Harnett COUNTY NORTH CAROLINA

Initial Application Date: 05/29/24

Application # _____

CU# _____

COUNTY OF HARNETT RESIDENTIAL LAND USE APPLICATION

Central Permitting 420 McKinney Pkwy, Lillington, NC 27546 Phone: (910) 893-7525 ext:1 Fax: (910) 893-2793 www.harnett.org/permits

****A RECORDED SURVEY MAP, RECORDED DEED (OR OFFER TO PURCHASE) & SITE PLAN ARE REQUIRED WHEN SUBMITTING A LAND USE APPLICATION****

LANDOWNER: Carolina Construction of Fayetteville Mailing Address: 3117 Cape St

City: Fayetteville State: NC Zip: 28306 Contact No: 910-339-4779 Email: Samantha@cccfnc.com

APPLICANT*: Carolina Construction of Fayetteville Mailing Address: 3117 Cape St

City: Fayetteville State: NC Zip: 28306 Contact No: 910-339-4779 Email: Samantha@cccfnc.com

*Please fill out applicant information if different than landowner

ADDRESS: 5011 Ray Rd, Spring Lake, Harnett Co. lot 5 **PIN:** 0565-65-1815.000

Zoning: _____ **Flood:** _____ **Watershed:** _____ **Deed Book / Page:** _____

Setbacks – Front: 67' **Back:** 25' **Side:** 10' **Corner:** 15'

PROPOSED USE:

☑ SFD: (Size 29'1" x 60'1") # Bedrooms: 3 # Baths: 2 Basement(w/wo bath): N/A Garage: ✓ Deck: N/A Crawl Space: N/A Slab: N/A Monolithic Slab: ✓

TOTAL HTD SQ FT 1254 GARAGE SQ FT 309 (Is the bonus room finished? (N/A) yes (N/A) no w/ a closet? (N/A) yes (N/A) no (if yes add in with # bedrooms)

☐ Modular: (Size ____x____) # Bedrooms____ # Baths____ Basement (w/wo bath)____ Garage:____ Site Built Deck:____ On Frame____ Off Frame____

TOTAL HTD SQ FT _____ (Is the second floor finished? (___) yes (___) no Any other site built additions? (___) yes (___) no

☐ Manufactured Home: ___SW ___DW ___TW (Size_____x_____) # Bedrooms: ____ Garage:____(site built?____) Deck:____(site built?____)

☐ Duplex: (Size ____x____) No. Buildings:_____ No. Bedrooms Per Unit:_____ TOTAL HTD SQ FT _____

☐ Home Occupation: # Rooms:_____ Use:_____ Hours of Operation:_____ #Employees:_____

☐ Addition/Accessory/Other: (Size ____x____) Use:_____ Closets in addition? (___) yes (___) no

TOTAL HTD SQ FT_____ GARAGE_____

Water Supply: ✓ County _____ Existing Well _____ New Well *(# of dwellings using well _____)* ***Must have operable water before final**

Sewage Supply: ✓ New Septic Tank ____ Expansion ____ Relocation____Existing Septic Tank ____ County Sewer
(Need to Complete New Well Application at the same time as New Tank)
(Complete Environmental Health Checklist on other side of application if Septic)

Does owner of this tract of land, own land that contains a manufactured home within five hundred feet (500') of tract listed above? (___) yes (___) no

Does the property contain any easements whether underground or overhead (___) yes (✓) no

Structures (existing or proposed): Single family dwellings: proposed ✓ Manufactured Homes:_____ Other (specify):_____

If permits are granted I agree to conform to all ordinances and laws of the State of North Carolina regulating such work and the specifications of plans submitted. I hereby state that foregoing statements are accurate and correct to the best of my knowledge. Permit subject to revocation if false information is provided.

_____ 5/29/24
Signature of Owner or Owner's Agent **Date**

*****It is the owner/applicants responsibility to provide the county with any applicable information about the subject property, including but not limited to: boundary information, house location, underground or overhead easements, etc. The county or its employees are not responsible for any incorrect or missing information that is contained within these applications.*****

This application expires 6 months from the initial date if permits have not been issued*

APPLICATION CONTINUES ON BACK

Harnett COUNTY NORTH CAROLINA

This application expires 6 months from the initial date if permits have not been issued

This application to be filled out when applying for a septic system inspection.

