

HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

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20 October 2011

Mr. Chris Arbutina
3411 Integrity Drive
Garner, NC 27529-6225

Reference: Comprehensive Soil Investigation, Lots 1-3
Possum Track Road Property
PIN 1810.03-24-6100

Dear Mr. Arbutina,

A comprehensive soil investigation was conducted for the above referenced property on 10 October 2011. The site is located on the northern side of Possum Track Road (SR 2002), Barton's Creek Township, Wake County, North Carolina. The purpose of the investigation was to determine the ability of each lot to support a subsurface sewage waste disposal system and 100% repair area for a typical four bedroom home. It is our understanding that individual septic systems and wells will be utilized for each lot. Foundation drains appear to be possible for all lots. All ratings and determinations were made in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900" and Wake County Sewage Regulations. This report represents my professional opinion as a Licensed 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. Also included on the map are areas of flood hazard soils and streams that require Neuse River Buffers.

At the time of the investigation, no site improvements were noted. The soils were evaluated under moist soil conditions through the advancing of auger borings. Soils at the site appeared to be formed from residual materials weathered from acid crystalline rocks. The site is dominated by Cecil soils with sandy loam surface layers underlain by clay textured subsoils.

One stream was identified at this property as shown on the attached map. Any flood hazard soils at this property are included within the Neuse Riparian Buffer around the stream and are only a portion of that area. Wetlands and other jurisdictional areas are not present on this property except the previously mentioned stream

The soils indicated as provisionally suitable for subsurface sewage waste disposal (see attached map) are so rated due to clayey textured subsoil layers. These provisionally suitable subsoils were observed to be firm clays and clay loams that extended to greater than 36 inches below ground surface (see attached soil/site evaluation form). These provisionally suitable soils appear adequate to support long-term acceptance rates of 0.3 gal/day/sqft for conventional drainlines.

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

It appears that the soils on each lot are adequate to support conventional septic systems installed with maximum ditch bottom depths ranging from 18 to 24 inches below surface. Adequate amounts of usable soils also exist to support at least 100% repair area. It appears that Lots 1 - 3 contain adequate amounts of usable soil and meet the requirements set forth in the Regulations Governing Sewage Treatment and Disposal in Wake County, Section V.

This soil investigation report and maps with attachments, when provided to the Wake County Health Department, should allow them to approve the mylars for recordation. Prior to that time, the surveyor and I will need to get together to allow me to sign and seal the maps. 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
Licensed Soil Scientist



PROFILE 1

EVALUATED BY: Hal Owen, NC Licensed Soil Scientist

LEGEND OF ABBREVIATIONS FOR SITE EVALUATION FORM

<u>LANDSCAPE POSITION</u>	<u>TEXTURE GROUP</u>	<u>TEXTURE CLASS</u>	<u>.1955 LTAR</u> (gal/day/sqft)
CC - Concave Slope	I	S - Sand	1.2-0.8
CV - Convex Slope		LS - Loamy Sand	
DS - Debris Slump	II		0.8 - 0.6
D - Depression		SL - Sandy Loam	
DW - Drainage Way		L - Loam	
FP - Flood Plain	III		0.6 - 0.3
FS - Foot Slope		SCL - Sandy Clay Loam	
H - Head Slope		CL - Clay Loam	
I - Interfluv		SiL - Silt Loam	
L - Linear Slope		Si - Silt	
N - Nose Slope	IV	SiCL - Silt Clay Loam	0.4 - 0.1
P - Pocosin			
R - Ridge		SC - Sandy Clay	
S - Shoulder		C - Clay	
T - Terrace		SiC - Silty Clay	
		O - Organic	none

STRUCTURE

G	- Single Grain
M	- Massive
CR	- Crumb
GR	- Granular
SBK	- Subangular Blocky
ABK	- Angular Blocky
PL	- Platy
PR	- Prismatic

MOIST CONSISTENCE

VFR	- Very Friable
FR	- Friable
FI	- Firm
VFI	- Very Firm
EFI	- Extremely Firm

MINERALOGY

NEXP	- Non Expansive
SEXP	- Slightly Expansive
EXP	- Expansive

WET CONSISTENCE

NS	- Non Stick
SS	- Slightly Sticky
MS	- Moderately Stick
VS	- Very Sticky
NP	- Non Plastic
SP	- Slightly Plastic
MP	- Moderately Plastic
VP	- Very Plastic

