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December 9, 2005

04-SF-80-13.2/13.9
04-0120F4

Addendum No. 4

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in SAN FRANCISCO COUNTY IN SAN FRANCISCO FROM 0.6 KM TO 1.3 KM EAST OF THE YERBA BUENA TUNNEL EAST PORTAL.

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 February 1, 2006.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions and provide a copy of the Information Handout.

Project Plan Sheets 424, 529, 531, 534, 535, 536, 537, 540, 541, 542, 543, 545, 546, 547, 548, 550, 551, 552, 555, 556, 557, 558, 559, 561, 564, 565, 566, 567, 568, 569, 570, 571, 577, 578, 579, 580, 581, 582, 583, 584, 586, 587, 588, 589, 590, 591, 592, 596, 597, 604, 606, 607, 610, 629, 632, 634, 649, 650, 651, 657, 658, 660, 667, 672, 674, 675, 676, 679, 680, 681, 682, 697, 700, 708, 709, 715, 719, 732, 733, 735, 736, 745, 749, 752, 756, 765, 766, 770, 771, 772, 773, 774, 782, 786, 790, 794, 796, 798, 804, 825, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 845, 853, 857, 877, 881, 902, 904, 905, 908, 922, 936, 939, 966, 1122, 1123, 1124, 1125 and 1132 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 5-1.023, "UNSATISFACTORY PROGRESS," is deleted.

In the Special Provisions, Section 5-1.13, "PROJECT INFORMATION," the second paragraph is revised to read as follows:

"Information attached to the project plans is as follows:

Log of Test Borings"

In the Special Provisions, Section 5-1.13, "PROJECT INFORMATION," subsection "STRUCTURE MATERIALS INFORMATION," Items L and N are revised as follows:

- "L. Illustration of Melt Through identified in Item B.3 of "Steel Structures/Shop Welding/Welding of Closed Ribs to Box Shell Plate" of these special provisions.
- N. Preliminary Pipe Beam Temporary Support Working Drawings from Contract 04-012024 (Skyway)."

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In the Special Provisions, Section 5-1.13, "PROJECT INFORMATION," subsection "STRUCTURE MATERIALS INFORMATION," Item O is added as follows:

"O. As-built plans of temporary towers AE and AW (Contract 04-012024)"

In the Special Provisions, Section 5-1.13, "PROJECT INFORMATION," subsection "DISTRICT MATERIALS INFORMATION," Item B is revised as follows:

"B. Correspondence with United States Custom Service regarding Jones Act and use of crane/barge, 2002 and 2005."

In the Special Provisions, Section 5-1.29, "ENVIRONMENTAL WORK RESTRICTIONS," subsection "SPECIES OF CONCERN," subsection "Pacific Herring," the first and the second paragraphs are replaced by the following paragraphs:

"Between December 1 and March 31 of any year, a biologist provided by the State will monitor for herring spawn. If spawning is observed during this time, dredging, fill, and pile operations in the water that are not completely confined within a cofferdam will be suspended by the Engineer if the operation is within 200 meters of the herring spawn. The Contractor shall comply within 8 hours with the written order of the Engineer to suspend the work. The work shall be suspended for a minimum of 14 days or until the State biologist determines that the herring hatch has been completed. The Engineer shall have the authority to suspend other operations that are wholly or partially in the water if it is deemed necessary to protect the herring spawn.

Dredging operations will not be allowed between December 1 and March 31 of any year unless the operation begins prior to December 1 and cannot be completed due to unforeseen delays. In the event the operation is suspended due to a herring spawn, the operation shall be resumed if ordered in writing by the Engineer, but shall be terminated no later than December 31 of that year."

In the Special Provisions, Section 10-1.41, "TEMPORARY TOWERS," subsection "TEMPORARY TOWER DESIGN," subsection "Wave and Current Loads," is added after subsection "Wind Loads," as follows:

"Wave and Current Loads

Temporary towers shall be designed to resist wave and current loads as determined from the requirements in API. A wave height of 2.0 m with a period of 6 seconds, and a uniform current of 2.0 knots shall be used to determine loads."

In the Special Provisions, Section 10-1.41, "TEMPORARY TOWERS," subsection "TEMPORARY TOWER DESIGN," subsection "Design Load Combinations for Load Factor Design," is revised as follows:

"Design Load Combinations for Load Factor Design

Temporary towers shall be designed using the following load combinations:

- 1.4 DL
- 1.1 DL + 1.3 LL
- 1.0 DL + 1.0 LL + 0.5 Wind + 1.0 Current + 1.0 Vessel Impact
- 1.0 DL + 1.0 LL + 1.0 EQ
- 1.0 DL + 1.0 LL + 1.3 Wind + 1.3 (Wave & Current)"

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In the Special Provisions, Section 10-1.41, "TEMPORARY TOWERS," subsection "SCHEDULE OF VALUES," is revised as follows:

"SCHEDULE OF VALUES

Attention is directed to "Accelerated Working Drawings Submittal" in these special provisions.

The Contractor shall submit, for approval by the Engineer, a schedule of values detailing the cost breakdown of the contract lump sum items for furnish temporary towers and remove temporary towers. The schedule of values shall reflect the items, work, quantities and costs required to furnish, erect, and remove temporary towers, except for costs required to prepare working drawings as included in the contract lump sum price paid for "Accelerated Working Drawings Submittal". The Contractor shall be responsible for the accuracy of the quantities and cost used in the schedule of values.

The sum of the costs for the items of work listed in the schedule of values shall equal the contract lump sum prices for furnish temporary towers and remove temporary towers.

No adjustment in compensation will be made in the contract lump sum prices paid for furnish temporary towers and remove temporary towers due to differences between the quantities shown in the schedule of values furnished by the Contractor and the quantities required to complete the work as shown on the plans and specified in these special provisions.

The schedule of values shall be submitted to the Engineer within the time required for submittal of the Interim Baseline Schedule, as specified in "Progress Schedule (Critical Path)," of these special provisions. When approved in writing by the Engineer, the schedule of values will be used to determine progress payments for furnish temporary towers and remove temporary towers during the progress of the work. No progress payments for furnish temporary towers and remove temporary towers will be made until the schedule of values is approved in writing by the Engineer.

The schedule of values shall categorize the work by tower location and shall quantify the values into the following progress payment milestones:

- A. Furnish temporary tower material
- B. Erect temporary tower
- C. Remove temporary tower

The Contractor may propose additional milestones for progress payment subject to approval by the Engineer."

In the Special Provisions, Section 10-1.41, "TEMPORARY TOWERS," subsection MEASUREMENT AND PAYMENT," the first paragraph is replaced by the following paragraphs:

"The contract lump sum price paid for furnish temporary towers, shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing and installing temporary towers, including designing, constructing and maintaining temporary towers, furnishing and installing temporary tower foundations, temporary tower foundation installation submittals, monitoring and redriving piles, necessary grade adjustment and displacement monitoring, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Section 49-6, "Measurement and Payment," of the Standard Specifications shall not apply.

The contract lump sum price paid for remove temporary towers, shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing temporary towers, including all work involved with slope restoration, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Section 49-6, "Measurement and Payment," of the Standard Specifications shall not apply."

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In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection "MATERIALS," the third paragraph regarding non- weathering steel grades is deleted.

In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection "CASTINGS," the nineteenth paragraph is revised as follows:

"No coating or oil preservative shall be applied to a casting until that casting has been inspected and approved by the Engineer. No coating or oil preservative shall be applied to metallized surfaces or to the inside of the saddle troughs. The Contractor shall provide suitable enclosures to prevent moisture from accumulating in the troughs."

