BDR=2022-7577

ICHD - ENVIRONMENTAL HEALTH DIVISION

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

PERMIT # OSWP-2022-1919

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

PIN # 4774-08-1585

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

SITE ADDRESS: 187 SALEM SPRINGS LN, STATESVILLE, NC 28625 | PHONE: (980) 500-1251 | ALT. PHONE: (980) 500-1251

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

SUBDIVISION: Salem Springs | SECTION: | LOT #: 28 | LOT AREA: .65 | DESIGN FLOW: 360 | L.T.A.R.: .25

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

Comments / Conditions:

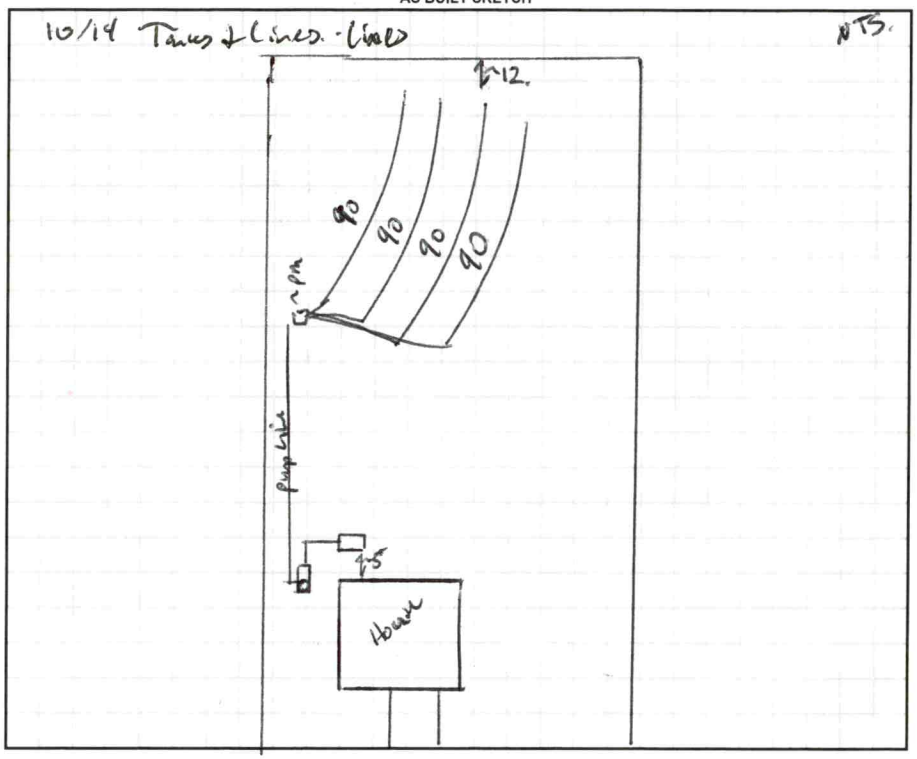
INITIAL SITE SKETCH

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

LEY Soil & Onsite Wastewater Consulting PLLC

LSS# 1080

AS BUILT SKETCH



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: Vada Enterprise - 1110

IMPROVEMENT PERMIT by: Benjamin A Bailey Date: 9/27/2022

OPERATION PERMIT by: Date: 1/30/25

AUTHORIZATION TO CONSTRUCT by: Benjamin A Bailey Date: 9/27/2022

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 28

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-2022-1919

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 Bolt Date of Issuance: 9/27/2022

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.