County Health Department Application for Improvement Permit and/or Authorization to Construct

IF THE INFORMATION IN THIS APPLICATION IS FALSIFIED, CHANGED, OR THE SITE IS ALTERED, THEN THE IMPROVEMENT PERMIT OR AUTHORIZATION TO CONSTRUCT SHALL BECOME INVALID. The permit is valid for either 60 months or without expiration depending upon documentation submitted. (Complete site plan = 60 months; Complete plat = without expiration)

☑ ***Environmental Health New Septic System***

- **All property irons must be made visible.** Place "pink property flags" on each corner iron of lot. All property lines must be clearly flagged approximately every 50 feet between corners.
- Place "orange house corner flags" at each corner of the proposed structure. Also flag driveways, garages, decks, out buildings, swimming pools, etc. Place flags per site plan developed at/for Central Permitting.
- Place orange Environmental Health card in location that is easily viewed from road to assist in locating property.
- If property is thickly wooded, Environmental Health requires that you clean out the **undergrowth** to allow the soil evaluation to be performed. Inspectors should be able to walk freely around site. ***Do not grade property.***
- ***All lots to be addressed within 10 business days after confirmation. $25.00 return trip fee may be incurred for failure to uncover outlet lid, mark house corners and property lines, etc. once lot confirmed ready.***

☐ ***Environmental Health Existing Tank Inspections***

- Follow above instructions for placing flags and card on property.
- Prepare for inspection by removing soil over **outlet end** of tank as diagram indicates, and lift lid straight up (*if possible*) and then **put lid back in place**. (Unless inspection is for a septic tank in a mobile home park)
- **DO NOT LEAVE LIDS OFF OF SEPTIC TANK**

"MORE INFORMATION MAY BE REQUIRED TO COMPLETE ANY INSPECTION"

SEPTIC

If applying for authorization to construct please indicate desired system type(s): can be ranked in order of preference, must choose one.

{__} Accepted {__} Innovative {✓} Conventional {__} Any

{__} Alternative {__} Other _____

The applicant shall notify the local health department upon submittal of this application if any of the following apply to the property in question. If the answer is "yes", applicant **MUST ATTACH SUPPORTING DOCUMENTATION**:

{__}YES {✓} NO Does the site contain any Jurisdictional Wetlands?

{__}YES {✓} NO Do you plan to have an irrigation system now or in the future?

{__}YES {✓} NO Does or will the building contain any drains? Please explain._____

{__}YES {✓} NO Are there any existing wells, springs, waterlines or Wastewater Systems on this property?

{__}YES {✓} NO Is any wastewater going to be generated on the site other than domestic sewage?

{__}YES {✓} NO Is the site subject to approval by any other Public Agency?

{__}YES {✓} NO Are there any Easements or Right of Ways on this property?

{__}YES {✓} NO Does the site contain any existing water, cable, phone or underground electric lines?

If yes please call No Cuts at 800-632-4949 to locate the lines. This is a free service.

I Have Read This Application And Certify That The Information Provided Herein Is True, Complete And Correct. Authorized County And State Officials Are Granted Right Of Entry To Conduct Necessary Inspections To Determine Compliance With Applicable Laws And Rules. I Understand That I Am Solely Responsible For The Proper Identification And Labeling Of All Property Lines And Corners And Making The Site Accessible So That A Complete Site Evaluation Can Be Performed.

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

x New ___ Expansion ___ Repair ___ Relocation ___ Relocation of Repair Area

Owner or Legal Representative Information:
Name: Carolina Construction of Fayetteville, Inc.
Mailing address: 3117 Cope St City: Fayetteville State: NC Zip: 28306
Phone: 910-339-4779 Email: billing@ccfnc.com, rmiller@ccfnc.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: 5011 Ray Rd, Spring Lake, NC
Tax parcel identification number or subdivision lot, block number of property: The Flatts at Ray Lot 5
0505-65-1815.000 County: Harnett

System Information:
Wastewater System Type: IIb
Daily Design Flow: 360 gpd
Saprolite System: ___ Yes x No Subsurface Operator Required: ___ Yes x No
Water Supply Type: ___ Private Well x Public Water Supply ___ Spring ___ Other: ___

Facility Type:
x 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 13 day of May, 2024 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 13 day of May, 2029.

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: ___ Date: ___

ACORD

HALOWE1

OP ID: TOW

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
05/16/2024

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: SHARON WOODY PHONE (A/C, No, Ext): 910-893-5707 FAX (A/C, No): 910-893-2077 E-MAIL ADDRESS: SWOODY@ISCFAY.COM
INSURED HAL OWEN & ASSOCIATES, INC. PO BOX 400 LILLINGTON, NC 27546	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : STARSTONE NATIONAL INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

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							
	☐ CLAIMS-MADE ☐ OCCUR						EACH OCCURRENCE	$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$
	☐ POLICY ☐ PRO-JECT ☐ LOC						GENERAL AGGREGATE	$
	OTHER:						PRODUCTS - COMP/OP AGG	$
								$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						☐ PER STATUTE ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N ☐	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
A	PROFESSIONAL LIAB.			42ESP00143901	01/27/2024	01/27/2025	E.L. DISEASE - POLICY LIMIT	$
							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

