



## SECTION 718

### TEMPORARY BRIDGE

**718.1 Description.** This work shall consist of furnishing all material, labor and equipment necessary for fabricating, constructing, transporting and erecting the superstructure components, maintaining, disassembling, cleaning, transporting superstructure components to storage and removing a temporary bridge as shown on the plans or as directed by the engineer.

**718.2 Material.** All material shall be in accordance with Division 1000, Material Details, and specifically as follows:

Item	Section/Specification
Removal of Bridges	216
Load Bearing Pile	702
Structural Steel Construction	712
Guardrail and Guard Cable Material	1040
Lumber and Timber	1050
Structural Steel Fabrication	1080
Coating of Structural Steel	1081
Structural Steel Tubing	ASTM A 500, Grade 46

**718.3 Construction Requirements.** Temporary bridges and approaches shall be constructed at the location, length and elevation shown on the plans or as directed by the engineer. If necessary to prepare the crossing for traffic, approach embankments or excavation and surfacing shall be provided. The contractor shall maintain in good condition the temporary structure, approaches and embankments until the permanent structure is opened to traffic. The contractor shall then remove the temporary structure, all refuse, debris and approach fills. The site shall be left in a neat and acceptable condition before acceptance of the work. Any portion of the superstructure furnished by the contractor shall in its entirety become the property of the Commission.

**718.3.1 Substructure.** The substructure shall include all portions of this structure not classified as superstructure elsewhere in these specifications. The substructure shall generally include the piling, sway bracing, timber, attaching devices and any excavation or backfill not included as a roadway item necessary to construct this structure. All piling shall be pulled or removed in accordance with [Sec 216](#). After removal, all portions of the substructure will remain the property of the contractor.

**718.3.2 Protective Coating.** Structural steel tubing furnished by the contractor shall be cleaned and coated using System G in accordance with [Sec 1081](#). The prime coat and epoxy intermediate coat shall be applied in the shop. After disassembly, any areas of the tubing where the coating is damaged shall be cleaned and coated using System G prime coat and epoxy intermediate coat in accordance with [Sec 1081](#). No coating will be required on the remaining superstructure. Protective coating of the steel piling and sway bracing will not be required.

**718.3.3 Superstructure Partially Furnished by Contractor.** The contractor shall furnish the cap beam units. The portion of the superstructure to be furnished by the Commission will include the superstructure spans. Each end bent cap beam unit shall include the channels,

cover plate, stiffener, end plates and bottom bearing plates. Each intermediate bent cap beam unit shall include the angles, cover plate, stiffeners, end plates and bottom bearing plates. Each cap beam unit shall be fabricated and fully assembled in the shop. All holes and slots shall be shop drilled full size. New high-strength bolts, nuts and washers shall be furnished by the contractor, as required for the assembly of the cap beams, as shown on bridge plans.

**718.3.4 Superstructure Furnished by the Commission.** The superstructure furnished by the Commission will be stored at the location described on the bridge plans. New high-strength bolts, nuts and washers for the superstructure furnished by the Commission shall be used for any reassembling of the temporary bridge units.

**718.3.5 Transporting and Erecting Superstructure.** The contractor shall transport the superstructure units to the job site for erection. After the substructure piling and sway bracing have been completed to correct line and grade, holes shall be field drilled in the pile at locations shown on the plans to attach the cap beam in conformity with the plan line and grade. Field reaming or enlargement in any manner of holes in any superstructure unit will not be permitted. The structure shall be maintained by the contractor, at the contractor's expense, during usage until final storage. Any damage, regardless of cause, shall be repaired by the contractor, at the contractor's expense, prior to final acceptance. The contractor's responsibility for work shall be in accordance with [Sec 107](#).

**718.3.6 Removing and Storing Superstructure.** After the permanent bridge is open to traffic, the superstructure of the temporary bridge shall be disassembled, removed, cleaned and transported to the storage area, as directed by the engineer, to the location described on the bridge plans. The superstructure units shall be cleaned of all dirt and other debris to the satisfaction of the engineer. The contractor shall notify and make arrangements with the engineer a minimum of 24 hours prior to storing the superstructure. The estimated weight of each individual superstructure unit will be 18,000 pounds.

**718.3.6.1 Disassembly.** The thrie beam rail and channel for the splice between spans at each intermediate bent shall be removed, set back (bent no. 2 to span 1, bent no. 3 to span 2, etc.) and securely attached to the rail or channel on each exterior unit. The remainder of the thrie beam rail shall remain fully assembled and attached as part of each exterior superstructure unit for storage. Splice plates for attaching the exterior units to the interior units shall be removed, turned inward and securely attached to the interior unit connection plates or bearing stiffeners. The cap beams and bottom bearing plates shall be removed and stored as units. The bearing anchor bolts shall be greased and capped before transporting to the storage area. The structural tubing shall be removed and stored. All attaching bolts, nuts, etc. shall be placed on one of the parts from which the hardware was removed.

**718.3.6.2 Storage.** The sequence of storage shall be such that the end spans are readily accessible without relocating other spans. Storage shall be by span with an exterior unit set in a relatively level position on timber blocks placed just inside each bearing such that the unit is a minimum of 6 inches off the ground. The other exterior unit shall be stacked on top of the first exterior unit, followed by the interior units of the same span. Each stacked unit shall be separated with timber blocks by a minimum of 6 inches. All spans shall be stored in a similar manner. The cap beam units shall be stored on the interior unit of an adjacent span with a minimum of one cap beam unit per span. The structural steel tubing shall be stored on the interior unit of an end span.

**718.3.6.3 Hardware.** New high-strength bolts, nuts and washers in like sizes shall be furnished by the contractor to the engineer to replace those that are either loosened or removed during disassembly of the temporary bridge. The new high-strength bolts, nuts and washers shall be supplied in separate watertight containers for each span stored.

**718.4 Method of Measurement.** All excavation necessary in constructing and removing approach embankment, as directed by the engineer, will be measured and included with regular roadway excavation quantities. Measurement of the piles in place will be the actual length measured to the nearest foot for the portion of each pile that remains for the use of the temporary bridge. All other work items will not be measured for payment, but will be considered as part of the lump sum unit.

**718.5 Basis of Payment.** The substructure, partial furnishing of superstructure, transporting and erecting superstructure, and removing and storing superstructure will be paid for at the contract unit price for each of the pay items included in the contract. Payment will be considered full compensation for all labor, equipment and material, including attaching hardware, to complete the described work. Any salvage value of the substructure shall be reflected in the contract unit price.