

July 15, 2025

Groton Planning Board
c/o Mr. Takashi Tada
Land Use Director/Town Planner
173 Main Street
Groton, MA 01450

RE: Nitsch Project #13346.36
Nashoba Satellite
Emergency Facility
Major Site Plan and
Special Permit Review
Groton, MA

Dear Planning Board Members:

Nitsch Engineering (Nitsch) has received and reviewed the following documents:

1. Major Site Plan and Special Permit Applications, dated June 23, 2025, and prepared by Vanasse Hangen Brustlin, Inc (VHB);
2. The Site Plans (the Plans) entitled "Nashoba Satellite Emergency Facility" (25 sheets), dated June 23, 2025, and prepared by VHB;
3. Stormwater Management Report (271 pages), dated June 23, 2025, and prepared by VHB; and
4. Traffic Impact Assessment (169 pages), dated June 20, 2025, and prepared by VHB.

Nitsch has reviewed the Plans and supporting documents to determine conformance to the following:

1. "Zoning Bylaw", Chapter 218 from the Code of the Town of Groton, latest version; and
2. "Site Plan Review", Chapter 381, Part 5 from the Code of the Town of Groton, latest version.

Nitsch is conducting a review of the Traffic Impact Assessment and will provide a separate review letter with our comments to the Planning Board. Nitsch is also conducting a review of the stormwater management system design and will provide a separate review letter with our comments to the Earth Removal Stormwater Advisory Committee.

WAIVERS REQUESTED BY THE APPLICANT

1. Section 218-6.2 – A waiver is being requested to allow the front yard setback to be more than 20 feet.

Nitsch takes no exceptions to this waiver request and defers to the Planning Board for their decision.

Based on our review, Nitsch offers the following comments:

ZONING

Nitsch does not have any comments related to Zoning.

SITE PLAN REVIEW

1. Section 381-25.B.(1) states that the type of pipe allowable for storm drains shall be limited to reinforced concrete pipe (RCP) conforming to ASTM C-76.

The drainage pipes shown in the Grading and Drainage Plan (Sheet C501) do not indicate the type of piping used. The Applicant should add a label to the Plans to indicate RCP drain pipes. If a different pipe material is proposed they should still label the Plans and also request a waiver from this Section.

2. Section 381-39.H. states the site plan application should include a cut and fill analysis of the existing and proposed topography.

The Plans should be updated to include a cut and fill analysis for the proposed site grading design.

3. Section 381-39.M. states the submission should include information on snow removal and snow storage areas.

The Plans should be updated to include snow storage areas, and the Applicant should provide information on snow removal operations.

4. Section 381-40.A.(1) states every effort shall be made to retain and protect existing trees, shrubs, and other landscape features on a site. Trees with 12-inch caliper or larger shall not be removed unless it can be demonstrated that such removal is necessary for the location of structures, roads, driveways, utilities, and it can be further demonstrated that there were no alternatives to said removal.

The Plans show several trees 12-inch caliper or larger will need to be removed to accommodate the proposed construction. The Applicant should confirm which trees 12-inch caliper or larger will need to be removed, which can be saved, and they should demonstrate there are no alternatives to said removal.

5. Section 381-40.A.(5) states parking lots containing 10 or more parking spaces shall have at least one tree per eight parking spaces. Such trees shall have at least a four-inch trunk diameter.

While the west parking lot appears to have an adequate number of trees, the north parking lot does not. The Plans should be updated to provide enough proposed trees to meet this Section. Also, the tree sizes should be updated to be at least 4-inch caliper.

6. Section 381-40.B. states site lighting shall be shielded to prevent glare, and it shall be compliant with the International Dark-Sky Association (IDA) Fixture Seal of Approval program certification standards.

The Applicant should confirm all site lighting fixtures are cut-off style and are compliant with IDA standards.

7. Section 381-40.B.(2) states site lighting illumination levels for access roads and parking areas should be 0.5 footcandle minimum.

Some portions of the site roadways and parking areas have lighting illumination levels less than 0.5 footcandle. The Plans should be updated to maintain illumination levels in these areas of 0.5 footcandle minimum.

8. Section 381-40.B.(3) states site lighting illumination levels for walkways should be 1.0 footcandle minimum.

Some portions of the site walkways have lighting illumination levels less than 1.0 footcandle. The Plans should be updated to maintain illumination levels in these areas of 1.0 footcandle minimum.

9. Section 381-40.B.(4) states the plan shall indicate the light hours of operation including shut-off times.

The Plans should be updated to indicate the light hours of operation including shut-off times.

10. Section 381-40.D.(9)(b) states asphalt pavement for roadways and parking lots shall consist of 2.5-inch binder (intermediate) course and 1.5-inch top (surface) course.

The Plans should be updated to note these pavement thicknesses for all roadway and parking areas.

11. Section 381-40.G. states retaining walls shall not exceed a height of four feet.

The Plans show a retaining wall on the south edge of the site that exceeds four feet in height. The Plans should be updated to reduce the height of this retaining wall, or the Applicant should request a waiver from this Section.

GENERAL COMMENTS

12. Where 2.5-inch asphalt binder (intermediate) course is utilized, it should be Superpave 19.0 MM. This mix will result in a pavement thickness approximately three times the largest aggregate size, which is recommended.
13. The electric vehicle parking space near the northwest corner of the proposed building appears to also be an accessible parking space. Accessible signage and pavement markings should be provided at this parking space.

RECOMMENDATIONS

Nitsch recommends the outstanding items noted above be addressed by the Applicant prior to the Planning Board granting approval of the Major Site Plan and Special Permit for the Nashoba Satellite Emergency Facility.

If the Planning Board has any questions, please let us know.

Very truly yours,

Nitsch Engineering, Inc.



Rones Lubin
Senior Project Designer

Approved by:



Jared E. Gentilucci, PE, CPESC, LEED AP BD+C
Deputy Director of Civil Engineering

RL/jeg