CAROLINA CONSTRUCTION OF FAYETTEVILLE INC.
3117 COPE ST
FAYETTEVILLE, NC 28306

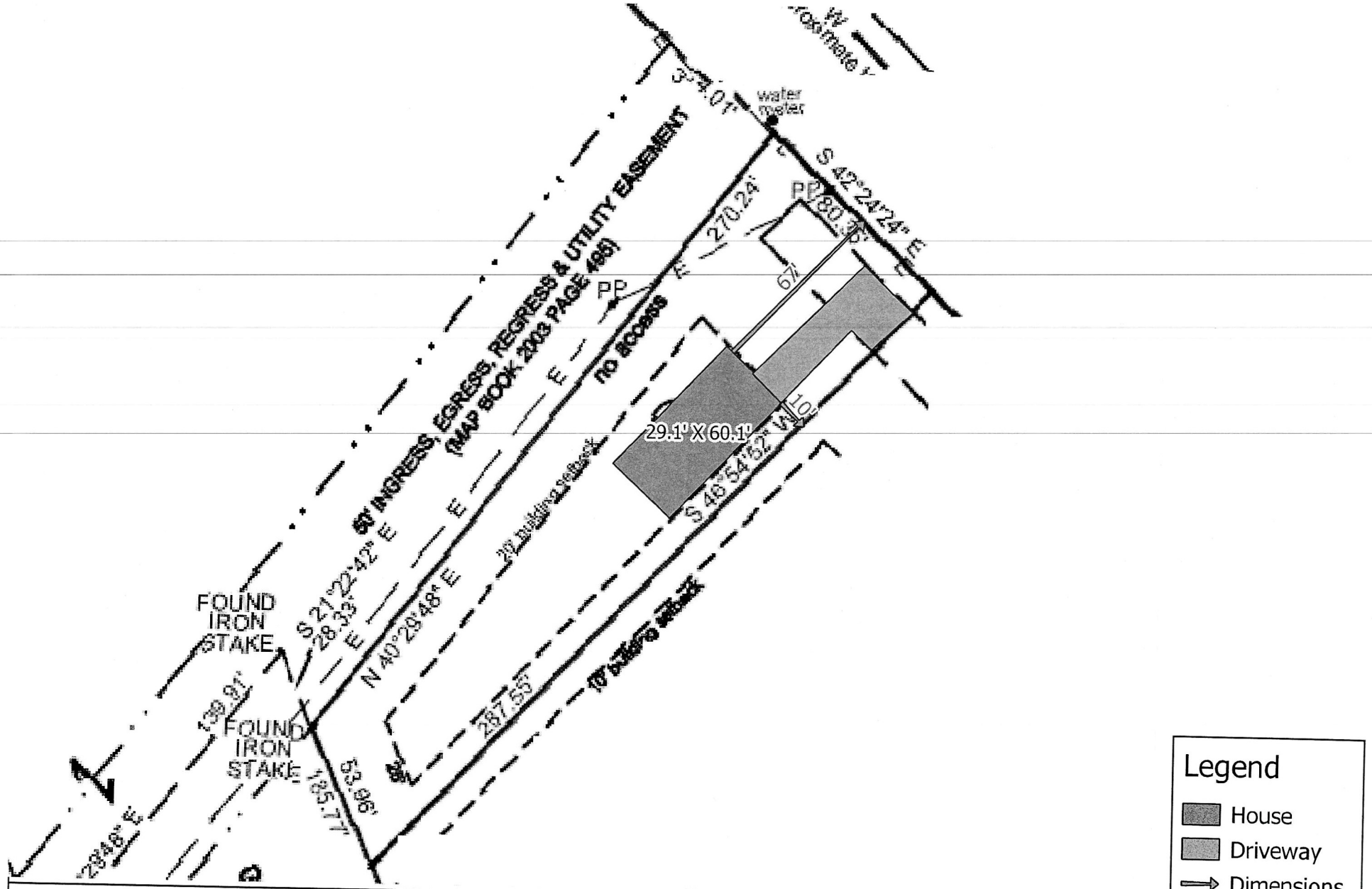
CANCELLATION

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

Taylor Wallace

ACORD 25 (2016/03)



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

For reference only. Not a survey.

