NOTICE

This is a project special provision that revises or modifies CDOT’s *Standard Specifications for Road and Bridge Construction*. It has gone through a formal review and approval process and has been issued by CDOT’s Construction Engineering Services Branch with formal instructions for its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by CDOT’s Standards and Specifications Unit. The instructions for use on CDOT construction projects appear below.

Other agencies which use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

**Instructions for use on CDOT construction projects:**

Use this standard special provision on all projects with safety critical work including bridge removal and girder placement operations.

Revise Section 107 of the Standard Specifications as follows:

Subsection 107.06 shall include:

**107.06 Performance of Safety Critical Work.** ​ Consider the following work elements safety critical work. ​

1. Overhead girder erection, location and structure number as shown on the plans.​
2. Overhead structure(s) construction or repair, location and structure number as shown on the plans.

1. Removal of bridge, location and structure number as shown on the plans.​
2. Removal of portion of bridge(s), location and structure number as shown on the plans.
3. Temporary work: falsework, shoring that exceeds 5 feet in height, cofferdams, and temporary bridges.
4. Work requiring the use of cranes or other heavy lifting equipment​ ​to set girders, sound walls, make overhead repairs; also when construction materials are being lifted that may fall onto active traffic lanes.
5. Blasting.
6. Excavation and embankment adjacent to the roadway, especially if it requires shoring. The Engineer will specify the depth or proximity of the earthwork considered safety critical work
7. Tunneling.
8. Work operations such as pile driving and jack hammering which may create vibration and cause debris to fall onto traffic.
9. Rockfall mitigation.
10. Work within 50 feet of active railroad track centerline.
11. Caissons and/or directional boring in high density utility corridor .
12. Work over or adjacent to river, stream, or other protected water way.
13. Urban work near and/or where pedestrian or bicycle pathways must be maintained during construction.

The Contractor shall submit, for​ ​review, an initial, detailed construction plan that addresses​ safe construction methods for each of the safety critical elements applicable. ​The Engineer will submit bridge removal and girder erection plans to Engineer of Record and the corresponding CDOT Bridge Unit Leader for a concurrent review. The Engineer’s review will be for general conformance with the plans, specifications, best management practices regarding safety of the operation and industry standards. When the specifications already require an erection plan, a bridge removal plan, or a removal of portion of bridge plan, it shall be included as a part of this plan. Submit the detailed construction plan two weeks prior to the safety critical element conference described below.

The Contractor shall stamp and sign the construction plan “Approved for Construction”. The Engineer will review the construction plan for acceptance. CDOT review of this information shall not relieve the Contractor of liability. Certifications that are expired are invalid and not in compliance with this specification.

The Construction Plan shall include the following:

1. Safety Critical Element for which the plan is being prepared and submitted.
2. Contractor or subcontractor responsible for the plan preparation and the work.
3. Schedule, procedures, equipment, and sequence of operations, that comply with the working hour limitations.
4. Temporary work required: falsework, bracing, shoring, etc.
5. Underground, above grade, and overhead utilities identification and protective steps taken.
6. Communication plan as necessary with stakeholders, media, and the public.
7. Additional actions that will be taken to ensure that the work will be performed safely.
8. Names and qualifications of workers who will be in responsible charge of the work:
   1. Years of experience performing similar work
   2. Training taken in performing similar work
   3. Certifications earned in performing similar work
9. Names and qualifications of workers operating cranes or other lifting equipment
10. Years of experience performing similar work
11. Training taken in performing similar work
12. Certifications earned in performing similar work

1. The construction plan shall address how the Contractor will handle contingencies such as:
2. Unplanned events (storms, traffic accidents, work accidents, etc.)
3. Structural elements that don’t fit or line up
4. Work that cannot be completed in time for the roadway to be reopened to traffic
5. Replacement of workers who don’t perform the work safely
6. Unexpected absence of critical management team
7. Equipment failure
8. Other potential difficulties inherent in the type of work being performed
9. Name and qualifications of Contractor’s person designated to determine and notify the Engineer in writing when it is safe to open a route to traffic after it has been closed for safety critical work.
10. Erection plan or bridge removal plan when submitted as required elsewhere by the specifications. Submit plan requirements that overlap with above requirements only once.

The Contractor shall hold a Safety Critical Element Conference two weeks prior to beginning construction on each safety critical element. The Engineer, the Contractor, the safety critical element subcontractors, and the Contractor’s Engineer shall attend the conference.

Required pre-erection conferences or bridge removal conferences may be included as a part of this conference. Communications staff (Contractor or CDOT) shall also attend in order to address any public/media needs.

After the safety critical element conference, and prior to beginning work on the safety critical element, the

Contractor shall submit a final construction plan to the Engineer for record purposes only except for bridge removal and girder erection plans. Submit safety critical construction plans related to bridge removal and girder erection in accordance with the corresponding standard specification, 202-Removal of Bridge, 509-Structural Steel or 618-Prestressed Concrete as appropriate. The Contractor’s Engineer shall seal temporary works, such as falsework, shoring etc., related to construction plans for the safety critical elements, (3) Removal of Bridge, (4) Removal of Portion of Bridge and (5) Temporary Work. ​The Contractor shall stamp and sign the final construction plan “Approved for Construction”, if the elements Removal of Portion of Bridge and Temporary Works are safety critical work elements for this project.

The Contractor shall perform safety critical work only when the Engineer, or an authorized representative, is on the project site. The Contractor’s Engineer shall be onsite to inspect and provide written approval of safety critical work for which they provided signed and sealed construction details. Unless otherwise directed or approved, the Contractor’s Engineer need not be onsite during the actual performance of safety critical work, but shall be present to conduct inspection for written approval of the safety critical work.

When ordered by the Engineer, the Contractor shall immediately stop safety critical work that is being performed in an unsafe manner or which will result in an unsafe situation for the traveling public. Prior to stopping work, the Contractor shall make the situation safe for work stoppage. The Contractor shall submit an acceptable plan to correct the unsafe process before the Engineer will authorize resumption of the work.

When ordered by the Engineer, the Contractor shall remove workers from the project that are performing the safety critical work in a manner that creates an unsafe situation for the public in accordance with subsection 108.06.

If an unplanned event occurs or the safety critical operation deviate from the submitted plan, the Contractor shall immediately cease operations on the safety critical element. Perform all necessary work to ensure worksite safety, and provide proper protection of the work and the traveling public. If the Contractor intends to modify the submitted plan, he shall submit a revised plan to the Engineer prior to resuming operations.

All costs associated with the preparation and implementation of each safety critical element construction plan will not be measured and paid for separately, but shall be included in the work.

The Contractor shall not be relieved from ultimate liability for unsafe or negligent acts or receive a waiver of the Colorado Governmental Immunity Act on behalf of the Department.