



January 25, 2022

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

**Re: 2A Tactical, LLC Major Site Plan Review
Route 125 & Bumford Road
Map 251, Lot 63
Owner: Steven & Pamela Lenzi, TRS Revocable Trust
CMA # 1205 Task 12**

Dear Members of the Barrington Planning Board:

At the Town's request, and in accordance with Task Order 12 of our engineering services agreement, CMA Engineers reviewed materials supporting the development of a proposed building construction at the intersection of NH Route 125 and Bumford Road.

Background

The proposed site plan was presented to the Barrington Planning Board by N.H. Land Consultants of Northwood, NH on behalf of 2A Tactical, LLC. The proposed building is accessed off NH Route 125 with a second access to storage trailers off Bumford Road. The proposed project includes construction of a 6,000 square foot, two story building with 11,080 square feet of usable space. The building will house 4,120 square feet of office/classroom space, 2,624 square feet of retail space, 3,376 square feet of warehouse/storage space, and 960 square feet of gunsmithing space. The development will be served by a private water supply well and an on-site septic system.

There are wetlands on site and all proposed improvements are located outside of wetland setback limits. The project proposal includes a comprehensive stormwater management system. Components of the stormwater system include catch basins, closed drainage and overland flow, which directs all stormwater flow to a stormwater infiltration pond with forebay for treatment

For this evaluation, we reviewed the following information that was provided to us:

- 1) Cover letter and Project Application
- 2) Plan set titled Proposed Site Plan for 2A Tactical, LLC Map 270 Lot 2 & 3, Tax Map 251, Lot 63, Barrington NH. Prepared by NH Land Consultants, Dated July 13, 2021, and revised December 15, 2021.
- 3) Drainage Report prepared by Bernie Temple, P.E. dated July 12, 2021, and revised September 10, 2021, and December 3, 2021.

We have reviewed the submitted information listed above for conformance with the Town of Barrington, NH Site Plan Review Regulations, which reference guidance documents that have been superseded by the New Hampshire Stormwater Manual including Best Management Practices (BMP), which in turn reference the NHDES Administrative Rule Chapter Env-Wq 1500 Alteration of Terrain (AoT) Regulations. While this project may not require a NHDES AoT permit, the performance standards of the Stormwater Manual have been assumed to apply based on current applicable practices for land development.

Article 3 Site Plan Specifications & Documents

3.3 Existing Conditions Plan

3.3(13) There are wetlands shown on site. Information regarding wetland criteria and the Wetland Scientist certification should be provided on the plan.

3.5 Improvement Plans

3.5.11(1) The number of spaces on the east of the side is listed as 16 when 15 spaces are shown.

3.6 Construction Detail Drawings

3.6(1) A portion of Bumford Road is being reconstructed as part of the project. A cross-section detail for this reconstruction should be provided.

3.6(14) Details of the septic system structures should be provided.

3.9 Site Plan Documents and Reports

3.9(7) The applicant's transmittal indicated that a traffic study was included. We did not receive a copy of the traffic study, and consequently, it was not reviewed for conformance with the Ordinances.

Article 4 Design and Construction Standards

4.6 Sewage Disposal

4.6.1 The applicant should provide certifications from the Town and NHDES as required.

4.7 Drainage System

4.7.2(3) Please provide the pipe summary table in accordance with the Ordinances.

4.7.2(4) Please provide the swale summary table in accordance with the Ordinances.

4.7.8 The catch basins are deeper than the 18" maximum specified in the Ordinance. In addition, the catch basin detail should include the polyethylene liner downspout per the Ordinances.

4.8 Access

4.8.2(1) Does the project require a Town Driveway Permit for access off of Bumford Road? An NHDOT Driveway Permit for access from Route 125 is pending.

4.8.2(2) Driveway widths and should be shown on the plans.

4.9 Off-Street Parking and Loading Standards

4.9.4(2) Disabled parking sign details should be included in the plans.

4.9.5(1) Driveway widths should be shown on the plans.

4.9.7(1) The applicant should provide interior parking lot landscaping calculations to show conformance with the Ordinances.

4.9.7(4) The applicant should provide deciduous shade trees in internal parking lot landscaping and the calculations in accordance with the Ordinances.

4.9.7(5) The applicant should provide calculations to show that the perimeter shade trees requirement is met.

4.9.13(1) The proposed number of parking spaces (40) exceeds the amount required (29) spaces by more than 10%. The total number of spaces should be modified to meet the requirement or the need for the excess approved by the Planning Board.

4.10 Landscaping Design and Screening Standards

4.10 The applicant's transmittal indicated a landscaping report was provided; this is also noted on the Landscape Plan (Sheet 8 of 18). We did not receive a copy of the landscape report and consequently have not reviewed it for conformance with the Ordinances.

