

MEMORANDUM



TO: Jean Fraser, Planner
FROM: David Senus, P.E.
DATE: April 22, 2015
RE: 1342 Congress Street Neighborhood Center, Preliminary Level III Site Plan Application

Woodard & Curran has reviewed the Preliminary Level III Site Plan Application for the proposed Neighborhood Center located at 1342 Congress Street in Portland, Maine. The project involves the construction of a 19,300 SF building with associated site improvements that include a surface parking lot, stormwater management system, utilities, site lighting, and landscaping. The project will disturb approximately 85,000 SF and result in 12,500 SF of additional impervious area.

Documents Reviewed by Woodard & Curran

- Preliminary Level III Site Plan Application and attachments, dated April 3, 2015, prepared by Tighe & Bond, on behalf of the Jewish Community Alliance of Southern Maine.
- Engineering Plans, Sheets C-1 through C-9, dated April 3, 2015, prepared by Tighe & Bond, on behalf of the Jewish Community Alliance of Southern Maine.

Comments

- 1) The project will disturb more than one acre of area and will therefore require filing a notice of intent to comply with the Maine Construction General Permit with the MaineDEP.
- 2) The application is preliminary. As such, additional documents will be submitted for the final application, including letters from utilities confirming capacity to serve the proposed development and a Construction Management Plan. Woodard & Curran will perform a review of the Final Application 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. We offer the following comments:
 - a) Basic Standards: Plans, notes, and details have been provided 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.
 - b) General Standards: The project will result in a net increase in impervious area of approximately 12,500 square feet. As such, the project is required to include stormwater management features for water quality control. The Applicant is proposing an underdrained soil filter to meet the General Standards. The following comments should be addressed:
 - i) The Applicant has requested a waiver from the requirement for pre-treatment of runoff directed to filter BMPs due to topographic and geometric constraints of the site. Pre-treatment is particularly important for filter systems to ensure that sediment does not clog the filter and impede its function. It appears that there is ample space on the southern portion of the site to provide the MaineDEP recommended forebay area. We recommend that the applicant include a sediment forebay at the inlet point to the filter.
 - ii) The Applicant should provide calculations demonstrating that an area equivalent to 95% of the new impervious area will be treated by the Underdrained Soil Filter system in accordance with the General Standards.
 - iii) Per Chapter 7.1 of Volume III of the MaineDEP Stormwater BMP Manual, the Applicant should provide appropriate sizing calculations, including treatment volumes, filter area, and peak water quality storage depths, for the proposed Underdrained Soil Filter system.
 - c) Flooding Standard: The project will result in net increase in impervious area of approximately 12,500 square feet.. As such, the project is required to include stormwater management features to



control the rate of stormwater runoff from the site. The Applicant has provided HydroCAD Reports to demonstrate compliance with the Flooding Standard. The following comments should be addressed:

- i) Without site-specific soil infiltration testing data, the HydroCAD model cannot include the discarding of flow by means of infiltration within the soil filter area.
 - ii) Future submittals should include details for the outlet control structures associated with the soil filter and the StormTech Chamber system, including orifices and weirs.
 - iii) Future submittals should identify key elevations for the StormTech Chamber detail matching to the elevations utilized in the HydroCAD model.
 - iv) The Pre-Development Watershed Plan (WS-1) indicates that runoff from the existing building roof is part of catchments WS-1 and WS-2; however, runoff from some of these roof areas is collected in downspouts that enter into the ground and which do not appear to flow to PA-1 and PA-2. The Applicant should determine the discharge location for the building's roof downspouts and re-evaluate the catchment areas and stormwater model based on their findings.
 - v) The Applicant has proposed to discharge the majority of the site's drainage to a new outfall located at the southwest edge of the site, adjacent to an existing drainage ditch that flows across a residential property located south of the site. Although the pre/post stormwater analysis is intended to show that the flow at this study point will not increase in the 2, 10 and 25 year storm event conditions, there will be a new outfall with a concentrated discharge at this location. We recommend that the Applicant work with the adjacent property owner to determine if there are existing concerns over drainage in this area, and based on input from that property owner, determine if improvements can or should be made to the drainage ditch as part of this project.
- 4) The Long Term Operations & Maintenance Plan for stormwater management systems should include a reference to Chapter 32 of the City of Portland Code of Ordinances related to annual reporting requirements.
 - 5) The proposed Underdrained Soil Filter Bed detail refers to a Rain Garden Planting Plan for proposed plantings; however, it does not appear that this plan has been provided at this time.
 - 6) The proposed Vertical Granite Curb, Concrete Sidewalk, and Utility Trench details should be revised to comply with the City of Portland Technical Manual for work within the City Right-of-Way.