

McChord Engineering Associates, Inc.

Civil Engineers and Land Planners

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June 2, 2021

Philipstown Planning Board

2 Cedar Street

Cold Spring, NY 10516

Re: Engineering Summary
Proposed Site Development
699 Old Albany Post Road, Philipstown, NY
Map 61-3, Lot 6

Dear Board Members:

This office has been commissioned by Christopher Flagg and Heidi Snyder to prepare an Engineering Summary for the proposed site development at 699 Old Albany Post Road. The following is an engineering summary of existing conditions and proposed site development.

The property consists of 4.88-acres and is located on the corner of Travis Corners Road and Old Albany Post Road. The property is outside of the New York City public water supply watershed. It is currently developed with a single-family residence, gravel driveway, shed, patio and pool. The edges of the property are woodland separating adjacent residences, Travis Corners Road and Old Albany Post Road. Topography on the site consists of gradual slopes that generally drain east. The property is currently served by an on-site septic system and private well.

The proposed site development consists of constructing a new addition to the west of the residence. The existing shed and portions of the gravel driveway will be removed to facilitate the addition. The existing patio will also be expanded. An underground detention system consisting of eight (8) Cultec Contactor 100HD Stormwater Chambers surrounded by crushed stone will be installed to control runoff from the proposed development. Rooftop runoff from the proposed addition will be routed to the detention system via roof leaders. Runoff from the remainder of the property will continue to sheet flow east conforming to existing conditions. Refer to the "Septic System/Site Development Plan" and "Stormwater Management Report" prepared by this office for additional information.

This office has consulted with the Putnam County Health Department throughout our involvement with the project. There is an existing septic system on-site south of the residence that serves the existing four-bedroom residence. The septic tank has been maintained and there were no evidence of failures. There are no records on the size and location of the existing septic fields, only the septic tank location. Since, there are no records this office and PCHD determined it would be best to leave the existing septic system undisturbed and explore if a new septic system would be feasible for the one-bedroom addition. Soil testing was conducted on April 28, 2021 with PCHD and favorable soil conditions for a new septic system were determined to the west of the addition. This is the most viable location due to setbacks to existing and proposed conditions. A two-bedroom septic system is proposed as it is the minimum size for a new septic system per PCHD standards. A 100% replacement area for the septic

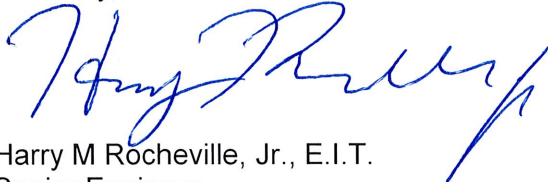
trenches was also located. The septic trenches are located in an area that minimizes tree removal and does not require any fill. The "Septic System/Site Development Plan" was submitted to the PCHD on June 2, 2021 for review.

Earthwork is required to construct the proposed addition foundation, detention system and septic system. Excavated material will be spread in the northern yard where a low point exists next to the driveway and the area is generally flat. Removing this low point will not alter the drainage paths on site, will improve overland flow and eliminate ponding north of the driveway. The proposed addition foundation will double as a retaining wall on the upgradient side to mitigate the amount of excavation required. A retaining wall for the extended patio will also mitigate the amount of excavation required. Refer to the cross-sections through the addition that were included in the architectural drawing set for additional information. The amount of material excavated and filled in the northern yard is balanced. This will greatly reduce the amount of material that would need to be hauled off-site during construction.

Soil and erosion controls, including a silt fence and construction entrance, will be employed to protect any down-gradient properties or roadways during construction. These controls will remain in place until the site is stabilized and permanent vegetative cover has been established. Excess excavated material will be stockpiled on-site until it can be spread in the north yard. A silt fence will be located downgradient of the stockpile to control any sedimentation.

It is the opinion of this office that the proposed site development of 699 Old Albany Post Road will have no adverse impacts to any downstream properties or drainage systems.

Sincerely,

A handwritten signature in blue ink, appearing to read "Harry Rocheville, Jr.", written in a cursive style.

Harry M Rocheville, Jr., E.I.T.
Senior Engineer