In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection "FABRICATION," subsection "Fabrication/Erection Procedure and Mock-Ups," in the seventh paragraph, Item A is revised as follows:

"A. For the rib to deck PJP connections, the mock-up shall be as shown on the plans. This assembly is in addition to the qualification test welds required under the section, "Welding of Closed Ribs to Box Shell Plates" below. Satisfactory mock-ups shall be defined as mock-ups that meet the UT verification of depth of penetration and the visual and macroetch criteria specified under "Welding of Closed Ribs to Box Shell Plates" below. No repairs of the rib to deck PJP connections will be allowed in the mock-up. Failure to achieve a satisfactory mock-up will require the Contractor to make any necessary adjustments to his fabrication procedures and then fabricate a new mock-up that will be subject to the same criteria."

In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection "FABRICATION," subsection "Bolted Connections," in the fourth paragraph, Item O., Table 8.2, note "c" is revised as follows:

" When the bolt length exceeds 12db, the required nut rotation shall be determined by actual testing in a suitable tension calibrator that simulates the conditions of solidly fitting steel."

In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection "ASSEMBLY," subsection "Tower," the fifth paragraph is revised as the follows:

"As a minimum, the preassembly procedure shall consist of assembling three contiguous segments accurately adjusted for proper fit. Successive assemblies shall consist of at least one segment of the previous assembly plus two or more segments added at the advancing end. This requirement shall also apply to segments shipped from the fabrication site to an assembly site where the segments will be joined into lifts. In addition, the ends of a lift and an adjacent segment shall be abutted together in the shop or assembly site to ensure proper fit."

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In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection "SHOP WELDING," subsection "Welding of Closed Ribs to Box Shell Plate" is revised as follows:

"Welding of Closed Ribs to Box Shell Plate"

A. Welding of closed ribs to box shell plates shall be accomplished with a welding process and procedure that achieves a minimum of 80% penetration of the nominal rib thickness. Only SAW automated or mechanized welding process shall be used except GMAW may be used for tack welds or for the root pass if fully consumed by the subsequent SAW pass. GMAW operating in the spray mode that has been qualified by test may be used for the root pass or tack welds if incorporated into, but not necessarily remelted by, the subsequent SAW pass. Splices in closed ribs shall be ground flush inside and outside before attaching to deck plate. Closed ribs shall be clamped or tack welded in place, and both stems welded to the deck plate simultaneously. The Contractor's proposed methods and procedures shall undergo trials to qualify the range of welding parameters and joint geometry tolerances to be used in production. More stringent tolerances than AWS D1.5 may be required to achieve the requirements specified in these special provisions. In addition to these tests, the WPS qualification procedure required by AWS D1.5 shall be completed and the results included in the weld procedure qualification and mock-up submittal. Production welding shall not begin until the range of welding parameters and joint geometry tolerances are approved by the Engineer. Repair welding methods and procedures shall be approved by the Engineer.

B. Weld Procedure Trials— For closed rib welds to the deck plate, the Contractor shall perform weld trials on a qualification test panel using the mechanized or automated SAW welding system that will be used in production. The qualification trial shall be run on a deck plate panel with at least four ribs, but not less than the maximum number of ribs that will be welded simultaneously in production. The length of the mock-up qualification trial shall be that of a typical production deck panel, but not less than ten (10) meters long. The full number of macro specimens defined below shall be taken from a rib selected by the Engineer. All other ribs shall have 6 macros taken from each weld at locations selected by the Engineer.

Tack welding shall be considered as part of the weld qualification, including size and location of tacks, limits on essential variables and other qualification limitations.

The trials shall be conducted with welding machines, parameters, root openings and bevels as shown in the approved WQCP. Pre-bending, or other measures that will be used to control distortion during production, shall be defined in the fabrication procedure and used during the trials. The weld trial shall be performed on the ribs of the mock-up. No repairs are permitted for the weld qualification or production monitoring tests. If tack welds will be used during production, tack welds shall be made at the maximum spacing to be used in production and prepared as will be done during production. During these trials, the welding shall be stopped at every 2.0 meters, and then restarted.

