

ITEM 01552.99 M - EXCAVATION SUPPORT SYSTEM

DESCRIPTION:

Under this work, the Contractor shall design, furnish, place, maintain and remove an excavation support system (ESS) at locations shown on the plans or as ordered by the Engineer. Details of the ESS must conform with the requirements of Title 29 Code of Federal Regulations, Part 1926, Safety and Health Regulations for Construction (OSHA), except that any sloping (lay back) option will not be allowed and installed in accordance with the State and Federal Safety Codes.

In place of sheeting or shoring, a shield system, i.e. trench box or trench shield or other pre-engineered support system may be used to prevent cave-ins. The requirements of any support system shall be as contained in Title 29 Code of Federal Regulations, Part 1926, Safety and Health Regulations for Construction (OSHA).

MATERIALS:

The selection of ESS materials shall be the Contractor's option subject to approval of the Engineer.

CONSTRUCTION DETAILS:

It shall be the Contractor's responsibility to install an ESS in accordance with the State and Federal Safety Codes.

The locations shown on the plans are to be used as a guide in preparing the estimate quantities bid upon and to establish the pay limits when the ESS is installed.

The ESS installed under this item shall be of sufficient size and strength to meet the requirements of Title 29, Code of Federal Regulations, Part 1926, Safety and Health Regulations for Construction (OSHA), and New York State Standard Live Load requirements. Prior to use, the Contractor shall supply the Engineer with documentation of compliance.

All damage to the adjacent pavement or ground caused by the use of the chosen ESS (Ex. Voids beneath the pavement or shoulder, pavement or shoulder cracking or subsidence, ground settlement) shall be repaired to the satisfaction of the Engineer at no additional cost to the State. Severe damage which directly affects the safety of the public shall be immediately repaired to the satisfaction of the Engineer. The operation shall be halted until a satisfactory prevention method is instituted.

METHOD OF MEASUREMENT:

The quantity of support system to be paid for shall be the number of square meters obtained by multiplying the vertical length measured between the payment lines herein described, by the horizontal length of ESS shown on the plans or approved by the Engineer. The vertical length is that length measured between the upper and lower payment line. The upper payment line shall be the subgrade surface of the roadway when under a cut section, or the ground surface existing at the site prior to the beginning of the work, or the finished grade (which ever is lower), or as ordered, in writing, by the Engineer. Unless otherwise indicated on the plans or in the proposal, the lower payment line shall be the bottom of the excavation shown on the plans immediately

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adjacent to the support system. The horizontal length shall be measured along the payment lines as shown on the contract plans.

When the support system is used in stage construction, the quantity of support system to be paid shall be the maximum number of square meters satisfactorily installed between the payment lines shown in the Contract Documents measured on either, but not both sides, of adjacent construction stages.

BASIS OF PAYMENT:

The unit price bid, per square meter, for this work shall include the cost of furnishing all labor, materials and equipment necessary to complete this work, including pile driving equipment, waling, bracing, and design services when employed.

If the Engineer, in writing, orders that the ESS be left in place, this will be classified as extra work and will be paid for in accordance with Subsection 104-03, Contingencies, Extra Work, Deductions.