BldR-2022-7578

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2022-1922

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4774-08-2761

APPLICANT / OWNER: HELMSMAN HOMES LLC | APPLICANT ADDRESS: PO Box 3965, MOORESVILLE, NC 28117

SITE ADDRESS: 169 SALEM SPRINGS LN, STATESVILLE, NC 28625 | PHONE: (980) 500-1251 | ALT. PHONE: (980) 500-1251

SITE DIRECTIONS: Hwy 64 to New Salem to Salem Springs. | SAP CONTROLLED: YES ☐ NO ☑

SUBDIVISION: Salem Springs | SECTION: | LOT #: 30 | LOT AREA: | DESIGN FLOW: 360 | L.T.A.R.: .25

Septic Tank: (gal) 1000	STB:	Date:	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 3	Water Supply: Other Public Water
Pump Tank: (gal) 1000	PT:	Date:	System Description: 25% Reduction		☐ Business	No. Persons: 6	
Pump Make:	Model:	Serial #:	Repair System Description: LPBPDS - 50% Reduction		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 4	Linear Ft.: 360	Maintenance Agreement Required: ☐ YES ☑ NO		☑ Slab	☐ Crawl Space	
Trench Width: 36 in	Trench Bottom Depth ~~(Low side)~~: 34 inch		Gravel Depth: —	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to G.S. 130A-335(a2), (a3) & (a4) using the signed and sealed LSS/LG Evaluation attached here, from:

LEI Soil & Onsite Wastewater Consulting PLLC

LSS# 1080

AS BUILT SKETCH

* System Inspected by AOWE, No Inspections performed by ICHD. See guidance from NCDHHS.

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION

☐ IMPROVEMENT PERMIT with plat valid without expiration ☑ IMPROVEMENT PERMIT with site plan valid for 60 mos ☑ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.

Owner / Applicant Signature: _____ Date: _____ Installed By: _____

IMPROVEMENT PERMIT by: Benjamin Bost Date: 9/27/22 OPERATION PERMIT by: AOWE Date: 10/5/2023

AUTHORIZATION TO CONSTRUCT by: Benjamin Bost Date: 9/27/22 Existing System Inspected By: _____ Date: _____

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 BETWEEN 8am-9am the day the inspection is needed.

LEY
SOIL & Onsite Wastewater CONSULTING PLLC

Date: 8-11-22

Project Name: Helmsman Homes Salem Springs Lot 30

Session Law 2022-11 (S372), AUTHORIZATION FORM

LEY Soil & Onsite Wastewater Consulting has been contracted to evaluate soil, design, and submit an Onsite Wastewater system proposal to the Iredell County Environmental Health Department on behalf of Helmsman Homes, 116 Gasoline Alley, STE 105, Mooresville, NC 28117

The Licensed Soil Scientist (LSS) Evaluation attached to this application is to be used to produce, design, and include construction features for permitting in accordance with SL 2022-11, S372

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

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5) and (a6).

Tim Carr
Owner Signature

Gene Young--(336)-909-9060 geneleysoils@icloud.com
Gary Easter--(336)-909-9058 garyleysoils@icloud.com
Jeff Link--(336)-909-8624 jeffleysoils@icloud.com
NC Licensed Soil Scientist, AOWE, NC Environmental Health Specialist

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 9/19/2022 (Date) by BB (Initials)

Permit Number: OSWP 2022- 1972

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

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

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A. Botts Date of Issuance: 9/27/2022

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) 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, or if information submitted in the application was falsified, inaccurate or misleading. 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 location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

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: 9/27/2027

See attached site sketch

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 9/19/2022 (Date) by BB (Initials)

Permit Number: OSWP 2022-1922

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

☐ 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 Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A Botts Date of Issuance: 9/27/22

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. 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 the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

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: 9/27/2027

See attached site sketch

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4774082761

Issued To: Helmsnan Homes

Property Location: 169 Salem Springs Road - LOT 30

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Gene Young, AOWE, 100005E

Facility Type: 3 Bedroom House

☑ New ☐ Expansion ☐ Repair ☐ System Relocation

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☑ No

Type of Wastewater System** 25% Reduction System pump (Initial) PBPBS pump (Repair)

Design Daily Flow: 360 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☐ No

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 360 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 1440 Trench/Bed Width: 36 inches LTAR: .25 gpd/ft²

Soil Cover: 22 inches Slope Adjusted Maximum Trench/Bed Depth: 34 inches

Aggregate Depth: _____inches above pipe _____inches below pipe 6 inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☑ No

Pump Requirements: 25.36 ft. TDH vs. 23.55 GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☑ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ☑ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

****If applicable:**

I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Print Name: _____

Owner/Legal Representative Signature: _____ Date: _____

Pre-Construction Conference Required: Yes ☑ No ☐

Conditions: See installer information for site and system conditions

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Gene Young AOWE, LSS

AOWE/PE Signature: Gene Young Date: 8-16-22

NC ONSITE WASTEWATER EVALUATOR Gene Young AOWE 100005E

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

See attached site sketch

County: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

Permit Number: _____

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

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

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

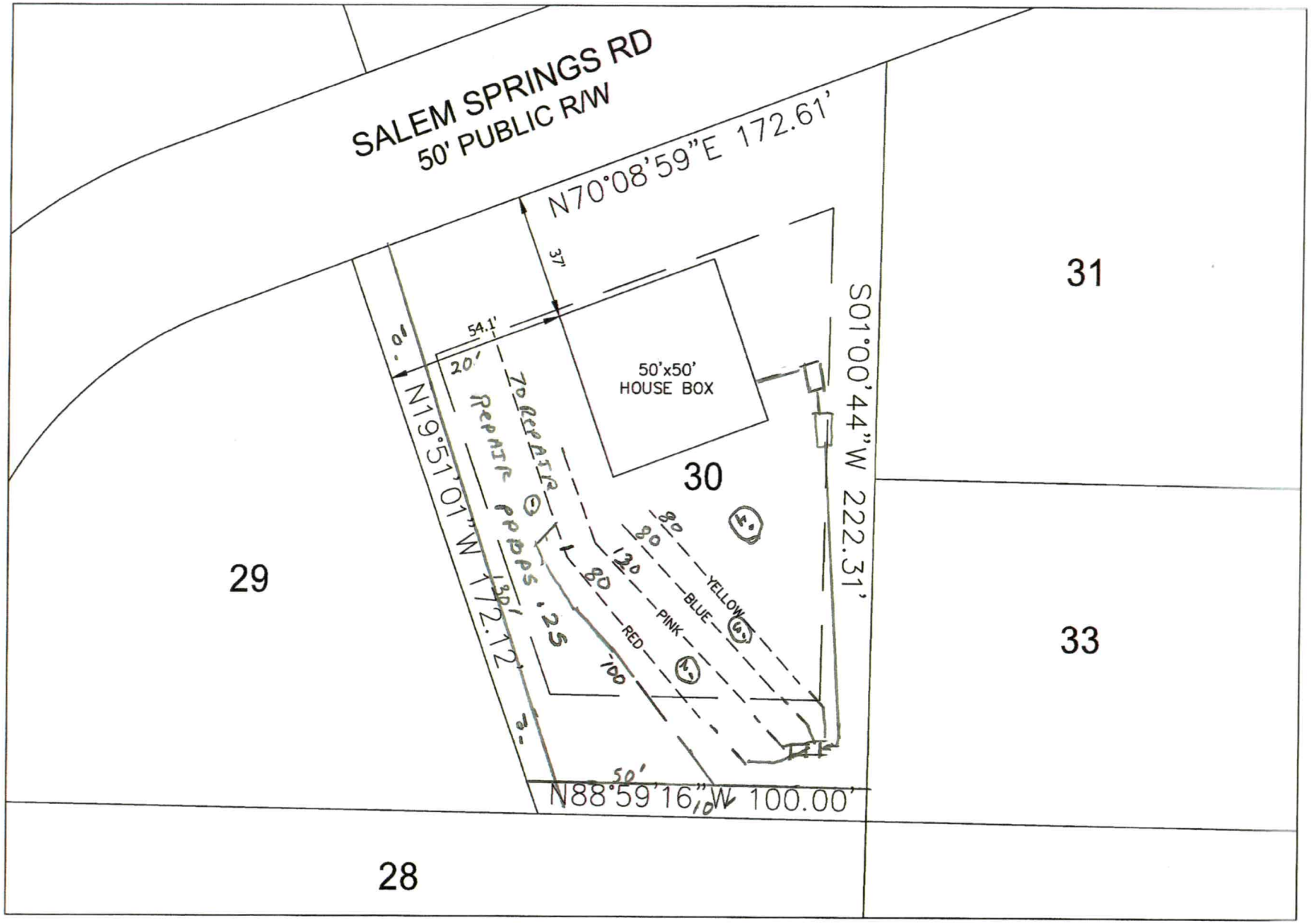
State Authorized Agent: _____ Date of Issuance: _____

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) 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, or if information submitted in the application was falsified, inaccurate or misleading. 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 location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

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



Salem Springs Subdivision Lot 30 Septic Site Plan

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet

Base site plan from Salem Springs Subdivision Plans provided by Jordan Grant & Associates.

