North Carolina Onsite Wastewater Contractor Inspector Certification Board
Authorized Onsite Wastewater Evaluator Permit Option for Non-Engineered Systems
Notice of Intent (NOI) to Construct

x New ____ Expansion ____ Repair ____ Relocation ____ Relocation of Repair Area

Owner or Legal Representative Information:
Name: Michael Lee Smith
Mailing address: 540 Farabow Drive City: Holly Springs State: NC Zip: 27540
Phone: 919-291-6448 Email: lee.smith@wynnsitedev.com

Authorized Onsite Wastewater Evaluator Information:
Name: Hal Owen Certification #: 10036E
Mailing address: PO Box 400 City: Lillington State: NC Zip: 27546
Phone: 910-893-8743 Email: hal@halowensoil.com

Site Location Information:
Site address: 4311 Cokesbury Road, Fuquay Varina 27526
Tax parcel identification number or subdivision lot, block number of property:
0625-72-7138.000 County: Harnett

System Information:
Wastewater System Type: Type IIa
Daily Design Flow: 100 gpd
Saprolite System: ____ Yes x No Subsurface Operator Required: ____ Yes x No
Water Supply Type: x Private Well ____ Public Water Supply ____ Spring ____ Other: ____

Facility Type:
____ Residential ____ # Bedrooms ____ Maximum # of Occupants
x Business Type of Business and Basis for Flow: 4 employees, 25 gpd each
____ Public Assembly Type of Public Assembly and Basis for Flow: ____

Required Attachments:
✓ Plat or Site Plan
✓ Evaluation of Soil and Site Features by Licensed Soil Scientist

Attest: On this the 18 day of August, 2023 by signature below I hereby attest that the information required to be included with this NOI to Construct is accurate and complete to the best of my knowledge. Furthermore, I hereby attest that I have adhered to the laws and rules governing onsite wastewater systems in the state of North Carolina.
This NOI shall expire on 31 day of December, 2023.

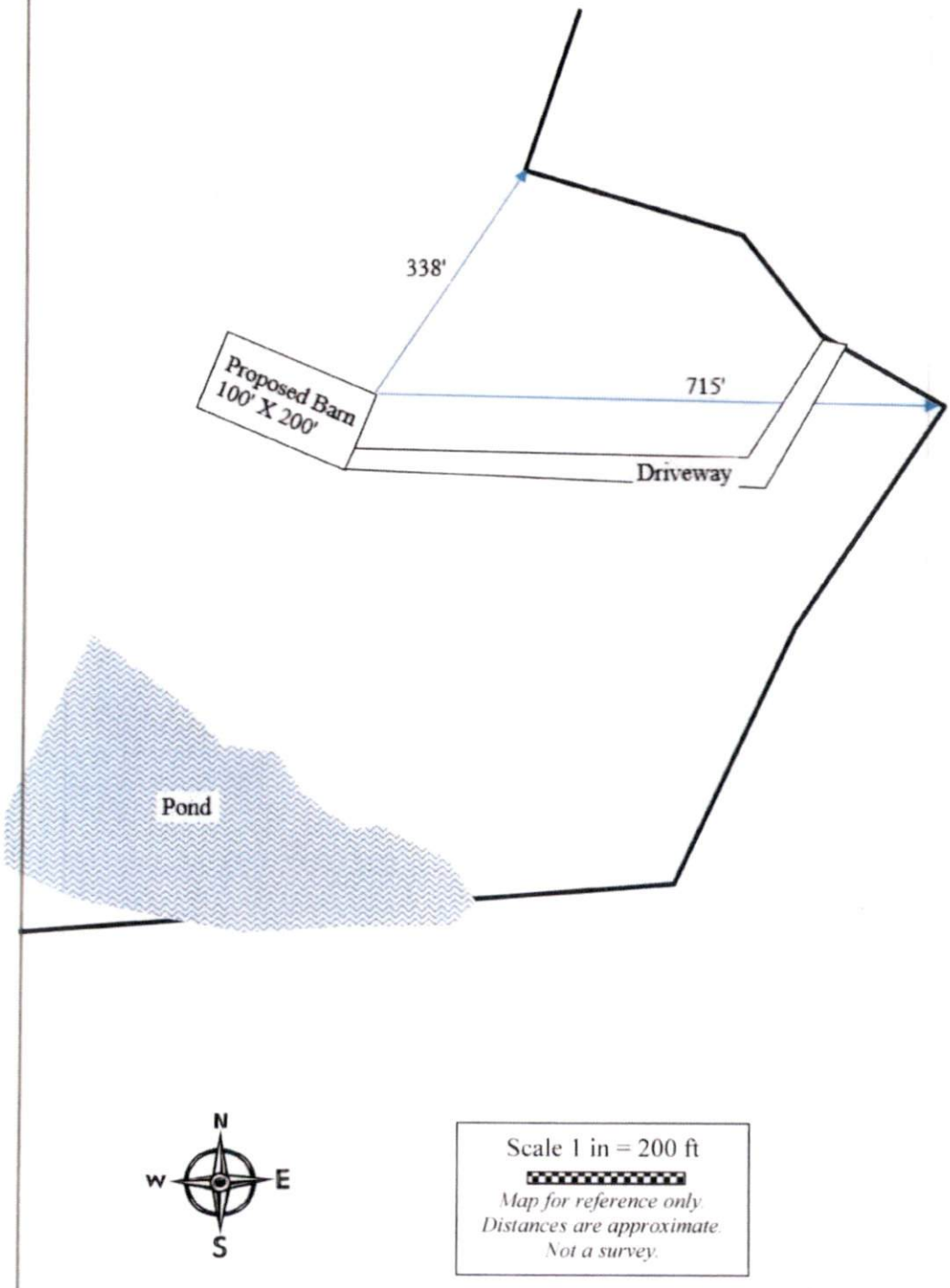
Signature of Authorized Onsite Wastewater Evaluator: Hal Owen

