding shall be measured by ASTM Designation, C 232, Method A. The slump flow test shall conform to the requirements in ASTM Designation: C 143 except the following:

- A. The cone shall be filled in one lift without rodding. The cone shall be placed on a flat, moist, nonabsorbent, rigid base plate that is at least 700x700 mm. The base plate shall have concentric circle marks showing 200-mm and 500-mm diameter circles.
- B. Measure the time it takes for the concrete to reach 500 mm diameter circle. Report this as "Slump Flow Time" to the nearest 0.5 seconds.
- C. After the concrete ceases to flow, measure the diameter in 2 perpendicular directions. Report this as "Slump Flow" to the nearest 5 mm.
- D. Visually inspect the concrete spread to observe the distribution of coarse aggregate throughout the spread. Measure and record the radial width of any mortar ring without coarse aggregate. If no mortar ring without coarse aggregate exists, report as zero.

Consistency of the self-consolidating concrete shall be determined using the slump flow test method. The self-consolidating concrete shall have a minimum slump flow of 550 mm without segregation. The slump flow shall be selected by the Contractor based on the concrete constituent materials and placement procedures as specified in the approved working drawings.

The percent bleeding shall not exceed 1.5% when determined by ASTM Designation, C 232, Method A except that the container shall be filled in one lift without rodding.

Amendment to California Test 540

The following amendments of California Test 540, "Method of Making, Handling, and Storing Concrete Compressive Test Specimens in the Field," shall only apply to self-consolidating concrete. The Items "a" and "b" under "2. Test Specimen Fabrication" of "C. Preparation of Test Specimens" of California Test 540 shall be amended to read:

- a. Place test molds on a firm, flat surface to prevent distortion of the bottom surface. When more than one specimen is to be made from the same batch, make all specimens simultaneously. Fill the mold in one lift with a circular motion of the scoop to distribute the concrete evenly in the mold. Pat sides of the mold lightly by hand, or jig by rocking the mold from side to side.
- b. After the sides of the mold have been patted, strike off the surface of the concrete even with the top edge of the mold. Wipe the sides of the mold free of excess concrete and press the lid on to prevent evaporation.

Demonstration Pours

Prior to placing self-consolidating concrete, the Contractor shall construct at least one mock-up to demonstrate that the concrete will flow for the distance required by the proposed construction procedure. The placement of the self-consolidating concrete in the mock-up shall be witnessed by the Engineer.

The mock-up shall have a depth and length equal to that of the blockout detailed on the plans. The width of the mock-up shall be selected by the Contractor based on the distance that the concrete is required to flow according to the proposed construction procedure but shall not be less than 2 meters. The mock-up shall include concrete, reinforcement, and all concrete embedments as shown on the plans and approved working drawings, except that all reinforcement and embedments shall stop 300 mm from both longitudinal ends of the blockout so that concrete can be removed later and tested for segregation. The mock-up shall have a removable 27 mm plus or minus 3 mm thick transparent plastic top plate. The plastic top plate shall have vent holes of the same size and spacing as those in the support plate.

Acceptance criteria of the self-consolidating concrete shall be as follows:

- A. Self-consolidating concrete shall flow under the plastic top plate and shall completely fill the void in the blockout.
- B. After consolidation against the plastic top plate is verified, the Contractor shall remove the plastic top plate and shall take at least 45 kg of concrete from each end of the blockout to check for segregation by comparing coarse aggregate content with mix design values. The coarse aggregate content of each sample shall be determined using California Test 529 and shall not differ from the mix design value by more than 110 kg/m³.
- C. The percent bleeding shall not exceed 1.5% when determined by ASTM Designation, C 232, Method A except that the container shall be filled in one lift without rodding.

If the Contractor fails to meet any of the acceptance criteria as determined by the Engineer, additional mock-ups shall be constructed at the Contractor's expense.

The mock-up shall not be part of the permanent structure and shall become the property of the Contractor. The mock-up shall be removed from the work site and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

FABRICATION

The seismic joint assembly shall be fabricated in conformance with the details, dimensions, material specifications, and procedures delineated in the approved working drawings.

The surfaces between deck plates and support plates shall be in full contact. The contact surfaces between deck plates and support plates shall be flat to within one millimeter tolerance in 300 mm and within 2 mm tolerance over the longest dimension of the plate.

All plate welds shall be ground smooth. The welds shall not protrude into the sliding surface of the deck plates or support plates.

Damage to the seismic joint assembly during shipping or handling shall be cause for rejection of the seismic joint assembly.