CALCULATIONS

Location		
Lot No:	30	
No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.25	$^{gpd}/_{ft^2}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	90	ft.
Supply Line Volume	15.66	gal.
Amount of Line Required	360	
Amount of Line from Layout	360	ft.
Gallons per Minute	23.55	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Required Pump Tank Capacity	1000	gal.
Lateral Line Volume	235.08	gal.
Dosing Volume	164.56	gal.
	Note:	*Dosing Volume based on 70% of lateral line volume*
Tank Draw Down	7.8	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	6.99	minutes
Elevation Head	16	ft.
Pressure Head	2	ft.
Friction Factor	3.48	ft./100 ft. *(From the interpolater.)*
Friction Head	3.13	ft.
Total Dynamic Head (+20%)	25.36	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

Recommended Dosing Controls: Float Control Switches as Required for Control Panel or County Approved Equivalent

Recommended Control Panel: NEMA 4X Control Panel or County Approved Control Panel.

PRESSURE MANIFOLD TAPSHEET -
SYSTEM

Line #	Color	Elev	Length	Hole Size	Flow/Tap	gpd	Trench Area	Line LTAR
1	*yellow*		*80*	SCH 80 1/2	**5.48**	38.29	240	0.16
2	*blue*		*80*	SCH 80 1/2	**5.48**	38.29	240	0.16
3	*pink*		*120*	SCH 40 1/2	**7.11**	49.68	360	0.14
4	*red*		*80*	SCH 80 1/2	**5.48**	38.29	240	0.16
5								#DIV/0!
6								#DIV/0!
	total	**feet =**	**360**	**gal/min =**	**23.55**			
			Des. Flow	**600**				
			Pump Run=	**6.99**				
			LTAR	**0.250**				

Some lines flagged longer in the field, shorten to lengths shown here.

Sheet ___ of ___
PROPERTY ID #: ___
COUNTY: IREDell

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

OWNER: Helmsman Homes APPLICATION DATE ___
ADDRESS: Salem Springs Road DATE EVALUATED: ___
PROPOSED FACILITY: House PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE: 20,000+
LOCATION OF SITE: Salem Springs Subdivision PROPERTY RECORDED: 2022
WATER SUPPLY: . Private (Public) Well . Spring . Other ___
EVALUATION METHOD: . Auger Boring . (Pit) TYPE OF WASTEWATER: (Sewage) Industrial Process . Mixed

30

Landscape Position (1940)	L	L	L	L						
Slpoe%	4	4	4	5						
H 1 Depth (1943)	0-5	0-8	0-9	0-7						
H1 texture 1941	SCl	SCl	SCl	SCl						
H1 Structure 1941	GR	GR	GR	GR						
H1 Consistance 1941	FRSP	FRSP	FRSP	FRSO						
H1 Mineralogy 1941	Se	Se	SE	Se						
H 2 Depth (1943)	5-40	8-38	9-40	7-38						
H2 texture 1941	C	C	C	C						
H2 Structure 1941	SBK	SBK	SBK	SBK						
H2 Consistance 1941	FI-P	FI-P	FI-P	FI-P						
H2 Mineralogy 1941	Se	Se	Se	SE						
H 3 Depth (1943)	40-50	8-51	9-50	38-50						
H3 texture 1941	BC	BC	BC	BC						
H3 Structure 1941	WSBK	WSBK	WSBK	WSBK						
H3 Consistance 1941	FR-SP	FR-SP	FR-P	FR-P						
H3 Mineralogy 1941	Se	Se	Se	Se						
H 4 Depth (1943)										
H4 texture 1941										
H4 Structure 1941										
H4 Consistance 1941										
H4 Mineralogy 1941										
LTAR	.25	.25	.25	.25						

Description	Initial System	Repair	Other Factors 1946
System Type	PSP	NOPPS	Site Classification
LTAR	.25	.25	

LICENSED SOIL SCIENTIST GENE YOUNG STATE OF NORTH CAROLINA 1020

Evaluated by Gene Young NOWE, LSS

Installer Information

Be sure to read the permit very carefully before submitting bid.

The following details must be considered along with all other considerations:

Preconstruction Conference required with the installer, contractor, and AOWE before installation

- Concrete Septic Tank shall be used an approved by NC DHHS, (Shoaf or HPPP 1000-gallon STB 760 septic tank and Shoaf PT 363 concrete 1000-gallon I piece pump tank)

- All tanks shall be properly back filled and compacted to prevent slump in the future

- The installer is responsible for final grades and returning that grade to original, with the exception of added structural features

- **The supply trench shall be compacted to eliminate any cavities left during initial fill placement continuous fall of 1/8 inches per foot required or sewage effluent pump will be required**

- Installation of the system shall be completed during dry conditions in order to protect the soil structure

- All fittings shall be pressure rated fitting

- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints

- Trenches shall be carefully excavated so the bottom has no more than ¼" fall in 10 feet, with no high or low areas within. **Do not over excavate trenches!** Any fine grading should be completed by hand with a rake and shovel, leaving no loose material.

- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the rise.

- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral to prevent unwanted lateral water movement.

- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation

- Elevations at pin flag locations should be checked by the installer prior to beginning trenches to ensure accuracy

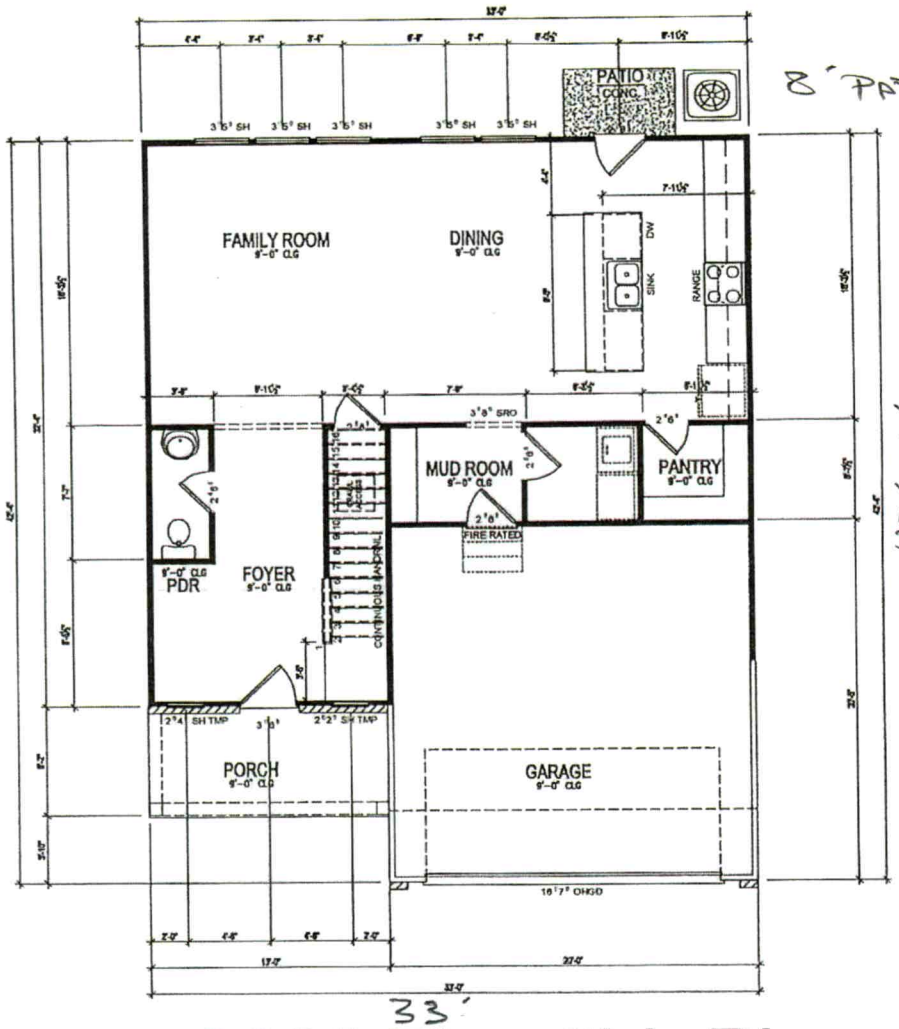
- If septic tank risers are used, they should be a minimum of 6" above finished grade or within 6" of final grade if buried

See Design Specification Sheet for Onsite Wastewater System information

System is specified as an Accepted 25% Reduction Gravity Chamber installation with #4, #5, or #6 gravel to be installed 6 inches deep on each side of the chambers

