

## 11. STORMWATER MANAGEMENT PLAN & CALCULATIONS

The proposed project must comply with the water quality, stormwater management, and erosion control standards identified by the City of Portland in the Land Use Chapter of the Code of Ordinances. Section 14-527 of the Code of Ordinances requires that the stormwater standards must be met for this level of permit submission.

### 11.1 EXISTING CONDITIONS

The 23,795 +/- square foot site, located in a highly developed urban environment, currently consists of a paved parking lot surrounded by a landscaped esplanade containing shrubs and trees. In general, stormwater drains via sheet flow in a southerly direction into an existing catch basin along the southern property line. This catch basin connects to a separated storm drain located in Center Street, which connects to the combined sewer system located in Commercial Street (Lower Fore River Interceptor). The Lower Fore River Interceptor flows northeast through the Long Wharf Diversion Structure to the India Street Pumping Station where flow is pumped to the Portland Wastewater Treatment Plant.

### 11.2 PROPOSED DEVELOPMENT

The proposed building covers almost the entire site, as is required per zoning setbacks. The site layout is shown in the Design Drawings attached to Section 2. The siting of the building will eliminate the landscaped esplanade space around the perimeter of the parking lot.

A rooftop garden is proposed on the northeastern corner of the hotel's ground floor. This plaza will not be accessible from the hotel, but it is anticipated to provide a visually pleasing aesthetic for guest rooms as well as adjacent future and current development. The landscaped design of the garden space is shown on the landscape plan included in the Design Drawings attached to Section 2. While some existing perimeter landscaping will be removed, a greater area of new landscaping is proposed to provide an improved landscaped space on the redeveloped property.

The following **Table 11-1** provides a summary of existing and proposed site surface.

**Table 11-1: Center Street Hotel Surface Cover Breakdown**

	Pervious Surface (SF)	Impervious Surface (SF)			Total Area (SF)
		Roof	Non-Roof	Total	
Existing	2,700	0	21,100	21,100	23,800
Proposed	4,700	18,050	1,050	19,100	23,800

The project will result a net reduction of impervious area by approximately 2,000 square feet. The redevelopment project will also replace non-roof impervious surface with a building. Stormwater runoff from roof-top surfaces generally contains less pollutants than runoff from parking lots. The proposed project will not disturb more than one acre of area.

Applicable regulations that govern stormwater management on this site include Section 5 of the City of Portland Technical Manual, Chapter 32 of the City of Portland Code of Ordinances, and the Maine Stormwater Best Management Practices (BMP) Manual. Under Section 5 of the City Technical Manual, the project is subject to the Basic, General, Flooding, and Redevelopment Standards of the Maine Department of Environmental Protection Chapter 500 Stormwater Regulations. The project is not located within the watershed of an Urban Impaired Stream and will not be subject to that standard. The following sections describe the proposed compliance with the stormwater standards.

### 11.3 BASIC STANDARD (SOIL EROSION AND SEDIMENTATION CONTROL)

Erosion and sedimentation control measures will be utilized during construction to ensure that the work will not result in the release of sediment off-site. Details for all proposed erosion and sedimentation control measures are included

in the engineering plan set submitted with this application. The plans include a narrative and construction details describing the plan for all temporary and permanent erosion control techniques to be utilized on this project in accordance with MaineDEP Erosion Control Best Management Practices. The Erosion and Sedimentation Control Plan for the proposed project is summarized below.

### **11.3.1 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. 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;
- Catch basin inlet protection devices;
- Controls for fugitive dust, debris, and other materials; and
- Inspection of all in-place measures after every significant rainfall until the site is permanently stabilized.

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 pavement. 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.

### **11.4 GENERAL AND FLOODING STANDARDS (WATER QUALITY & QUANTITY)**

The proposed project results in a net decrease in impervious area; therefore, per Section 5 of the City Technical Manual the project is not required to comply General and Flooding Standards. With the reduction in impervious surface, and the replacement of parking lot with roof area, it is anticipated that the project will result in an improvement in water quality for runoff from the site. With no increase in impervious surface planned, the project is not anticipated to result in an increase in stormwater flow. While the project is not required to meet the General and Flooding standards, it will still meet the Standards’ intents of not degrading water quality or increasing water quantity respectively.

### **11.5 REDEVELOPMENT STANDARD**

The proposed site will be comprised almost entirely of roof area per setback requirements. As such, the project will result in less than 5,000 square feet of non-roof redeveloped impervious area. The redevelopment standards, as outlined in Section 5 of the City’s Technical Manual do not apply.

### **11.6 CONNECTION TO CITY OF PORTLAND STORMWATER INFRASTRUCTURE**

On-site runoff, including drainage from roof and foundation drains, will be directed into the separated stormdrain in Center Street. As noted earlier, this stormdrain eventually connects to the combined sewer Lower Fore River Interceptor in Commercial Street. We have discussed the proposed stormwater connections with Brad Roland from the City of Portland’s Department of Public Works. Other stormdrain systems in the area are at elevations that are too high to accept stormwater from the site, and it was determined that the proposed connection would be the most appropriate.

### **11.7 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:

\_\_\_\_\_  
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Corrective Actions Taken

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Attachments (if any):

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Signature:

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Representing:

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Representing: