SEVERSON SOIL CONSULTING, PLLC

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Site Suitability for Domestic Sewage Treatment and Disposal Systems

Cupelo Road
Greene County
Winterville, NC
PIN #: 4606080123
South Portion

Prepared for: Chase Furlough

Prepared by: Erik Severson, Severson Soil Consulting, PLLC

Report Date: 1/13/2026

SYNOPSIS

This report shows the findings of a preliminary soil and site evaluation of the referenced parcel in Green County, NC. The site evaluation revealed sufficient area for the potential installation of a drainfield and repair for a 3– bedroom dwelling. This report is intended to aid the permitting authority to evaluate the site.

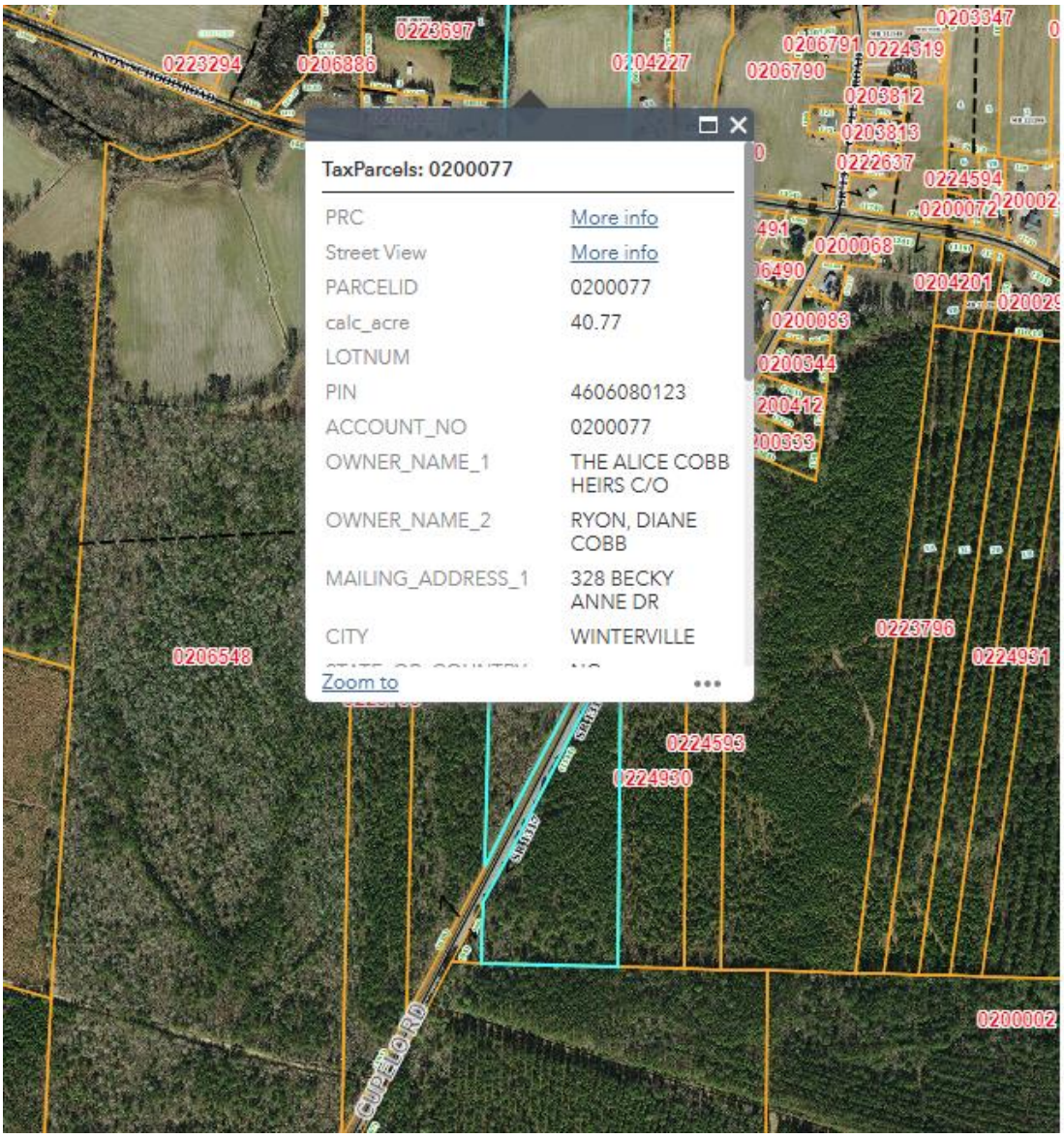


Figure 1. Property Location

Chase, this is a summary of my findings:

Severson Soil Consulting, PLLC (SSC) conducted a preliminary onsite wastewater soil feasibility study on the above referenced parcel to determine the area of soils, suitable for a subsurface onsite wastewater disposal system. The soil and site evaluation were performed by using a hand auger boring during moist soil conditions based on the criteria in the Rules and Laws Governing Onsite Wastewater Systems (18E rules). From this evaluation, SSC sketched an area suitable for the installation of a septic system. All dimensions, locations are approximate.