Damage to the corrosion protection system shall be repaired to the satisfaction of the Engineer prior to installation.

CLEAN AND PAINT SEISMIC JOINT ASSEMBLY

All new metal surfaces of seismic joint assembly, except galvanized steel and anchorages embedded in concrete, shall be cleaned and painted in conformance with the provisions in Section 59-2, "Painting Structural Steel," and Section 91, "Paint," of the Standard Specifications and these special provisions.

Certification in conformance with the requirements in SSPC-QP 1, SSPC-QP 2, and SSPC-QP 3 of the "SSPC: The Society for Protective Coatings" will not be required for cleaning and painting seismic joint assemblies.

CLEANING

All new metal surfaces of seismic joint assembly, except galvanized steel and anchorages embedded in concrete, shall be dry blast cleaned in conformance with the requirements in Surface Preparation Specification No. 10, "Near White Blast Cleaning," of the "SSPC: The Society for Protective Coatings." Blast cleaning shall leave surfaces with a dense, uniform, angular anchor pattern of not less than 40 µm nor more than 86 µm as measured in conformance with the requirements in ASTM Designation: D 4417.

Mineral and slag abrasives used for blast cleaning steel shall conform to the requirements in Abrasive Specification No. 1, "Mineral and Slag Abrasives," of the "SSPC: The Society for Protective Coatings" and shall not contain hazardous material. Mineral and slag abrasives shall comply with the requirements for Class A, Grade 2 to 3 as defined therein.

A Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications and a Material Safety Data Sheet shall be furnished prior to use for each shipment of blast cleaning material for steel.

PAINTING

Blast cleaned surfaces shall receive a single undercoat and, unless otherwise specified, a minimum of 2 finish coats of an exterior grade latex paint supplied by the manufacturer of the inorganic zinc coating.

The single undercoat shall consist of a waterborne inorganic zinc coating conforming to the requirements in AASHTO Designation M 300, Type II, except that: 1) the first 3 sentences of Section 4.7, "Primer Field Performance Requirements," and the entire Section 4.7.1 shall not apply, and 2) zinc dust shall be Type II in conformance with the requirements in ASTM Designation: D 520. The inorganic zinc coating shall be listed on the qualified products list which may be obtained from the Transportation Laboratory.

Inorganic zinc coating shall be used within 12 hours of initial mixing.

Application of inorganic zinc coating shall conform to the provisions for applying zinc-rich coating in Section 59-2.13, "Application of Zinc-Rich Primer," of the Standard Specifications.

Inorganic zinc coating shall not be applied when the atmospheric or surface temperature is less than 7°C nor more than 29°C, nor when the relative humidity exceeds 85 percent.

The single undercoat of inorganic zinc coating shall be applied to the required dry film thickness in 2 or more applications within 4 hours after blast cleaning.

The total dry film thickness of all applications of the inorganic zinc undercoat, including the surfaces of outside existing members within the grip under bolt heads, nuts and washers, shall be not less than 100 µm nor more than 200 µm, except that the total dry film thickness on each faying (contact) surface of high strength bolted connections shall be between 25 µm and the maximum allowable dry film thickness for Class B coatings as determined by certified testing in conformance with Appendix A of the "Specification for Structural Joints Using ASTM A325 or A490 Bolts" of the Research Council on Structural Connections (RCSC Specification). Unless otherwise stated, all inorganic zinc coatings used on faying surfaces shall meet the slip coefficient requirements for a Class B coating on blast-cleaned steel, as specified in the RCSC Specification. The Contractor shall provide results of certified testing showing the maximum allowable dry film thickness for the Class B coating from the qualifying tests for the coating he has chosen, and shall maintain the coating thickness on actual faying surfaces of the structure at or below this maximum allowable coating thickness.

Areas where mudcracking occurs in the inorganic zinc coating shall be blast cleaned and repainted with inorganic zinc coating to the specified thickness.

Dry spray, or overspray, as defined in the Steel Structures Painting Manual, Volume 1, "Good Painting Practice," of the "SSPC: The Society for Protective Coatings," shall be removed prior to application of subsequent coats or final acceptance. Removal of dry spray shall be by screening or other methods that minimize polishing of the inorganic zinc surface. The dry film thickness of the coating after removal of dry spray shall be in conformance with the provisions for applying the single undercoat, as specified herein.