Signature of Owner or Legal Representative:

Disclosure: The owner may apply for a building permit for the project upon submitting a complete NOI to Construct and the fee required (if any) to the local health department. An onsite wastewater system authorized by an authorized onsite wastewater evaluator shall be transferable to a new owner with the consent of the authorized onsite wastewater evaluator.

Local Health Department Receipt Acknowledgement:
Signature of Local Health Department Representative: James E Monhour Jr REHS Date: 9-20-23

4311 Cokesbury Rd, Harnett Co., NC
PIN; 0625-72-7138



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

18 August 2023

Michael Lee Smith
540 Farabow Drive
Holly Springs, NC 27540

Reference: AOWE Evaluation
4311 Cokesbury Rd, Harnett Co., NC
PIN 0625-72-7138

Dear Mr. Smith,

A soil and site evaluation has been conducted for a portion of the above referenced property for the purpose of permitting a subsurface sewage waste disposal system. **This LSS Evaluation is being submitted pursuant to and meets the requirements of G.S.130A-336.2.** This evaluation of soil conditions and site features is provided in accordance with G.S. 130A-335(e), the "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900", and local septic regulations (if any). This report represents my professional opinion as a Licensed Soil Scientist and Authorized Onsite Wastewater Evaluator.

Sincerely,

Britt Wilson
Licensed Soil Scientist

Hal Owen
Senior Licensed Soil Scientist
Authorized Onsite Wastewater Evaluator

SPECIAL TERMS AND CONDITIONS

This report was prepared based on information provided by the client; to include the basis for design flow, proposed structure location(s), and property boundaries. Any false, inaccurate, or incomplete information provided by the client may result in denial or revocation of applications, approvals, or permits.

This report is not a permit to develop. The owner and subcontractors will need to abide by all state and local rules and regulations pertaining to planning, zoning, and land use development. Once the LHD deems that the NOI is complete, the owner may apply to the local permitting agency for building permits.

The AOWE permit is subject to revocation if the site plan, plat, or the intended use changes. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. This permit shall in no way be taken as a guarantee or implied warranty that the septic system will function satisfactorily for any given period of time. Hal Owen & Associates Inc. does not assume liability for related damages, consequential or direct, which are caused or may be caused by a malfunctioning septic system.

