


MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP
North Castle Conservation Board
Joseph Riina, P.E.
Paul Eisenberg

FROM: John Kellard, P.E. 
Kellard Sessions Consulting
Consulting Town Engineers

DATE: March 25, 2022
Updated June 9, 2022

RE: Paul Eisenberg
47 Windmill Road
Section 102.03, Block 1, Lot 1

As requested, Kellard Sessions Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The applicant is proposing to construct an addition to an existing residence with site improvements which include a driveway extension and drive court (circle) within the front of the residence, new retaining walls and regrading of the rear yard. The property is ±1.86 acres in size and located in the R1.5-A Zoning District. The rear yard fronts on Long Pond and a watercourse/wetlands flows through the eastern portion of the site. Wetlands were delineated by Beth Evans Associates in October 2020. Impervious surfaces will be increased by 1,543 s.f. for the proposed additions and 5,105 s.f. for the proposed driveway expansion. Portions of the site are designated FEMA Zone A 100-year floodplain. The applicant is proposing a stormwater infiltration system to mitigate the increased runoff.

The applicant has submitted an Alternate Site Plan for the project. The plan was developed after the Planning Board's site visit to the project site. The Alternate Plan includes:

- **Modification of the building addition which provides a front entry garage instead of the previously proposed side entry garage. The addition appears to be twice the size of the originally proposed addition. A raised deck is proposed around the garage. The garage foundation will likely act as a portion of the retaining walls needed where the topography steeply slopes away within the western portion of the site.**

- **Revision of the driveway and motor court within the front yard, providing a double curb cut driveway and smaller motor court. The motor court extends to within 12 feet of the front property line.**
- **The proposed retaining walls within the rear yard have been modified slightly, however, their total height have been increased from 12 feet to 14 feet.**

GENERAL COMMENTS

1. Significant work is proposed within the rear yard in the general vicinity of the existing septic area. The applicant will need to accurately locate components of the septic system, as well as the designated septic expansion area to ensure that the improvements will not impact the system or expansion area.

The application should be referred to the Westchester County Department of Health (WCHD) for their review and approval of both the proposed site improvements, as well as the proposed modifications to the interior of the residence.

2. It appears from FEMA Flood Maps designate portions of the project site are within the 100-year FEMA Zone A Floodplain. A Floodplain Development Permit will be required in accordance with Chapter 109 – Flood Damage Prevention of the Town Code.
3. It appears that portions of the project site include Steep Slopes in accordance with Chapter 355-18 of the Town Code. The applicant should delineate the steep slopes and illustrate and quantify areas of steep slope disturbance.
4. It appears that disturbances are proposed within the locally-regulated 100-foot wetland buffer. Disturbances appear to include construction of retaining walls, filling, new deck, new patio, driveway and stormwater practices which will occur within the setback. The Town Wetland Consultant should visit the site to verify the wetland delineation performed by Ms. Evans.

A Wetland Mitigation Plan should be prepared by the applicant. The plan should include a summary table which quantifies the total wetland and wetland buffer on the project site, total disturbances within each and the impervious cover on-site, pre- and post-development. Mitigation is required per Chapter 340, Wetlands and Watercourse Protection, of the Town Code, at a minimum ratio of 2:1.

5. The proposed driveway improvements should be dimensioned and evidence that adequate area is available to maneuver out of the garage and around the turnaround should be provided.

6. The applicant is proposing two (2) tiered boulder retaining walls within the rear yard. The walls extend to a height of approximately 14 feet within the rear yard. The proposed driveway servicing the new garage will require filling. The walls are proposed to a total height of 19 feet adjacent to the driveway. The applicant will need to provide an engineered design wall which documents that it was designed with vehicle loading above and examined for overturning and sliding. The Design Engineer will need to inspect the wall during construction and certify to its conformance with the design.
7. A retaining wall is also proposed within the front yard. The single wall will retain the slope above the driveway, through half of its length and retain fill placed to construct the driveway over the remaining portion. The applicant should design and detail this wall.
8. The application should depict a more realistic disturbance limit to the project. The present limit does not provide ample room to construct the retaining walls. Furthermore, it is extremely important to protect Long Pond from sediment runoff from the work area and steep slopes below. The applicant should consider additional controls which would provide greater protection than a single silt fence.
9. The applicant has prepared a Stormwater Management Plan for the project which proposes 16 Cultec infiltrators to mitigate impacts from new impervious surfaces. Our office will review the details of the stormwater design.

The applicant will need to perform deep and percolation soil testing in the vicinity of the proposed mitigation system to be witnessed by the Town Engineer. Tests included within the report do not extend a sufficient depth to verify that groundwater and/or impervious layers extend three (3) or more feet below the proposed mitigation system.

10. Construction details should be provided for all proposed site improvements.

11. Alternate Site Plan

- **The retaining wall within the western portion of the property has been reduced to a single 7.5 foot retaining wall, however, the garage foundation will extend an additional ±10 feet above the retaining wall resulting in a total wall height of 17.5 feet which appears not to provide a significant reduction in the exposed height. Furthermore, the addition has been expanded and is located 25-30 feet closer to the side property line.**

If the originally proposed garage size was used and the addition was shifted closer to the existing residence, it appears the western corner of the addition would shift ±25 feet

avoiding a significant portion of the slope disturbance, reducing the need for such high retaining walls.

- **The double curb cut driveway reduces the motor court size and provides improved egress from the property. The initial portion of the driveway appears steep, however, likely in conformance with Town regulations. The applicant should provide a driveway profile in conformance with Town standards.**
- **The motor court has been reduced, however, the court now extends to within 12 feet of the front property line. Perhaps the two (2) parking spaces within the motor court can be provided as parallel spaces along the driveway. This modification can provide the necessary spaces at the front door, expand the setback to the front property line to ±25 feet and reduce the necessary pavement area.**
- **The rear retaining walls seem to have increased in height from a total of 12 feet to 14 feet. It was my impression during our site visit that the applicant was to investigate means of reducing the height of the retaining walls. Options include terracing the upper yard which would lower the elevation of the upper wall and utilizing existing bedrock outcrops with large boulders and plantings in an effort to minimize the lower wall.**

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.

PLAN REVIEWED, PREPARED BY SITE DESIGN CONSULTANTS, DATED MAY 23, 2022:

- Alternate Site Plan (Sheet 1 of 1)

JK/dc