

DIVISION 4 MAJOR STRUCTURES

SECTION 400 TEMPORARY STRUCTURES

400-1 DESCRIPTION

Furnish any design calculations and drawings required; furnish members and deck materials for structures and any other materials necessary; erect, maintain, remove and dispose of temporary structures required for the maintenance of pedestrian, highway and other traffic. Construct temporary structures in accordance with the contract. Maintain traffic over the temporary structure in accordance with Division 11.

400-2 MATERIALS

Use materials for temporary structures that conform to Division 10 or previously used materials conforming to the contract. Obtain approval for the use of salvaged materials and materials not covered by Division 10 before their use. Unless otherwise specified, untreated timber is allowed.

400-3 PLANS

(A) Furnishing Plans

Use the plans for the structure furnished by the Department or submit a design in accordance with Subarticle 400-3(B).

Design the structure when the plans furnished by the Department do not include detail plans for the structure. For all Contractor designs, furnish one set of design calculations and 11 sets of detail drawings of the structure in accordance with Subarticle 400-3(B).

Submit detail drawings and design calculations for temporary structures for review and comment before beginning work. Do not perform any work until the detail drawings are reviewed and accepted. Acceptance of such drawings does not relieve the Contractor of any responsibility for safely and continuously maintaining traffic.

(B) Design Requirements for Contractor Furnished Drawings

Provide temporary structures of such carrying capacity, dimensions, grades and alignment as required by the contract or as directed. Design temporary structures carrying highway and pedestrian traffic in accordance with the *AASHTO LRFD Bridge Design Specifications*. Ensure an engineer licensed by the State of North Carolina designs and details the temporary structure. Construct the temporary structure in accordance with this design.

Indicate in the plans, the specifications for the materials used in the temporary structure.

400-4 CONSTRUCTION METHODS

Construct and maintain temporary structures to adequately and safely carry traffic during the entire period for which they are required.

Remove and dispose of the temporary structures after they are no longer required in accordance with Article 402-2.

Upon removal of the temporary structure, all material furnished by the Contractor for use in this structure shall remain the property of the Contractor unless otherwise provided in the contract.

Section 402

1 Unless otherwise specified in the contract, remove temporary piling to the streambed level or
2 to one foot below existing ground.

3 **400-5 MEASUREMENT AND PAYMENT**

4 The price and payment below will be full compensation for all work required to provide
5 temporary structures including, but not limited to, those items contained in Article 400-1.

6 The work covered by this section will be paid at the contract lump sum price for *Construction,*
7 *Maintenance and Removal of Temporary Structure at Sta. ____.*

8 Payment will be made under:

Pay Item	Pay Unit
Construction, Maintenance and Removal of Temporary Structure at Sta. ____	Lump Sum

9 **SECTION 402**
10 **REMOVAL OF EXISTING STRUCTURES**

11 **402-1 DESCRIPTION**

12 Excavate as necessary to remove the structure; dismantle, salvage and stockpile materials and
13 components of the structure and preserve those portions that should remain intact and dispose
14 of waste and debris.

15 Maintain traffic over the existing structure in accordance with Division 11 unless otherwise
16 stipulated by the contract. Comply with the posted load limits of the existing structure. The
17 maintenance of the existing structure, if required, will be performed by Department forces.

18 **402-2 REMOVAL OF EXISTING STRUCTURE**

19 **(A) General**

20 Use approved methods and operations for removal of structures. Upon removal, all
21 materials become the property of the Contractor unless otherwise indicated in the
22 contract. Dispose of waste and debris from the structures in accordance with
23 Section 802.

24 Perform removal operations while preventing damage to adjacent property. Protect new
25 construction during blasting or other operations necessary for the removal of the existing
26 structure.

27 Unless otherwise required by the contract, remove substructures down to the streambed
28 or one foot below the natural ground surface. Remove the substructure as necessary to
29 avoid interference with construction of the proposed structure.

30 Prevent erosion of soil and silting of rivers, streams, lakes, reservoirs, water
31 impoundment, ground surfaces or other property. Do not deposit excavated materials and
32 do not construct earth dikes or other temporary earth structures in rivers, streams or
33 impoundment, or so near to such waters that they are carried into any river, stream or
34 impoundment by stream flow or surface runoff. Limit the use of equipment in any body
35 of water to those operations that are impossible or impractical to perform in any other
36 way and control them as to minimize erosion and siltation. Submit, and await approval
37 for, a plan for bridge demolition for bridges over water before beginning removal. Do
38 not drop components of structures into any body of water. Remove these existing bridges
39 by sawing or other non-shattering methods. Remove any component of a structure from
40 the water so as to minimize siltation.