



John Kellard, P.E.
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MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP

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

DATE: February 26, 2024

RE: Jackie & Brian Berkin
99 Byram Ridge Road
Section 101.01, Block 1, Lot 13

As requested, KSCJ Consulting has reviewed the site plans and supporting documents submitted in conjunction with the above-referenced project. The applicant is proposing a new, single-family home and inground swimming pool on an existing lot which previously included a single-family residence. The ±1.34 acre property is located within the R-1A Zoning District.

The lot redevelopment will include a new 7,687 s.f. residence, pool, driveway and rear deck with patio below. Runoff from a majority of the dwelling and driveway will be mitigated within a storage system below the driveway, while runoff from the pool and patio will be mitigated within a rain garden and the northern portion of the residence to a second rain garden. A new septic system and domestic well will also be constructed to serve the new residence.

The property was also the subject of a prior application for redevelopment, under the previous owner Christopher Kalian, which was approved by your Board on December 13, 2021.

GENERAL COMMENTS

1. The applicant is proposing to mitigate stormwater runoff through the use of 318 feet of 36 inch diameter solid wall and water tight HDPE Pipe under the proposed driveway and within two (2) rain gardens located within the year yard. The majority of the dwelling and the complete driveway will be treated within the stormwater storage pipe. The rear yard patio and pool will be treated within one (1) rain garden and the northern portion of the dwelling, which roof area cannot discharge to the storage pipe storage system under the driveway will be treated within the second rain garden.

CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE | SITE & ENVIRONMENTAL PLANNING

Impervious surfaces on-site will increase from 3,580 s.f. to 13,000 s.f. with the construction of the new residence, driveway, pool and patio. The applicant has prepared a Stormwater Pollution Prevention Plan (SWPPP), which evaluates runoff during a 1-, 10-, 25- and 100-year 24-hour Type III storm event. Runoff leaving the site will be equal to or less than existing runoff during each storm event evaluated.

Discharge from the site will be piped to the southwest corner of the property where flows will be directed through a 40 foot long and 4 foot deep infiltration trench. While the applicant's design does not increase the volume of discharge and, therefore, is in compliance with Town stormwater regulations, it is discharged at one specific location on the property. During a 100-year storm event discharge at the southwest corner of the property will be approximately 4 c.f.'s, a sufficient flow to cause erosion. The applicant's efforts to mitigate the point discharge with the 40 foot long infiltration trench is a positive benefit to the off-site property receiving the discharge. The applicant, however, has not provided evidence that the infiltration trench is sufficient to fully mitigate the discharge during significant rainfall events. The applicant should further evaluate the discharge point and explore whether the infiltration practice can be expanded to further mitigate the discharge.

2. The applicant will need to perform soil testing in the vicinity of the proposed rain gardens and at the location of the proposed infiltration trench. Please contact our office to schedule the testing.
3. The applicant has provided water quality mitigation calculations for the pool, patio and northern portion of the residence. The applicant should also address water quality for the main residence and driveway.
4. Disturbances over one (1) acre require conformance with the New York State Department of Environmental Conservation (NYSDEC) General Permit (GP-0-20-001) for stormwater quantity and quality controls. A Notice of Intent (NOI) and MS4 Acceptance Form will need to be filed with the NYSDEC. The applicant should submit draft copies to our office for review.
5. The applicant has prepared a SWPPP, which includes an erosion and sediment control plan to be implemented during construction. Erosion and sediment controls will include silt fencing, diversion swales, temporary sediment basin and stabilized construction entrance. The most significant aspect of the plan which provides the gradient protection to downstream properties is the temporary sediment basin. It is important, however, that the basin is properly sized to accommodate the drainage area tributary to the basin. The applicant therefore should provide sizing calculations for the temporary sediment basin. The basin should be designed to also accept the roof runoff from the proposed residence while under construction and prior to the gutter being installed and connected to the stormwater mitigation system. Please provide a detail of the temporary sediment basin and its outlet controls.

6. The applicant has prepared a profile of the proposed driveway. The curb cut of the new driveway will be relocated approximately 50 feet south of the existing curb cut. A platform is located immediately off the roadway with varying grades between the roadway and house, with a maximum grade of 14%. Moderate to gentle grades are proposed in the vicinity of the house and garage.

The applicant should illustrate the location of the center of road and property line on the driveway profile for confirmation that the proposed driveway platform is in conformance with Town Code.

7. The application requires the construction of the double tiered retaining wall along the southern property line adjacent to a neighboring residence. A 5.5 foot wall and 5.0 foot wall will result in 10.5 feet of height between the bottom of the lower wall and top of the upper wall.

The applicant should prepare designs and provide construction details of all retaining walls. Designs and details should include proposed protection barriers along the top of the wall. Plans shall also note that the construction of all retaining walls shall be overseen by the Design Professional who shall certify to the Township that the walls were constructed in compliance with the approved plans.

The project landscape plan should also address plantings in the vicinity of the retaining walls which can screen the walls from the neighboring residence and yard.

8. The applicant has submitted a copy of the Westchester County Department of Health (WCHD) Construction Permit Approval for the proposed septic system and domestic well. The approval was issued based on the house and site plans for the previously proposed residence. The Permit should be updated to reflect the currently proposed residence and site plan. Please submit a copy of the updated Permit when obtained.
9. The applicant should provide all site-related construction details, including curbing, patios walkways, etc.
10. The applicant will need to obtain a Curb Cut Permit from the Town Highway Department prior to obtaining a Building Permit.
11. The applicant should submit a cut and fill analysis for the project. A Fill Permit may be required from the Town Building Department prior to obtaining a Building Permit.

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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 DTS PROVIDENT, DATED FEBRUARY 12, 2024:

- Site Layout Plan (C-101)
- Grading and Utilities Plan (C-102)
- Erosion and Sediment Control Plan (C-103)
- Landscape Plan (C-104)
- Construction Details (C-111)
- Construction Details/Driveway Profile (C-112)
- Construction Details (C-113)
- Stormwater Pollution Prevention Plan/Stormwater Management Report, dated February 10, 2024

JK/dc