



NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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

Permit/File #: _____

Submittal Includes: [X] (a2) Improvement Permit [X] (a2) Construction Authorization [] Fee \$ _____

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

County: Harnett

PIN/Lot Identifier: 0610-50-2136.000

Issued To: LGI Homes NC LLC

Property Location: 128 Boone Docks Drive, Lillington, NC

Subdivision (if applicable): Boone Trail Village Phase 1 Lot #: 14 Block: _____ Section: _____

LSS Report Provided: Yes [X] No []

If yes, name and license number of LSS: Scott Mitchell - 1237

New [X] Expansion [] System Relocation [] Change of Use []

Facility Type: Single-Family Dwelling Unit

Number of bedrooms: 4 Number of Occupants: 8 or less Other: _____

Design Wastewater Strength: [X] Domestic [] High Strength [] Industrial Process Wastewater

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.30 Proposed LTAR (Repair): 0.30

Proposed Wastewater System Type*: IIb (Initial) Pump Required: [] Yes [] No [X] May be required

Proposed Wastewater System Type*: IIIe (Repair) Pump Required: [] Yes [X] No [] May be required

*Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII

Effluent Standard: [X] DSE [] HSE [] NSF/ANSI 40 [] TS-I [] TS-II [] RCW

Saprolite System (Initial): [] Yes [X] No Saprolite System (Repair): [] Yes [X] No

Fill System (Initial): [] Yes [X] No If yes, specify: [] New [] Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Fill System (Repair): [] Yes [X] No If yes, specify: [] New [] Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Usable Depth to LC (Initial)*: 31" Usable Depth to LC (Repair)*: 35" * Limiting Condition

Max. Trench Depth (Initial)*: 17 inches Max. Trench Depth (Repair)*: 21 inches * Measured on the downhill side of the trench

Artificial Drainage Required: [] Yes [X] No If yes, please specify details: _____

Type of Water Supply: [] Private well [] Public well [] Shared well [X] Municipal Supply [] Spring [] Other: _____

Drainfield location meets requirements of Rule .0508: Yes [X] No [] Drainfield location meets requirements of Rule .0601: Yes [X] No []

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

Permit conditions:
Permit is subject to revocation if the Site Plan or Plat changes, or if the intended use changes, including bedroom count.
No cutting, grading, alterations, or utilities allowed in septic area.
Maintain all required setbacks.

Licensed Soil Scientist Print Name: Scott Mitchell

Licensed Soil Scientist Signature: _____ Date: January 9, 2025

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

See attached site sketch

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

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

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

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

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

The following items are missing:

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

Complete

State Authorized Agent: _____ Date: _____

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

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

Improvement Permit Expiration Date: _____

See attached site sketch



Permit/File #: _____

Re-submittal of Improvement Permit

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

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

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

Signature of Licensed Soil Scientist *Date*

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

LHD Follow-up Completeness Review of Improvement Permit

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

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

The following items are missing:

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

Complete

State Authorized Agent: _____ Date: _____



Harnett County GIS

PID: 130519 0103 19
PIN: 0610-50-2136.000
Account Number: 1500028388
Owner: LGI HOMES NC LLC
Mailing Address: 1450 LAKE ROBBINS DR STE 430 THE WOODLANDS, TX 77380-3294
Physical Address: 128 BOONE DOCKS DR LILLINGTON, NC 27546 ac
Description: LOT#14 BOON TRAIL VILLAGE PH1 MAP#2024-600
Surveyed/Deeded Acreage: 1.35
Calculated Acreage: 1.35
Deed Date:
Deed Book/Page: 4144 - 0878
Plat(Survey) Book/Page: 2024 - 600
Last Sale: 2022 - 4
Sale Price: \$2220000
Qualified Code: A
Vacant or improved: V
Transfer of Split: T
Actual Year Built:
Heated Area : SqFt
Building Count : 0

Building Value: \$0
Parcel Outbuilding Value: \$0
Parcel Land Value: 0
Market Value: \$0
Deferred Value: \$0
Total Assessed Value: \$0
Zoning: RA-30 - 1.35 acres (100.0%)
Zoning Jurisdiction: Harnett County
Wetlands: No
FEMA Flood: Minimal Flood Risk
Within 1mi of Agriculture District: Yes
Elementary School: Boone Trail Elementary
Middle School: Western Harnett Middle
High School: Western Harnett High
Fire Department: Boone Trail
EMS Department: Medic 12, D12 EMS
Law Enforcement: Harnett County Sheriff
Voter Precinct: Boone Trail
County Commissioner : Duncan Edward Jagers
School Board Member: John Hair



Mitchell Environmental, P.A.

I hereby authorize representatives of Mitchell Environmental, P.A., to provide subsurface wastewater evaluations and septic system designs on my behalf, for the issuance of an IP and CA, for the property identified below.

For Improvement Permit (IP) issuance:

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

For Construction Authorization (CA) issuance:

"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)."

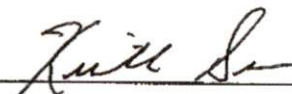
The LSS evaluation attached to this application was used to produce and design a subsurface wastewater septic system for permitting to obtain an IP and CA in accordance with G.S. 130A-335(a2), (a3), (a5), and (a6).

107/127/136/114 Camp Rock Rd.

Subject Property (Address, PIN, etc.): 128 Boone Docks Dr., Lillington NC 27546

Property Owner Name (Print): LGI Homes

Owner Representative (Print): Keith Sears

Owner Representative (Sign): 

Date: 12/26/24

Mitchell Environmental, P.A.

January 9, 2025

Mr. Robert Putze
LGI Homes - NC, LLC
1450 Lake Robbins Drive, Suite 430
The Woodlands, Texas 77380

**Re: On-Site Sewage Disposal Site and Soils Evaluation Report for:
Boone Trail Village Subdivision – Lot 14
128 Boone Docks Drive, Lillington, Harnett County**

Mr. Putze:

At your request, we have completed a site evaluation for use of on-site sewage disposal systems at Lot 14 of Boone Trail Village Subdivision located at 128 Boone Docks Drive in Lillington, Harnett County. The site evaluation was completed using soil pits on October 23, 2024, and soil augers on January 2, 2025, under moist soil conditions, based on the criteria found in the State Subsurface Rules, 15A NCAC 18E, "Wastewater Treatment and Dispersal Systems". This report was prepared pursuant to and meets the requirements of G.S. 130A-335(a2).