4.12 Outdoor Lighting Design Standards

4.12.2 According to Table 7, it appears that the site parking is classified as a low activity level. In accordance with standards set in the table, maximum illuminance should be 0.8 footcandles (proposed maximum is 3.6 footcandles). The average is 0.5 per the table (proposed average is 1.93 footcandles). The maximum/minimum ratio (U-Ratio) should be 4:1 per the table (proposed is 5.14). The site lighting should be reconfigured to meet the requirements of the Ordinance.

4.12.2(1)&(3) The applicant should indicate whether the proposed lighting meets the standards in the Ordinance of full cut-off fixtures in the parking area and full cut-off or shielded type on the building.

4.14 Traffic Impact Analysis and Mitigation Standards

4.14.2 The applicant's transmittal indicated that a traffic study was included. We did not receive a copy of the traffic study, and consequently, it was not reviewed for conformance with the Ordinances.

4.15 Additional Standards

4.15.1 The applicant should indicate where snow storage is located on the plan.

Review of Drainage Analysis

The proposed stormwater treatment system uses both closed and open flow to convey stormwater to an infiltration pond with sediment forebay. The proposed system is comprehensive, well designed, and effectively treats all stormwater generated on site without any increases in peak runoff rates.

In addition to the above comments that relate to the Ordinances, we have the following minor comments as they relate to the drainage design per the NHDES Stormwater Manual:

Test Pits and Infiltration Feasibility:

From the test pit data and approximate existing ground elevations, the ESHWT at Test Pit #2 is about El. 166.4 and Test Pit #3 is about El. 164.7'; however, the infiltration feasibility report lists the SHWT as El. 166'. The proposed pond bottom is El. 169', so based on the information provided, there is not the required 3' of separation between the pond bottom and SHWT. The infiltration pond should be raised approximately 6 inches, so it meets the separation requirement.

BMP Worksheet:

The E_{rock} elevation is blank and the D_{rock} elevation is incorrectly listed as El. 169.00'; the E_{rock} elevation should be listed as El. 169.00' and the D_{rock} elevation is 3.00'.

Plans:

Sheet VPAP:

- The northern drive's stop bar is further back than the Bumford Road stop bar. The applicant should explain the difference between the two or make the setback from the edge of pavement the same.

Sheet DET-1:

- Typical Roadway Section references outdated pavement mixes (Type B and Type F). The mixes should be updated to match current NHDOT nomenclature.
- Stop Bar Detail
 - Is dimensioned at 1'-6" wide, but then the leader calls it out at 12". This should be clarified.
 - The stop bar is dimensioned at 4' from EOP, it but doesn't match either the driveway or Bumford stop bar offsets. This should be clarified, and site plan updated to match.

Sheet DET-5:

- Infiltration Basin Detail has a 50-year storm elevation of 171.37', but the BMP worksheet lists the 50-year elevation in the pond as El. 171.42'. Please clarify.
- Infiltration Basin Detail has a pond bottom elevation of 168.0', but the BMP worksheet (and Infiltration Feasibility Study) list the pond elevation as 169.00'. Please clarify.
- The BMP worksheet lists the elevation of the top of the practice as 172.42', but the Infiltration Basin Detail has the elevation of the top of the berm as 172.37' and the Detention Basin Overflow Wier (sic) Detail shows a top of berm elevation of 172.23'. Please clarify.
- Infiltration Basin Detail has an Overflow Spillway elevation of 535.8' but the Overflow Weir elevation on the Grading Drainage & Erosion Control Plan, Sheet PGP, is shown as 171.87' and shown as 171.73' on the Detention Basin Overflow Wier (sic) detail. Please clarify.
- Overflow Weir Detail is labeled a Detention Basin Overflow Wier (sic). This should be changed to Infiltration Basin Overflow Weir. In addition, weir is misspelled (wier).
- Infiltration Basin Detail has an overflow spillway breadth of 4', but the breadth on the Detention Basin Overflow Wier (sic) detail is shown as 6'. In addition, the limits of the breadth are shown to extend beyond the edge of the weir on one side. Please clarify.
- The Infiltration Pond Outlet Structure shows a grate elevation of 171.25' on the cross section but an elevation of 171.0' on the plan view. Please clarify.
- The Infiltration Pond Outlet Structure cross section shows the invert out of the outlet structure schematically at the same elevation as the pond bottom (169.0') but the invert out is 167.0'.
- The Impervious Core and Soil detail is not properly labeled, and the label is not separate from the notes header. In addition, the features on the right and left of the detail should be labeled (outlet structure, etc.).

Sheet DET-6:

- On the Forebay Section detail, forebay is spelled incorrectly (forbay).
- There are two Temporary Fabric Siltation Fence details; one appears to be a sediment trap and is incorrectly labeled.

Pre- and Post-Development Drainage Area Plans:

The labels on the Post-Development Routing Diagram and Post Development Drainage Area Plan do not match.


There are no times of concentrations shown on the Predevelopment Drainage Area Plan.

There are no ponds, reaches or times of concentrations shown on the Post Development Drainage Area Plan.

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: Scott Frankiewicz, LLS
Bernie Temple, P.E.

JBS/rol