

Promoting healthy communities

Date: November 30, 2020 To: Gesick & Associates, P.C.

Subject Property: Upper Kensington Dr – Lots 19 & 21, East Lyme

Plan Designed by: Donald Gesick Jr., L.S.

Last Revision Date: 11/10/2020

Plan Date: January 29, 2020 Date Paid: November 30, 2020

An additional revised plan was received by our office on November 12, 2020 (following initial submission in March 2020) for a proposed lot line revision affecting two lots previously approved in the Nottingham Hills subdivision/commission review. Lots 19 & 21 range from 2.45 to 3.12 acres and are to be served by private water and on-site subsurface sewage disposal, in the Town of East Lyme. This proposal is to adjust the existing lot lines such that each parcel will decrease in size, in favor of creating a new, 1.06 acre lot, proposed Lot 23.

The Ledge Light Health District (LLHD) does not issue approvals for Subdivision or Commission reviews, but our recommendation for suitability of the previously stated plan/lots to accommodate the LLHD Subdivision Submission Requirements and Connecticut Public Health Code are as follows:

- Revised Lot 19 is recommended <u>conditionally</u> suitable, subject to the proposed well location being altered on individual lot site plans to satisfy the required 25' setback from the foundation drains shown around the perimeter of the new home. (Well to be positioned a minimum of 25' from foundation). It is recommended that the well also be relocated resulting in the entire well arc being kept on the property it serves. It appears the revised lot lines will still allow both of those revisions to be achieved at the time of building permit application. These comments were made previously and remain unchanged on the newest revised plans.
- Proposed Lot 23 & Revised Lot 21 are <u>not</u> recommended suitable in their current condition and the following issues are to be addressed:

"Additional Suitability Requirements"

- A minimum of two deep test holes and two percolation tests (one in the Primary and one in the Reserve)
 are required to determine suitability of all new or undeveloped parcels that will be served by private onsite subsurface sewage disposal. Both the proposed Lot 23, as well as revised Lot 21, are lacking
 percolation test data in the primary septic areas. The perc test locations shown in each Reserve Area (213 & 23-3) do not have corresponding readings provided on the plans.
- 2. There is no soil data representative of the Primary septic area for proposed Lot 23 and thus, the suitability of the proposed lot is unknown with regard to on-site subsurface sewage disposal. Existing test hole locations are either upgradient of the septic area, or over 25' downgradient. Due to the unpredictability of underlying bedrock, the information on the plan is insufficient with regard to the proposed septic layout.
- 3. The accuracy of the percolation test data that was provided is uncertain due to lacking information. The date of the tests, the depths of each hole, and how much water was remaining at the conclusion of the

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test was not noted for any of the percolation tests. In addition, the final percolation rates appear to be different than the rate obtained when looking at the intervals in relation to water level drop. Percolation holes should be at the depth of the proposed leaching system to establish the percolation rate for sizing purposes. Following the presoak, the hole shall be refilled with at least 12 inches depth of water to begin the percolation test. Water level readings shall then be recorded at regular intervals <u>and shall continue until there is 2 to 3 inches of water remaining in the hole</u>. An average nine-inch drop is anticipated from commencement of the test to completion when the test is done correctly. Perc test 23-2 had only a 2.75 inch drop from start to finish, for example.

- 4. MLSS calculations are not noted. Minimum Leaching System Spread (MLSS) will likely apply to proposed Lot 23 (not enough data is known in its current configuration).
- 5. Proposed underground electrical lines or other underground utilities are not shown.
- 6. A proposed water treatment wastewater discharge system is recommended to be shown on the plans for potential treatment of well water.
- 7. Effective Leaching Area calculations are not described.

The following are not currently required by CT Public Health Code and/or LLHD Plan Review Policies but are encouraged/recommended to protect the proposed structures, onsite septic system, water treatment discharge system and/or water supply/groundwater.

- 1. All proposed well arcs should be kept on the property they serve (to allow neighbors full use of their properties) and all well casings should be located at least 10' from driving surfaces and/or structures to prevent future damage and allow for future maintenance of the wells.
- 2. The designer should take into consideration the location of potential future water treatment discharge systems, rain gardens and footing/gutter drain discharge locations.

*Please note that soils testing indicated on this plan are representative of actual soil conditions and additional deep test pits and percolation tests may be required by the Ledge Light Health District if the building or system location is altered and/or the suitable septic area is limited. Applicant should be aware that this lot line revision approval IS NOT sufficient for individual lot approval. Each lot must be reviewed by the Ledge Light Health District at the time of building permit application in order to obtain lot approval and issue a septic/well permit.

Please call me at 860-448-4884 with any questions regarding this matter.

Sincerely

Danielle Holmes, REHS/RS

Sanitarian II

Cc: Town of East Lyme Code Officials
Attorney – Paul Geraghty