Site Evaluation for Use of On-Site Sewage Disposal Systems:

The evaluation included all usable areas of the property as limited by state and local laws, rules, and regulations. The purpose of the evaluation was to determine the suitability of the site for on-site waste disposal systems per applicable laws, rules, and regulations. **"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."**

A soil/site evaluation for use of on-site waste disposal systems on any site in North Carolina must include an evaluation of each of the following criteria: 1) topography and landscape position, 2) soil morphology, 3) soil wetness, 4) soil depth, 5) restrictive horizons and 6) available space. Upon field evaluation of the site, the majority of the lot was confirmed to contain sufficient suitable depth for on-site waste disposal systems.

Most septic systems in North Carolina that include a sub-surface waste disposal element require nitrification trenches to distribute effluent for final treatment. Any nitrification trench that has an associated width (*conventional, LPP, LDP, etc.*) must be designed to accommodate slope corrections (*typically 1 to 4 inches*). Slope corrections are based on trench width and cross slope to ensure the minimum separation distance between the trench bottom and an unsuitable soil condition is maintained over the entire trench width. Sloping sites are required to have greater suitable soil depth to accommodate slope correction as opposed to flat sites that require no slope correction. Please note that all proposed lots that utilize sub-surface nitrification fields must have sufficient area for the initial septic system as well as a full repair system. However, the initial and repair systems are not required to be the same type of system, nor are they required to be contiguous. For example, a lot may have a conventional, gravity system installed as the initial septic system and specify an LPP or subsurface drip system for its repair, several hundred feet away from the house or other structure being served.

The number of bedrooms or wastewater design flowrate that any lot will accommodate is entirely dependent upon the usable area of the lot and the long-term acceptance rate (*LTAR; LTAR is the*

1501 Lakestone Village Lane, Suite 205
Fuquay-Varina, North Carolina 27526
919-669-0329

effluent application rate for a septic system. For conventional systems, the LTAR indicates the number of gallons that can be applied to each square foot of the trench bottom per day. For an LPP or subsurface drip system, the LTAR indicates the number of gallons that can be applied to each square foot of the nitrification field per day. An LTAR of 0.2 gallons per day per ft² (gpd/ft²) will require a nitrification field that is twice as large as a field that has an LTAR of 0.4 gpd/ft². Assigned LTARs will affect the number of bedrooms or wastewater design flowrate lots will accommodate as illustrated above. LTARs can vary from one location to another on a property. Our observations indicate that a significant portion of the lot contains sufficient suitable soil depth to accommodate subsurface wastewater systems with an LTAR of 0.30 gpd/ft². Observed suitable soil depths on this site range from 21 inches to greater than 46 inches, with LTAR controlling soil textures ranging from sandy clay loam to clay.

Topography on this lot can be generally characterized as a side slope that generally sheds to the east southeast. Based on observed site and soil characteristics, in combination with the proposed plot plan, it is my professional opinion that adequate available space exists on this lot for properly designed septic system drainfields (*initial and repair*) sufficient for one, four-bedroom home.

This site evaluation is based upon the conditions of the site at the time of the evaluation. Any alteration of the site, including compaction, clearing, grading, timbering, etc., could negatively affect the suitability for on-site septic systems. Great care should be exercised during site preparation to protect areas that are to be utilized for septic system nitrification fields. No vehicular or construction traffic should be allowed on these areas. Additionally, no sedimentation and erosion control devices or stormwater collection, treatment, diversion, or dispersal devices should be allowed on or near these areas.

Thank you for the opportunity to provide you with this wastewater system soil suitability evaluation. Do not hesitate to call me if you have any questions or concerns about this evaluation or if you need any additional information.

Sincerely,

Scott Mitchell, PE, LSS
President



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

OWNER: LGI Homes NC LLC DATE EVALUATED: 10/23/2024
 ADDRESS: 1450 Lake Robbins Drive, Suite 430, The Woodlands, TX 77380
 PROPOSED FACILITY: Single-Family Dwelling PROPOSED DESIGN FLOW (.0400): 480 PROPERTY SIZE: 1.35 acres
 LOCATION OF SITE: Boone Trail Village - Lot 14 ; 128 Boone Docks Drive, Lillington PROPERTY RECORDED: 12/05/2024
 WATER SUPPLY: Public Single Family Well Shared Well Spring Other _____ WATER SUPPLY SETBACK: _____
 EVALUATION METHOD: Auger Boring Pit Cut TYPE OF WASTEWATER: Domestic High Strength IPWW

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
1	L, 5% Soil Pit 1	Ap, 0-6	SL, G	VFR, NS, NP, NEXP	10YR 5/2	46+			S, 0.30	2"
		E, 6-19	SL, SBK	VFR, NS, NP, NEXP	2.5Y 6/4					
		Bt1, 19-39	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6					
		Bt2, 39-46+	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6 2.5YR 4/8; 15%					
2	L, 5% Soil Pit 2	Ap, 0-6	SL, G	VFR, NS, NP, NEXP	10YR 5/2	37			S, 0.30	2"
		E, 6-12	SL, SBK	VFR, NS, NP, NEXP	2.5Y 6/4					
		Bt1, 12-28	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6					
		Bt2, 28-37	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6 2.5YR 4/8; 15%					
		Btg, 37+	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6 2.5YR 6/2; 15%					
3	L, 5% Soil Pit 3	Ap, 0-6	SL, G	VFR, NS, NP, NEXP	10YR 5/2	29			S, 0.275	2"
		E, 6-13	SL, SBK	VFR, NS, NP, NEXP	2.5Y 6/4					
		Bt, 13-29	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6					
		Btg, 29+	C, SBK	FR, SS, SP, SEXP	10YR 6/6 2.5YR 6/2; 15%					
4	L, 5% Soil Pit 4	Ap, 0-6	SL, G	VFR, NS, NP, NEXP	10YR 5/2	21			S, 0.30	2"
		E, 6-10	SL, SBK	VFR, NS, NP, NEXP	2.5Y 6/4					
		Bt1, 10-17	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6					
		Bt2, 17-21	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6 2.5YR 4/8; 15%					
		Btg, 21+	C, SBK	FR, SS, SP, SEXP	10YR 6/6 2.5YR 6/2; 15%					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	SITE CLASSIFICATION (.0509): <u>Suitable</u> EVALUATED BY: <u>Scott Mitchell / Adam Aycock</u> OTHER(S) PRESENT: _____
Available Space (.0508)	Yes	Yes	
System Type(s)	IIb	IIIe	
Site LTAR	0.30	0.30	
Maximum Trench Depth	17" on Low Side	21" on Low Side	

Comments: _____

SOIL/SITE EVALUATION
(Continuation Sheet-Complete all field in full)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 0610-50-2136.000
DATE OF EVALUATION: 1/2/2025
COUNTY: Harnett

