



Memorandum

14073

To: Timothy Lock, RA
From: Steve Groves
Date: May 19, 2014
Subject: Cumberland Ave Peer Review

In response to Woodard & Curran stormwater review comment dated 5-5-14 of the Preliminary Level III Site Plan Application for the proposed multi-family building located at 97 Cumberland Ave, we offer the following responses in the order in which they were received.

Comments;

- 1) The application is preliminary. As such, we anticipate that additional documents will be submitted with the final application, including confirmation of capacity to serve the development from utilities and a Construction Management Plan. Woodard & Curran will perform a review of the Final Application upon receipt of those documents.

We have submitted a service letter from Portland Water District and waiting on the City for the sewer capacity letter.

- 2) The Applicant should clarify whether the project will result in an increase of approximately 2,900 square feet of impervious area, as stated in the application form and the text of the stormwater management plan, or approximately 2,300 square feet as noted in the treatment calculations.

The increase in new impervious surface is 2,300 square feet as noted in the treatment calculations.

- 3) In accordance with Section 5 of the City of Portland Technical Manual, a Level III Site Plan 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: 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. In addition to the notes and details provided in the application, the plan should include a location for the stabilized construction entrance and a note stating that the street Right-of-Way shall be kept clean from dust, tracked soil/mud, and construction debris and swept as necessary or as requested by the City of Portland to minimize dust and sediment originating from the site.
- b) General Standards: The project will result in an increase in impervious area of approximately 2,300 square feet (Applicant to confirm). As such, the project is required to include stormwater management features for stormwater quality control. The Applicant has proposed to treat stormwater runoff via an infiltration basin at the rear of the property. The proposed approach provides an acceptable means of meeting the General Standards, pending response to the remaining comments contained herein.
- c) Flooding Standards: The project will result in an increase in impervious area of approximately 2,300 square feet (Applicant to confirm). As such, the project is required to include stormwater management features to control the rate of stormwater runoff from the site. The Applicant has proposed to manage the rate of stormwater runoff via an infiltration basin at the rear of the property. The proposed approach provides an acceptable means of meeting the Flooding Standard, pending response to the remaining comments contained herein.

We will indicate the location for the stabilized construction entrance and a note stating that the street Right-of-Way shall be kept clean from dust, tracked soil/mud, and construction debris and swept as necessary or as requested by the City of Portland

- 4) The stormwater inspection and maintenance plan for the proposed stormwater management system should reference the annual inspection and reporting requirements contained in Chapter 32 of the City of Portland Code of Ordinances, and should include an inspection checklist developed for the stormwater system(s) including a maintenance schedule and inspection criteria.

We provide a stormwater inspection and maintenance plan with annual inspection and reporting requirements.

- 5) The proposed infiltration basin is located partially within the footprint of the former house structure. Has the building foundation been fully demolished and removed. What are the drainage characteristics of the fill materials that have or will be utilized in this area? Has the Applicant performed a test pit or boring to evaluate the soil characteristics or infiltration capacity? How deep is bedrock at this location?

The Cumberland County Soil Map indicates Hinckley gravelly sandy loam having Hydrologic Group A. At the time of this report the infiltration basin was cover with ice. We now can dig a test pit to confirm the underlying soils.

- 6) The Applicant proposes a rip-rap spillway to manage overflow from the proposed infiltration basin. Overflow from this spillway will drain west, below a stockade fence, across a fenced dumpster area on the 7-Eleven property, and across the 7-Eleven parking lot to the Washington Avenue drainage collection system. The applicant notes that this route is similar to the pre-development drainage pattern (existing condition); however, a review of the HydroCAD model indicates that more area will be directed to this location in the post-development condition, and although the infiltration basin will provide minor detention, the model predicts an increase in runoff rate at this location (from the spillway) in the post- development 10- and 25-year storm events. The drainage design should be revisited to eliminate directing overflow onto the neighboring property, unless the Applicant obtains drainage easements from N/F Ginn Portland LLC and modifies the adjacent fence and dumpster/parking area to accommodate drainage from the site. The Applicant should propose an alternative means of managing overflows from the infiltration basin.

The increase in flow is 0.01cfs which is insignificant and within the accuracy limitations of the model. There is no public storm drain system available adjacent to this site that we can connect into. There are no viable options except overland flow. And furthermore historically this property was developed prior to 7-Eleven, and it is our belief that the developer of 7-Eleven took into account the offsite drainage at that time. It would appear that the old house roof drained directly onto the neighboring property.

- 7) How will roof drainage be managed from the proposed building?

There are no gutters proposed for the main roof. Roof runoff will fall to a stone drip edge around the building. The rear roof scupper will be directed to the infiltration pond.

- 8) The existing site includes a utility pole that provides overhead service (presumably both electrical and telecommunications) to buildings on three adjacent properties. The plan calls for eliminating this pole and the associated existing overhead services; however, it does not address how new services will be provided to all adjacent properties, specifically the 7-Eleven store.

The owner is working with CMP and 7-Eleven for a new service connection

- 9) The Grading and Utility Plan (Sheet 3 of 5) proposes grading well onto the lot that is N/F Kristine McCarthy (93-95 Cumberland); however, no finish surface is specified and it is unclear if the Applicant has rights to perform this work.

We are working with the abutters on temporary grading easements. The adjacent land at 93-95 Cumberland is used for parking and most likely be a crush gravel surface.