

John D. Fuller, P.E.

CIVIL & STRUCTURAL ENGINEERING

February 24, 2021

Mr. Robert Vicaretti, Planning Board Chairman
Town of Deerpark
Planning Board
PO Box 621
Huguenot, NY 12746

**RE: Rivendale Subdivision
Section 50 Block 1 Lot 38.22
Town of Deerpark
Orange County, NY**

Job No. #2177.030

Dear Chairman Vicaretti:

A public hearing for the above referenced project was held on Wednesday, August 12, 2020. It was closed for oral comments and held open for written comment through Wednesday, September 9, 2020. This letter is to provide a response to the issues that were presented by the public during that time. Below is a list of the specific issues, in no particular order, and my responses to them at this time:

1. **Floodplain Development** –The 100-year floodway, the Zone AE 100-year floodplain and the Zone X 500-year floodplain are located on the subject site. Zone AE is located in the rear of proposed lots 8 through 16. The entire house on proposed lot 12, and portions of the houses on proposed lots 13 and 14 will lie within Flood Zone AE. A floodplain development permit application shall be submitted to the town for construction of these homes and all shall be built in strict compliance with FEMA regulations, including the lowest floor of the homes and all of their utility equipment shall be located above the base flood elevation.

A note shall be provided on the plans that states "All new construction of residential structures on these lots shall be in strict compliance with FEMA regulations, which requires that all lands within Flood Zone AE on the Town's FIRM have the lowest floor (including basement) elevated above the base flood elevation" as recommended by the Orange County Department of Planning comments dated June 30, 2020.

2. **Protection of Waters** – The proposed community sanitary sewer treatment system is located on the eastern side of the Class C tributary stream. The proposed distribution pipe from the residential lots to the treatment system shall be installed below the streambed so that the stream

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may continue to flow and velocities are not disturbed. Boring under the streambed allows the stream to function naturally and allow the fish and wildlife to move unimpeded along the stream corridor. The treatment system is located more than 200-feet from the Neversink River which is the minimum distance required by the New York State Department of Health for absorption fields to water bodies.

An application for a Protection of Waters Permit shall be submitted to the New York State Department of Environmental Conservation to review the proposed boring and installation of the sanitary distribution pipe.

- 3. Historic & Archeological Impact** – The Environmental Assessment Form indicated that the project site is located in an archaeological sensitive area. As a result, a Phase 1 Archaeological Investigation was performed by Alfred G. Cammisa, M.A. and a report dated April, 2020 was submitted to the Town of Deerpark Planning Board for review. The Phase 1 investigation includes a study of the prehistoric and historic potential for the site where the investigator conducts a search or records located at the New York State Historic Preservation Office and other available resources. The site was determined to have the potential for historic cultural resources. A field investigation was then performed that includes a walkover, shovel testing and stratigraphy. One hundred eighty-two (182) shovel tests were excavated at 50-foot intervals and no prehistoric artifacts, historic artifacts or other cultural resources were found. The report concluded that no further action is required.

The report was submitted to the New York State Division for Historic Preservation and they concluded in a letter dated June 26, 2020 that the proposed development will not have any impact on archaeological and historic resources.

- 4. Traffic Study** – A traffic study was performed for the proposed Rivendale Subdivision by Stephen A. Maffia, P.E. The report dated February 26, 2020 was submitted to the Town of Deerpark Planning Board for review. The purpose of it was to identify any potential adverse traffic issues that may result due to the development of the residential subdivision. The report concluded that the development will result in a minor increase to the traffic volumes on the adjacent streets (State Route 209 and Neversink Drive) and control delay times at key intersections, traffic flows and levels of service would not be negatively impacted.

The New York State Department of Transportation was provided with the traffic study and asked for a sight-distance matrix and a left-turn analysis for the intersection of Route 209 and Neversink Drive to determine the impact that the subdivision will have on those items. Mr. Maffia provided a second study dated September 11, 2020 in response to that request. The study concluded that the sight distances at the intersection meet the AASHTO minimum sight distances at the posted advisory speeds and that the minor increase to the traffic volume does not warrant the need for a left-turn lane.

The site plan will include the sight triangle on the northeast corner of the intersection of Route 209 and Neversink Dr. within the site itself and a note indicating that it is to be kept clear of any obstruction or vegetation that grows to more than three feet in height.

5. **Emergency Services** – The proposed residential subdivision shall be accessed by an entrance off of Neversink Drive and a new paved roadway. The entrance has been designed in accordance with the Orange County Department of Public Works (DPW) specifications and is adequate for emergency service vehicles. The proposed roadway has been designed in accordance with the Town of Deerpark street specifications and is adequate for emergency service vehicles. The plans were previously submitted to the Huguenot Fire Department for review and are acceptable.

