

Memorandum



To: Brenda Ayers, Town of Burke
From: Anne Anderson, Mead & Hunt, Inc.
Date: September 12, 2019
Subject: Sachs CSM, Stormwater Analysis

The property located at 3285 Nelson Road owned by Peter Sachs and Chelsea Sachs (Owner) has submitted a stormwater analysis comparing the existing condition to the proposed developed condition. The submittal was sent on 9/3/2019 with a revision sent on 9/11. This memo includes Mead & Hunt's review of the stormwater calculations in response to the memo sent on July 9, 20149 and email on August 19, 2019 after a site visit.

The existing and proposed drainage-way located within the CSM property was modeled for peak flow and peak elevation for the 1-year, 25-year and 100-year recurrence intervals as requested. The calculation includes impervious area for the proposed lots and extension of Sunnyburke Drive. A summary of peak elevations is provided in the table below. There is no significant change reported in the peak elevation within the existing drainage channel. The drainage channel is conveying stormwater runoff to the abutting drainage-way to the west above elevation 954.06.

Table 1 - Drainage Way Maximum Elevations

Storm Event (Back-to-back storms)	Existing Condition Max. Elevation	Proposed Condition Max. Elevation	Change in Elevation
1-year, 24-hour	954.37	954.39	0.02
25-year, 24-hour	954.70	954.70	0.00
100-year, 24-hour	954.88	954.88	0.00

The request was to keep the peak elevation below 955.00 during back-to-back 100-year storm events. The property located at 5401 Sunnyburke has a lower level surveyed at elevation 955.85. The analysis reports a peak elevation of 954.88 which is below 955.00 and therefore meets the request.

Based on the concurrence with the stormwater analysis reported above, the developer shall provide:

- 1) An updated CSM to include a drainage-way easement which will include the drainageway located in Lot 1. The drainageway shall encompass all of the area bounded by the back-to-back 25-year storm event, elevation 954.70. The drainage-way easement shall contain specific language as approved by the Town.
- 2) Developer's Agreement
- 3) Maintenance Agreement

Please feel free to contact me with questions,

Anne Anderson

Attachments:

CSM Memo

Email to clarify CSM Memo

Calculations submitted by Quam

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