CMA ENGINEERS, INC.
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January 14, 2022

Barrington Planning Board
Attention: John Huckins and Barbara Irvine
P.O. Box 660
333 Calef Highway
Barrington, NH 03825

Re: Meadowbrook Village Conservation Subdivision Review #3
44 Meadowbrook Drive
Map 270, Lot 2 & 3, Tax Map 273 Lot 49
Owner: 21 Boylston Street, LLC
CMA # 1205 Task 7

Dear Members of the Barrington Planning Board:

At the Town's request, and in accordance with Task Order 7 of our engineering services agreement, CMA Engineers reviewed materials supporting the development of a proposed 11-unit conservation subdivision off Meadowbrook Drive in Barrington. At the request of the Town, CMA Engineers focused the review on the site drainage and stormwater management.

Background

The proposed site plan was presented to the Barrington Planning Board by Jones and Beach Engineers, LLC on behalf of 21 Boylston Street, LLC. The proposed development is accessed off existing Meadowbrook Drive via a 690-foot cul-de-sac. The project is a conservation subdivision consisting of eleven building lots (one unit is existing). Individual water supply wells and septic systems are proposed for each lot. For fire suppression, the applicant proposes a cistern installation at the center of the cul-de-sac.

On December 9, 2021, we submitted a review comments letter to the Board for consideration. Subsequently, Jones and Beach modified the plan set, dated December 23, 2021, they submitted it for review on January 5, 2022. Jones and Beach provided additional information and edits based on our review letter dated January 11, 2022, on January 13, 2022. This is our third review for the project, and it focuses on the edits from January 13, 2022.

For this evaluation, we reviewed the following information:

1. *BMP Worksheet*
2. *Plans C3, D2 and D3 revised per Town Review January 13, 2022.*

We have the following comments:

BMP Worksheet

The hydraulic residence time (HRT) of the water quality flow in the dual treatment swales is 7 minutes. In order to achieve treatment per the NHDES Stormwater Manual, the HRT should be greater than or equal to 10 minutes. The feature provides some but not all of the targeted treatment. The applicant should address additional pretreatment, or provide a rational for the lesser treatment of the current design. Perhaps, treating the flow off the north side of the roadway with a sediment forebay prior to discharge to the culvert and treatment swale could be one approach.

The flow depth is the swales is less than 4" as required. The applicant might provide the stage-discharge table as backup, although a flow depth of 2.4" is satisfactory.

Sheets C3, D2 and D3:

The applicant has added a level spreader lined with fabric and riprap, to provide elevation control at the culvert outlet prior to the vegetated swale inlet. This feature should help to split the flow evenly to each swale.

Detention Basin #1 Detail on Sheet D3 has been modified schematically to reflect the proposed elevations of the pond bottom and the outlet pipe.

Should you have any questions, please do not hesitate to contact us.

Sincerely yours,

CMA ENGINEERS, INC.

Jodie Bray Strickland, P.E.
Senior Project Engineer

William A. Straub, P.E.
Principal

cc Barry Gier, P.E.