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
5	L, 5% Soil Boring 1	Ap, 0-6	SL, G	VFR, NS, NP, NEXP	10YR 5/2	38			S, 0.30	2"
		E, 6-15	SL, SBK	VFR, NS, NP, NEXP	2.5Y 6/4					
		Bt1, 15-30	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6					
		Bt2, 30-38	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6					
		Btg, 38+	SCL, SBK	FR, SS, SP, SEXP	2.5YR 4/8; 15% 10YR 6/6 2.5YR 6/2; 15%					
6	L, 5% Soil Boring 2	Ap, 0-6	SL, G	VFR, NS, NP, NEXP	10YR 5/2	45+			S, 0.30	2"
		E, 6-24	SL, SBK	VFR, NS, NP, NEXP	2.5Y 6/4					
		Bt, 24-45+	SCL, SBK	FR, SS, SP, SEXP	10YR 6/6					

COMMENTS: _____

LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft ²)	SAPROLITE LTAR (gpd/ft ²)	LPP LTAR (gpd/ft ²)	MINERALOGY/ CONSISTENCE		STRUCTURE	
						MOIST	WET		
CC (Concave slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 - 0.6	MOIST	WET	SG (Single grain)	
CV (Convex Slope)		LS (Loamy sand)		0.5 - 0.7		Lo (Loose)	NS (Non-sticky)	M (Massive)	
D (Drainage way)	II	SL (Sandy loam)	0.6 - 0.8	0.4 - 0.6	0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)	
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)	
FS (Foot slope)	III	SiL (Silt loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	VS (Very sticky)	ABK (Angular blocky)	
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)	
L (Linear Slope)		CL (Clay loam)		None		0.15 - 0.3	EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)		
R (Ridge/summit)		Si (Silt)						VP (Very plastic)	
S (Shoulder slope)		SC (Sandy clay)					0.1 - 0.4		0.05 - 0.2
T (Terrace)	SiC (Silty clay)	EXP (Expansive)							
TS (Toe Slope)	C (Clay)								
		O (Organic)	None						

* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

**Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

HORIZON DEPTH In inches below natural soil surface

DEPTH OF FILL In inches from land surface

RESTRICTIVE HORIZON Thickness and depth from land surface

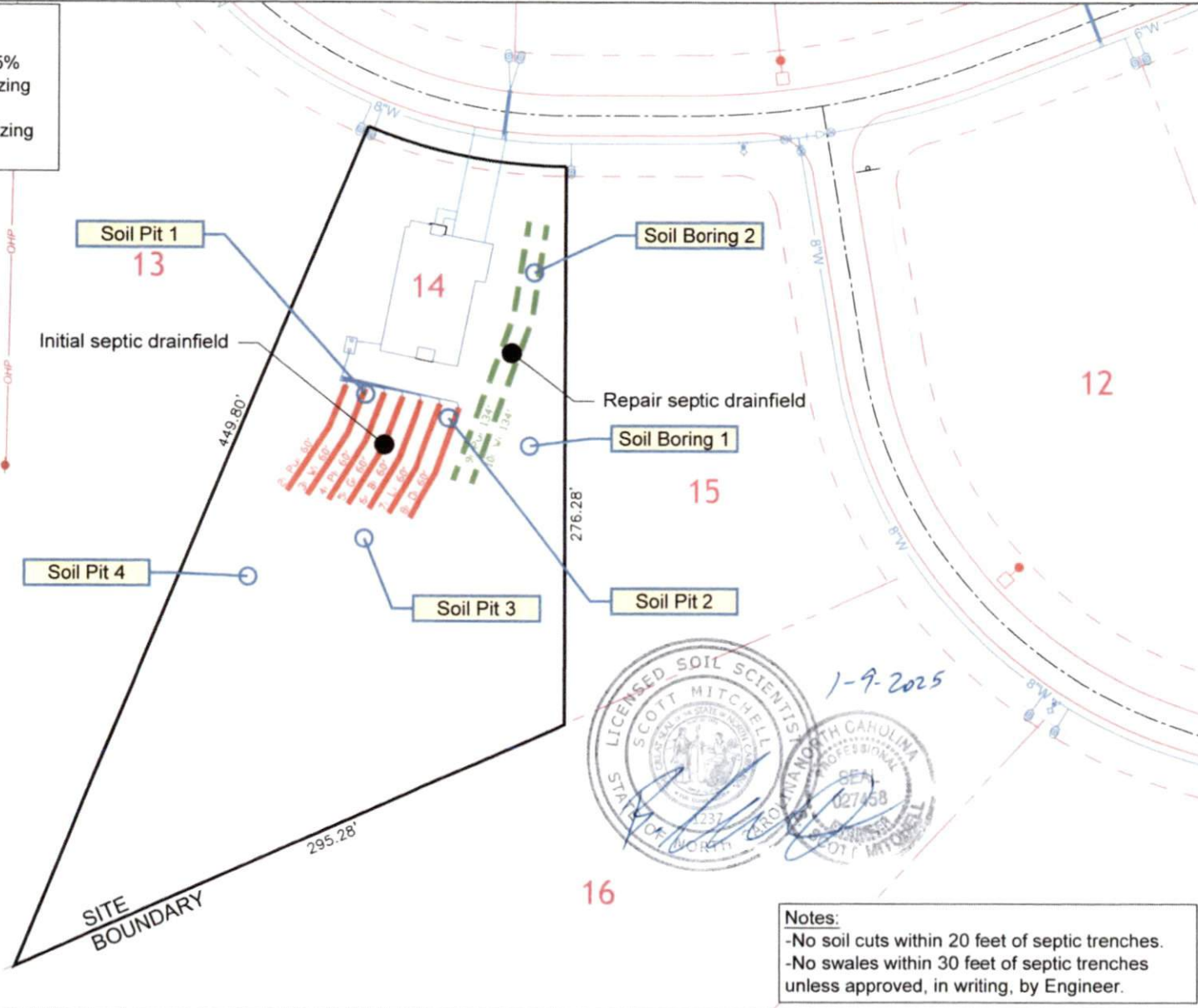
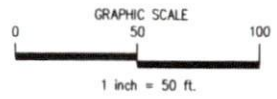
SAPROLITE S(suitable) or U(unsuitable); Evaluation of saprolite shall be by pits.

SOIL WETNESS CLASSIFICATION Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation

S (Suitable) or U (Unsuitable)

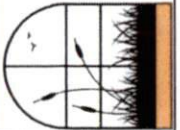
Show profile locations and other site features (dimensions, reference or benchmark, and North).

4-Bedroom
 LTAR: 0.3 gpd/ft²
 Initial: Gravity-to-Innovative 25%
 Reduction Status Product utilizing
 lines 2-8 (420')
 Repair: Gravity-to-PPBPS utilizing
 lines 1-5 (268')



Notes:
 -No soil cuts within 20 feet of septic trenches.
 -No swales within 30 feet of septic trenches
 unless approved, in writing, by Engineer.