All surface water must be diverted away from the onsite wastewater system area

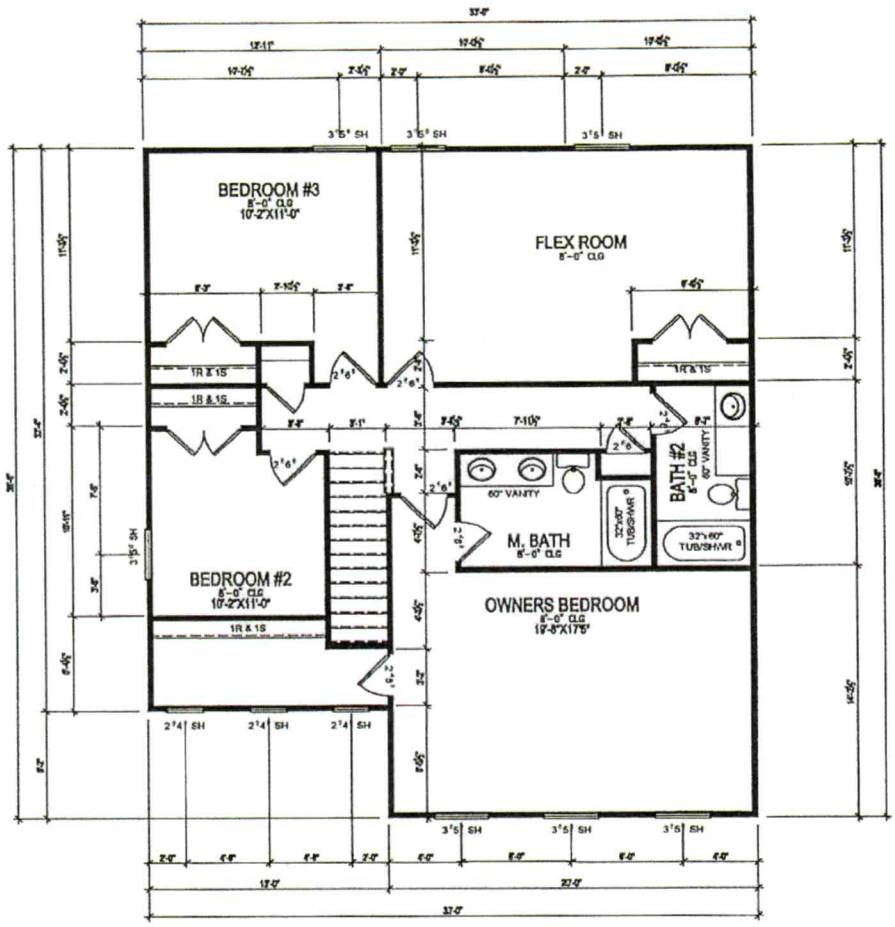
- All Onsite Wastewater System components shall be 25' upslope, 15' side slope, and 10' downslope from any foundation drain



2088 The Jibb Plan

FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"



2088 The Jibb Plan

SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

*See note on permit *
10/5/2023

LEY
SOIL & Onsite Wastewater CONSULTING PLLC

Date: 9/30/23

Project Name: Helmsman Homes, 169 Salem Springs Drive, Lot 30

G. S. 130A-337(a1)

LEY Soil & Onsite Wastewater Consulting has been contracted to conduct an perform an inspection of the Onsite Wastewater system installation and issue an Operation Permit to the Iredell County Environmental Health Department on behalf of Helmsman Homes, 169 Salem Springs Drive, Lot 30

The system installed meets all of the conditions of the Improvement Permit and Construction Authorization, and the AOWE shall issue an as-built drawing with the Operation Permit that meets the standards and scale of the LHD that issued the Construction Authorization. The applicant shall submit these items to the LHD within two business days of receipt from the AOWE.

Tim Carr Owner Signature

Gene Young--(336)-909-9060 younggene1956@gmail.com
Gary Easter--(336)-909-9058 garyleysoils@icloud.com
Jeff Link--(336)-909-8624 jeffleysoils@icloud.com
NC Licensed Soil Scientist, AOWE, NC Environmental Health Specialist

Section 5, Modifications to G.S. 130A-337: This Section adds new language, G.S. 130A-337(a1), that allows an AOWE to contract with an applicant to conduct an inspection of a wastewater system installation and issue an Operation Permit, accordingly. The AOWE is required to provide written verification to the applicant that the system installation meets all of the conditions of the Improvement Permit and Construction Authorization, and the AOWE shall issue an as-built drawing with the Operation Permit that meets the standards and scale of the LHD that issued the Construction Authorization. The applicant shall submit these items to the LHD within two business days of receipt from the AOWE.

This Section also adds language to G.S. 130A-337(a1) that releases liability from the Department, the Department's authorized agents, and the LHDs from any claims attributed to the wastewater system installation. The AOWE is responsible for ensuring that the wastewater system is installed in accordance with the Construction Authorization. However, the LHD retains the responsibility for the Improvement Permit and Construction Authorization.

This Section is effective immediately.

LEY SOILS

Operation Permit/Authorization to Operate (ATO) LOT 30

PIN 4774082781 Permit Number 169 SALEM SPRINGS DRIVE

County IREDELL Specific System Installed 25% REDUCTION ACCEPTED CHAMBER Q-4

System Type: 3G GPD: 360 Number of Bedrooms: 3 Maximum number of occupants: 6

HELMSMAN HOMES SPECIALTY SEPTIC # 1139

Owner's Name System Installer/Certification Number

Gene Yeazel LEY Soils

9-11-23 ~~Date of Operation Permit~~ Issuance

NC ONSITE WASTEWATER EVALUATOR GENE YEAZEL, AOWP 10005c

This system has been installed in compliance with applicable NC General Statutes, Rules for Sewage Treatment and Disposal, and all conditions of the Improvement Permit and Construction Authorization.

SEE ATTACHED AS BUILT DRAWING
PUMP NOT NEEDED

PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with Rule .1961.

II. Monitoring: As required by Rule .1961.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

Other: _____

Subsurface system operator required? Yes ____ No X

If yes, see attached sheet for additional operation conditions, maintenance and reporting.

