HAL OWEN & ASSOCIATES, INC.

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18 January 2019

Zachary Angle
4340 McDougald Road
Lillington, NC 27546

Reference: Preliminary Soil Investigation
McDougald Road Property

Dear Mr. Angle,

A soil investigation has been conducted at the above referenced property, located on the northern side of McDougald Road (SR 1229), Harnett County, North Carolina. The purpose of this investigation was to determine the site's ability to support subsurface sewage waste disposal systems. All soil ratings and determinations were made in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900". It is our understanding that individual septic systems and public water supplies will be utilized at this site.

This property is composed of a mixture of soils that range from provisionally suitable to unsuitable for subsurface sewage waste disposal (see attached map). The soils shown as provisionally suitable will adequately function as sewage waste disposal sites but will require additional drainline due to clayey textured subsoil characteristics. You should expect that 85-115 feet of conventional drainline would be required for the initial system per bedroom in the home.

The soils shown as provisionally suitable for modified or alternative systems are limited in soil depth to the extent that systems that can be installed ultra shallow will likely be required. This requirement will necessitate the addition of approximately 6 inches of topsoil to completely cover the system. These more marginal soils were typically observed near the boundary with the unsuitable soils. It is likely that ultra shallow conventional type systems can be utilized at this site when limited soil depths are observed but you should expect that at least 100 feet of conventional drainline would be required for the initial system per bedroom in the home. Low profile chamber may be used when usable soil depths are very limited.

The unsuitable soil area is so rated due to excessive soil wetness and/or inadequate soil depth. The ability to utilize alternative systems or make modifications to this area to allow for septic systems is minimal.

Preliminary Soil Investigation
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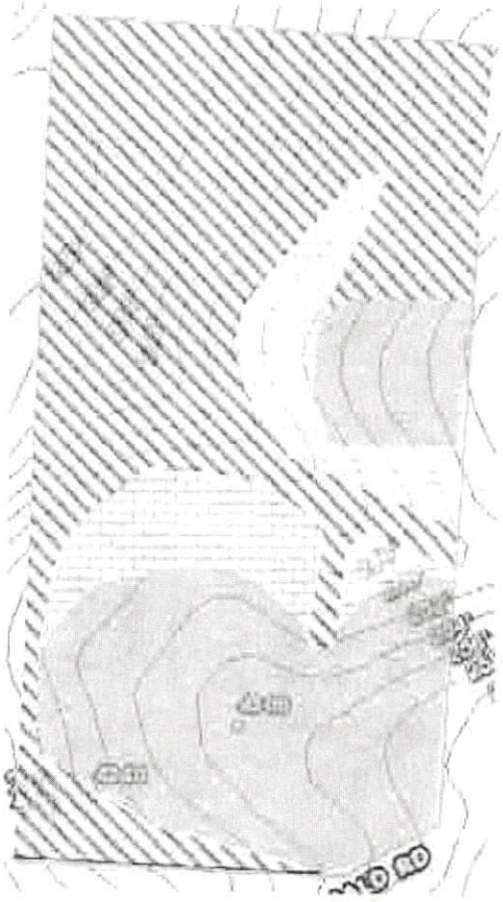
Soil Map



Soil Map Legend

Provisionally Suitable Soils

Provisionally Suitable for Modified or Alternative Systems

Unsuitable Soils

N
W E
S

Scale 1 in = 200 ft

Distances are paced and approximate

LICENSED SOIL SCIENTIST
HAL OWEN
1102
STATE OF NORTH CAROLINA

I have reviewed your proposed lot layout and it appears that 6 lots are possible on this property. The first lot on the western side has very little usable soil for a septic system. A more detailed investigation is needed and the septic systems that are in place for the existing homes need to be accurately located. The attached sketch shows where we approximate the existing systems to be located. It is recommended that we return to the site and locate the drainlines and flag them for all the existing systems so that the surveyor may miss the septic systems with the lot lines by the minimum required 10 feet. This work was not included in our originally discussed cost and will likely cost an additional $400. It is likely that you will need to move the rear property lines northward on the first and second lots on the western side to capture the existing systems of both existing structures and to incorporate more provisionally suitable soil into the first lot.

The two proposed lots on the eastern side have significant areas of provisionally suitable soils and do not appear problematic. However the two lots proposed in the northwestern corner of the property have much more marginal soils and will likely require special considerations for septic system designs such as the use of low profile chambers. Additional work will be necessary after the lot lines are placed on the ground.