The Flatts at Ray Rd

Lot 5

29 May 2024

Site Plan

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

29 May 2024

Carolina Construction of Fayetteville Inc.
3117 Cope St
Fayetteville, NC 28306

Reference: AOWE Evaluation
5011 Ray Rd, Spring Lake, Harnett Co., NC
The Flatts at Ray-Lot 5 PIN 0505-65-1815.000

Dear Carolina Construction of Fayetteville Inc.,

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/LSS Evaluation is being submitted pursuant to and meets the requirements of G.S.130A-336.2. This evaluation includes a signed and sealed 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.

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.

Sincerely,

Hal Owen
Senior Licensed Soil Scientist
Authorized Onsite Wastewater Evaluator

Britt Wilson
Licensed Soil Scientist

Contents

TERMS AND CONDITIONS

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.

PROPOSED USE

A new single-family residence will be built at the site. The home will not have a basement. The proposed single-family residence will contain three bedrooms and have a design wastewater flow of 360 gallons per day. The maximum occupancy of the home is 6 people.

WATER SUPPLY

Water will be provided by public water supplies.

EXISTING SITE CONDITIONS

At the time of the investigation, the site had not been cleared, lot corners were staked, and the new building footprint was not marked.

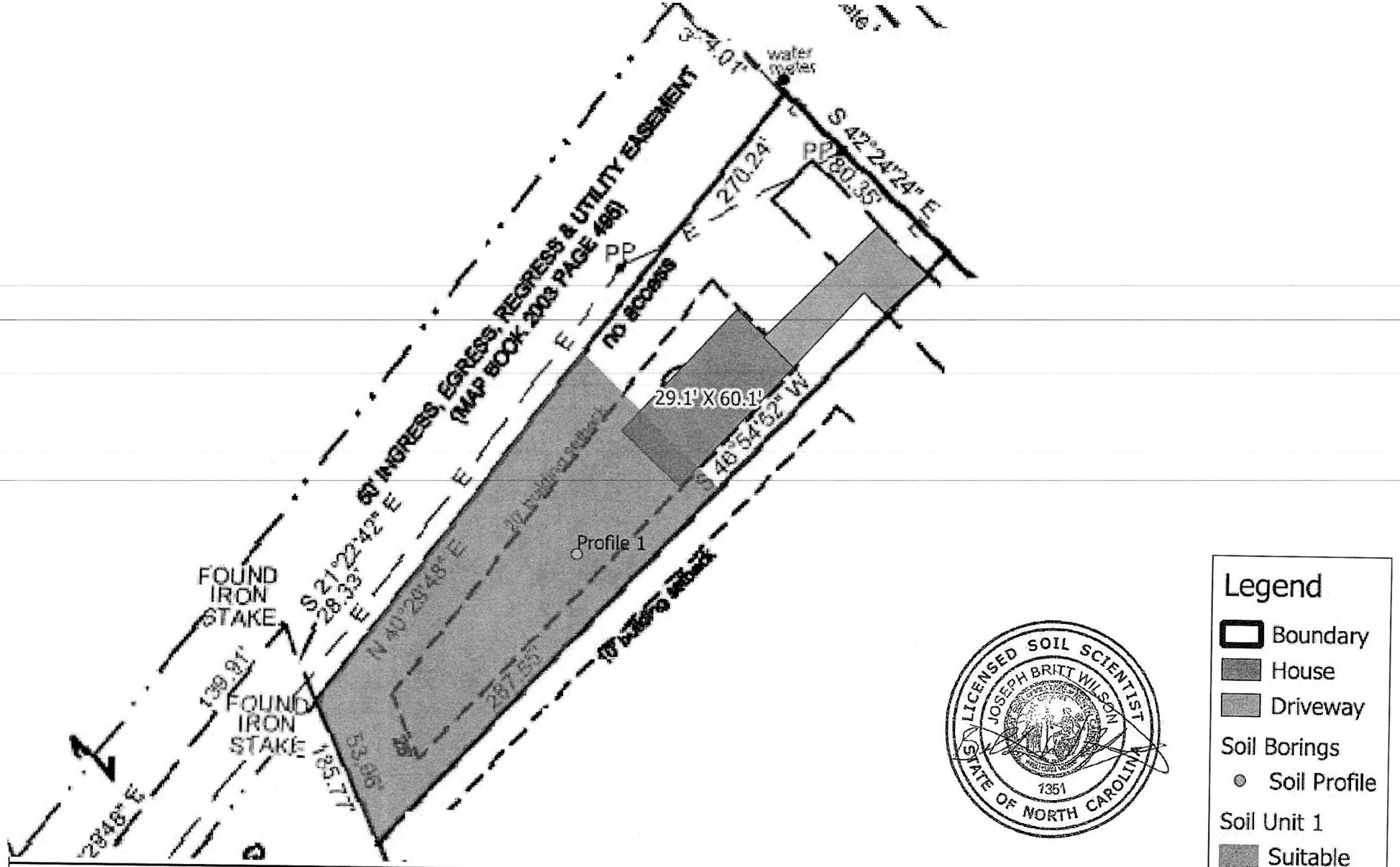
No existing wells, streams, or wetlands were observed within 50 feet of the proposed septic system and repair area.

