HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS
P.O. Box 400, Lillington NC 27546-0400
Phone (910) 893-8743 / Fax (910) 893-3594
www.halowensoil.com

12 June 2019

Mr. Michael Canady
State Employees Credit Union
PO Box 787
Fayetteville, NC 28302

Reference: Soil Investigation and Septic System Design
600 Anderson Creek Road; NC PIN 0525-59-1469

Dear Mr. Canady,

A site investigation was conducted in 22 April 2019 for the above referenced property, which is located on the northwestern side of Anderson Creek School Road (SR 2064) in the Anderson Creek Township of Harnett County, North Carolina. The purpose of the investigation was to determine the ability of this lot to support a repair subsurface sewage waste disposal system for the existing three-bedroom home. The initial (existing) septic system appears to be exhausted. Public water supplies are in use for this lot.

All ratings and determinations were made in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900". This report represents my professional opinion but does not guarantee or represent permit approval for any lot by the local Health Department. The permit you receive from the Health Department may contain some modifications or amendments to our submitted design. Please carefully review your permit and adhere to all prescribed requirements.

SOIL INVESTIGATION

The soils were evaluated under moist soil conditions through the advancing of auger borings. A portion of this lot was observed to be underlain by soils rated as provisionally suitable for subsurface sewage waste disposal (Figure 1). These provisionally suitable soils were observed to be friable sandy loams to greater than 28 inches and will support long term acceptance rates of 0.6 gal/day/sqft. The unsuitable soil area is so rated due to excessive soil wetness.

SEPTIC SYSTEM DESIGN

A repair septic drainfield has been designed for a three bedroom home (design flow of 360 gallons per day) utilizing a long term application rate of 0.6 gal/day/ft^2. A new septic tank and pump tank should be installed to pump effluent uphill to the proposed drainfield (Figure 2).

The septic system is proposed as a pump to 150 feet of accepted status drainlines (EZ Flow or chamber) utilizing the 25% reduction in length. The drainlines should be installed on-contour with trench bottom depths at 18-20 inches below surface.

Additional repair area is available north of the proposed system. It appears that another 150 feet of drainline could be installed in this area.

Potential septic system drainlines have been demonstrated with various colored pin flags that are located on the lot. It is important that you do not disturb the septic system area. It is recommended that a staked line or protective fence be placed around the system prior to construction to eliminate any potential damage to the soil or the layout of the system.

INTERCEPTOR DRAIN

An interceptor drain and swale should be installed above the proposed system to divert excess water away from the drainfield. Installation of this feature is critical to the proper function of the septic system. The interceptor drain should be of minimum width (1 foot) and approximately 30 inches deep. The interceptor drain should outlet into the unsuitable soil area. The minimum setback for an interceptor drain is 10ft upslope of the drainfield.

This report and the attached septic system design information has been submitted to the Harnett County Health Department for review and the permitting process. 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.

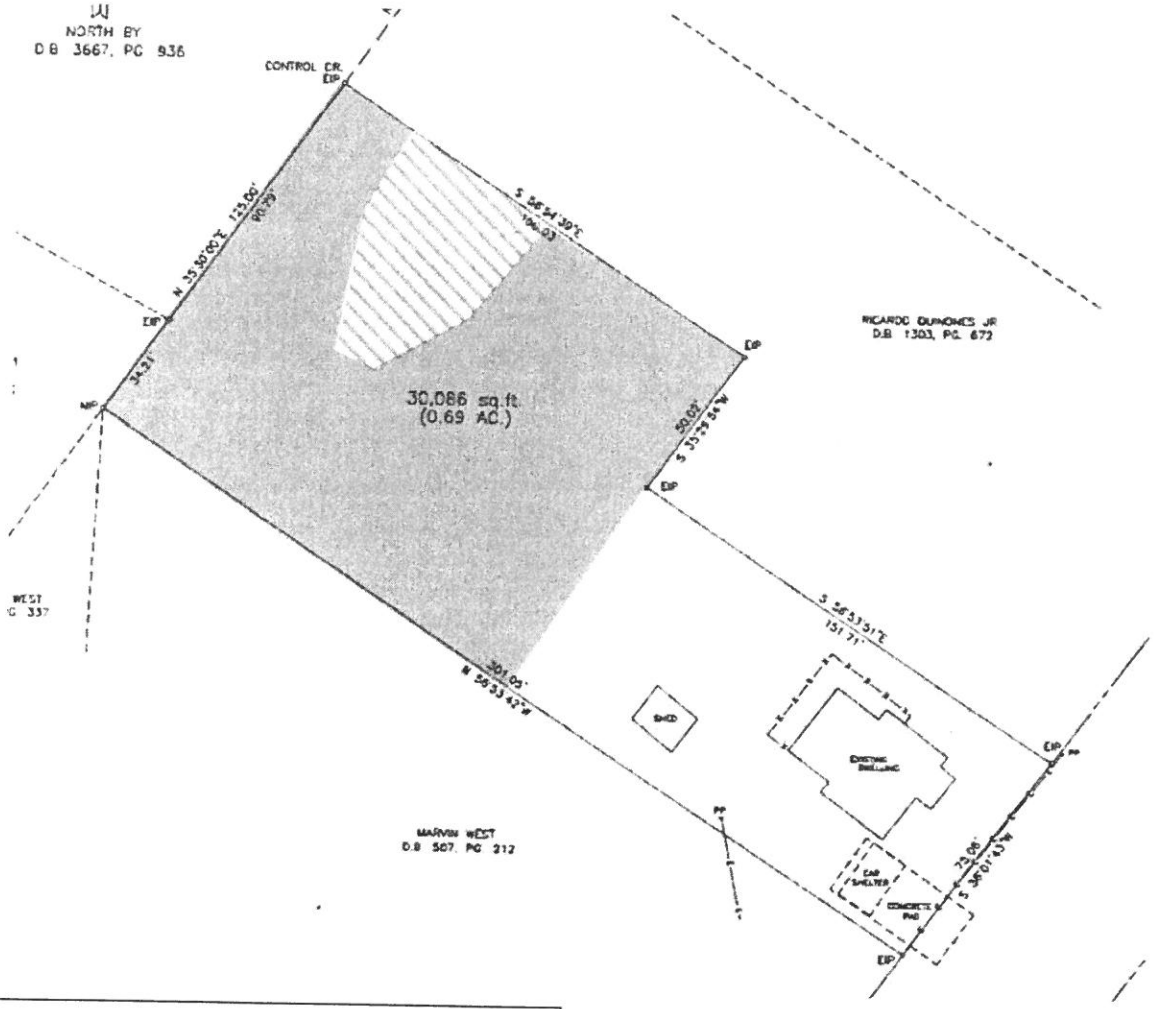
Sincerely,

Hal Owen

Hal Owen
Licensed Soil Scientist

Soil Investigation and Septic System Design
600 Anderson Creek Road; NC PIN 0525-59-1469
6 June 2019

Figure 1. Soil Map showing Septic Suitability



Soil Map Legend

Provisionally Suitable Soils

Unsuitable Soils

Scale 1 in = 50 ft

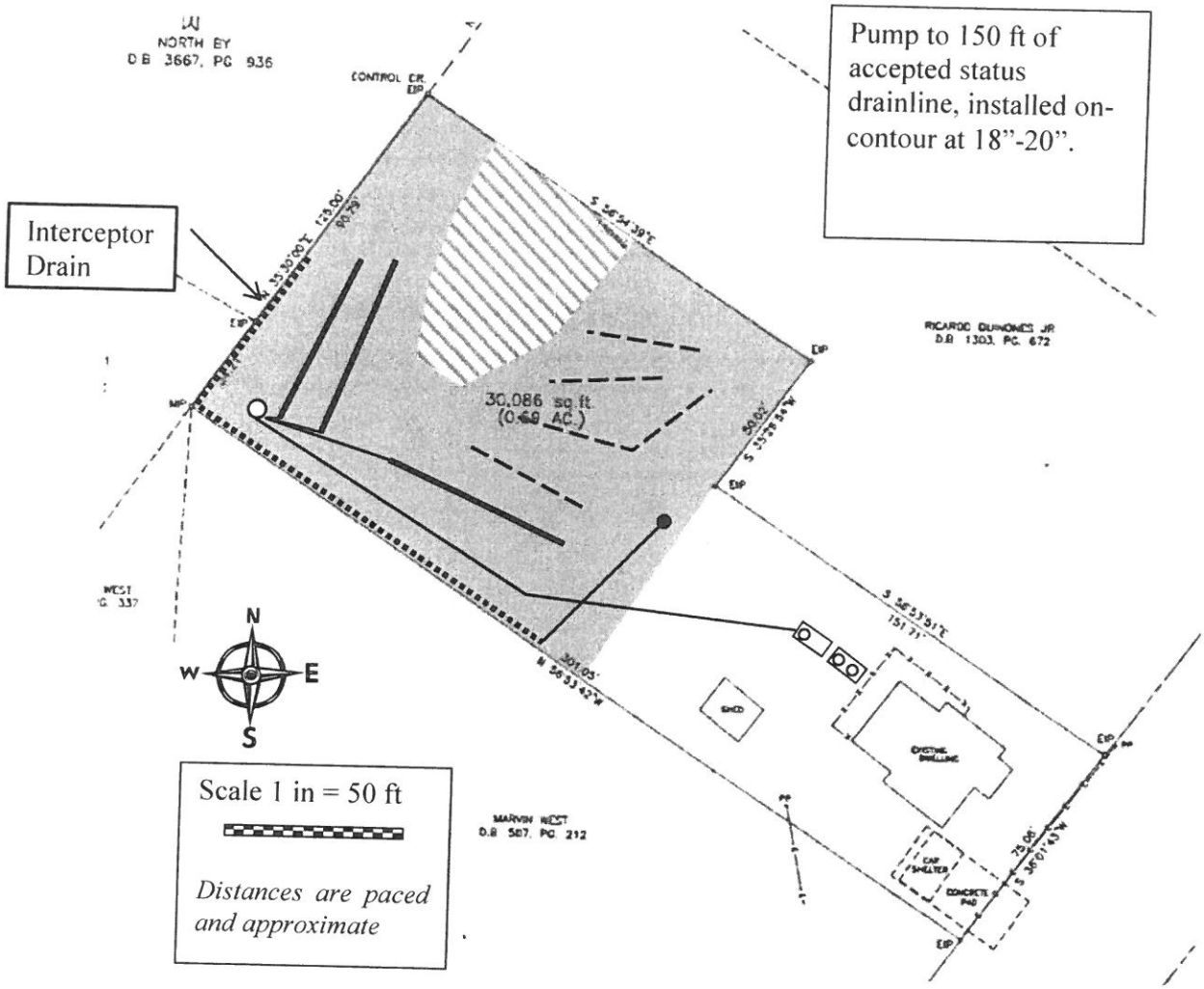
Distances are paced and approximate

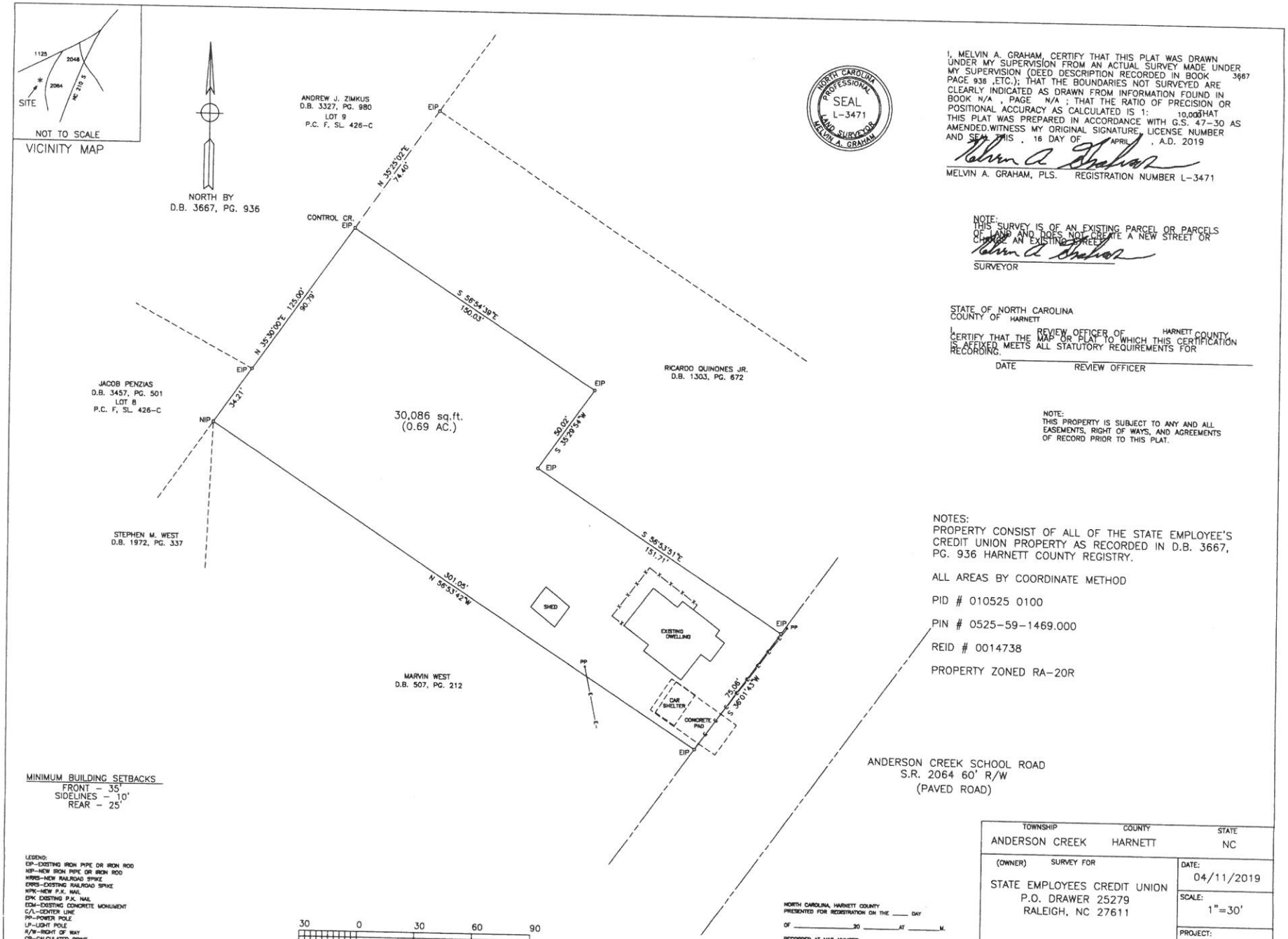
N
W E
S

LICENSED SOIL SCIENTIST
HAL OWEN
1102
STATE OF NORTH CAROLINA

Soil Investigation and Septic System Design
600 Anderson Creek Road; NC PIN 0525-59-1469
12 June 2019

Figure 2. Septic System Layout





I, MELVIN A. GRAHAM, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK 3667 PAGE 936 ,ETC.); THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN BOOK N/A , PAGE N/A ; THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY AS CALCULATED IS 1: 10,000 ; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 16 DAY OF APRIL , A.D. 2019

Melvin A. Graham

MELVIN A. GRAHAM, PLS. REGISTRATION NUMBER L-3471

NOTE:
THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

Melvin A. Graham
SURVEYOR

STATE OF NORTH CAROLINA
COUNTY OF HARNETT

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

DATE REVIEW OFFICER

NOTE:
THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHT OF WAYS, AND AGREEMENTS OF RECORD PRIOR TO THIS PLAT.