IV. Operation: _____

V. Other: _____

Operation Permit Inspection Check List

LOT 30

#1139

INSTALLER: SPECIALTY SEPTIC

APPLICATION #: _____

DATE: 9-11-23

1. LOCATION AND SEPARATION DISTANCES

A. **System installed in proper area**	✓	
B. **House location in proper area**	✓	
C. System meets .1950 setback requirements	✓	
D. Distance from septic system to any wells	NA	feet
E. Distance from septic tank to foundation	10	feet
F. Distance from septic system to all property lines	12	feet +

2. SEPTIC TANK/PUMP TANK

	SEPTIC TANK	PUMP TANK
A. Liquid capacity of septic tank	1000 gallons	____ gallons
B. Tank serial number	STB-760	____
C. Date of manufacture	7-1-23	____
D. Visually inspect the exterior walls and top of tank	✓	____
E. Visually inspect the interior walls, baffle wall, lids, air vent, filter, etc.	✓	____
F. Risers present ***OR*** tank is within 6" of finished grade	✓	____

3. SUPPLY LINE TO TRENCHES

A. Supply line fall from septic tank to nitrification lines or distribution device ***at least*** 1/8" per foot (minimum)	28"
B. Supply line is ***minimum*** 3" Sch. 40 PVC, PE, or ABS	✓
C. Length of supply line to trench	24 feet

4. NITRIFICATION FIELD

A. Type of nitrification field	25% REDUCTION INFILTRATOR Q-4	
B. Manufacturer and model #		
C. Nitrification trench ***does not exceed*** ¼" fall in 10 feet	✓	
D. Trench depth	32	inches
E. Trench width	36	inches
F. Aggregate depth	6	inches ON EACH SIDE OF CHAMBER
G. Aggregate size (3,4,5,57, or 6 of ASTM D-448)	#5	
H. Distance between trenches	9	feet
I. Length of nitrification lines	368	feet
J. Step downs: (if applicable)		
1. ***Minimum*** of 2' undisturbed soil	✓	
2. Proper rise over step down	✓	
3. Solid pipe used	✓	
4. Elevations of stepdowns	✓	
J. Distribution Devices: (if applicable)		
1. Type of distribution device	_____	
2. Device is watertight and of sound construction	____	
3. Device is on level foundation of soil or concrete	____	
4. Does the device perform as designed	____	
5. Inlet and outlet elevations recorded	____	

GRAVEL/TRENCH DEPTHS

A.	_____	N.	_____
B.	_____	O.	_____
C.	_____	P.	_____
D.	_____	Q.	_____
E.	_____	R.	_____
F.	_____	S.	_____
G.	_____	T.	_____
H.	_____		
I.	_____		
J.	_____		
K.	_____		
L.	_____		
M.	_____		

GRADE SHOTS

1.	3.4	19.	_____
2.	3.4	20.	_____
3.	3.4	21.	_____
4.	3.4	22.	_____
5.	4.5	23.	_____
6.	4.5	24.	_____
7.	4.5	25.	_____
8.	5.3		
9.	5.3		
10.	5.3		
11.	5.9		
12.	5.9		
13.	5.9		
14.	5.9		
15.	_____		
16.	_____		
17.	_____		
18.	_____		

County: Iredell

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4774082761

Issued To: Helmsman Homes

Property Location: 169 Salem Springs Drive--Lot 30

Subdivision: Salem Springs Lot #: 30 Block: _____ Section: _____

LSS Report Provided: Yes ☑ No ☐

If yes, name and license number of LSS: Gene Young, LSS, 1080

New ☑ Repair ☐ Expansion ☐ System Relocation ☐

Proposed Structure: Hopuse

Proposed Wastewater System Type: 25% Reduction (Initial) PPBPS (Repair)

Fill System: ☐ Yes ☑ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area please provide a fill plan)

Proposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): .25 Proposed LTAR (Repair): .25

Design Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Number of bedrooms: 3 Number of Occupants: 6 Other: _____

Pump Required: ☐ Yes ☐ No ☑ May be required based upon final location and elevations of facilities

Artificial Drainage Required: ☐ Yes ☑ No If yes, please specify details: _____

Type of Water Supply: ☐ Private well ☑ Public well ☐ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .1945: Yes ☑ No ☐

Drainfield location meets requirements of Rule .1950: Yes ☑ No ☐

Permit valid for: ☑ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

See installer information Sheet

Licensed Soil Scientist Print Name: Gene Young, LSS

Licensed Soil Scientist Signature: Gene Young Date: 8-11-22

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

See attached site sketch

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4774082761

Issued To: Helmsnan Homes

Property Location: 169 Salem Springs Road - LOT 30

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Gene Young, AOWE, 100005E

Facility Type: 3 Bedroom House

☑ New ☐ Expansion ☐ Repair ☐ System Relocation

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☑ No

Type of Wastewater System** 25% Reduction System pump (Initial) PBPBS pump (Repair)

