


MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP
Eliot Senor, P.E.
Dino & Michelle DeLaurentis

FROM: Joseph M. Cermele, P.E., CFM 
Kellard Sessions Consulting
Consulting Town Engineers

DATE: May 7, 2021

RE: Dino & Michelle DeLaurentis
21 Nethermont Avenue
Section 122.16, Block 4, Lot 41

As requested, Kellard Sessions Consulting has reviewed the site plan submitted in conjunction with the above-referenced project. The applicant is proposing the construction of a single-family dwelling on a vacant lot. Associated improvements include construction of a driveway, retaining walls, stormwater mitigation system and other appurtenances. The property is 9,361 s.f. in size and is located in the One Family, R-5, Zoning District.

Our comments are outlined below.

GENERAL COMMENTS

As the Planning Board is aware, this office last reviewed site plans for this application (last revised March 6, 2021) which, as described in our prior memorandum dated March 18, 2021, proposed a significant amount of fill, several retaining walls with heights of six (6) feet and presented concerns for sight lines for vehicles exiting the property from the proposed northerly access drive. Since that time, we had a Planning Board site walk on March 17, 2021 and this office had a technical review meeting with the owner and his consultant to review an alternative design to address comments provided during the site walk, primarily regarding sight lines and retaining walls. The alternative plan proposed a driveway entering from the south side of the property and fewer retaining walls with reduced height. We were under the impression that this alternative plan would be prepared for the Board's consideration. Instead, it seems the same plan, as originally proposed, has been submitted for further review, in addition to a Sight Distance Analysis plan for the alternative drive to support the applicant's position that the southerly drive does not resolve sight line

concerns. Minor modifications to the retaining walls are proposed as part of the alternative plan. It is not clear why the applicant has abandoned the alternative plan that seemed to address several of the above-mentioned concerns expressed by the Board, Town Planner and our office.

For ease of reference, we have provided our plan review comments from our March 18, 2021 memorandum below with additional comment in **bold** type.

1. As previously noted, the applicant has provided cut and fill volume estimates for the development indicating that the proposed plan requires the import of approximately 900 cubic yards of fill. Given the condition of the existing roadways in the neighborhood (narrow, winding, steep), this office is concerned with the amount of truck traffic required for delivery and potential damage to existing roads. We recommend that the application is referred to the Highway Department for review and comment.

The Fill Delivery and Material Staging Plan has been revised to indicate that 275 cubic yards of fill is now required. It is not clear how the reduction is realized given that there is no significant change to the plan. It is also not clear whether this calculation includes the excavation and fill required for the building foundation. The applicant should provide a cut/fill map for review and clarification and continue to seek comment from the Highway Department.

2. As previously requested, notes shall be added to the “Fill Delivery and Material Staging Plan” specifying compaction requirements and the fill material specifications.

Compaction requirements have been added as requested. However, the plan shall be revised to include the requested fill material specifications and requirements in accordance with Chapter 161: Filling and Grading related to fill delivery manifests and certification that the material complies with 6 NYCRR, Part 360.

3. As previously noted, the plan proposes tiered six (6) foot high retaining walls in the rear of the property, in close proximity to the property line. The Board should review the retaining wall layout and consider whether they are aesthetically pleasing and compatible with the surrounding residential character. Additional screening or other mitigation may be recommended. The Board may wish to consider reducing the height of the tiered walls or adding a third tier (three – 4 foot walls as opposed to two – 6 foot walls). The applicant should provide cross sections at appropriate locations through the site, front to back and left to right, for the Board’s understanding of how the proposed grading and retaining walls will relate to adjacent properties.

While minor modifications to the retaining wall layout have been proposed, it is our opinion that additional modifications can be made to further reduce the retaining walls along the property lines as well as to improve the proposed grading adjacent to the residence. As currently

proposed, the finished grade immediately falls from the foundation providing no level side yard and poor access to the proposed stairs at the northwest corner. The applicant may wish to consider shifting the wall along the side yard toward the home or adding a short second tier to flatten the proposed grades around the house. It also seems that the wall at the rear property line could be shifted further into the site to minimize visual impact to the adjoining property. The requested cross sections have not yet been provided.

