

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

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November 1, 2012

11-SD-75-R21.8

11-409504

Project ID 1112000045

ACBRNH-P075(040)E

Addendum No. 4

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN DIEGO COUNTY IN SAN DIEGO AT SAN DIEGO-CORONADO BAY BRIDGE 1.3 MILES FROM BEGINNING OF BRIDGE.

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 15, 2012.

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

Project Plan Sheet 9 is revised. A copy of the revised sheet is attached for substitution for the like-numbered sheet.

In the Special Provisions, Section 5-1.12, "AREAS FOR CONTRACTOR'S USE," the first paragraph is revised as follows:

"No area is available within the contract limits for the exclusive use of the Contractor. However, temporary storage of equipment and materials on State property may be arranged with the Engineer, subject to the prior demands of State maintenance forces and to other contract requirements. Temporary storage of sanitary facilities for the Contractor's employees, and hygiene facilities in conformance with Section 10-1.15, "EXISTING HIGHWAY FACILITIES," subsections "EXISTING PAINT SYSTEMS," "Protective Work Clothing and Hygiene Facilities," will be allowed within the area bound by the median barriers at Pier 33 starting from the north end of the moveable barrier to Pier 35. An area outside the contract limits, for the exclusive use of the Contractor as described below, will be available at the Bridge Paint and Maintenance Shop, 1995 Newton Avenue, San Diego, CA 92113. The area will be approximately 6,000 square feet and is located in the westerly portion of the yard between Piers 34 and 35. The Contractor's access to their storage area will only be allowed through the Main Street access gate. No yard access will be allowed through the Newton Avenue access gate. Use of the existing elevator will not be allowed. The Contractor may construct access to the project site from the Contractor's storage yard. The Contractor-supplied utilities may be staged in the Contractor's storage yard and run to the project site. All access and utility staging requires prior written approval from the Engineer. The Contractor's first order of work at the yard shall be the installation of a temporary six foot chain link fence securing the storage area from the remainder of the yard. Use of the Contractor's storage area and other State-owned property shall be at the Contractor's own risk. The State shall not be held liable for damage to or loss of materials or equipment located within these areas."

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In the Special Provisions, Section 5-1.15, "ACCESS TO PROJECT SITE," is revised as follows:

"Job access during construction will be allowed from the bridge deck and the opening at Pier 33. Any additional access points require prior written approval from the Engineer."

In the Special Provisions, Section 9, "DESCRIPTION OF BRIDGE WORK," is revised as follows:

"The bridge work to be done consists, in general, of cleaning and painting structural steel, including rocker bearings, catwalk, and crane rails, drive rails, and monitoring the work area at the following location as shown on the plans:

SAN DIEGO-CORONADO BAY BRIDGE
Bridge Number 57-0857 (Spans 26 through 29)"

In the Special Provisions, Section 10-1.17, "CLEAN AND PAINT EXISTING STRUCTURAL STEEL," subsection "CLEANING," the first paragraph is revised as follows:

"Metal surfaces (including the catwalk, bridge crane rails, and drive rails) shall be cleaned as provided in Section 59-2.05, "Cleaning Painted Surfaces," of the Standard Specifications."

In the Special Provisions, Section 10-1.17, "CLEAN AND PAINT EXISTING STRUCTURAL STEEL," subsection "CLEANING," the fourth paragraph is revised as follows:

"Lower bridge crane rails shall be 100% dry blast cleaned in conformance with the requirements in SSPC-SP 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 1.5 mils nor more than 3.5 mils as measured in conformance with the requirements in ASTM Designation: D 4417."

In the Special Provisions, Section 10-1.17, "CLEAN AND PAINT EXISTING STRUCTURAL STEEL," the subsection "PAINTING," is revised as attached.

In the Special Provisions, Section 10-1.17, "CLEAN AND PAINT EXISTING STRUCTURAL STEEL," the subsection "PAYMENT," is revised as attached.

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To Bid book holders:

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.