6. **Infiltration Testing** – The Rivendale Subdivision proposes a community septic system on the eastern side of the property. The soils in the area of the proposed septic system are well documented and are classified as Otisville gravelly sandy loam with 0 -8 percent slopes (OtB) by the U.S. Department of Agriculture Natural Resources Conservation Service. These soils are described as having very good drainage qualities. Soil testing was performed in the area of the proposed septic system and are consistent with the USDA NRCS description. The deep pit tests resulted in a finding of approximately 0-3” of topsoil and 3” – 72” of gravelly sandy loam. Percolation tests were performed with results that ranged from 1 minute 1 second to 1 minute 45 seconds.

The subdivision also proposes the construction of an infiltration bioretention stormwater pond. The soils in the area of the pond are known as Basher fine sandy loam (Be). Preliminary soil testing was conducted in the area of the proposed stormwater pond, but was not provided on the plans. The results were between one and two minutes meaning the soils have very good infiltration qualities, which was the reason for the use of an infiltration basin to treat the stormwater. During the public hearing a question was asked about whether or not soil borings had been done in the area of the infiltration bioretention pond. In my experience, soil borings are not required.

The soil test results in the area of the proposed infiltration bioretention pond shall be provided on the plans.

7. **Proximity to Millennium Pipeline** – The Millennium Pipeline recently installed a new 36-inch diameter pipeline in the area known as the “Huguenot Loop” along the existing right-of-way located in the eastern section of the subject site. The installation is part of the Millennium Pipeline “Eastern System Upgrade Project.” The new 36-inch diameter pipe has a Maximum Operating Pressure of 1,200 psi. Using the maximum operating pressure of 1,200 psi and the C-FER Technologies Formula for use in determining the potential impact radius for standard pipe, the blast impact radius for the new pipeline is 860 feet.

I spoke with Mr. Jim Wilson, a representative from Millenium Pipeline, who informed me that the new 36-inch diameter pipeline was installed in accordance with Class 3 construction standards. A Class 3 location is one where more than 46 homes are located within 200 meters (656 feet) of the pipeline along a continuous mile. This is an existing condition. The pipeline and aboveground facilities associated with the project must be designed, constructed, operated, and maintained in accordance with the DOT Minimum Federal Safety Standards in 49 CFR 192. The regulations are intended to ensure adequate protection for the public and to prevent natural gas facility accidents and failures. The DOT specifies material selection and qualification, minimum design requirements; and protection from internal, external, and atmospheric corrosion. Special construction standards were followed by Millennium Pipeline to increase the pipe integrity such as increased pipe wall thickness and pipeline design pressures; hydrostatic test pressures; MAOP; inspection and testing of welds; minimum cover of 36 inches; and the frequency of pipeline patrols and leak surveys. These must all conform to higher standards in more populated areas. These standards help to decrease the blast impact radius.

It should also be noted that Mr. Wilson stated he was aware of the future subdivision and that he had discussed it with Mr. Loren McCune when the pipeline was using the property as a contractor's yard.

8. **OCDPW Approval** – The proposed access to the site is a paved road with an entrance off of Neversink Drive, County Road No. 80. There is an existing entrance to the site that will be re-used and upgraded as required by the Orange County DPW. A site visit was held with a representative from the Orange County DPW's office to confirm that the entrance can be used.

An application for use of the entrance shall be submitted to the Orange County DPW's office.

9. **OCDOH Approval** – In accordance with the New York State Public Health Law and the Orange County Department of Health regulations, a realty subdivision that contains five (5) or more lots under five (5) acres each is required to be submitted to the county health department for review and approval of the water supply and wastewater disposal systems after preliminary approval is granted by the local jurisdictional Planning Board. The Rivendale subdivision proposes twenty (20) residential lots that range from 0.35 acres to 0.83 acres; therefore an application shall be submitted to the Orange County Department of Health for review and approval of the individual wells and proposed community sanitary sewer treatment system.

The Department of Health will review the siting of the wells and will require test wells to be constructed. Any concerns regarding water quality and/or water quantity will be reported at that time. All wells shall have a minimum expected stabilized yield of 5 gallons per minute. Any less than that will be required to have facilities for 24-hr storage. All lots are required to have a minimum yield of 2 gallons per minute. If there is a concern regarding low yield in the surrounding area, then pumping and/or monitoring of on-site test wells and existing wells on adjacent lots may be necessary. To my knowledge, there is currently no concern regarding low

yield in the area. Each on-site test well will have samples taken and submitted to a lab for testing of water quality parameters to determine whether or not a water treatment system will be required.

The Department of Health will also review the proposed sewage disposal system for conformance to the current New York State Department of Health Design Handbook and the adopted Design & Policy Standards to Appendix 75-A, specific for Orange County. The health department requires that a 50% minimum expansion area be provided for the proposed system. A joint site inspection will be performed with a representative from the health department during the review process.

An application for review of the proposed water and wastewater disposal systems shall be submitted to the Orange County Department of Health after preliminary approval is granted.

