

ITEM 07564.4704 M - END BOLTING EXISTING PARTIAL LENGTH COVER PLATES

DESCRIPTION

Under this work the Contractor shall perform magnetic particle testing of the existing base and weld metal, field drill bolt holes, and fabricate, furnish and install structural steel splice plates and filler plates at the ends of partial length cover plates shown on the plans.

Unless shown otherwise on the contract plans, the Contractor has the option of performing all the work in the field or in the shop. Painting shall be completed and paid for under the appropriate painting item, except "Blast Cleaning" will be included in this specification.

The Contractor's attention is directed to Subsection 106-01 of the Standard Specifications, Source of Supply and Quality Requirements, with regard to advising Department representatives of the sources of proposed materials.

MATERIALS

Materials for this work shall meet the requirements of the following Subsections of the latest edition of the New York State Department of Transportation Standard Specifications:

Structural Steel	715-01
High Strength Bolts, Nuts And Washers	715-14

Certified copies of the results of mechanical tests and chemical analyses performed by the manufacturer shall be furnished to the Engineer, for all steel, in accordance with the requirements of Subsection 715-01, Structural Steel. In addition, all steel shall meet the provisions of the latest edition of the New York State Steel Construction Manual (NYSSCM) with current addenda.

CONSTRUCTION DETAILS

- 1. General** All structural steel work including but not limited to drilling of boltholes, fabrication, inspection, testing, transportation, and erection shall be done in accordance with the provisions of the NYSSCM, and the details shown on the plans.
- 2. Shop Drawings** Shop drawings shall be prepared, approved and distributed in accordance with the provisions of the NYSSCM.
- 3. Field Drilling Bolt Holes**
 - A. The required bolt hole diameter shall be as indicated on the Plans.
 - B. No flame cutting, or flame piercing will be permitted.
- 4. Damage to Steel** The Contractor shall perform all work with extreme care to avoid damage to the steel that is to remain. Any damage to the existing steel, which can be attributed to the Contractor's operation, shall be repaired by the Contractor, at no cost to the Department, and by a procedure approved by the Engineer. All repairs shall be done in a manner satisfactory to the Engineer.

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- 5. Temporary Supports** During the course of the work, it may be necessary to disconnect, support, or adjust steel that is to remain in the structure. For these situations, the Contractor shall submit his proposals for disconnecting, supporting, or adjusting the steel, to the Engineer, for approval. The Contractor's proposals must be approved prior to the actual commencement of any disconnecting, supporting or adjusting of steel.
- A. All painting is to be done in accordance with, and paid for under, the appropriate painting item.
 - B. The area within 150 mm of work to be done on the existing girder, and the new splice and fill plate shall be blast cleaned to near white metal as defined in SSPC-SP-10.
 - C. The new splice plates, new fill plates and existing contact surfaces shall be cleaned and surfaces shall receive a prime coat only. Note that a minimum slip coefficient of 0.33 must be maintained for all contact surfaces.
 - D. An epoxy second coat and an epoxy third coat shall be applied to the entire assembly after installation. The void between the ends of the new fill plate and existing cover plate must be filled with silicone caulk selected from the NYSDOT Materials Bureau Approved List.
 - E. The color of the last coat shall match the color of the topcoat of the existing girder.

METHOD OF MEASUREMENT

This work will be measured as the number of cover plate ends that have been bolted in accordance with this specification and the plans.

BASIS OF PAYMENT

General The price bid shall include the cost of furnishing all labor, materials and equipment necessary to complete the work. No payment will be made for repair or replacement of damaged material, made necessary as a result of the Contractor's operations.

Included Work Items that are included in the price bid and are the Contractor's responsibility are as follows:

- A. **Shop Drawings, including Paper Prints and Reproducible Prints.** The cost of all shop drawings, prints and reproducibles required by the specification shall be included in the unit price bid.
- B. **Inspection of Bolted Connections.** All labor and equipment necessary for the performance of inspection of bolt tightness during structural steel fabrication and erection shall be provided by the Contractor and included in the price bid for the number of cover plate ends which have been end bolted. The State will witness the bolt testing, but will not provide equipment or labor.

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- C. **Magnetic Particle Inspection.** The cost of magnetic particle inspection shall be included in the unit price bid for the number of cover plate ends that have been end bolted.
- D. **Field Inspection of Rejected Material or Material Not Offered for Shop Inspection even though Required to be Shop Inspected by the Contract Documents.** When the State/Department, at its discretion, permits inspection of the subject materials to be performed at the project site, all costs of this inspection shall be borne by the Contractor as a condition of the Department's approval of inspection of this material. All costs associated with the inspection of rejected material that has been shipped to the field without approval shall be borne by the Contractor.
- E. **Field Repair, Reaming and Drifting of Holes.** All work permitted for the correction of unacceptable holes shall be provided at the Contractor's expense.
- F. **Photographs.** Photographs requested by the Structures Design & Construction, in accordance with the provisions of the NYSSCM, shall be furnished at no additional cost.
- G. **Testing of Stock Steel.** All labor, materials, and equipment necessary to perform chemical and physical tests on stock steel shall be furnished by the Contractor and included in the price bid for the number of cover plate ends that have been end bolted.
- H. **Temporary Supports.** Any temporary supports or work required to meet the provisions as specified in the construction details shall be performed at no additional cost to the State, unless indicated otherwise on the plans.
- I. **Blast Cleaning** All labor, materials, and equipment necessary to perform blast cleaning within 150 mm of work to be done.

Additional Work Items that are also required, but are to be paid for separately are as follows:

- A. **Repair of Existing Defects in Welds and Base Metal.** The cost of repairing defects found by visual inspection or nondestructive tests shall be paid by agreed price or force account.
- B. **Painting.** Painting shall be paid for under the appropriate items indicated on the plans.