



Fred D. Smith Soil Scientist

July 14, 2025

Thomas Coggin
32 Emener Dr.
East Moriches, N.Y. 11940

Subject: Preliminary Soil Evaluation for Septic System Suitability and Subdivision
Thomas Coggin Subdivision 2 Lots
Tax Parcel No. 001120
NC Highway 58
Nashville, Nash County, NC

Dear Mr. Coggin,

This preliminary soil report concerns the soil evaluation to determine soil suitability for septic systems. You authorized me to evaluate the soils for conventional septic systems and provided me with a survey plat for the proposed subdivision. Individual lots were staked in the field.

The subdivision tract was evaluated to observe soil properties, surface features, landscapes, and site parameters. Hand auger borings were advanced to evaluate soil characteristics in accordance with 15A NCAC 18E .0101 (Laws and Rules for Sewage Treatment and Disposal Systems). Soil characteristics were documented and grouped into soil areas that can be permitted for the various types of septic systems allowed by the rules in North Carolina. Typical soil descriptions and ranges of characteristics observed are shown in Table 1.

This work was performed by pacing and estimating distances and reading landscape position to show where soil boundary lines change at the site. This is a preliminary soil and site evaluation that is intended for general planning purposes and to provide Nash County with their required soil evaluation report. The soil mapping is shown on the attached subdivision plat

Additional detailed soil evaluation and system design will be required prior to obtaining a permit from Nash County for any septic system. Individual drainfield layout will be necessary before a permit can be obtained.

Site Parameters

The site of the subdivision is a clear grassy field.

Parent Material: Sandy clay loam and clay loam marine deposit soils in the upper Coastal Plain of N.C.

Past Activities: forestry, farming, old structures, (my report does not include searches for underground storage facilities, landfills, buried waste or any other hazardous waste).

Conclusions

Each lot has sufficient area of suitable soils for shallow conventional septic systems with private wells on each lot. The location of septic systems can be located in the field area and within the map designation of Soil 1.

The attached subdivision plat shows the soil type found over all the lots to be SUITABLE SOIL. This soil is further described in Table 1 and septic system size is also discussed.

I appreciate your selection of me to perform these soil science services. Please call me if you have any questions.

Sincerely,



Fred D. Smith



SOIL DESCRIPTIONS
Coggin Subdivision
Lots 1 and 2
Nashville, Nash County

SOIL 1

The description below is a typical soil mapped into the suitable soils on the attached soil map of the property.

Horizon/ Depth (inches)	Texture	Color and description
A/ 0-5	Sandy loam topsoil	Brown; weak fine granular structure; very friable.
Bt/ 5-28	Sandy clay loam	Red; moderate medium sub-angular blocky structure; friable, slightly sticky, slightly plastic
Bt/ 28- 60+	Sandy clay loam	Red; moderate medium sub-angular blocky structure; friable, sticky, plastic

Range in Characteristics:

The A or Ap horizon has a hue of 5YR to 10YR, value of 3 to 5, and chroma of 2 through 8. Where the value is 3 or less, it is less than 7 inches thick.

The upper part of the Bt horizon has hue of 10R to 5YR, value of 4 or 5, and chroma of 4 through 8.

The lower part of the Bt horizon has hue of 10R to 5YR, value of 4 or 5, and chroma of 4 through 8. Mottles in shades of brown and yellow range from none to common.

These soils are on nearly level to moderately steep uplands of the Southern Coastal Plain. They formed in red clayey marine sediments. Slopes range from 0 to 15 percent, but are dominantly 0 to 12 percent.

They will be classified as suitable for shallow conventional septic systems.

The loading rate will range from 0.3 to 0.6 gallons per day per square foot (g/sq-ft/day) for conventional septic systems. The design loading rate should be selected after more detailed work within a proposed septic system area than this preliminary soil evaluation can determine. Loading rates are based on loamy subsoil textures that have weak blocky structure and may have low to moderate amounts of expansive clay mineralogy present.

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Most of the SUITABLE SOIL AREA has depths to SHWT or parent material of at least 40 inches below the surface. Most of the suitable soil area will allow trench depths of 18-36 inches below the surface.

