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STORMWATER MANAGEMENT REPORT
5 BRIGGS STREET
PORTLAND, MAINE

May 20, 2015

Project Description:

This project is the construction of a three unit residential structure located on Briggs Street. The existing site is developed with lawn, patio, and a garage. The new structure will be three stories with a 1,409 sq. ft. footprint. The access to the site will be from Salem Street. Parking is under the first floor.

The sewer, water, and gas utilities will be from Salem Street. The electrical and cable services will be from Briggs Street.

Stormwater Controls:

The existing site has sheet and concentrated drainage from the area above. The surface water flows across the site, across the existing lot at the corner of Briggs and Salem to the stormdrain system at that corner. The future flows will do the same thing.

The existing site has 1,276 sq. ft. of impervious cover. The developed site will have 2,444 sq. ft. of impervious cover. This increase of 1,168 sq. ft. requires the installation of a stormwater control and treatment system.

Treatment System:

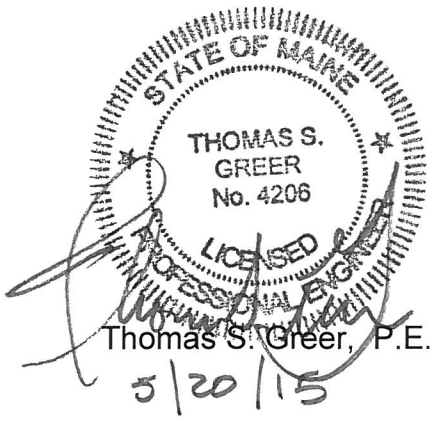
The site will include an Underdrained Soil Filter (UDSF) system to treat the runoff from the roof of the building. The roof will have a single pitch from the downhill side to the uphill side. A gutter system will collect the water and convey it to the UDSF under the patio. A screen system in the downspout of the gutter will remove leaves and debris from the system. Also connected to the system will be a drip strip along the building. This will collect any stormwater from the uphill side of the site and overflow from the gutter system.

The treatment system will consist of a filter media underlain by underdrain pipes. Over the media will be plastic chambers for water storage all under the patio system. The chambers will have an inspection overflow port. This will be for the observation of standing water over the filter media, venting of the system and over flow of excess flow. The discharge from the system will be by the underdrain pipes to daylight just below the filter. This recreates the existing surface water flow.

The system will also provide some peak flow controls. The first inch of runoff from the roof will be captured and discharged over a 24 to 48 hour time frame.

Results:

The use of the Underdrained Soil Filter to capture and treat runoff from the roof will control peak flows and treat the stormwater. No unreasonable impacts from stormwater should occur to downstream properties or environments as a result of this project.



Thomas S. Greer, P.E.

5/20/15