Sub-Base Preparation for Flexible Porous Paving

The effectiveness and durability of the Flexible Porous Paving system installed by Northeast Porous Paving is dependent on the characteristics of the underlying soils and the quality of the sub-base prep work.

Underlying Soils

The Engineer of Record will typically identify the existing soil type, evaluate characteristics, and establish the suitability of the underlying soils for infiltration during the initial site assessment. They may even arrange a test boring and complete an infiltration test to confirm the infiltration rate of the underlying soil. Clay soils and high-water tables can make infiltration impractical.

Sub-Base

The sub-base serves two important functions, firstly it acts as a foundation for the Flexible Porous Paving surface and secondly it acts as a "reservoir" distributing and holding stormwater in the void spaces until the underlying soil has the hydraulic capacity to infiltrate the water flowing through the porous paving.

Geotextile fabric may be specified by the Engineer of Record and installed to separate the soil and the sub-base stone.

For the sub-base ASTM 57 (1/2" to 1") crushed stone or aggregate is the most commonly used material. The sub-base stone should be clean, angular and well compacted. As Flexible Porous Paving is normally installed in pedestrian and light traffic areas (i.e. golf carts) the recommended depth of the stone sub base will be 3-4 inches. The top of the sub-base should be level and should 1½" – 2" below finish grade.

Structural, monolithic geo cellular blocks can also be used in specific situations as an alternative to traditional crushed stone.

Tree Wells

When preparing to install Flexible Porous Paving to replace existing tree grates or bark mulch the first job will be to remove the existing grate and frame or bark mulch taking care not to damage the tree trunk or the tree roots. The City Arborist may also require air spading to loosen compacted soil prior to placing the crushed stone sub-base.

The concrete, brick or granite curbing surrounding the tree well should be inspected and repaired as necessary prior to installation of the sub-base and the Flexible Porous Paving. Wherever possible the new Flexible Porous Paving surface will be installed level and flat so as not to create a sidewalk tripping hazard. When installing around older mature trees this may not

always be possible and the Northeast Porous Paving crew will assess the best possible option based on the particular location.

Edge Strips for Paths

For trails, walkways, golf course paths and patio applications a steel angle edging strip may be specified and used to provide an attractive clean edge and to establish a border between the porous paving surface and the adjacent landscaping or lawn. If a steel edging strip is not used then the Flexible Porous Paving will typically be finished with a 45° chamfered edge.

Curing Time

Flexible Porous Paving will normally cure and be fit for use within 12-24 hours of installation depending on the ambient temperature. Newly installed areas should be protected with cones and caution tape to prevent pedestrians from walking on the installed material before it has fully cured.

Below are examples of prep work for tree wells, sidewalks and walkways prepared and ready for installation of the Flexible Porous Paving surface:








All site preparation and sub-base prep work must be completed in accordance with the specifications prior to Northeast Porous Paving arriving on site to install the Flexible Porous Paving. If there are any questions regarding prep work please contact Northeast Porous Paving installation support (207 450 6053) for consultation and advice.