

## SECTION 413—DISMANTLING AND REMOVING EXISTING STRUCTURES OR REMOVING PORTIONS OF EXISTING STRUCTURES

### 413.01—Description

This work shall consist of dismantling and removing all or portions of existing structures in accordance with these specifications and in conformity with the lines, grades, and details shown on the plans or as established by the Engineer. The Contractor shall make all necessary notifications, including, but not limited to, the National Emission Standards for Hazardous Air Pollutants (NESHAPs) demolition/renovation notification to the Virginia Department of Labor and Industry, amended notifications, and obtain any necessary permits in accordance with all applicable local, state, and federal laws and regulations. The Contractor shall protect the public and the environment from leaded paint or other hazardous material encountered in the work.

### 413.02—Procedures

- (a) **Dismantling and Removing Existing Structure:** Dismantling and removing existing structures shall include removing the entire superstructure, substructure, and slope protection. The substructure shall be removed down to the streambed or to an elevation of at least 2 feet below the natural ground or finished grade of embankment that is to remain in place. Removal shall include any part of the substructure or foundation piling that will interfere with the new construction. For bridges crossing streams under the jurisdiction of the U.S. Coast Guard, the substructure shall be removed to or below the bed of the stream as required by the U.S. Coast Guard.

1 **Dismantling structures for retention by the Contractor:** Removed materials shall become the property of the Contractor and shall be removed from the project. The Contractor shall assume all personal and property liability associated with such materials and shall protect and save harmless the Department from any and all damages and claims associated with the handling, transportation, storage, or use of such materials. The Department does not warrant the condition or the physical or chemical characteristics of the materials.

2 **Dismantling structures for retention by the Department:** Dismantling shall be in accordance with a method approved by the Engineer and shall be such as to preserve the existing condition of materials.

Units shall be match marked for re-erection according to an approved diagram provided by the Department.

Material shall be stored as directed within ½ mile of the site of the existing structure.

- (b) **Removing Portion of Existing Structure:** The portions to be removed shall be the areas designated on the plans. No portion of the structure shall be removed by blasting or other methods that may damage any portion of the structure that will remain in place. When pneumatic hammers are used to remove concrete, their weight shall be not more than 90 pounds for widening work or 30 pounds for deck repair work. The use of tractor-mounted demolition hammers with a maximum manufacturer's rated striking energy of 1,000 foot-pounds will be permitted for the removal of concrete parapets down to the top of deck and for that portion of the deck where the reinforcing steel will be removed. The use of tractor-mounted demolition hammers or pneumatic hammers weighing more than 30 pounds shall not be allowed for the removal of that portion of the deck that is within 6 inches of the top flange of the beams/girders to remain in the structure. With the written approval of the Engineer, hydraulically actuated, jaw type, concrete crushers may be used for the removal of concrete parapets down to the top of the deck. The approval of hydraulically actuated, jaw type, concrete crushers shall be contingent upon continuous satisfactory results with no damage to any portion of the structure that is to remain in place. The removal of concrete parapet on prestressed concrete slab spans or prestressed concrete box beam spans shall be limited to 30-pound pneumatic hammers within 2 inches of the deck and not more than 90-pound pneumatic hammers for the remainder of the parapet unless otherwise approved by the Engineer.

Disturbed areas shall be uniformly graded to natural ground contours in a manner that will facilitate drainage and prevent impoundment of water.

Materials or portions of existing structures removed shall be handled in accordance with the requirements of (a)1. herein.

- (c) **Environmental and Worker Protection:** Heating, welding, flame cutting, grinding, chipping, needle gun cleaning, manual scraping, heat gun cleaning, drilling, straightening, and other

construction operations, or demolition of Type B structures, as defined in Section 411.01(b), that disturbs areas coated with a hazardous material shall require environmental and worker protection.

- 1 **Environmental protection** shall be in accordance with the requirements of Section 411.08 except that work involving the removal of 100 square feet or less of protective coating from a Type B structure will not require the Contractor to submit and implement an environmental plan as specified in Sections 411.08(a) and 411.08(b). However, the Contractor shall comply with appropriate local, state, and federal codes and regulations and shall employ appropriate measures to prevent the release of hazardous materials in the environment. Determination of the total square footage of removal area shall not include the cumulative area of coating disturbance from removal of bolts. Hazardous materials generated from the Contractor's operation shall be disposed of in accordance with the requirements of Sections 411.08(c) and 411.08(d).
- 2 **Worker health and safety protection** shall be in accordance with the requirements of Section 411.09 except that work involving the removal of 100 square feet or less of protective coating from a Type B structure will not require the Contractor to submit and implement a worker health and safety plan as specified in Sections 411.09(a) and 411.09(b). However, the Contractor shall comply with applicable codes and regulations regarding public and worker health and safety.

Upon completion of the project, the Contractor shall submit a written statement of certification for the Engineer's record, complete with all revisions including notations of any areas of non-compliance and corrective actions taken, that certifies both the Environmental Protection Plan and the Worker Health and Safety Plan were fully implemented during the performance of the work covered by this specification.

#### 413.03—Measurement and Payment

**Dismantling and removing an existing structure** will be paid for at the contract lump sum price.

**Removing a portion of an existing structure** will be paid for at the contract lump sum price.

**Environmental and worker protection**, when a pay item, will be paid for at the contract lump sum price per structure. This price shall include containment operations, regulation compliance, plan approval services, worker protection, and other related costs.

**Material disposal**, when a pay item, will be paid for at the contract lump sum price per structure. This price shall include transporting, storing, and legal disposal of material.

If not shown as a pay item, the cost for worker and environmental protection and material disposal shall be included in other appropriate bid items.

Payment will be made under:

| <b>Pay Item</b>   | <b>Pay Unit</b> |
|---|-----------------|
| Dismantle and remove existing structure (B or Str. No.) | Lump sum        |
| Remove portion of existing structure (B or Str. No.)    | Lump sum        |
| Environmental and worker protection (B or Str. No.)     | Lump sum        |
| Material Disposal (B or Str. No. and type)              | Lump sum        |