The inorganic zinc coating shall be tested for adhesion and cure. The locations of the tests will be determined by the Engineer. The sequence of the rinsing and testing operations shall be determined by the Contractor. The testing for adhesion and cure will be performed no sooner than 72 hours after application of the single undercoat of inorganic zinc coating. At the Contractor's expense, satisfactory access shall be provided to allow the Engineer to determine the location of the tests and to test the inorganic zinc coating cure. The inorganic zinc coating shall pass the following tests:

Adhesion

- The inorganic zinc coating shall have a minimum adhesion to steel of 4 MPa when measured at no more than 6 locations per seismic joint assembly using a self-aligning adhesion tester in conformance with the requirements in ASTM Designation: D 4541. The Contractor, at the Contractor's expense, shall: (1) verify compliance with the adhesion requirements, (2) furnish test results to the Engineer, and (3) repair the coating after testing.

Cure

- The inorganic zinc coating, when properly cured, shall exhibit a solid, hard, and polished metal surface when firmly scraped with the knurled edge of a quarter. Inorganic zinc coating that is powdery, soft, or does not exhibit a polished metal surface, as determined by the Engineer, shall be repaired by the Contractor, at the Contractor's expense, by blast cleaning and repainting with inorganic zinc coating to the specified thickness.
- The surface pH of the inorganic zinc primer shall be checked in conformance with ASTM Designation: D4262 by wetting the surface with deionized water and applying pH paper with a capability of measuring in increments of 0.5 pH units. Application of finish coats will not be permitted until the surface pH is less than 8.

Except as approved by the Engineer, a minimum curing time of 72 hours shall be allowed between application of inorganic zinc coating and water rinsing.

Exposed area of inorganic zinc coating, where finish coats are specified, shall be water rinsed. Areas of the coating that are removed by the water rinsing shall be reapplied in conformance with the provisions for applying zinc-rich coating in Section 59-2.13, "Application of Zinc-Rich Primer," of the Standard Specifications and these special provisions.

The exterior surfaces of undercoated areas shall receive a minimum of 2 finish coats of an exterior grade latex paint supplied by the manufacturer of the inorganic zinc coating.

The first finish coat shall be applied within 48 hours following the water rinsing.

The finish coat paint shall be formulated for application to inorganic zinc coating and shall conform to the following:

A..

Property	Value	ASTM Designation
Pigment content, percent	24 max.	D 3723
Nonvolatile content, mass percent	49 min.	D 2369
Viscosity, KU	75 min. to 90 max.	D 562
Fineness of dispersion, Hegman	6 min.	D 1210
Drying time at 25°C, 50% RH, 100-µm wet film		D 1640
Set to touch, minutes	30 max.	
Dry through, hours	1 max.	
Adhesion	4A	D 3359, Procedure A

- B. No visible color change in the finish coats shall occur when tested in conformance with the requirements in ASTM Designation: G 53 using FS 40 UV-B bulbs for a minimum of 38 cycles. The cycle shall be 4 hours of ultraviolet (UV) exposure at 60° C and 4 hours of condensate exposure at 40° C.
- C. The vehicle shall be an acrylic or modified acrylic copolymer with a minimum of necessary additives.

The first finish coat shall be applied in 2 applications. The first application shall consist of a spray applied mist application. The second application shall be applied after the mist application has dried to a set to touch condition as determined by the procedure described in Section 7 of ASTM Designation: D1640. The first finish coat color shall match Federal Standard 595B No. 36628. The total dry film thickness of both applications of the first finish coat shall be not less than 50 µm.

Except as approved by the Engineer, a minimum drying time of 12 hours shall be allowed between finish coats.

The second finish coat color shall match Federal Standard 595B, No. 26408. The total dry film thickness of the applications of the second finish coat shall be not less than 50 µm.

The 2 finish coats shall be applied in 3 or more applications to a total dry film thickness of not less than 100 µm nor more than 200 µm.

The total dry film thickness of all applications of inorganic zinc coating and finish coat paint shall be not less than 200 µm nor more than 350 µm.

INSTALLATION

Each seismic joint assembly shall be installed in accordance with the approved working drawings.

The maximum gap between sliding surfaces shall not exceed 2 mm in any loaded or unloaded position. Rattling or any steel plate bouncing noise from the installed joints shall not be permitted.

Each installed seismic joint assembly shall match the finished roadway profile and grades as shown on the plans.

The Contractor shall protect seismic joint assembly from damage. The Contractor shall protect concrete blockouts and support systems from damage and construction traffic prior to installation of the seismic joint assemblies.

Sealing elements not fully bonded to the steel extrusions shall be replaced by the Contractor at the Contractor's expense.

