

ITEM #0921097A – FLEXIBLE PERMEABLE PAVEMENT

Description:

1. Summary:

The work of this Item includes furnishing all materials, equipment, supplies, accessories, incidentals, labor and supervision, and performing all operations required to install Flexible Permeable Pavement as shown on the drawings, as specified herein, and as is additionally required to properly complete the work, including all sawcuts to meet existing facilities, the removing and disposal of all surplus materials, excavation, concrete sidewalks removal and disposal, and flexible permeable pavement.

The Basis of Design Standard for the Flexible Permeable Pavement is “Perk E Pave”, Pottstown, PA - www.perkEpave.com and is a flexible porous paving system comprised of combination of three components: recycled passenger car tires, aggregate and urethan binder, that provides a strong, pervious, yet flexible paving. Other manufacturers/products will be considered if determined to be an Equal Product by the Engineer.

2. Submittals:

- a. Product data for each component of the Flexible Permeable Pavement.
- b. Installers qualification data.

3. Quality Assurance:

- a. Flexible Permeable Pavement installer shall be required to be experienced with installation procedures and to have attended the Manufacturer’s installation training program.
- b. Flexible Permeable Pavement installer shall employ no less than two Manufacturer-trained “Flexible Porous Paving” technicians on staff who directly oversee and perform the installations during all Flexible Permeable Pavement placement.
- c. At the start of the Flexible Permeable Pavement work, Contractor to ensure that the Manufacturer’s representative is onsite for a minimum of 1/2 day supervision of the installation of the Flexible Permeable Pavement.

Material:

1. Flexible Permeable Pavement:

- a. Base aggregate: #57 stone.
- b. Stone: Triple-washed and dried coarse aggregate (1/4 to 3/8 inch) per ASTM C33. Bagged in 50 lb. quantity. Nominal maximum aggregate size shall not exceed 1/3 of the specified paving thickness.
- c. Rubber: Recycled passenger tires ground to 1/4” nominal with wire remnants removed.

- d. Binding Agent: urethane liquid prepolymer based upon DiphenylmethaneDiisocyanate.
- e. Mix Design: Using materials mix ratio as acceptable by the Manufacturer for the intended application. The volume by weight of aggregate shall be as required by the Manufacturer for the intended application.
- f. Forms: shall be clean and free of debris of any kind, rust, and hardened concrete and make use of a bio-diesel or vegetable oil as a form release.
- g. Color: Selected product color to match perEPave #31, beige stone/tan rubber.

Construction Methods:

1. Mockup:

Construct a 6' x 10' display panel size, color, and finish specimen in this Item to illustrate component application including pattern and edge details. Do not start work until Engineer has approved mock-up. Remove mock-up and dispose of materials at the completion of the work or as directed by Engineer.

2. Protection of Finished Surfaces:

Finished surfaces adjacent to the paving work shall be adequately protected from soiling, staining, and other damage during construction.

3. Excavation:

Work under this item shall consist of removing and disposing of existing sidewalk and foundation to a full depth. Wherever portions of concrete sidewalks or concrete driveway ramps are to be removed, such removals shall be made to neat lines. Partial removals shall generally be to existing joints except when a location other than a joint is identified on the plans or set by the Engineer due to construction staging limits. At removal limits where a joint is not present, the Contractor shall sawcut the concrete full depth to create a neat line. The bottom of the excavation shall be graded smooth and thoroughly compacted to a firm, even surface using a roller weighing not less than five tons or a motor driven vibratory compactor. Subgrade to be prepared to receive a thickness of 4" #57 stone and 2" Flexible Permeable Pavement, as detailed to work with tree rootball and trunk.

4. Flexible Permeable Pavement:

- a. Install the #57 base stone and 2" Flexible Permeable Pavement layer per the manufacturer's instructions and as detailed to work with tree rootball and trunk.
- b. Follow Manufacturer's Hot- and Cold-weather construction recommendations as required.
- c. Mix the Flexible Permeable Pavement material on site in compliance with Manufacturer's written specifications.
- d. Do not place Flexible Permeable Paving on frozen or wet subgrade or subbase.
- e. Deposit Flexible Permeable Pavement either directly onto the subgrade or subbase by wheelbarrow or by material handler onto the subgrade or subbase, unless otherwise specified.

- f. Deposit Flexible Permeable Pavement between the forms to an approximately uniform height.
- g. Spread the pervious paving uniformly to the required elevation and screed to achieve a uniform flat surface.
- h. Hold back paving material from the tree trunk as detailed and bevel the edge to provide a transition from the surface to the root flare area.
- i. Final surface of the flexible permeable pavement shall be smoothed with bull float and magnesium hand floats coated with a form release film.
- j. Curing: Completely cover the paving surface with a minimum 4 mil thick polyethylene sheet if rain or sprinklers are imminent. Cure paving for a minimum of 24 uninterrupted hours, unless otherwise specified.
- k. Forms: When permanent edging or abutting structures are not present, bevel the edge of the top surface to a 45 degree slope.

Method of Measurement:

Flexible Permeable Pavement shall not be measured for payment under this Pay Item but shall be measured under “FLEXIBLE PERMEABLE PAVEMENT AT NEW TREE W/STRUCTURAL SOIL”.

Basis of Payment:

Flexible Permeable Pavement shall not be paid under this Pay Item but under Flexible Permeable Pavement at New Tree w/Structural Soil or Flexible Permeable Pavement at new Tree W/Tree Filter at the contract unit price per tree pit for “FLEXIBLE PERMEABLE PAVEMENT AT NEW TREE W/STRUCTURAL SOIL” complete, in-place, as shown on the Drawings, as specified herein, and as directed by the Engineer. Price shall include all sawcuts to meet existing facilities, the removing and disposal of all surplus materials, excavation, concrete sidewalks removal and disposal, furnishing and installing Flexible Permeable Pavement.

Pay Item

Pay Unit

0921098A Flexi-Pave Pavement at New Tree W/Structural Soil

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