I appreciate the opportunity to provide this service and trust that you will feel free to call on me again in the future. If you have any questions or need additional information, please contact me at your convenience.

LICENSED SOIL SCIENTIST
HAL OWEN
1102
STATE OF NORTH CAROLINA

Sincerely,

Hal Owen

Hal Owen
Licensed Soil Scientist

Preliminary Soil Investigation
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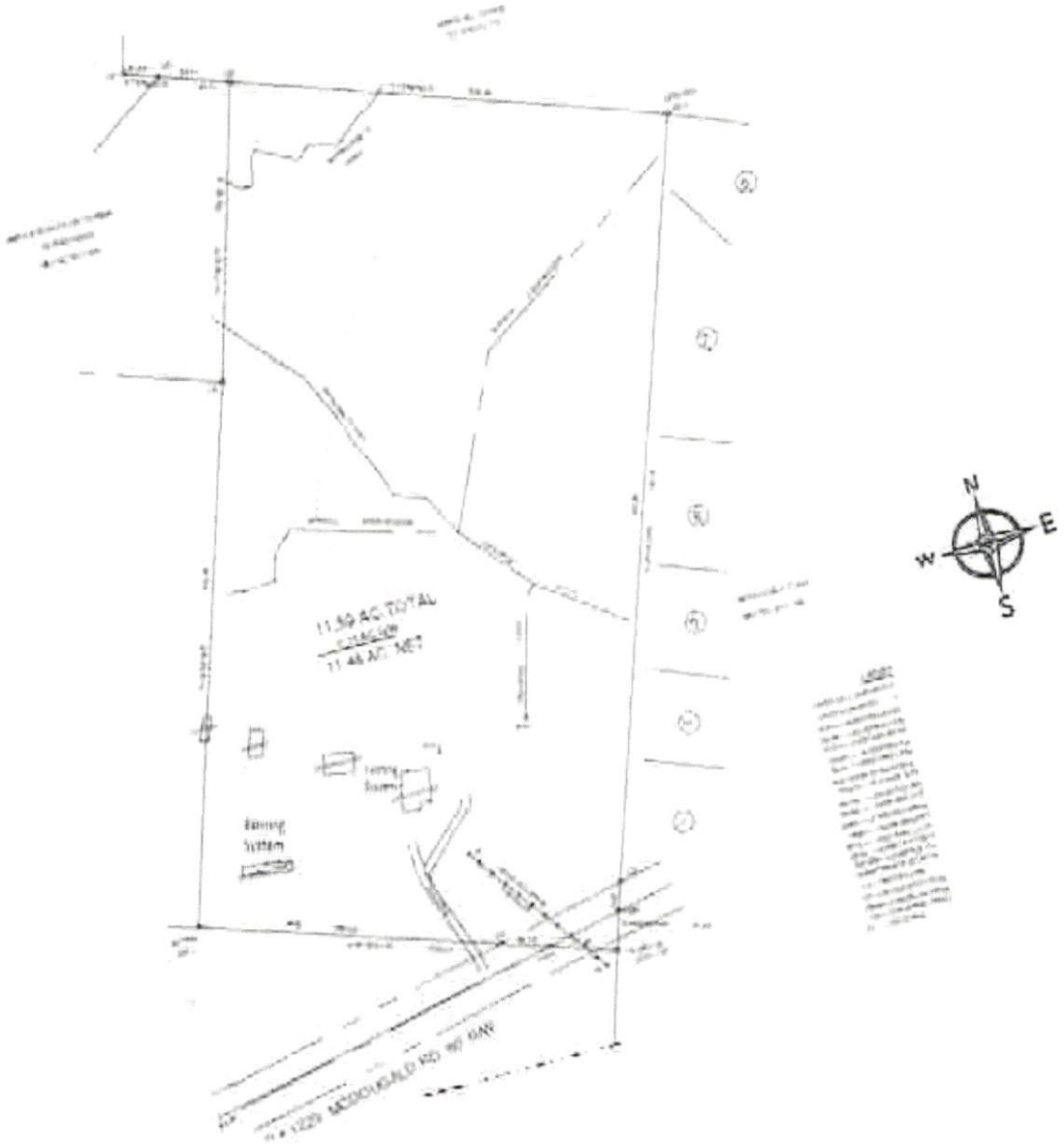
18 January 2019



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