REVISION NO.		DATE	
Original Submittal	Revision 1	January 8, 2025	
Revision 2	Revision 3		
Master Set			
PREPARED FOR		DATE	
LB Homes 501 Capital Center Drive Raleigh, NC 27612		January 8, 2025	
DESIGNER CONTACT		SCALE	
ADAM AYCOCK, D		ADAM AYCOCK, D	
PROJECT INFORMATION			
MITCHELL ENVIRONMENTAL, PA C-2917 1501 LAKESTONE VILLAGE LANE SUITE 205 FUQUAY VARINA, NC 27526			
SHEET NUMBER		Overall Septic	
1 of 5		Boone Truss Village Lot 14	





Permit/File #: _____

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

County: Harnett

Pre-Construction Conference Required: Yes No

PIN/Lot Identifier: 0610-50-2136.000

Issued To: LGI Homes NC LLC

Property Location: 128 Boone Docks Drive, Lillington, NC

AOWE/PE Plans/Evaluations Provided: Yes No If yes, name and license number of AOWE/PE: PE 27458

Facility Type: Single-Family Dwelling Unit

Number of bedrooms: 4 Number of Occupants: 8 or less Other: _____

New Expansion Repair System Relocation Change of Use

Basement? Yes No Basement Fixtures? Yes No

Crawl Space? Yes No Slab Foundation? Yes No

Type of Wastewater System* IIB (Initial) IIIE (Repair)

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Design Daily Flow: 480 GPD Wastewater Strength: Domestic High Strength Industrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? Yes No
(if yes, please provide engineering documentation)

Effluent Standard: DSE HSE NSF/ANSI 40 TS-I TS-II RCW

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

Installation Requirements/Conditions

Septic Tank Size: 1,000 gallons Total Trench/Bed Length: 420 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.30 gpd/ft² Usable Depth to LC (Initial)*: 31" *'Limiting condition*

Soil Cover: 6 inches Slope Corrected Maximum Trench/Bed Depth*: 17 inches ** Measured on the downhill side of the trench*

Pump Tank Size (if applicable): N/A gallons Requires more than 1 pump? Yes No

Pump Requirements: _____ ft. TDH vs. _____ GPM Grease Trap Size (if applicable): N/A 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 [.0204(g)]: Yes No Declaration of Restrictive Covenants: Yes No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: Yes No

Management Entity Required: Yes No Minimum O&M Requirements: _____

Permit conditions:
Trench walls shall be raked when any Group III or Group IV soils are present.
Photo documentation of trench sidewall raking is required, where Group III or Group IV soils are present.
All lot corners and boundaries shall be clearly marked by a licensed surveyor prior to system installation.
Septic system installation not allowed when soil moisture conditions are near saturation within initial or repair drainfield areas.
No garbage disposals / insinkerators allowed in the house. County shall provide system O&M guidance materials to Owner.

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: B. Scott Mitchell

AOWE/PE Signature: _____

Date: January 9, 2025

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

See attached site sketch

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

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

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

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

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

The following items are missing: _____

Copies of this were sent to the AOWE/PE and the Applicant 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) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

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

Construction Authorization Expiration Date: _____

See attached site sketch



Permit/File #: _____

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

I, _____ hereby attest that the information required to be included with this re-submittal
Authorized Onsite Wastewater Evaluator (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

Signature of Authorized On-Site Wastewater Evaluator *Date*

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

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

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

The following items are missing:

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

State Authorized Agent: _____ Date: _____

Complete

State Authorized Agent: _____ Date: _____



Permit/File #: _____

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

County: _____

PIN/Lot Identifier: _____

Issued To: _____

Additional Improvement Permit Conditions:

Additional Construction Authorization Conditions:

Mitchell Environmental, P.A.

I hereby authorize representatives of Mitchell Environmental, P.A., to provide subsurface wastewater evaluations and septic system designs on my behalf, for the issuance of an IP and CA, for the property identified below.

For Improvement Permit (IP) issuance:

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

For Construction Authorization (CA) issuance:

"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)."

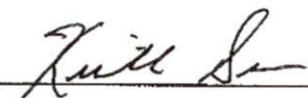
The LSS evaluation attached to this application was used to produce and design a subsurface wastewater septic system for permitting to obtain an IP and CA in accordance with G.S. 130A-335(a2), (a3), (a5), and (a6).

107/127/136/114 Camp Rock Rd.

Subject Property (Address, PIN, etc.): 128 Boone Docks Dr., Lillington NC 27546

Property Owner Name (Print): LGI Homes

Owner Representative (Print): Keith Sears

Owner Representative (Sign): 

Date: 12/26/24

Mitchell Environmental, P.A.

SEPTIC SYSTEM DESIGN

for

BOONE TRAIL VILLAGE SUBDIVISION- LOT 14

Lillington, Harnett County, North Carolina

Submitted to:

Harnett County Health Department
307 Cornelius Harnett Blvd.
Lillington, NC 27546

Prepared for:

LGI Homes
5511 Capital Center Drive
Suite 560
Raleigh, North Carolina 27612

Prepared by:

Scott Mitchell, PE, LSS
Adam Aycok, EI

DATE: January 8, 2025
PROJECT NO.: 1624



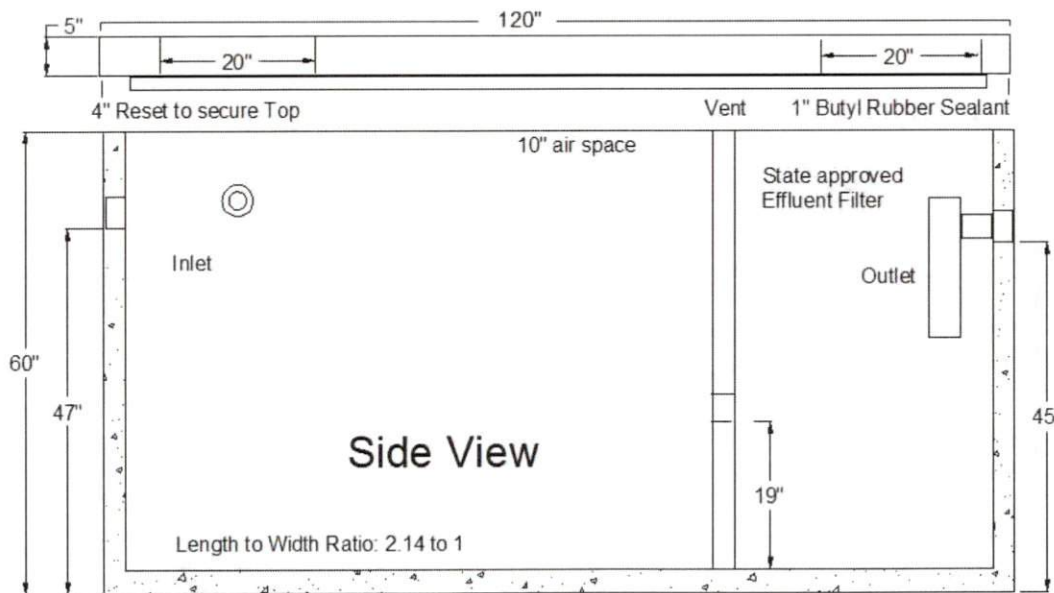
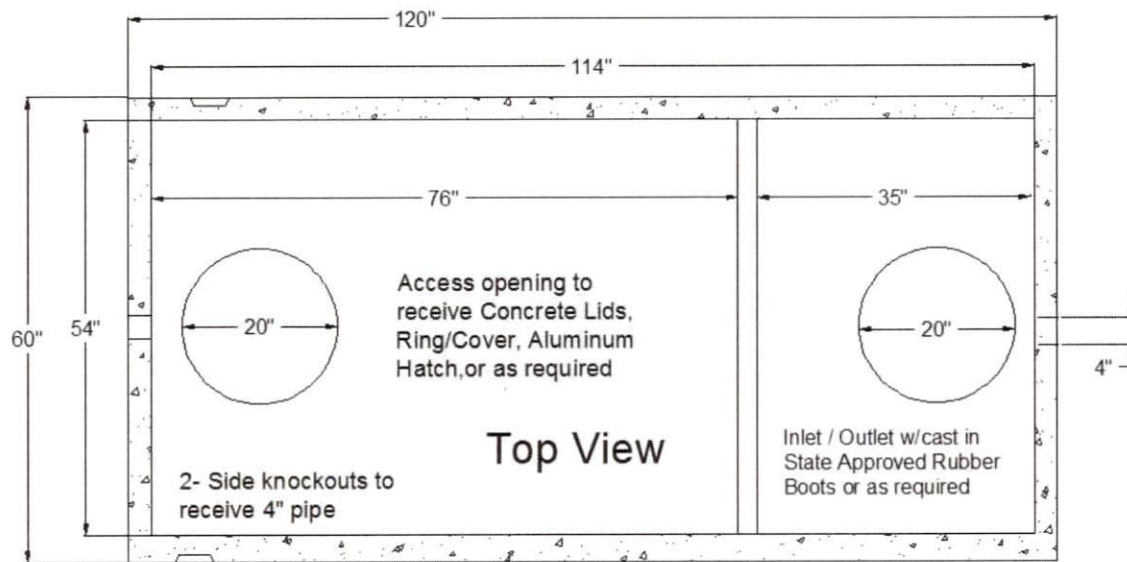


Harnett County GIS

PID: 130519 0103 19
PIN: 0610-50-2136.000
Account Number: 1500028388
Owner: LGI HOMES NC LLC
Mailing Address: 1450 LAKE ROBBINS DR STE 430 THE WOODLANDS, TX 77380-3294
Physical Address: 128 BOONE DOCKS DR LILLINGTON, NC 27546 ac
Description: LOT#14 BOON TRAIL VILLAGE PH1 MAP#2024-600
Surveyed/Deeded Acreage: 1.35
Calculated Acreage: 1.35
Deed Date: 1650949200000
Deed Book/Page: 4144 - 0878
Plat(Survey) Book/Page: 2024 - 600
Last Sale: 2022 - 4
Sale Price: \$2220000
Qualified Code: A
Vacant or Improved: V
Transfer of Split: T
Actual Year Built:
Heated Area : SqFt
Building Count : 0

Building Value: \$0
Parcel Outbuilding Value: \$0
Parcel Land Value: 0
Market Value: \$0
Deferred Value: \$0
Total Assessed Value: \$0
Zoning: RA-30 - 1.35 acres (100.0%)
Zoning Jurisdiction: Harnett County
Wetlands: No
FEMA Flood: Minimal Flood Risk
Within 1mi of Agriculture District: Yes
Elementary School: Boone Trail Elementary
Middle School: Western Harnett Middle
High School: Western Harnett High
Fire Department: Boone Trail
EMS Department: Medic 12, D12 EMS
Law Enforcement: Harnett County Sheriff
Voter Precinct: Boone Trail
County Commissioner : Duncan Edward Jagers
School Board Member: Duncan Jagers





STB - 345 - Top Seam

Approval Date: 12 - 09 - 99

Liquid Capacity 1007 Gallons

Non Traffic Rated

Reinforcing Schedule: # 3 Grade 60 Rebar

4500 PSI Concrete w/ State Approved Structural Fiber

Est. Weight: 8,200 lbs.

Manufactured By:

GARNERS
Septic Tanks, Inc.

Eddie Garner, President

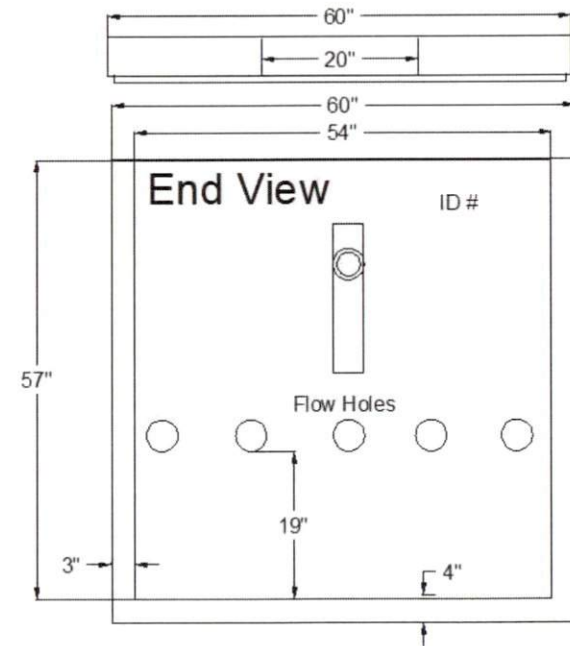
919-718-5181

121 Stanton Hill Road

Carthage, NC 28327

Fax 919-775-2229

Eddie@garnersseptic tanks.com



PL-68 Filter and Tee

PL-68 is much more than just an effluent filter. The housing can also be used as an inlet baffle (tee) or an outlet baffle. The housing is designed to accept Polylok's snap in gas deflector to deflect gas bubbles away from the tee and to keep the solids in the tank.

