

## **ITEM 11551.0499 M - Holes in Earth for Barrier Wall**

## **ITEM 11551.05 M - Pipe Piles for Barrier Wall**

### **DESCRIPTION**

The Contractor shall establish holes and furnish and install pipe piles in accordance with the details shown on the Contract Plans.

### **MATERIALS**

#### Pipe Piles

Provide pipe piles (steel pipe) as shown on the Contract Plans conforming to ASTM A-120 Extra Strong (Schedule 80).

#### Backfill for Holes

Provide backfill material shown on the Contract Plans:

### **CONSTRUCTION DETAILS**

#### A. General

Perform work in a manner that causes no subsidence of the surrounding ground surface. If subsidence should occur, cease work and provide a written plan to prevent subsidence to the Engineer for review. Resume work after the Engineer has approved the plan in writing. Repair all damage that resulted from the subsidence at no additional cost to the State. Any proposed changes to details shown on the Contract Plans must be approved in writing by the Director of the Technical Services Division.

Install the Pipe Piles by placing them in holes as indicated on the Contract Plans in accordance with the following tolerances:

1. Plan tolerance of 25 mm at the top of pipe, verified by survey methods.
2. Vertical tolerance of one (1) mm per 100 mm of the pipe shown on the Contract Plans.

For each pile out of tolerance, provide a satisfactory replacement or provide a modification approved by the Engineer prior to proceeding.

#### B. Placing Piles in Holes

Provide equipment capable of establishing holes of the minimum diameter and to the depth or elevation shown on the Contract Plans. Temporary sleeves or casings are permitted and may be required as per the Contract Plans. Jetting is not permitted.

After placing the pipes, backfill holes and pipes with the backfill(s) indicated on the Contract Plans.

#### C. Backfilling

Place concrete backfill in accordance with the provisions of Subsections 555-3.04 - Handling and Placing Concrete. Concrete shall be placed carefully to maintain the alignment of the pile.

### **METHOD OF MEASUREMENT**

#### Holes in Earth

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The quantity of holes in earth will be the number of meters satisfactorily installed as measured in the field. The upper payment limit, unless otherwise specified on the Contract Plans or revised in writing, by the Engineer, shall be the actual intersected grade or ground line whichever is lower. The lower payment limit shall be the pile tip elevation as shown on the Contract Plans or revised, in writing, by the Engineer.

Pipe Piles

The quantity of pipe pile will be the number of meters satisfactorily installed as measured in the field. The upper payment limit shall be the pipe top elevation as shown on the Contract Plans or as revised, in writing, by the Engineer. The lower payment limit shall be established as the tip of the pipe placed to the elevation shown on the Contract Plans or as revised, in writing, by the Engineer.

**BASIS OF PAYMENT**

Holes in Earth

The unit price bid per meter includes the cost of all labor, materials and equipment necessary to complete the work including progressing the hole through obstructions and any temporary sleeve or casing that may be necessary to retain the walls of the hole.

Pipe Piles

The unit price bid per meter includes the cost of all labor, materials and equipment necessary to complete the work, including backfilling the hole and cutting off the pipe pile where required. Concrete backfill will be paid for under the appropriate item within the limits shown on the Contract Drawings.