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April 23, 2021

MEMORANDUM TO: Vernon Township Land Use Board (*via email*)

FROM: Cory L. Stoner, P.E., C.M.E., Land Use Board Engineer

SUBJECT: **ENGINEERING REVIEW**
 Snowshoe Homes, LLC Variance Application (LUB # 3-21-3)
 Block 526 Lot 12 (Located at 4 Alpine Trail)
 Vernon Township, Sussex County
 HPA No. 21-097

Dear Land Use Board Members:

The above referenced Applicant is proposing the construction of a new three bedroom dwelling on the above referenced property located in Great Gorge Village. Based on a review of this application, I offer the following comments:

1. The items submitted in support of this application included the following:
 - a. A property survey entitled, “Property Survey, Prepared for Block 526 Lot 12, Situated in the Township of Vernon, County of Sussex, New Jersey,” consisting of one (1) sheet, prepared by Greenway Surveying and dated April 20, 2020.
 - b. Plan entitled, “Plot Plan, 4 Alpine Trail, Block 526 Lot 12, Township of Vernon, Sussex County, New Jersey,” consisting of one (1) sheet, prepared by G. Gloede and Associates and dated January 2, 2021.
 - c. Soil Erosion and Sediment Control plans, prepared by G. Gloede and Associates and consisting of the following sheets:

Sheet No.	Title	Date
1	Soil Erosion & Sediment Control Plan	01/02/21
2	Soil Erosion & Sediment Control Notes and Details	02/11/21

- d. Plan entitled, “Slopes Map, 4 Alpine Trail, Block 526 Lot 12, Township of Vernon, Sussex County, New Jersey,” consisting of one (1) sheet, prepared by G. Gloede and Associates and dated April 9, 2021.

- e. Architectural Plans entitled, “Snowshoe Trail, LLC, Paul Weibel Vernon NJ, Proposed New Residence,” consisting of three (3) sheets, prepared by Elizabeth Reeves Architect & Planner and dated October 14, 2020.
 - f. Applications and supporting documents.
2. **Completeness:** I have reviewed the application for conformance with the Township Land Use Board Technical Checklists. Based on this review, I believe that the application is complete and can be heard by the Land Use Board.
3. **Zoning:** The property in an irregularly-shaped lot that is located in the R-4, Residential Zone. The bulk requirements for the lot are as followed:

Item	Required	Existing	Proposed
Min. Lot Area	10,000 sq. ft.	23,162 sq. ft.	N/C
Min. Lot Width	100 ft.	183.5 ft.	N/C
Min. Front Yard Setback	50 ft.	N/A	50 ft.
Min. Rear Yard Setback	50 ft.	N/A	34.8 ft.
Min. Side Yard Setback	15 ft.	N/A	51.5 ft.
Max. Building Coverage	20%	N/A	4.7%
Max. Lot Coverage	30%	N/A	13%
Max. Building Height	35 ft/ 2 ½ story	N/A	< 35 ft/ 2 ½ story

- a. The Applicant is proposing to construct of a 1,931 square foot dwelling along with all other pertinent improvements including driveway and well on the Block 526 Lot 12 property. The Applicant should be prepared to discuss all the proposed improvement with the Board.
- b. The dwelling does not meet the required rear yard setback. The architectural plans show a deck off the rear of the dwelling will intensify the rear yard setback encroachment for which the variance is being sought. A variance will be required for a rear yard setback of 34.8 feet not 41.3 feet which is shown on the plans.
- c. Section 330-83 of the Township code establishes a minimal improvable area for every residential lot to be created. This area shall be a contiguous area which is not constrained by steep slopes, areas of ledge rock less than four feet below the surface, wetlands buffers, riparian zones and high water table areas. The Applicant has submitted a Slopes Map showing calculations which illustrate to minimal improvable area of the site is 13,180.5 square feet where 6,000 square feet is required in the R-4 zone. However, per Section 330-83F(1), only the area within the principal building setback lines shall be considered in the ESA

calculation. Being held to this standard the lot would not meet the minimal improvable area.

With all that being said, the lot has existed for many years and is not being created as any part of any subdivision. Since the lot is already in existence, I believe that the requirement to meet the minimal improvable area can be waived.

4. **Site Plan & Grading:**

- a. The majority of the lot is rock outcrop with steep slopes. The Applicant should be prepared to discuss before the Board the work that will be necessary to place a dwelling on this property and if any blasting is anticipated.
- b. Per Section 330-222 of the Vernon Township Code, Driveways shall have a maximum slope of 15%, not exceed 5% within 25 feet of a roadway or dwelling, and contain vertical curves for smooth transitions. The site plan does not include a roadway profile and from a review of the plan contours, it appears as if the driveway as it comes off of Alpine Trail will not meet this requirement. The driveway design will need to be updated to meet the requirements of the Township Ordinance.

Note: While the driveway design will need to be updated, it is believed that the driveway can conform to the Township Code by adjusting the location of the driveway to the west where the roadway grade is higher.

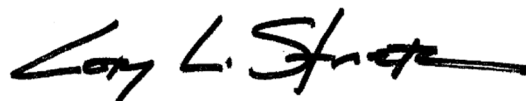
- c. A means for addressing the stormwater runoff from the new construction has not been included on the plans as per Section 330-222 of the Vernon Township Code. Since a seepage pit may not be feasible due to rock, the Applicant should consider some other means of ensuring runoff from the proposed dwelling does not leave the site.
- d. The grade in front of the dwelling drops off dramatically between the driveway and the roadway. The grading along the front of the dwelling should be reviewed closer to determine if this area can be flattened to some degree. If the slope remains as steep as it is shown on the plans, a guide rail will need to be added to this area.

5. **Miscellaneous:**

- a. Architectural Drawings: Architectural plans and elevations have been submitted. The Applicant should be prepared to discuss all aspects of the dwelling, including proposed materials and colors, before the Board.

- b. Since the proposed dwelling requires a variance application approval, it will not require a Lot Development Permit. The construction, however, will need to be inspected by my office to assure that the driveway is properly constructed and lawn areas are properly stabilized prior to a Certificate of Occupancy being granted.
- c. The dwelling will be connected to the Vernon Sanitary sewer system and a formal application will need to be made to the Vernon Township Municipal Utility Authority.
- d. The proposed improvements are located in the Highlands Preservation Area. Typically, an Applicant would need to apply for a Highlands Exemption before construction. However, based on my review it is obvious that the construction of a single family dwelling will meet the requirements of Highlands Exemption #2 which allows for the construction of a single family home on a lot which lawfully existed prior to August 10, 2004 as long as the disturbance of land is less than one acre and the cumulative increase in impervious surface does not exceed one-quarter acre. A Highlands Exemption is therefore not needed for this development proposal.
- e. Other Approvals that will be required include but may not be limited to:
 - i. Vernon Township Municipal Utility Authority
 - ii. Sussex County Health Department
 - iii. Upper Delaware Soil Conservation District
 - iv. Vernon Township Construction Department

Very truly yours,



Cory L. Stoner, P.E., C.M.E.

HAROLD E. PELLOW & ASSOCIATES, INC.

Vernon Land Use Board Engineer

CLS:MJM:mjm
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cc: Via Email
Kim Decker, Planning & Zoning Secretary
Glenn Kienz, Esq., Board Attorney
George Gloede, P.E.