



**PIEDMONT**  
**ENVIRONMENTAL**  
ASSOCIATES, P.A.

October 11, 2021

Project # 2718

Hike Asheville, Inc  
Anwar Timol  
156 School Rd  
Mill Spring NC 28756

RE: Detailed Soil/Site Evaluation on Property Located at 156 School Rd., Polk County, NC – PIN: MS-71A-E02 (Approx. 6 acres)

Mr. Timol,

This report details the findings of a detailed site and soil evaluation performed on the tract referenced above. The evaluation was conducted at the clients written request to determine the site's suitability for the installation of sub-surface wastewater disposal systems to serve domestic strength wastewater. Any other type of use may require additional testing and/or stricter setbacks. This report does not address systems receiving more than 3,000 gallons per day of flow or high strength wastewater. The report may be modified if the final daily design flow exceeds 3,000 gallons per day or if high strength wastewater is proposed to be generated at the site.

The evaluation was conducted by Ryan Smith, North Carolina Licensed Soil Scientist on Monday, October 4, 2021. The evaluation was conducted during moist soil conditions with the use of a hand-auger to determine soil suitability for on-site sewage disposal systems in accordance with 15A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems". Characteristics that affect the suitability of sub-surface systems include soil depth to expansive clay, seasonal high-water table, rock, and unusable saprolite. Topography and slope also affect the suitability of an area for septic systems. The evaluation of these components was conducted on the site. The level of the evaluation was detailed for this tract.

Findings are conveyed by showing areas on the enclosed map that are usable for different system types. Areas that are suitable for conventional, modified conventional, approved accepted, or innovative wastewater systems are hatched in red. These areas have usable topography and a minimum slope-corrected soil depth of 30 inches. Areas hatched in blue have potentially usable saprolite but will need an evaluation with pits in order to confirm the presence of usable saprolite. All hatched areas are generated using gps technology in the field and are not survey located. The areas are labeled with approximate square footages.

This soil map will be beneficial in developing your site plan. We recommend contacting a reputable civil engineer to assist with the property development plan. Once we have an established use for the property, we can generate a daily design flow for your wastewater. The square footages of the soil areas will help your engineer determine how much daily flow the site can handle. Due to the complexity of the project, we recommend permitting the wastewater system as an Engineer Option Permit. This is a joint permit between the engineer and the soil scientist. We will be glad to assist with the permitting process.

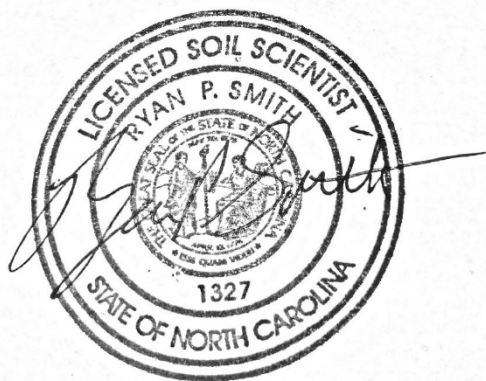
This report discusses the general location of potentially usable soils for on-site wastewater disposal and the soil and site limitations on the property that exists at the time of the evaluation. Piedmont Environmental Associates, PA (“Piedmont”) provides professional consulting specializing in the practice of soil science and wastewater management. Piedmont is therefore hired for its professional opinion regarding these matters. Laws and rules governing wastewater treatment and disposal are forever evolving and subject to the interpretation and opinion of individuals which are employed by local and state agencies that govern these laws and rules. Due to this fact, Piedmont cannot guarantee in any way that any area located in the field, shown on a sketch, or discussed with the client will be permitted by any of these agencies. It is for this reason that **Piedmont strongly recommends to anyone considering a financial commitment on any piece of property be completely aware of any and all permit requirements on that property before purchase and obtain those permits prior to a final financial commitment.**

We are pleased to be of service in this matter. If you have any further questions, please feel free to call (336) 662-5487.

Sincerely,

Ryan Smith  
Piedmont Environmental Associates, PA

Attachments:            I – Setbacks  
                                  II – Soil Map



## Attachment I

### .1950 Location of Sanitary Sewage Systems

- (c) Every sanitary sewage treatment and disposal system shall be located at least the minimum horizontal distance from the following:
- |  |          |
|--|----------|
| (1) Any private water supply source including a well or spring   | 100 feet |
| (2) Any public water supply source   | 100 feet |
| (3) Streams classified as WS-I   | 100 feet |
| (4) Water classified as S.A.<br>from mean high water mark  | 100 feet |
| (5) Other coastal waters<br>from mean high water mark  | 50 feet  |
| (6) Any other stream, canal, marsh, or other surface waters  | 50 feet  |
| (7) Any Class I or Class II reservoir<br>from normal pool elevation  | 100 feet |
| (8) Any permanent storm water retention pond<br>from flood pool elevation  | 50 feet  |
| (9) Any other lake or pond<br>from normal pool elevation   | 50 feet  |
| (10) Any building foundation   | 5 feet   |
| (11) Any basement  | 15 feet  |
| (12) Any property line   | 10 feet  |
| (13) Top of slope of embankments or cuts of 2 feet or more<br>vertical height  | 15 feet  |
| (14) Any water line  | 10 feet  |
| (15) Drainage systems:   |          |
| (A) Interceptor drains, foundation drains and storm water diversions   |          |
| (i) upslope  | 10 feet  |
| (ii) sideslope   | 15 feet  |
| (iii) downslope  | 25 feet  |
| (B) Groundwater lowering ditched and devices   | 25 feet  |
| (16) any swimming pool   | 15 feet  |
| (17) any other nitrification field (except repair area)  | 20 feet  |
| (b) Ground absorption, sewage treatment and disposal systems may be located closer than 100 feet from a private well supply, except springs and uncased wells located downslope and used as a source of drinking water, repairs, space limitations and other site-planning considerations but shall be located the maximum feasible distance and, in no case, less than 50 feet. |          |
| (c) Nitrification fields and repair areas shall not be located under paved areas or areas subject to vehicular traffic. If effluent is to be conveyed under areas subject to vehicular traffic, ductile iron or its equivalent pipe shall be used. However, pipe specified in Rule .1955 (e) may be used if a minimum of 30 inches of compacted cover is provided over the pipe. |          |

**Note: Systems over 3000 GPD or an individual nitrification fields with a capacity of 1500 GPD or more have more restrictive setback requirements, see .1950 (a) (17) (d) for specifics.**