

COBBLESTONE PAVERS

****From Barre City FEGC F 026-1(34) C/2**

xx. DESCRIPTION. This work shall consist of furnishing and placing granite cobblestone pavement and walk/tree pit areas as shown in the Plans and as directed by the Engineer.

xx. MATERIALS. Materials shall meet the following requirements:

(a) Mortar. Mortar shall meet the requirements of Subsection 707.02.

(b) Stone Dust. Stone dust for setting bed and joint filler shall consist of hard, durable, uncoated particles of soil or rock, free from lumps of clay and all deleterious substances. The material shall meet the following gradation requirements:

Sieve Size	% Passing By Weight
¼"	100
#10	50-85
#40	20-45
#200	3-10

(c) Cushion Sand. Cushion sand for joint filling at tree pit locations shall consist of clean, hard, durable, uncoated particles, free from lumps of clay and all deleterious substances. When dry, the cushion sand shall meet the following gradation requirements:

Sieve Size	% Passing By Weight
¼"	100
#50	0-35
#100	0-10

The sand may be determined to be unacceptable for cushion sand if it contains more than 10 percent volume of loam or silt.

(d) Cobblestones. The Contractor shall obtain the Cobblestone Pavers from existing material under Main Street in the areas where they will perform underground utility service excavations and will stockpile the necessary quantity of material accordingly. If enough material for Cobblestone Pavers cannot be provided from the areas of utility service excavations, the Contractor will be allowed to obtain the necessary material from the primary underground utility excavation areas parallel to mainline stationing.

(e) Cobbles shall be hand selected and free from seams, cracks, chips, and other structural imperfections or flaws which would impair their structural integrity or appearance, and of a smooth but rustic appearance on at least one upward facing side. The blocks shall be of a rectangular shape with one good face, and of relatively uniform size (within 50 mm (2 inches) uniformity in all dimensions) and uniform color. Representative samples shall be provided to the Engineer for approval prior to delivery to the required locations on the project.

xx. CONSTRUCTION REQUIREMENTS.

- (a) Excavation and Foundation. Excavation shall be made to the required depth and to a width that will permit placing of base and setting beds as shown in the Plans. The wetting of setting bed course material may be necessary to obtain the required 95% compaction.
- (b) Protection of Cobbles. The cobbles shall be stacked at the job site on pallets or suitable platforms that do not unnecessarily obstruct pedestrians or motorists and are protected from damage.
- (c) Installation. Installation shall be performed in accordance with the Plans and the following requirements:
- (1) 75 mm (3 inches) compacted stone dust setting bed over compacted subbase as shown in the Plans.
 - (2) Cobbles shall be installed to the proposed finished surface line and grade and shall align with adjacent work and elevations. Care shall be taken during the layout to minimize cutting.
 - (3) Cobbles shall be installed hand tight, and additional stone dust shall be used as needed to shim the cobbles flush according to the proposed finished lines and grades.
 - (4) If full cobbles need to be cut, the cut shall be made with a masonry saw.
 - (5) Installation shall be performed in one direction by building forward from previously installed granite cobbles.
- (d) Jointing. The 50%/50% mortar/stone dust mixture shall be spread dry over the installed cobbles and then broomed into the joints until they are filled flush to the top of the cobbles. An additional 25 mm (1 inch) protective layer of stone dust shall be applied over the cobbles and a hand-operated plate compactor shall be briefly run across the surface of the completed cobble pavement area to settle the dry mortar into the joints and to set the cobbles in the setting bed. Additional mortar/stone dust mix shall then be applied to fill the joints to the top again. The cobbles shall then be fogged lightly with water. A final application of dry mortar/stone dust may be required prior to project acceptance in order to fill joints where the mortar has settled. Any remaining cement stains shall be cleaned to the satisfaction of the Engineer.
- Mortar joints shall not be used at tree pit locations, but rather the joints shall be filled with cushion sand only.
- (e) Tolerances. Loose or uneven cobbles (greater than 13 mm (1/2 inch) variation in elevation to adjacent cobbles) shall be tamped or reset at the Contractor's expense.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Cobblestone Pavers) to be measured for payment will be the number of square meters (square yards) placed in the complete and accepted work.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Cobblestone Pavers) will be paid for at the Contract unit price per square meter (square yard). Payment will be full compensation for transporting, handling, and placing the materials specified, including cobbles, mortar, cushion sand, and stone dust; excavating, selecting, and stockpiling re-usable concrete cobbles as necessary and in accordance with the Contract Documents; performing any other required excavation; cleaning the completed surface as required; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Subbase materials will be paid for under the appropriate Section 301 Contract item(s).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.675 Special Provision (Cobblestone Pavers)	Square Meter (Square Yard)