

July 13, 2022
21429

Maureen O'Meara, Town Planner
Town of Cape Elizabeth
320 Ocean House Road
P.O. Box 6260
Cape Elizabeth, Maine 04107

**Subject: Carr Woods Condominium Development - Deep Brook Road
Major Subdivision and Resource Protection Permit Review**

Dear Maureen:

We have received and reviewed a July 1, 2022 submission package for the subject project. The package included the following items:

- A July 1, 2022 response letter from William Gerrish of Northeast Civil Solutions with supporting documentation;
- and a June 30, 2022 Sight Distance Evaluation letter addressed to Jim Fisher of Northeast Civil Solutions as prepared by William Bray of Barton & Loguidice with supporting documentation

This response package was prepared to address comments received at the June 21, 2022 Planning Board meeting. Based on our review of the submitted material and the project's conformance to the technical requirements of Section 16-2-4, Major Subdivision Review and Sec. 19-8-3, Resource Protection Permit Standards, we offer the following comments:

1. The applicant is proposing to construct an approximately 1,800 linear foot private roadway, named Deep Brook Road, to serve a multi-unit residential subdivision development consisting of 2-single units, 6-duplexes, 1-fourplex building, and one existing house for a total of 19- residential units on a 14.3-acre mostly wooded parcel with access off Shore Road.
2. The current submission package addresses four topics including open space provisions, stormwater mitigation structures, an intersection sight distance evaluation, and wetland mapping. As the project team is engaging directly with the Planning Board on the open space issue and we understand that the Town's soils scientist will be attending the upcoming Planning Board meeting to discuss the project's wetland mapping, we have focused our review on the stormwater structures and the sight distance evaluation topics.

3. The project team has conducted several test pits at the site including more recent test pits in the proposed stormwater structure areas. These test pits revealed a potential for seasonal high groundwater to affect the function of the four Underdrained Soil Filters proposed for this project. These soil filters are designed to filter the runoff in the upper soil media layer of the filter to provide water quality treatment. The filtered stormwater is collected by perforated underdrain pipes embedded in crushed stone in the bottom layer of the Underdrained Soil Filter. The collected water is then conveyed through the filter's outlet control structure and discharged from the soil filter through an outlet pipe connected to the outlet control structure.

The common practice in situations where high groundwater may affect the function of an Underdrained Soil Filter is to install an impermeable liner around the filter which prevents the surface water being treated within the soil filter to intermingle with the groundwater surrounding the filter. In doing so, the surface water is collected, treated, and conveyed to the receiving areas without being impacted by the high groundwater table.

It should also be noted that as the proposed project includes over 1-acre of impervious area, a Maine Department of Environmental Protection (DEP) Stormwater permit will also be required to be obtained by the applicant prior to construction. Therefore, the proposed Stormwater Management Plan will also be extensively reviewed by the DEP Staff.

4. The proposed location for the Deep Brook Road intersection has been shifted northerly since the April 2021 Traffic Impact Study was prepared for this project. Therefore, a June 30, 2022 Sight Distance Evaluation letter has been submitted which discusses the available sight distances from the current proposed location of Deep Brook Road with Shore Road. We have reviewed the evaluation letter in which the Consultant provides required sight distance for both MaineDOT (250-feet) and Cape Elizabeth standards (200-feet) and reports available sight distance for the more conservative MaineDOT standard.

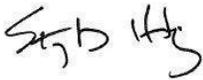
A Professional Transportation Engineer on our staff, Nikki Conant, also visited the site to assess the proposed intersection location sight distances. The measured site distance to the right (i.e., southerly) was in excess of 400 feet as was noted by the Consultant. Vegetation currently restricts sight distance to the left (i.e., northerly), however with vegetation removal as recommended by the Consultant, the sight distance in this direction should exceed 250 feet. As the Consultant's letter notes, the available sight distance to the north is temporarily restricted by a large tree on the Lawrence Property. This situation is allowed under Cape Elizabeth Ordinance Section 16-3-2 which states that "Isolated interruptions of minimal time duration in sight distance due to obstructions such as a single tree, shall not be included in the measurement of sight distance".

Therefore, we concur with the Consultant's conclusion that there is adequate sight distance at the currently proposed location of Deep Brook Drive to meet the MaineDOT and Town of Cape Elizabeth standards provided that the Consultant's recommendations are followed. These recommendations include that a painted stop bar and 30-inch "STOP" sign be installed at the intersection and that the low-level vegetation at the proposed intersection location be cut back within the provided sight triangle to ensure vehicle sight lines are maintained. In a subsequent submission, the project designer should add these recommended elements to the plans along with the reported sight distances.

We trust that these comments will assist the Board during their deliberations on this project. Should there be any questions or comments regarding our review, please do not hesitate to contact us.

Sincerely,

SEBAGO TECHNICS, INC.



Stephen D. Harding, P.E.
Town Engineer

SDH:sdh

cc: Bill Gerrish, Northeast Civil Solutions
Jay Reynolds, Public Works Director
Nikki Conant, Sebago Technics
Kristie Rabasca, Integrated Environmental Engineering