

ROY COOPER • Governor KODY H. KINSLEY • Secretary MARK BENTON • Chief Deputy Secretary for Health SUSAN KANSAGRA • Assistant Secretary for Public Health Division of Public Health

# **Application for Services**

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5). [hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for: (a2) Improvement Permit (a2) Construction Aut	thorization (a2) Repair/Construction Authorization
If applying for a Construction Authorization, please indicate de Accepted Conventional Innovative Ot	esired system type(s):
<ul> <li>New Construction</li> <li>Expansion</li> <li>System Re</li> <li>5-Year Expiration Requested (site plan provided)</li> <li>Non-Requesting DHHS review? (systems &gt;3000 GPD or IPWW)</li> </ul>	Expiring Permit Requested (plat provided, defined in G.S.130A-334(7a)
Applicant:	Owner:
Mailing Address:	
City:	City: Zip: Zip:
If the answer to any of the following questions is "yes", appli	icant must attach supporting documentation.
Yes No Does the site contain any jurisdiction	
Yes No Is any wastewater going to be gener	rated on the site other than domestic sewage?
Yes No Is the site subject to approval by any	
Yes No Are there any easements or right of	ways on this property?
are to be used to issue an Improvement Permit and/or Const I understand that authorized county and state officials are gr conduct necessary inspections to determine compliance with	n G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application truction Authorization pursuant to G.S. 130A-335(a2),(a3), and (a5). ranted right of entry to the property indicated on this application to h applicable laws and rules. <i>I understand that if the information in</i> <i>fuction Authorization is falsified, changed, or the site is altered,</i> <i>fon shall become invalid.</i>
Applicant Signature: Stephanie Swift	Date:
Owner's Signature: Darlene Lumpkin, GM	Date:

Permit/F	ile #:
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NC DEPARTMENT OF HEALTH AND HUMAN SERVICES	ROY COOPER • Governor KODY H. KINSLEY • Secretary MARK BENTON • Chief Deputy Secretary for Health SUSAN KANSAGRA • Assistant Secretary for Public Health Division of Public Health
Submittal Includes: 🗌 (a2) Improvement Permit [	a2) Construction Authorization Fee \$
IMPROVEMEN	Г PERMIT FOR G.S. 130А-335(а2)
County:	
PIN/Lot Identifier:	
Issued To:	
	Lot #: Block: Section:
LSS Report Provided: Yes 📃 No 🗌	
If yes, name and license number of LSS:	
New Expansion	System Relocation Change of Use
Facility Type:	
Number of bedrooms: Number of Occupants:	Other:
Design Wastewater Strength: 🗌 Domestic	High Strength Industrial Process Wastewater
Proposed Design Daily Flow: GPD Pro	posed LTAR (Initial): Proposed LTAR (Repair):
Proposed Wastewater System Type*:	(Initial) Pump Required: 🗌 Yes 🗌 No 🗌 May be required
Proposed Wastewater System Type*:	(Repair) Pump Required: 🗌 Yes 🗌 No 🗌 May be required
*Please include system classification for proposed wastewater	system types in accordance with Rule .1301 Table XXXII
Effluent Standard: 🗌 DSE 🗌 HSE 🗌 NSF/ANSI 40 🗌	] TS-I 🔲 TS-II 🔲 RCW
Saprolite System (Initial): Yes No Saprolite System	tem (Repair): 🗌 Yes 🔲 No
Fill System (Initial): Yes No If yes, specify: New	Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Fill System (Repair): 🗌 Yes 📄 No 🛛 If yes, specify: 🗌 New	Existing (when adding more than 6 inches of fill to system area provide a fill plan)
	able Depth to LC (Repair) <sup>x</sup> : <i>* Limiting Condition</i>
	Depth (Repair) <sup>‡</sup> : <i><sup>‡</sup> Measured on the downhill side of the trench</i>
Artificial Drainage Required: 🗌 Yes 🗌 No If yes, please spe	ecify details:
Type of Water Supply: 🗌 Private well 📄 Public well 📃 🖞	Shared well 🗌 Municipal Supply 🗌 Spring 🗌 Other:
	No 🗌 Drainfield location meets requirements of Rule .0601: Yes 🗌 No 🗌
Permit valid for: 🗌 Five years [site plan submitted pursuant to	o GS 130A-334(13a)] 🗌 No expiration [plat submitted pursuant to GS 130A-334(7a)]
Permit conditions:	
Licensed Soil Scientist Print Name:	
Licensed Soil Scientist Signature:	
	pursuant to and meets the requirements of G.S. 130A-335(a2).

Permit/File #: \_\_



## This Section for Local Health Department Use Only

Initial submittal received: \_\_\_\_\_\_ by \_\_\_\_\_ Date Initials

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

Incomplete (If box is checked, information in this section is required.)					
The following items are missing:					
Copies of this were sent to the LSS and the Applicant on	Date				
State Authorized Agent:		Date:	_		
Complete					
State Authorized Agent:		Date:			

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. <u>This permit is subject to revocation if the site plan, plat, or the intended use changes</u>. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: \_\_\_\_\_

\*See attached site sketch\*



Permit/File #: \_\_\_\_\_

## **Re-submittal of Improvement Permit**

LHD USE ONLY: This IP resubmittal received:		by	
	Date	Initials	

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

I, \_\_\_\_\_\_\_hereby attest that the information required to be included with this re-submittal Licensed Soil Scientist (Print Name) is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

Signature of Licensed Soil Scientist

The section below is for Local Health Department use after submittal of items noted as missing above.

Date

#### LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

Date

Incomplete (If box is checked, information in this section is required.)

The following items are missing:

Copies of this were sent to the LSS and the Applicant on \_\_\_\_\_

State Authorized Agent: \_\_\_\_\_

Complete

State Authorized Agent: \_\_\_\_\_

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

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



Permit/File #: \_\_\_\_\_

#### CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County:	Pre-Construction Conference Required: Yes 📃 No 📃
PIN/Lot Identifier:	
Issued To:	
Property Location:	
AOWE/PE Plans/Evaluations Provided: Yes No	If yes, name and license number of AOWE/PE:
Facility Type:	
Number of bedrooms: Number of Occupants	: Other:
New Expansion Repair	System Relocation Change of Use
Basement? Yes No	Basement Fixtures? 🗌 Yes 🗌 No
Crawl Space? Yes No	Slab Foundation? Yes No
Type of Wastewater System*	(Initial)(Repair)
*Please include system classification for proposed was	tewater system types in accordance with Rule .1301 Table XXXII
Design Daily Flow: GPD W	/astewater Strength: Domestic High Strength Industrial Process WW
Session Law 2014-120 Section 53, Engineering Design (if yes, please provide engineering documentation)	Utilizing Low-flow Fixtures and Low-flow Technologies? 🗌 Yes 🗌 No
Effluent Standard: DSE HSE NSF/ANS	I 40 🔲 TS-I 🔄 TS-II 🔄 RCW
Type of Water Supply: Private well Public we	ell 🗌 Shared well 📄 Municipal Supply 📄 Spring 📄 Other:
Installation Requirements/Conditions	
Septic Tank Size: gallons Total Trench/E	Bed Length: feet Trench/Bed Spacing: feet on center
Trench/Bed Width: inches LTAR:	gpd/ft <sup>2</sup> Usable Depth to LC (Initial) <sup>x</sup> : <sup>x</sup> Limiting condition
Soil Cover: inches Slope Corrected Maximu	m Trench/Bed Depth <sup>‡</sup> : inches <i>* Measured on the downhill side of the trench</i>
Pump Tank Size (if applicable): gallons	Requires more than 1 pump? 🗌 Yes 📄 No
Pump Requirements: ft. TDH vs GPM	Grease Trap Size (if applicable): gallons
Distribution Method: Serial D-Box or Paralle	el 🗌 Pressure Manifold(s) 🗌 LPP 🔲 Other:
Artificial Drainage Required: Yes 🗌 No 🗌 If yes, p	lease specify details:
Legal Agreements (If the answer is "Yes" to any type o	f legal agreements, please attach a copy of the agreement.)
Multi-party Agreement Required [.0204(g)]:	No Declaration of Restrictive Covenants: Yes No
Easement, Right-of-Way, or Encroachment Agreement	
	num O&M Requirements:
with the attached site sketch. <u>This Construction Auth</u> Construction Authorization shall not be affected by a	by reference into this permit and shall be met. Systems shall be installed in accordance <u>horization is subject to revocation if the site plan, plat, or the intended use changes.</u> The change in ownership of the site. This Construction Authorization is subject to compliance BA .1900, as applicable, and to the conditions of this permit.
AOWE/PE Print Name:	
AOWE/PE Signature:	Date:

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

#### \*See attached site sketch\*



## This Section for Local Health Department Use Only

Initial submittal received: \_\_\_\_\_\_ by \_\_\_\_\_ by \_\_\_\_\_

Date

Initials

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This

Construction Authorization is determined to be:

Incomplete (If box is checked	I, information in this section is required.)
-------------------------------	--

The following items are missing:

Complete

State Authorized Agent: \_\_\_\_

Date of Issuance:

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: \_\_\_\_\_\_

\*See attached site sketch\*



# **Re-submittal of Construction Authorization**

	LHD USE ONLY: This CA resubmittal received:		by	
		Date	Dy Initials	
The following i	items are being resubmitted pursuant to G.S. 130A-33	5(a5) for issuance	of the Construction Author	zation:
	ST/	ATE	90.	
l,	hereby attest tha	t the information	required to be included wit	h this re-submittal
is accurate and	nsite Wastewater Evaluator (Print Name) complete to the best of my knowledge and that the p and local laws, regulations, rules, and ordinances.	proposed Constru	ction Authorization meets a	ll applicable
Signatu	re of Authorized On-Site Wastewater Evaluator		Date	
	The section below is for Local Health Department use	after submittal of i	items noted as missing above.	
LHD Follow-	up Completeness Review of Construction Au	uthorization		
	completeness of this Construction Authorization re-su on Authorization is determined to be:	ubmittal was cond	lucted in accordance with G	.S. 130A-335(a5).
Incomplete	(If box is checked, information in this section is requir	red.)		
The following it	tems are missing:			
	ALL SALE QUAL	N VIDERO	19	
Copies of this w	vere sent to the AOWE/PE and the Applicant on	Date	_	
State Authorize	ed Agent:		Date:	
Complete				



Permit/File #: \_\_\_\_\_

# ADDENDUM TO G.S. 130A-335(a2) SUBMITTAL

County:	
PIN/Lot Identifier:	
Issued To:	
Additional Improvement Permit Conditions:	
THE STATE	
A NAR S	
845/ 3	710
	I I I
Additional Construction Authorization Conditions:	
1PRIL 12 VT16	
	R1+ 12
QUAM VID	

# Residential Subsurface Wastewater Treatment and Disposal System Proposal

for

# Lot 18 Lower River Road Broadway, Harnett County, NC

PIN: 9680-71-8337 August 23, 2024

**Prepared for:** 

Clayton Homes of Raleigh 3912 Fayetteville Road Raleigh, NC 27603

# **Prepared by:**

Evan T. Morgan, LSS, AOWE Earthly Elements Soil Consulting, PLLC PO Box 12131 Durham, NC 27709

The LSS Evaluation is being submitted pursuant to and meets the requirements of G.S 130A-335 (a2).

This AOWE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).



#### Details

Earthly Elements Soil Consulting, PLLC (Earthly Elements) has prepared a septic system design proposal for a 4-bedroom single family residence with a design daily flow of 480 gallons per day (GPD). The property is located at Lot 18 Lower River Road, Broadway, Harnett County, North Carolina (PIN: 9680-71-8337).

The property is to be served by a private well.

Based upon a soils investigation performed by Earthly Elements, it has been determined that enough "Suitable" Group IV soil is available for the installation of a **Gravity to Accepted Systems** for the initial system and **Pump to Accepted Systems** for the repair system both at a 0.3 GPD/ft. sq. long term acceptance rate (LTAR).

Earthly Elements requests that Harnett County Environmental Health (HCEH) issue the appropriate Improvement Permit and Construction Authorization permit for a subsurface wastewater treatment and disposal system based upon this proposal.

#### References

Working Copy of 15A NCAC 18E, Version 1, November 9, 2023; effective January 1, 2024

Primary Investigator's Credentials

NC Licensed Soil Scientist No. 1340 AOWE Certification No. 10039E

### Plans and Specifications

#### A. Septic Tank

- 1. The septic tank shall be State approved, of one-piece construction, watertight, structurally sound and 1,000-gallons capacity. It is the responsibility of the septic tank contractor to thoroughly inspect each septic tank prior to accepting delivery.
- 2. The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.

### B. Pipes and Fittings

- 1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.
- 2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
- 3. The supply line from the septic tank shall be 3-inch Schedule 40 PVC (approximate length of supply line is 40 feet).

## C. Distribution Method - Serial

1. The system will be fed via serial distribution connecting at the terminal ends.

## D. Drainfield Installation

- 1. The initial and repair drainfield and the proposed septic tank location have been marked on-site utilizing metal stemmed flags. Once this area has been approved by the LSS/AOWE, the property owner/builder should mark this area and isolate it as much as possible from construction traffic. Prior to the system installation, the septic contractor shall contact the LSS/AOWE for a preconstruction conference, if requested, at which time the drainfield area will be re-verified.
- 2. Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition. If the installer has doubts as to whether the drain field area is dry enough to begin construction, the LSS/AOWE or environmental health specialist for this area should be contacted for permission to proceed with the installation.
- 3. The specified initial system is a Type II-B gravity to "Accepted Systems" drainline.
- 4. The initial drain field consists of five (3) lateral trenches 3 feet wide by 12 inches tall by 65, 65, 75, 75, and 120 feet in length. The repair drain field consists of six (6) lateral trenches 3 feet wide by 12 inches tall by 50, 50, 50, 80, 85 and 85 feet in length.
- 5. It is essential that the lateral trenches be constructed on contour with the land, with each trench being excavated level from beginning to end. The use of a tripod mounted engineer's level is essential to assure that each trench is constructed as level as possible.
- 6. The maximum trench depth for the initial system and repair system shall be 15 inches on the low side of trench. Each trench shall be placed on minimum 9-foot on centers.
- 7. A minimum 6-inch soil cover, after settling, will be required over the drainfield. The cover shall extend five feet beyond the drainfield in all directions.

		P				
Line #	Color	Field Length	System length	Initial/Repair	Setup 1	<b>Reference</b> Elevation
1		57	50	Repair	3.1	104.22
2		57	50	Repair	3.3	104.02
3		82	80	Repair	3.7	103.62
4	В	94	85	Repair	4.1	103.22
5		105	85	Repair	5.1	102.22
<b>6</b> a	W	52	50	Repair	5.92	101.4
6b	W	65	65	Initial	5.92	101.4
7	R	65	65	Initial	6.61	100.71
8	Y	150	120	Initial	7.52	99.8
9	В	75	75	Initial	8.02	99.3
10	W	78	75	Initial	8.86	98.46
				Back Left HC	7.32	100

## Initial and Repair Septic System

#### E. <u>Proper Operation Check</u>

1. After all components of the wastewater disposal system have been installed and connected, the system shall be checked for proper operation.

### F. Final Landscaping

- 1. The finished grade over the septic tank and drainfield shall be shaped to shed rainwater and be free from low spots.
- 2. The entire area of the drainfield should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

### G. Utility/Drive Conflicts

- 1. Water lines must be kept at least ten (10) feet from any portion of the septic system.
- 2. Underground utilities, guy wires, and utility poles must be kept at least five (5) feet from any portion of the septic system.
- 3. Irrigation systems should not be placed in the drain field area.
- 4. The private water supply well must maintain a minimum 100-foot setback to the septic system components.

### Maintenance

#### H. Operation and Maintenance

The designed system is classified as a Type II-B wastewater treatment and disposal system and does not require ongoing maintenance via a certified inspector to operate subsurface wastewater systems (Section .1300 Operation and Maintenance). However, the following maintenance should be considered by the owner:

- 1. The septic tank shall be pumped out when the solids within the septic tank reach an elevation that is equivalent to 25% of the volume of the tank. In some situations, the tanks may need to be pumped more frequently; for example, if you are using a garbage disposal, it is recommended that the septic and pump tanks be cleaned out annually.
- 2. The effluent filters should be inspected semi-annually. When it becomes necessary to clean the effluent filters, the filters should be removed, and the accumulated debris washed back into the septic or pump tank not onto the lawn.
- 3. All piping and valves should be inspected semi-annually for damage and corrections/repairs made immediately.
- 4. The drain field area should be maintained to prevent overgrowth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.
- 5. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

### I. <u>Suggestions to the Homeowner</u>

- 1. A garbage disposal is not recommended. The ground up garbage adds large amounts of solids into a septic tank that tend to degrade at a very slow rate.
- 2. Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
- 3. Used motor oil or any oily liquids should not be disposed of in a septic tank.
- 4. Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
- 5. Run dishwashers and washing machines only when you have a full load.
- 6. Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
- 7. Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and in some cases certain additives have been found to be detrimental to the life of a system.

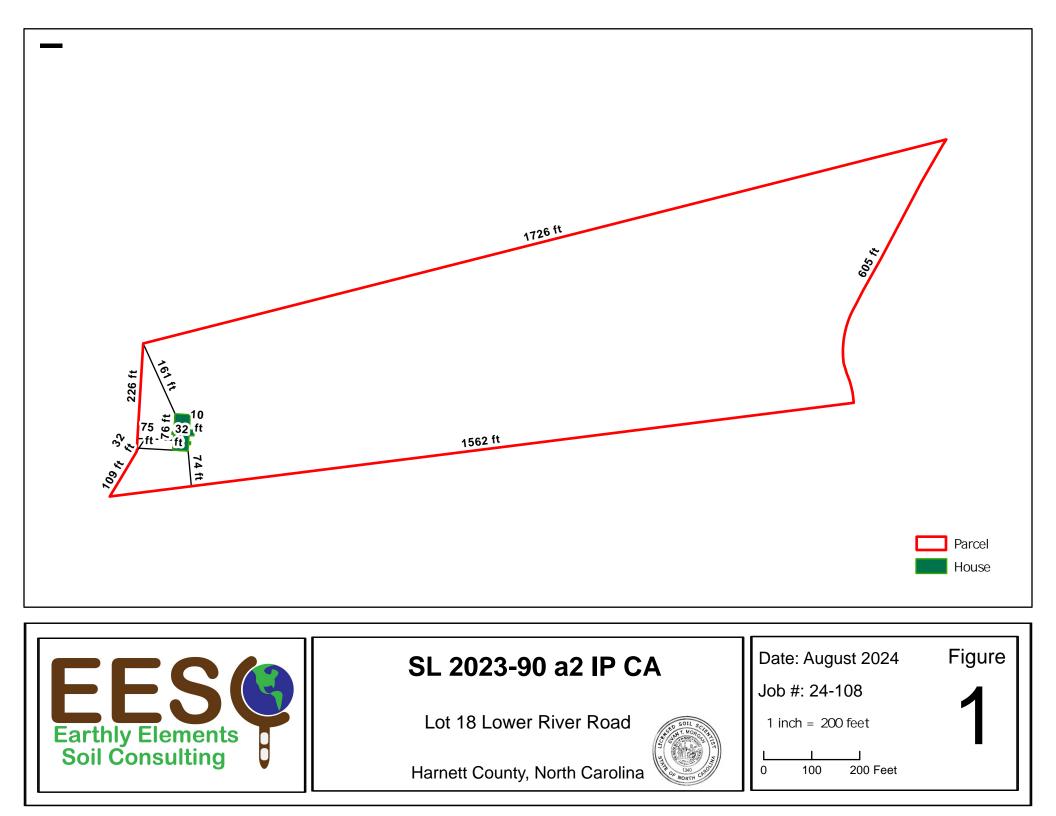
## **Initial System Design Specifics**

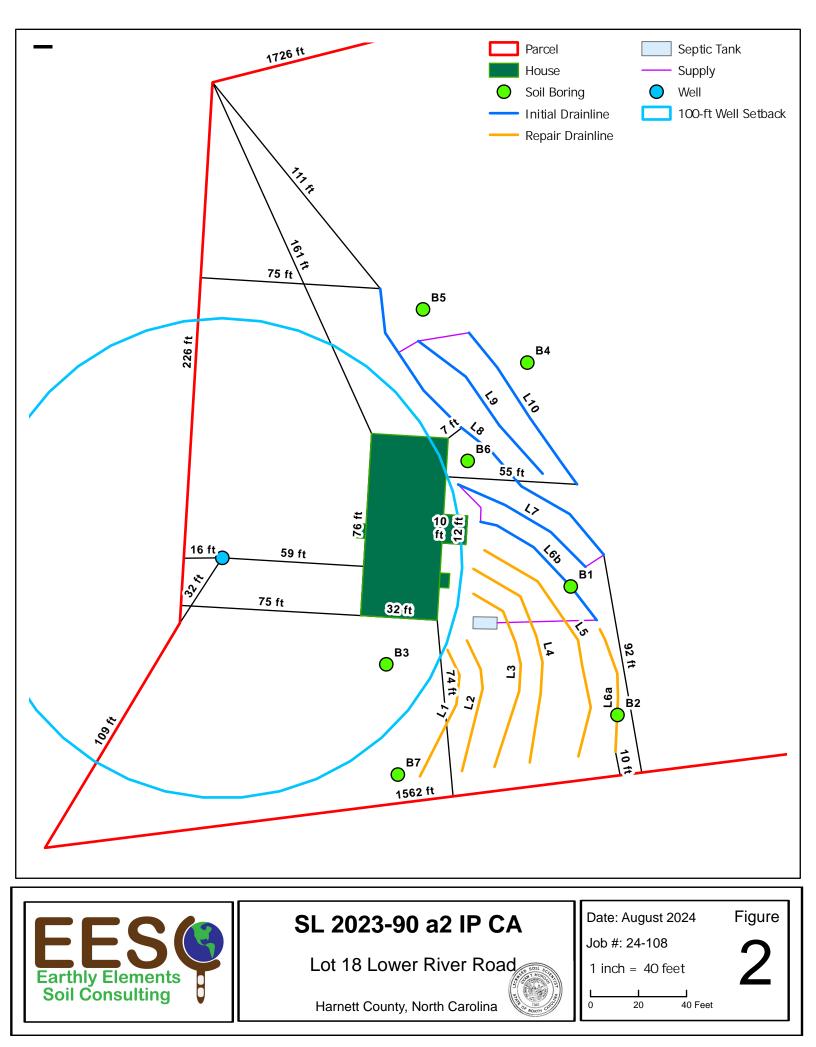
Design Daily Flow:	480 Gallons Per Day
Effluent Loading Rate:	0.3 GPD per sq. ft.
Drainfield Type:	Accepted System
Maximum Trench Depth:	15 Inches on low side of trench
Drainfield Cover:	minimum 6-inches, after settling
Supply Size:	3 Inch
Supply Line Length:	Approximately 40 feet
Supply Line Length: Number of Drainlines:	Approximately 40 feet 5
Number of Drainlines:	5
Number of Drainlines: *Drain Lines:	5 3' Wide x 65' 65' 75' 75' 120' Long

\* See drainfield layout for site locations and more details.

#### **Repair Allocation Specifics**

Effluent Loading Rate:	0.3 GPD per sq. ft.
Drainfield Type:	Accepted Systems
Maximum Trench Depth:	15 Inches on low side of trench
Drainfield Cover:	minimum 6-inches, after settling
Supply Size:	2 Inch
Supply Line Length:	Approximately 80 feet
Number of Drainlines:	6
*Drain Lines:	3' Wide x 50' 50' 50' 80' 85' 85' Long
Total Trench Length:	400 Linear Feet
*Drainline Spacing:	9 Foot on Centers
Distribution Method:	Pump to Serial





# Soil Evaluation Form

o . 11 p . . . . . . .

Earthly Elements Soil Consulting, PLLC PO Box 12131 Durham, NC 27709 919-417-0509 Sheet of I Job: Lof 18 Lower River Rd County: Harnett Date: 8-19-24

	Soil Borings										
	BI	BZ	B3	BY	B5	B6	B7				
Landscape Position	\$5	55	<b>5</b> 5	કડ	- SS	55	55				
Slope (%)	6	Ч	3	4	5	5	3				
Horizon 1 Depth	09	0-4	0-8	0-22	0-4	0-10	6-8				
Texture	VarSL	grsch	51	SL	SL	SL	52				
Consistence	FR	PI	FR	FR	FR	FR	FR				
Structure	GR	SBN	GR	62	GR RE	GR	GR				
Clay Mineralogy	NE	SE	ME	NE	NE	NE	NÉ				
Horizon 2 Depth	9-23	4-30	8-36	22-28	6.30	10-34	836				
Texture	5:6	C	SC	arsh	54	5C	SC.				
Consistence	번	ΓĪ.	FI	JER	FŦ	FF	IF.				
Structure	SBN	SBU	son	Ga	SBH	384	SBU				
Clay Mineralogy	SE .	SE	55	NE	SE	<u>se</u>	SĒ				
Horizon 3 Depth	23-30			284							
Texture	いて			NC							
Consistence	FR			<b>1</b>							
Structure	431 5-			SBM							
Clay Mineralogy	SE			SE							
Horizon 4 Depth											
Texture											
Consistence											
Structure											
Clay Mineralogy											
Horizon 5 Depth											
Texture											
Consistence											
Structure											
Clay Mineralogy											
Soil Wetness	36	30			30	34					
Restrictive Horizor						· · · · ·		<u> </u>			
Saprolite								<b>h</b>	1		
Other								<u> </u>	1		
CLASSIFICATION	5	5	5	5	9	5	5	<u> </u>	1	1	
LTAR (gpd/ft <sup>2</sup> )	0.3	0.3	0.3	0.3	0.3	03	0.3				

Comments:

Evaluated by : E. MOGM

ACORD	

# **CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)

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THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.											
IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the											
certificate holder in lieu of such endorsement(s).											
-	le Associates, LLC			NAME: Aligera Seliseling							
	) Pollock St.			PHONE (A/C, No, Ext):         FAA (252)631-5269         FAA (A/C, No):         (252)649-2443           E-MAIL ADDRESS:         asensenig@wadeict.com         (A/C, No):         (252)649-2443							
250	FOLIOCK SC.			ADDRES							
New	v Bern NC 2856	50		INSURER(S) AFFORDING COVERAGE					NAIC #		
INSU				INSURE	38970						
	thly Elements Soil Consulting	PLL	с		38970						
	Box 12131	,	•	INSURE							
				INSURE							
Dur	cham NC 2770	9-213	1	INSURE							
CO	VERAGES CERT	IFICAT	E NUMBER: 24-25				REVISION NUMBER:				
	HIS IS TO CERTIFY THAT THE POLICIES OF I										
INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.											
INSR LTR		ADDL SUB			POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS				
	X COMMERCIAL GENERAL LIABILITY							\$	1,000,000		
A	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	300,000		
			35543164		3/6/2024	3/6/2025	MED EXP (Any one person)	\$	10,000		
							PERSONAL & ADV INJURY	\$	EXCLUDED		
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$	2,000,000		
	X POLICY JECT LOC							\$	2,000,000		
								\$	500.000		
							(Ea accident)	\$ \$	500,000		
A	ANY AUTO ALL OWNED X SCHEDULED				0 / 00 / 00 0 4	0 / 00 / 00 05	,	» Տ			
	AUTOS AUTOS NON-OWNED		54-356598-00		2/28/2024	2/28/2025	PROPERTY DAMAGE	↓ \$			
	HIRED AUTOS AUTOS						(Per accident)	¢ \$			
	UMBRELLA LIAB OCCUR							\$			
	EXCESS LIAB CLAIMS-MADE							Ψ \$			
	DED RETENTION \$							\$			
	WORKERS COMPENSATION						PER OTH- STATUTE ER				
	AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE							\$			
	(Mandatory in NH)	N/A						\$			
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$			
в	Errors & Omissions		MEO4450-02		3/6/2024	3/6/2025	Each Claim		\$2,000,000		
							Policy Aggregate		\$2,000,000		
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)											
CERTIFICATE HOLDER CANCELLATION											
*FOR INFORMATIONAL PURPOSES ONLY* XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX					SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.						
	*****	MANANA AND AND AND AND AND AND AND AND AN			AUTHORIZED REPRESENTATIVE						
					N Whitsett/RACHEL N Le 1						

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