Site Description

The 40–acre tract was near Walstonburg NC, south of the intersection of Knox School Road and Cupelo Road. The site was primarily in planted pines. The unit of interest in the NRCS soil map is the Ly; Lynchburg soils (figure 2).

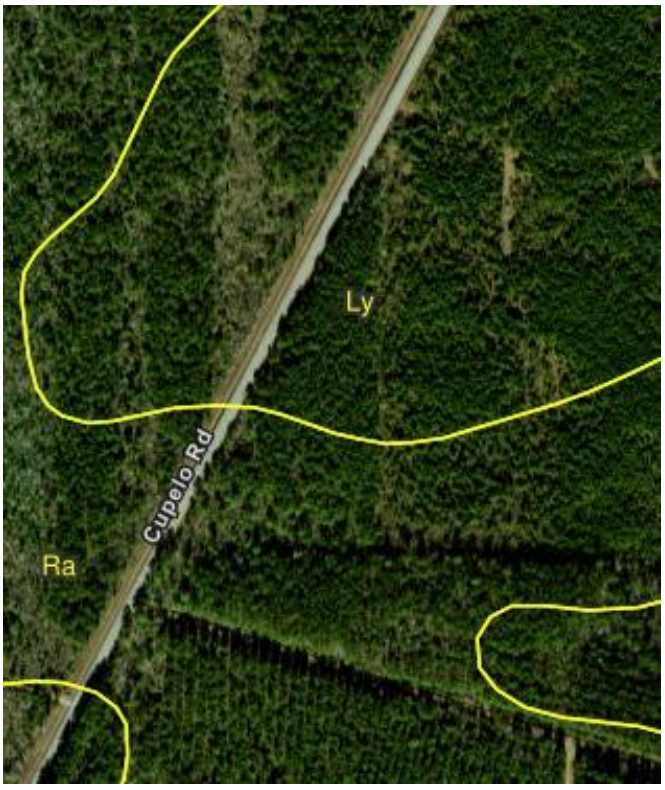


Figure 2. Soil map of the of the subject property (Web Soil Survey).

Soil Borings

Over 9 soil borings and observations were advanced on four areas the parcel as seen in figure 3 below. Their depths of suitable soils categorized the soils. The brown dots were 20–24" to the seasonal high water table. These soils were the Goldsboro Series. The yellow dots represented soils that were 18–19" to the water table. These soils were an intergrade between the Goldsboro and Lynchburg soil series. The purple dots represent suitable soils from 13" to 17" and were the Lynchburg soils. The black dots represent soils less than 12" to the seasonal high water table (figure 3) and were the Rains soils. The recommended LTAR (long term acceptance rate) for the Goldsboro soils are 0.35 to 0.4 gallons per day per foot squared (GPD/ft2) for a trench system.

