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January 26, 2019

Julie Tilley  
P.O. Box 396  
Fuquay Varina, NC

Subject: Soil Evaluation  
Parcel No.0643-78-9749  
Harnett County, NC

A 1-acre section of the above parcel is to be subdivided out from the larger tract. I evaluated the proposed 1-acre lot for suitability for a septic system.

The attached map is provided by Ben Dewar, RLS showing the proposed 1-acre lot. The map was expanded to show the location of the soil borings performed. Three borings were performed and the soils are consistent across the proposed 1-acre lot.

The soils are in the Dothan soil series. The land slopes at 2-3 percent in the rear (north) section of the lot where the proposed septic system is to be located. Following is a typical soil description of the soils encountered:

- Ap 0-8 inches: light grayish brown (10 YR 4/3) loamy sand, very friable, weak fine granular structure.
- E 8-16 inches: light gray (10 YR 6/2) loamy sand; very friable, structureless
- Bt1 16-27 inches: yellowish brown (10 YR 5/6) sandy clay loam; friable; moderate fine subangular blocky structure
- Bt2 27 -40 inches: yellowish brown (10 YR 5/6) sandy clay loam; common medium concentration of strong brown (7.5 YR 5/6); friable; moderate medium subangular blocky structure

Summary notes:

Drainage- well drained  
Permeability- moderate – soils in Group 3  
Proposed LTAR – 0.40 GPD/Ft<sup>2</sup>  
Proposed home- 3 bedroom  
Proposed trench- accepted technology  
Required trench length (same for primary and repair) – 225 linear feet  
Trench installation depth – 18 inches

Attached are two maps- the proposed 1-acre lot segregated from the larger parcel, as shown by the surveyor. The second map is an expanded version of that map showing the three soil bore locations.

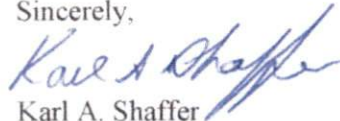
**Summary- this lot is suitable for a conventional type septic system.**

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This report represents my professional opinion. The recommendations given in this report will not insure that permits would be either issued or denied for any particular part of the tract, and likewise will not insure that a specific type and size of wastewater system will be allowed. Also, this report does not indicate any guarantee that an installed system will function properly for a specified amount of time. Proper function of wastewater systems is dependent on installation procedures as well as owner maintenance. The attached maps should not be separated from this report at the use may be misinterpreted.

If you have any questions concerning this report or require further assistance, please do not hesitate to contact me. Thank you for the opportunity to perform this service for you.

Sincerely,



Karl A. Shaffer  
NC Licensed Soil Scientist  
Certificate No. 1009

Attachments: Site Maps (2)