4. As previously requested, for clarity and ease of review, the applicant shall provide a separate Site Plan and Grading and Utility Plan in addition to the Existing Conditions Plan. Due to the drawing scale and abundance of data included on a single sheet, it is difficult to decipher the various improvements from one another. The applicant should prepare a site plan that includes all proposed improvements, including, but not limited to, proposed residence, walkways, patios, driveway including dimensions, a zoning compliance table, the minimum building envelope illustrating building setbacks and dimensions, retaining walls and existing neighboring buildings and driveways. Proposed grading, utilities, erosion controls, etc., should be illustrated on separate plan sheets.

A Bulk Zoning Table has been provided; however, the references to Net Lot Area should be removed as they do not apply to single lots. The minimum required building envelop should be illustrated on the plan. The applicant has indicated that the information requested above will be submitted at a later date.

5. As previously requested, the net lot area calculations shall be removed from Sheet TS-1 “Existing Conditions, Topographic Survey & Steep Slope Analysis”, since that is only applicable to subdivisions.

The above requested revision has not been addressed.

6. The applicant shall demonstrate zoning compliance with respect to building height. As defined by Town Code, the average grade used to determine building height in cases where the finished ground level slopes away from the exterior walls, as this does, the average grade shall be the lowest point within six (6) feet from the perimeter of the building. The applicant has provided average grade calculations; however, it appears that the elevations were taken immediately adjacent to the building. The calculation and supporting data should be revised accordingly and verified by the Building Inspector.

The above requested revision has not been addressed.

7. The applicant shall provide a maximum wall height calculation to demonstrate compliance with Section 355-26 D, which limits height to 34 feet for the R-5, One-Family Residence Zoning District. Based on the building elevations provided, and the need to verify the average grade as noted above, the maximum wall height calculation should be provided to the Building Inspector for verification that an area variance would not be required.

The above requested revision has not been addressed.

8. As previously requested, sight distance profiles have been provided, however, they shall be corrected to illustrate adequate sight distance for a minimum of 200 feet in each direction. It is difficult to verify compliance based on the imagery provided. We would suggest importing the GIS topography and planimetric data to generate the profile as opposed to working from an image. The sight profile shall establish the driver's eye set 3.5 feet above grade, 14 feet back from the edge of the road with a line of sight to an object in the road 2 feet above grade. The elevations shall use the same datum as the submitted plans and correspond to the grades in the profiles.

The sight analysis plans for either the original or alternative driveway access do not illustrate all information necessary to properly evaluate the alternatives. The topography used for the analysis does not correspond to the proposed grading plan. It seems that rather than convert the Westchester County GIS data to the plan topography, the opposite was done. This should be corrected for consistency and coordination with the proposed plan. Neither alternative illustrates the dense vegetation that exists along the northern property line, much of which is on the adjoining property and not under the applicant's control. The alternative driveway plan notes that the sight lines are obscured to the north due to a minor conflict with the proposed driveway turnaround. It appears that this could be rectified as part of the proposed grading plan. Finally, both alternatives will require sight easements across the front yards of both neighboring properties. The applicant should update the Board regarding any conversations they may have had with the property owners, as well as any communication with the Town Highway Department regrading any required clearing in the Town right-of-way. If the minimum required sight distance cannot be obtained, the plan should illustrate the minimum that can be provided as an area variance would be required from the Zoning Board of Appeals.

9. This office is concerned with the apparent lack of adequate sight lines from the driveway as proposed. The topography and alignment of the existing road and the dense vegetation on adjacent properties will appear to hinder safe lines of sight in either direction. It appears that the plan will require significant removal of existing vegetation to provide the necessary sight distance, much of which is on adjacent properties or within the right-of-way and will require agreement by the neighbors and sight line easements. As previously recommend, the applicant should prepare an alternate plan for the Planning Board's consideration illustrating the driveway access from the

south side of the property toward the crest of the hill on Nethermont Avenue. We would recommend evaluating a driveway access with the grades descending from the road to lower the elevation of the site slightly, as well as the resulting elevation of residence to reduce the required fill and height of retaining walls.