Design Daily Flow: 360 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☐ No

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 360 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 1440 Trench/Bed Width: 36 inches LTAR: .25 gpd/ft²

Soil Cover: 22 inches Slope Adjusted Maximum Trench/Bed Depth: 34 inches

Aggregate Depth: ___ inches above pipe ___ inches below pipe 6 inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☑ No

Pump Requirements: 25.36 ft. TDH vs. 23.55 GPM Grease Trap Size (if applicable): ___ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☑ Pressure Manifold(s) ☐ LPP ☐ Other:

Artificial Drainage Required: Yes ☐ No ☑ If yes, please specify details:

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

****If applicable:**
I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Print Name: ___

Owner/Legal Representative Signature: ___ Date: ___

Pre-Construction Conference Required: Yes ☑ No ☐

Conditions: See installer information for site and system conditions

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

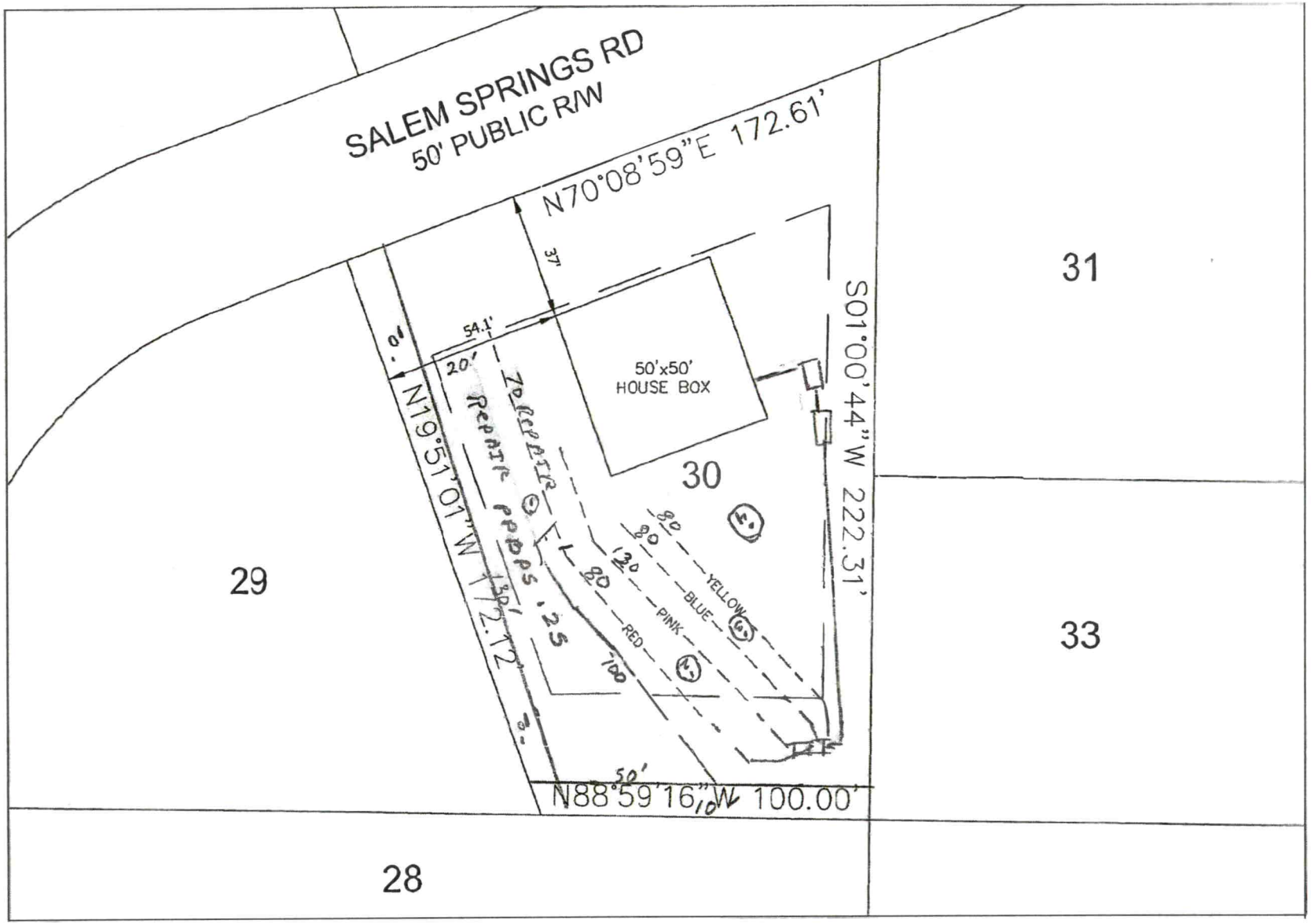
AOWE/PE Print Name: Gene Young AOWE, LSS

