



~~November 8, 2023~~

Revised: November 29, 2023

Vanessa Price, Town Planner
Town of Barrington
4 Signature Drive
Barrington, NH 03825

**RE: Town of Barrington, Planning Board Services
Site Plan Review
Young Road (Tax Map 240, Lot 8)
CMA #1205.35**

Dear Ms. Price:

CMA Engineers has received the following information for site plan review of a proposed conservation subdivision on Young Road in Barrington, NH (Tax Map 240, Lot 8):

- 1) Plans titled "Conservation Subdivision for Paul Thibodeau," dated February 15, 2023, revised August 21, 2023, prepared by Berry Surveying & Engineering
- 2) Drainage Analysis & Erosion and Sediment Control Plan, dated September 19, 2023, prepared by Berry Surveying & Engineering
- 3) Trip Generation and Distribution Analysis, dated August 21, 2023, prepared by Berry Surveying & Engineering

We have reviewed the information submitted for conformance with Barrington Site Plan and Subdivision Regulations, NHDES New Hampshire Stormwater Manual, and general engineering practices and offer the comments below.

General

The Applicant, Paul Thibodeau of Barrington, NH, is proposing the creation of a conservation subdivision consisting of twenty-three (23) individual lots on Young Road in Barrington. The conservation subdivision is proposed on Tax Map 240, Lot 8, which is an existing vacant lot with an area of approximately 65.55 acres.

The site was surveyed by Berry Surveying & Engineering in October of 2022, and wetlands were delineated by John Hayes, CWS, during the summer of 2022.

Approved Variances and Waivers:

On January 18, 2023, the Barrington Zoning Board of Adjustment approved the following three variances and one special exception as requested by the applicant. On October 17, 2023, the Barrington Planning Board:

- Article 6, Section 6.2.6 – Perimeter buffer to permit driveways within the front buffer of a conservation subdivision.

- Article 6, Section 6.2.6 – Perimeter buffer to permit the front buffer to be reduced to 40' on certain lots in the conservation subdivision.
- Article 6, Section 6.2.6 – Perimeter buffer to permit the front buffer to be used in the lot areas in a conservation subdivision.
- Special exception to Article 4, Section 1.3 to allow shared access point and shared driveways.
- Waiver to Section 8.1 to allow sight distances to be consistent with common practice.

Subdivision Regulations:

Article 7 Additional Information and Studies

7.3 Stormwater Management Plan

A Stormwater Management Plan is required for projects disturbing more than 20,000 square feet and in the construction of roads and driveways. The Applicant should submit a Stormwater Management Plan or request a waiver from this requirement.

7.6 Environmental Impact Assessment

The lot being developed includes a Prime Wetland, and a large portion of it includes wetlands with proposed building lots up to the Prime Wetland and Wetland buffers. Since these are environmentally sensitive areas, the Planning Board should consider requiring an Environmental Impact Assessment to be completed and submitted to the Planning Board for review.

Article 10 Conservation Subdivision

10.4 Lot Layout

The proposed conservation subdivision layout has all the lots being accessed from Young Road and not from a dedicated development road as is typical. Additionally, with the proposed lots being accessed from Young Road, the proposed subdivision does not follow the provided concepts shown in Figures 2B, 2C, and 2D, so the Planning Board should determine whether this alternative layout is acceptable and whether the Applicant should submit a variance from this regulation.

Article 11 Design and Construction Standards

11.2 Lot Shape and Site Layout

11.2.2 Lot Shape

- 11.2.2(2) To the maximum extent possible, all new lots shall be rectangular in nature; however, the nine proposed backlots do not meet this requirement.
- 11.2.2(3) No portion of a lot created under these regulations shall be less than 75 feet in width, except as provided for in Subsection 11.2.4. This Subsection limits a subdivision to two backlots; however, the Applicant is proposing nine backlots, so seven of the proposed backlots do not meet the lot shape requirement.
- 11.2.2(4) The lot length-to-width ratio should generally not exceed three-to-one (3:1); however, the nine proposed backlots do not meet this requirement.

11.2.4 Backlots Permitted

Backlots are permitted as part of a conventional subdivision, but the Applicant should confirm with the Town that backlots are permitted in an open space conservation subdivision.

- 11.2.4(6) Only one backlot subdivision shall be permitted regardless of the number of separate yet contiguous lots under the same ownership. The Applicant is proposing nine backlot properties.

