

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 71 Suppl. No. 0 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Adjustment of Compensation at Lump Sum Price

ITEM 1.

Modify E2 bearings, shear keys, and cross beam including, but not limited to the following:

- 1) Revise bolting details
- 2) Increase the radius at the two lower corners of the bearing top housing
- 3) Use oversized holes in bearing top housing and shear key housing
- 4) Decrease bearing bottom housing base plate thickness
- 5) Roughen bottom surface of base plate
- 6) Assemble shear key housing at cross beam 35 mm lower
- 7) Additional machining for catcher brackets on the shear keys
- 8) In lieu of galvanizing, paint spherical washers
- 9) Change grout used on bearing and shear key anchor rods to high strength nonshrink
- 10) In lieu of the neoprene seal, wrap Denso debonding tape on the bearing and shear key anchor rods
- 11) Eliminate the formwork for planned concrete blockout in E2 cross beam

Replace the sixth paragraph of Special Provisions Section 10-1.47 "SPHERICAL BUSHING BEARING (PIER E2)," subsection "MATERIALS," and insert subsequent paragraphs as shown on sheet 3 of this change order.

The following revised and supplemental plan sheets detail the changes addressed in this change order: 514R3, 882R1, 882AR1, 883R2, 884R1, 884S1, 885R1, 887R2, 888R1, 888AR1, and 888BR2 (of 1204) as shown on sheets 4 through 14 of this change order.

ITEM 1 of this change order resolves the costs associated with Contractor Request For Information (RFI) numbers 17, 515, 553, 560, 566R0, 567, 582, 633, 646, 698R0, 698R1, 701R0, 722, 723, 724, 760, 824R1, 824R2, 858, 1191, 1233R2, 1233R5, 1357, 1418, 1419, 1435, 1622, 1644R2, 2063R0, 2063R1, and 2137R0 with respect to changes listed above.

Adjustment of Compensation at Lump Sum \$425,287.00

Estimate of Increase in Contract Item at Contract Price:

ITEM 2.

Increase concrete item quantity to fill-in E2 cross beam blockout.

Item No. 38: STRUCTURAL CONCRETE BRIDGE
 50.2 M3 (+0.61%) @ \$4,700.00 /M3 = +\$235,940.00 (+0.61%)

The quantity increase shown herein for Item No. 38 (STRUCTURAL CONCRETE BRIDGE), when combined with the quantity specified in the Engineer's Estimate, and as modified by any previous change orders, shall be the final quantity for which payment will be made.

Total cost for Increase in Contract Item..... \$235,940.00

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Extra Work at Lump Sum

ITEM 3.

Perform additional testing for proof of concept for E2 bearing and shear key anchor rods, as directed by the Engineer.

Perform additional testing to determine the minimum coefficient of friction between the spherical bushing assembly and the bottom housing of the Pier E2 bearing as directed by the Engineer.

ITEM 3 of this change order resolves the costs associated with Contractor Request For Information (RFI) numbers 1233R3, 1233R4, and 1458 with respect to changes listed above.

Extra Work at Lump Sum.....\$52,753.00

CHANGE ORDER COST AND TIME SUMMARY

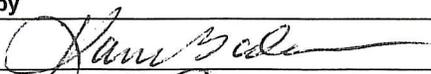
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|--|---------------------|
| (ITEM 1) Adjustment of Compensation at Lump Sum..... | \$425,287.00 |
| (ITEM 2) Increase in Contract Items at Contract Price..... | \$235,940.00 |
| (ITEM 3) Extra Work at Lump Sum | \$52,753.00 |
| Total net pay for this change order | \$713,980.00 |

This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.

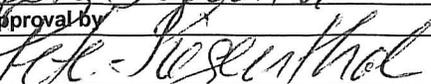
Additional material costs and field work to install the catcher brackets on the shear keys, as described in RFI's 2137R0, 2137R1, and 2137R2, will be addressed in a future change order.

Estimated Cost: Increase Decrease \$713,980.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

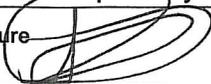
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|---------------------|---|------------------------|---------------|
| Submitted by | | | |
| Signature |  | Resident Engineer | |
| | | Kannu Balan, Sup. T.E. | Date 12-17-10 |

| | | | |
|--------------------------------|---|-----------------------------|---------------|
| Approval Recommended by | | | |
| Signature |  | Supervising Bridge Engineer | |
| | | Brian Boal, Sup. B.E. | Date 12-17-10 |

| | | | |
|-----------------------------|---|-----------------------------------|-------------|
| Engineer Approval by | | | |
| Signature |  | Principal Transportation Engineer | |
| | | Peter Siegenthaler, Prin. T.E. | Date 1-6-11 |

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

| | | |
|---------------------------------|---|-----------|
| Contractor Acceptance by | | |
| Signature |  | |
| | (Print name and title) | Date |
| | BRIAN A. PETERSEN - PROJECT DIRECTOR | 05 JAN 11 |

CONTRACT CHANGE ORDER

Change Requested by: Engineer

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|---------|--------------|--------------------------|----------------------|----------------|
| CCO: 71 | Suppl. No. 0 | Contract No. 04 - 0120F4 | Road SF-80-13.2/13.9 | FED. AID LOC.: |
|---------|--------------|--------------------------|----------------------|----------------|

Replace the sixth paragraph of Section 10-1.47, "SPHERICAL BUSHING BEARING (PIER E2)," subsection, "MATERIALS," of the Special Provisions and insert subsequent paragraphs as follows:

Steel components including plates and anchor bolts shall conform to the details shown on the plans, the provisions in "Steel Structures," of the Standard Specifications, and these special provisions except that the spherical washers for E2 anchor rods will not be galvanized. Clean and paint spherical bushing bearing shall conform to the requirements in "Clean and Paint Structural Steel (Seismic Joint, Spherical Bushing Bearing, and Shear Key)," of these special provisions. Paint spherical washers for E2 anchor rods in accordance with Standard Specifications Section 59-2.13, "Application of Zinc Rich Primer", Section 91, "Paint", Special Provisions Section 10-1.70, "Clean and Paint Structural Steel (modular joint seal assembly, spherical bushing bearing, and shear key)" and the following:

- Outer diameter, top and bottom flat surfaces – single coat inorganic zinc primer dry film thickness between 90µm (microns) and 150µm (microns).
- Inner diameter and spherical surface – one application of zinc rich primer (organic vehicle type).
- Complete painting the surfaces requiring inorganic zinc before applying zinc rich primer (organic vehicle type) to the spherical surface and inside diameter.

In lieu of the requirements for the Paint Quality Work Plan (PQWP) in Special Provisions Section 10-1.70, for the spherical washers, the requirements for the PQWP are as follows:

Prior to painting the spherical washers, submit to the Engineer three (3) copies of a separate Painting Quality Work Plan (PQWP) in conformance with the provisions in Section "Working Drawings," in these special provisions. The PQWP shall include the following:

- A. The name of each Contractor or subcontractor used.
- B. Proposed methods and equipment to be used for any paint application.
- C. Proof of AISC Certification, Paint Endorsement.
- D. Proposed methods to control environmental conditions in accordance with the manufacturer's recommendations and these special provisions.
- E. Proposed method to protect the product during curing, shipping, handling and storage.

The Engineer shall have 10 days to approve the PQWP submittal after a complete plan has been received.