Features:

- Offers 68 linear feet of 1/16" filter slots, which significantly extends time between cleaning.
- Accepts 3/4" PVC handle.
- Locks in any 360° position when used with PL-68 Tee.
- PL-68 Housing can be used as an inlet or outlet tee.
- Gasket prevents bypass.

PL-68 Installation:

Ideal for residential waste flows up to 800 gallons per day (GPD). Easily installs in any new or existing 4" outlet tee.

1. Locate the outlet of the septic tank.
2. Remove the tank cover and pump tank if necessary.
3. Glue the filter housing to the outlet pipe, or use a Polylok Extend & Lok if not enough pipe exists.
4. Insert the PL-68 filter into tee.
5. Replace and secure the septic tank cover.

PL-68 Maintenance:

The PL-68 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

1. Do not use plumbing when filter is removed.
2. Pull PL-68 out of the tee.
3. Hose off filter over the septic tank. Make sure all solids fall back into septic tank.
4. Insert filter back into tee/housing.

Related Products:

PL-68 Filter Concrete Baffle
 Extend & Lok™



Extend & Lok™
 Easily installs
 into existing tanks.



Spacer Bushing
 4" SCHD 40
 to SDR 35



Spacer Bushing
 4" SCHD 40
 to 110mm Pipe



2" Extender



EZflow by Infiltrator is an environmentally friendly replacement to traditional stone and pipe drainfields using an engineered geosynthetic aggregate modular design. The EZflow system is designed to improve infiltration performance by eliminating the fines associated with crushed stone, and reducing compaction and embedment associated with stone. Preassembled units include a 3" or 4" perforated pipe surrounded by aggregate and held in place with a durable high-strength netting. This product comes in easy-to-contour 5' and 10' lengths and in diameters of 7, 8, 9, 10, 12, 13, or 14 inches.

Lightweight expanded polystyrene

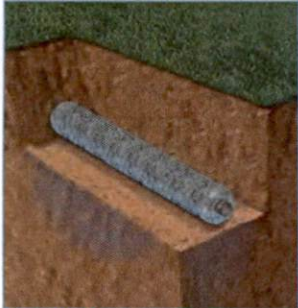
construction offers structural integrity and resists compaction. Engineered flow-channels increase void space creating improved water flow and greater storage.



Compared with stone and pipe, benefits include:

- Always clean and free of fines
- Bundles are quick to install, saving costs on heavy machinery and labor
- Modular construction allows configurations to match trench dimensions for most system shapes and sizes
- Engineered for optimal storage and absorption efficiencies
- Ability to contour along sloped sites and around trees or landscaping
- Lightweight system is perfect for repairs and tight job sites
- Easily hand-carried into position reducing time and labor
- 5' or 10' lengths with simple snap, internal couplers
- Easier cleanup at the job site with the elimination of stone
- Manufactured from recycled materials rather than a mined natural resource
- A wide variety of diameters and configurations to meet any installation professional's needs
- Approved in many jurisdictions with an increased efficiency rating, reducing drainfield size
- Backed by the leader in the onsite wastewater industry

Bundle System Configurations: Available in 7", 8", 9", 10", 12", 13" and 14" diameter bundles.



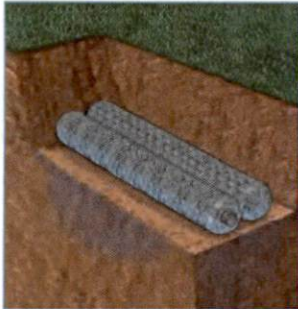
Single Bundle

0701P-GEO	1201P-GEO
0801P-GEO	1401P-GEO
1201P-GEO	1801P-GEO
1001P-GEO	



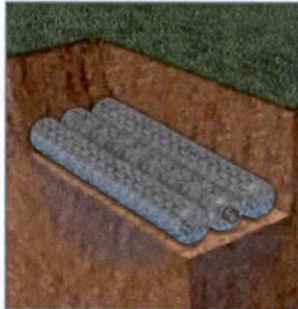
Triangular Bundle

1003T-GEO	1303T-GEO
1203T-GEO	1403T-GEO

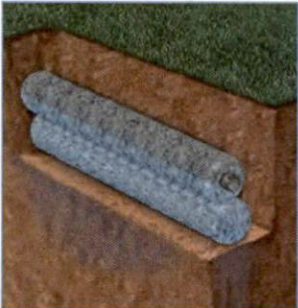


Horizontal Bundles

0705H-GEO	1303H-GEO
0904H-GEO	1202H-GEO
1002H-GEO	1203H-GEO



1206H-GEO	1402H-GEO
1303H-GEO	1802H-GEO



Vertical Bundles

1002V-GEO	1006V-GEO	1203V-GEO	1206V-GEO
1003V-GEO	1202V-GEO	1204V-GEO	1402V-GEO
1004V-GEO			

Notes:

1. Other systems include 10" and 12" bed systems. Bed size will dictate the number of bundles.
2. System dimensions are dependent upon bundle diameter and configuration.
3. LLP is for "Low Pressure Pipe" in which a pressurized distribution pipe is field installed within the corrugated pipe.
4. Internal pipe and couplings meet the requirements of ASTM F405.
5. Bundles are also available without geotextile between the netting and synthetic aggregate.

INFILTRATOR WATER TECHNOLOGIES STANDARD LIMITED WARRANTY

(a) The structural integrity of each EZflow by Infiltrator expanded polystyrene drainfield system and other accessories manufactured by EZflow by Infiltrator ("Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by EZflow by Infiltrator to be covered by this Limited Warranty. EZflow by Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

(c) This Limited Warranty shall be void if any part of the EZflow system is manufactured by anyone other than EZflow by Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder.

The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's Corporate Headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.



4 Business Park Road
P.O. Box 768
Old Saybrook, CT 06475
860-577-7000 · Fax 860-577-7001
1-800-221-4436
www.infiltratorwater.com

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies. PolyLok is a trademark of PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.

