

PRELIMINARY SOIL & SITE EVALUATION

Will Jefferson Lot
0 Will Jefferson Road
PIN: 0372 01042
Vance County, NC
Job #: 6521

Prepared For:

Brelyn Guyer
Golden Realty
8354 Six Forks Road, Suite 103
Raleigh, NC 27615
919-605-7892

Prepared By:

Michael G. Wood
620 Lee Fox Lane
Hillsborough, NC 27278
(919) 732-7299

August 19, 2021



Michael G. Wood, LSS

INTRODUCTION & SITE DESCRIPTION

A Preliminary Soil & Site Evaluation was performed on the 0.98-acre lot on Will Jefferson Road, Vance County, NC (PIN: 0372 01042). Michael G. Wood, LSS was retained to evaluate the soil and site conditions and identify suitable areas for placement of on-site subsurface wastewater systems for a single-family residence. The property was evaluated in accordance with the “Laws and Rules for Sewage Treatment and Disposal Systems”, amended December 6, 2018.

The parcel is wooded. The desired structure being considered by this report is a single-family residence. It will be served by a private well. There is a maintained power line easement close to the northern property line and a drainageway that runs through the middle of the lot from north to south.

INVESTIGATION METHODOLOGY

The field survey was conducted on August 18, 2021, by Michael G. Wood, LSS and Ethan 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 (depth, 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, and their locations noted on Figure 1. Detailed soil boring descriptions are attached.

Provisionally Suitable for Conventional Type Systems. Borings rated as Provisionally Suitable for Conventional Systems typically had a very friable sandy loam surface with a clay subsurface that extended from 35 to 36+ inches below the ground surface. These soils appeared adequate to support a long-term acceptance rate (LTAR) of 0.3 GPD/sq-ft.

Provisionally Suitable for Drip Systems. Boring 4 was rated as Provisionally Suitable for Drip Systems. It a sandy loam surface horizon and clay and loam textured subsurface horizons that extended to 20 inches below the ground surface. This soil appeared adequate to support a long-term acceptance rate (LTAR) of 0.15 GPD/sq-ft.

DISCUSSION

There appears to be sufficient soil to support a Provisionally Suitable for a Conventional Type system (conventional, shallow, panel block, alternative) near borings 2 and 3 to **support the initial system** for a 3-bedroom house and **the repair system** near boring 4 (as a drip system). The area around borings 2 and 3 may provide sufficient space for the repair system as well, however, due the topographic constraints, the system details will require additional soil and site

