

PRELIMINARY SOIL & SITE EVALUATION

Ernest Pettiford Lot
Reavis Rd
Oxford, NC 27565

Prepared For:

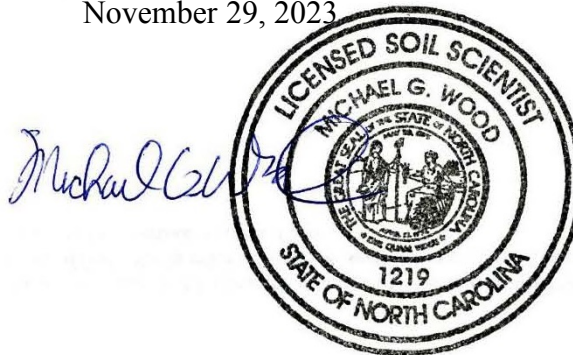
Arturo Paturzo
Diendei Land Investments
18395 Gulf Blvd., Suite 203 #4
Indian Shores, FL 33785
(843) 865-0230
arturo.paturzo@diendei.com

Prepared By:



620 Lee Fox Lane
Hillsborough, NC 27278
(919) 417-8027

November 29, 2023



Michael G. Wood, LSS

INTRODUCTION AND SITE DESCRIPTION

A Preliminary Soil & Site Evaluation was performed on the 1.98-acre Ernest Pettiford Lot located off Reavis Rd, Oxford, NC (Granville County MAPN: 192707773832). Wood Soil Consultants (WSC) was retained to evaluate the soil and site conditions and identify suitable areas for placement of an on-site subsurface wastewater system(s). The property was evaluated in accordance with the “Laws and Rules for Sewage Treatment and Disposal Systems”, amended December 6, 2018.

The study area is wooded. It is anticipated to be served by a private well.

INVESTIGATION METHODOLOGY

The field survey was conducted on November 29, 2023, by Michael G. Wood, LSS and Ethan T. Wood. Soil borings were advanced with hand-augers and soil color determined using a Munsell Soil Color Chart. Observations of the landscape as well as soil properties (depths, texture, structure, soil wetness, restrictive horizons, etc.) were recorded. Soil borings were described per the USDA-NRCS, *Field Book for Describing and Sampling Soils, Version 3.0*. Soil borings and site features are noted in Figure 1.

FINDINGS

Four (4) soil borings were advanced their placements located on Figure 1.

Provisionally Suitable for Conventional Type Systems. Borings Provisionally Suitable for Conventional Systems include Gravel, Accepted, Alternative, Shallow-Placed, and prefabricated permeable block panel systems. While the particulars and costs between the system types can vary considerably, these are generally the preferred system types. This soil appeared adequate to support a long-term acceptance rate (LTAR) of 0.30 GPD/sq-ft.

Provisionally Suitable for Low-profile Chamber Systems. Low-Profile Chamber systems are designed similarly to Conventional Type systems but are not allotted any reduction in drainfield size, thus will require more space than the typical Conventional Type systems. These soils require a minimum of 20” of suitable soil when factoring in slope corrections.

Provisionally Suitable for Subsurface Drip Systems. Subsurface Drip systems require a minimum of 13” of suitable soil. Soil with a restriction less than 17” will require the septic system to include a pretreatment unit that treats the wastewater to Treatment Standards II. Subsurface Drip systems are substantially more costly to install than Conventional Type and Low-Profile Chamber Systems. LTAR often need to be confirmed via in-situ hydraulic conductivity measurements, but these are expected to support an LTAR of 0.10 GPD/sq-ft.

Unsuitable. Borings were rated as Unsuitable due to a restrictive horizon occurring within 12 inches of the ground surface.

DISCUSSION

Every boring was rated as Provisionally Suitable for a Conventional Type system. As such, there are few limitations with regards to the septic suitability in developing the lot; the lot is able to support at least a 4-bedroom single-family residence.

CONCLUSION

The findings presented herein represent WSC's professional opinion based on our Preliminary Soil and Site Evaluation and knowledge of the current laws and rules governing on-site wastewater systems in Granville County and North Carolina. There is ample space and good soil on this lot for a Conventional Type Septic System.

This Preliminary Soil and Site Evaluation is for general information purposes only. The data collected will not meet the standards of the Engineered Option Permit (EOP) process. Soils naturally change across a landscape and contain many inclusions. As such, attempts to quantify them are not always precise and exact. Due to this inherent variability of soils and the subjectivity when determining limiting factors, there is no guarantee that a regulating authority will agree with the findings of this report.

Figure 1. Ernest Pettiford Lot



- Conventional Type
- Low-Profile Chamber
- Drip
- Unsuitable