## HAL OWEN & ASSOCIATES, INC.

## CERTIFIED PROFESSIONAL SOIL SCIENTIST ENVIRONMENTAL CONSULTANTS

ROUTE 1, BOX 120-C LILLINGTON, N.C. 27546 (910) 893-8743 . 03-5-7406

10 June 1996

Harnett County Environmental Health P.O. Box 9 Lillington, NC 27546

Attention: Mr. Thomas Boyce, Soil Scientist

Reference: Preliminary Soil Investigation

Rollins Mill Road Subdivision - 12 Lots

Dear Mr. Boyce,

A preliminary soil investigation has been completed for the above referenced property, located on the west side of Rollins Mill Road (SR 1401) and on the east and west sides of Hobby Road (SR 1400), Buckhorn Township, Harnett County, North Carolina. The purpose of the investigation was to determine the property's ability to support subsurface sewage waste disposal systems. All ratings and determinations were made in accordance with "Laws and Rules for Sanitary Sewage Collection, Treatment and Disposal, 15A NCAC 18A .1900."

This property is composed of a mixture of soils that range from provisionally suitable to unsuitable for subsurface sewage waste disposal. A significant area was located on each lot that was observed to be dominated by The indicated usable soil types (see attached map). portions of the lots are dominated by provisionally suitable soils due to clayey textured subsoil layers and depth to restrictive layers. Also observed were areas that may require ultra shallow drainlines due to inadequate soil depth and associated soil wetness conditions. In general, these shallow soils were observed near the boundary between the provisionally suitable soil area and the unsuitable soil area. Subsoil textures of clay with firm consistence were observed across the usable portions of the lots. These soils contain significant amounts of stones which greatly limit auger penetration. Several backhoe pits have been dug at the site to facilitate subsoil evaluations. These provisionally suitable soils will support long term acceptance rates of 0.3 to 0.4 gal/day/sqft.

It appears that the soils on these lots are adequate to support conventional septic systems (including chamber type drainlines) installed with maximum ditch bottom depths ranging from 18 to 24 inches below surface, depending on the house siting and number of bedrooms. Systems which utilize a pump to conventional drainlines may be required on some lots due to the usable soils being located at the highest elevations of the lots. Adequate amounts of usable soils also exist to support at least 100% repair areas that may need to be installed ultra shallow or may require alternative type systems, depending on the house siting and number of bedrooms.

I trust that this report provides the information that you require at this time. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,

Hal Owen

Certified Professional

Soil Scientist

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ROUTE 1, BOX 120-C LILLINGTON, N.C. 27546 (910) 893-8743 PO BOX 400 27546

10 June 1996

Mr. Ralph Smith Smith Architecture & Planning 1010 North Main Street Fuguay Varina, NC 27526

Reference: Preliminary Soil Investigation

Rollins Mill Road Subdivision - 12 Lots

Dear Mr. Smith,

Enclosed please find a copy of the soil investigation report that has been provided to the Harnett County Health Department. It appears that several of these lots may potentially require the use of a pump type system (Lots 5-12). The need for a pump can often be avoided by carefully locating the proposed home site. I believe that Lot 6 has the most limitations and could require an alternative type system such as a low pressure pipe system. A more detailed soil investigation (backhoe needed) and septic system design laid out on the ground (vegetation cleared or significantly thinned--not disturbing the soil in this process) will be necessary to determine the precise requirements for this lot. It is recommended that you, as owner, make application for an improvement permit for this lot. In the meantime, you should retain ownership of Lot 5 in case additional changes in the map are necessary or desirable.

This report represents my professional opinion as a Registered professional Soil Scientist but does not guarantee or represent permit approval for any lot by the local Health Department. Improvement permits will need to be obtained from the Health Department that specify the proposed home size and location, and the design and location of the septic system to be installed.

I appreciate the opportunity to provide this service and hope to be allowed to assist you again in the future. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,

Hal Owen