

## **ITEM 662.26 25 - INSTALL 5-INCH PRECAST CONCRETE CONDUITS**

### **1. DESCRIPTION:**

1.01 The work shall consist of installing precast concrete conduits in accordance with the plans or as directed by the Engineer.

### **2. MATERIALS:**

2.01 All required material will be furnished by Consolidated Edison (Con Ed).

The contractor shall notify Con Ed of the installation schedule at least 30 days before the material is required on the site and coordinate the delivery of the material with Con Ed. It will be the contractor's responsibility to inspect the material immediately on delivery and advise the utility company of any damaged material. Any material which is damaged or lost after the contractor's inspection shall be replaced by the contractor. Should Con Ed fail to deliver the necessary material according to the required schedule, the Thruway shall not be responsible for any delays attributable thereto or for the failure of delivery of such material.

### **3. CONSTRUCTION DETAILS:**

#### **3.01 A. General**

All conduits shall be laid in reasonably close conformity to line and grade and shall have a full, firm, and even bearing along the entire length of pipe.

#### **B. Excavation**

The requirements as specified in Section 206, Trench and Culvert Excavation, of the Standard Specifications shall apply.

#### **C. Backfill**

The requirements as specified in Item 206.02 shall apply for the backfill, except where special backfill is required, as shown on the plans.

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D. Excavation Protection System

The requirements as specified in Section 552-3.04, of the Standard Specifications shall apply.

E. Inspection

Rodding - A duct rodding device shall be passed through the completed conduit to check for continuity and cleanliness. Following the duct rodding device, a mandrel approved by Con Ed, of a size not less than ¼ inch smaller than the diameter of the conduit, shall be pulled through conduit once in each direction. The mandrel shall be preceded by a wire brush tied to the same rope.

Acceptance - Conduit will not be regarded as acceptable unless free passage in both directions is obtained by the duct rodding device and mandrel.

Cleaning - If difficulty is encountered in passage of the duct rodding device or the mandrel, a series of wire brushes shall be drawn through the conduit, once in each direction, using a trailing.

The wire brushes shall be 1/8 inch in diameter smaller than the diameter of the conduit. If the correct size cannot be passed through on the initial attempt, the operation must be repeated using small brushes until accomplished as specified. If it is not feasible to accomplish this operation, the conduit shall be exposed and replaced. When the conduit is partially or fully obstructed with mud, dirt, or gravel, the duct shall be flushed with water from a long flushing nozzle pushed into the conduit. If it is not feasible to accomplish this operation, the conduit shall be exposed and replaced. Any method used to clean the conduit must be accomplished in a manner that will not damage the smooth bore. Any damaged conduit must be replaced with new conduit at the contractor's expense.

F. Replacement

Repairs to conduits shall not be permitted. All individually damaged or impaired lengths of conduit shall be removed and replaced with new conduit meeting the specification requirements.

G. Adapting

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Joining precast concrete conduit with conduits of other diameters or materials is not recommended. In exceptional cases where this cannot be avoided, use concrete adaptors, as per Con Ed Specification EO-1042, for this transition.

H. Pulling Lines

If the duct is found acceptable on the first pass, a line shall be attached to the rodding device or approved mandrel before its final passage through the conduit. The line shall be long enough to allow the pulling in of sufficient 6 mm polypropylene rope or equivalent, behind the mandrel so that 6 feet of rope will extend beyond the conduit ends. This rope shall be made fast in each of the manholes.

**4. METHOD OF MEASUREMENT:**

The quantity of precast concrete conduit to be measured for payment will be the number of linear feet installed, as shown on the plans or as directed by the Engineer.

**5. BASIS OF PAYMENT:**

The unit price per linear foot shall include the cost of furnishing all labor and equipment necessary to complete the work as shown on the contract documents and in accordance with the specification, or as directed by the Engineer, including the cost of replacing any materials lost or damaged by the contractor. The cost of Trench and Culvert Excavation, Special Backfill, and Excavation Protection System shall be paid for separately under their respective items.