

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

27 May 2025

Carmen Rubio
1041 Rosser Pittman Rd
Broadway, NC 27505

Reference: Applicant Instructions for Private Septic Permit
143 Knight Rd, Broadway, NC 27505

Dear Mrs. Rubio,

A soil and site evaluation has been conducted for the above referenced property for the purpose of permitting a subsurface sewage waste disposal system. The wastewater system may not be installed until Notice of Intent (NOI) is filed with the Local Health Department (LHD). You will need to file a septic application with the LHD, pay the filing fee, and provide a signed copy of the AOWE permit package. After filing a complete NOI, you may apply for building permits.

The AOWE permit package includes:

- Notice of Intent (NOI) to Construct Form (**owner must sign NOI**)
- Certificate of Insurance for Hal Owen & Associates, Inc.
- A plat or site plan
- AOWE Evaluation for the subject property

If you file application using the permit portal, please add Hal Owen & Associates (hal@halowensoil.com) as a contact to allow us access to the project.

WATER SUPPLY

You will need to file an application with the County for a public water connection.

REGULATORY COMPLIANCE

Before installing a wastewater dispersal system or making any improvements to the property, it is the landowner's responsibility to verify that any proposed improvements comply with all applicable federal, state and local laws, rules, and regulations concerning land use, zoning, subdivision, erosion control, flood damage prevention, wetland regulations and any other land development restrictions.

CLEARING AND 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.

Care should be taken when clearing vegetation from the septic area. Work should only occur when the soil is at the appropriate moisture content to limit the impact to the soil structure in the soil treatment area. Do not scrape the ground inside the drainfield. **Any clearing or preparation of the septic areas shall be done without removal, disturbance, or compaction of the soil.**

SEPTIC SYSTEM INSTALLATION

Hal Owen & Associates Inc. is responsible for inspecting and approving the septic system installation; therefore, it is important for you to coordinate with us in choosing an installer to ensure a quality installation and to avoid project delays, cost overrun, or permit revocation. The septic system installer shall hold a current certification from the North Carolina Onsite Wastewater Contractor Inspector Certification Board as a **Level II installer or higher**. The installer shall **provide proof of liability insurance** with effective dates of coverage. The installer shall submit a **signed and dated statement of responsibility** to the owner, prior to commencement of work, that contains acknowledgement of the requirements of the onsite wastewater system specified by the AOWE (a sample form is attached). A courtesy list of installers we often work with is attached.

Hal Owen & Associates Inc should be **contacted at least five days** prior to the anticipated septic installation date in order to schedule a **pre-construction conference and site visit**. We will observe and note current site conditions and verify the locations of the structure, driveway, parking, and septic system layout. If any features are found to be out of compliance with the AOWE Permit, the inspector may delay the start of installation until issues are resolved.

AUTHORIZATION TO OPERATE (ATO)

Hal Owen & Associates Inc. will inspect the septic system prior to the system being covered. A Post-Construction Conference with the installer, owner (or agent), and Hal Owen & Associates staff is required. The conference shall include start-up and any required verification of the system components. Upon determining that the system is properly installed, we will issue an Authorization to Operate (ATO) and include an inspection report, as-built sketch, and system operation and management program. The applicant shall provide a copy of these documents along with the filing fee to the LHD, who will issue the certificate of occupancy for the facility.

Local Septic System Installers

Name	Telephone	Level & Cert#	County
Jason Matthews Matthews Backhoe Service Fuquay-Varina, NC	(919) 552-2669	Level IV #1228	Harnett
Don Gaddy Don Gaddy Septic Cameron, NC	(910) 245-3066	Level IV #2706	Moore
Jay Adcock Adcock Excavating LLC Fuquay-Varina, NC	(919) 552-6724	Level IV #1902	Wake
Edward Faison Quality Septic Services Inc Wendell, NC	(919) 365-9823	Level IV # 4530	Wake
Shane MacDonald Eastern Septic and Inspections Erwin, NC	(910) 580-1500	Level IV # 5572	Harnett
John Jones Jones Septic Tank Service Raeford, NC	(910) 875-7616	Level IV #4948	Hoke
Clint Adams Clint Adams Hauling and Grading Angier, NC	(919) 868-1674	Level IV #1205	Harnett
Tyler A Nordan Gene's Backhoe Services Willow Spring, NC	(919) 868-2754	Level IV #3795	Johnston
John Allen Scott Scott Septic Service Robbins, NC	(910) 783-5688	Level II #6891	Moore
Christian Blake Boswell Boswell And Son Septic Tank Sharpsburg, NC	(252) 977-9384	Level IV #1254	Nash
Bobby Winn Thomas State Mobile Home Movers Benson, NC	(919) 422-8623	Level IV #4813	Johnston
Arturo Cardenas Cardenas Construction Angier, NC	(919) 291-9555	Level II #2455	Harnett

For a complete list of certified subsurface operators in NC go to <https://ncowcicb.info/>

On-Site Wastewater System Contractor

Statement of Responsibility

Project Name (site identifiers): 143 Knight rd Broadway N.C
27505

County: Lee LHD Reference: _____

AOWE: Hal Owen, LSS #1102 and AOWE #10036E HOA Permit#: _____

Wastewater System Owner:

Name: Carmen and Jose Rubio

Mailing Address: 1041 Rosser Pittman Broadway N.C 27505

I, Larry W. Haape, am a certified on-site wastewater system contractor licensed in the State of North Carolina pursuant to article 5 of Chapter 90A of the General Statutes. I acknowledge the requirements of the on-site wastewater system specified by the Authorized On-Site Wastewater Evaluator (AOWE) and agree to be responsible for all aspects of the construction and installation of the wastewater system and its components, including adherence to specifications and any special inspections that are prepared, signed, and sealed by the AOWE. I have sufficient errors and omissions, liability, or other insurance for the system to be constructed.

Larry W. Haape
Signature of Installer

1165 Certification #
6-2-25 Date



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: Carmen Rubio

Mailing address: 1041 Rosser Pittman Rd City: Broadway State: NC Zip: 27505

Phone: 919-478-8614 Email: rubiocarmen080@gmail.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: 143 Knight Rd, Broadway, NC 27505

Tax parcel identification number or subdivision lot, block number of property: _____

Lot 1, PIN 9680-69-1533.000 County: Harnett

System Information:

Wastewater System Type: IIIbg (Pump to Accepted Status 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 27 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 27 day of May, 2030.

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: X Date: _____

AOWE EVALUATIONHAL OWEN ASSOCIATES
www.halowensoil.com

HOA-AOWE-2505-4

Issue date 5/27/2025

Expiration 5/27/2030

APPLICANT INFORMATION

Name	Carmen Rubio		
Mailing Address	1041 Rosser Pittman Rd, Broadway, NC 27505		
E-mail Address	rubiocarmen080@gmail.com	Telephone Number	919-478-8614

PROPERTY IDENTIFIERS

County	Harnett	PIN	9680-69-1533.000
Size (Acre)	1.08	County PID	
Site Address	143 Knight Rd, Broadway, NC 27505		
S/D Name and Lot#	Lot 1		

PROJECT INFORMATION

Wastewater System	New	.0403 Eng Low Flow	No
Wastewater Strength	Domestic	Effluent Standard	DSE
Facility Type	Residential	Water Supply	Public Water
Design Wastewater Flow	480 gpd	gal/unit	120
Basis for Flow	4 bedrooms	max occupancy	8
Basement	No	Fixtures in basement?	No
Crawl Space	Yes	Slab Foundation	Yes

CONSULTANT INFORMATION

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

A soil and site evaluation has been conducted for the referenced property for the purpose of permitting a subsurface wastewater system. This evaluation was prepared based on information provided by the applicant to include the basis for design flow, proposed structure location(s), and property boundaries. Any false, inaccurate, or incomplete information provided by the applicant, owner, or legal representatives may result in denial or revocation of applications, approvals, or permits.

This AOWE Evaluation is being submitted pursuant to and meets the requirements of G.S.130A-336.2. This evaluation includes a soil and site evaluation, specifications, plans, and reports for the site layout and construction of a proposed onsite wastewater system by an Authorized On-Site Wastewater Evaluator (AOWE). The evaluation of soil conditions and site features is provided in accordance with G.S. 130A-335(e), the Rules for "Wastewater Treatment and Dispersal Systems", 15A NCAC 18E, and local septic regulations (if any). This report represents my professional opinion as a Licensed Soil Scientist and Authorized Onsite Wastewater Evaluator.



AOWE EVALUATION

HAL OWEN ASSOCIATES

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WASTEWATER SYSTEM DESIGN SPECIFICATIONSPermit # HOA-AOWE-2505-4

Proposed Design Daily Flow	<u>480</u> gpd	Drainfield Meets Requirements:
Septic Tank Size (minimum)	<u>1000</u> gallons	.0508 Available Space <u>Yes</u>
Pump Tank Size (minimum)	<u>1000</u> gallons, if required	.0601 Setbacks <u>Yes</u>

Initial System

System Type	<u>IIIbg - Pump to Other non-conventional systems</u>		
Pump Required	<u>Yes</u>	<u>12.38</u> ft TDH at	<u>29.7</u> GPM
Trenches:	<u>Accepted (25% reduction) System</u>		
Design LTAR	<u>0.45</u> gal/day/ft ²	Saprolite System	<u>No</u>
Total Trench/ Bed Length	<u>267</u> feet	Fill System	<u>No</u>
Trench Spacing	<u>9</u> ft on center		
Usable soil depth to LC	<u>33</u> inches		
Maximum Trench Depth	<u>20</u> inches, measured on downhill side of trench		
Minimum Soil Cover	<u>6</u> inches		
Artificial Drainage Required	<u>No</u>		

Repair System

System Type:	<u>IIIbe - Pump to PPBPS system</u>		
Pump Required	<u>Yes</u>		
Trenches:	<u>PPBPS, horizontal</u>		
Design LTAR	<u>0.45</u> gal/day/ft ²	Saprolite System	<u>No</u>
Total Trench/ Bed Length	<u>179</u> feet	Fill System	<u>No</u>
Trench Spacing	<u>9</u> ft on center		
Usable soil depth to LC	<u>28</u> inches		
Maximum Trench Depth of	<u>15</u> inches, measured on downhill side of trench		
Minimum Soil Cover	<u>6</u> inches		

Potential Drainlines flagged at site on 9-ft centers.

Line #	Color	Relative Elevation (ft)	Drainline Length(ft)	Field Length(ft)	
1	W	99.85	64	64	Initial
2	B	99.59	88	88	
3	Y	99.37	115	117	
4	R	99.09	104	105	Repair
5	W	98.96	75	70	
Septic Tank:		98.53			
Pump Tank:		98.53			

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

HOA-AOWE-2505-4

PERMIT CONDITIONS

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met.

System shall be installed in accordance with the attached Wastewater System Design Specifications.
See attached SYSTEM LAYOUT for wastewater system design and location.

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 County, well, or riparian ordinances) may require more stringent setbacks than specified in the State septic regulations.

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

The dispersal 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 until inspected by Hal Owen & Associates and shall not be placed into use until an Authorization to Operate is issued.

SPECIFIC REQUIREMENTS











A pre-construction conference with the septic contractor is required prior to installation.

Call Hal Owen & Associates at least five days in advance to schedule 910-893-8743

The inlet and outlet of all tanks shall be equipped with an approved pipe penetration boot.

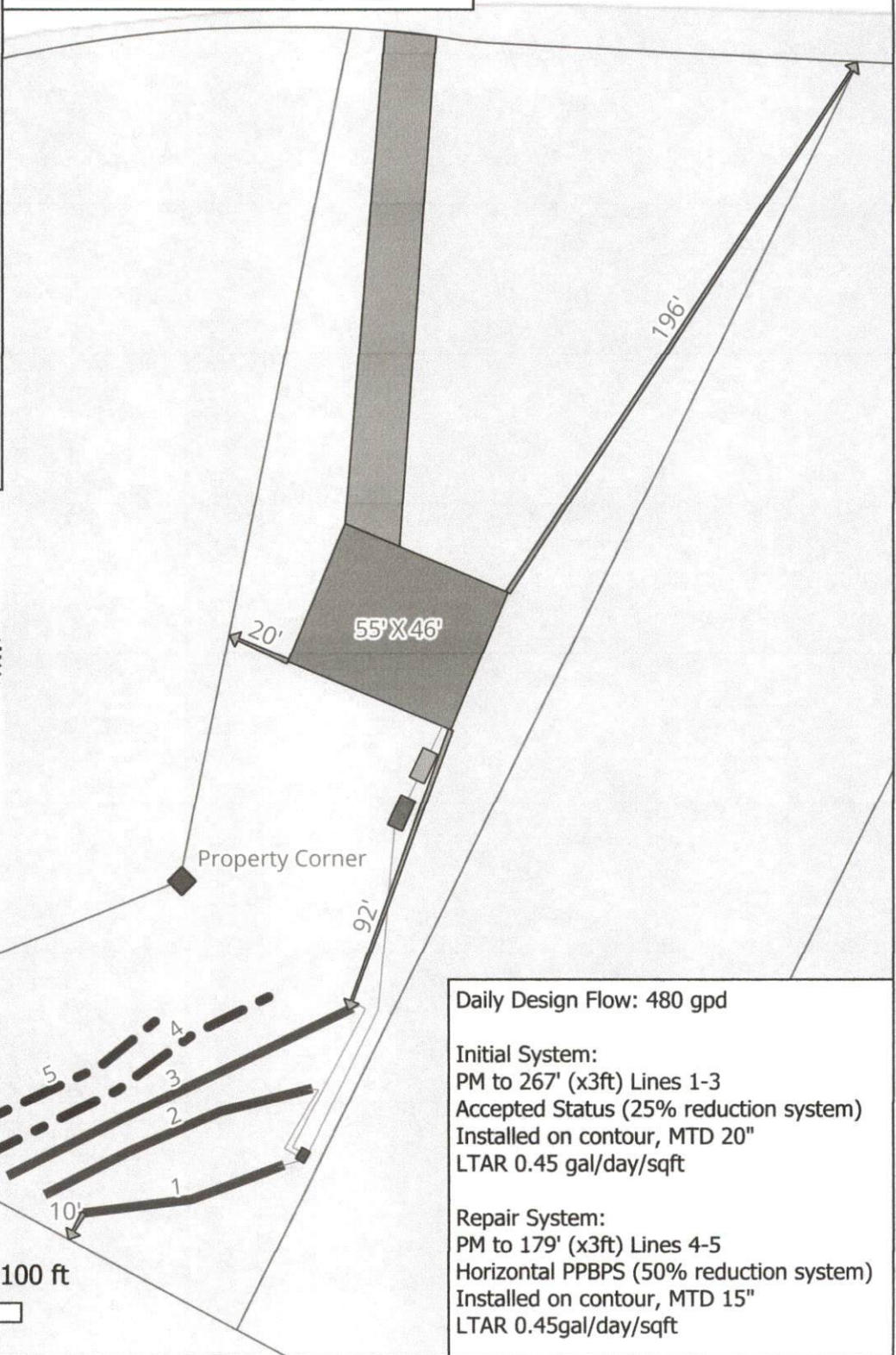
The pump tank may be eliminated if gravity distribution can be demonstrated.

Legend

-  House
-  Driveway
-  Distances
-  Reference Elevation
- Septic Components**
 -  Septic Tank
 -  Pressure Manifold
 -  Pump Tank
- Drainlines**
 -  Initial
 -  Repair
 -  Supply Line

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



Daily Design Flow: 480 gpd

Initial System:

PM to 267' (x3ft) Lines 1-3
 Accepted Status (25% reduction system)
 Installed on contour, MTD 20"
 LTAR 0.45 gal/day/sqft

Repair System:

PM to 179' (x3ft) Lines 4-5
 Horizontal PPBPS (50% reduction system)
 Installed on contour, MTD 15"
 LTAR 0.45gal/day/sqft

0 50 100 ft

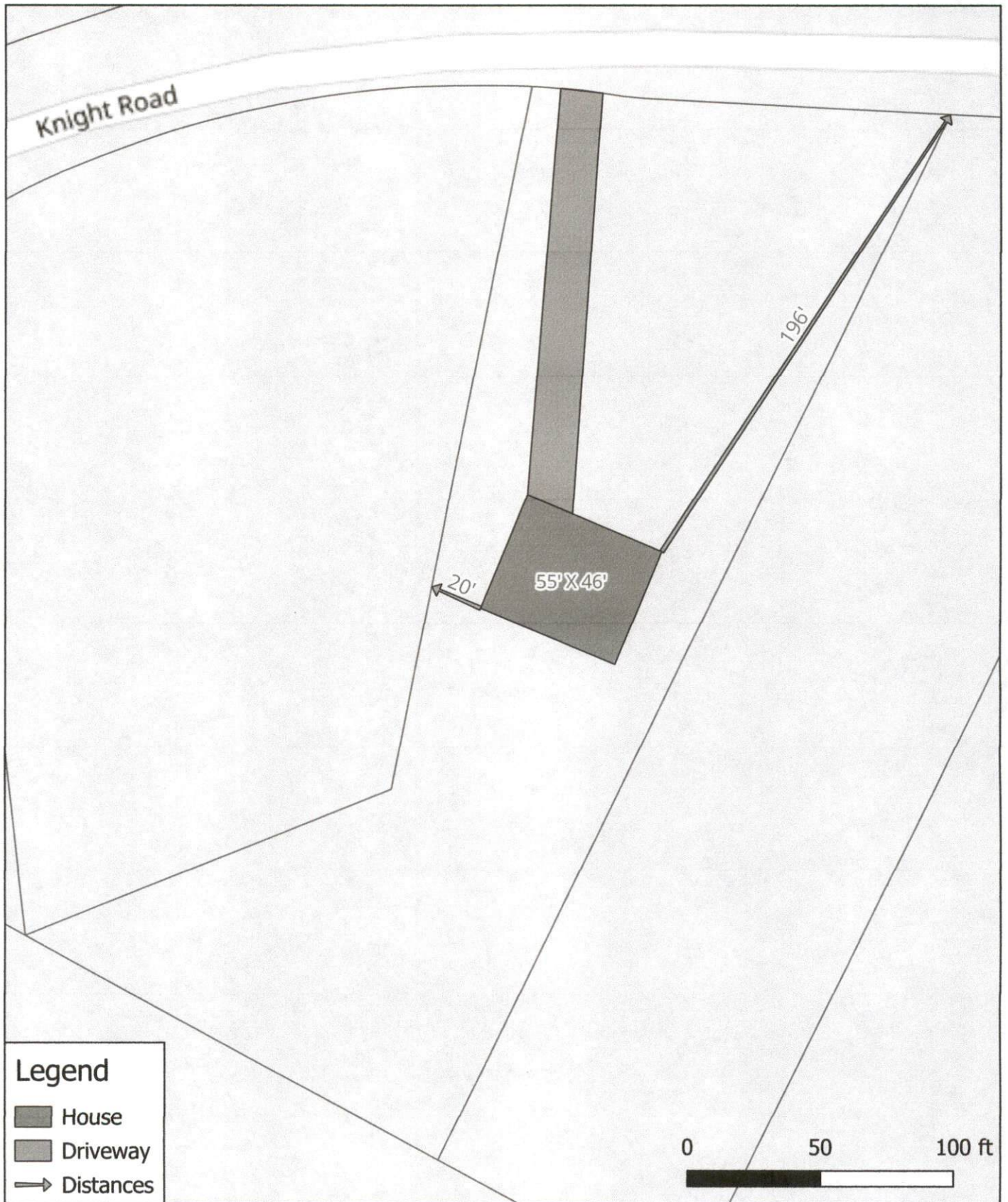
Hal Owen & Associates Inc.
 PO Box 400, Lillington, NC 27546
 www.halowensoil.com
 919-893-8743

143 Knight Rd Lot 1
 Broadway, NC
 Harnett Co



Septic Layout

For reference only. Not a survey.



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143 Knight Rd Lot 1
Broadway, NC
Harnett Co



Site Plan

For reference only. Not a survey.

AOWE EVALUATION

HAL OWEN ASSOCIATES

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INITIAL WASTEWATER SYSTEMPermit # HOA-AOWE-2505-4**Pressure Manifold Design Criteria**

DESIGN DAILY FLOW 480 gallons/day **SOIL LTAR:** 0.45 gpd/ft²
TANKS (min) Septic Tank: 1000 gallons Pump Tank: 1000 gallons
SUPPLY LINE Length: 105 ft Diameter: 2 " SCH 40 PVC
Minimum flow (gpm) to maintain 2fps scour velocity: 20.9 gpm

TRENCHES Drainline Type: Accepted (25% reduction) System
Maximum Trench Depth of 20 inches, measured on low side of trench
Trench width: 3 feet Effective Trench Width: 4 ft
Absorption Area: 800 ft² Minimum Linear Length: 267 ft

MANIFOLD Length (ft): 3 Diameter: 4" sch 80 pvc Elevation: 100.85
Taps 3 Tap Configuration: 6in. spacing, 1 side of manifold

TAP CHART

Line	Color	Relative Elevation	Length(ft)	Tap Size/ Schedule	flow/tap gpm	gpd/ft	LTAR (gpd/ft ²)
1	W	99.85	64	1/2"sch 40	7.11	1.795	0.598
2	B	99.59	88	3/4"sch 80	10.10	1.854	0.618
3	Y	99.37	115	3/4"sch 40	12.50	1.756	0.585
Total Drainline:			267	Total Flow:	29.71		

Target LTAR*: 0.60LTAR + 5%: 0.630**PUMP CALCULATIONS**

Dose Volume: 130.76 gallons, with Pipe Volume at 75 % *65.3gal/100ft pipe
Dose Pump Run Time (min): 4.40 Daily Pump Run Time (min): 16.16
Drawdown (in.): 131 gallons + 20.25 gal/ inch = 6.46 inches
Pump Tank Elevation (ft): 98.53 Pump Elevation (ft): 93.53
Friction Head: 3.06 *Hazen Williams Formula (use supply line length+70' for fittings in pump tank)
Elevation Head: 7.3
Design Head: 2.0 Total Dynamic Head (TDH): 12.38 ft

Pump to Deliver: 12.38 ft TDH @ 29.7 gpm

NEMA 4X Simplex Control Panel with elapsed time meter, event counter, audible and visible alarm (w/ silence button), hand-off-automatic (HOA) switch, pump run light, and pump on separate circuits is required. Control panel bottom shall be mounted a minimum of 24 in. above finished grade within 50 ft of pump tank. A septic tank filter is required. Floats to be determined by type of pump tank used.

Possible Septic Tank: Brantley 1000 STB-502

Possible Septic Filter: _____

Possible Pump Tank: Brantley 1000 PT-237Vol(gal): 1000GPI: 20.25

Possible Pump: _____

pump height (in) = 14

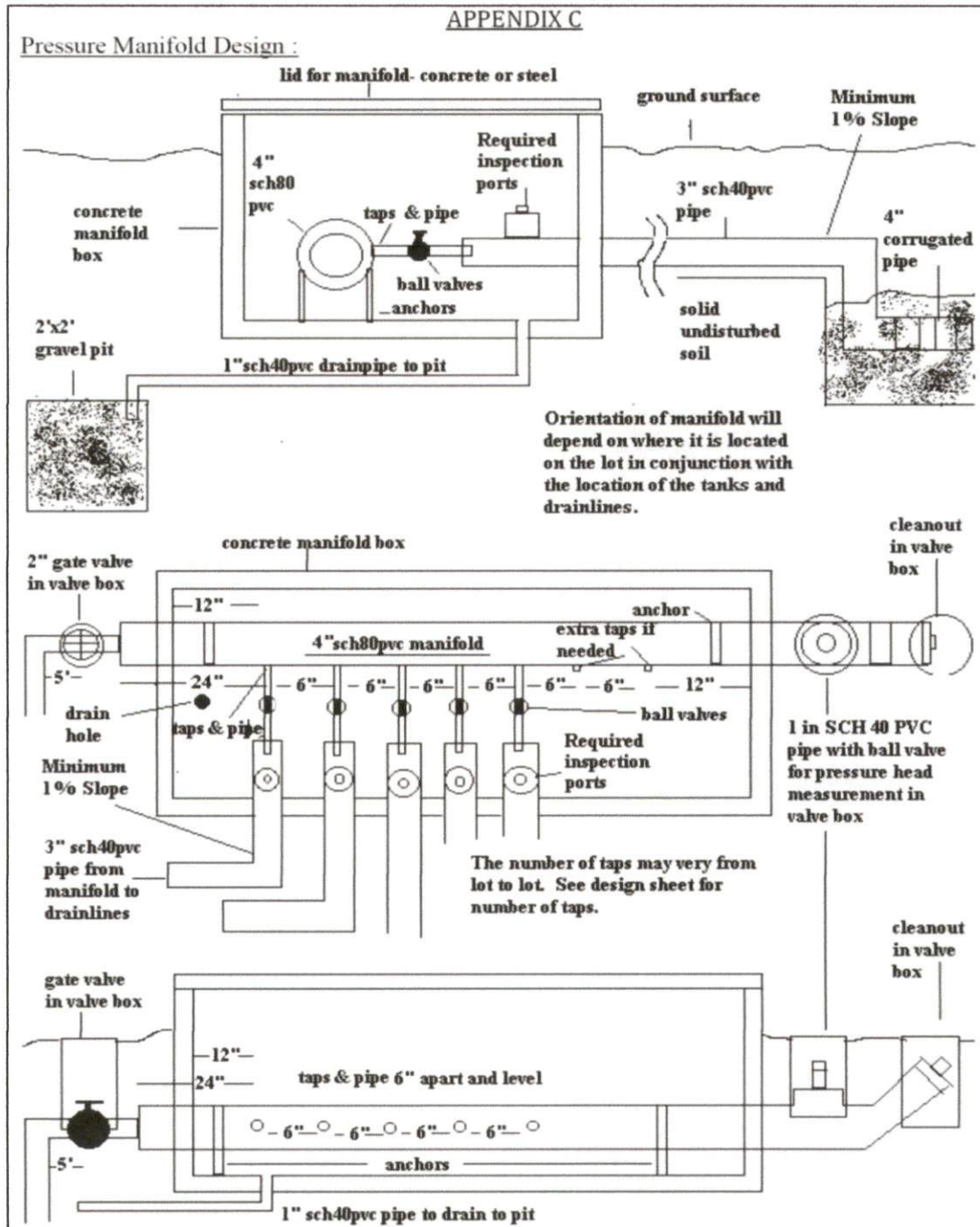
Possible Control Panel: _____

INITIAL WASTEWATER SYSTEM

Permit # HOA-AOWE-2505-4

Pressure Manifold Diagram

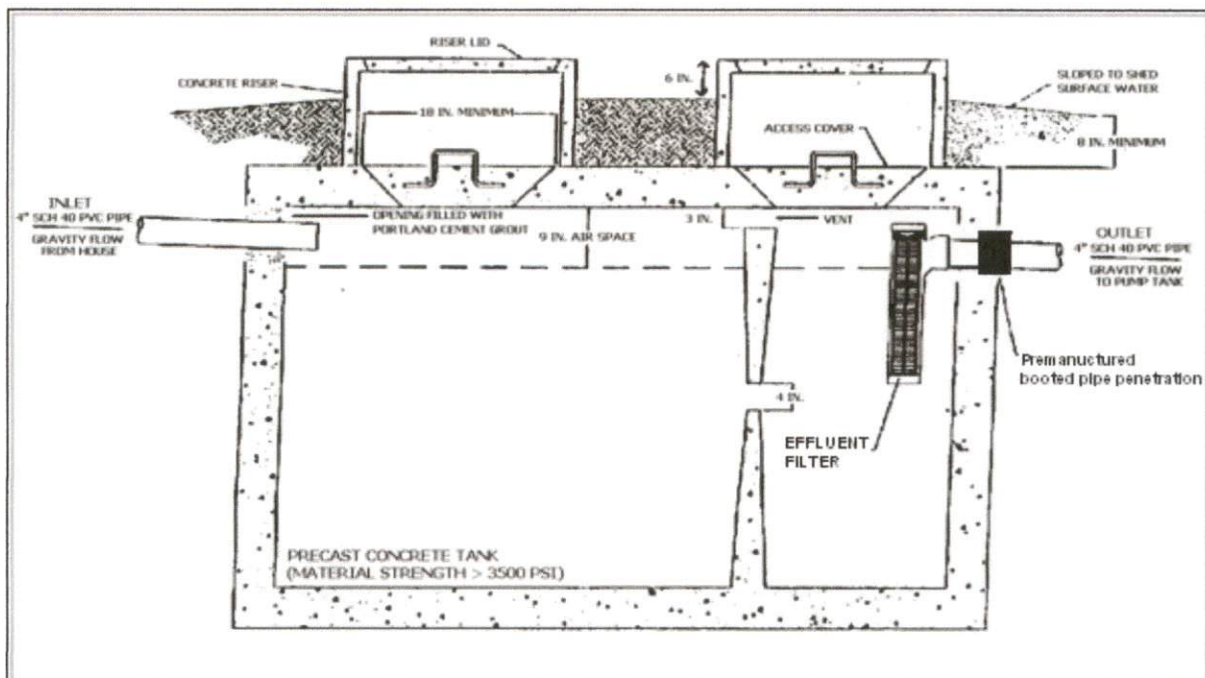
Tap #	1	2	3
Manifold	4" SCH 80 PVC		
tap size	1/2" sch 40	3/4" sch 80	3/4" sch 40
flow (gpm)	7.11	10.10	12.50
length (ft)	64	88	115

Typical

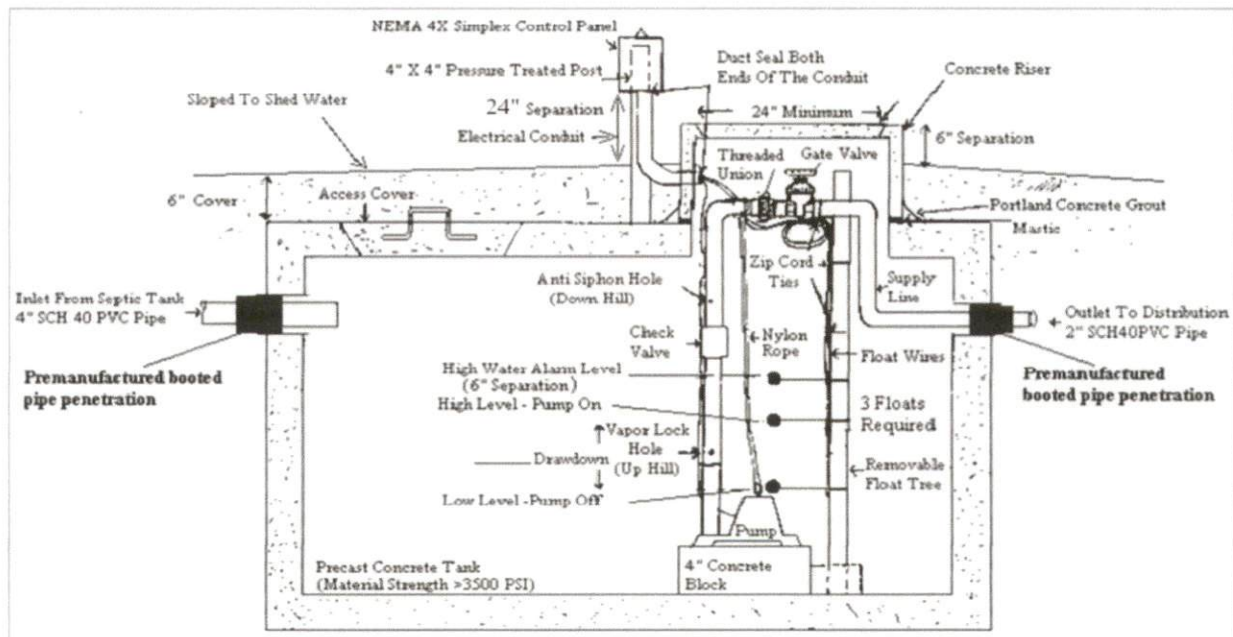
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Permit # HOA-AOWE-2505-4

1000 GALLON SEPTIC TANK, minimum



1000 GALLON PUMP TANK, minimum



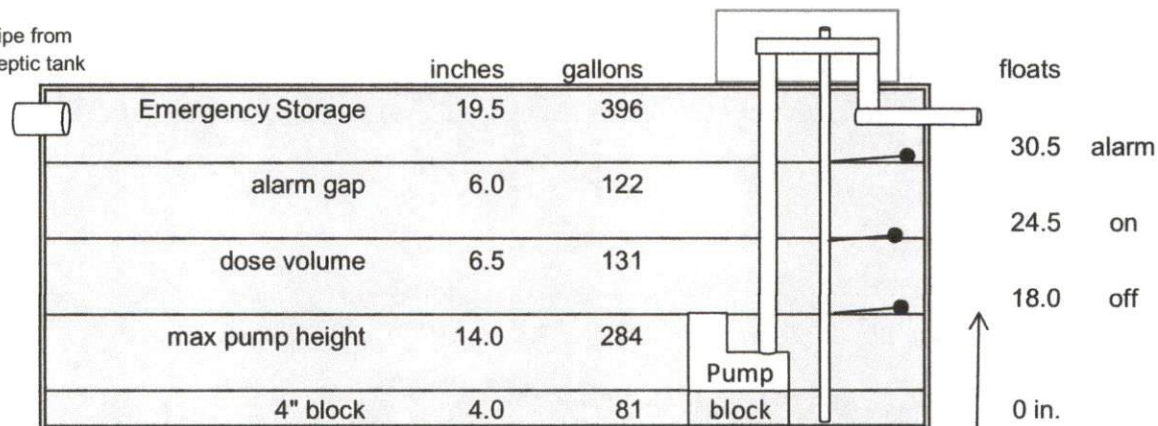
INITIAL WASTEWATER SYSTEM

Permit # HOA-AOWE-2505-4

Pump Tank Calculations:

Possible pump tank: Brantley 1000_PT-237

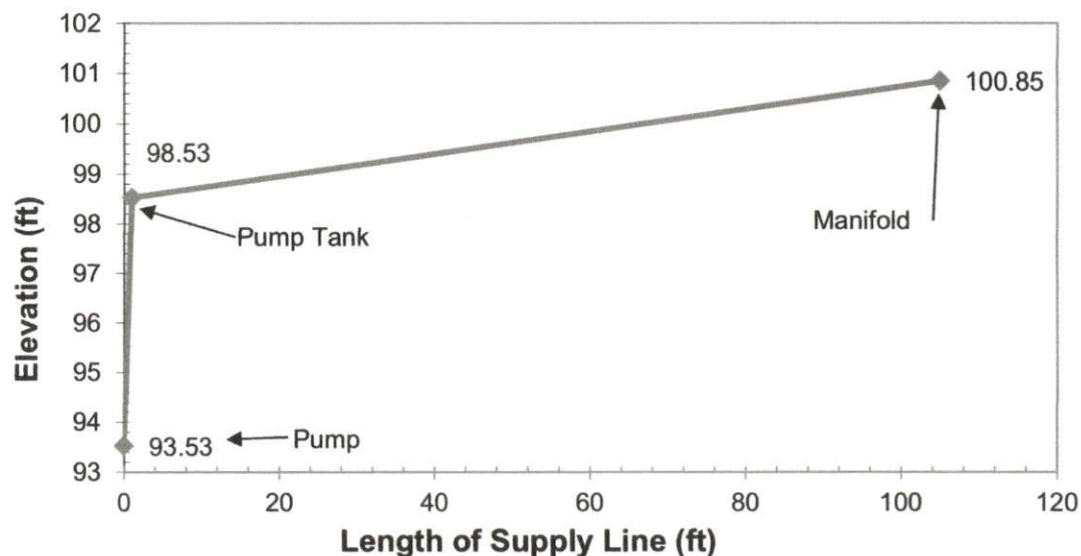
Possible Pump: _____

tank GPI (gal/in): 20.25 calculatedheight: 14 intank volume (gal): 1000 per manufacturertank height (in): 50.0 per manufacturerminimum emergency storage: 240 galpipe from
septic tank

Drawing N.T.S.

Supply Line Profile:

	Distance	Elevation
Pump	0	93.53
pump tank	1	98.53
Pressure manifold	105	100.85
4)		
5)		



AOWE EVALUATION

HAL OWEN ASSOCIATES

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REPAIR WASTEWATER SYSTEMPermit # HOA-AOWE-2505-4DESIGN DAILY FLOW 480 gallons/day SOIL LTAR: 0.45 gpd/ft²TANKS (minimum) Septic Tank 1000 gallons Pump Tank 1000 gallonsSUPPLY LINE Length (ft): 58 Diameter: 2 " sch 40 pvcMin total flow (gpm) to maintain 2 fps scour velocity = 20.89TRENCHES Drainline Type: PPBPS, horizontalMaximum Trench Depth of 22 inches, measured on low side of trenchTrench width: 3 feet Effective Trench Width: 6 ftAbsorption Area: 533 ft² Minimum Linear Length: 178 ft÷ 4.33 ft per panel : 41 panels**PRESSURE MANIFOLD**# Taps 2 Tap Configuration: 6in. spacing, 1 side of manifoldLength (ft): 2.5 Diameter: 4" sch 80 pvc Elevation: 100.09**TAP CHART**

Tap #	Line #	Color	Elevation (ft)	Drainline Length(ft)	Number of Panels	Tap Size/ Schedule	Flow/tap (gpm)	LTAR (gpd/ft ²)
1	4	R	99.09	104	24	1"sch 80	16.80	0.882
2	5	W	98.96	75	17	3/4"sch 40	12.50	0.910
			Totals:	179	41	Total Flow:	29.30	

Target LTAR*: 0.90LTAR + 5%: 0.945**Pump Calculations:**Number of Panels: 41Dose Volume: 147.6 gallons # of panels * 3.6 gallons/ panelDose Pump Run Time: 5.04 minutes Dose volume/total flowDaily Pump Run Time: 16.38 minutes Daily Flow/total flowDrawdown (in.): 148 gallons ÷ 20.25 gal/ inch = 7.29 inchesPump Tank Elevation (ft): 98.53 Pump Elevation (ft): 93.53Friction Head: 2.18 *Hazen Williams Formula (use supply line length+70' for fittings in pump tank)Elevation Head: 6.56 Design Head: 2.0 Total Head: 10.74 feetPump to Deliver: 29.30 gpm @ 10.74 ft head

NEMA 4X Simplex Control Panel with elapsed time meter, event counter, audible and visible alarm (w/ silence button), hand-off-automatic (HOA) switch, pump run light, and pump on separate circuits is required. Control panel bottom shall be mounted a minimum of 24 in. above finished grade within 50 ft of pump tank. A septic tank filter is required. Floats to be determined by type of pump tank used.

Possible Septic Tank: Brantley 1000 STB-502 Septic Filter: _____Possible Pump Tank: Brantley 1000 PT-237 Vol(gal): 1000 GPI: 20.25Possible Pump: _____ pump height (in) = 14

Possible Control Panel: _____

Legend

■ House

■ Driveway

Soil Borings

● Soil Profiles

● Suitable Soils

○ Suitable Soils for Modified Systems

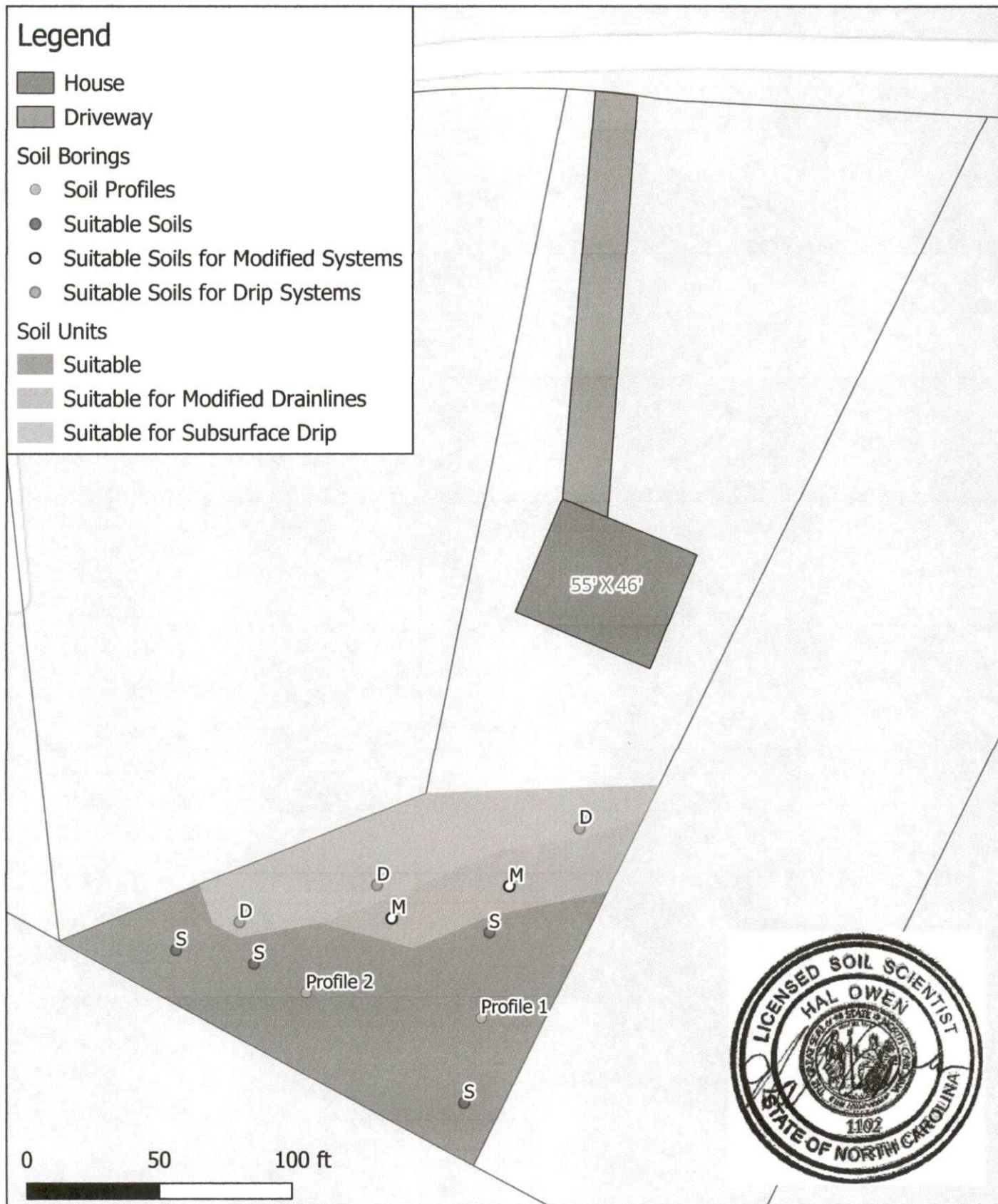
● Suitable Soils for Drip Systems

Soil Units

■ Suitable

■ Suitable for Modified Drainlines

■ Suitable for Subsurface Drip



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143 Knight Rd Lot 1
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Soil Map for Septic Suitability

For reference only. Not a survey.

AOWE EVALUATIONHAL OWEN ASSOCIATES
www.halowensoil.comPermit # HOA-AOWE-2505-4**SOIL/SITE EVALUATION FORM FOR ON-SITE WASTEWATER SYSTEM**

OWNER NAME: Carmen Rubio
PROPOSED FACILITY: Residential DESIGN DAILY FLOW: 480 WATER SUPPLY Public Water
LOCATION OF SITE: 143 Knight Rd, Broadway, NC 27505 PIN: 9680-69-1533.000
WASTEWATER TYPE: Domestic COUNTY: Harnett
EVALUATION METHOD: AUGER BORING ☒ PIT ☐ CUT ☐
EVALUATED BY: Hal Owen, LSS#1102 DATE EVALUATED: 5/26/25

	INITIAL SYSTEM	REPAIR SYSTEM
AVAILABLE SPACE	800 ft ² trench bottom	533 ft ² trench bottom
SYSTEM TYPE	Accepted (25% reduction) System	PPBPS, horizontal
SITE LTAR	0.45 gpd/ft ²	0.45 gpd/ft ²
MAX TRENCH DEPTH	20 inches (measured on downhill side)	15 inches (measured on downhill side)
SITE CLASSIFICATION	<u>Suitable</u>	OTHER FACTORS <u></u>

COMMENTS:

PROFILE 1

HORIZON DEPTH	COLOR	CONSI TENCE	TEXTURE	STRUCTURE	MINERA LOGY	OTHER PROFILE FACTORS	
0-11	10YR 4/2	VFR	LS	GR	SEXP	LANDSCAPE POSITION	S
11-14	10YR 5/3	FR	LS	GR	SEXP	SOIL WETNESS DEPTH	33"
14-22	10YR 5/6	FI	SCL	SBK	SEXP	SOIL WETNESS COLOR	10YR 6/1
22-32	10YR 5/6	FI	SCL	SBK	SEXP	SOIL DEPTH	36"
32+	10YR 5/6	FR	SCL	SBK	SEXP	SAPROLITE CLASS	NA
						RESTRICTIVE HORIZON	NA
						SLOPE %	3
PROFILE CLASSIFICATION			Suitable	LTAR gpd/ft ²	0.45	SLOPE CORRECTION (IN)	1.1
COMMENT							

PROFILE 2

HORIZON DEPTH	COLOR	CONSI TENCE	TEXTURE	STRUCTURE	MINERA LOGY	OTHER PROFILE FACTORS	
0-13	10YR 4/1	VFR	SL	GR	SEXP	LANDSCAPE POSITION	S
13-17	2.5Y 5/4	FR	SL	GR	SEXP	SOIL WETNESS DEPTH	35"
17-24	10YR 5/6	FR	SCL	SBK	SEXP	SOIL WETNESS COLOR	10YR 6/2
24-33	10YR 5/6	FR	SL	SBK	SEXP	SOIL DEPTH	38"
33+	10YR 5/8	FR	SL	SBK	SEXP	SAPROLITE CLASS	NA
						RESTRICTIVE HORIZON	NA
						SLOPE %	2
PROFILE CLASSIFICATION			Suitable	LTAR gpd/ft ²	0.45	SLOPE CORRECTION (IN)	0.7
COMMENT							

AOWE EVALUATION

HAL OWEN ASSOCIATES
www.halowensoil.com

SOIL/SITE EVALUATION FORM FOR ON-SITE WASTEWATER SYSTEM

LEGEND OF ABBREVIATIONS

LANDSCAPE POSITION CC - Concave Slope CV - Convex Slope DS - Debris Slump D - Depression DW - Drainage Way FP - Flood Plain FS - Foot Slope H - Head Slope L - Linear Slope N - Nose Slope R - Ridge S - Shoulder Slope T - Terrace TS - Toe Slope	TEXTURE GROUP	TEXTURE CLASS	LTAR (gal/day/sqft)
	I	S - Sand LS - Loamy Sand	1.2-0.8
	II	SL - Sandy Loam L - Loam	0.8 – 0.6
	III	SCL - Sandy Clay Loam CL - Clay Loam SiL - Silt Loam Si - Silt SiCL - Silt Clay Loam	0.6 – 0.3
	IV	SC - Sandy Clay C - Clay SiC - Silty Clay O - Organic	0.4 – 0.1 none
	STRUCTURE		
	G - Single Grain M - Massive CR - Crumb GR - Granular SBK - Subangular Blocky ABK - Angular Blocky PL - Platy PR - Prismatic	MOIST CONSISTENCE VFR - Very Friable FR - Friable FI - Firm VFI - Very Firm EFI - Extremely Firm	WET CONSISTENCE NS - Non Stick SS - Slightly Sticky MS - Moderately Stick VS - Very Sticky NP - Non Plastic SP - Slightly Plastic MP - Moderately Plastic VP - Very Plastic
		MINERALOGY SEXP - Slightly Expansive EXP - Expansive	
	MOTTLES		
	f – few c – common m – many	1 - fine 2 - medium 3 - coarse	F - Faint D - Distinct 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 U – Unsuitable

All soil characteristics were described in accordance with the USDA Field Book for Describing and Sampling Soils. The soils were evaluated under moist soil conditions. This evaluation included observations of topography and landscape position, soil morphology (texture, structure, clay mineralogy, organics), soil wetness, soil depth, and restrictive horizons.

TERMS AND CONDITIONS

This AOWE Evaluation is intended to file a Notice of Intent to construct a wastewater system with the Local Health Department and shall expire in five years. This evaluation 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.

Notice of Intent to Construct – Prior to commencing or assisting in the construction, siting, relocation, or repair of a wastewater system, a complete Notice of Intent (NOI) to Construct a wastewater system using an AOWE must be submitted to the Local Health Department (LHD). The owner may apply for a building permit for the project upon submitting a complete NOI and the required fee.

Plan Alterations – If there are any changes in the site plan that can impact the wastewater system, such as moving the house or driveway, site alterations, or if the applicant chooses to change the design daily flow prior to wastewater system construction, a new NOI shall be submitted to the LHD. The applicant shall request in writing that the PE or AOWE invalidate the prior NOI with a signed and sealed letter sent to the applicant and LHD.

Site Alterations – The applicant shall be responsible for preventing modifications or alterations of the site for the wastewater system and the system repair area before, during, and after any construction activities for the facility, unless approved by the AOWE.

On-Site Wastewater System Contractor – The AOWE shall assist the owner in the selection of a certified on-site wastewater system contractor who shall be under contractual obligation to the owner and have sufficient errors and omissions, liability, or other insurance for the system constructed.

Inspections, Construction Observations, and Reports – The AOWE shall make periodic visits to the site to observe the progress and quality of the construction of the wastewater system.

Authorization to Operate (ATO) – Upon determining that the wastewater system has been properly installed and is capable of being operated in accordance with the conditions of the permit, the AOWE shall provide the owner with a report that includes inspection reports, a written operation and management program, any special reports, and an Authorization to Operate. The owner shall sign confirming acceptance and receipt of the report, and then provide a copy to the LHD who will issue the certificate of occupancy for the facility.

Operation and Management – The owner shall be responsible for continued adherence to the operations and management program established by the AOWE. 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.

Change in System Ownership – An authorized wastewater system shall be transferrable to a new owner with the consent of the AOWE. The new owner and the AOWE shall enter a contract for the wastewater system.

Revocation – 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 Wastewater Treatment and Dispersal Systems and to the conditions of this permit.

Repair of Malfunctioning Systems – The owner may apply for an Improvement Permit and a Construction Authorization from the LHD or obtain a NOI from an AOWE to repair a malfunctioning wastewater system.



HALOWE1

OP ID: TOT

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
05/27/2025

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 have ADDITIONAL INSURED provisions or 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).

PRODUCER
INSURANCE SERVICE CTR -LILLING
LILLINGTON BRANCH OFFICE
PO Box 1565
LILLINGTON, NC 27546
DANIEL L. BABB

910-893-5707

CONTACT NAME: TAYLOR TURLINGTON

PHONE (A/C, No, Ext): 910-893-5707

FAX (A/C, No): 910-893-2077

E-MAIL ADDRESS: TTURLINGTON@ISCFAY.COM

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURER A : STARSTONE NATIONAL

INSURER B :

INSURER C :

INSURER D :

INSURER E :

INSURER F :

INSURED
HAL OWEN & ASSOCIATES, INC.
PO BOX 400
LILLINGTON, NC 27546

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD 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	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE \$
	<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
							MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG \$
	OTHER						\$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS						BODILY INJURY (Per accident) \$
	<input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident) \$
							\$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR						EACH OCCURRENCE \$
	EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$
	DED <input type="checkbox"/> RETENTION \$						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/>
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y / N					E.L. EACH ACCIDENT \$
	If yes, describe under DESCRIPTION OF OPERATIONS below	N / A					E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$
A	PROFESSIONAL LIAB.			42ESP00143901	01/27/2025	01/27/2026	PER OCC. 1,000,000 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

CARMEN RUBIO
1041 ROSSER PITTMAN RD
BROADWAY, NC 27505

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

INFORMATION FOR THE INSTALLER

- Current certification from the NCOWCICB as a Level II installer or higher is required.
- Read the permit carefully prior to bidding.
- Note whether tanks must be water tested and a certificate provided prior to installation.
- Submit a signed and dated statement of responsibility to the owner, prior to commencement of work, that contains acknowledgement of the requirements of the onsite wastewater system specified by the AOWE. A sample form is attached. Email a copy of the signed statement to hal@halowensoil.com for our records.
- Provide proof of liability insurance with effective dates of coverage to:

Hal Owen & Associates, Inc.

PO Box 400

Lillington, NC 27546

- Call Hal Owen & Associates at least **5 days** in advance for a pre-construction conference and to schedule the installation date.
- Install system during dry conditions in order to protect the soil structure.
- Elevations at pin flag locations should be checked by installer prior to digging trenches. Hal Owen & Associates sets pin flags at the center of the trench.

HAL OWEN & ASSOCIATES, INC.

Our services associated with the ATO permit will be billed at an hourly rate at the time the system is installed. You should budget \$500 for a gravity system and \$1000 for a pump system for these services.

I appreciate the opportunity to provide this service. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Hal Owen". The signature is fluid and cursive, with the first name "Hal" being more prominent than the last name "Owen".

Hal Owen
Licensed Soil Scientist
Authorized Onsite Wastewater Evaluator