This has not been addressed. See Comment No. 9 above. In addition, we note that the floor elevations for both alternatives in nearly the same. The applicant should consider revised grading schemes to raise the garage and first floor elevations of the alternative plan. Doing so would improve sight lines and reduce the grade of the drive.

10. As previously noted, a Landscaping Plan has been referenced but not submitted. The applicant shall submit a Landscape Plan and Restoration Plan, in accordance with Section 308.15.A(11) of the Town Code. The plan shall include a planting schedule that includes common name, scientific name, label symbol, size and quantity of proposed plants.

The requested Landscape Plan shall be provided and coordinated with the final plan layout.

11. As previously requested, the Tree Removal and Protection Plan and Summary Table shall be revised to include only trees on the subject property.

The plan has been updated to indicate that the entire site will be cleared of all existing trees. The Planning Board should discuss whether this is appropriate for the development.

12. As previously requested, the driveway platform width should be increased to a minimum of 25 feet for adequate maneuverability out of the garage.

The requested platform has been provided on the original plan but not dimensioned on the alternative plan for verification. Please clarify.

13. As previously requested, the invert elevations of the existing sanitary manholes in Nethermont Avenue shall be provided to verify the invert of the main line connection.

The requested information has been provided. We note that the cover depth over the low-pressure sewer ejector connection is minimal and will require adjustment as the plan develops.

14. As previously requested, illustrate the connection between the storm system in the driveway and the existing storm system in Nethermont Avenue. Provide invert elevations as appropriate.

It appears that the requested rim and invert elevations have been provided. We note, however, that the plan proposes to connect the discharge to the mitigation system directly to the pipe, as opposed to a manhole structure. The applicant may need to install a doghouse manhole on the existing storm line. The details of this construction can be reviewed with the Highway Department as the plan develops. We will defer detailed review of the Stormwater Report until an alternative has been selected for development. We note that the stormwater calculations provided on the plan sheets are illegible and should be removed. In addition, the hydrologic model proposes a single design point. Under existing conditions, the design point is at the base of the hill at the rear of the property where the entire site sheet flows toward. Under proposed conditions, however, there are two (2) design points; one at the front of the site where the collected runoff from the house and drive will discharge to the Town storm system, and a second at the base of the hill where the remainder of the site currently discharges. The hydrologic model and stormwater analysis shall be updated accordingly.

15. As previously noted, stormwater calculations have been submitted for mitigation of the 100-year design storm. It is noted, however, that the Hydrologic Soil Group (HSG) used for existing conditions differs from proposed conditions. Because the HSG is based on the underlying soils, the same HSG should be used for both existing and proposed conditions. The calculations shall be revised as necessary.

See Comment #14 above.

16. As previously noted, the stormwater design calculations shall include drainage maps for existing and proposed conditions to illustrate the drainage areas used in the design calculations.

The requested information has been provided and should be updated as the plan develops.

17. The plans shall include a note indicating the source of the survey and topographic data, including the referenced datum, utilized for the development of the plan.

The requested note has been added to Sheet SW-1.

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As additional information becomes available, we will continue our review. It is noted that an itemized response to all comments will facilitate completeness and efficiency of review.

PLANS REVIEWED, PREPARED BY GABRIEL E. SENOR, P.C., DATED APRIL 11, 2021:

- Existing Conditions, Topographical Survey, Tree Removals (TR-1)
- Existing Conditions, Topographical Survey & Steep Slope Analysis (TS-1)
- Stormwater Pollution Prevention Plan & Erosion Control Option 1 (SW-1)
- Stormwater Pollution Prevention Plan & Erosion Control (SW-2)
- Sight Distance Analysis – Option 1 (SD-1)
- Fill Delivery and Material Staging (FS-1)

JMC/dc

[https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Northcastle/Corresp/018SitePlans/2021-05-07_NCPB_DeLaurentis - 21 Nethermont Avenue_Review Memo.docx](https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Northcastle/Corresp/018SitePlans/2021-05-07_NCPB_DeLaurentis-21NethermontAvenue_ReviewMemo.docx)