- 10. NYSDEC Threatened & Endangered Species** – A letter from Mr. Peter D. Torgersen, Environmental Sciences dated January 7, 2020 was previously submitted to the Planning Board regarding the threatened and endangered species identified by the NYSDEC to possibly be present on the Rivendale site. These species included the Bald Eagle, Timber Rattlesnake, Dwarf Wedgemussel, Brook Floater, Alewife Floater, and the Inland Barrens Buckmoth. Also possibly onsite are the Floodplain Forest and the Hemlock Northern Hardwood Forest, two natural communities considered significant from a statewide perspective.

Mr. Torgersen performed a site inspection and did not find any Bald Eagle nests or Timber Rattlesnake dens and determined that the project will have no impact on these species. The Dwarf Wedgemussel, Brook Floater and Alewife Floater are all freshwater mussels that would be found in the Neversink River. There is no proposed disturbance to the river so these species will not be impacted by the project. The Inland Barrens Buckmoth prefers Scrub Oak and Dwarf Chestnut Oaks which are not found on the project site. In addition, Mr. Torgersen stated that the project will not impact the Floodplain Forest or the Hemlock Northern Hardwood Forest. Therefore, no mitigation is necessary.

- 11. Nature Conservancy Deed Restrictions** – There are deed restrictions held by The Nature Conservancy on the subject property (Section 50 Block 1 Lot 22) of the proposed Rivendale Subdivision and the property across the street (Section 50 Block 1 Lot 23) owned by New Century. As stated in a letter from Mr. Matt Levy of The Nature Conservancy to the Town of Deerpark dated August 11, 2020, the restrictions were placed on the deeds when the property was conveyed to Ginseng Up Corporation in 1985 and amended in 1995 when the property was purchased by New Hope Farms, Inc.

A summary of the restrictions was provided by Mr. Levy, many of which were specific to the property across the street when it was used as a horse farm such as dumping and storing of manure, etc. The main purpose of the restrictions is to protect the Neversink River. The proposed subdivision will comply with all of the restrictions.

The list of restrictions shall be provided on the subdivision plan.

12. **Special Use Permit** – The site is located in the Town of Deerpark Hamlet Mixed-Use zoning district. Single family dwellings are a permitted use; a special use permit is not required.

13. **Stormwater Discharges** – A stormwater management assessment has been conducted for the proposed project in order to protect the waters of the State of New York from the adverse impacts of stormwater runoff. The Stormwater Pollution Prevention Plan presents an analysis of the project in accordance with the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001 and the New York State Stormwater Management Design Manual. The Stormwater Pollution Prevention Plan is designed to incorporate green infrastructure techniques that preserve natural resources and utilize the existing hydrology of the site, provide runoff reduction practices, water quality treatment practices, apply volume and peak control practices for channel protection, overbank flood control, and extreme flood control. An infiltration bioretention pond, roof leaders to drywells and grass swales to collect and convey the stormwater are proposed to manage the stormwater runoff. The report has been submitted for review and approval by the Town of Deerpark Planning Board Engineer.

During construction activities, erosion and sediment control measures shall be properly installed, regularly inspected and maintained in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. An Erosion and Sedimentation Control Plan and details are provided in the subdivision plans for review and approval by the Town of Deerpark Planning Board Engineer.

The Stormwater Pollution Prevention Plan (SWPPP) shall be reviewed by the Town of Deerpark Planning Board Engineer for review and approval of the proposed stormwater and erosion & sediment control practices. Revisions shall be made as necessary.

14. **Further Development** – The proposed development is a residential subdivision consisting of twenty (20) residential lots and a road located in the northwest corner of the subject site. The lots shall be serviced by individual wells and septic tanks. The septic tanks shall discharge to a proposed community sanitary sewer treatment system located on proposed lot twenty-one (21) which consists of the remaining 31.71 acres including the area of the property east of the Tributary Stream and the southern portion containing the Neversink River. No further development of the site is proposed.

15. **Relation to Dragon Springs** – The owner of the property is LM Property Holdings, LLC, owned by Mr. Loren McCune, a resident of the Town of Deerpark. LM Property Holdings, LLC has no relation to Dragon Springs.

16. **Environmental Impact Study** – An Environmental Impact Study is required if a proposed action is determined to have a significant impact on the quality of the human environment. Many of the impacts to the environment have already been reviewed, such as historic and archaeological resources, traffic, and threatened and endangered species. Other items such as the water supply and community sanitary sewer treatment system will be reviewed by the Orange County Department of Health and the stormwater discharges shall be address in the Stormwater Pollution Prevention Plan which is reviewed by the Town Engineer.

The proposed use, a residential subdivision, is consistent with the use of the surrounding area and will be in compliance with the Town of Deerpark Zoning Law and all other applicable codes and regulations. The new homes that will be constructed within the subdivision will be in compliance with the New York State Building Codes and all other applicable codes and regulations. It is my professional opinion that an Environmental Impact Study is not necessary for this proposed subdivision.

Should you have any questions regarding this document, please feel free to contact my office.

Sincerely,

A handwritten signature in black ink, appearing to read "John D. Fuller", written in a cursive style.

John D. Fuller, P.E.

Cc: Loren W. McCune