There is a joint driveway easement at the front of the property.

SOIL AND SITE INVESTIGATION

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

Soils in the proposed system area were observed to rate as suitable for subsurface sewage waste disposal systems. (Figure 1). The subsoils were observed to be firm sandy clay loams and extended to greater than 48 inches below ground surface. Evidence of a soil wetness condition was not observed within 48 inches below surface. These soils appear adequate to support long-term acceptance rates of 0.4 gal/day/ft^2 for accepted status drainlines.



Hal Owen & Associates Inc. PO Box 400, Lillington, NC 27546 www.halowensoil.com 919-893-8743		The Flatts at Ray Rd Lot 5 29 May 2024	Figure 1 Soil Map for Septic Suitability

SOIL/SITE EVALUATION FORM FOR ON-SITE WASTEWATER SYSTEM

OWNER NAME: Carolina Construction of Fayetteville, IncOWNER ADDRESS: 3117 Cope St
PROPOSED FACILITY: Residential PROPOSED DESIGN FLOW: 360 PROPERTY SIZE: 0.42
LOCATION OF SITE: 5011 Ray Rd, Spring Lake, NC PIN: 0505-65-1815.000
WASTEWATER TYPE: Domestic COUNTY: Harnett
WATER SUPPLY: Public Water WATER SUPPLY SETBACK: 10
EVALUATION METHOD: AUGER BORING [X] PIT [ ] CUT [ ]
EVALUATED BY: Britt Wilson, LSS 1351 DATE EVALUATED:

	INITIAL SYSTEM	REPAIR SYSTEM
AVAILABLE SPACE	675 ft^2 trench bottom	675 ft^2 trench bottom
SYSTEM TYPE	Accepted (25% reduction) System	Accepted (25% reduction) System
SITE LTAR	0.40 gpd/ft^2	0.40 gpd/ft^2
MAX TRENCH DEPTH	24 inches (measured on downhill side)	18 inches (measured on downhill side)

SITE CLASSIFICATION Suitable OTHER FACTORS
COMMENTS

PROFILE 1

HORIZON DEPTH	COLOR	CONSISTENCE	TEXTURE	STRUCTURE	MINERALOGY	OTHER PROFILE FACTORS	
0-12	10YR 5/3	VFR	SL	GR	SEXP	LANDSCAPE POSITION	L
12-22	10YR 6/3	VFR	SL	GR	SEXP	SOIL WETNESS DEPTH	>48"
22-48	10YR 6/8	FI	SCL	SBK	SEXP	SOIL WETNESS COLOR	
						SOIL DEPTH	48"
						SAPROLITE CLASS	NA
						RESTRICTIVE HORIZON	NA
						SLOPE %	7
PROFILE CLASSIFICATION			Suitable	LTAR gpd/ft^2	0.4	SLOPE CORRECTION (IN)	2.5
COMMENT							

LEGEND OF ABBREVIATIONS FOR SITE EVALUATION FORM

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	1.2-0.8
	LS	- Loamy Sand	
II	SL	- Sandy Loam	0.8 – 0.6
	L	- Loam	
III	SCL	- Sandy Clay Loam	0.6 – 0.3
	CL	- Clay Loam	
	SiL	- Silt Loam	
	Si	- Silt	
	SiCL	- Silt Clay Loam	
IV	SC	- Sandy Clay	0.4 – 0.1
	C	- Clay	
	SiC	- Silty Clay	
	O	- Organic	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

MINERALOGY

SEXP	- Slightly Expansive
EXP	- Expansive

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

MOTTLES

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

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

SEPTIC SYSTEM DESIGN

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

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

The initial septic system is proposed as a gravity driven system to 232 linear feet of Accepted Status drainlines utilizing a 25% reduction in total drainline length (Figure 2). A long-term acceptance rate (LTAR) of 0.40 gal/day/ft^2 was used to design the dispersal field. A distribution box will be used to deliver effluent in parallel distribution to two 116-ft long drainlines. The drainlines shall be installed off contour (not to exceed 2 inches) with maximum trench bottom depths at 24 inches below surface (as measured on low side).