AOWE/PE Signature: Gene Young Date: 8-16-22

NC ONSITE WASTEWATER EVALUATOR Gene Young 100005E

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

See attached site sketch



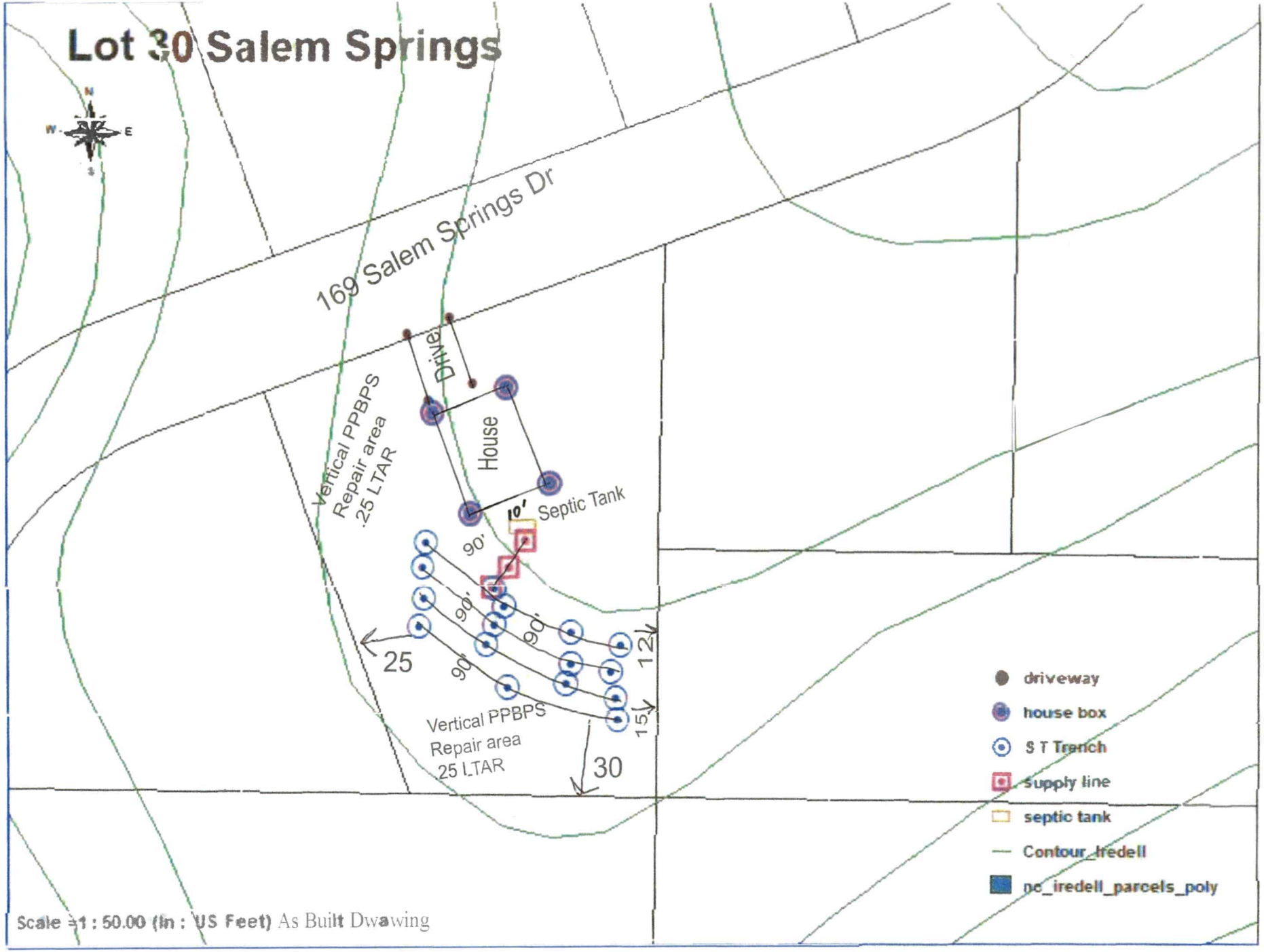
Salem Springs Subdivision Lot 30 Septic Site Plan

Base site plan from Salem Springs Subdivision Plans provided by Jordan Grant & Associates.

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet


Lot 30 Salem Springs
169 Salem Springs Dr
Drive
House
Septic Tank
10'
90'
90'
90'
90'
Vertical PPBPS
Repair area
.25 LTAR
25
12
15
30
Vertical PPBPS
Repair area
.25 LTAR
driveway
house box
S T Trench
Supply line
septic tank
Contour_Iredell
nc_iredell_parcels_poly
Scale =1 : 50.00 (In : US Feet) As Built Dwawing