This Section for Local Health Department Use Only

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

Permit Number: OSWP 2022-1969

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 Betts 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

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

PIN/Lot Identifier: 4774-08-1585

Issued To: Helmsman Homes

Property Location: 187 Salem Springs Rd, lot 28

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Gene Young, 10005E

Facility Type: House

☑ New ☐ Expansion ☐ Repair ☐ System Relocation

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

Type of Wastewater System** 25% Reduction (Initial) PPBPS (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: 16.07 ft. TDH vs. 28.4 GPM Grease Trap Size (if applicable): ____ gallons

Distribution Method: Serial ☐ D-Box or Parallel X 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 attached installer information sheet, Iredell County permission to change septic tank location and distribution type

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, AOWE LSS Date: 7-11-22

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

See attached site sketch

IRON SPE WASTEWATER GENE YOUNG 10005E EVALUATOR

CALCULATIONS

Location

Lot No: 28

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.25	$^{gpd/ft^2}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	40	ft.
Supply Line Volume	6.96	gal.
Amount of Line Required	360	
Amount of Line from Layout	360	ft.
Gallons per Minute	28.44	$^{gal}/_{min}$
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

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

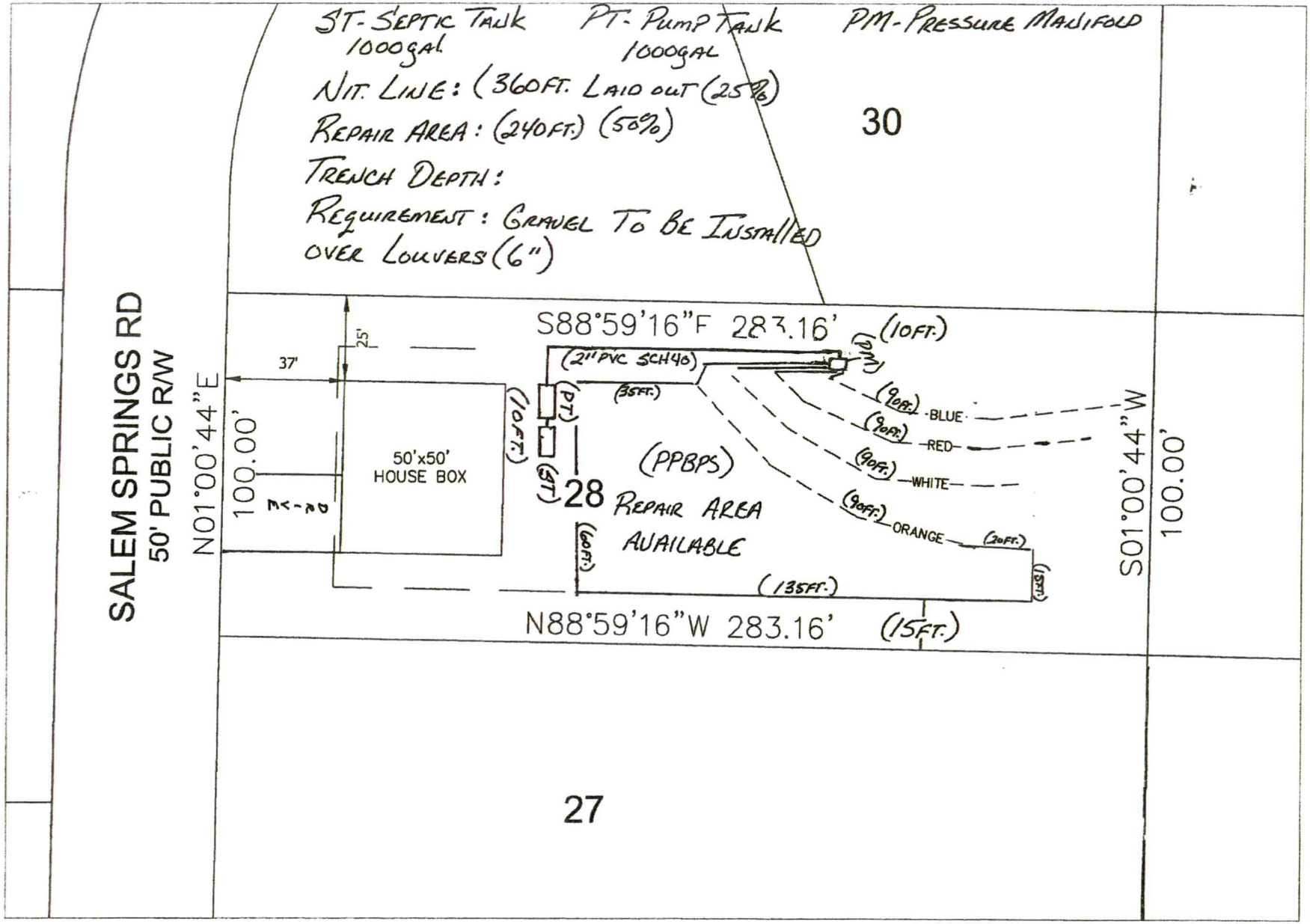
GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

