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

NC ONSITE WASTEWATER EVALUATOR Certification Number 10013E

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: 480 gpd

Saprolite System: [ ] Yes [✓] No Subsurface Operator Required: [ ] Yes [✓] No

Water Supply Type: [ ] Private Well [✓] Public Water Supply [ ] Spring [ ] Other: _____

Facility Type:

[✓] Residential 4 # Bedrooms 8 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 9 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 9 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

Ms. Pamela Geddie
Caviness & Cates
639 Executive Place, Suite 400
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 Ms. Geddie,

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 (4-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/ft2 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/ft2). 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

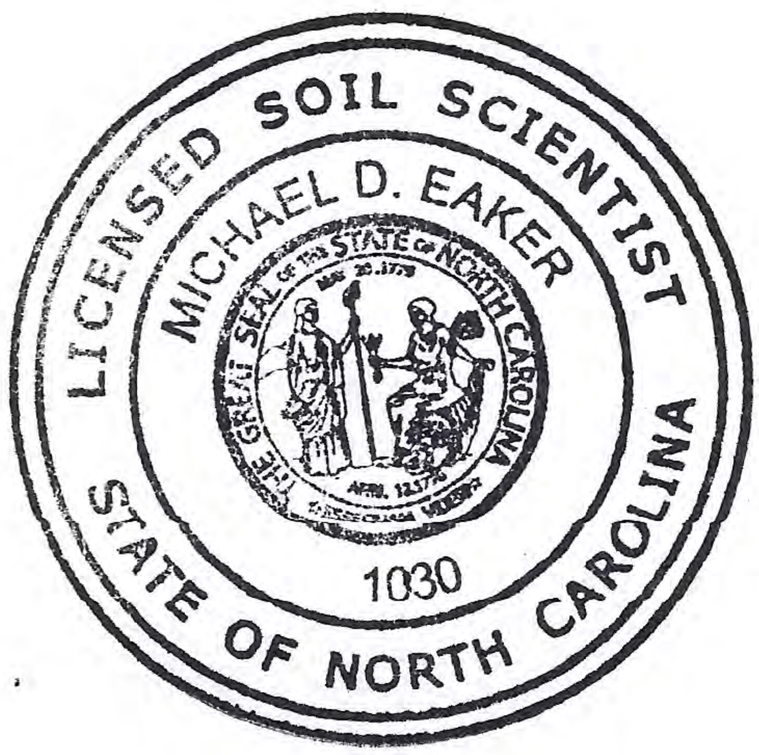
- Pump to Accepted product with **pressure manifold** (435', see septic layout)
- 480 gal/day flow rate (4BR)
- 22" maximum trench depth
- 0.30 gpd/ft2 LTAR (initial) and 0.4 gpd/ft2 (repair)
- 1000-gallon septic and pump tank **(certified watertight)**
- Pump to produce 42.89 gal/min @ 17.48 feet TDH
- Pump dose 198 gallons (9.9-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: 4 **LTAR** 0.30 gpd/ft2 initial

SEPTIC TANK SIZE 1000 Gallons **PUMP TANK SIZE** 1000 Gallons

	LINE	FLAG COLOR	ELEVATION	LENGTH
Initial	1	B	99.20	60
	2	L	98.80	90
	3	P	98.60	110
	4	W	98.30	90
	5	L	97.90	85
				435 TOTAL
Repair	6	Y	101.40	80
	7	R	101.40	80
	8	O	101.20	30
	9			25
				215 TOTAL

BY Mike Eaker **DATE** 3/13/25

TYPICAL PROFILE

THERE SHALL BE NO GRADING,

CUTTING, LOGGING OR OTHER SOIL

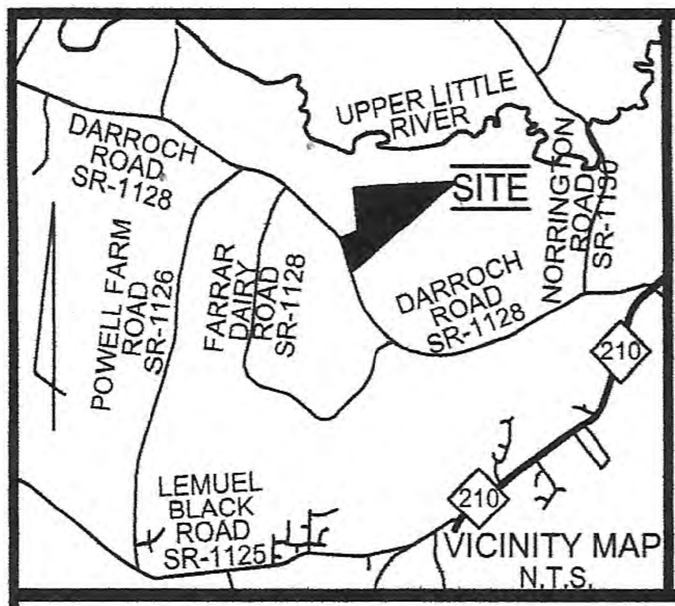
DISTURBANCE IN SEPTIC AREA

Initial	0-12	LS/SL	VFr/Fr/Gr
	20-48	SCL	Fi/SBk
	CR2	36"	
Repair	0-16	LS/SL	VFr/Fr/Gr
	16-48	SL/SCL	Fi/SBk
	CR2	37"	

HEALTH DEPARTMENT USE ONLY.

DESIGNS DO NOT GURANTEE FUNCTIONALITY

NC ONSITE WASTEWATER EVALUATOR
Certification Number
10013E



Notes:
- This plat is for location purposes only. Builder should verify foundation information with plans before construction begins.
- There is no USCE or NCGS monument within 2000' of this site.
- The subject property is not within a special flood hazard area as determined by the Departmant of Housing and Urban Development.
- The easement information shown hereon was obtained from the recorded plat. No updated title search was performed by the surveyor.
- All distances are measured in feet.
- This map reflects the information contained on the Record Plat and does not represent compliance with the Restrictive Covenants.

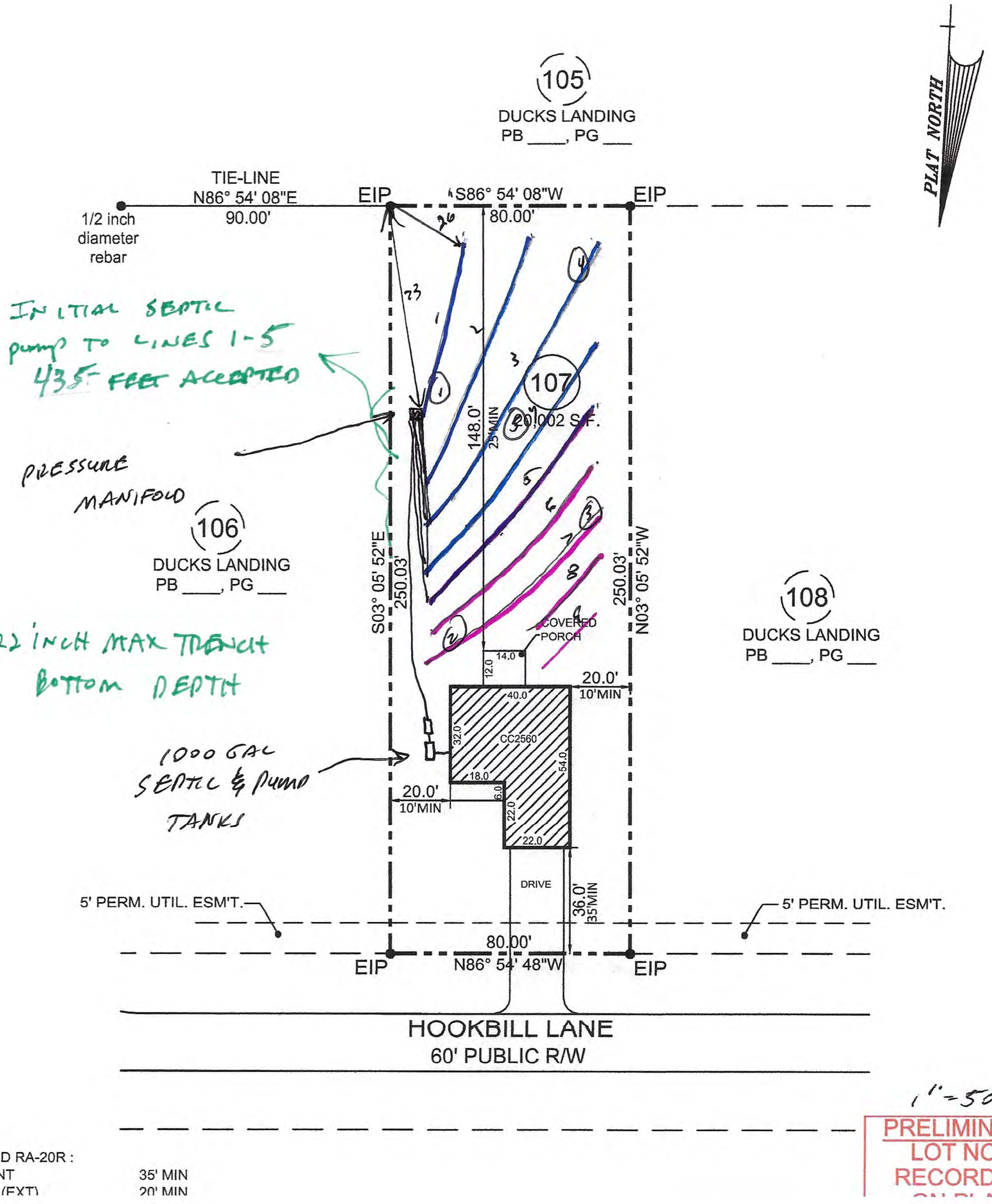
LEGEND

- EXISTING IRON PIPE
- CURVE PT / PC
- SURVEYED LINE
- EASEMENT LINE
- ADJOINER
- SURVEYED BY OTHERS

-50 -25 0 25 50 100

SCALED IN FEET
1" = 50'

MAP NOT DRAWN IN ACCORDANCE WITH GS 47-30
NOT FOR CONVEYANCES OR SALES



ZONED RA-20R :

FRONT	35' MIN
SIDE (EXT)	20' MIN

RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # Ducks Landing Lot 107

# of BDR: 4 **Daily Flow:** 480 **gal/day** **L.T.A.R.:** 0.3500 **gal/day/sq.ft**

Septic Tank: 1200 **gals** **Pump Tank:** 1200 **gals** **Sq. Foot:** 1305 **System Type:** Accepted

Number of Taps: 5 **Length of Trenches:** 435 **ft(See Tap Chart for Details)**

Depth of Trenches: 22 **in** **Manifold Length:** 48 **in**

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

Supply Line: length: 100 **ft** **Diameter:** 2 **in sch 40pvc**

Friction Loss + Fitting Loss: 6.88 **ft(supply line length + 70' for fittings in pump tank)**

Design Head: 2 **ft** **Elevation Head:** 8.60 **ft**

Total Head: 17.48 **ft** **Pump to Deliver:** 42.89 **gals/min at** 17.48 **ft head**

Dosing Volume: 198 **gals,**

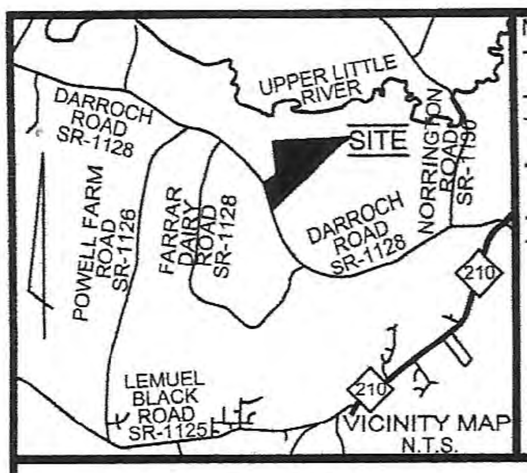
Drawdown: 198 **gals divided by** 20 **gals/in =** 9.9 **inches**

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

Benchmark	5.3	is = 100.00	rc 106/107				**Design Head:**	2			
Pump tank elev.		8.7	96.60	**Pump elev.**	91.60		**Manifold elev.**	100.20			
line	**color**	**rod read**	**Elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**	**# of Panels (PPBPS)**	**Spacing of Panels (in)**
1	B	6.10	99.20	60	1/2in SCH 80	5.48	61.33	180	0.3407		
2	L	6.50	98.80	90	1/2in SCH 40	7.11	79.57	270	0.2947		
3	P	6.70	98.60	110	3/4in SCH 80	10.1	113.03	330	0.3425		
4	W	7.00	98.30	90	3/4in SCH 80	10.1	113.03	270	0.4186		
5	I	7.40	97.90	85	3/4in SCH 80	10.1	113.03	255	0.4433		
			105.30			0	0.00	0	#DIV/0!		
			105.30			0	0.00	0	#DIV/0!		
			105.30			0	0.00	0	#DIV/0!		
			105.30			0	0.00	0	#DIV/0!		
			105.30			0	0.00	0	#DIV/0!		
			Total Feet =	**435**	**gal/min =**	**42.89**		**LTAR =**	**0.3500**		
			Feet Required =	**343**	**Velocity =**	**4.10**		**(ltar + 5%)**	0.3675		
Total # of Panels (PPBPS)				**Des. Flow**	480			**(ltar w/25% red)**	0.4667		
% of Dose Vol.		70		**Pump Run=**	11.19			**(ltar + 5%)**	0.4900		
Dose Volume		198		**Tank Gal/IN**	20						
Dose Pump Time		4.61		**Elev. Head**	8.60						
Drawdown in Inches		9.9									

Comments:



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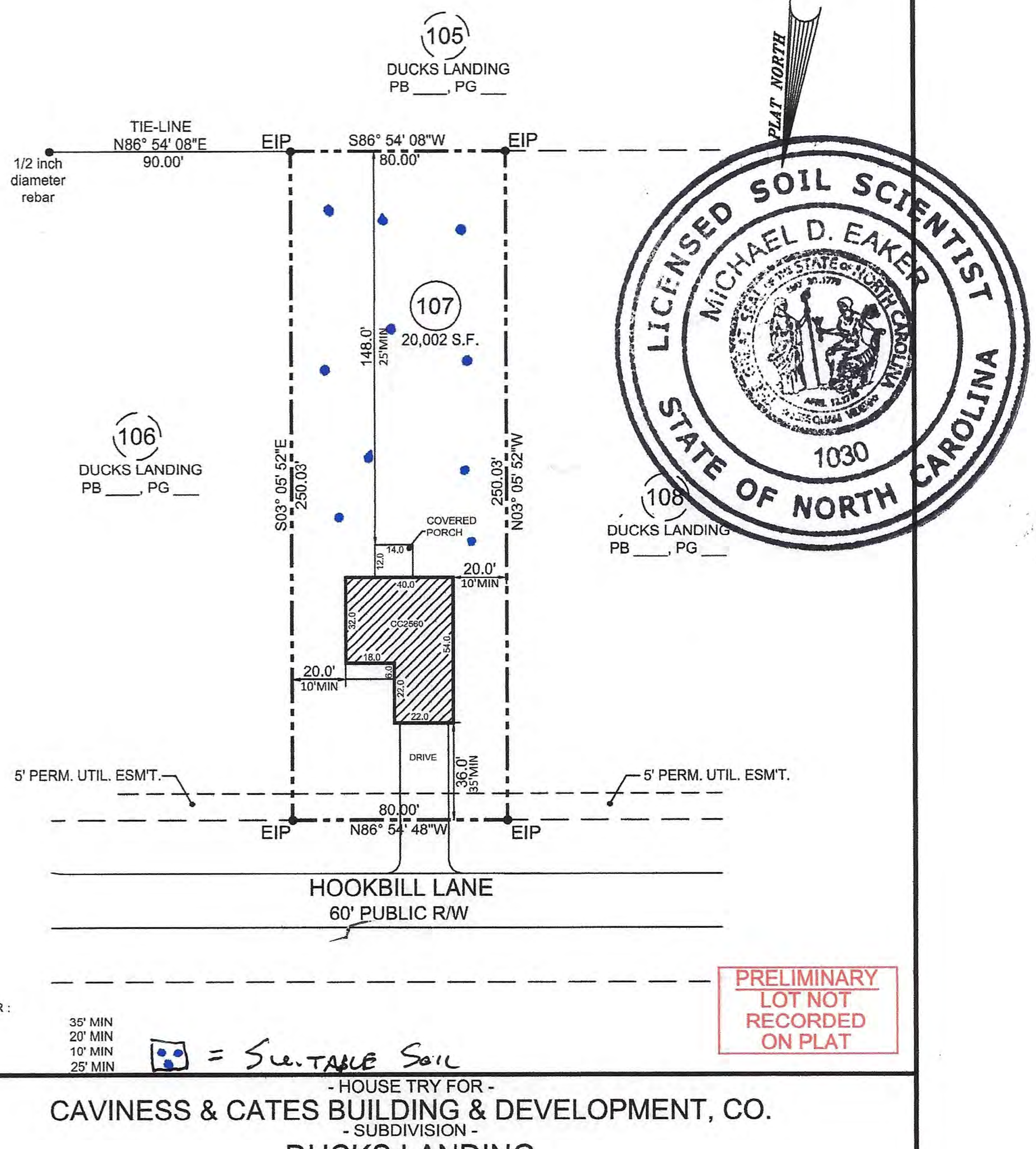

ZONED RA-20R :

FRONT	35' MIN
SIDE (EXT)	20' MIN
SIDE (INT)	10' MIN
REAR	25' MIN

= Suitable Soil

PRELIMINARY
LOT NOT
RECORDED
ON PLAT

- HOUSE TRY FOR -

CAVINESS & CATES BUILDING & DEVELOPMENT, CO.

- SUBDIVISION -

DUCKS LANDING

ANDERSON CREEK TOWNSHIP
HARNETT COUNTY
NORTH CAROLINA

JANUARY 29, 2025
SCALE 1" = 50'
FIELD BOOK:

REFERENCE
PB _____, PG _____
HARNETT COUNTY NORTH CAROLINA REGISTRY

PRELIMINARY
LOT NOT
RECORDED
ON PLAT

ENGINEERS
PLANNERS
SURVEYORS
MOORMAN, KIZER & REITZEL, INC.

115 broadfoot ave.
p.o. box 53774
fayetteville, n.c., 28305
phone 910-484-5191
fax 910-484-0388
LICENSE #: F-0106

_____
PROF. SURVEYOR NO.

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

ID #: _____
COUNTY: Harnett

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): 480 GPD (4BR)
LOCATION OF SITE: Hookbill Lane, Lillington, NC (Lot 107) Ducks Landing

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

WATER SUPPLY: ☐ Private X Public Well ☐ Spring ☐ Other _____

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

PROFILE #	.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 SAPRO CLASS	.1944 RESTR HORIZ	
1	LS 2-4%	0-8	LS/Gr	VFr/Nexp	36" 10YR 7/3	NA	NA	NA	Suitable 0.30
		8-17	LS/Gr	VFr/NExp					
		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" 10YR 6/4	NA	NA	NA	Suitable 0.40
		3-22	LS/Gr	VFr/Nexp					
		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" 10YR 6/4	NA	NA	NA	Suitable 0.40
		9-16	LS/Gr	VFr/NExp					
		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" 10YR 6/4	NA	NA	NA	Suitable 0.35
		4-28	LS/Gr	VFr/Nexp					
		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
Available Space (.1945)	Yes	Yes
System Type(s)	Pump to Accepted	Pump to Panel Block
Site LTAR	0.30	0.40

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): Suitable

EVALUATED BY: M. Eaker
OTHER(S) PRESENT: D. Eaker

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

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

PROFILE #	.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 SAPRO CLASS	.1944 RESTR HORIZ	
5	LS 2-4%	0-6	LS/Gr	VFr/NExp	46" 2.5Y 6/4	NA	NA	NA	Suitable 0.35
		6-12	SL/wf sbk	Fr/SExp					
		12-20	SCL/mm sbk	Fi/SExp	7.5YR 5/8 10YR 5/8				
		20-46	SCL/wf sbk	Fi/SExp					
		46-48	SCL/mass	Fr/SExp	10YR 7/1m				
6									

TRAVELERS

Travelers 1st Choice+®

DESIGN PROFESSIONALS LIABILITY COVERAGE 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.

ITEM 1	**NAMED INSURED**: SOUTHEASTERN SOIL AND ENVIRONMENTAL ASSOCIATES DBA: Principal Address: PO BOX 9321 FAYETTEVILLE, NC 28311-9084
ITEM 2	**POLICY PERIOD**: 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.
ITEM 3	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.

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ITEM 4 COVERAGE INCLUDED AS OF THE INCEPTION DATE IN ITEM 2:

Design Professionals Liability Coverage

ITEM 5

PROFESSIONAL LIABILITY COVERAGE LIMITS

Professional Services and Network and Information Security Offenses Coverage Limits:	$2,000,000 for each **Claim**; not to exceed $2,000,000 for all **Claims**
Deductible:	$2,500 each **Claim** $7,500 all **Claims**

Retroactive Date: July 27, 2005

Knowledge Date: May 1, 2024

ITEM 6 ADDITIONAL BENEFITS LIMITS:

Crisis Event Expenses Limits:	$10,000 for each **Crisis Event** $30,000 for all **Crisis Events**
Disciplinary or Regulatory Proceeding Expenses Limits:	$25,000 for each **Disciplinary or Regulatory Proceeding** $50,000 for all **Disciplinary or Regulatory Proceedings**

ITEM 7 PREMIUM FOR THE POLICY PERIOD:

$8,423.00 Policy Premium

ITEM 8 OPTIONAL EXTENDED REPORTING PERIODS:

Additional Premium Percentage:	Additional Months:
125%	12
185%	24
200%	36
240%	60

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