



**Planning & Development**  
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**Memo**

Date: November 10, 2022

To: Planning Board

From: Michael G. Livingston, Town Engineer/Planner

Re: Westhaven Preserve Subdivision – Map 60, Lot 10  
Stormwater Management and Design Review

**Information Provided**

- Design Plans by Walsh Engineering, Dated 9/21/22:
  - Existing conditions Drainage Plan, Sht. D1.0 dated 8/25/22
  - Proposed conditions Drainage Plan, Sht. D2.0 dated 8/25/22
- Stormwater Management Report dated August 25, 2022 by Connor A. Ritter. PE # 17329 of Walsh Engineering

**Analysis**

**Methodology:**

- HydroCAD model good
- Rainfall intensity rates good
- Water Quality approach good
- Analysis Points good, consistent pre vs post
- Total area slightly different pre vs post but insignificant

**Pre-Development:**

- Basin Limits good except for question on northwest corner of 1.1. Ground shots or inspection needed to confirm if flow path and basin limit extends onto abutting property
- Flows path good
- Areas good

**Post-Development:**

- Developed areas well isolated to convey stormwater to detention and treatment measures
- Consistent analysis points with pre-development model
- Subcatchment areas well modelled
- Flow paths good.
- Ponds (25 year Event):
  - All ponds modelled at cul-de-sac and culverts have peak elevations less than the surrounding grades or road, good
  - All level spreaders and forested buffers well modelled. Exfiltration rate across forested buffers reasonable due to well drained soils.

Results:

Quantity calculations indicate no increase in estimated peak flow rates for the 2, 10 and 25 year storm events for AP 1, 2 and 3, see Table in report, page 2 and conclusion on page 3.

The use of level lip spreaders and forested buffers provides good stormwater treatment.

The stormwater management plan meets Town ordinances.

Operation and Maintenance Plan:

Included in stormwater management report is Appendix D, Inspection and Maintenance Plan. The Plan consists of written narratives, inspection requirements and sample maintenance logs. Good.

Erosion and Sedimentation Control Plan:

Erosion control barriers and stabilized entrance depicted on Sht. C3.2  
Notes and details located on Sht.'s C3.2, C5.0, C5.1

The information provided on the plans meet BMP and Town standards and requirements.

Design:

The limits of Basin 1.1 and flow path to be confirmed. Redirection of the flow to remain on the subdivision property may be necessary with the installation of a swale or berm.

All other components of the on-site drainage system meet Town requirements.

Additional information needed on the Route 109 storm drain system relocation in regard to the possible conflict with the natural gas line.

Conclusion:

With the items above addressed. The Plans and information submitted will meet the Town requirements.