The repair septic system is proposed as a gravity driven system to 232 linear feet of Accepted Status drainlines utilizing a 25% reduction in total drainline length (Figure 2). A long-term acceptance rate (LTAR) of 0.40 gal/day/ft^2 was used to design the dispersal field. A distribution box will be used to deliver effluent in parallel distribution to two 116-ft long drainlines. The drainlines shall be installed off contour (not to exceed 13 inches) with maximum trench bottom depths at 18 inches below surface (as measured on low side).

SEPTIC AREA PREPARATION

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

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.**

PERMIT CONDITIONS

GENERAL 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 Treatment System Plans*.

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

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

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

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

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

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

SPECIAL CONDITIONS:

- To ensure a watertight joint, the inlet and outlet of all tanks shall be equipped with an approved pipe penetration boot.

WASTEWATER TREATMENT SYSTEM PLANS

PROJECT INFORMATION

Wastewater System	New		.0403 Eng Low Flow	No
Wastewater Strength	Domestic			
Effluent Standard	DSE			
Water Supply	Public Water			
Facility Type	Residential			
Design Wastewater Flow	360	gpd	gal/unit	120
Basis for Flow	3	bedrooms	max occupancy	6
Basement	No		Fixtures in basement?	No
Crawl Space	No		Slab Foundation	Yes

PROPERTY INFORMATION

County	Harnett
Site Address	5011 Ray Rd, Spring Lake, NC
S/D Name and Lot#	The Flatts, lot 5
PIN	0505-65-1815.000
County PID	
Size (Acre)	0.42

APPLICANT INFORMATION

Name	Carolina Construction of Fayetteville, Inc.
Mailing Address	3117 Cope St
	Fayetteville, NC 28306
Telephone Number	910-339-4779
E-mail Address	billing@ccfnc.com, rmiller@ccfnc.com

CONSULTANT INFORMATION

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

Septic System Design Specifications

SEPTIC SYSTEM DESIGN

Proposed Design Daily Flow	360	gpd	Drainfield Meeets Requirements:	
Septic Tank Size (minimum)	1000	gallons	.0508 Available Space	Yes
Pump Tank Size (minimum)	1000	gallons, if required	.0601 Setbacks	Yes

Initial System *See Detailed Design Parameters

System Type: IIb – Accepted wastewater gravity system
Pump Required: No ft TDH at GPM
Trenches: Accepted (25% reduction) System

Design LTAR	0.40	gal/day/ft^2	Saprolite System	No
Total Trench/ Bed Length	232	feet	Fill System	No
Trench Spacing	9	ft on center		
Usable soil depth to LC	48	inches	Soil Cover 6	inches
Maximum Trench Depth	24	inches, measured on downhill side of trench		
Artificial Drainage Required	No			

Repair System

System Type: IIb – Accepted wastewater gravity system
Trenches: Accepted (25% reduction) System

Design LTAR	0.40	gal/day/ft^2	Saprolite System	No
Total Trench/ Bed Length	232	feet	Fill System	No
Trench Spacing	9	ft on center		
Usable soil depth to LC	48	inches		
Maximum Trench Depth of	18	inches, measured on downhill side of trench		
Pump Required	No			

Potential Drainlines flagged at site on 9-ft centers.

Line #	Color	Relative Elev (ft)	Relative Elev Back of house	Drainline Length(ft)	Field Length(ft)
1	Y	100.56	100.39	116	144
2	B	100.96	101.11	116	148
3	W	101.27	101.64	116	148
4	R	101.10	102.20	116	148
Septic Tank:		102.56			
Reference Elev:		**100.00**			

