



Chagrin River Watershed Partners, Inc.

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Innovative Storm Water Management System

Demonstrating Innovative Approaches to Storm Water Management in Northeast Ohio
USEPA National Community Decentralized Demonstration Project

Storm Water Management System Project Goal:

Mitigate storm water runoff from a new private office building and parking area at Cawrse and Associates, Inc. a landscape architecture and land planning firm using a combination of low impact development best management practices, and a traditional storm water pond.

- ◇ *Permeable Pavers* - Drains parking area with additional flow directed to a vegetated swale.
- ◇ *Rain Garden* - Receives drainage from portion of roof, and drains storm water pond.
- ◇ *Vegetated Swale* - Receives drainage from parking area and a portion of roof, and drains to storm water pond.



Treatment Train System:

- ◇ **Permeable Paver** - Reduces runoff through infiltration. An underdrain under the pavers drains water to an outlet on the east side of parking area to the vegetated swale.
- ◇ **Rain Garden** - Drains a portion of the roof runoff and allows for infiltration and uptake by plants.
- ◇ **Vegetated Swale** - Reduces flows and increases infiltration of runoff from the parking area underdrain and a portion of the roof.
- ◇ **Storm Water Pond** - Wet extended detention pond that reduces runoff and increases water quality using wetland plants. Receives runoff from vegetated



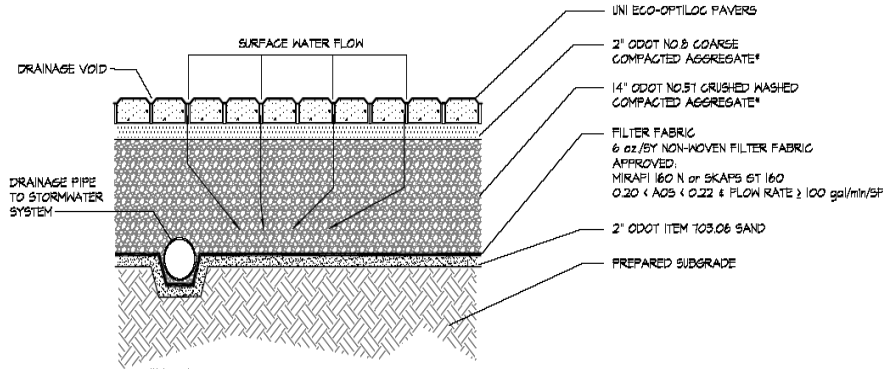


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Cawrse and Associates, Inc., South Russell Village

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Permeable Paver System

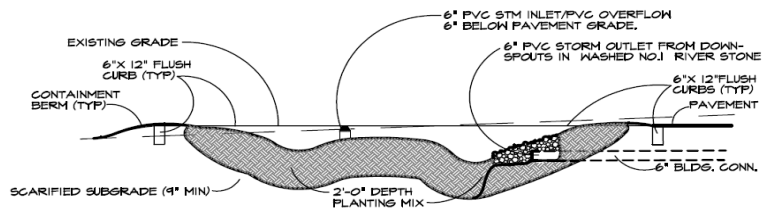


***NOTE:**
 ALL AGGREGATE COMPACTED TO 10% RELATIVE DENSITY DETERMINED BY ASTM D 4252 AND ASTM D 4253.

UNILOCK ECO-OPTILOC PAVER SECTION
 NOT TO SCALE

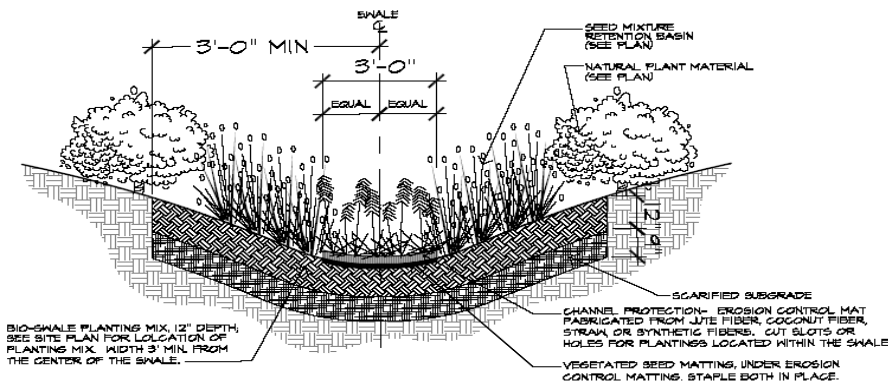


Rain Garden



RAIN GARDEN SECTION 'A'-'B'
 NOT TO SCALE

Vegetated Swale



BIO-SWALE PLANTING MIX, 12\"/>

TYPICAL BIO SWALE SECTION
 NOTE: INSTALL EROSION CONTROL MAT PER MANUFACTURER'S RECOMMENDATIONS
 NOT TO SCALE

