REVISION OF SECTION 202

REMOVAL OF BRIDGE

Section 202 of the Standard Specifications is hereby revised for this project as follows:

Subsection 202.01 shall include the following:

This work consists of removal of the existing bridge at *♦.* Bridge removal shall consist of the complete removal of all superstructure and substructure elements unless otherwise shown on the plans. *▲*

Subsection 202.02 shall include the following:

The removal of the existing bridge shall be performed in a safe manner.

When removal operations are located over a railroad or in proximity to any live water way , additional coordination with the railroad or other agency, (United States Army Corps of Engineers (USACE), US Fish and Wildlife Service, US Forest Service, etc.) shall be required.

The Contractor shall submit a bridge removal plan to the Engineer, for record purposes only, at least 20 working days prior to the proposed start of removal operations. This Plan shall detail procedures, sequences, and all features required to perform the removal in a safe and controlled manner. The Bridge Removal Plan shall be stamped “Approved for Construction” and signed by the Contractor. The Bridge Removal Plan will not be approved by the Engineer.

The Bridge Removal Plan shall provide complete details of the bridge removal process, including:

1. The removal sequence, including staging of removal operations. Sequence of operation shall include a detailed schedule that complies with the working hour limitations.
2. Equipment descriptions including size, number, type, capacity, and location of equipment during removal operations.
3. Shoring that exceeds 5 feet in height, all falsework and bracing.
4. Details, locations and types of protective coverings to be used. The protective covering shall prevent any materials, equipment or debris from falling onto the property below. When removal operations are located over or in proximity to any live waterway, railroad, or pedestrian/bicycle path, additional width of protective covering sufficient to protect these facilities shall be required. Detailed methods for protection of the existing roadway facilities, including measures to assure that people, property, utilities, and improvements will not be endangered.
5. Detailed methods for protection of live waterways including minimization of turbidity and sedimentation, and protection of existing wetlands.
6. Detailed methods for mitigation of fugitive dust resulting from the demolition.
7. Details for dismantling, removing, loading, and hauling steel elements.
8. Methods of Handling Traffic, including bicycles and pedestrians, in a safe and controlled manner.

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A Pre-Removal Conference shall be held at least seven days prior to the beginning of removal of the bridge. The Engineer, the Contractor, the removal subcontractor, the Contractor’s Engineer, and the Traffic Control Supervisor (TCS) shall attend the Pre-Removal Conference. The Bridge Removal Plan shall be finalized at this Conference.

The Contractor’s Engineer shall sign and seal (1) and (3) listed above in the final Bridge Removal Plan. Calculations shall be adequate to demonstrate the stability of the structure remaining after the end of each stage of removal, before traffic is allowed to resume in its normal configuration.

The final Bridge Removal Plan shall be stamped “Approved for Construction” and signed by the Contractor. The Contractor shall submit a final Bridge Removal Plan to the Engineer prior to bridge removal for record purposes only. The Contractor shall not begin the removal process without the Engineer’s written authorization.

Submittal of the final Bridge Removal Plan to the Engineer, and field inspection performed by the Engineer, will in no way relieve the Contractor and the Contractor’s Engineer of full responsibility for the removal plan and procedures.

Work within Railroad right-of-way shall be in accordance with Section 107. For bridge removal over railroads, including overhead wires, tunnels and underground facilities, approval of the bridge removal plans will be contingent upon the drawings being satisfactory to the railroad company involved.

Unless otherwise directed, the Contractor’s Engineer need not be on site when bridge removal operations are in progress, but shall be present to conduct daily inspection for written approval of the work. The Contractor’s Engineer shall inspect and provide written approval of each phase of the removal prior to allowing vehicles or pedestrians on, below, or adjacent to the structure. The Contractor’s Engineer shall certify in writing that the falsework, bracing, and shoring conform to the details of the final Bridge Removal Plan. A copy of the certification shall be submitted to the Engineer.

The Contractor’s Engineer shall inspect the bridge removal site and report in writing on a daily basis the progress of the operation and the status of the remaining structure. A copy of this daily report shall be available at the site of the work at all times, and a copy of the previous day’s inspection report shall submitted to the Engineer daily.