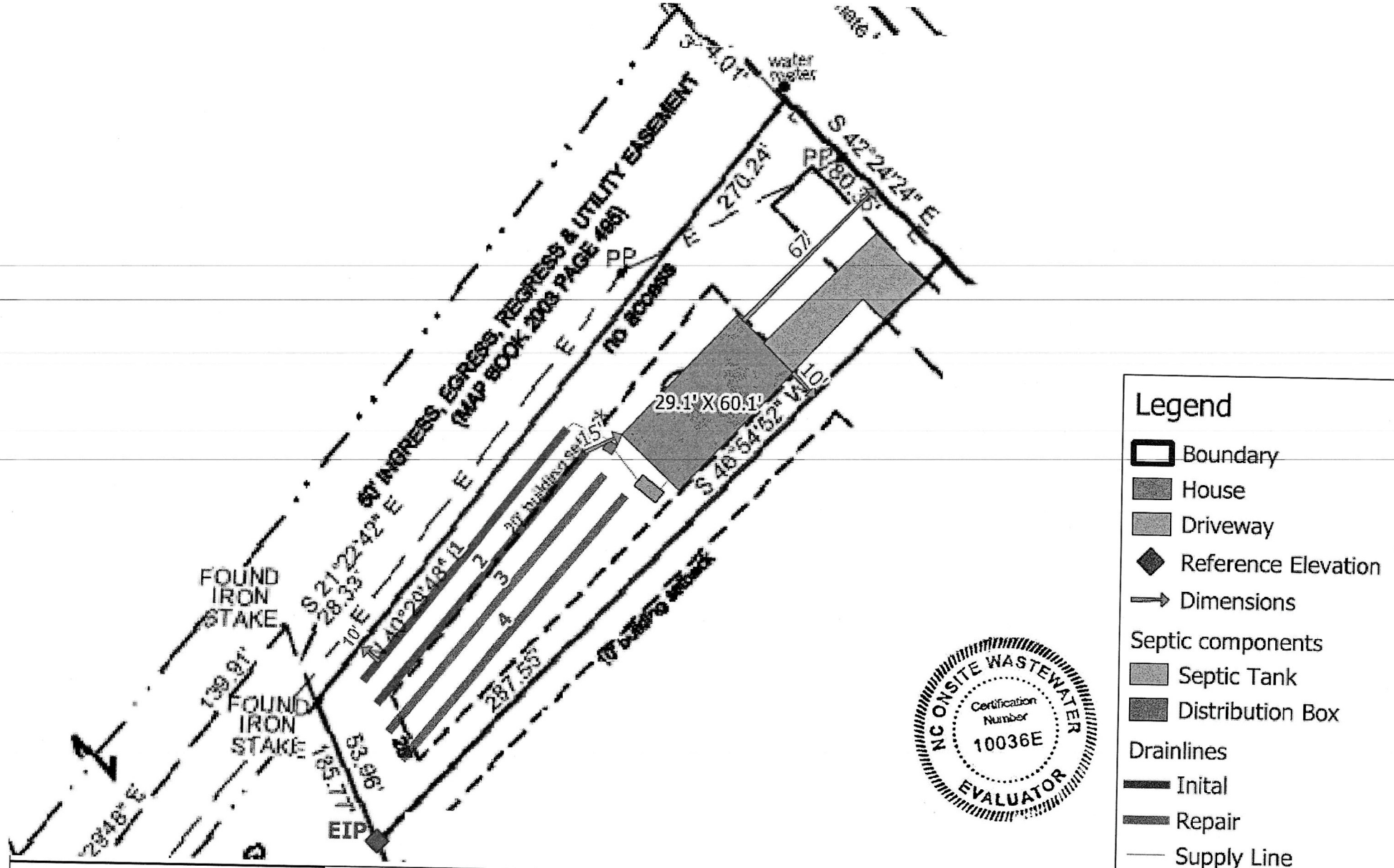
Notes:

*No grading or removal of soil in initial or repair areas

*Property lines per owner

*Trench bottoms shall be level to +/- 1/4" in 10ft

*All parts of septic system must meet minimum setbacks



Hal Owen & Associates Inc. PO Box 400, Lillington, NC 27546 www.halowensoil.com 919-893-8743		The Flatts at Ray Rd Lot 5 29 May 2024	Figure 2 Septic Layout

Initial System Specifications

Gravity System Design Criteria

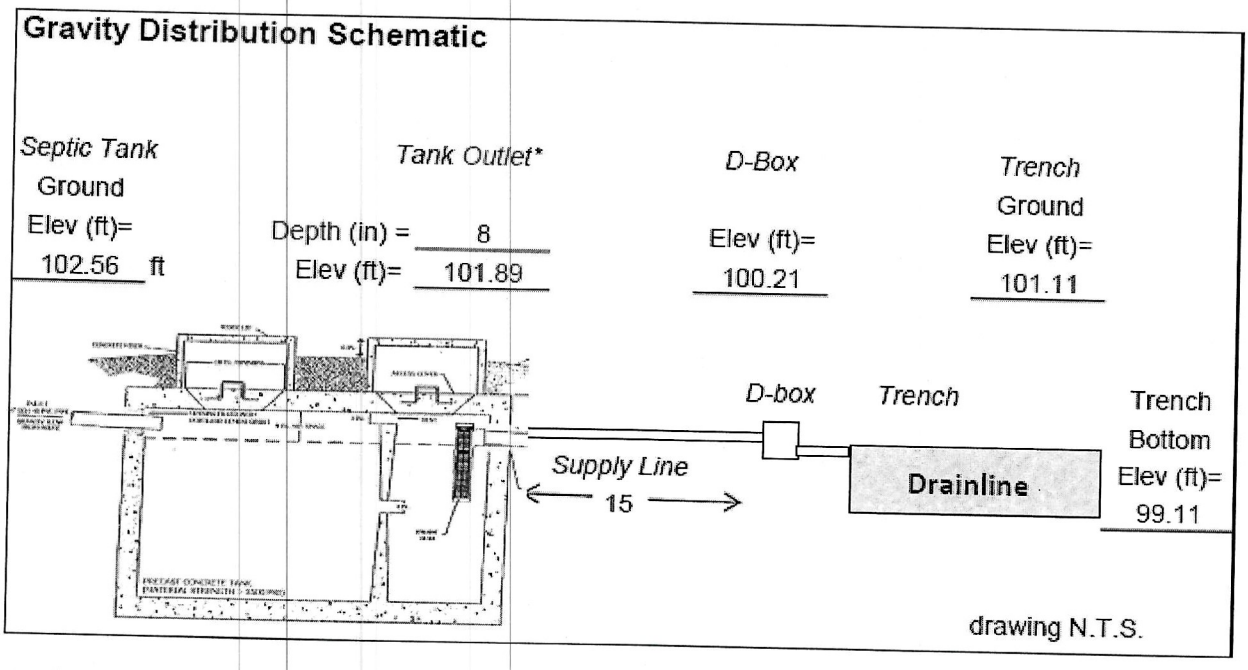
DESIGN DAILY FLOW 360 gallons **SOIL LTAR:** 0.40 gpd/ft^2