Tank Draw Down	7.8	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	5.79	minutes
Elevation Head	10	ft.
Pressure Head	2	ft.
Friction Factor	3.48	ft./100 ft. *(From the interpolater.)*
Friction Head	1.39	ft.
Total Dynamic Head (+20%)	16.07	ft.

PRESSURE MANIFOLD TAPSHEET -
SYSTEM

Line #	Color	Elev	Length	Hole Size	Flow/Tap	gpd	Trench Area	Line LTAR
1	***BLUE***		***90***	SCH 40 1/2	**7.11**	41.14	270	0.15
2	***ORANGE***		***90***	SCH 40 1/2	**7.11**	41.14	270	0.15
3	***PINK***		***90***	SCH 40 1/2	**7.11**	41.14	270	0.15
4	***YELLOW***		***90***	SCH 40 1/2	**7.11**	41.14	270	0.15
	total	**feet =**	**360**	**gal/min =**	**28.44**			
			Des. Flow	**360**				
			Pump Run=	**5.79**				
			LTAR	**0.250**				

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



Salem Springs Subdivision Lot 28 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.

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

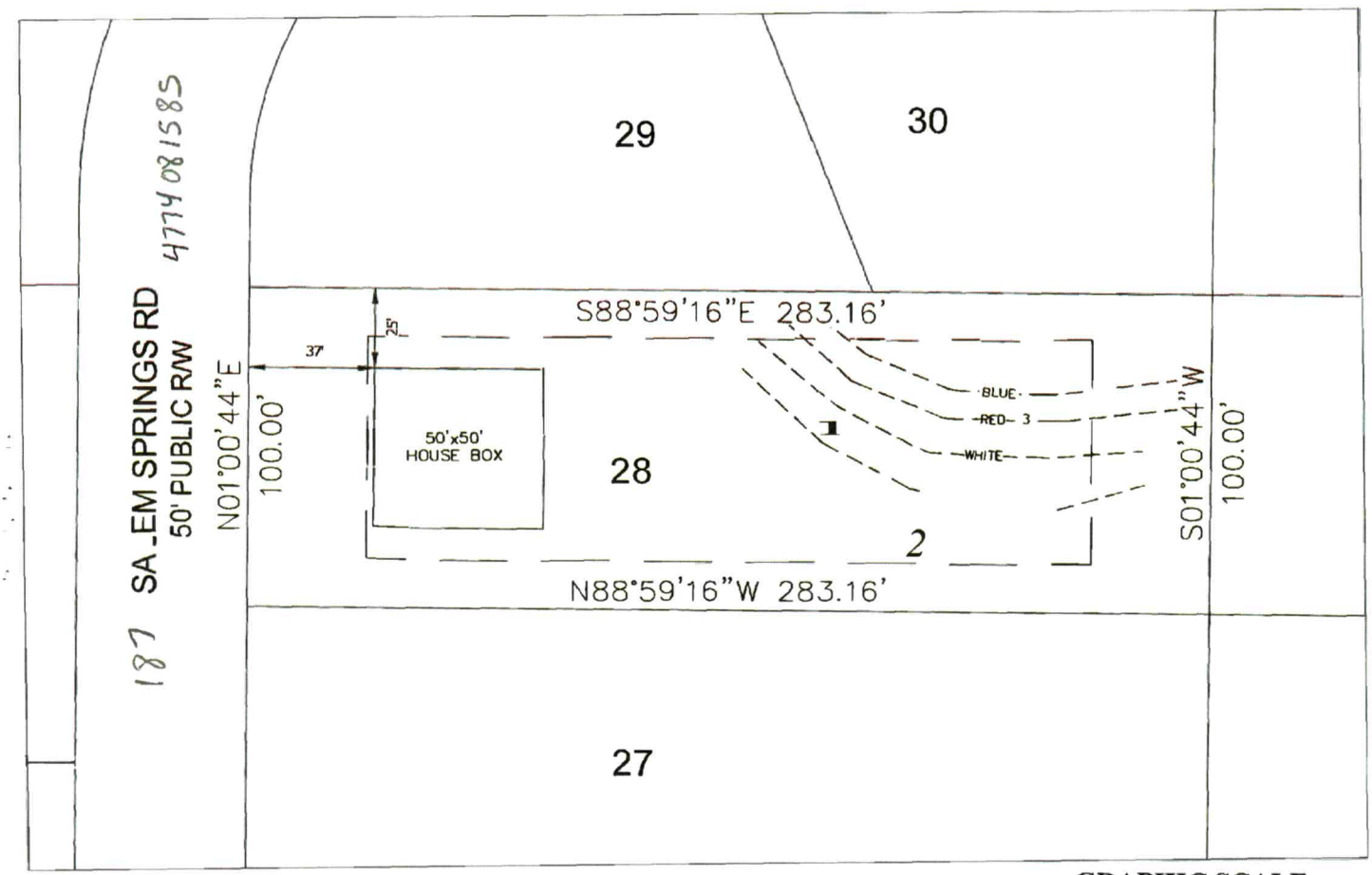
LOT 28

Landscape Position (1940)	L	L	L							
Slpoe%	4	5	4							
H 1 Depth (1943)	0-6	0-8	0-7							
H1 texture 1941	SCl	SCl	SCl							
H1 Structure 1941	GR	GR	GR							
H1 Consistance 1941	FRSP	FRSP	FRSP							