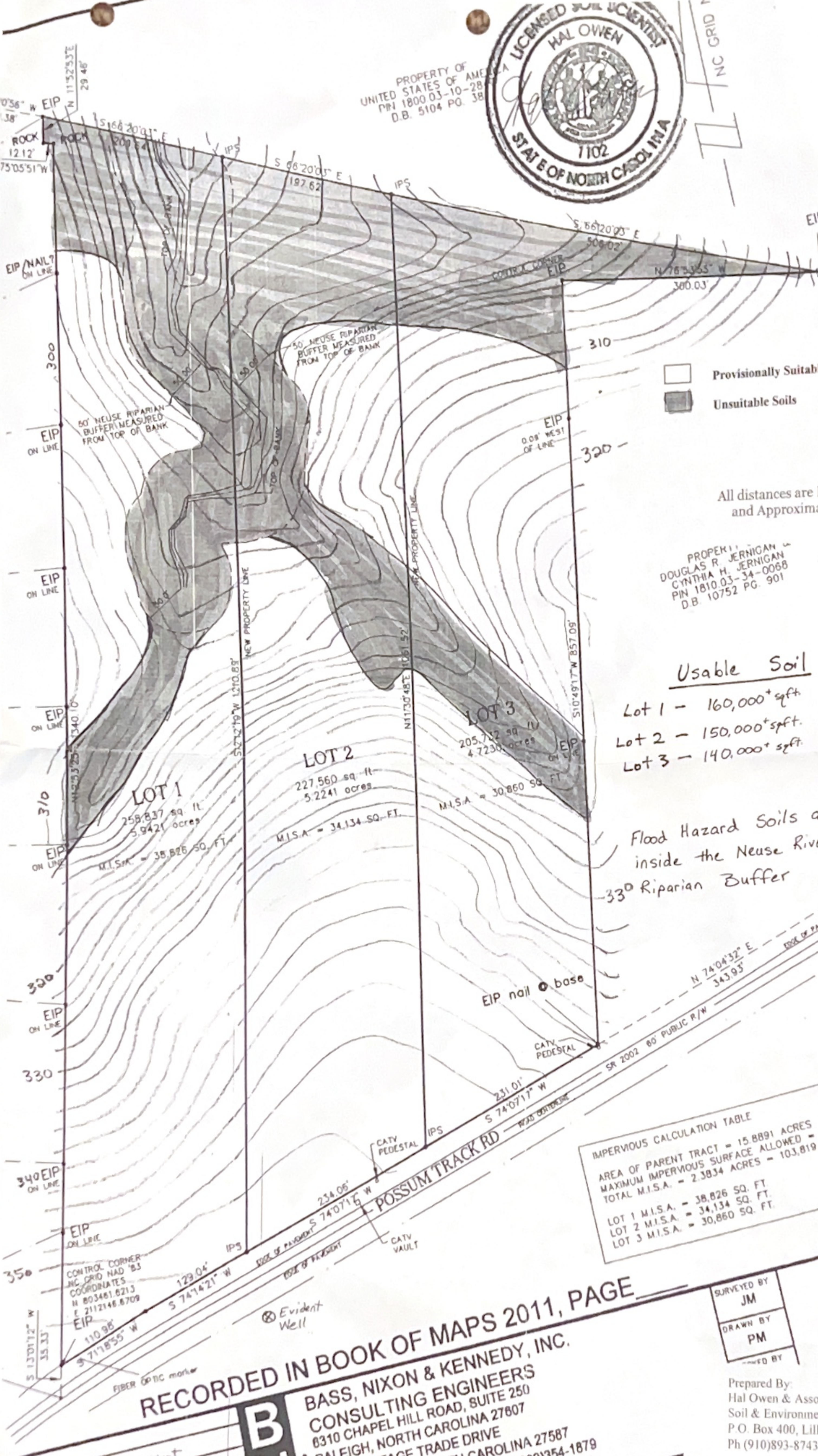
MOTTLES

f	- few	1	- fine	F	- Faint
c	- common	2	- medium	D	- Distinct
m	- many	3	- coarse	P	- Prominent

Comprehensive Soil Investigation
Chris Arbutina
October 2011
Property - 3 Lots



PROPERTY OF
UNITED STATES OF AMERICA
PIN 1800 03-10-28
D.B. 5104 PG. 38



Provisionally Suitable Soils
Unsuitable Soils

All distances are Paced and Approximate.

PROPERTY OF
DOUGLAS R. JERNIGAN &
CYNTHIA H. JERNIGAN
PIN 1810 03-34-0068
D.B. 10752 PG. 901

Usable Soil

- Lot 1 - 160,000⁺ sq. ft.
- Lot 2 - 150,000⁺ sq. ft.
- Lot 3 - 140,000⁺ sq. ft.

Flood Hazard Soils are
inside the Neuse River
33' Riparian Buffer

IMPERVIOUS CALCULATION TABLE

AREA OF PARENT TRACT	= 15.8891 ACRES
MAXIMUM IMPERVIOUS SURFACE ALLOWED	= 15% x 15.8891 ACRES
TOTAL M.I.S.A.	= 2,383.4 ACRES = 103,819 SQ. FT.
LOT 1 M.I.S.A.	= 38,826 SQ. FT.
LOT 2 M.I.S.A.	= 34,134 SQ. FT.
LOT 3 M.I.S.A.	= 30,860 SQ. FT.

RECORDED IN BOOK OF MAPS 2011, PAGE _____



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