ITEM 585.36030011 – TEMPORARY STEEL SUPPORTS FOR BRIDGE DECK

DESCRIPTION
This work shall consist of furnishing, installing, maintaining, disassembling and removing the temporary bridge deck supports for the deck slab overhangs at construction stage lines in accordance with the Contract Documents or as directed by the Engineer. Upon completion of the work, the Contractor shall remove from the site the temporary bridge deck supports.

MATERIALS
Materials shall meet the requirements of the Steel Construction Manual (SCM) and in the following subsections of Section 700 of the Standard Specifications:

- Timber 712-13
- Structural Steel 715-01
- High Strength Bolts, Nuts and Washers 715-14

Used structural steel and timber may be used for the temporary supports provided the material is in good condition. All high strength bolts, nuts and washers shall be new.

CONSTRUCTION DETAILS

A. General. During the respective construction stages, adequate temporary support, connection and bracing shall be provided to support the cantilevered deck slab to permit the construction of the bridge while maintaining traffic. Temporary bridge deck supports shall be required to support cantilevered portions of both the new and existing bridge decks. The Contractor shall fabricate a minimum amount of assemblies as specified on the Contract Plans or as required by his/her operation. An assembly is defined as a complete steel setup as required to support the deck construction joint for a full span. All components of the new temporary supports shall remain the property of the Contractor.

B. Working Drawings. Temporary supports shall be designed and detailed by the contractor. The Contractor shall engage the services of a licensed Professional Engineer registered in the State of New York to perform the design. The Contractor shall submit to the Engineer signed and sealed calculations and working drawings for review and approval of the temporary bridge deck supports. The working drawings shall include a sequence of operations describing how the temporary bridge deck supports will be installed and ultimately removed. All details shall be in conformance with the Standard Specifications for Highway Bridges and the current Steel Construction Manual (SCM).

C. Stockpiling and Storage. The Contractor shall transport and neatly stockpile the temporary supports, when not in use, at a site designated by the Engineer. The new supports shall be kept separate from any existing stockpile material.

D. Installation. The Contractor shall construct the temporary bridge deck supports for dead load, construction loads, and MS18 live load. The support system shall provide support for the deck cantilevers resulting from the construction staging without overload or damage to the deck or supporting steel structure.

The temporary supports shall be completely connected and installed in accordance with the requirements of the SCM, details as shown on the Contract Plans and the working drawings, prior to saw cutting the existing deck slab. The temporary supports shall be positively secured to the existing steel structure to prevent any dislodgement as a result of the construction operations and vibrations from live loads. The deck support beam shall be placed tight against the bottom of the existing deck to remain, shim as required.

Welded connections to new or existing members to remain are not permitted. Drilled holes into the bottom flange of new or existing girders to remain are not permitted. Any field drilling of holes in members shall be in accordance with the Contractor’s working drawings. No flame cutting or flame drilling will be permitted in existing or new girders. All damage to existing steel caused by the field drilling shall be repaired by the Contractor at no cost to the State. All temporary holes shall be filled with high strength bolts after removal of the assembly and prior to final field painting. Areas disturbed by the installation of the temporary supports shall be restored.

E. Removal. The temporary supports shall not be removed until the new concrete deck supported by the temporary system, attains a minimum compressive strength of 3000 psi, and in addition, shall be
cured in accordance with Standard Specification §557-3.13 for an HP concrete deck and two (2) calendar days after placement of an accelerated concrete deck. A curing day shall be as defined in the Standard Specification§555-3 .08A.

METHOD OF MEASUREMENT
The quantity to be measured will be in feet measured to the nearest whole foot of temporary supports installed along construction staging lines, in the longitudinal direction of the bridge.

BASIS OF PAYMENT
The unit price bid shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work. The cost for the treatment, handling and disposal of paint waste removed will be paid for separately.