Article 12 Road Design & Construction Standards

12.8 Road Construction Standards

12.8.3 Pavement

Include all pavement material, joint adhesive, and tack coat requirements to ensure conformance with Town regulations.

Article 15 Subsurface Sewage System Design Standards

15.4 Design Requirements.

Some of the proposed leaching areas are oddly shaped. Can the subsurface disposal systems be constructed to fit within these areas, and is all of the area available for the system's installation?

In general, the depth to the seasonal highwater table (SHWT) is shallow and most of the site is sloped. Can a leach field be constructed meeting the State's separation requirements and graded to meet site constraints?

Does the State allow for portions of the subsurface disposal system to be under driveways?

Drainage Calculation Review:

1. 4.0 Erosion and Sediment Control Plan & BMPs section does not appear to be tailored to the project. Reference is made to a Grading Plan and an Erosion & Sediment Control Plan, neither of which appear in the plan set. Further, the Perimeter Control section references a rain garden and says the location of perimeter sediment control is demonstrated on the plan. Please ensure the drainage report accurately reflects what is proposed.
2. The pre/post-watershed analyses should be limited to the area being impacted by the project, and not be expanded to include the entire watershed flowing to Richardson Pond. With this change, there will be multiple discharge analysis points from the development. Also, with the proposed change in land use (i.e. buildings, driveways, and clearing), it is unlikely the pre/post-watershed analyses will show no increase in runoff without some form of detention/treatment.
3. Runoff generated by the development shall be collected/treated before it flows offsite.

Traffic Impact Analysis Review:

1. Confirm that all proposed driveways meet the sight distance requirements for the required length. I.e., For Lot 8-22, it appears there is a depression along the sight distance that would not meet object height requirement.
2. Are there any high accident locations in the study area?

Plan Set:

1. General
 - a. Provide proposed grading plans for driveways to ensure compliance with Town of Barrington driveway regulations.
 - b. Sections of existing stone wall that are to be removed should be noted as such on the plans.
 - c. Erosion and sediment controls should be shown on the plans.
 - d. There is dark hatching throughout the existing contours – add to the legend with description.
 - e. In a standard conservation subdivision, the lots are accessed off the development road, generally a cul-de-sac, so traffic volumes are low and driveway density from the reduced lot frontage isn't an issue. However, all the proposed lots are accessed from Young Road which is a heavily trafficked Town road, so the proposed reduced lot frontage increases the driveway density creating a safety and aesthetic issue. With minor changes to the driveway layout, the number of curb cuts onto Young Road can be reduced from the proposed thirteen to at least ten.
2. Existing Conditions Plans (Sheets 5-8)
 - a. Call out existing trail. Is there an easement associated with the trail?
3. Overview Subdivision Plan (Sheets 10)
 - a. On the plan, include site topography with hatching on slopes greater than 35%, and provide yield calculations, so the proposed number of lots can be confirmed.
4. Easement Plans (Sheets 14-16)
 - a. Some sections of stone wall appear to be faded back. Are these sections to be removed? Add to the legend with description.
5. Topography Plans (Sheets 17-20)
 - a. Include proposed building footprints and contours, so they can be seen in relation to the driveways, well protection radii, and leaching areas.
 - b. Provide existing and proposed tree lines on topography plans.
 - c. Several driveways have higher proposed elevations than the existing ground, but no culverts are proposed. Confirm that proposed driveways will not impede the path of stormwater runoff.
 - d. Considering the existing site topography, can leach fields, and their necessary grading, be constructed without impacting buffers, natural features, etc.
6. Sight Distance Plan, Sheet 33
 - a. There is an existing cross-road culvert that drains onto proposed Lot 8-12. It is unclear how proposed construction would affect flow from this culvert. Consider if a drainage easement should be added to the lot to ensure flow from the culvert is not interrupted.
7. Details (Sheets 47-49)
 - a. There are several details provided for features that do not appear in the plan set (e.g. masonry endwall, flared end section, typical pipe trenches, riprap lined swale, outlet protection, etc.). Details should be tailored to the project.
 - b. Include a Private Drive and a Driveway Typical Sections.
 - c. The construction sequence should be project specific.

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

Very truly yours,
CMA ENGINEERS, INC.



Benjamin C. Clark, PE
Project Manager



Josh W. Bouchard, PE
Project Manager

cc: Chris Berry, Berry Surveying & Engineering