MEASUREMENT AND PAYMENT

Seismic Joint assemblies will be measured by the meter from end to end along the centerline of the completed joint as shown on the plans.

The contract price paid per meter for seismic joint assembly shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in fabricating, furnishing, transporting, storing, and installing the seismic joint assemblies, including mock-up construction, protecting, repairing, cleaning, and painting, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for furnishing and installing steel plates on the concrete barriers shall be considered as included in the contract price paid per meter for concrete barriers of the types listed in the Engineer's Estimate and no separate payment will be allowed therefor.

WORKING DRAWINGS

Working drawing shall be submitted in sets not exceeding 40 sheets. The Engineer's review time for one set of structural steel working drawing shall not be less than 6 weeks.

The Contractor shall allow the specified time for the review of each working drawing. The Engineer will review the working drawings, and if in the opinion of the Engineer, the drawings are incomplete or need corrections, the Engineer will inform the Contractor in writing that the working drawings are being returned for corrections, and the review time will stop. When the Contractor resubmits the revised working drawings, the review time will resume. If in the opinion of the Engineer, the working drawings resubmitted have substantial changes, the review time will restart from the beginning, and the Engineer will notify the Contractor that the review time has restarted and give the reason why. Upon approval, the Engineer will stamp or mark the drawings approved and return 2 sets of these drawings to the Contractor for use during construction.

When multiple sets of working drawings are submitted simultaneously for review, or when additional sets of working drawings for the same type of work are submitted for review before the review of previously submitted sets has been completed, the Contractor shall designate the sequence in which the sets are to be reviewed. The review time for any set of working drawings in a sequence shall be equal to the review time of the previous set in the sequence plus 2 weeks, but in no case less than the review time specified for that set plus 2 weeks. The review time of a subsequent set will not be adjusted due to an early completion of the review of a previous set. The Contractor may change the sequence of review provided a written notification outlining the proposal for reprioritization is submitted to the Engineer. When a reprioritization occurs, the review time for the new top priority set will restart and the review time for subsequent sets shall be as specified above.

In the event the Engineer fails to complete the review within the time allowed, and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the Engineer's delay in completing the review, the Contractor will be compensated for any resulting loss in the same manner as provided for in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

Fabrication or construction of steel structure shall not begin until the working drawings have been approved by the Engineer.

If the Contractor revises approved working drawings, the revised set will be considered a new submittal.

At the completion of the structure, the Contractor shall submit one set of corrected working drawings to the Engineer at the jobsite. As-built drawings shall be 279 mm x 432 mm in size, printed on 75-g/m² minimum bond paper, and shall show as-built conditions.

The Contractor shall allow 3 weeks for the review and approval of as-builts drawings. Review and approval of as-built drawings shall conform to the provisions in "Review and Approval of Working Drawings," of this section.

As-built drawings shall include an index specifically prepared for all the drawings of each structure and shall contain sheet numbers and titles. The index shall indicate the contract number, the District-County-Route-kilopost, bridge number or structure number, and name. As-built drawing sheets shall be arranged in the same order that drawings are shown in the index.

FEDERAL REQUIREMENT TRAINING SPECIAL PROVISIONS

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training to develop full journeymen in the types of trades or job classification involved.

The goal for the number of trainees or apprentices to be trained under the requirements of this special provision will be 10.

In the event the Contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees or apprentices are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of trainees or apprentices in each occupation shall be in their first year of apprenticeship or training.

The number of trainees or apprentices shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing work, the Contractor shall submit to the Department for approval the number of trainees or apprentices to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee or apprentice employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees or apprentices as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority and women trainees or apprentices (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees or apprentices) to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee or apprentice in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by both the Department and the Federal Highway Administration. The Department and the Federal Highway Administration will approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee or apprentice for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with the State of California, Department of Industrial Relations, Division of Apprenticeship Standards recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees or apprentices are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or apprentice or pays the trainee's or apprentice's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee or apprentice as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee or apprentice will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees or apprentices be on board for the entire length of the contract. A Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees or apprentices specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Only trainees or apprentices registered in a program approved by the State of California's State Administrator of Apprenticeship may be employed on the project and said trainees or apprentices shall be paid the standard wage specified under the regulations of the craft or trade at which they are employed.

The Contractor shall furnish the trainee or apprentice a copy of the program he will follow in providing the training. The Contractor shall provide each trainee or apprentice with a certification showing the type and length of training satisfactorily completed.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.