H1 Mineralogy 1941	se	se	se							
H 2 Depth (1943)	6-32	8-35	7-40							
H2 texture 1941	C	C	C							
H2 Structure 1941	SBK	SBK	SBK							
H2 Consistance 1941	Fi-P	Fi-P	Fi-P							
H2 Mineralogy 1941	se	se	se							
H 3 Depth (1943)	32-52	35-54	40-55							
H3 texture 1941	BC	BC	BC							
H3 Structure 1941	WSBK	WSBK	WSBK							
H3 Consistance 1941	FR-SP	FR-SP	FR-SP							
H3 Mineralogy 1941	se	se	se							
H 4 Depth (1943)										
H4 texture 1941										
H4 Structure 1941										
H4 Consistance 1941										
H4 Mineralogy 1941										
LTAR	.25	.25	.25							

Description	Initial System	Repair	Other Factors 1946
System Type	25%	PPDS	Site Classification
LTAR	.25	.25	

LICENSED SOIL SCIENTIST
GENE YOUNG
1080
STATE OF NORTH CAROLINA

Evaluated by Gene Young LSS



Salem Springs Subdivision Lot 28 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

LEY
SOIL & Onsite Wastewater CONSULTING PLLC

Date: 8-11-22

Project Name: Helmsman Homes Salem Springs Lot 28

Session Law 2022-11 (S372), AUTHORIZATION FORM

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_____ 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