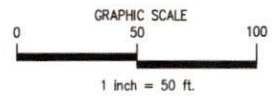
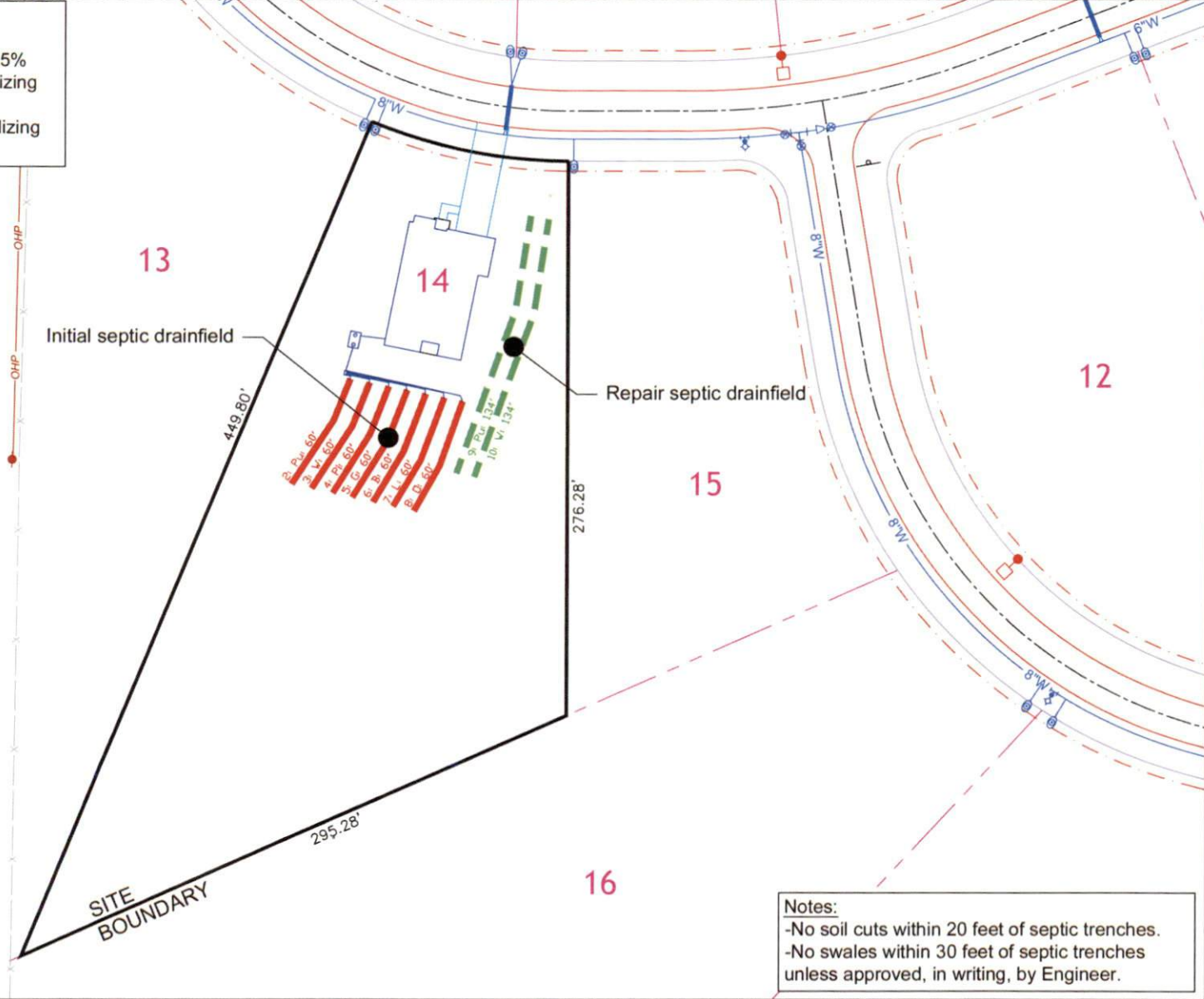
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EZ01 0315AG

Contact Infiltrator Water Technologies' Technical Services Department for assistance at 1-800-221-4436

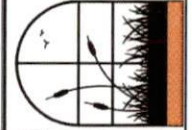
4-Bedroom
 LTAR: 0.3 gpd/ft²
 Initial: Gravity-to-Innovative 25%
 Reduction Status Product utilizing
 lines 2-8 (420')
 Repair: Gravity-to-PPBPS utilizing
 lines 1-5 (268')