This report shall not be used to file a permit application with the LHD after December 31, 2023.

PROPOSED USE

A new barn will be built at the site for use on an existing farm. The system was designed to serve up to 4 employees and have a design wastewater flow of 100 gallons per day. An existing individual well, located at the northern end of the property, will be utilized.

EXISTING SITE CONDITIONS

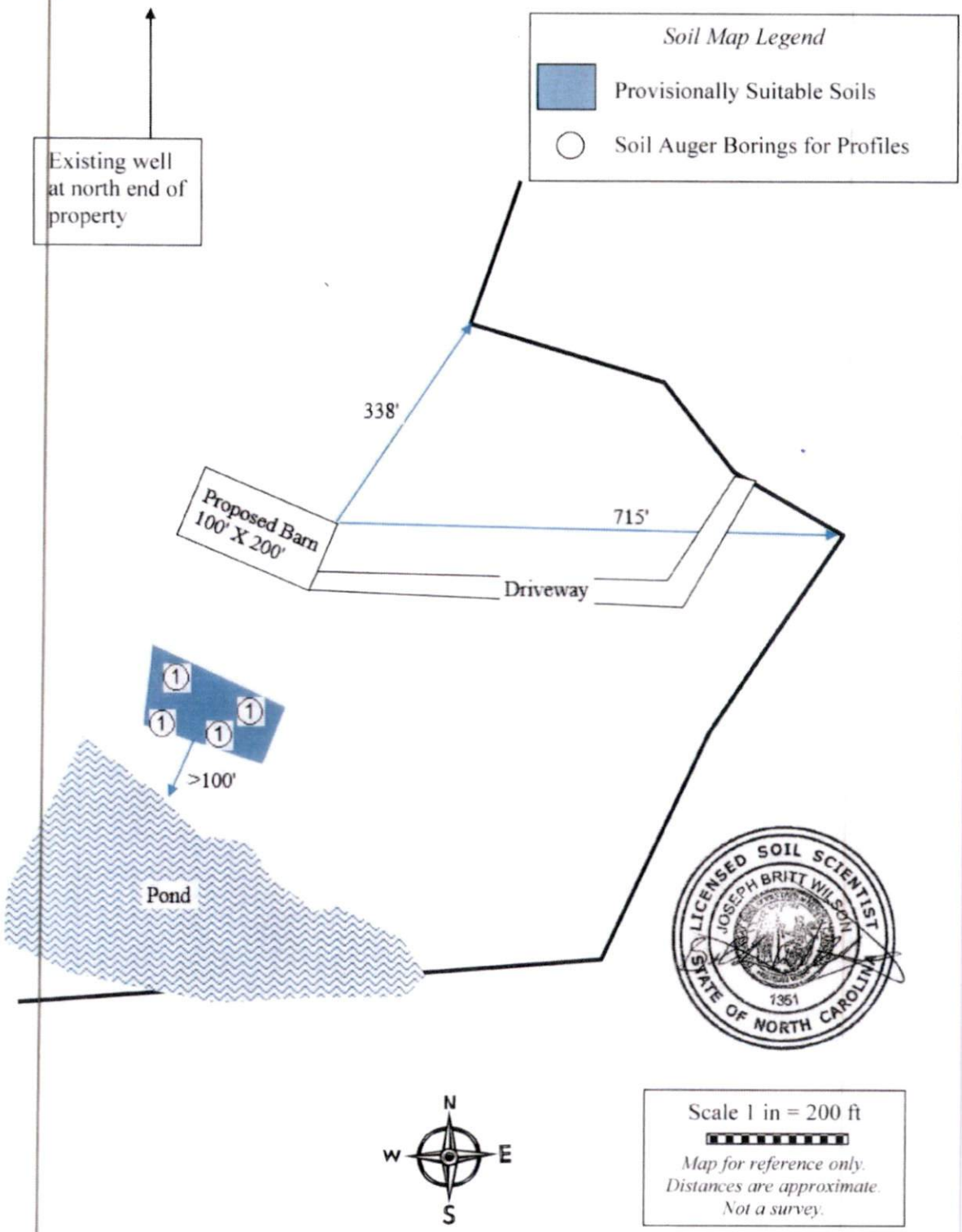
At the time of the investigation, the site had been cleared, lot corners were not staked, and the new building corners were marked. No existing wells, streams, or wetlands were observed within 50 feet of the proposed septic system and repair area.