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

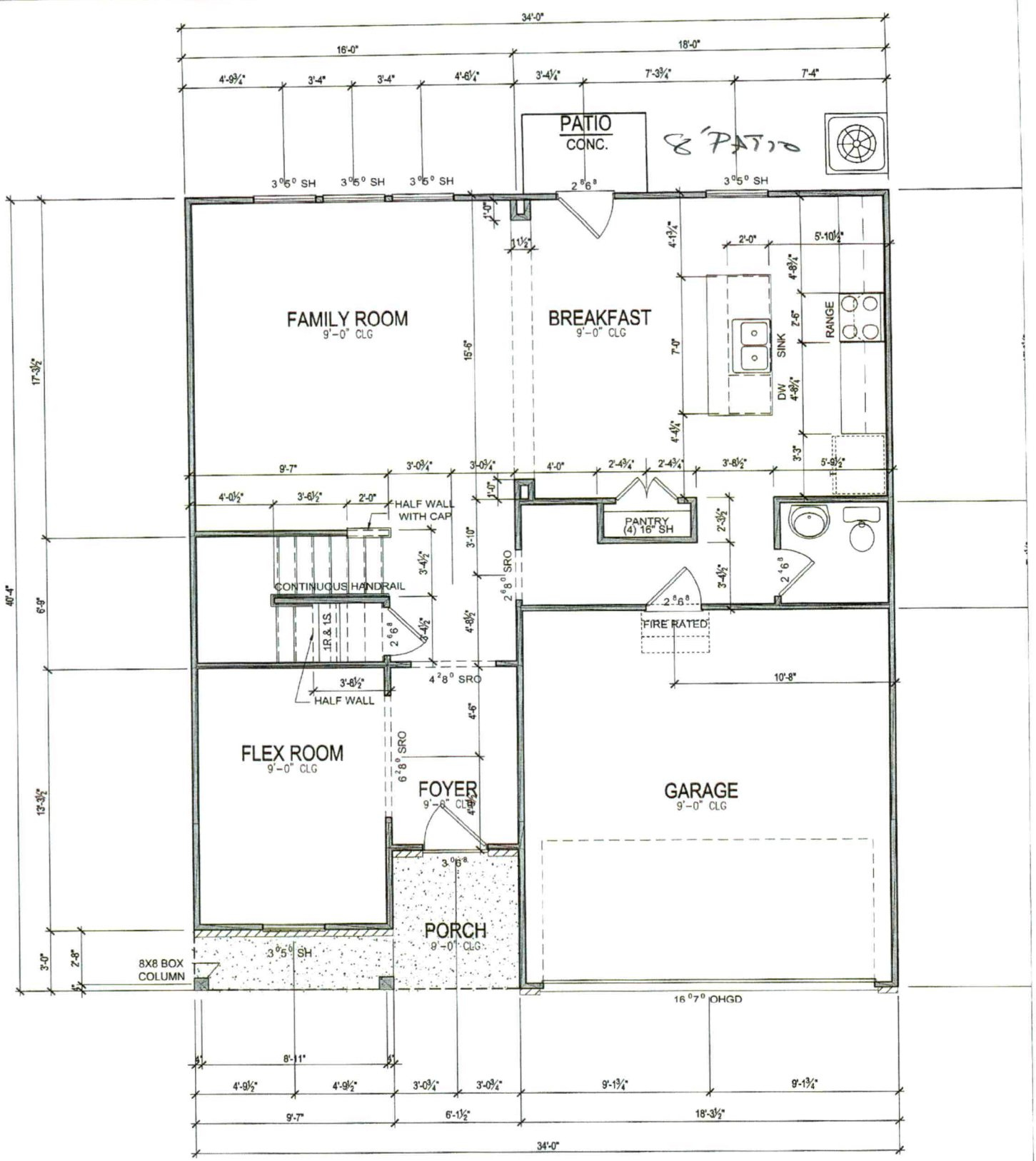
- If septic tank risers are used, they should be a minimum of 6" above finished grade or within 6" of final grade if buried