At completion of welding of all closed ribs to deck plate, the welded panels shall be visually inspected and checked for flatness, straightness and other production tolerances. The welded, unstraightened panel shall be flat within 3 in 1000 as measured transverse to the ribs, and flat within 1 in 1000, as measured longitudinally along the ribs. If the unstraightened panel is not flat within these tolerances, new measures such as different prebending or fixturing, shall be proposed, and new trial panels welded. If the flatness requirement is satisfied, all remaining plates of the deck plate section mock-up shall be welded on to complete the steel mock-up. Inspection and testing of the closed rib welds shall be conducted after welding of all components of the mock-up have been completed.

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For panels that meet the visual and dimensional tolerance requirements, the welds shall be 100% ultrasonically tested to verify the required 80% penetration. The rib shall then be split in two and both stems shall be examined, after cutting and macroetching at anomalies as determined by UT and selected by the Engineer, but at least at the ends of the rib, at each tack weld and re-start locations and at intermediate points. At two tack weld locations on each weld, three macrosections shall be taken that represent the start, middle and end of the tack weld. Hardness tests shall be performed on these macrosections. The depth of penetration shall be measured and recorded for all macrosections, and the average and standard deviation shall be recorded for each weld.

Closed rib welds shall conform to the following:

1. The minimum depth of penetration shall be 80% of the rib thickness, except that a depth of penetration not less than 70% of the rib thickness is permitted for isolated locations not exceeding 5% of the weld length, or 10% of the number of macro specimens, provided the effective weld size exceeds 80% of the rib thickness and all other requirements are satisfied.

For the 12 mm thick closed rib, this is equivalent to the following: the maximum unwelded portion of the incomplete joint penetration shall not exceed 2.5 mm as measured along the plane of the deck plate, except that an unwelded portion of incomplete joint penetration not more than 3.8 mm will be acceptable for isolated locations, provided they do not exceed 5% of the weld length or occur in no more than 10 % of the number of macro specimens.

2. The minimum partial penetration groove effective weld size shall be 80% of the rib thickness. For this evaluation, the effective weld size shall be defined as the smallest distance from any point at the root to an outside weld or plate surface, as measured in a macroetch section.

3. No blow-through will be permitted at the rib inside surface, although uniform melt-through is acceptable. The geometry of the melt-through shall be such that the reentrant angle between the melt-through and the rib is not less than 45 degrees.

4. A uniform reinforcement fillet of between 2 mm and 5 mm shall be included.

5. The exterior surface profile shall meet AWS D1.5, Section 6.26.1 for a weld in a primary member with tension transverse to the weld axis. A maximum of 0.25 mm undercut is permitted.

6. Tack welds shall be incorporated into the final weld and shall not result in hard spots; uneven transverse notches; cracks or tears; or excessive thickness that results in local weld thickness variations greater than 3 mm.

Hard spots shall be evaluated on the qualification test by Vickers hardness measurements taken at 2 mm centers in the tack weld heat affected zones of both base plate and rib on the tack weld macrosections specified above. Hardness testing of tack welds will be required for production monitoring tests if a macrosection appears to have a hard spot in the opinion of the Engineer. A hard spot shall be defined as a hardness value in the tack weld HAZ that exceeds 300HV.

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C. Monitoring of Production Welds – During fabrication, weld monitoring tests shall be conducted for each operator on each welding machine at the start of each work shift. Test specimens shall consist of a separate piece of deck plate and rib. The rib shall be tack welded to the test piece the same as on the panel. Run-on and run-off tabs may be used if used in the production plates. If the equipment is used in production to simultaneously weld multiple ribs, then at least two ribs shall be welded during the test. The specimen shall be at least 500 mm long, and shall be examined 100% by visual inspection and UT. The specimen shall be macroetched 25 mm from each end, at a tack weld, and at two intermediate locations, as determined by the Engineer, immediately after welding.