SOIL AND SITE INVESTIGATION

The soils were evaluated under moist soil conditions through the advancing of auger borings. This evaluation included observations of topography and landscape position, soil morphology (texture, structure, clay mineralogy, organics), soil wetness, soil depth, and restrictive horizons. Descriptions of the soil borings located within the investigated portions of the site are provided in the attached Soil/Site Evaluation form.

Soils in the proposed system area were observed to rate as provisionally suitable for subsurface sewage waste disposal systems. (Figure 1). The subsoils were observed to be firm clays and extended to greater than 48 inches below ground surface. Evidence of a soil wetness condition was not observed within 48 inches below surface or deeper. These soils appear adequate to support long-term acceptance rates of 0.3 gal/day/ft^2 for conventional gravel drainlines.

Figure 1. Soil Map showing Septic Suitability



SOIL/SITE EVALUATION FORM FOR ON-SITE WASTEWATER SYSTEM

APPLICANT: Michael Lee Smith X OWNER ☐ AGENT
ADDRESS: 540 Farabow Dr, Holly Springs, NC 27540
PROPOSED FACILITY: Farm Building COUNTY: Harnett
LOCATION OF SITE: 4311 Cokesbury Rd, Fuquay Varina, NC PROPERTY ID #: 0625-72-7138
PROPOSED DESIGN FLOW (.1941): 100 gal WASTEWATER TYPE: Domestic Sewage
WATER SUPPLY: X Existing On-Site Well ☐ Community Well ☐ Public ☐ Other_____
EVALUATION METHOD: X Auger Boring ☐ Pit DATE EVALUATED: 11 August 2023
EVALUATED BY: Britt Wilson LSS 1351

	INITIAL SYSTEM	REPAIR SYSTEM
.1945 AVAILABLE SPACE	333 sf trench bottom	333 sf trench bottom
SYSTEM TYPE	Conventional Gravel	Conventional Gravel
SITE LTAR (gpd/ft^2)	0.3	0.3

.1946 OTHER FACTORS:_____
.1948 SITE CLASSIFICATION: Provisionally Suitable
COMMENTS:_____

PROFILE 1

HORIZON DEPTH (IN)	COLOR	.1941 SOIL MORPHOLOGY				OTHER PROFILE FACTORS	
		MOIST CONSISTENCE	.1941(a)(1) TEXTURE	.1941(a)(2) STRUCTURE	1941(a)(3) MINERALOGY		
0-37	2.5YR 4/6	FI	C	SBK	SEXP	.1940 LANDSCAPE POS & SLOPE%	R/ 5%
37-48	2.5YR 4/8	FI	C	SBK	SEXP	.1942 SOIL WETNESS CONDITION	>48"
						.1943 SOIL DEPTH	48"
						.1956 SAPROLITE CLASS	NA
						.1944 RESTRICTIVE HORIZON	NA
						PROFILE CLASSIFICATION	PS
						LTAR	0.3 gpd/ft^2
COMMENTS							

PROFILE 2

HORIZON DEPTH (IN)	COLOR	.1941 SOIL MORPHOLOGY				OTHER PROFILE FACTORS	
		MOIST CONSISTENCE	.1941(a)(1) TEXTURE	.1941(a)(2) STRUCTURE	1941(a)(3) MINERALOGY		
0-30	2.5YR 4/6	FI	C	SBK	SEXP	.1940 LANDSCAPE POS & SLOPE%	R/ 5%
30-48	2.5YR 4/8	FI	C	SBK	SEXP	.1942 SOIL WETNESS CONDITION	>48"
						.1943 SOIL DEPTH	48"
						.1956 SAPROLITE CLASS	NA
						.1944 RESTRICTIVE HORIZON	NA
						PROFILE CLASSIFICATION	PS
						LTAR	0.3 gpd/ft^2
COMMENTS							

LEGEND OF ABBREVIATIONS FOR SITE EVALUATION FORM

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

STRUCTURE		MOIST CONSISTENCE		WET CONSISTENCE	
G	- Single Grain	VFR	- Very Friable	NS	- Non Stick
M	- Massive	FR	- Friable	SS	- Slightly Sticky
CR	- Crumb	FI	- Firm	MS	- Moderately Stick
GR	- Granular	VFI	- Very Firm	VS	- Very Sticky
SBK	- Subangular Blocky	EFI	- Extremely Firm		
ABK	- Angular Blocky			NP	- Non Plastic
PL	- Platy	**MINERALOGY**		SP	- Slightly Plastic
PR	- Prismatic	NEXP	- Non Expansive	MP	- Moderately Plastic
		SEXP	- Slightly Expansive	VP	- Very Plastic
		EXP	- Expansive		

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

Give Horizon Depth in inches below natural soil surface and Fill Depth in inches above land surface.
Depth to Soil Wetness: inches below land surface to free water or to soil colors with chroma 2 or less.
Classification: S – Suitable PS – Provisionally Suitable U – Unsuitable
D – drip Mod – modified or alternative systems

Septic System Design

See section *Wastewater Treatment System Plans* and Figure 2 for a diagram of the septic system layout and design specifications.

A 1000 gallon (at minimum) septic tank and an approved septic effluent filter is required. There appears to be adequate fall from the barn to the initial drainfield for a gravity driven system; however, a pump tank (1000 gallon at minimum) should be added if gravity distribution cannot be demonstrated.

The initial septic system is proposed as a gravity driven system to 112 linear feet of conventional gravel drainlines (Figure 2). A long-term application rate (LTAR) of 0.3 gal/day/ft^2 was used to design the nitrification field. A distribution box will be used to deliver effluent in parallel distribution to two 56ft long drainlines. The drainlines shall be installed on contour at 24 inches below surface (low side).

The repair septic system is proposed as a gravity driven system to 112 linear feet of conventional gravel drainlines (Figure 2). A long-term application rate (LTAR) of 0.3 gal/day/ft^2 was used to design the nitrification field. A distribution box will be used to deliver effluent in parallel distribution to two 56ft long drainlines. The drainlines shall be installed on contour at 24 inches below surface (low side).

Septic Area Preparation

It is important that you do not disturb the septic areas during site construction. A staked line or protective fence should be placed around the system areas prior to construction to eliminate any potential damage to the soil or the layout of the system. Septic areas should not be used for staging construction materials or subjected to vehicular traffic. Do not cut, grade, fill, install utilities, or otherwise alter the designated septic areas.

PERMIT CONDITIONS

Standard Conditions

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met.

System shall be installed in accordance with the attached *Wastewater Treatment System Plans*.

Any changes to the site plan or intended use must be approved by Hal Owen & Associates. Permit modification and resubmittal to the LHD may be necessary to ensure regulatory compliance.

Conformance to all regulatory setbacks shall be maintained. Local regulations (such as well or riparian buffer ordinances) may require more stringent setbacks.

Minimum soil cover of six inches shall be established over nitrification field. Soil cover above the original grade shall be placed at a uniform depth over the entire nitrification and shall extend laterally five feet beyond the nitrification trench. Site shall be graded to shed water away from field and a vegetative cover established to prevent erosion.

The nitrification field and repair area shall not be subject to vehicular traffic. Vehicular traffic can damage soils, pipes, and valve boxes. Do not use septic areas for parking.

Do not allow underground utilities, water lines, or sprinkler systems to be installed in the septic areas. Damage to the septic areas could result in the septic permit being revoked.

The wastewater system shall not be covered or placed into use until inspected by Hal Owen & Associates and an Authorization to Operate issued.

