



PLANNING & DEVELOPMENT

Date: October 4, 2023

To: Wayne S. Garrick, AIA

From: Maureen FitzGerald, Environmental Planner *MF*

Re: **Inland Wetland Application #23-08: 33 Kenyon Road**
Proposed Construction of New Building, parking, stormwater swale and utilities

Application Review Comments:

The following review comments address the application materials received by the Conservation Commission on September 28, 2023.

- 1) Staff has requested the wetland boundary be reviewed by the wetland scientist and re-marked in the field as the boundary flags are no longer apparent. **COMPLETED. SEE DOCUMENTS.**
- 2) The proposed construction impacts 450 sq. ft of inland wetland area. The application should provide a discussion of alternatives considered to avoid or reduce wetland impact and any measures considered to mitigate for unavoidable wetland impacts. The Conservation Commission will need to evaluate the impacts to determine if the proposal involves a significant wetland impact activity per Section 2.32 of the regulations. **A NEW REPLACEMENT WETLAND AREA HAS BEEN PROPOSED / DESIGNED. SEE DOCUMENTS.**
- 3) To minimize direct discharge of stormwater to the seasonally ponded wetland area east of the swale, the opportunity to direct the swale discharge to the upland vegetated areas north and south of the on-site wetland to provide additional stormwater renovation should be evaluated. **PLEASE SEE NEXT PAGE. ***
- 4) The stormwater treatment system is proposed as an infiltration swale. Infiltration testing of in-situ soils has not been conducted to verify infiltration rates will meet CT DEEP Stormwater Manual (2004) criteria. The soil is classified as hydrologic group C, which has a minimum infiltration rate below the DEEP recommended 0.3 inch/hr. Saturated soil conditions were evident in the area of the proposed swale location in October 2023. The DEEP design criteria recommend infiltration areas be a minimum of 3 ft. above seasonal high groundwater, as documented by on-site soil testing. It is recommended this field testing be conducted during this design phase to verify stormwater infiltration can be utilized at this location. An alternate wet-bottom swale or basin design may be better suited to conditions. **REVISED. NO LONGER APPLICABLE.**
- 5) Inclusion of biofiltration media into the swale construction is suggested to increase sediment and nutrient removal efficiency. Soil media recommendations from UNH Stormwater Center publications 2016 and 2020 recommend thicker soil media depth and reduced compost component. **NO LONGER APPLICABLE.**
- 6) The swale cumulative volume as presented in drainage calculations is less than the calculated water quality volume. The water quality volume from the post-construction condition should be captured and treated prior to discharge to wetlands. **REVISED. SEE DOCUMENTS.**
- 7) The application should address the anticipated percent pollutant removal for the proposed stormwater treatment swale. **SEE DOCUMENTS.**

- 8) The ESC plan for project construction needs to include proposed stockpile locations and indicate the proposed temporary protections for the stormwater swale during construction. **REVISED.**

SEE SHEET C2.1

- 9) A Site Stormwater Management manual is required per Section 25.6 of the zoning regulations. The O&M portion of this manual should include timing, frequency of inspection and maintenance tasks for the stormwater treatment system and LID components. Drainage calculations should demonstrate the design attenuates the 10-yr, 25-yr and 100-yr storm frequency to predevelopment discharge rates.

DOCUMENT INCLUDED. SEE DOCUMENT FOLDER.

- 10) The final plan requires the signature of the wetland /soil scientist responsible for the wetland boundary delineation. **SEE REPORTS.**

**

**

**

Cc: Michael J. Ott, P.E.
James Sipperly, Wetland Scientist

[Signature]
1.17.24

- * 3) The stormwater wetland is designed to temporarily store and then infiltrate the water quality volume portion of rainfall events. That volume is presumed to be treated. Only stormwater runoff from the portion of rainfall events greater than the water quality volume will be directed to the inland wetland to the east. The southern third of the stormwater wetland berm length directs stormwater runoff to the immediately adjacent inland wetland and the remaining northern portion directs stormwater runoff over relatively flat, heavily vegetated ground surface cover areas before entering the inland wetland.