

12. STORMWATER MANAGEMENT PLAN

As previously described, the Site consists entirely of the existing bring-paved Canal Plaza space. The proposed work includes replacing the bricks with granite pavers, constructing a 1,500 square foot building, and planting individual trees throughout the plaza as well as two mulched planting beds at the southern end of the site. The following section discusses stormwater management relative to the Basic, General, and Flooding Standards as defined in Chapter 5 of the City Technical Manual and the Maine Department of Environmental Protection Chapter 500 Stormwater Regulations. The project will result in a de minimis (less than 1,000 square feet) increase to impervious surface, and will disturb an area for approximately 20,710 square feet. The project does not require a stormwater permit from the Maine Department of Environmental Protection, and does not meet the threshold that would require submission of a Notice of Intent to Comply with the Maine Construction General Permit.

12.1 BASIC STANDARD (SOIL EROSION AND SEDIMENTATION CONTROL)

These standards address erosion and sedimentation control, inspection and maintenance, and good housekeeping practices. The application includes erosion and sediment control plans, details, and notes. These notes cover good housekeeping practices. The Erosion and Sedimentation Control Plan for the proposed project is provided below.

12.1.1 Erosion and Sedimentation Control Plan

The overall goal of the Soil Erosion and Sedimentation Plan is to restrict the potential for erosion and sedimentation at the site and down-gradient of the site. The existing site is primarily an impervious surface surrounded by existing buildings and roadways. The entire surface will be disturbed for construction, but due to its location and the nature of the proposed work, the risk of erosion is minimal.

A variety of erosion control techniques will be implemented to achieve this goal. During construction, these include:

- Installation and maintenance of construction entrances at the travelled interface between stabilized and non-stabilized portions of the project site;
- Installation of sediment collection devices within existing catch basins;
- Controls for fugitive dust, debris, and other materials;
- Regular sweeping of the adjacent roadways to eliminate the tracking of sediment outside of the site; and
- Inspection of all in-place measures after every significant rainfall until permanent measures are in place.

Structural measures will be installed where shown on the Soil Erosion and Sedimentation Control Plan, which is included in the drawings attached to Section 3 of this Report; details for the proposed measures are also included in the drawings. All measures will be implemented in accordance with the "Maine Erosion and Sedimentation Handbook for Construction: Best Management Practices"; they will be installed prior to any earth disturbing activities. All temporary measures will be removed after the areas are permanently stabilized.

Permanent erosion control measures will include vegetation and granite pavers. All measures will be maintained in effective operating condition. The Contractor will be responsible for implementing and maintaining all erosion and sediment control measures and will use the attached inspection report form or equivalent.

12.2 GENERAL STANDARD (WATER QUALITY)

The existing project area includes a combination of brick surfaces and raised planters that contain low vegetation, trees, and mulched surfaces. The proposed plaza area will have a granite paver surface with two planters located at the southern end of the site, and trees planted throughout the plaza. Evaluating the brick and granite pavers as impervious surface and the pavers as pervious surface, the resulting increase in impervious surface will be approximately 940 square feet. This area, less than 1,000 square feet, is considered to be a de minimus increase, and we are requesting a waiver from providing water quality treatment on the site.

Not included in the evaluation of impervious surface are the seven individual trees that will be installed throughout the plaza area. The site grading has been designed such that these trees are located in low points, allowing for drainage from the granite paver surface to drain to these points. Open space will be left beneath the pavers/grates over the tree roots, and in smaller rain events, stormwater will infiltrate, watering the trees. A stormdrain inlet will be installed within each of these tree spaces to provide for stormwater overflow. Although the paver space will be entirely impervious, areas of infiltration will be provided at each tree location.

12.3 FLOODING STANDARD (WATER QUANTITY)

As the site will result in a de minimus increase in impervious surface, peak stormwater flows and stormwater quantity are not anticipated to increase, and flooding control will not be required. We are requesting a waiver from providing flood control. Currently, the site includes discharge to four locations – portions of the site discharge via overland flow and via closed stormdrain system to the combined sewer in Middle Street, which connects to the combined sewer in Union Street; portions of the site discharge to a closed stormdrain system to the combined sewer in Fore Street, which connects to the combined sewer in Union Street; and portions of the site discharge to a closed stormdrain system to the combined sewer in Union Street. The connection to the closed drainage system in Middle Street will be eliminated, with connections to Fore Street and Union Street maintained. Ultimately, in both the pre- and post-development conditions, all stormwater will end up in the Union Street combined sewer system, and the small amount of impervious surface increase will result in only a minimal increase in stormwater flow.

12.3.1 Connection to City of Portland Combined Sewer System

As shown on our plans, we are proposing to reconstruct the existing stormwater connection from our site to a catch basin on Union Street. With our drainage design, we will now be directing a majority of stormwater to this connection, eliminating the connection in Middle Street.

We are requesting a waiver from the City of Portland Technical Standards to allow for this stormwater connection to be made via the Union Street catch basin. This connection location will allow for reconstruction of the onsite stormwater management system without requiring trenching in recently paved Middle Street and Union Street. The proposed system will not direct any additional stormwater to the Union Street combined sewer.

12.4 ATTACHMENTS

- Stormwater Erosion & Sedimentation Control Inspection Report Form



**STORMWATER EROSION & SEDIMENTATION CONTROL
INSPECTION REPORT FORM**

Inspectors:

Date: ___ / ___ / ___

_____ of _____ (Project Owner)

_____ of _____ (Contractor)

_____ of _____

_____ of _____

Storm Event? Yes No Rainfall Amount _____ Storm Duration _____ hours

Visual Observations of Activity and Site Conditions:

Disturbed Soil Areas:

Storage of Soils:

Sediment & Erosion Control Measures:

Construction Site Entrance:

Surface Stabilization:

Corrective Actions Taken

Attachments (if any):

Signature:

Representing:

Representing:
