



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

☒ New ☐ Expansion ☐ Repair ☐ Relocation ☐ Relocation of Repair Area

Owner or Legal Representative Information:

Name: Caviness and Cates

Mailing address: 639 Executive Place Ste. 400 City: Fayetteville State: NC Zip: 28305

Phone: 910-709-9801 Email: pam@cavinessandcates.com

Authorized Onsite Wastewater Evaluator Information:

Name: Mike Eaker Certification #: 10013E

Mailing address: PO Box 9321 City: Fayetteville State: NC Zip: 28311

Phone: 910-822-4540 Email: Mike@southeasternsoil.com



Site Location Information:

Site address: 356 Hookbill Lane, Lillington, NC 27546

Tax parcel identification number or subdivision lot, block number of property: Ducks Landing Lot 107

0527-51-1911.000 County: Harnett

System Information:

Wastewater System Type: Pump to Accepted (25% Reduction)

Daily Design Flow: 360 gpd

Saprolite System: ☐ Yes ☒ No Subsurface Operator Required: ☐ Yes ☒ No

Water Supply Type: ☐ Private Well ☒ Public Water Supply ☐ Spring ☐ Other: \_\_\_\_\_

Facility Type:

☒ Residential 3 # Bedrooms 6 Maximum # of Occupants

☐ Business Type of Business and Basis for Flow: \_\_\_\_\_

☐ 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 8 day of May, 2025 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 8 day of May, 2030.

Signature of Authorized Onsite Wastewater Evaluator: 

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: \_\_\_\_\_ Date: \_\_\_\_\_



# Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321  
Fayetteville, NC 28311  
Phone/Fax (910) 822-4540  
Email mike@southeasternsoil.com

May 9, 2025

Mr. Kevin Shortridge  
JSJ Builders, Inc.  
1135 Robeson St.  
Fayetteville, NC 28305

Re: Soil/site evaluation for subsurface waste disposal (GS 130A-336.2) AOWE, Ducks Landing, Lot 107, PIN 0527-51-1911.000, 356 Hookbill Lane, Lillington, Harnett County, North Carolina

Dear Mr. Shortridge,

A soil/site evaluation has been conducted on the aforementioned property at your request. The purpose of the investigation was to determine if soils were suitable or provisionally suitable for a subsurface waste disposal system (conventional, accepted and innovative) to serve a proposed single-family residence (3-bedroom home). All ratings and determinations were made in accordance with "Onsite Wastewater Rules, 15A NCAC 18E". **This LSS evaluation is being submitted to meet the requirements of GS 130A-336.2 (AOWE).**

The soil evaluation was completed on March 13, 2025. Hand auger borings were advanced under moist soil conditions. The site essentially lies on a linear slope landscape (2 - 4% slope). Soil borings conducted in most of this area consisted of 6 or more inches of loamy sand underlain by sandy loam and/or sandy clay loam to 48 or more inches below the soil surface. Soil wetness and/or parent material (greater than 50%) was not observed shallower than 36 inches below the soil surface (initial system) and 37 inches (repair system). All other soil characteristics were suitable to at least 48 inches.

Based on soil borings and site conditions, the site would be designated suitable for a pump to a shallow accepted subsurface waste disposal drainfield (0.30 gal/day/ft<sup>2</sup> LTAR; initial system). There is enough suitable soil area to allow for a pump to a porous panel block subsurface septic system repair (0.40 gal/day/ft<sup>2</sup>). A map showing the approximate location of the site and proposed septic layout accompanies this report.

**[Note: No grading, rutting or other soil disturbance can occur in or near the proposed septic area. Any grading can alter the findings of this report and render the site unusable. As such, we recommend the builder protect the proposed septic areas with rope, flagging, fencing, etc.]**



## Design Summary

- Pump to Accepted product with **pressure manifold** (350', see septic layout)
- 360 gal/day flow rate (3BR)
- 22" maximum trench depth
- 0.30 gpd/ft<sup>2</sup> LTAR (initial) and 0.4 gpd/ft<sup>2</sup> (repair)
- 1000-gallon septic and pump tank (certified watertight)
- Pump to produce 26.81 gal/min @ 13.08 feet TDH
- Pump dose 159 gallons (8.0-inch drawdown)
- No grading, rutting or filling in septic areas
- No vertical cuts (greater than 2') within 15' of septic lines/areas
- Keep tanks and drainlines 10' from property lines
- Keep supply line 5 or more feet from property lines
- **Install in dry soil conditions**
- Maintain natural contours when clearing the lots
- Direct gutter water away from septic system
- **AOWE must preapprove Licensed installer**
- **Preconstruction conference required 2 weeks prior to installation of septic**
- **Contractor to provide 2 week's notice prior to installation**

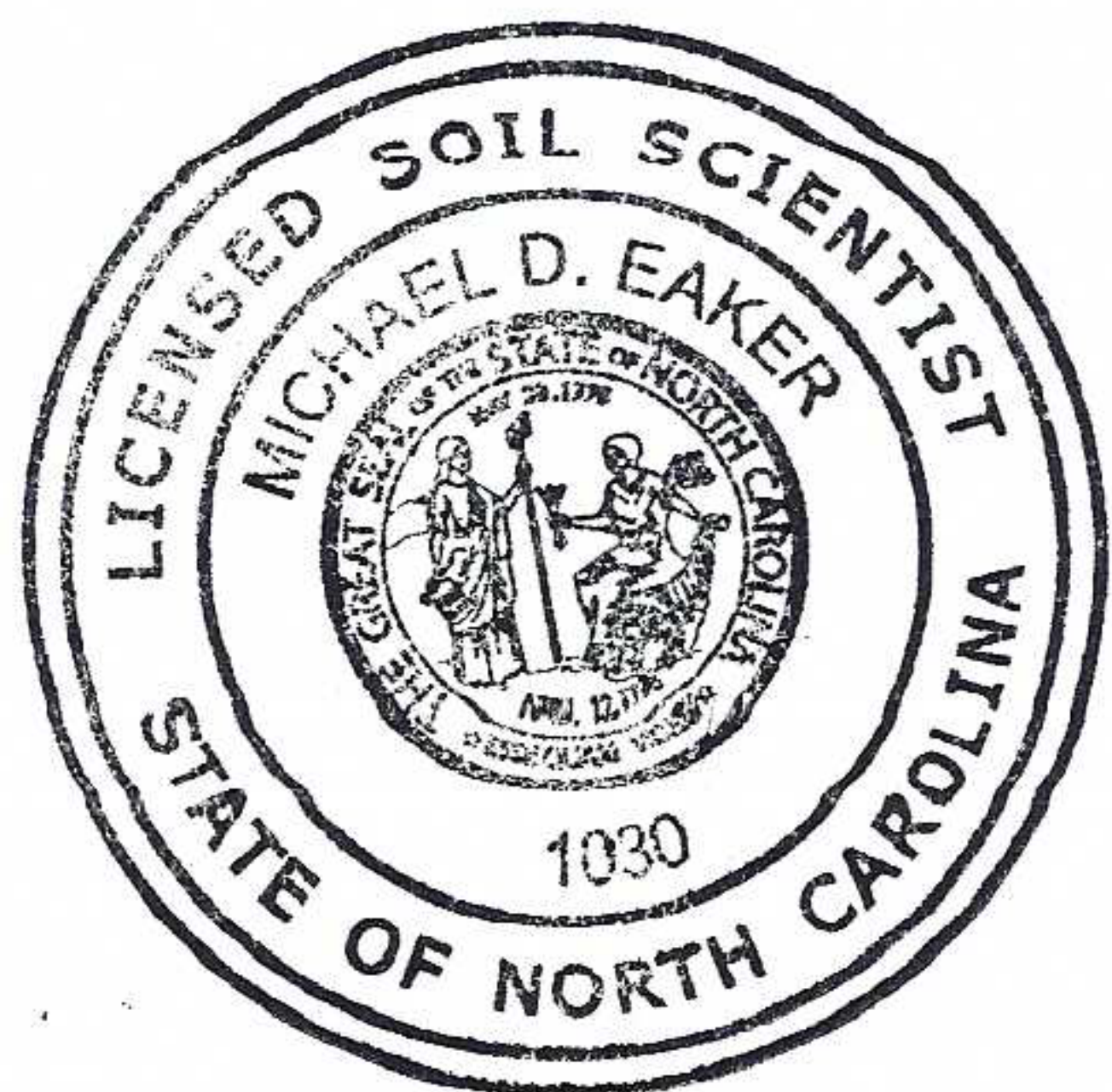
During site construction, it is important not to impact and suitable or provisionally suitable soil areas with activities such as excavation or filling. Only the vegetation should be removed in the areas of the proposed septic drainfields to prevent any disturbance of naturally occurring soil. We recommend all lot clearing activity be delayed until the local health department issues a permit.

To the extent possible, we have identified the soil types that will impact the flow of wastewater on this site and have provided a professional opinion as to the best septic system layout. This report does not guarantee that the proposed septic system will properly function for any specific length of time.

Sincerely,



Mike Eaker  
NC Licensed Soil Scientist # 1030  
NC Authorized Wastewater Evaluator 10013E





**SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOC., INC.**

**PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET**

**SUBDIVISION:** Ducks Landing

**LOT** 107

**INITIAL SYSTEM:** Accepted 25% Reduction

**REPAIR:** PPBPS-Horizontal

**DISTRIBUTION:** Pressure Manifold

**DISTRIBUTION** Pressure Manifold

**BENCHMARK:** 100.0

**LOCATION** RC 106/107

**NO. BEDROOMS:** 3

**LTAR** 0.30 gpd/ft2

**SEPTIC TANK SIZE** 1000 Gallons

**PUMP TANK SIZE** 1000 Gallons

	<u>LINE</u>	<u>FLAG COLOR</u>	<u>ELEVATION</u>	<u>LENGTH</u>
Initial	1	B	99.20	60'
	2	L	98.80	90'
	3	P	98.60	110'
	4	W	98.30	90'
			97.90	350' TOTAL
Repair	5	L	97.60	85'
	6	Y	97.30	80'
	7	R	96.90	50'
	8	O	96.40	25'
				240' TOTAL

**BY** Mike Eaker

**DATE** 3/13/25

**TYPICAL PROFILE**

Initial

0-12	LS/SL	VFr/Fr/Gr
12-48	SL/SCL	Fi/SBk
CR2	36"	

Repair

0-16	LS/SL	VFr/Fr/Gr
16-48	SL/SCL	Fi/SBk
CR2	37"	

**THERE SHALL BE NO GRADING,  
CUTTING, LOGGING OR OTHER SOIL  
DISTURBANCE IN SEPTIC AREA**

HEALTH DEPARTMENT USE ONLY.

DESIGNS DO NOT GURANTEE FUNCTIONALITY









## RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # Ducks Landing Lot 107

# of BDR: 3 Daily Flow: 360 gal/day L.T.A.R.: 0.3000 gal/day/sq.ft

**Septic Tank:** 1000 gals      **Pump Tank:** 1000 gals      **Sq. Foot:** 1050      **System Type:** Accepted

**Number of Taps:** 4      **Length of Trenches:** 350      **ft(See Tap Chart for Details)**

**Depth of Trenches:** 22 in **Manifold Length:** 42 in

**Manifold Diameter:** 4in sch 80pvc **Tap Configuration:** 6 in spacing 1 side(s) of manifold

Supply Line: length: 200 ft Diameter: 2 in sch 40pvc

**Friction Loss + Fitting Loss:** 2.88 ft(supply line length + 70' for fittings in pump tank)

**Design Head:** 2 ft      **Elevation Head:** 8.20 ft

**Total Head:** 13.08 ft                      **Pump to Deliver:** 26.81 gals/min at 13.08 ft head

**Dosing Volume:** 159 gals,

**Drawdown:** 159 gals divided by 20 gals/in = 8.0 inches

**Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.**

## TAP CHART

[illegible]



**SOIL/SITE EVALUATION**  
**for ON-SITE WASTEWATER SYSTEM**  
(Complete all fields in full)

OWNER: Caviness & Cates  
ADDRESS: 639 Executive Place, Suite 400, Fayetteville, NC 28305  
PROPOSED FACILITY: SFD PROPOSED DESIGN FLOW (.1949): 36<sup>2</sup> GPD (3 BR)  
LOCATION OF SITE: Hookbill Lane, Lillington, NC (Lot 107) Ducks Landing  
WATER SUPPLY: ☐ Private ☒ Public Well ☐ Spring ☐ Other \_\_\_\_\_

APPLICATION DATE  
DATE EVALUATED: 03/13/25  
PROPERTY SIZE: 0.459 Ac  
PROPERTY RECORDED

EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

P R O F I L E #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPR O CLASS	.1944 RESTR HORIZ	
1	LS 2-4%	0-8	LS/Gr	VFr/Nexp	36"	NA	NA	NA	Suitable 0.30
		8-17	LS/Gr	VFr/NExp	10YR 7/3				
		17-36	SL/wf sbk	Fr/SExp	10YR 6/8				
		36-48	SCL/wf sbk	Fi, SExp	10YR 6/8				
					10YR 7/1 mot				
2	LS 2-4%	0-3	LS/Gr	VFr/Nexp	41"	NA	NA	NA	Suitable 0.40
		3-22	LS/Gr	VFr/Nexp	10YR 6/4				
		22-41	SL/SCL/wf sbk	Fr/Fi/SExp	10YR 6/6				
		41-48	SCL/wf sbk	Fi/SExp	10YR 6/8				
					10YR 7/1 mot				
3	LS 2-4%	0-9	LS/Gr	VFr/Nexp	37"	NA	NA	NA	Suitable 0.40
		9-16	LS/Gr	VFr/NExp	10YR 6/4				
		16-37	SCL/mm sbk	Fi/SExp	10YR 6/8				
		37-48	SCL/wfsbk	Fi, SExp	10YR 6/8				
					10YR 7/1 mot				
4	LS 2-4%	0-4	LS/Gr	Fr/Nexp	41"	NA	NA	NA	Suitable 0.35
		4-28	LS/Gr	VFr/Nexp	10YR 6/4				
		28-41	SCL/mm sbk	Fi/SExp	10YR 6/8				
		41-48	SCL/wf sbk	Fi/SExp	10YR 6/8				
					10YR 7/1 mot				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946): SITE CLASSIFICATION (.1948): Suitable  EVALUATED BY: M. Eaker OTHER(S) PRESENT: D. Eaker
Available Space (.1945)	Yes	Yes	
System Type(s)	Pump to Accepted	Pump to Panel Block	
Site LTAR	0.30	0.40	



**SOIL/SITE EVALUATION**  
(Continuation Sheet-Complete all field in full)

Sheet 2 of 2

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF PUBLIC HEALTH  
ENVIRONMENTAL HEALTH SECTION  
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: Ducks Landing Lot 107  
DATE OF EVALUATION: 03/13/25  
COUNTY: Harnett

P R O F I L E #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZ ON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
5	LS 2-4%	0-6	LS/Gr	VFr/NExp	46"	NA	NA	NA	Suitable 0.35
		6-12	SL/wf sbk	Fr/SExp	2.5Y 6/4				
		12-20	SCL/mm sbk	Fi/SExp	7.5YR 5/8				
		20-46	SCL/wf sbk	Fi/SExp	10YR 5/8				
		46-48	SCL/mass	Fr/SExp	10YR 7/1m				
6									

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_





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DECLARATIONS**

POLICY NO. 108040737

**Travelers Casualty and Surety Company of America**  
**Hartford, Connecticut**  
(A Stock Insurance Company, herein called the Company)

**Important note: This is a claims-made policy. To be covered, a claim must be first made against an insured during the policy period or any applicable extended reporting period.**

This policy is composed of the Declarations, the Professional Liability Coverage, the Professional Liability Terms and Conditions, and any endorsements attached thereto.

<b>ITEM 1</b>	<b>NAMED INSURED:</b> SOUTHEASTERN SOIL AND ENVIRONMENTAL ASSOCIATES  DBA:  Principal Address: PO BOX 9321 FAYETTEVILLE, NC 28311-9084
<b>ITEM 2</b>	<b>POLICY PERIOD:</b> Inception Date: May 1, 2025                      Expiration Date: May 1, 2026 12:01 A.M. standard time both dates at the Principal Address stated in ITEM 1.
<b>ITEM 3</b>	ALL NOTICES PURSUANT TO THE POLICY MUST BE SENT TO THE COMPANY BY EMAIL, FACSIMILE, OR MAIL AS SET FORTH BELOW:  Email: BSIclaims@travelers.com  Fax: 1-888-460-6622  Mail: Travelers Bond & Specialty Insurance Claim P.O. Box 2989 Hartford, CT 06104-2989  Overnight Mail: Travelers Bond & Specialty Insurance Claim One Tower Square, MN06 Hartford, CT 06183  For questions related to claim reporting or handling, please call 1-800-842-8496.