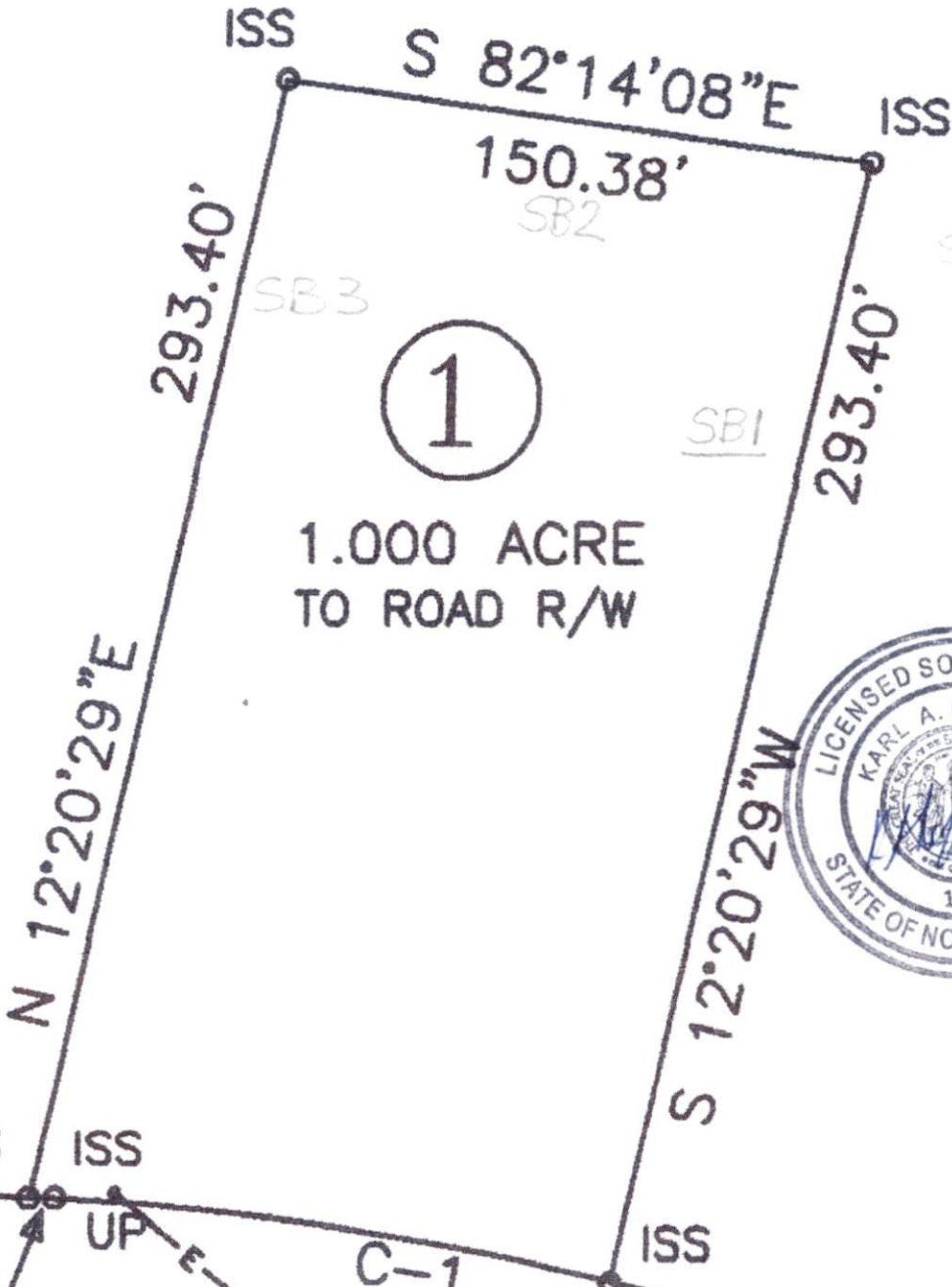
RVEY

9  
.000  
L  
GIS

/W  
CL  
/W

N 89°59'03"W  
6.54'

BAPTIST GROVE ROAD  
NCSR # 142  
60' R/W



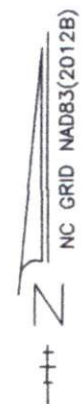
SB = SOIL  
BORE  
LOCATION



TIE LINE  
N 65°46'10"  
291.00'

LEGEND

- CMS - CONCRETE MONUMENT SET
- ECM - EXISTING CONCRETE MONUMENT
- EIP - EXISTING IRON PIPE
- EIS - EXISTING IRON STAKE
- ERB - EXISTING REBAR
- ECS - EXISTING COTTON SPIKE
- EPK - EXISTING PK NAIL
- EN - EXISTING NAIL
- ERS - EXISTING RAILROAD SPIKE
- IPS - IRON PIPE SET
- ISS - IRON STAKE SET
- RSS - RAILROAD SPIKE SET
- NS - NAIL SET
- PKS - PK OR MAG. NAIL SET
- R/W - RIGHT OF WAY
- CL - CENTERLINE
- B.M. - BOOK OF MAPS
- P.B. - PLAT BOOK
- M.B. - MAP BOOK
- D.B. - DEED BOOK
- SB - SET BACK
- EP - EDGE PAVEMENT
- NCGS - NORTH CAROLINA GEODETIC SURVEY
- ECS - EXISTING COTTON SPINDLE
- CSS - COTTON SPINDLE SET
- D - DRAINAGE
- G - GAS LINE
- S - SANITARY SEWER
- W - WATER
- E - ELECTRIC
- T - TELEPHONE
- FH - FIRE HYDRANT
- WM - WATER METER
- WV - WATER VALVE
- CO - SEWER CLEANOUT
- TP - TELEPHONE PEDESTAL
- UP - UTILITY POLE
- EL - ELEVATION
- MH - MANHOLE
- BC - BACK OF CURB
- HVAC - HEAT/AC UNIT
- CP - COMPUTED POINT

