

Memo

Date: September 10, 2022

To:, Karen Isherwood, Geoff Haworth..

CC: Bruce Webb, Paul Foley, David Davignon, Claire Hoozeboom Michael J. Carter

From: John Rockwell

Re: 2 Starboard Drive – Notice of Intent, DEP# 23-1398, Fairhaven CON 023-315, Hydrology Review, GCG ASSOCIATES, INC. dated March 21, 2023

In the review of the above referenced project, I feel an explanation of the Conservation Commission permitting regarding stormwater management systems is in order. This particular project is under the concurrent jurisdiction of the Planning Board and Conservation Commission. While the Commission has elected to have the Planning Board do the primary review of this project through the firm of GCG, Inc., the Conservation Commission has a separate permitting process and procedures that are somewhat different from the Planning Board.

Subdivisions greater than 4 lots in size that are within 100 feet of wetland resources, or within Land Subject to Coastal Storm Flowage must adhere to the Massachusetts Stormwater Standards in the Massachusetts Stormwater Handbook (MSH). In addition to the MSH, the Commission also will be utilizing the *FEMA Free-of-Obstruction Requirements* in NFIP Technical Bulletin 5 / March 2020, as this project is in a VE flood zone.

On page 3 of the March 21 review letter comment #3 states:

“198-31.1. C.(2)(g)[6][d] - Design standards require all basins/ponds designed for stormwater runoff control shall have side slopes at a no steeper than a 4H:1V grade. Ponds A & B have 3H:1V side slopes. [Waiver requested. The proposed 3H:1V side slope meets the Massachusetts Stormwater Handbook requirements. Granting the waiver should not have any adverse impacts to the basin system.](#)”

As noted above, the Commission decision making process is in some way fashioned by the *FEMA Free-of-Obstruction Requirements*. These requirements state “[Slopes of 1 unit vertical to 3 units horizontal \(or steeper\) can produce appreciable wave runup.](#) (*emphasis added*) Conversely, slopes shallower than 1 unit vertical to 5 units horizontal (regardless of fill height) will probably not cause or worsen wave runup or wave reflection capable of damaging adjacent buildings.” (p.41)

On page 4 of the March 21 review letter comment #5 states:

“Detention Ponds A & B as shown are infiltration basins, both ponds do not have the 1-foot of freeboard required (MSH Vol.2, Ch.2, Pg. 90). The emergency spillway should be sized based on Brimful conditions. [Basin ‘A’ was designed as an infiltration basin. This basin has 0.5’ freeboard and 1 foot is required by the MSH. A waiver has been requested. The emergency spillway was sized to accommodate the brimful conditions without overtopping the earth berm.](#)”

Please note that the Planning Board has no authority to grant a waiver to MSH requirements for applications to the Conservation Commission.

On page 5 of the March 21 review letter comment #5 states:

198-31.1 (Article 37) – Amendments. 198-31.1. (1)B(1) - Proposed roadway pavement is classified as new-development and requires a 90% TSS removal and 60% of Total Phosphorus, based on average annual load. The applicant is considering this development as redevelopment and requesting the Planning Board treat it as such. GCG’s interpretation of the new-development condition was based on the MSH which considers all new pavement as new development. However, if a development proposes gravel roadway in a new project, the Town would be most likely to treat it as an impervious surface. Therefore, CCG does not object to the argument that this is a redevelopment project. Nevertheless, the status should be decided by the Board.

The application before the Commission is for “demolition of existing single-family dwellings, vegetation clearing and grading, construction of a paved subdivision road, new septic systems and reconstruction of an existing leaching field, utilities, and stormwater management features at the above-referenced site in Fairhaven.” This is a new development condition for the purposes of the MSH (as noted in the comments above.)

As to the issue of compliance with the stricter standards of the Fairhaven Stormwater Bylaw (Chapter 194) and the Stormwater Management provisions of Chapter 198, the Conservation Commission review follows a somewhat indirect path to require compliance with the town stormwater standards. Below are the most pertinent sections of The Buffer Regulations, and Fairhaven Wetlands Bylaw (Chapter 192) Buffer Regulations.

5.0 25 to 50 Foot Buffer Zone Resource Area

- 5.3 The Commission may condition the applicant to use Best Management Practices (BMPs) for stormwater management consistent with the best available data, most up-to-date local and state stormwater regulations, and taking into account impacts from climate change. Stormwater management systems or individual components, including drainage piping and construction of detention/retention ponds, shall be allowed by the Commission based on an alternative analysis and review of design and space limitations as indicated in the final approved plans.

There is no language in the Commission regulations that provides for a Planning Board waiver to limit a Commission request under Chapter 192 to the applicant to “use Best Management Practices (BMPs) for stormwater management.”

- According to the applicant’s application the following waivers are required:
 - B. (3) (c) [2] [b] – 10-year volume control has not been provided
 - C. Design Standards
 - (1) (a) 10-year volume control has not been provided
 - (2) (k) [d] 4 foot deep forebay has not been provided
 - (2) (m) [7] 12-inch reinforced concrete drainage pipe has not been provided

- 198-31.1. A.(1)(b) Water Quality – the first flush of stormwater runoff should be treated prior to discharge off-site

I recommend that the Commission review a waiver request when submitted) from the standards specified in Chapter 198 prior to a final design, as the decision of the Commission will /will not require a plan revision prior to the issuance of the Order of Conditions.

[The applicant must first submit a waiver request from the standards specified in Chapter 198, which should include how the level of protection to the wetland values of the bylaw will be protected to a no lesser extent, than if the standards were met.]