

June 17, 2021

Town of Lynnfield Planning Board
c/o Ms. Emilie Cademartori, Director of Planning and Conservation
Town Hall, 55 Summer Street
Lynnfield, MA 01940

Re: Initial Review of Definitive Subdivision Filing
109 Lowell Street, Vallis Way, Lynnfield, MA

Dear Planning Board Members:

This correspondence is submitted to you in accordance with our proposal dated May 24, 2021. Authorization to proceed with the work outlined in our proposal was received by our firm via email on Tuesday, June 1, 2021. Hard copy of all the materials necessary for our review was received by our firm from the Planning Board on Thursday, June 3, 2021. Electronic files for our review were received on Tuesday, June 1, 2021, from the Applicant's Engineer. A site walk was held on Friday, June 11 and was attended by the Planning Board members and staff, the Owner/Applicant, a representative from the Applicant's Engineer and Linden Engineering.

This initial review of the Definitive Subdivision filing is being conducted to address larger issues related to compliance of the project, plans, and submitted data with the requirements of the Town of Lynnfield, MA Rules and Regulations Chapter 375, Subdivision Regulations, Chapter 213, Storm Water Management and by reference the Massachusetts Department of Environmental Protection (DEP) 2008 Stormwater Regulations and Handbook.

These initial comments are intended to address issues and waivers that, depending on the decisions made by the Planning Board, could change the subdivision design and plans. When revised plans and information addressing these comments are received we will then address detailed comments on all aspects of the subdivision plans, calculations and documentation.

INITIAL COMMENTS:

The following are our initial comments and observations on the plans and filing with respect to the requirements of the Subdivision Regulations and standard engineering practice. The numbered comments listed below are comments that require a response from the Applicant and/or his Engineer.

1. The exact status of the large land area containing the home, pool area and tennis courts (remaining Vallis property) on the subdivision plans as filed is not clear. The Vallis lot (approximately 3 acres) is not shown as an abutting property with an owner's name, address and an Assessor's Map and Parcel number nor is the property shown as a proposed lot within the subdivision. It is my understanding that an Approval Not Required plan creating the Vallis lot as a separate parcel was presented to and approved by the Planning Board late last year (I believe that this is the November 2020 plan referenced on the subdivision plan). However, we have found no evidence that this plan was recorded at the Registry of Deeds and no evidence that the portion of the property containing the roadway and the other five lots was placed in separate ownership.

It is our opinion that unless the ANR Plan is recorded at the Registry of Deeds and the subdivision lots and roadway are transferred to a separate entity, the Vallis lot is part of the land being subdivided and

needs to be shown as a lot within the subdivision. This property should be labeled as a lot and the data tables, applications, forms, fees paid, etc. should all be revised to reflect this as being a six (or more if the Vallis Lot is shown being further subdivided) lot subdivision.

In addition, the stormwater calculations presented with the subdivision filing should account for the future subdivision of this lot into as many as three additional lots with their additional impervious area (beyond any roof areas which should be required by the HOA to be fully infiltrated). The lot should also be included in any Home Owners Agreement approved by the Planning Board and the future subdivision of the parcel, if any, should be addressed by that Agreement.

2. Based on the discussion at the Planning Board hearing conducted on May 26, 2021, it appears that the Planning Board may be in favor of eliminating the roadway extension/connection to the abutting Sagamore Spring Real Estate Trust property (golf course). We strongly suggest that the planning Board consider a motion at the continued public hearing to indicate to the Applicant and their Engineers that this roadway connection is being waived by the Planning Board and should be removed from the plans. Revised plans indicating the removal of this connection should be prepared and filed with the Planning Board. If the elimination of this roadway enables the length of the cul-de-sac to be shortened then the cul-de-sac should be revised as well.

Further, if the elimination of this connection and the potential shortening of the roadway length allows Lot 5 to be reconfigured into a more traditional configuration then Lot 5 should also be revised. The Applicant's Engineer should also take a second look at the configuration of the roadway infiltration basin to see if it can be expanded into the area where the roadway connection was located and made more linear along the property line.

3. Based on the discussion at the Planning Board hearing conducted on May 26, 2021, it appears that the Planning Board may be in favor of granting a waiver for the length of the dead-end roadway. We strongly suggest that the Planning Board consider a motion at the continued public hearing to indicate to the Applicant and their Engineers that the length of the roadway in excess of 500 feet is being waived by the Planning Board and the plan as presented (or as modified based on removing the roadway connection to the abutting property) is acceptable to the Planning Board.
4. The Applicant's Attorney should address the encroachment onto Lot 3 by the abutting property at 6 Mohawk Lane. If there is a legitimate adverse possession claim by that abutter against the Vallis property then potentially Lot 3 would not have sufficient area to meet the required minimum lot area set forth in the Zoning Bylaw.
5. A written opinion regarding the conformance of Lot 5, as configured, with the requirements of the Town of Lynnfield Zoning Bylaw should be obtained from the Building Inspector.
6. It is our understanding, based on comments made by John Ogren at the Planning Board hearing conducted on May 26, 2021, that the roof drainage system and septic system proposed on Lot 5 will be modified. The revised subdivision plans should show the modified locations of the systems.
7. The Subdivision Rules and Regulations state the plans shall show, "*Location, DBH (diameter at breast height) and species of any Significant Tree, any tree with a DBH greater than 12 inches within the proposed right-of-way, easement areas, or on neighboring properties within 10 feet of the proposed right-of-way or easement areas, or located within a woodland. All trees determined to be Significant Tree by the Planning Board shall be noted on the definitive plan when submitted*". Has the Planning Board determined if there are or are not any "Significant Trees" as defined by the Subdivision Regulations on the property? Is the Planning Board amenable to waiving the requirements to show

trees >12" DBH in the wooded areas? Should trees within some distance of the perimeter of the property (for example Lot 5 on the southern and eastern property lines) be shown in wooded areas? Is the Planning Board in favor of the road being located as shown or would the Board be in favor of moving the road to save certain trees? All of these questions affect what is shown on the plans and the design of the subdivision.