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/11/11-409504

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,



LAURIE BERMAN
District Director

Attachments

"PAINTING

The paints to be applied to the existing metal surfaces (including the catwalk), the minimum number of coats, and the total dry film thickness shall conform to the following requirements:

1. Precede each specified undercoat by a stripe coat on all edges, corners, seams, crevices, interior angles, junctions of joining members, weld lines, and similar surface irregularities. This stripe coat shall be of sufficient thickness to completely hide the surface being covered and shall be followed as soon as practical by the application of the full undercoat to its specified thickness.
2. Blast cleaned areas shall be coated with the first undercoat paint conforming to the requirements for Red Primer Paint-Waterborne, Formula PWB 145E. The first undercoat shall be applied in one or more applications, to a dry film thickness of not less than 2 mils nor more than 4 mils.
3. After the blast cleaned areas have received the specified thickness of first undercoat, exposed surfaces of existing structural steel shall receive the following full undercoat paint and finish coat paint:
 - 3.1. Undercoat paint conforming to the requirements for Pink Primer Paint-Waterborne, Formula PWB 146E shall be applied in one or more applications, to a dry film thickness of not less than 2 mils nor more than 4 mils.
 - 3.2. The first finish coat paint conforming to the requirements for Light Coronado Blue Finish Paint-Waterborne, Formula PWB 165B, shall be applied in one or more applications to a dry film thickness of not less than 1.5 mils nor more than 3 mils. Light blue color to match Caltrans color chip number PWB-110.
 - 3.3. The second finish coat paint conforming to the requirements for Dark Coronado Blue Finish Paint-Waterborne, Formula PWB 165B, shall be applied in one or more applications to a dry film thickness of not less than 1.5 mils nor more than 3 mils. Dark blue color to match Caltrans color chip number PWB-111.

Color chips are available from the Transportation Laboratory in Sacramento.

A minimum of 12 hours drying time shall be allowed before applying the succeeding undercoat or finish coat.

The 2 undercoats and first finish coat shall be applied within 30 days of blast cleaning of existing metal surfaces.

The total dry film thickness on areas that have been blast cleaned shall be not less than 7 mils nor more than 12 mils. The total dry film thickness of new paint on areas not blast cleaned shall be not less than 5 mils nor more than 10 mils.

Requirements for Painting the Lower Bridge Crane Rails

Blast cleaned lower crane rail surfaces shall receive a single undercoat consisting of an inorganic zinc rich primer conforming to the requirements in AASHTO Designation: M 300, Type I or Type II.

Inorganic zinc rich primer shall be selected from the Department's Pre-Qualified Products List.

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

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

The single undercoat of inorganic zinc rich primer shall be applied to the required dry film thickness in 2 or more applications within 8 hours of the start of blast cleaning. Abrasive blast cleaned steel shall not be exposed to relative humidity exceeding 85 percent before application of inorganic zinc coating.

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 4 mils nor more than 8 mils, except that the total dry film thickness on each faying (contact) surface of high strength bolted connections shall be between one mil 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 rich primer 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 chosen, and shall maintain the coating thickness on actual faying surfaces of the structure at or below this maximum allowable coating thickness.

CONTRACT NO. 11-409504

REVISED PER ADDENDA NO. 4 DATED NOVEMBER 1, 2012

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

Steel surfaces coated with Type II inorganic zinc rich primer shall be protected from conditions that may cause the coating film to dissolve. The Contractor, at the Contractor's expense, shall repair areas where the coating has dissolved by blast cleaning and repainting with inorganic zinc rich primer 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 before 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.

For damaged areas of the undercoat, the following apply:

1. If the Engineer determines the damaged area is more than 2 percent of the total undercoated surface, the Contractor shall blast clean and repaint damaged areas with inorganic zinc to the specified thickness before erection.
2. If the Engineer determines the damaged area is 2 percent or less of the total undercoated surface, the Contractor may wire brush the damaged surfaces to remove loose or cracked coating and apply 2 coats of organic zinc-rich primer before erection.

The Contractor shall test the inorganic zinc undercoat. The locations of the tests will be determined by the Engineer. The Contractor shall determine the sequence of the testing operations. The testing for adhesion and hardness shall be performed no sooner than 72 hours after application of the single undercoat of inorganic zinc coating. Satisfactory access shall be provided to allow the Engineer to determine the location of the tests.

The inorganic zinc coating shall pass the following tests:

1. The undercoat shall have a minimum adhesion to steel of 600 psi when measured using a self-aligning adhesion tester in conformance with the requirements in ASTM Designation: D 4541. The Engineer will select 3 locations per girder or 1,000 square feet of painted surface, whichever is less, for adhesion testing. If less than 1,000 square feet of steel is painted in a work shift, the Engineer will select 3 areas painted during the work shift for testing. If 2 or more of the locations tested fail to meet adhesion requirements, the entire area represented by the tests will be rejected. If one of the locations tested fails to meet adhesion requirements, an additional 3 locations shall be tested. Should any of the additional locations fail to meet adhesion requirements, the entire area represented by the tests will be rejected. The Contractor, at the Contractor's expense, shall repair the rejected area by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness. Test locations for areas of inorganic zinc meeting adhesion testing requirements shall be repaired by application of organic zinc primer as specified in Section 91-1.04, "Materials," of the Standard Specifications to the specified minimum dry film thickness.
2. Areas where finish coats are to be applied shall be tested for soluble salts using a Class A or B retrieval method as described in Technology Guide 15, "Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates," of the "SSPC: The Society for Protective Coatings," and cleaned so the maximum level of soluble salts does not exceed the lesser of the manufacturer's written recommendations or 10 micrograms per square centimeter. Areas of inorganic zinc undercoat shall be tested at the rate of 3 tests for the first 1,000 square feet to be painted per day and one test for each additional 1,000 square feet or portion thereof at locations selected by the Engineer. When less than 1,000 square feet of surface area is painted in a shift, at least 2 tests shall be performed. If levels of soluble salts exceed the maximum allowed by these special provisions, the entire area represented by the testing will be rejected. The Contractor shall perform additional cleaning and testing of rejected areas until soluble salt levels conform to these requirements.
3. The inorganic zinc undercoat 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 water borne inorganic zinc primers shall pass the following tests:

1. The surface pH of the inorganic zinc undercoat shall be tested by wetting the surface with de-ionized water for a minimum of 15 minutes but no longer than 30 minutes and applying pH paper with a capability of measuring in increments of 0.5 pH units. At least 2 surface pH readings shall be taken for every 500 square feet or portion thereof. If less than 500 square feet of steel is coated in a single shift or day, at least 2 surface pH readings shall be taken for primer applied during that period. Application of finish coats will not be permitted until the surface pH is less than or equal to 7.
2. Dry to solvent insolubility for water borne inorganic zinc primers shall be determined in conformance with the requirements in ASTM Designation: D 4752, except that water shall be the solvent. The resistance rating shall be not less than 4. Areas of inorganic zinc undercoat shall be tested for solvent insolubility at the rate of one test per 500 square feet or portion thereof. Inorganic zinc undercoat represented by the tested area that does not meet the solvent insolubility requirements will be rejected. The Contractor, at the Contractor's expense, shall repair rejected areas by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness.

The solvent borne inorganic zinc primers shall pass the following tests:

1. Dry to solvent insolubility for solvent borne inorganic zinc primers shall be determined in conformance with the requirements in ASTM Designation: D 4752. The resistance rating shall be not less than 4. Areas of inorganic zinc undercoat shall be tested for solvent insolubility at the rate of one test per 500 square feet or portion thereof. Inorganic zinc undercoat represented by the tested area that does not meet the solvent insolubility requirements will be rejected. The Contractor, at the Contractor's expense, shall repair rejected areas by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness.
2. Surface hardness of solvent borne inorganic zinc undercoat shall be a minimum 2H when measured in conformance with the requirements in ASTM Designation: D 3363. Areas of inorganic zinc undercoat shall be tested at the rate of one test per 500 square feet or portion thereof. Inorganic zinc undercoat that fails to meet the surface hardness requirements shall be repaired by the Contractor, at the Contractor's expense, by blast cleaning and repainting with inorganic zinc rich primer to the specified thickness.

The Contractor, at the Contractor's expense, shall retest all rejected areas of inorganic zinc undercoat after repairs have been completed.

Finish coats shall not be required for the lower bridge crane rails."

"PAYMENT

Steam cleaning and rinsing, pressure washing, or sanding of exposed surfaces of existing structural steel (including the catwalk, upper bridge crane rails, and drive rails) will be paid for at a lump sum price for clean structural steel (existing bridge).

The contract lump sum price paid for clean structural steel (existing bridge) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in steam cleaning, pressure washing, and sanding of surfaces of existing structural steel (including the catwalk, upper bridge crane rails, and drive rails), complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Blast cleaning and first undercoat painting of blast cleaned areas will be measured by the square foot of spot blast cleaned areas and will be paid for as spot blast clean and paint undercoat.

The contract price paid per square foot for spot blast clean and paint undercoat shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in spot blast cleaning and painting first undercoat on existing surfaces (including the catwalk and bridge crane rails), including testing for soluble salts, 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 second undercoat and finish coat painting of exposed surfaces of existing structural steel (including the catwalk, upper crane rails, and drive rails) will be paid for at a lump sum price for paint structural steel (existing bridge).

The contract lump sum price paid for paint structural steel (existing bridge) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in the second undercoat and finish coat painting the surfaces of existing structural steel (including the catwalk, upper crane rails, and drive rails), complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer."