

MEMORANDUM



TO: Jean Fraser, Planner
FROM: David Senus, P.E. & Ashley Auger, E.I.T.
DATE: March 3, 2014
RE: 421 Warren Avenue, Preliminary Level III Site Plan Application

Woodard & Curran has reviewed the Preliminary Level III Site Plan Application for the proposed 7-unit commercial complex located at 421 Warren Avenue in Portland, Maine. The project consists of constructing a single-level 28,000 SF industrial building along with associated site improvements. The project is being reviewed for compliance with City of Portland Level III Site Plan requirements and under the City's delegated review authority for Chapter 500, Stormwater Management Law.

Documents Reviewed by W&C

- Preliminary Level III Site Plan Application and attachments dated February 12, 2014, prepared by FST Engineers on behalf of PH Warren Avenue, LLC.
- Engineering Plans, Sheets C-1.0, C-1.1, C-2.0, C-2.1, C-3.0, C-3.1, C-4.0, C-4.1, C-4.2, C-4.3, C-5.0, C-6.0, C-6.1, C-6.2, C-7.0, and C-7.1, dated February 10, 2014, prepared by FST Engineers on behalf of PH Warren Avenue, LLC.

Comments

- 1) In accordance with the City of Portland Preliminary Level III Site Plan Submissions Checklist, the Applicant is required to provide evidence of state approvals. The Applicant should forward the following approvals to the City upon receipt:
 - a) The Applicant has noted that the project requires a MaineDEP NRPA Tier III permit for approximately 25,093 SF of wetland impacts, which is being submitted concurrently with the City Site Plan Application. Evidence of receipt of this permit shall be required prior to the start of construction.
 - b) The Applicant is proposing to disturb more than one acre (approximately 110,207 SF); therefore a Maine Construction General Permit (MCGP) from the MaineDEP is required prior to the start of construction.
- 2) The application is preliminary. As such, we anticipate that additional documents will be submitted with the final application, including missing or incomplete gravel wetland details, confirmation of capacity to serve the development from utility companies, and a Construction Management Plan. Additionally, the Site Layout and Utility Plan, Sheet C-3.0, indicates several utility details that are TBD, such as outlet control structure elevations, sewer service invert elevations, natural gas pipe size, and electrical duct bank size; these details should be coordinated with the appropriate utilities prior to approval. Woodard & Curran will perform a review of the Final Application submittal upon receipt of those documents.
- 3) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. In addition, the project is being reviewed under the City's delegated review authority for Chapter 500 Stormwater Management Law. We offer the following comments:
 - a) Basic Standards: The Applicant has provided a plan, notes and details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500. Erosion Control Note 3 on Sheet C-1.1 states that silt barriers shall be inspected, repaired, and cleaned as noted in the erosion control notes shown on the erosion control detail sheet; however, it does not appear that these notes have been provide at this time. The Applicant should clarify. Additionally, details should be provided for proposed erosion control blanket installations and rip-rap slope and spillway protection.



- b) **General Standards:** The project will result in an increase in impervious area of approximately 82,764 square feet. As such, the project is required to include specific stormwater management features for stormwater quality control. The Applicant has proposed gravel wetlands near the front and rear of the development area in addition to a gravel drip strip. The Applicant has provided sufficient documentation demonstrating compliance with this standard; however, it should be noted that the design plans, calculations, and the HydroCAD model may be subject to change based on the comments contained herein, and shall be reviewed for compliance again upon receipt of the final submission package.
- c) **Flooding Standard:** The project will result in an increase in impervious area of approximately 82,764 square feet. As such, the project is required to include specific stormwater management features to control the rate of stormwater runoff from the site. The Applicant has provided sufficient documentation demonstrating compliance with this standard; however, it should be noted that the design plans, calculations, and the HydroCAD model may be subject to change based on the comments contained herein, and shall be reviewed for compliance again upon receipt of the final submission package.
- 4) **Urban Impaired Stream Standard:** The project is located within the Capisic Brook Watershed, which is identified as an Urban Impaired Stream by the Maine DEP. Section 5 of the City of Portland Technical Manual requires that all development within the Capisic Brook watershed, except single and two family homes, comply with the Urban Impaired Stream Standard pursuant to MaineDEP Chapter 500 Rules. To meet the Urban Impaired Stream standard, the Applicant must either pay a compensation fee or mitigate project impacts by treating, reducing, or eliminating an off-site or on-site pre-development impervious stormwater source. The Applicant has not provided information on how they plan to meet the Urban Impaired Stream standard with the preliminary submittal; the final submittal should present either a fee calculation or a design approach / plans on how the project will meet this standard.
- 5) **HydroCAD Model Review Comments:**
 - a) The pre- and post-development areas used in the HydroCAD model and provided in the summary tables on the watershed maps are not equal, specifically subcatchments 1 & 2 on the Post-Development plan. The Applicant should revise accordingly.
 - b) Subcatchment 1 is a very large area that remains largely unchanged from the pre- to post-development conditions; relocating POI 1 closer to the outfall of gravel wetland #2 will provide a better indication of the change in flow rates from the proposed development. The Applicant should consider revising the model accordingly.
 - c) It is unclear why the Applicant has chosen to model subcatchments 3A, 3B, and 3C, as they are not part of the proposed development and remain largely unchanged from the pre- to post-development condition. The Applicant should remove these subcatchments from the model.
 - d) The model includes storage within a 40% void space of the gravel wetlands between elevation 68.17 and 68.50; please clarify where this storage volume exists in the gravel wetland section.
 - e) As noted on the plans, the Applicant intends to add outlet elevation information to the outlet control structure details for both gravel wetlands as part of the final submittal. Without this information we cannot verify the routing or model inputs for Pond 4P (GW2) or Pond 5P (GW1). When the outlet control structure elevations are incorporated into the final submittal, please revisit or provide explanation on the routing methodology for GW1 & GW2 in the HydroCAD model; we are unable to follow the routing as currently presented.
- 6) **Gravel Wetland Design Comments:**
 - a) On Sheet C-4.2, the titles for the plan view and section view incorrectly note Gravel Wetland #1; these should state Gravel Wetland #2.
 - b) The Applicant has submitted drawdown calculations for sizing the gravel wetlands' outlet control structure orifice control devices; however, the orifices do not appear to be specified on the design plans/details. The Applicant should clarify with the final design package.
 - c) The Applicant should include outlet protection measures for the Gravel Wetland #2 outfall.



- d) The Applicant should specify appropriate plantings for the proposed gravel wetlands, per the UNH Stormwater Center Subsurface Gravel Wetland Design Specifications.
 - e) The pervious and impervious area treated numbers contained in Table 11 of the Stormwater Management Report do not appear to agree with those utilized in the HydroCAD model or noted on the Post Development Watershed Map (C-7.1); the Applicant should clarify.
- 7) The Stormwater Management Report refers to Appendix H for a Separate Stormwater Inspection & Maintenance Manual, and notes that it has not been included with this submission. The stormwater inspection and maintenance plan should be developed in accordance with and in reference to the UNH Stormwater Center Subsurface Gravel Wetland Design Specifications, Section 7.6 of Volume III of the MaineDEP Stormwater BMP Manual, MaineDEP Chapter 500 guidelines and Chapter 32 of the City of Portland Code of Ordinances.