8. The Stormwater Report (SWR) filed with the subdivision plans contains test pit data for test pits SWMA 1, 2 & 3, however, the locations of these test pits are not shown on the subdivision plan and there are sheets from the standard test pit reporting forms that were not included (depths to soil horizons, specific soil categories, etc.) in the SWR. The subdivision plans do show several test pits on the lots which appear to have been performed for the proposed septic systems on the five lots, however, no test pit logs for these test pits were provide. Test Pit Logs for all the test pits excavated on the property should be provided as part of the soil data portion of the SWR. The Applicant's Engineers should also confirm that no test pits were conducted for the proposed roof drain infiltration systems shown on the plan or if conducted they should be shown on the plan and the test pit logs provide.

In addition, on the site walk we noted that monitoring wells were installed in the test pits for the Stormwater Management Area. Readings from these monitoring wells should be provided in the SWR.

9. The Planning Board should seek a confirmatory opinion from Town Counsel as to whether this subdivision is required to conform to the recently approved changes to the Stormwater Bylaw and pending changes to the Stormwater Regulations. We believe that they do not.
10. We note that the emergency spillway for the Stormwater Management Area is located at the northwest corner of the property. Any discharge over this spillway from a combination of larger storm events will flow onto the adjacent property located at 18 Smith Farm Trail and on to the Sagamore Springs Real Estate Trust property. The Applicant's Legal Counsel should provide a memo to the Planning Board indicating their right to potentially discharge stormwater in a concentrated manner in this location as related to the Massachusetts General Laws and common law regarding the right to potentially discharge stormwater in this manner and any liability to the Town incurred by approving this plan. He should note in his memo that the stormwater discharge should it occur is being created in a concentrated location from areas which naturally drain to this location and additional areas which would not naturally drain to this location. The Applicant's Engineer should give consideration to creating a longer, more linear emergen ch spillway from the basin (which is excavated below the natural grade and not created by a built up berm).
11. The design information for the proposed roadway drainage system contained in the SWR is incomplete. The spreadsheet should include the runoff tributary to each catch basin or drainage inlet and calculations for the pipes connecting the catch basins or drainage inlets to the drain manholes and indicate which drainage areas are tributary to each location. A simple way to do this would be to include the roadway drainage system in the Hydro CAD modeling for the project. Inlet analysis/calculations should also be provided to demonstrate that the inlets are capable of accepting the flow from the 100 year storm and will not overflow to united destinations.
12. Safety concerns regarding the proposed roadway infiltration area should be addressed on the plan. This is a residential subdivision and the information submitted shows that the water depth in the proposed infiltration basin is over 3 feet in the 100 year storm. Are any mechanisms proposed to prevent children from wandering into this area.
13. The subdivision plans should also include a proposed easement for the drainage pipe/inlet located on Lot 5 opposite Station 2+0 of the proposed roadway.


14. The Applicant's Attorney should provide documentation for the legal right to construct the proposed water main connection to Smith Farm Trail and the existing easement should be shown on the plans with the legal reference.
15. The water/drain crossing conflict located at station 7+10± should be addressed.
16. The plans submitted do not show two benchmarks on stone bounds as required by the regulations.
17. All sheets of the plan need to be signed and stamped by the Massachusetts Professional Land Surveyor and Professional Engineer who is responsible for designing the subdivision as required by 375-6.3.A.5 of the Subdivision Regulations.
18. Detailed/enlarged grading plans need to be provided for the roadway intersection at Lowell Street and the cul-de-sac.
19. The Applicant's Engineer is encouraged to look at the roadway side slope on the eastern side of the roadway from Lowell Street to a point opposite Station 2+50± to see if the slope can be pulled closer to the roadway to minimize damage to the root systems of the trees located along the adjacent property line,
20. There appears to be a drafting error on the radius for Lot 3 on the roadway (R=401.16 shown vs 405.47 actual).
21. A statement should be added to the plans that there are no wetland boundaries located within 150 feet of the proposed subdivision or within 150 feet of any work. This statement should be based on an examination of the conditions on the ground by a qualified wetlands scientist,

We look forward to discussing the project, this initial report, and any questions that the Planning Board may have at the continued public hearing. We are available to discuss the project with the Applicant, the Town Engineer, the Applicant's Engineer and/or the Applicant's representatives, as necessary. If you have any questions regarding this matter, or should you require any additional information, please do not hesitate to contact our firm.

Very truly yours,

LINDEN ENGINEERING PARTNERS, LLC


William A. Jones, Sr. Partner


Richard G. Cutts, P.E., President

Cc: Mr. Charles L. Richter, P.E., Lynnfield Town Engineer