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

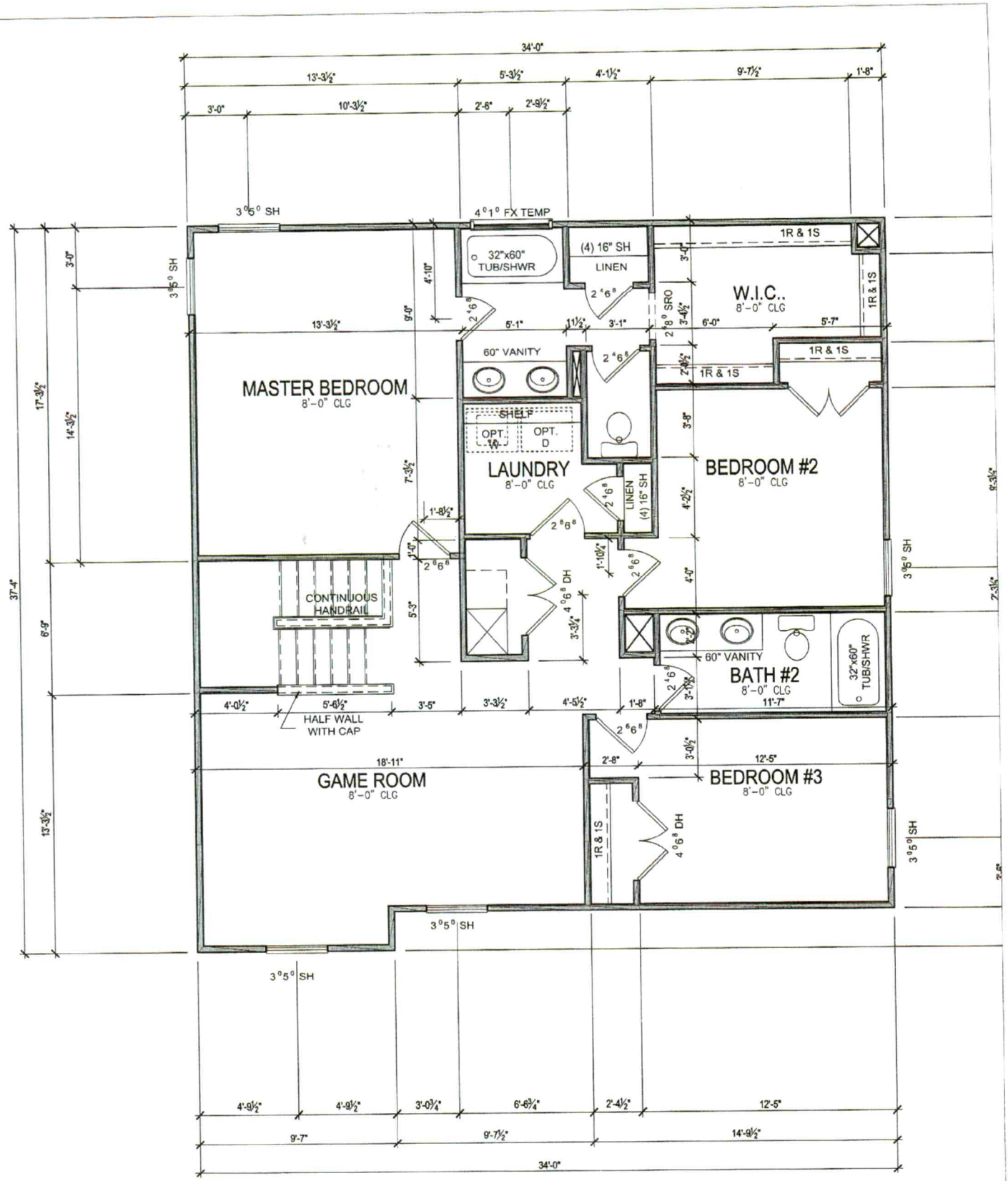
- All Onsite Wastewater System components shall be 25' upslope, 15' side slope, and 10' downslope from any foundation drain



2119 Fits the Bill

FIRST FLOOR PLAN

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



2119 Fits the Bill

SECOND FLOOR PLAN

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

