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October 15, 2025
6842

Groton Planning Board
Groton Earth Removal Stormwater Advisory Committee
Groton Conservation Commission
173 Main Street
Groton, MA 01450

RE: 500 Main Street – Fox Howe Groton
Peer Review Response
Groton, MA

Dear Members of the Board & Commission:

We have received review comment response letters from Nitsch Engineering regarding the above-mentioned project dated September 25th & October 7th, 2025. This letter also addresses comments received from the Planning Board during the opening public hearing on September 25th, 2025. We have addressed all plan modifications in the latest revision of plans and have summarized the changes below. The review comments are *italicized* with the responses from Dillis & Roy below them in **bold**.

Nitsch Engineering – Waivers Requested by the Applicant

1. *Section 218-7.5.D.(5) – A waiver is being requested to allow the proposed building height to exceed the maximum allowable height of 55 feet.*

   Nitsch takes no exceptions to this waiver request.
   D&R – Acknowledged.

2. *Section 218-7.5.D.(6) – A waiver is being requested to allow building structures to be located less than 20 feet from each other.*

   Nitsch takes no exceptions to this waiver request.
   D&R – Acknowledged.

3. *Sections 218-2.8.G.(2)(e) and 381-39.O. – A waiver is being requested from the requirement to prepare an assessment of traffic impacts and safety conditions (traffic study).*

   Nitsch takes no exceptions to this waiver request provided the recommendations from the original traffic study peer review have been addressed to the Planning Board's satisfaction.

D&R – Acknowledged. The original recommendations from the previously conducted traffic study have been included in the proposed site plans. This is a result of the proposed entrance at Main Street remaining unchanged from the original Comprehensive Permit project, including work within the R.O.W.

4. *Section 381-40.A.(5) – A waiver is being requested to allow less than 5% landscape area within the interior of a parking lot that contains 25 or more spaces.*

   Nitsch recommends the Applicant consider options for increasing the interior landscape area at parking lots to meet this Section, especially considering the proposed parking space count exceeds the required amount.
   D&R – The project has been revised to propose 6.4% interior landscaping. As such, this waiver is no longer being requested.

5. *Section 381-40.G. – A waiver is being requested to allow the proposed retaining wall adjacent to the wet basin to exceed 4 feet in height.*

   Nitsch takes no exceptions to this waiver request provided this retaining wall is designed by a Professional Engineer licensed in the State of Massachusetts.
   D&R – Acknowledged. The site plans have been revised to note that the retaining wall must be designed by a licensed professional engineer in the State of Massachusetts.

Nitsch Engineering – Zoning

Nitsch does not have any comments related to zoning.

Nitsch Engineering – Major Site Plan Review

6. *Section 381-40.B.(2) states access road/parking lighting shall be 0.5 footcandle minimum (maintained).*

   Portions of the site roadway and parking lots have lighting levels below 0.5 footcandle. The Plans should be updated to provide this minimum lighting level.
   D&R – Plans have been updated to meet the minimum lighting levels required. Please review lighting statistics on sheet L500 - overall lighting plan. Parking lots are now AVG. 2.5 fc, Max 9.8 fc, Min .5 fc.

7. *Section 381-40.B.(3) states walkway lighting shall be 1.0 footcandle minimum (maintained).*

   Several walkways throughout the site have lighting levels below 1.0 footcandles. The Plans should be updated to provide this minimum lighting level.
   D&R – Plans have been revised to provide a minimum light level on all walkways, except for the walkway around the pickleball court and dog park, to maintain a rural setting. A proposed pole light will illuminate the dog park.

8. *Section 381-40.B.(4) states that the Plans shall indicate the light hours of operation, especially shut off times.*

   The Plans do not include the light hours of operation and shut off times. Nitsch recommends the Plans be updated to include this information.
   D&R – Plans have been updated to propose a timed dimmer to all site lighting between the hours of 11 pm and 6am. Lighting will be dimmed to 70%.

9. *Section 381-40.D.(7) states curbing shall be vertical granite curb unless waiver by the Planning Board for low impact development (LID) drainage systems.*

   The Applicant is proposing a mix of vertical granite curb, bituminous Cape Cod berm, and concrete curb. The Applicant should update the Plans to comply with this Section or request a waiver from the Planning Board. Since the Owner will be responsible for maintenance of all onsite curb, Nitsch would take no exceptions to this waiver request.
   D&R – The Applicant respectfully requests a waiver from this Section as they take full responsibility for maintaining all on-site curbing.

10. *Section 381-40.D.(10)(b) states sidewalks shall have a foundation of at least 8 inches of gravel or crushed stone.*

    The concrete sidewalk detail indicates a 4-inch minimum gravel base. The Applicant should update this detail to show 8 inches for the gravel base.
    D&R – The concrete sidewalk detail has been revised to show 8 inches for the gravel base.

Nitsch Engineering – Site Plan Review - General Comments

11. *The Applicant should confirm with the Groton Fire Department that the number of fire hydrants provided is acceptable for the entirety of the site*
    D&R – The design team has met with the Groton Fire Department to confirm the number and location of proposed fire hydrants. The Utility Plans have been revised accordingly.

Nitsch Engineering – Groton Stormwater Design Criteria and the Massachusetts Stormwater Management Standards

12. *Section 352-24.D.(1) states that all drain pipes shall be at least 12 inches inside diameter and made of reinforced concrete conforming to Massachusetts Department of Transportation specifications for Class III pipe or such higher class as may be required by the depth of cover, which shall be not less than 36 inches where the pipe is subject to vehicular loads.*

    The Plans indicate drain pipe material to be high density polyethylene (HDPE) per Drainage Note #1 on Sheet C101. The Applicant should revise the Plans to comply with this section or request a waiver from the Earth Removal Stormwater Advisory Committee. Nitsch would take no exceptions to this waiver request as HDPE is a common drain pipe material.

D&R – The Applicant respectfully requests a waiver from this Section.

Nitsch Engineering – Stormwater Management – General Comments

13. *The Stormwater Pollution Prevention Plan (SWPPP) should be submitted before construction begins to address pollution prevention measures. Nitsch recommends this requirement be included as a condition of the stormwater management permit.*
    D&R – Acknowledged. The Applicant takes no exceptions to this requirement.

14. *The labels for Flared End Section (FES) 6 and FES-7 have been swapped and do not align with their callouts from the Drain Manhole (DMH) 15 and DMH-16 labels.*
    D&R – The labels have been corrected.

15. *Details for the emergency overflow spillways and yard drains should be provided.*
    D&R – The subject details have been added to the revised plan set. Please refer to Plan Sheet C802 & C803.

16. *The rim and invert elevations for the yard drains and sizes of their connected drain pipes were not provided. The Applicant should update the Plans with these elevations and drain pipe sizes*
    D&R – The site plans have been revised to include rim and invert elevations for all yard drains. The associated drainage pipes have been labeled & were added to the drainage pipe schedule.

17. *In the HydroCAD model for Constructed Stormwater Wetland #1, the length of the overflow weir does not match the Plans. Also, the model includes three 12-inch outlet pipes while the Plans only show one 12-inch outlet pipe.*
    D&R – The length of the overflow weir has been reduced to 20-feet. The plans have been revised for consistency regarding the new length. The HydroCAD model has been revised to one 12-inch outlet pipe.

18. *In the HydroCAD model for Constructed Stormwater Wetland #2, the length and breadth of the overflow weir do not match the Plans. Also, the top of Outlet Control Structure (OCS) #2 should be modeled as a grate and not a sharp-crested rectangular weir.*
    D&R – The HydroCAD model & plans have been revised to communicate an overflow weir of 20-foot length and 16-foot breadth. The subject outlet in (OCS #2) within the HydroCAD model was revised from a sharp-crested rectangular weir to a grate.

19. *In the HydroCAD model for the Wet Basin, the v-notch weir at OCS-1 should have a crest length of 3 inches (structure wall thickness) and a rise of 6 inches (height of v-notch). Also, the top of OCS-1 should be modeled as a grate and not a broad-crested rectangular weir.*
    D&R – The proposed Wet Basin outlets within the HydroCAD model have been revised accordingly.

20. *The Wet Basin has been provided with less than one foot of freeboard.*

D&R – The proposed wet basin was designed with a storage volume up to elevation 220.00. The peak elevation on the 100-year storm is modeled at 217.78. The sediment forebay overflow berm is proposed at 218.00. The wet basin provides 2.22-feet of freeboard.

