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<b>TO:</b>	Helen Donaldson, Sr. Planner	<b>DATE:</b>	10/10/2018
<b>FROM:</b>	Michael Guethle, PE; Ryan Wingard, PE	<b>PROJECT NO.:</b>	13982C
<b>SUBJECT:</b>	Gilman St. - 22; MMC Parking Building (PL-000331-2018)		

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Wright-Pierce has reviewed the Level III Site Plan Application information provided for the Congress Street Patient Care Building proposed at 22 Gilman Street. The project will include redeveloping an existing parking garage into 64 modern patient rooms and 19 procedure rooms.

**Documents Reviewed by Wright-Pierce:**

- Level III Site Plan application, dated (most recent) September 25, 2018.
- Engineering Permitting Plans, dated (most recent) September 26, 2018.
- Construction Management Plan, dated September 25, 2018.

**Comments:**

- 1) Level III Site Plan applications with the City of Portland must submit a stormwater plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules. This includes conformance with the Basic, General, and Flooding Standards (Ref: Technical Manual, Section 5. II. Applicability in Portland. C. a.; and Ref: City of Portland Code of Ordinances Sec. 14-526. Site Plan Standards, (b). 3. b.)
  - a. Basic Standard: Plans and application material should be provided to address erosion and sedimentation requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with MaineDEP Chapter 500, Appendix A, B, and C. The applicant has provided information that the project will be subject to the Basic Standard. The applicant has provided:
    - i. An Erosion and Sedimentation Control Plan in Section 23 of the application.  
This item has been reviewed and accepted.

- ii. Inspection and Maintenance information in Section 23 of the application. This item has been reviewed and accepted.
  - iii. Erosion and Sedimentation Control Details and Notes (C30-07). This item has been reviewed to indicate details for catch basin inlet protection. Given that there will be a level of disturbed surfaces, additional details should include temporary slope stabilization, construction entrances, perimeter erosion controls, dewatering, and other standard erosion and sedimentation details.
  - iv. Location of Erosion and Sedimentation Control best practices were not observed on the Demolition Plan or Site Grading Plans. The applicant shall provide this information.
- b. General Standard: The applicant has provided information regarding the size and scope of the project indicating the project is subject to the Redevelopment Standard within the City of Portland. It is understood the City's redevelopment standard is more stringent than the Chapter 500 requirements for redevelopment. The City requirements indicate that greater than 50% of the proposed impervious surfaces must receive stormwater quality treatment pursuant to the MaineDEP Chapter 500 requirements. The applicant has provided information that greater than 50% of the facility impervious surfaces are conveyed to a Subsurface Sand Filter. The applicant shall clarify the following and provide responses:
- i. The applicant will be required to inspect, maintain, and report on the filter in accordance with the Chapter 32 stormwater requirements. The applicant has provided inspection, maintenance, and housekeeping information in Section 23 of the application. An executed stormwater maintenance agreement is required for the proposed stormwater treatment units.
  - ii. A 25% pre-treatment credit has been provided for the subsurface sand filters on Sheet 2 and Sheet 3 of the Underdrained Subsurface Sand Filter calculations. Under Chapter 500 Section 5 (a), Exemptions from the general

standards, “The pre-treatment credit does not apply to subsurface underdrained filter structures using chambers.” Please clarify how the 25% pretreatment credit is being applied to the proposed Subsurface Sand Filter in these calculations.

- iii. Please provide additional information on the “HIL” Unit at the existing parking garage, and how it conforms to the pretreatment credit.
- iv. The MaineDEP Stormwater BMP manual indicates that, “The surface area of the filter must be no less than the sum of 5% of the impervious area and 2% of the landscaped area draining to the system.”. The applicant has asked for a waiver of this principle to allow additional surface flows to be conveyed to the treatment system, as requested by the City. Whereas the magnitude of this difference may be modified as the pre-treatment calculations are revised, this waiver will be reviewed when the pre-treatment volumes have been revised.

c. Flooding Standard: The applicant has provided information indicating the project is required to meet the Flooding Standard of Chapter 500. The applicant has submitted the following:

- Subcatchment Plans for Pre- and Post-Development
- Hydrology computations of these conditions
- Summary of Pre- and Post-Development Flow Rates

- i. HydroCAD outputs for the 2-year, 10-year, and 25-year, 24-hour storm events have been provided. The model indicates the post-development flow rates for the proposed project do not exceed flow rates for the pre-development condition.
- ii. “Subsurface Sandfilter Section” details match the HydroCAD model. Additional pipe invert, pipe length, and pipe size information on grading

plans and details are needed to confirm that the HydroCAD model matches permitting plans.

2) Discharge to Combined Sewer Overflow (CSO) Locations

- a. The applicant has provided information for pre-development and post-development flow rates to the combined sewer system for a 1-inch, 24-hour rain event. This storm event has been mentioned in previous discussions with the applicant and City Department of Public Works (DPW). To ensure that all involved parties are in agreement with evaluating this storm event for the CSO location, please provide e-mail or other written confirmation from City DPW.
- b. The Pre-Development and Post-Development HydroCAD reports each indicate multiple inflows to Existing SMH-13952. In Table 2, it appears the pre-development flow rate accounts for only flows from Reach 172, and the post-development flow rate accounts for only flows from Reach 135. Please either provide discussion confirming how the pre- and post-development CSO storm events are represented by the model, or provide revised modeling indicating how the other flows to SMH-13952 are represented.

3) Connection to Existing System:

- a. The applicant shall provide written or e-mail confirmation from the Department of Public Works that proposed connections to existing drainage and sewer systems are being completed in accordance with City of Portland Code of Ordinances section 14-526 (b) 3.a, subsection iii and iv.
- b. The applicant has indicated that capacity to serve letters from utilities will be provided as they become available.

4) Proposed Drainage Design

- a. More information is needed to confirm the pipe capacity and inlet capacity is adequate for each structure and pipe length. Information has been provided in the

HydroCAD model, but the information provided in the site grading plans is currently limited.

- b. Please provide spot grades or standard details confirming grading at curb and drainage structures.
- 5) Soils:
- a. Medium-intensity soil survey indicates Hollis-Windsor-Au Gres soils, but Hinkley soils were reported based on a geotechnical report. This geotechnical report was referenced in Section 23 but was not included as part of this section. Please provide this report, or citation of where the soils information is located in the application.
  - b. Soil groups should be referenced as “hydrologic soil group”.
- 6) Snow Storage:
- a. The applicant has noted in Section 16 of the application that snow storage will be completed through means of removal and off-site storage. No further action is necessary at this time.
- 7) Details have been provided confirming the following storm drain infrastructure items that are in conformance with the City Standard Details and Technical Manual:
- a. Manhole Frame, Cover
  - b. Catch Basin Frame, Grate
  - c. Manhole, Manhole Steps

A catch basin detail was included indicating a 2’ sump. Catch basins require 3’ sumps per City Technical Manual. Please revise.