The Contractor shall have all necessary workers, materials, and equipment at the site prior to closing any lanes to traffic to accommodate bridge removal operations. While the lanes are closed to public traffic, work shall be pursued promptly and without interruption until the roadway is reopened to traffic.

Removal of hazardous material shall be in accordance with Section 250.

The Contractor shall take all steps to avoid contaminating state waters, in accordance with subsection 107.25.

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REMOVAL OF BRIDGE

Should an unplanned event occur or the bridge removal operation deviate from the submitted bridge removal plan, the bridge removal operations shall immediately cease after performing any work necessary to ensure worksite safety. The Contractor shall submit to the Engineer, the procedure or operation proposed by the Contractor’s Engineer to correct or remedy the occurrence of this unplanned event or to revise the final Bridge Removal Plan. The Contractor shall submit his Engineer’s report in writing, within 24 hours of the event, summarizing the details of the event and the procedure for correction.

Before removal of the protective covering, the Contractor shall clean the protective covering of all debris and fine material.

Bridge removal may be suspended by the Engineer for the following reasons:

1. Final Bridge Removal Plan has not been submitted, or written authorization has not been provided by the Engineer to begin the removal.
2. The Contractor is not proceeding in accordance with the final Bridge Removal Plan, procedures, or sequence.
3. The Contractor’s Engineer is not on site to conduct inspection for the written approval of the work.
4. Safety precautions are deemed to be inadequate.
5. Existing neighboring facilities are damaged as a result of bridge removal.

Suspension of bridge removal operations shall in no way relieve the Contractor of his responsibility under the terms of the Contract. Bridge removal operations shall not resume until modifications have been made to correct the conditions that resulted in the suspension, as approved in writing by the Engineer.

The Contractor shall notify all emergency response agencies of the proposed removal work and any detours 24 hours in advance of work. This shall include the Colorado State Patrol, local Police Department, local Fire Department, all local ambulance services, and the Sheriff’s Department, as appropriate.

All required traffic control devices, night time flagging stations, barricades and VMS signs shall be in place, with detours in operation, prior to the beginning of removal operations each day. Night work shall conform to the requirements of the MUTCD, Parts 1, 5, and 6.

Prior to reopening the roadway to public traffic, all debris, protective pads, materials, and devices shall be removed and the roadways swept clean.

Explosives shall not be used for removal work without the written approval of the Engineer.

Removal shall include the superstructure, the substructure, which includes the piers, the abutments and wingwalls, the bridge rail, and any approach slabs and sleeper slabs.

Removal of the substructure shall be taken down to at least 1 foot below the natural existing or future ground surface at the lowest point of interface with the abutment, unless otherwise approved by the Engineer. Holes resulting from substructure removal shall be backfilled with Structure Backfill (Class 2) to the adjacent existing grades.

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♥All other materials removed from the existing structure shall become the property of the Contractor and shall be properly disposed of offsite at the Contractor’s expense, unless otherwise stated in the plans.

Existing structures, facilities, and surrounding roadways shall not be damaged by the removal operations. Damage that does occur shall be repaired immediately at the Contractor’s expense.

Subsection 202.12 shall include the following:

Payment will be made under:

**Pay Item Unit**

Removal of Bridge Each

Payment for Removal of Bridge will be full compensation for all labor and materials required to complete the work, including, preparation and implementation of the Bridge Removal Plan, inspection, equipment, debris handling and disposal, salvaging, handling and storage of salvable materials, handling and disposal of all hazardous materials, and disposal of non-salvable materials.

Lighting required for nighttime operations will not be measured and paid for separately, but shall be included in the work.

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**INSTRUCTIONS** **TO** **DESIGNERS** (delete instructions and symbols from final draft):

Use this project special provision when the bridge to be removed traverses across a roadway or railroad.

♦ Enter location or station

▲ Insert time limitations for the work, as required

♥ “ will remain the property of the Department, and shall be stockpiled at .”

“ shall remain the property of the Contractor, and shall be disposed of outside project limits.