

**ITEM 17552.20 M - FURNISHING EQUIPMENT FOR INSTALLING TEMPORARY
VERTICAL ACCESS SHAFTS**

ITEM 17552.21 M -TEMPORARY VERTICAL ACCESS SHAFT

DESCRIPTION

This work will consist of furnishing equipment, excavating, installing casing, and maintaining a temporary vertical access shaft at the location shown on the plans. The shaft will provide workers safe access to and egress from underground facilities in order to complete other work shown on the plans.

MATERIALS

Provide temporary steel casing of the minimum diameter and thickness shown on the plans. Unless otherwise shown on the plans, furnish steel meeting the material requirements of ASTM A252M Grade 2. The steel may be new or used but must be in satisfactory condition and suitable for the intended use. The Engineer may disapprove and reject used materials regarded to be unsatisfactory.

Alternate casing or bracing details, designed and stamped by a licensed Professional Engineer, may be submitted to Director, Geotechnical Engineering Bureau a minimum of two weeks prior to the start of construction.

CONSTRUCTION DETAILS

Install the temporary vertical access shaft to the elevation shown on the plans. Progress the casing and excavation in a manner that does not cause excessive disturbance or settlement to the surrounding ground surface or adjacent structures. Repair any damage at no additional cost to the State.

Prior to entry, the Engineer will verify that the shaft and the surrounding work area are in conformance with all appropriate O.S.H.A. standards.

When no longer required, the casing may be removed or left in place at the Contractor's option. Backfill as shown on the Contract Plans.

METHOD OF MEASUREMENT

Furnishing Equipment

Payment will be made by lump sum. No field measurements will be taken.

Temporary Vertical Access Shaft

The work will be measured as the number of linear meters of excavated and cased shaft progressed. Measurement will be taken along the centerline of the hole. No payment will be made for any length of shaft progressed below the elevation shown on the plans unless ordered, in writing, by the Engineer.

BASIS OF PAYMENT

Furnishing Equipment

Include in the lump sum bid price the cost of furnishing all labor, materials and equipment necessary for transporting, erecting, maintaining, making any ordered equipment replacement, dismantling and removing all installation equipment.

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Payment shall be made as follows: Seventy-five (75%) percent of the amount bid will be authorized for payment when the equipment for installing temporary vertical access shafts is furnished and the installation of shaft(s) has commenced. The remainder will be authorized for payment when the work of installing the shaft(s) is completed.

Temporary Vertical Access Shaft

Include in the unit bid price the cost of all labor and materials necessary to satisfactorily complete the work.