In the event that the monitoring test specimens do not provide quality similar to those originally developed and accepted, fabrication shall cease. The welding parameters shall then be adjusted and production of qualified welds verified through two consecutive successful additional specimen trials approved by the Engineer before fabrication of deck panels is allowed to continue with the welding machine and operator being monitored.

D. Panel Production – The dimensions of production panels of box shell plating shall be checked after welding. The welded panel, after straightening, if any, shall be flat within 5 mm in each 5 m length of box panels. Panels may be straightened using a written procedure that is in conformance to AWS D1.5 and is approved by the Engineer.

Ultrasonic technician shall be qualified using a mock-up weld with flaws that is approved by the Engineer.

If the flatness of more than one panel in five exceed 6 in 1000 after welding, the Contractor shall propose a revised assembly procedure, such as a different amount of pre-bending, and shall demonstrate the revised method by welding a new panel in the presence of the Engineer.

Production panels shall be nondestructively tested at the rate specified in these special provisions except that ultrasonic testing of the first two production panels shall include 100% of the tack welds. Ultrasonic testing of tack weld areas shall continue until no more than one in ten tack welds are rejected, after which random ultrasonic testing shall proceed at the rate indicated in the table specified in these special provisions. Ultrasonic testing of the PJP weld shall be in accordance with a written procedure that is developed to measure the size of the incomplete joint penetration and approved by the Engineer. Approval of the UT procedure shall be contingent on a satisfactory comparison (+/- 0.2 mm) of the UT results with the measured incomplete joint penetration in the macrosections taken from the weld qualification trials. At a minimum, the UT procedure shall include reference blocks with notches that have depths of 90%, 80%, 70% and 60% of the rib thickness. For the 12 mm thick closed ribs, the notch depths are 1.3 mm (90%), 2.5 mm (80%), 3.8 mm (70%), and 5.0 mm (60%). The reference blocks shall be made available to the Engineer. The NDT reports for the UT testing of the PJP welds shall specify the length and magnitude of the incomplete joint penetration. Each of the Contractor's ultrasonic technicians shall be qualified using a mock-up weld with flaws that is approved by the Engineer."

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In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection, "INSPECTION AND TESTING," in the fifth paragraph, the tables for "3. TOWER" and "4. OTHER WELDS NOT SPECIFIED ABOVE" are revised as follows:

3. TOWER	Weld Type			Extent & Type of Testing			Notes
	CJP	PJP	Fillet	RT	UT	MT	
Skin plate butt welds: Horizontal	X				100%		
Skin plate butt welds: Vertical	X				25%		
Longitudinal Stiffener butt welds	X				100%		
Longitudinal stiffener to skin plate	X	X	X		100% 25%	25% 25%	
Diaphragm butt welds	X				100%		
Diaphragm to Skin Plate	X	X	X		100% 25%	25% 25%	
Diaphragm to Longitudinal Stiffener (incl. Fit Lugs)	X	X	X		100%	25% 25%	
Tower Strut Welds & Cross Bracing Welds	X	X	X		100% 100%	100% 100% 100%	
Grillage welds	X	X	X		*****	*** *** 25%	
Tower Saddle welds	X	X	X		100%	100% 100% 25%	
Skin Plate to Tower Base Plate	X	X			25%	50%	
Bearing Stiffener Welds at Tower Base Anchor Bolt Assemblies	X	X	X		25%	25%	
Other Tower welds	X	X	X		25%	10% 10%	

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Tower Base Shear Plates to the Skin Plate	X	X			**** ****	**** ****	
4. OTHER WELDS NOT SPECIFIED ABOVE	Weld Type			Extent & Type of Testing			Notes
	CJP	PJP	Fillet	RT	UT	MT	
Welds in SPCMs	X	X	X	15%*	100% 100%	100% 100% 100%	* RT+UT for butt welds (% shown) & butt repairs (100%)
Other welds	X	X	X		25%	10% 10%	
Ends of welds at locations of required grinding for full length of grinding plus 50mm each end	X	X	X			100%	Additional to NDT specified for weld

