

## **ITEM 610.14----11 – STRUCTURAL SOIL MIX**

### **DESCRIPTION**

Under this item the Contractor shall furnish and place Structural Soil Mix in accordance with the contract documents and as directed by the Engineer.

### **MATERIALS**

**Structural Soil Mix** shall be a mixture of crushed stone, clay loam, hydrogel and amendments meeting the requirements of “CU Structural Soil<sup>®</sup>” patented by Cornell University (Patent #5,849,069) also known as “CU Soil<sup>™</sup>” The material shall be obtained from a Producer sub-licensed by Amereq, the exclusive Licensee of Cornell University for CU-Structural Soil<sup>®</sup>. Proof of such sub-licensing shall be submitted to the Engineer along with a sample of the finished mix, prior to delivery to the site. A list of sub-licensed Producers can be obtained from:

Amereq Inc.  
“CU Soil<sup>™</sup>” Division  
19 Squadron Blvd. New City, New York 10956,  
phone: (800) 832-8788 ext. 11  
contact: [bkalter@amereq.com](mailto:bkalter@amereq.com)

**Water:** Shall comply with Standard Specifications Section 712-01.

### **CONSTRUCTION DETAILS**

**Mixing and Quality Control Testing:** All Structural Soil components, including any organic material, water, or other amendments necessary to meet the requirements of CU-Structural Soil<sup>®</sup> shall be mixed by a licensed Producer at that Producer’s yard prior to delivery. No mixing shall be done at the project site. Sufficient time must be allowed prior to delivery for the Producer’s internal quality control, independent laboratory testing, analysis and (if necessary) amendment of the mix.

**Delivery, Storage and Handling:** The Contractor shall arrange for delivery of the Structural Soil Mix to the site, either by the Producer, or the Contractor’s own forces. The Contractor shall ensure that the delivered Mix is received from the Producer at or near optimum compaction moisture content as determined by AASHTO T-99 (ASTM D698) and shall protect the Mix from drying out or from excess moisture until placed. The Mix shall also be protected from contamination by toxic materials, trash, debris, water containing cement, clay, silt or materials that will alter the particle size distribution.

Structural Soil Mix shall not be transported when rain is expected. If not placed the day of delivery, it shall be stored and protected from excess water absorption and/or potential erosion.

The Engineer shall obtain and furnish to the EIC, a ticket ensuring that the delivered Structural Soil Mix was obtained from and mixed by a licensed Producer. The delivered Structural Soil Mix should also be compared to the original sample to ensure consistency.

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**Placement:** The Contractor shall notify the Engineer of any subsurface conditions which may affect the Contractor’s ability to install the Structural Soil Mix. If subsurface drain lines are included, they shall be installed prior to placement of the mix.

The Mix shall not be worked when frozen, excessively wet, or under otherwise unsatisfactory conditions nor shall it be placed on frozen, wet or muddy sites. The Mix must not be excessively or incorrectly handled to the point of separation of the clay loam soil from the crushed stones.

Structural Soil Mix shall be placed in 150 mm lifts, each compacted to at least 95% Proctor Density. If compaction moisture content exceeds the optimum per AASHTO T 99 (ASTM D 698), delay compaction and protect Mix until sufficiently dry to compact.

**METHOD OF MEASUREMENT**

The quantity to be measured for payment will be in cubic yards to the nearest cubic yard of Structural Soil Mix installed.

**BASIS OF PAYMENT**

The unit bid price shall include the cost of all labor, materials and equipment necessary to complete the work satisfactorily.

*Payment will be made under:*

<b><u>ITEM NO.</u></b>	<b><u>ITEM</u></b>	<b><u>PAY UNIT</u></b>
610.14----11	Structural Soil Mix	Cubic Meter