TANK (minimum) Septic Tank: 1000 gallons

SUPPLY LINE Length (ft): 15 Diameter: 3 " sch 40 pvc
slope = 11.22% *minimum slope of supply line is 1/8" per foot (%1.04)

TRENCHES Drainline Type: Accepted (25% reduction) System
Maximum Trench Depth of 24 inches, measured on downhill side
Trench height: 12 inches Trench width: 3 ft
Trench Length Factor: 75 % Effective Trench Width: 4 ft
Absorption Area: 675 ft^2 Minimum Linear Length: 225 ft
Actual Trench Length: 2 X 116 ft = **232 ft**

Gravity Distribution Schematic



*Outlet depth of septic tank is dependant upon the depth of the plumbing stub out from the home.
A pump tank should be added if gravity distribution cannot be demonstrated.

Repair System Specifications

Gravity System Design Criteria

DESIGN DAILY FLOW 360 gallons **SOIL LTAR:** 0.40 gpd/ft²

TANK (min) Septic Tank: 1000 gallons

SUPPLY LINE Length (ft): 5 Diameter: 3 " sch 40 pvc
slope = 1.87% *minimum slope of supply line is 1/8" per foot (%1.04)

TRENCHES Drainline Type: Accepted (25% reduction) System
Maximum Trench Depth of 18 inches, measured on downhill side
Trench height: 12 inches Trench width: 3 ft
Trench Length Factor: 75 % Effective Trench Width: 4 ft
Absorption Area: 675 ft² Minimum Linear Length: 225 ft
Actual Trench Length: 2 X 116 ft = **232 ft**

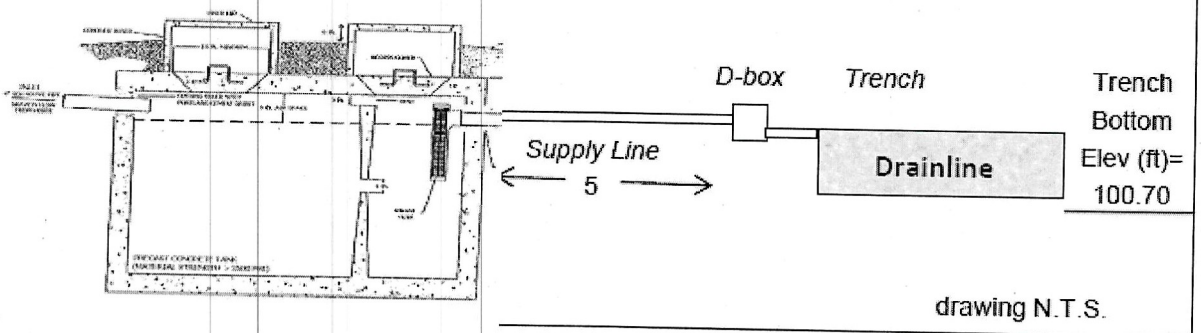
Gravity Distribution Schematic

Septic Tank Ground Elev (ft)= 102.56 ft

*Tank Outlet** Depth (in) = 8 Elev (ft)= 101.89

D-Box Elev (ft)= 101.80

Trench Ground Elev (ft)= 102.20



*Outlet depth of septic tank is dependant upon the depth of the plumbing stub out from the home.
A pump tank should be added if gravity distribution cannot be demonstrated.