

February 2, 2024

To: Mr. Richard S. Novak, Chair
Sherborn Zoning Board of Appeals
19 Washington Street
Sherborn, MA 01770

Re: **Civil Engineering Peer Review Response**
Farm Road Homes – Comprehensive Permit

Dear Mr. Chair and Board Members:

Creative Land & Water Engineering, LLC (CLAWE) has received and reviewed the Civil Engineering Peer Review Letter from Tetra Tech (the “Reviewer”) dated October 27, 2023. This letter provides our responses. To facilitate the review, we will quote the Reviewer’s comments first in *italics* and follow-up with our **response in red**.

We are still working on some of the site plan and stormwater revisions to address some challenging issues with flooding and grading. This letter only covers the septic system section.

SEPTIC SYSTEM

The Plans indicate the Project will be served by a centralized Septic System with upstream pump station and sanitary sewer infrastructure to collect sewerage generated from the Project. The following comments are offered specific to Project septic design and related analysis or lack thereof.

57. *The Applicant shall confirm use of the USGS Winchendon overburden well in the Frimpter calculation. The Winchendon well is located over 50 miles to the northeast and in a different drainage basin. We recommend the Applicant consider using the nearby Norfolk or Dover wells or a combination of both. (it is understood that the nearby wells are located in sand and gravel but receive similar rainfall.)*

Response: Most of the test pits were observed dry during high groundwater season. According to Title 5, the observed water table is considered accurate. The adjustment using Frimpter method is to accommodate the local bylaw requirements at the time of our soil evaluation in case of a local bylaw system will be designed and has been approved by the SBOH. Winchendon well is the most fit reference well in till considering many factors. The nearby well will not fit the soil and groundwater condition here.

58. *The Project is subject to nitrogen aggregation/loading under the Guidelines for Title 5 Aggregation of Flows and Nitrogen Loading 310 CMR 15.216. The septic system design flow is greater than 2,000 gallons per day and “(2) areas of residential new construction, as defined in Title 5, where both on-site systems and on-site drinking water supply wells are proposed (310 CMR 15.214(2)). These areas are the so-called private well areas.” Based on this, the Applicant should perform the hydrogeologic assessment required to determine nitrogen loading and then calculate the nitrogen load and propose treatment if warranted.*

Response: A hydrogeological evaluation report is provided to address the issue. Both general nitrogen loading per 310 CMR 15.216 and a detailed nitrogen budget analysis according to DEP Policy BRP/DWM/PeP-P99-7 are provided to confirm that the proposed SAS will comply with all required DEP standards. See attachment to response to BOH review comments for details.

59. *No information was provided on method of installation or boring logs for the wells listed in the soil tables.*

Response: The well installation details are added to the hydrogeological evaluation report.

60. *The ZBA requested information related to resident comments heard in the October 4, 2023 meeting related to depth to bedrock and affects from any blasting at the Project site. In order to understand the affects of the Project on the surrounding areas, the Applicant should develop a geologic cross-section(s) that would show depth to bedrock, soil type, foundation elevations and seasonal high groundwater across the site. This will allow visual evaluation for the ZBA and the public for review.*

Response: A table of house unit with basement elevation, ledge, estimated high groundwater is added to the comprehensive permit plan.

Feel free to contact us if you have any questions.

Sincerely,

Creative Land & Water Engineering, LLC

By



Desheng Wang, Ph.D., P.E., CWS, CSE

A handwritten signature in blue ink that reads "Francis Alves".

Francis Alves, E.I.T., CSE
Civil/Environmental Engineer

Cc: Bob Murchison
Paul Haverty, esq.