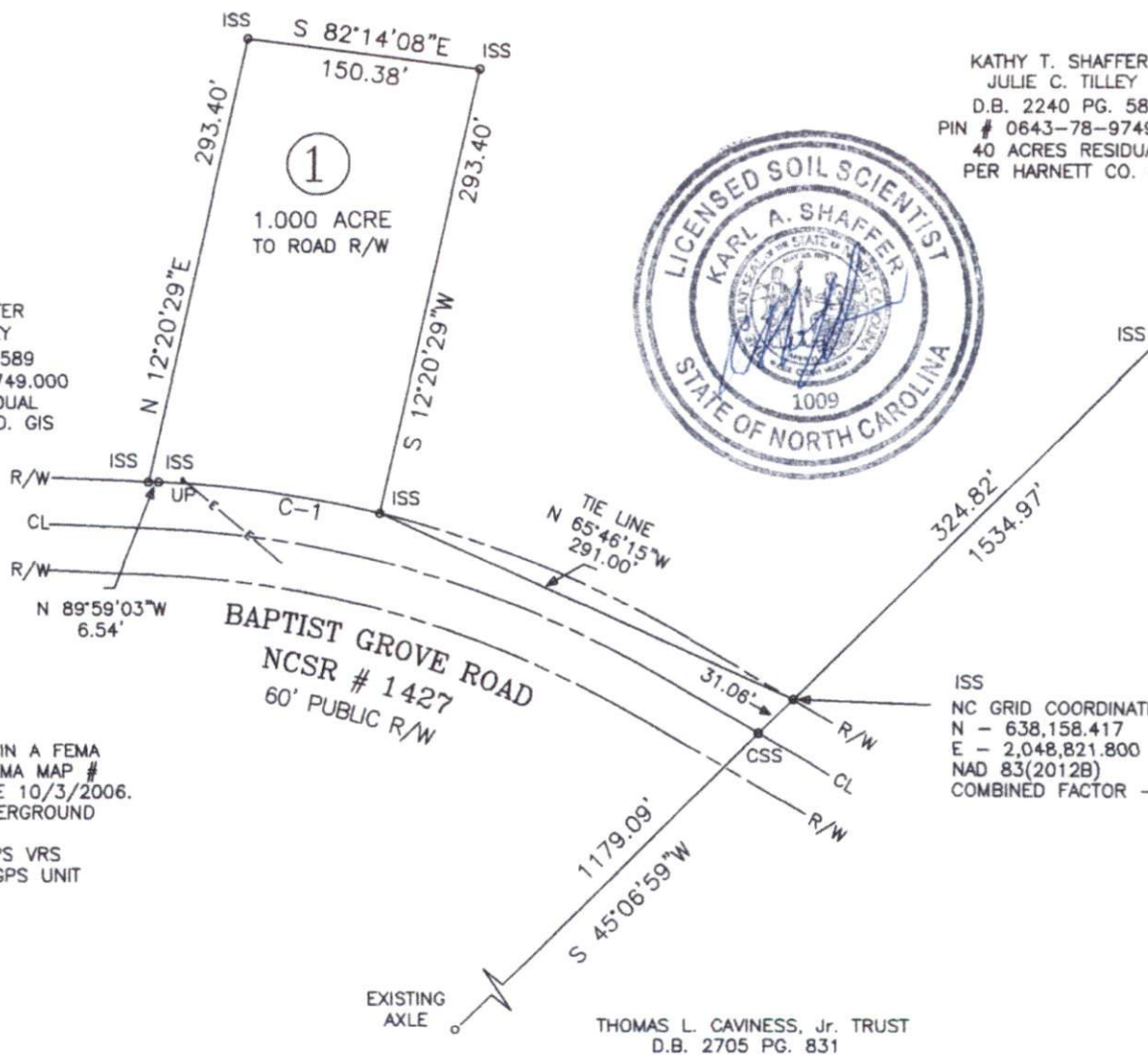


CURVE	RADIUS	LENGTH	
C-1	737.00'	144.13'	11°12'1

REFERENCES  
 D.B. 2240 PG. 589  
 D.B. 2705 PG. 831  
 MAP # 2017-374  
 OTHERS AS SHOWN

KATHY T. SHAFFER  
 JULIE C. TILLEY  
 D.B. 2240 PG. 589  
 PIN # 0643-78-9749.000  
 40 ACRES RESIDUAL  
 PER HARNETT CO. GIS

KATHY T. SHAFFER  
 JULIE C. TILLEY  
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 PIN # 0643-78-9749  
 40 ACRES RESIDUAL  
 PER HARNETT CO. (



NOTES  
 AREA BY COORDINATES.  
 THIS PROPERTY IS NOT LOCATED IN A FEMA  
 MAPPED FLOOD HAZARD AREA. FEMA MAP #  
 3720064200J; ZONE X; EFF. DATE 10/3/2006.  
 SUBJECT TO ABOVE AND OR UNDERGROUND  
 UTILITIES AND OR EASEMENTS.  
 NC GRID COORDINATES FROM GPS VRS  
 OBSERVATIONS. NAD 83(2012B). GPS UNIT  
 SPECTRA PRECISION SP-80.  
 WATERSHED DISTRICT - \_\_\_\_\_

ISS  
 NC GRID COORDINATE  
 N - 638,158.417  
 E - 2,048,821.800  
 NAD 83(2012B)  
 COMBINED FACTOR -

STATE OF NORTH CAROLINA  
 COUNTY OF \_\_\_\_\_  
 I, \_\_\_\_\_, REVIEW OFFICER OF \_\_\_\_\_  
 COUNTY, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS  
 AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

THOMAS L. CAVINESS, Jr. TRUST  
 D.B. 2705 PG. 831

DATE \_\_\_\_\_ REVIEW OFFICER \_\_\_\_\_

I, BENTON W. DEWAR, PROFESSIONAL LAND SURVEYOR  
 NO. 3040, CERTIFY:  
 THAT THIS PLAT IS OF A SURVEY THAT CREATES A  
 SUBDIVISION OF LAND, THAT IS REGULATED BY COUNTY  
 OR MUNICIPALITY ORDINANCE THAT REGULATES