526 Temporary Structures

526.1 Description

(1) This section describes the design, construction, maintenance, and removal of a temporary structure of the necessary area and width as shown on the contract plans.

526.2 Materials

(1) Furnish materials conforming to 500. The contractor may incorporate used materials in the structure if they are sound and suitable for the purpose intended.

526.3 Construction

526.3.1 Permits and Coordination

(1) Obtain necessary permits as specified in 107.3 and coordinate with the issuing agency in securing the permits and complying with permit terms.

526.3.2 Design

Revise 526.3.2 to clarify that loose materials including base aggregate are not allowed as the finished driving surface on the structure.

(1) Design the temporary structure conforming to the current edition of the AASHTO LRFD Bridge Design Specifications and AASHTO LRFD Bridge Construction Specifications. Design the temporary structure for permanent loads, using the requirements for a permanent bridge, with the following exceptions:

- no future wearing surface dead load included

- bar steel reinforcement does not need to be epoxy coated

- steel girders, if used, do not need to be painted

- fatigue does not need to be checked for steel superstructures

- design rail and posts according to the WisDOT Bridge Manual, chapter 30.

(2) For temporary structures over water, ensure that the temporary structure spans the stream and has dimensions sufficient to not constrict stream flow. Ensure that the structure has a low superstructure elevation and an open waterway area no less than the contract plans specify. Provide vertical abutments designed to prevent spilling fill material into the stream. If building a temporary crossing over a stream or lake subject to boating use, construct it to provide horizontal and vertical clearance, as the jurisdictional agency may require, adequate for row boats and small power boats.

(3) For grade crossing temporary structures, ensure that the temporary structure spans the underpass roadway, underpass railroad, and/or underpass pedestrian facility as shown on the contract plans; and has sufficient lateral clear width meeting clear zone requirements per FDM 11-15-1.13. If clear zone requirements cannot be maintained, structure protection shall be required. Ensure that the structure has a low superstructure elevation no less than the existing, adjacent bridges or as shown on the plans.

(4) Ensure the temporary structure has a minimum roadway clear width as measured between the inside faces of the concrete barriers and at right angles to the centerline, and a minimum overall width, as shown on the plans. Show the minimum bridge length between faces of abutment support on the temporary structure plans.

(5) Open metal grate, wood or any loose materials including, but not limited to base aggregate, will not be allowed as the finished driving surface on the structure.

(6) If contractor owned structural steel beams are utilized for the temporary widening, they are to be sound continuous material, free from large holes and defects. Use of these members is subject to acceptance by the engineer. Welded splices of existing steel beams are not permitted.

(7) Design foundation support to current LRFD criteria based on site subsurface and geotechnical data; contractor to request these files from the engineer.

(8) Design and construct temporary structures to avoid conflicts with underground and overhead utilities within the project area. Refer to the plans and the utilities article of the special provisions for information on utility locations within the project area.

526.3.3 Plan Requirements and Submittals

(1) Provide plans, shop drawings, and design calculations, signed and sealed by a professional engineer registered in the state of Wisconsin, for temporary structures.

(2) Electronically submit one copy of plans and design calculations to place on file to the engineer, for review and acceptance by the Bureau of Structures. If the engineer requests, submit 2 extra copies of plans for review before ordering materials or starting construction. Make the submittal no later than 45 days after date of notice of contract approval.

(3) Allow the following time period in the construction schedule: 14 calendar days after the first receipt of plans by WisDOT for a complete initial review of the design and plans submittals, and an additional 14 calendar days for any necessary revisions and/or corrections.

526.3.4 Construction, Backfilling, Inspection and Maintainence

(1) Construct temporary structures conforming to 500. Backfill conforming to 206.3.13 with structure backfill conforming to 210.2.

(2) Inspect temporary structures conforming to the National Bridge Inspection Standards and the department’s structure inspection manual before opening to traffic. Perform additional inspections, as the department’s structure inspection manual requires, based on structure type and time in service. Submit inspection reports on department form DT2007 to the engineer and electronic copies to the BOS Maintenance Section. Ensure that a department-certified active team leader, listed online in the department's highway structures information system, performs the inspections.

(3) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.4. Contractor-furnished materials remain the contractor's property upon removal.

526.4 Measurement

(1) The department will measure the Temporary Structure bid items as each individual structure, designated by station, acceptably completed.

Balice: (A2) Bid items - LS

526.5 Payment

(1) The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER DESCRIPTION UNIT

526.0101 Temporary Structure (station) EACH

(2) Payment for the Temporary Structure bid items is full compensation for providing a temporary structure including design and construction; for backfilling with structure backfill; for maintaining; and for removing when no longer needed. The department will pay 70 percent of the contract amount when open to traffic and the balance after structure removal and associated site restoration. All temporary shoring and other secondary structure items required to construct the temporary bridge structure are to be included as a part of this bid item.