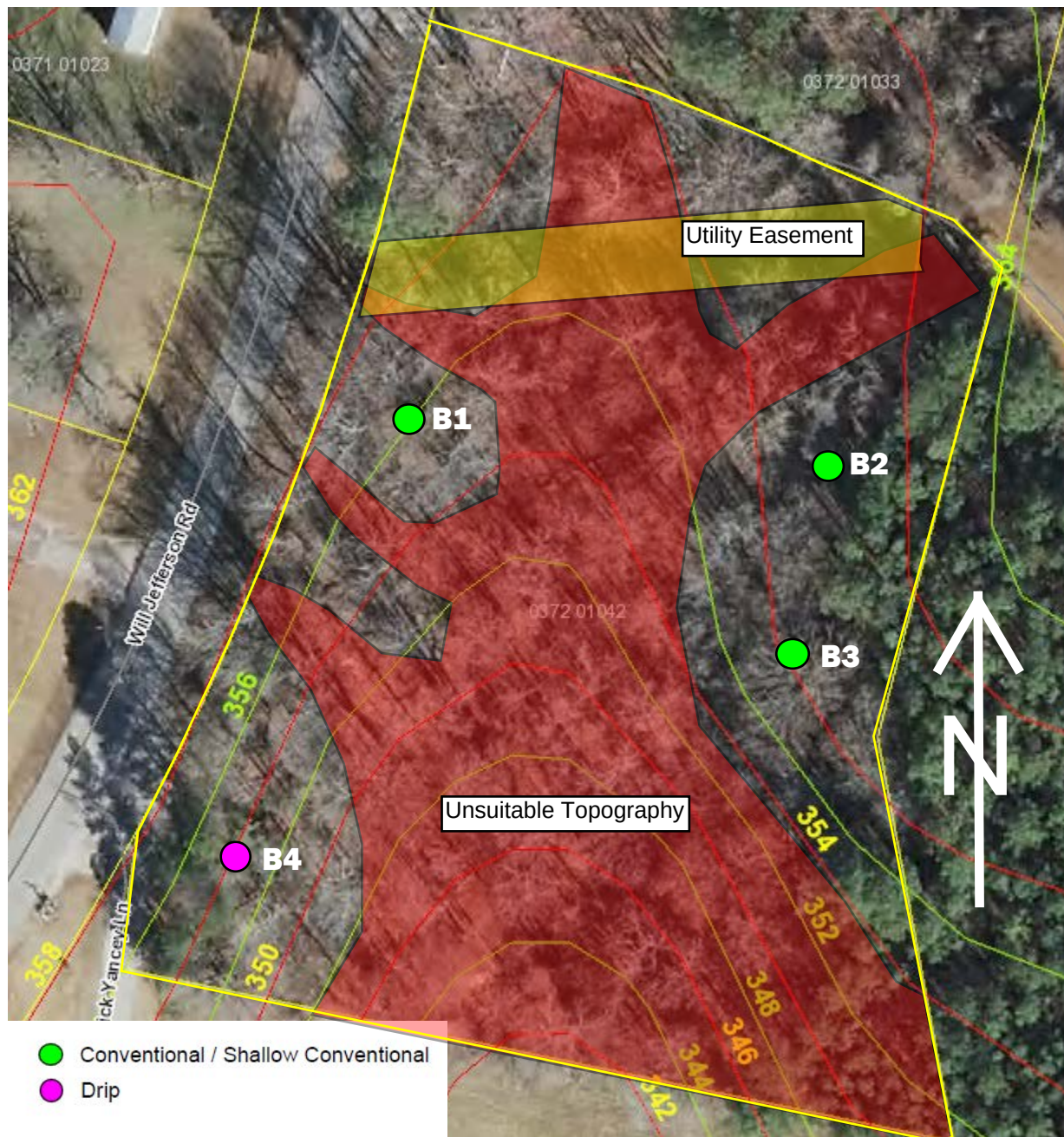
evaluations, primarily that the drainfield be field delineated and additional soil borings. It is possible that the additional evaluations may allow for more than a 3-bedroom house.

CONCLUSIONS

The findings presented herein represent our professional opinion based on our Preliminary Soil and Site Evaluation and knowledge of the current laws and rules governing on-site wastewater systems in Vance County and North Carolina. There is suitable soil for a drainfield and between the area around borings 2 and 3 AND boring 4 to support a 3-bedroom house. A more detailed evaluation will determine the system specifics and may result in the lot accommodating more than 3-bedrooms.

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. Any concurrence with the findings of this report will be made by Vance County at the time of Improvement Permit application.

Figure 1. Will Jefferson Road Lot



Soil Evaluation Form

Three Oaks Engineering
324 Blackwell Street, Suite 1200
Durham, NC 27701
919.732.1300

Sheet 1 of 1
Job: 6521 Wm JEFFERSON
County: VANCE
Date: 8-18-21

Soil Borings

	1	2	3	4						
Landscape Position	LS	LS	LS	L						
Slope (%)	5	8	7	9						
Horizon 1 Depth	0-35	0-16	0-9	0-5						
Texture	L	SL	SL	SL						
Consistence	FR	FR	FR	VFR						
Structure	SBK	CLSBK	GR	GR						
Clay Mineralogy	S	N	N	N						
Horizon 2 Depth	35+	16-36+	9-36+	5-14						
Texture	O	C	C	C						
Consistence	FR	FF	FF	FF						
Structure	M	SBK	SBK	SBK						
Clay Mineralogy	N	S	S	S						
Horizon 3 Depth				14-20						
Texture				L						
Consistence				FR						
Structure				SBK						
Clay Mineralogy				N						
Horizon 4 Depth				20+						
Texture				L						
Consistence				FR						
Structure				M						
Clay Mineralogy				N						
Horizon 5 Depth										
Texture										
Consistence										
Structure										
Clay Mineralogy										
Soil Wetness										
Restrictive Horizon										
Saprolite	35			20						
Other		>36	>36							
CLASSIFICATION	PS	PS	PS	DRIP						
LTAR (gpd/ft ²)	0.35	0.30	0.3							

Comments:

Evaluated by: M. WOOD, E. WOOD