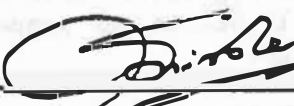


TO: SUPERSEDED BY EB 98-014 EFFECTIVE 4/24/98	ENGINEERING INSTRUCTION NEW YORK STATE DEPARTMENT OF TRANSPORTATION	
	SUBJECT: ITEM 12202.1991 - CANAL STRUCTURAL CONCRETE REMOVAL (NON-EXPLOSIVE) ITEM 12202.1992 - CANAL STRUCTURAL CONCRETE REMOVAL (EXPLOSIVES ALLOWED) Subject Code: 7.35-6	
Distribution: 30 Main Office 32 Regions 34 Special		Code: 91-16
APPROVED:  8/14/91		Date: 8/20/91 Supersedes:

Attached is the text for Item 12202.1991 - CANAL STRUCTURAL CONCRETE REMOVAL (NON-EXPLOSIVE) and Item 12202.1992 - CANAL STRUCTURAL CONCRETE REMOVAL (EXPLOSIVES ALLOWED).

These items are for use at mass concrete locations where all of the concrete will not be removed, but significant quantities are expected to be taken out. Note that the item text does not allow for the preservation of existing reinforcing. It is intended as a large quantity removal tool. Canal projects are the most likely to require this type removal.

The item text has been developed to permit effective mass concrete removal for canal reconstruction projects. The text basically permits significant quantities of concrete to be removed economically, easily and effectively. Either item may be used for concrete removal, in whole or in part, provided that the removal is large (10 c.y. or more), and that there is no need to salvage the existing reinforcing, or other embedded material.

Since there are very real concerns regarding the employment of explosive technology, the Soil Mechanics Bureau is to be consulted for advice and approval during the design phase, if the designer has determined that Item 12202.1992 appears to be applicable.

If small quantities of concrete (less than 10 c.y.) are to be removed, or if reinforcing steel preservation is required, Item 580.01 - REMOVAL OF STRUCTURAL CONCRETE is the item of choice.

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ITEM 12202.1991 - CANAL STRUCTURAL CONCRETE REMOVAL (NON-EXPLOSIVE)

ITEM 12202.1992 - CANAL STRUCTURAL CONCRETE REMOVAL (EXPLOSIVES ALLOWED)

Description:

The work shall consist of structural concrete removal to pay limits shown on the plans, or to sound surfaces determined by the Engineer. Unless otherwise indicated on the plans, all removed material shall become the property of the Contractor and shall be removed from the work site.

Surfaces against which concrete will be placed shall be cleaned.

Materials:

All equipment and procedures shall be subject to the Engineer's approval.

Hoe rams shall not exceed the four hundred (400) foot-pound energy class. Breaker heads shall not exceed four hundred (400) pounds in weight.

Chipping hammers shall weigh no more than ninety (90) pounds with the bit and muffler removed. All bits shall be sharp, chisel point bits.

Construction Details:

Care shall be exercised in removing concrete so as not to damage material designated to remain in place.

Saw cutting of concrete shall be performed only where indicated on the contract plans or where ordered by the Engineer. Saw cuts between concrete to be removed and concrete to remain shall be made to a minimum depth of 2 inches.

The use of hoe ram equipment is permissible, subject to the limitations noted in the Materials subsection. Permission to use this equipment may be withdrawn at any time. If the Engineer determines that material designated to remain in place is being damaged or removed by the Contractor's operations, or should excessive vibrations be created by the work, the Engineer will immediately order the removal of the equipment. Work will then proceed by means of hand held equipment allowed by this item. The Engineer will be the final judge of excessive vibrations. No additional payment, or extension of time, will be granted as a result of the Contractor being required to complete the work with hand held equipment.

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If the contract allows, the Contractor shall be permitted to use explosives, subject to all applicable provisions of Subsection 107-05, Safety and Health Requirements, of the Standard Specifications relating to explosives and blasting.

In addition, a work plan showing blasting areas, drill hole patterns and loading details shall be submitted to the Director of Soil Mechanics Bureau for approval ten (10) working days prior to commencement of drilling. Approval of the work plan will not relieve the Contractor from full responsibility for any liability for damage caused by use of explosives.

After concrete removal has been performed, all remaining concrete surfaces which require cleaning, shall be thoroughly blast cleaned in accordance with the requirements of Subsection 584-3.04A. All cleaning shall be performed by means of hand-held water blasting equipment. Water pressure at the point of impact with the concrete surface shall not exceed 2000 psi. All water blasting equipment shall be equipped with a calibrated, accurate pressure gauge which indicates the existing water pressure. The gauge shall be easily readable and accessible to the Engineer. If the Engineer determines that water blasting at the concrete surface is removing concrete he may require the pressure to be reduced.

Immediately prior to concrete placement or form erection, the existing concrete surface shall be cleaned by either water, air or vacuum cleaning as directed by the Engineer. All water, air-blowing, and vacuum cleaning equipment shall perform such that no oil, or other bond breaking material, is left upon the cleaned surface. The Engineer will be allowed up to three working days to inspect the cleaned surface.

Method of Measurement:

The work will be measured as the number of cubic yards of concrete removed and disposed of in accordance with contract requirements, or as revised by the Engineer.

Basis of Payment:

The unit price bid per cubic yard shall include the cost of all labor, materials and equipment necessary to complete the work.