21. *On Sheet C501 the end of drain pipe (DP) 43 is in the wetland resource area.*
    D&R – DP-43 is a proposed replacement of an existing drainage pipe from the existing stormwater management area. The proposed work includes the removal of the existing pipe and the replacement to match current pipe size (15"), outlet elevation and location.

22. *On Sheet C502 the rim elevation for OCS-1 should be 216.00 to match the detail and HydroCAD model.*
    D&R – The label has been corrected to match the detail & HydroCAD model.

23. *On Sheet C503 the dimension for the spillway length should be aligned with the beginning and end of the spillway.*
    D&R – The label has been corrected.

24. *On Sheet C803 the 24-inch outlet pipe on the Wet Basin detail should have an invert of 214.00 to match the drain pipe table on Sheet C502 and the HydroCAD model.*
    D&R – The Wet Basin Berm Cross-Section has been revised accordingly.

25. *The water quality volume calculation should be provided for each treatment BMP (two constructed wetlands and wet basin) to confirm they are properly treating the impervious area that drains to each BMP.*
    D&R – Water quality volume calculations have been provided for each treatment BMP. Please refer to the attached revised Stormwater Report, Appendix F.

Groton Planning Board – September 25th, 2025 Public Hearing – General Comments

26. *(Russ) Provide EV charger locations.*
    D&R – A total of 12 parking stalls have been dedicated to electric vehicle charging stations. They have been distributed throughout the parking lots accordingly.

27. *(Phil) Revise the renderings to show the proposed detention basin on the northwesterly side of the entrance road.*
    D&R – The subject rendering has been updated to show the proposed detention basin.

28. *(Phil) Explain how recently proposed fire access lanes will affect impervious area.*
    D&R – The proposed fire access lanes provided a minimal increase in overall impervious area (+3,175 SF). The added impervious was offset by reconfiguring landscaped islands to provide additional interior landscaping.

29. *(Matthew) Provide a bus stop location.*
    D&R – A preliminary bus stop location has been identified on the plans.

30. *(Lorayne) Provide a playground location.*
    D&R –If demographics show a large number of children residing in the proposed development, accommodations will be made to construct a playground.

31. *(Lorayne) Provide sample floor plans.*
    D&R – Please refer to the revised Architectural Drawing Sheet A401 for typical unit plans for each unit type and various sample unit plan layouts. Typical unit layouts will be selected & designed during the design phase.

32. *(Lorayne) Provide additional evergreen plantings to the proposed plant mix*
    D&R – Additional evergreen plantings have been proposed throughout the development. Please refer to the attached revised Landscaping Plans.

33. *(Lorayne) Provide additional lighting details*
    D&R – Additional lighting details have been provided on the revised Photometric Plans.

Additional Plan Related Revisions (Civil)

34. *The proposed water main has been reconfigured after meeting with Groton Water Department.*
35. *The proposed fire access lanes have been added to the rear of the apartment building after meeting with Groton Fire Department.*
36. *The exterior detached garages have been relocated outside of the Buffer Zone.*
37. *The western apartment parking lot has been reconfigured to include a new entrance and/or exit drive.*
38. *The eastern apartment parking lot has been revised to include additional landscaped islands and to rework the parking in front of the main entrance to improve vehicle turning maneuverability.*
39. *Transformer locations and proposed conduit lines have been depicted after meeting with Groton Electric Light Department.*

Additional Plan Related Revisions (Architectural)

40. *A105 – 6ft wide emergency roof egress corridor has been added to the East building roof by separating its roof structure into two per the fire chief request.*
41. *A120 – Updated to match civil site plan revision.*
42. *A121– Updated to match civil site plan revision.*
43. *A201 – Updated to reflect the roof plan revision for the emergency egress.*
44. *A300 – A Diagram of thermal envelope and screen has been added.*
45. *A401 – This is a new sheet for sample unit plans.*
46. *A900.1 – The new storm water wetland next to the access road has been added to the rendering.*
47. *A900.6 –Design of stone wall sign and townhome corner next to the access road has been refined in the rendering.*

We trust this meets your needs at this time. If you have any questions or require any additional information, please contact the undersigned

Regards,
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Civil Design Group, Inc.

Ryan Vickers, E.I.T.
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Principal

cc: Mr. Takashi Tada – Groton Land Use Director / Town Planner (via email)
Mr. Jared E. Gentilucci, PE, CPESC, LEED AP BD+C – Nitsch Engineering (via email)