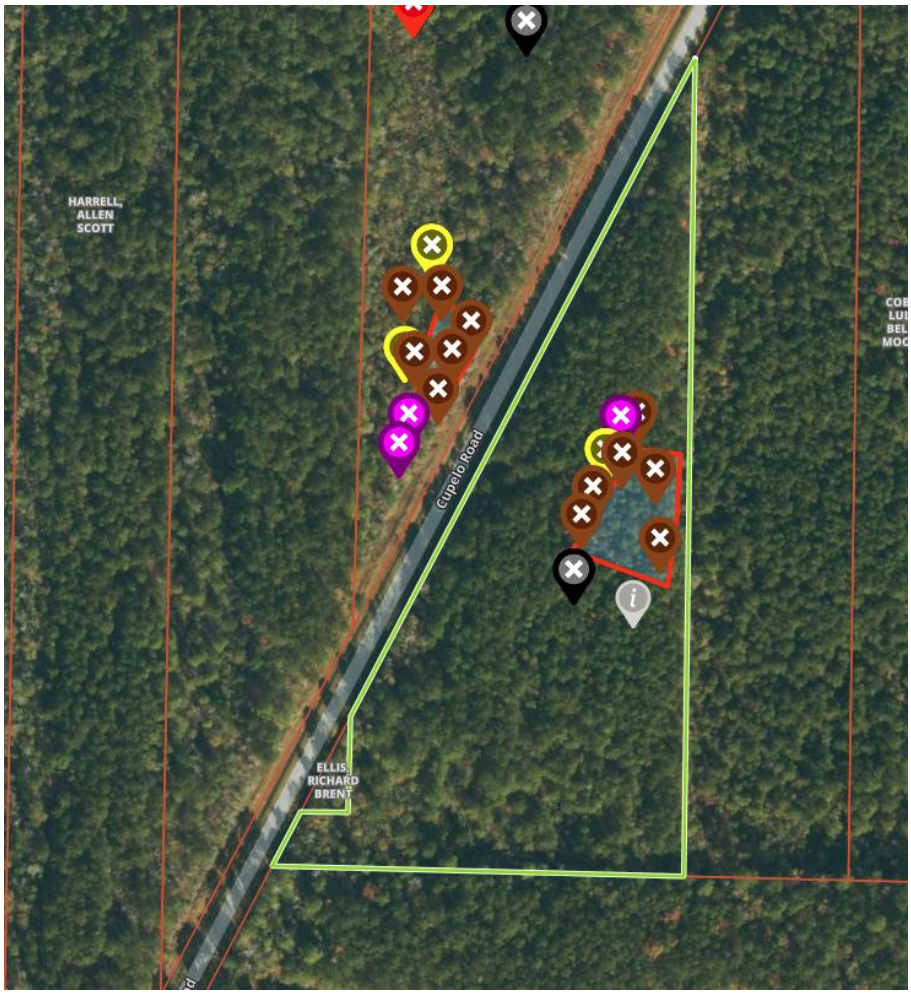


Figure 3. Soil boring locations within the property as located by the onX Hunt application.

Required Area

Trench Systems

A conservative estimate of the required linear footage needed for a low-profile trench status drainfield product is calculated by dividing the flow rate for a three-bedroom dwelling (3-BR= 360 gpd) by the long-term acceptance rate, LTAR (0.4 GPD/ft2). Then dividing that number by a 3-foot-wide trench bottom. No reductions are allowed with this product.

[360gpd / 0.4 gpd/ft2) / 3ft wide trench)] = 300 Linear Feet

The required space of suitable soils was calculated based upon a 3 -foot-wide trench and a 9-foot minimum center to center spacing of each trench. Assuming three 100-foot-long trench lengths, the minimum total area required would then be 8,000 ft2 including primary and a 100% repair area (4,000 ft2 x 2). Other drainfield lengths and configurations could be employed, such as additional shorter or longer lines.

Usable Areas

The area for a septic system was in the middle of the property near the eastern property line. It was located on a gentle sideslope. The usable soil was 0.5 acres or 21,780 ft2 in size. This area is 2.7 times the needed space for low profile chamber system and repair area servicing a three-bedroom property.

Figure 4. Usable soil area

See figure 5 for a picture of the Goldsboro soil within the suitable soil area. Note the active root channels are the same color as the matrix color, indicating oxidizing conditions.

Figure 5. Goldsboro Bt horizon at 22 inches within the usable area

Permitting

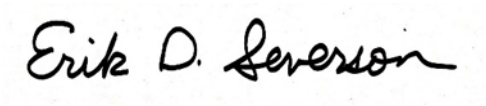
Prior to the issuance of a septic permit, the lot will require a soil and site evaluation by the Greene County Health Department or private permitting authority. The specific trench product type and soil loading rate will be determined by their assessment. The areas for proposed drainfields shall not be impacted by home sites, pools, garages, nor be mechanically altered from the natural lay of the land. Regulatory setbacks to property lines, roads, wells, etc. are to be maintained.

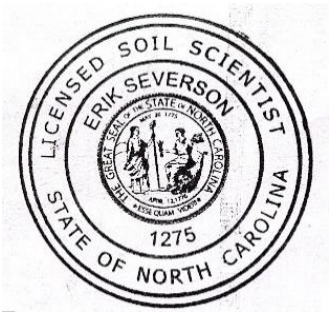
Exact locations of future drainfields, repair areas, buffer from property lines (current and future), building foundations, pools, decks, and well locations are not addressed in this report. Those items should be fully considered as the plans develop for the potential future use of the site. Depending on the position of the house location, house size, property lines and setbacks that may encroach on available usable space, this lot may require a septic system utilizing a pump.

Due to the subjective nature of the permitting process, zoning, variability of naturally occurring soil, and unforeseen circumstances, SSC cannot guarantee that areas delineated as suitable for on-site wastewater disposal systems will be permitted, as the permits are issued by the local governing agency. However, the areas of suitable soil have at least 2.7 times the needed space for a conventional system and repair depending on the loading rate. This report may be used to assist the local permitting agency to issue a septic permit.

Thank you for your business. Please do not hesitate to ask for more information regarding this report.

Sincerely,





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