Specific Conditions:

___ An interceptor drain and swale shall accompany drainfield (see attached diagram).

___ The septic and pump tanks must be water tight. The installer shall either provide documentation that the tank has been tested for water tightness by the manufacturer or be prepared to run water tightness testing (hydrostatic or vacuum testing in the ready- to-use-state) at the site.

___ Access risers shall be installed on the tanks and extend above finished grade.

___ No foundation drain.

X The supply line from the septic tank to the drainfield will be conveyed under a driveway. Ductile iron or its equivalent pipe shall be used under traffic areas. However, pipe specified in Rule .1955 (e) may be used if a minimum of 30 inches of compacted cover is provided over the pipe.

___ This parcel was recorded prior to 1982 and is exempt from the repair area requirement of the referenced regulations. However, any partial repair area that may be available should be reserved.

___ Other. Specify:_____.

WASTEWATER TREATMENT SYSTEM PLANS

PROJECT INFORMATION

Facility Type	Business		
Basement	No	Fixtures in basement?	No
Wastewater Type	Domestic	New/Expansion/Repair?	New
Water Supply	Existing Well		
Design Wastewater Flow	100 gpd		
Basis for Flow	4 # employees and/or SF of retail space		

PROPERTY INFORMATION

County	Harnett
Site Address	4311 Cokesbury Rd, Fuquay Varina, NC 27526
S/D Name and Lot#	
PIN	0625-72-7138
County PID	
Size (Acre)	102.29

APPLICANT INFORMATION

Name	Michael Lee Smith
Mailing Address	540 Farabow Drive
	Holly Springs, NC 27540
Telephone Number	919-291-6448
E-mail Address	lee.smith@wynnsitedev.com

CONSULTANT INFORMATION

Company Name	Hal Owen & Associates, Inc.
Mailing Address	PO Box 400, Lillington, NC 27546
Telephone Number	910-893-8743 Fax: 910-893-3594
E-mail Address	hal@halowensoil.com
Licensed Soil Scientist	Hal Owen, LSS #1102 and AOWE# 10036E
System Designer	Jocelyn Proulx

SEPTIC SYSTEM DESIGN

Design Wastewater Flow 100 gpd
Septic Tank Size (minimum) 1000 gallons
Pump Tank Size (minimum) NA gallons

Initial System

System Type Type IIa — Saprolite System No
Design LTAR 0.30 gal/day/ft^2 — Fill System No
Trenches: Conventional
Total Trench Length (ft): 112 feet — configuration: 2 X 56ft (X 3ft)
Trench Spacing 9 ft on center
Usable soil depth (inches) 48 — Soil Cover 6 inches
Install trenches on contour at 24 inches, measured on downhill side of trench
Maximum Trench Depth ____ inches, measured on high side
Pump Required No ____ ft TDH at ____ GPM

Repair System

System Type: Type IIa — Saprolite System No
Design LTAR 0.30 gal/day/ft^2 — Fill System No
Trenches: Quick4 standard chamber (25% reduction)
Total Trench Length (ft): 112 — configuration: 2 X 56ft (X 3ft)
Trench Spacing 9 ft on center
Usable soil depth (inches) 48 — Soil Cover 6 inches
Install trenches on contour at 24 inches, measured on downhill side of trench
Maximum Trench Depth of ____ inches, measured on high side
Pump Required No

Potential Drainlines flagged at site on 9-ft centers.

Line #	Color	Relative Elevation (ft)	Drainline Length(ft)	Field Length(ft)
1	W	106.51	56	73
2	R	105.66	56	81
3	B	104.89	56	98
4	Y	104.16	56	126
Reference Elev:		100.00		

Notes:
*No grading or removal of soil in initial or repair areas
*Property lines per owner
*Trench bottoms shall be level to +/- 1/4" in 10ft
*All parts of septic system must meet minimum setbacks
10' from property line
5' from foundation (15' from basement)
10' from water line and/or 50' from well
3ft from sidewalks and driveway

Figure 2. Septic system design and layout