In the Special Provisions, Section 10-1.59, "STEEL STRUCTURES," subsection "INSPECTION AND TESTING," Note 11 in the "Notes" following the non-destructive examination table is revised as follows:

"11) Welds made by either the electroslag or electrogas processes shall be examined 10% by radiographic and 100% by ultrasonic testing. Radiographic testing is not required for Tee and corner joints. The use of "Pitch and Catch" (P) ultrasonic technique shall be required for all electroslag and electrogas welds in addition to the prescribed primary procedures specified in AWS D1.5, Table 6.2."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "GENERAL," subsection "Working Drawings," in Item A, line 3 is revised as follows:

"3. Written procedures for quality control and testing during the cable wire manufacturing process."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "GENERAL," subsection "Working Drawings," in Item B, lines 2 and 3 are revised as follows:

"2. Written procedures for quality control and testing during suspender rope manufacturing.

3. Written procedures and drawings for pre-stretching, measuring, and socketing the suspender ropes."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "GENERAL," subsection "Working Drawings," in Item C, lines 2 and 3 are revised as follows:

"2. The Contractor shall develop and verify, as part of his Erection Plan, a set of weights, reactions, box-girder cambers, cable profiles, and suspender forces, which are consistent with a box-girder moment diagram that lies within the range of the allowable box-girder moments shown on the plans. The computed as-built suspender forces of the Contractor's Erection Plan shall henceforth be referred to as suspender load.

3. The Erection drawings, written procedures, and calculations showing each sequence for each stage of construction of the cable system and transfer of the suspender load to the cable system, including the method of transferring the load through the suspender system to the PWS cable system."

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In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "GENERAL," subsection "Shipping, Handling and Storing Materials," the third paragraph is revised as follows:

"After manufacturing, individual shop prefabricated parallel wire strands shall be reeled onto shipping reels with a barrel diameter not less than 2000 mm. Alternatively, individual shop prefabricated parallel wire strands may be shipped on shipping platforms. The parallel wire strands shall be coiled to a loop diameter not less than 2000 mm and shall be secured to the shipping platforms. The shipping platforms shall be constructed to protect the parallel wire strands against damage and shall support the coiled parallel wire strands against any instability of the coil stack by use of bracing or tie downs. Each reel or shipping platform shall be tagged with a strand serial number for that reel or shipping platform that indicates the serial numbers of the coils of cable wire that were used to produce the shop prefabricated parallel wire strand on the reel or shipping platform, the length and location within the cross section of the strand, and the weight of the strand and the total weight of the reeled package or shipping platform package. Shop prefabricated parallel wire strands shall be reeled or coiled in such a manner that the strand can be continuously unreel without damage to the strand and without tangling or jamming. The reels or shipping platforms shall be wrapped and adequately secured to protect the strand from damage during shipping and storage. Prior to strand shipping, sockets shall be securely fastened to the reel flanges or to the shipping platform. Sockets shall not bear against the strand wires. Prior to load out of the shipping platforms, the Contractor shall demonstrate to the Engineer that the parallel wire strand coil is properly secured to the shipping platform to resist the expected shipping loads. Reels or shipping platforms shall be stored within clean, dry enclosures until incorporated into the work. The Contractor shall provide suitable enclosures to prevent moisture from accumulating on the strands. Reels shall be lifted from suitable lifting points located on each flange. Shipping platforms shall be lifted from a minimum of four suitable lifting points located on the platform base perimeter."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "MATERIALS AND FABRICATION," subsection "Shop Prefabricated Parallel Wire Strand (PWS)," the first paragraph is revised as follows:

"The shop fabrication of PWS shall account for the angle changes occurring at cable saddles and within the cable geometry as shown on the plans."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "MATERIALS AND FABRICATION," subsection "Shop Prefabricated Parallel Wire Strand (PWS)," the third paragraph is revised as follows:

"Each strand shall be banded with reinforced plastic tape at approximately 1.5-m intervals. Plastic bands shall be sufficient in strength and ductility to maintain the strand wires in a compact group during strand fabrication, reeling, storage, transportation, and erection. Plastic bands shall not prevent proper compaction of the cable."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "MATERIALS AND FABRICATION," subsection "Shop Prefabricated Parallel Wire Strand (PWS)," the following paragraph is added after the third paragraph:

"Across the saddles, where curvature is significant, the parallel wire strands shall be pre-formed during shop fabrication to the appropriate radius, and strand clamps applied as necessary to maintain the wire alignment and prevent subsequent wire longitudinal slippage during strand reeling, unreeling and erection. The strand clamps shall be removed at suitable intervals during the strand erection procedure. The strand

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In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "MATERIALS AND FABRICATION," subsection "Shop Prefabricated Parallel Wire Strand (PWS)," the last paragraph is revised as follows:

"The Contractor shall perform an "Unreeling Test" at the factory of the first PWS strand before shipping, and prior to reeling the rest of the PWS strands onto reels or shipping platforms. The test shall verify that the PWS strand can be unreeled continuously without tangling or jamming. In the event that tangling or jamming occurs, the Contractor shall revise the reeling procedures and repeat the "Unreeling Test" until it is successful."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "ERECTION," subsection "PWS Cables," the second paragraph is revised as follows:

"Parallel wire strands shall be erected by towing them over rollers across the footbridges using a tramway hauling system. Rollers shall be provided along the footbridges, over the tower tops and around the deviation and jacking saddles to minimize disturbance of strand wires and to facilitate strand erection. Strands under tow shall not contact erected strands, nor shall they be subject to any treatment that could lead to kinking of wires or to damage of the zinc coating."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "ERECTION," subsection "PWS Cables," the fourth paragraph is revised as follows:

"The forward end of a strand under tow shall be prevented from rotating. Upon completion of the towing operation for each strand, it shall be placed into the saddles by means of lifting beams so designed as to prevent kinking of the strand. Before the strand is supported by the lifting beam and placed into the saddle compartment, the hexagon shape of the strand shall be changed into a rectangular shape for proper placement into the saddle compartment. While the strand is supported by the lifting beam, any twist of the strand within the length of the saddle, as determined by the colored gauge wire in each strand, shall be removed."

In the Special Provisions, Section 10-1.60, "CABLE SYSTEM," subsection "ERECTION," subsection "PWS Cables," the sixth paragraph is revised as follows:

"Circumferential saddle marks of the first erected strand shall be placed on-the-mark at the tower saddles, deviation saddles, jacking saddles and splay saddles and blocked in between the saddle separating plates as necessary to hold it in position. The Contractor shall submit to the Engineer for approval a procedure to prevent wire longitudinal slippage. The sag of the first erected strand shall be adjusted in each span to the proper bare-cable sag. The sag shall be surveyed and adjusted during a period when the strand and the air temperature are uniform. The strand shall be adjusted to the calculated sag to an accuracy of 50 mm. All other strands in the cable shall subsequently be adjusted to sag properly with respect to the surveyed strand, following the approved cable erection plan."

To Proposal and Contract book holders:

Attached is a copy of the Information Handout in CD ROM and paper formats which include the following:

- Letter to the US Customs Service and Border Protection-Office of Regulations and Rulings dated October 13, 2005 regarding the Jones Act.
- Letter from the US Customs Service and Border Protection dated October 19, 2005.
- As-Built plans of the temporary towers AE and AW in Contract No. 04-012024.
- Melt-Through Welding Detail.

04-SF-80-13.2/13.9
04-0120F4

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 CONTRACTORS section of the Notice to Contractors 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 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 is 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