



July 31, 2025

Ref: 16694.00

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

Re: Nashoba Satellite Emergency Facility, 490 Main Street, Groton MA, MA

Dear Mr. Takashi Tada:

On behalf of UMass Memorial Health Care, (the "Applicant"), VHB is pleased to provide the following responses to the peer review letter prepared by Nitsch Engineering, dated July 15, 2025, regarding the proposed Nashoba Satellite Emergency Facility in Groton, MA (the "Project").

Attached please find the following materials to support the design modifications:

- › Revised Site Plans for the Project dated July 31, 2024 (the "Revised Site Plans"); and,
- › Revised Stormwater Management Report for the Project dated July 2025 (the "Revised Stormwater Report").

For ease of reference, VHB has provided a copy of each comment in italics followed by VHB's response in bold text.

## Site Plan Review

Comment 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"*

Response: **Sheet C101, Legend and General Notes, Utility Note 7C identifies all storm drainage piping shall be high density polyethylene (HDPE). The Project proposes private site development with no proposed drainage piping within any public roadway. Accordingly, the Applicant will request a waiver from Section 381-25.B.(1).**

Comment 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."*

Response: **"Earthworks Cut & Fill Analysis" has been added to Sheet C501, Grading and Drainage Plan.**



Comment 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."*

Response: **Snow storage areas have been added to the Site Plans on Sheet C401, Layout and Materials Plan. Snow cleared from the site will be stored in locations which allow it to drain back into the site's stormwater management system prior to discharge. Snow storage will not be allowed within wetland areas. If snow accumulation exceeds storage capacity on site, then snow will be trucked off site for removal.**

Comment 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."*

Response: **Nearly all existing trees and vegetation on the Site will be removed to accommodate the Project. The Site is relatively small in size and uniquely configured with an existing wetland at the centroid and a proposed helipad at the east. The entirety of the wetland buffer zone overgrown with invasive species which are required by the Conservation Commission to be removed as part of the Project (including mature trees which are invasive). The Site includes significant topography and the Project will require regrading throughout to accommodate the Project. The Project will intentionally make every effort to protect four (4) mature trees along the perimeter of the Site, including a 12" Maple, a 2" Maple, a 40" Maple, and a 36" Pine. Each of these four trees are identified on Sheet C301 Erosion and Sedimentation Control Plan with tree protection fencing shown. All other existing trees on Site will be removed to accommodate site grading, proposed structures, roads, driveways, utilities, and helicopter flight path.**

Comment 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."*



Response: **The Project proposes a helipad with an associated flight path which passes over the north parking lot. Accordingly, trees were intentionally not proposed in this area to avoid conflicts with the helicopter flight path. The Site Plans have been updated to include 4" caliper trees. A table showing calculations to provide trees to meet requirements has been included. Required trees that cannot be planted around parking due to the flight path are located elsewhere on site.**

Comment 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."*

Response: **All exterior lighting fixtures proposed for the Project are listed in the "Lighting Fixture Schedule" on Sheet SL-1. All exterior lighting fixtures are cut-off style and are compliant with IDA standards.**

Comment 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."*

Response: **The site lighting design has been modified as shown on sheet SL-1 to provide minimum 0.5 footcandle in all site roadway and parking areas.**

Comment 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."*

Response: **The site lighting design has been modified as shown on sheet SL-1 to provide minimum 1.0 footcandle in all site walkway areas.**

Comment 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."*

Response: **Notes have been added to sheet SL-1 indicating the anticipated exterior lighting operations. The lighting will be fully programmable and modifiable so operations can be adjusted as needed.**

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Comment 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."*

Response: **The Project proposes private site development only and is not anticipated to accommodate heavy truck activity. Accordingly, the Project is requesting a waiver from Section 381-40.D.(9)(b) and proposes to provide 1.5-inch binder course and 1.5 inch top course pavement thickness for all roadway and parking areas.**

Comment 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."*

Response: **The Applicant will request a waiver from Section 381-40.G so that proposed retaining walls may exceed a height of four feet.**

Comment 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."*

Response: **The Applicant is requesting a waiver from using 2.5-inch asphalt binder course and therefore will proceed with Superpave 12.0 MM, if the waiver is granted. If the waiver is not granted and the Applicant is required to provide the 2.5-inch asphalt binder course, then Superpave 19.0 MM will be utilized.**

Comment 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."*

Response: **The electric vehicle parking space near the northwest corner of the proposed building was designed to be accessible and not to be reserved, consistent with US Access Board guidelines. A sign is proposed which indicates "USE LAST DESIGNED FOR ACCESSIBILITY".**

If you require additional information, please feel free to contact me at (508) 513-2721 or [bgesner@vhb.com](mailto:bgesner@vhb.com).

Sincerely,

A handwritten signature in black ink that reads "Brittany Gesner". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Brittany Gesner, PE

Project Manager