



**SPECIAL PROVISIONS  
FOR  
TEMPORARY DETOUR BRIDGE SUPERSTRUCTURE**

**Fremont County  
NHSN-002-1(123)--2R-36**

**Effective Date  
July 2, 2019**

**THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**150554.01 DESCRIPTION.**

Work under this item consists of designing, furnishing, installing, inspecting, maintaining, and removing a two lane bi-directional temporary detour bridge carrying IA 2 Detour over Missouri River Overflow, Design No. 119. Traffic on IA 2 shall be maintained at all times during construction of the permanent bridges, Design No. 119 and 219.

**150554.02 DESIGN AND MATERIALS.**

**A. Design.**

**1. General.**

- a. The temporary detour bridge is to be designed in accordance with the AASHTO LRFD Bridge Design Specification, 8th Edition by a Professional Engineer licensed in the State of Iowa. Fatigue does not need to be considered. The design vehicular live load shall be HL-93 and the bridge shall only be used for legal loads.
- b. Refer to the bridge plans and notes for the detour bridge layout requirements.

**2. Superstructure.**

- a. The work for the superstructure includes rent, delivery and return, assembly, erection, disassembly and furnishing of any associated hardware.
- b. The superstructure shall be a prefabricated modular bridging system manufactured by one of the companies listed below.
- c. The bridge rail shall be required to pass TL-4 rating.
- d. The bridge rail shall include a connection to the Iowa DOT Temporary Barrier Rail Standard Road Plan BA-401 located at each corner of the temporary superstructure along the approach pavement as shown in the contract documents. Continuous protection shall be maintained through transition from bridge to roadway.
- e. The superstructure shall be supported on substructures constructed for the permanent bridge.

**3. Substructure.**

- a. The permanent substructures shall be utilized to support the Temporary Bridge Superstructure. Any modifications to the permanent substructure shall be approved by the Engineer prior to modification. Cost of modifications shall be considered incidental to the price bid for the Temporary Bridge Superstructure.
- b. At the completion of the project, all modifications shall be removed and/or repaired to the pre-modification conditions unless otherwise approved in writing by the Engineer.

**4. Submittals.**

- a. The submittals requiring written approval from the Engineer are as follows:
  - 1) Temporary detour bridge plans containing the following:
    - a) General notes sheet including all materials and design criteria.
    - b) Site specific proposed bridge elevation and cross section depicting the temporary bridge superstructure on the permanent substructures.
    - c) Bridge width. A minimum of 30 feet 0 inches is required from curb to curb.
    - d) Plan sheets showing span lengths, stationing, alignment and grades.
    - e) Bearing details as necessary including any required buildup of bearing seat to achieve required elevations.
    - f) Bridge rail connection details to Temporary Barrier Rail at bridge ends.
    - g) A parts list as required.
  - 2) Complete assembly and erection plans including installation procedures. This shall include procedures and methods to be used including crane capacity and location, equipment, tools, devices, etc. Steel erection shall be in accordance with the Standard Specifications.
  - 3) Complete set of design calculations for the superstructure.
- b. Submittals shall be made electronically via DocExpress in accordance with Article 1105.03 of the Standard Specification. The Engineer's review time is 14 calendar days.

**B. Materials.**

**1. General.**

The Contractor may use timber, steel, concrete or any other material or combination of materials that are in sound condition, capable of safely carrying the specified loads, and meet the approval of the Engineer. All materials not specifically listed shall be in accordance with the requirements of the Standard Specifications.

**2. Prefabricated Modular Bridging System.**

- a. The bridging system shall meet the design loads and size criteria stated above and in the plans.
- b. The bridging system shall consist of one of the following or an approved equivalent:
  - 1) Acrow 700XS Panel Bridge System  
Acrow Corporation of America  
181 New Road  
Parsippany, NJ 07054-5645  
973-244-0080
  - 2) Mabey Universal Bridging System  
Mabey  
6770 Dorsey Road  
Elkridge, MD 21075  
800-956-2239
  - 3) The Bailey Bridge System  
Bailey Bridges, Inc.  
Fort Payne, AL 35967  
800-477-7320

**150554.03 CONSTRUCTION.**

**A. General.**

1. Do not commence construction until the submittals as described above are approved by the Engineer.
2. The Contractor shall ensure the stability of the temporary detour bridge during erection, removal and at all times.
3. Excavation required for construction of the temporary detour bridge is to be considered incidental to other work.

**B. Inspection and Maintenance.**

1. Work under this item includes the furnishing of skilled personnel; tools and equipment required to inspect, repair and maintain the temporary detour bridge.
2. This work will be considered incidental to the lump sum price for Temporary Detour Bridge Superstructure.
3. Prior to putting the temporary detour bridge into service, the Contractor shall inspect the bridge with a representative from the selected bridge manufacturer to ensure correct assembly and erection. While the temporary detour bridge is in service, the Contractor shall perform regular inspections as required to ensure the bridge and components are in safe operating condition.
4. Repair, replace or otherwise maintain all components of the temporary detour bridge as required to keep the bridge in safe operating condition.
5. Tighten or replace all loose and missing fasteners as required.
6. The Contractor shall be on call at all times during the temporary detour bridge's service to make emergency repairs that may be required as a result of accidents or storms.
7. Repairs shall be made within 24 hours of inspection or discovery of defect.
8. The Contractor shall notify the Engineer one week prior to inspection in order for the Engineer or representative to accompany the Contractor during their inspection.
9. The Contractor shall prepare reports of inspection, maintenance and repair activities and submit to the Engineer. The reports shall itemize the following:
  - a. The date and time of the inspection.
  - b. General condition of the trusses, deck, floor beam system, connections, etc.
  - c. Repair and maintenance work performed.
  - d. Materials used.
10. Any damage caused by the Contractor, shall be repaired by the Contractor at no additional cost to the State. Other damages caused by traffic or conditions beyond the Contractor's control shall be repaired by the Contractor, as directed by the Engineer, and will be paid for according to Article 1109.03, B of the Standard Specifications.

**C. Bridge Removal.**

Remove the temporary detour bridge superstructure in accordance with Section 2401 of the Standard Specifications when it is no longer required for traffic. The Contractor is responsible for returning the temporary detour bridge to the supplier.

**150554.05 METHOD OF MEASUREMENT.**

Temporary Detour Bridge Superstructure is Lump Sum.

**150554.06 BASIS OF PAYMENT.**

- A.** Payment for Temporary Detour Bridge Superstructure will be the Lump Sum contract price. Payment will be full compensation for rent, delivery, assembling, erecting, disassembling, inspecting, maintaining and returning the Temporary Detour Bridge Superstructure. All costs for equipment, labor and materials needed to complete, make use of and remove the Temporary Detour Bridge Superstructure shall be included in the contract price.
- B.** For estimating partial payments, the Contractor will be paid 50% of the lump sum price for Temporary Detour Bridge Superstructure when the temporary detour bridge is installed and open to traffic. The remaining 50% of the lump sum price for these items will be considered for payment upon removal of the temporary bridge superstructure from the project site.