NOTES:
PROPERTY CONSIST OF ALL OF THE STATE EMPLOYEE'S CREDIT UNION PROPERTY AS RECORDED IN D.B. 3667, PG. 936 HARNETT COUNTY REGISTRY.

ALL AREAS BY COORDINATE METHOD

PID # 010525 0100

PIN # 0525-59-1469.000

REID # 0014738

PROPERTY ZONED RA-20R

MINIMUM BUILDING SETBACKS
FRONT - 35'
SIDELINES - 10'
REAR - 25'

LEGEND:
EIP--EXISTING IRON PIPE OR IRON ROD
NIP--NEW IRON PIPE OR IRON ROD
NRRS--NEW RAILROAD SPIKE
ERRS--EXISTING RAILROAD SPIKE
NPK--NEW P.K. NAIL
EPK EXISTING P.K. NAIL
ECM--EXISTING CONCRETE MONUMENT
C/L--CENTER LINE
PP--POWER POLE
LP--LIGHT POLE
R/W--RIGHT OF WAY
CP--CALCULATED POINT
-E- --ELECTRICITY
+ -- GROUND ELEVATION
-X-X-X- FENCE

30 0 30 60 90
GRAPHIC SCALE - FEET

NORTH CAROLINA, HARNETT COUNTY
PRESENTED FOR REGISTRATION ON THE ____ DAY
OF _____ 20____ AT _____ M.
RECORDED AT MAP NUMBER _____
REGISTER OF DEEDS - ASST. DEPUTY

TOWNSHIP	COUNTY	STATE
ANDERSON CREEK	HARNETT	NC

(OWNER) SURVEY FOR
STATE EMPLOYEES CREDIT UNION
P.O. DRAWER 25279
RALEIGH, NC 27611

DATE: 04/11/2019
SCALE: 1"=30'
PROJECT: 4219
REVISION:

MELVIN A. GRAHAM, PLS.
3679 NICHOLSON ROAD
CAMERON, NC 28326
PHONE(919)499-6174