

## **REVISION OF SECTION 210 RESET STRUCTURES**

Section 210 of the Standard Specification is hereby substituted for this project as follows:

### **DESCRIPTION**

**210.01** This work consists in whole of restoring and modifying existing salvaged bridge sections, transportation of the bridge sections to the bridge site, and assembly and erection of the salvaged sections as shown in the construction plans.

### **MATERIALS**

**210.02** All steel used for repair or replacement of the bridge structure shall be of ASTM A588 material. All bolts shall be A325 Type 3 (corrosion resistant).

### **CONSTRUCTION REQUIREMENTS**

**210.03 General.** The Grand Avenue Pedestrian Bridge was dismantled and moved from its former location east of Grand Avenue, across the Colorado River and I-70, in March of 2016. It was originally erected in 1985 after fabrication by Zimmerman Metals, Inc. of Denver, based on design plans by Pattillo Associates Engineers of Glenwood Springs. The sections that comprise Span 1, Span 3, and Span 4 on the construction plans were moved as entire units, including concrete decks. The span bridging the river, Span 2, was disassembled by demolition of the concrete deck and a combination of unbolting and oxygen-acetylene cutting of gusset plates and other members to reduce the structure to various subassemblies for removal, transportation and storage. Span 1 is currently stored on the Midland Avenue sidewalk near proposed Abutment A, and Spans 3 and 4 are currently stored along the west side of Coach Miller Drive, behind the High School football field. The disassembled sections of Span 2 are stored to the southeast of Spans 3 and 4, on City property accessed by a driveway that crosses the Rio Grande Trail. All salvaged spans are available for inspection by bidders.

**210.04 Restoration.** Because of damage to pieces and sub-assemblies of Spans 1, 2, and 3 incurred during disassembly, the portions of the steel structure salvaged bridge sections must be restored prior to erection. Restoration may consist of either repair or replacement of damaged pieces at the contractor's option, subject to review and approval by the Engineer. Regardless of the methods used for restoration, the contractor shall be Responsible for replicating the assemblies, and sub-assemblies for erection in conformance with the original Zimmerman Metals Shop Drawings as provided in the Contract Reference Documents.

**210.05 Submittals.** Restoration Drawings shall be prepared by the Contractor and submitted to the Engineer for review and approval prior to commencement of any repair or replacement work. Such drawings shall include information as to whether damaged pieces will be replaced or repaired, and if repaired, whether the work will be accomplished in the field or in a shop, and what specific methods are proposed to be used. Due to the complex nature of restoration and uncertainties about the extent of damage, it is acceptable for the Restoration Drawings to be submitted in separate portions.

**210.06 Damage Documentation.** To assist in identifying damage to the salvaged bridge sections (principally Span 2), documentation has been provided with the contract drawings, including the following:

Reference Photographs by Frame Markings  
Reference Photographs by Piece Markings  
Damage Inventory by Marked Shop Drawings

These documents are provided without warrantee of completeness or accuracy. The Contractor is responsible for identification of all damage caused by disassembly that exists within the salvaged structures and restoration to serviceable condition. Under this section, the Contractor is not responsible for original fabrication errors or required maintenance repairs that may be discovered.

**210.07 CNC Fabrication.** To assist with fabrication of replacement parts for known damage caused by disassembly (principally cut gusset plates), computer generated drawings have been created of the principal truss pieces for Span 2. These drawings are certified as accurate representations of portions of the Zimmerman Metals shop drawings, and electronic copies are available upon request. The drawings are identified as “Gusset Plate Drawings” in the Salvaged Structure Damage Documentation portion of the Contract Documents.

**210.08 Modification.** Modifications to the existing bridge structure shall include the following items:

1. Replacement of all existing bolts with new bolts, installed to a snug-tight condition.
2. Cutting Span 4 to a 64 foot panel length, providing welded end plates as required and installing the pin connection for the sliding bearing at Pier D.
3. Providing tapered edge cover plates at all bridge deck breaks (4 required).

4. Removal of existing woven wire mesh above the handrail level on Span 1 and Span 3.

#### METHOD OF MEASUREMENT

**210.09** Reset Structures will not be measured but will be paid for on a Lump Sum basis in three parts, Restore Portions of Existing Structure, Transport/Erect Existing Structure, and Modify Existing Structure.

#### BASIS OF PAYMENT

**210.10** Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Restore Portions of Existing Structure	Lump Sum
Transport/Erect Existing Structure	Lump Sum
Modify Existing Structure	Lump Sum

Payment for Reset Structures will be full compensation for all work, materials and equipment to restore, modify, transport and erect the salvaged truss sections as described in this specification.

The Engineer will monitor the progress and adequacy of the work provided for setting the structures. When the contractor provides acceptable services in accordance with these specifications, partial payments for each Pay Item will be made as the work progresses. Failure to provide acceptable work product will result in withholding of payment for these items. These partial payments will be made as follows:

Partial payments for each Pay Item will be made once each month as work progresses. These payments will be determined by pro-rating the Lump Sum bid amount by the percentage of completed work for each Pay Item as estimated by the Engineer.