



Fred D. Smith Soil Scientist

June 25, 2024

Pretion Land
Lucas Dargis
115 Rustinburg Court
Clemmons, N.C. 2701

Subject: Preliminary Soil Suitability for Conventional Septic Systems
King Street, Parcel E6 35
Warren County

Dear Mr. Dargis:

This letter presents our evaluation results and conclusions regarding soil suitability for septic systems for the above-mentioned parcel.

We were asked to evaluate the soils on the above-mentioned parcel. You want to determine if the soils on the parcel are suitable for conventional septic systems for residential homes. You plan to sub-divide the parcel into individual lots. The property lines were flagged at the site.

Soil and Site Evaluation

The site and soil were evaluated to observe soil properties, surface features, landscapes, and site parameters. Hand auger borings were used to evaluate soil characteristics in accordance with 15A NCAC 18E (Laws and Rules for Sewage Treatment and Disposal Systems). See the attached map that shows the general location of each boring on a topographic map. It also shows the suitable and unsuitable soil areas and their general locations.

The portion of the tract that was evaluated is a flat linear area with slopes of about 2% to 5% and is moderately wooded.

The soils are residual soils formed from the underlying rocks of the Piedmont Region of N.C. They have loamy topsoil and red clay subsoils. They have sub-angular blocky structure. They do not have a significant amount of shrink-swell clay mineralogy. They do not have shallow seasonal wetness within 39 inches of the surface. They have saprolite at approximately 34 inches below the surface.

Conclusion

The soils are suitable for a shallow conventional drainfield with the exception of one small area located at the northwest corner of the parcel off of King Street. There is head drain in the area, which makes these soils unsuitable due to unsuitable topography.

Based on the soil properties found in the suitable soils we expect these soils to have a loading rate of about 0.3 gallons per square feet of trench per day (for a 3 bed-room house). We expect that the initial and repair drainfields will need approximately 3200 square feet of area. The trenches can be 18-24 inches deep with the trenches installed on contour of the slope.

We appreciate the opportunity to work with you on this project. Please contact me with questions or additional information after you have reviewed the information here.

Sincerely,



Fred D. Smith, LSS



