

ITEM 0330501

4" REINFORCED CONCRETE BASE SLAB FOR PAVERS

DESCRIPTION

This item shall include saw cutting and removing existing walk if applicable and construction of a reinforced concrete slab on a processed traprock foundation in the locations and to the dimensions and details shown on the plans or as ordered by the Engineer all in accordance with these specifications.

REFERENCED ITEMS

Item 0103703

REQUIRED SUBMITTALS

Material Certificate of Compliance:

Submit 5 copies of material certificate of compliance for concrete in accordance with the contract general requirements.

MATERIALS

Foundation

All foundation material under concrete slab shall be processed traprock conforming to the material requirements of item 0103703.

Concrete

All materials for this work shall conform to the requirements of Section M.03 of the State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004, for Class "F" concrete.

Test for air content of fresh concrete shall be made during construction. Because of effects of mixing and vibration, samples for air content preferably should be taken from concentrate after it has been placed by qualified technicians per ASTM C-231-03 or C-238-51.

The concrete producer will be required to show that his plant and equipment meet all requirements as established by ASTM designation C-94-04, and shall also be currently approved by the State of Connecticut, Department of Transportation.

All concrete mix used must be accompanied by a certification issued by the concrete producer showing the time of day on the batch slip and the composition of the concrete mix; that is the amount and type of cement; water; kind of air-entering admixture and the retarder admixture if any; and also a certification that the mix will attain the minimum compressive strength of 4,000psi in 28 days.

Any concrete mix without the time of day stamped on the accompanying batch slip will be receded immediately. Also the concrete mix shall must be placed within 1 1/2 hours of the time of day stamped on the batch slip, otherwise it will be rejected.

Reinforcing

Wire mesh reinforcing to be famished in the concrete base under this item shall be plain finish, 6 inches X 6 inches, No. 10 gage welded steel wire mesh meeting ASTM specifications A-185-02.

CONSTRUCTION METHODS

Excavation

Work under this item shall consist of removing and disposing of sidewalk and to a depth of 15 inches except in areas of fill.

The bottom of the excavation shall be graded smooth and thoroughly compared to a firm, even surface using a roller weighing not less than five tons or a motor driven vibratory compactor.

Foundation

The processed traprock foundation shall be placed in two (2) equal course the full width of the excavation. Each course shall be compacted satisfactorily to a uniform surface with at least two passes of a motor driven vibratory compactor. Additional fine material shall be added to the top course to fill any voids that may have developed during compaction and to bring the completed foundation to true line and cross section to completed thickness of 8". The top of the completed traprock foundation shall below and parallel to the finished grade of the sidewalk or adjacent granite curb as shown on the drawings.

Should the sub-base material become churned up or mixed with the bottom course material at any time, the contractor shall, without additional compensation, remove the mixture, reshape and recompact the sub-base, and replace the material removed with clean coarse material which shall be compacted to a firm uniform surface.

Placing Concrete

The concrete shall be discharged and placed in a manner which will prevent separation of coarse aggregate and mortar. Concrete shall always be placed starting at the low end of the section and working up grade.

Before placement of the concrete, the foundation shall be thoroughly moistened. This shall be done far enough in advance of placement to allow absorption of water to a depth of at least 1", leaving a moist but not muddy surface.

The finished thickness of the concrete base shall be at least 4". The concrete shall be placed to a uniform cross section consistent with the proposed cross slope and parallel to finished grade.

The time elapsing from the time water is added to the mix until the concrete is placed shall not exceed 90 minutes. In hot weather, the maximum allowable time may be reduced by the Engineer.

Finishing Concrete

The surface of the concrete shall be struck off to an elevation 3 inches below finished grade, shall be bull-floated to a smooth surface and broom finished.

Expansion Joints

a. Against Structures

½ inch expansion material as specified above shall be placed between new sidewalk and all existing walk, manholes, vaults, buildings and other structures.

b. Grade

The concrete at the expansion joints shall not be raised above the general surface of the walk.

c. Trim

All expansion joint material shall be neatly trimmed off flush with the surface of the walk.

Curing

All concrete sidewalk shall be cured as follows:

Immediately following the final finishing and as soon as possible without marring the, the concrete shall be covered with cotton matting or waterproof paper for 72

hours.

Cotton matting, if used, shall be in good condition, shall be saturated with water prior placement, shall be suitably fastened down to prevent movement and shall be moist for the entire period it is in place.

Waterproof paper if used, shall be lapped at least 12 inches, shall cover the entire surface shall overlap all edges of the walks. The laps edges of the paper shall be securely weighted down with continuous planking, or piles of earth or other material to hold and keep all edges down tight.

Before use, all waterproof paper shall be checked for tears and holes, and all tears holes shall be repaired. Covers, which become unserviceable, will be replaced as ordered by the Engineer.

Wherever waterproof paper, if used, is found to have blown off or otherwise uncovered concrete before the end of the 72 hour period, the Contractor will be required to remove the paper and immediately cover the concrete with cotton and kept moist for an additional 24 hours.

When the concrete is poured during cold weather (night temperature below 42 degrees F) the concrete shall be protected by a layer of hay at least 6 inches thick and covered with waterproof paper or by other means acceptable to the Engineer. This protection shall be provided in addition to the curing procedure specified above and shall be maintained for at least four days after the day the concrete was poured.

Curing compounds shall not be used under any circumstances.

METHOD OF MEASUREMENT

This work will be measured by the actual number of square feet of completed and accepted concrete base slab.

BASIS OF PAYMENT

This work will be paid for at the contract unit price per square foot for "4" REINFORCED CONCRETE BASE SLAB FOR PAVERS" complete in place, which price shall include all excavation as specified above, doweled expansion, backfill, disposal of surplus material, processed traprock base, reinforced, equipment, tools, materials and labor incidental thereto.

PAY ITEM

DESCRIPTION

PAY UNIT

0330501

4" Reinforced Concrete
Base Slab For Pavers

SF