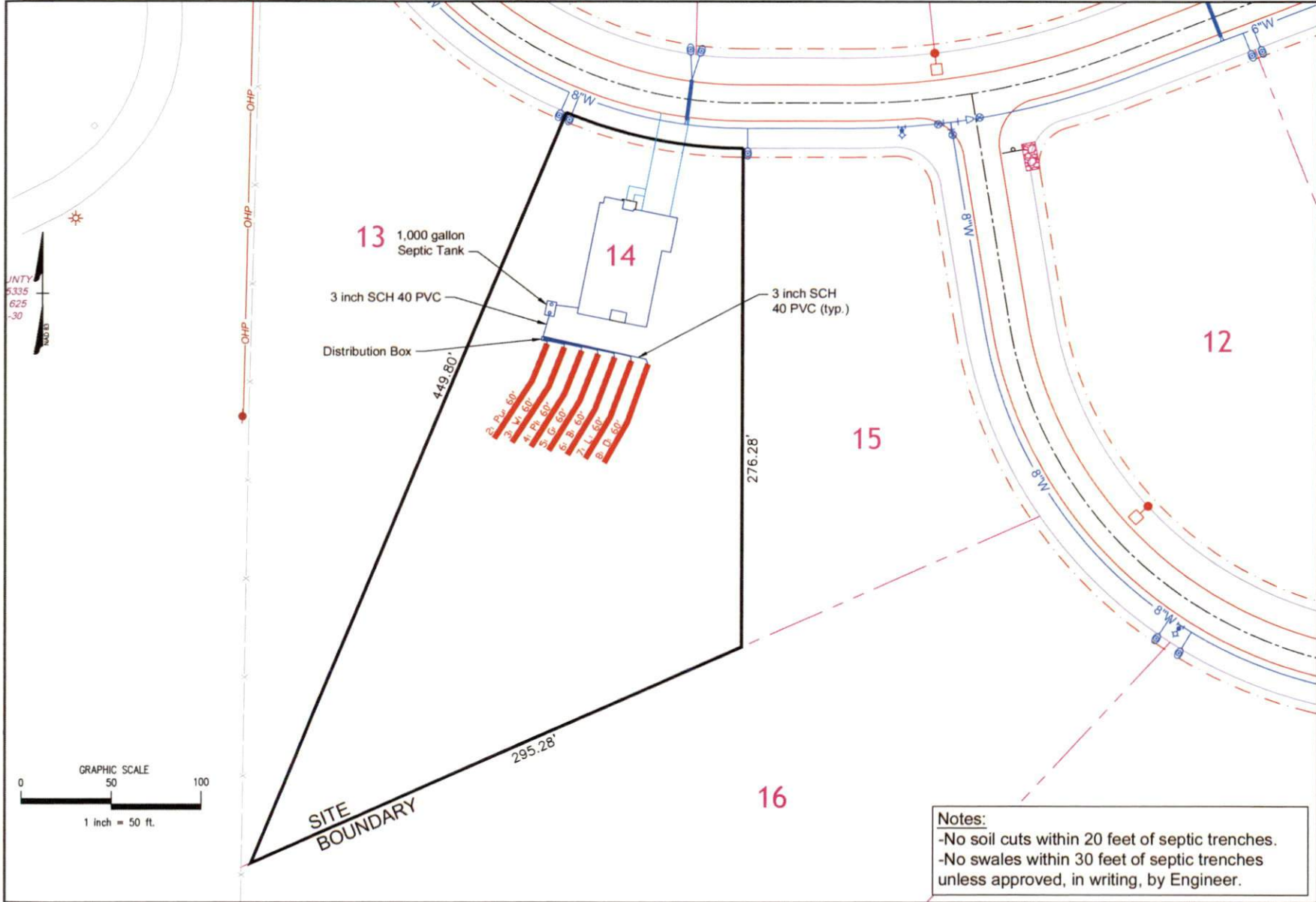
JNTY
 6335
 625
 -30



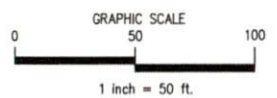
Notes:
 -No soil cuts within 20 feet of septic trenches.
 -No swales within 30 feet of septic trenches
 unless approved, in writing, by Engineer.

REVISION NO. Original Submittal Revision 1 Revision 2 Revision 3 Master Set		DATE January 6, 2025	SHEET NUMBER 1 of 5
PREPARED FOR : US Home 1501 Lakedale Center Drive Suite 500 Raleigh, NC 27612		DATE : January 6, 2025 DESIGNER CONTACT: ADAM AYCOCK, B	Boone Tract Village Lot 14 Oversett Septic
PROJECT: 1501 LAKESTONE VILLAGE LANE SUITE 205 FUQUAY VARINA, NC 27526		DRAWN BY: ADAM AYCOCK, B	
DESIGNER: MITCHELL ENVIRONMENTAL, PA C-2911			





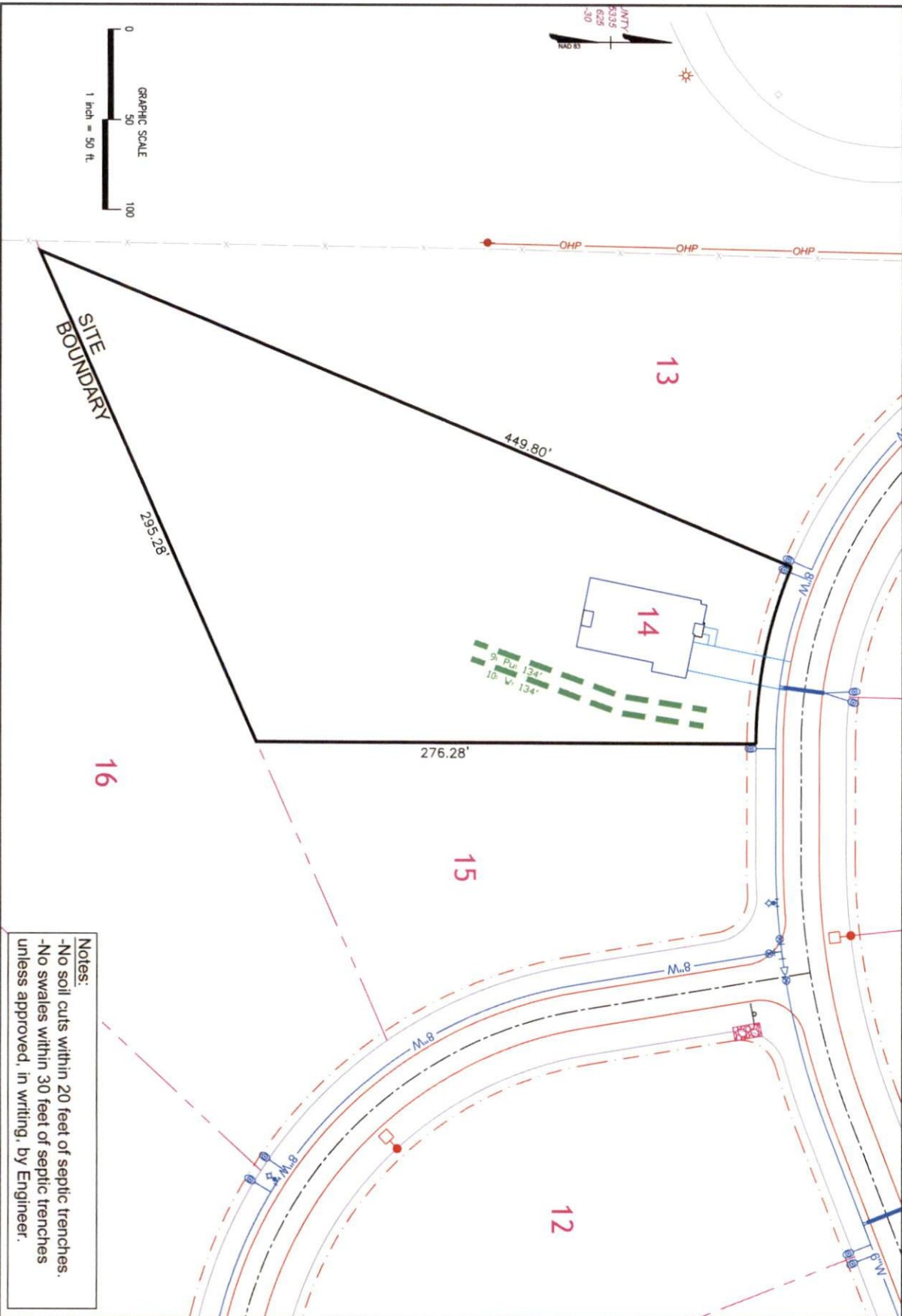
JUNTY
5335
625
-30



Notes:
 -No soil cuts within 20 feet of septic trenches.
 -No swales within 30 feet of septic trenches unless approved, in writing, by Engineer.

MITCHELL ENVIRONMENTAL, PA C-2911 1501 LAKESTONE VILLAGE LANE SUITE 205 FUYUAY VARINA, NC 27526		SHEET NUMBER 2 of 5 Boone Tract Village Lot 14 Initial Nitrofixation Field
LG Number PREPARED FOR : 5011 Coastal Center Drive Suite 300 Raleigh, NC 27612	REVISION NO. Original Submittal Revision 1 Revision 2 Revision 3 Master Set	DATE January 8, 2025
DATE : January 8, 2025 DESIGNER CONTACT: ADAM AYCOCK, B DRAWN BY: ADAM AYCOCK, E	DATE January 8, 2025	DATE January 8, 2025





Notes:
 -No soil cuts within 20 feet of septic trenches.
 -No swales within 30 feet of septic trenches unless approved, in writing, by Engineer.

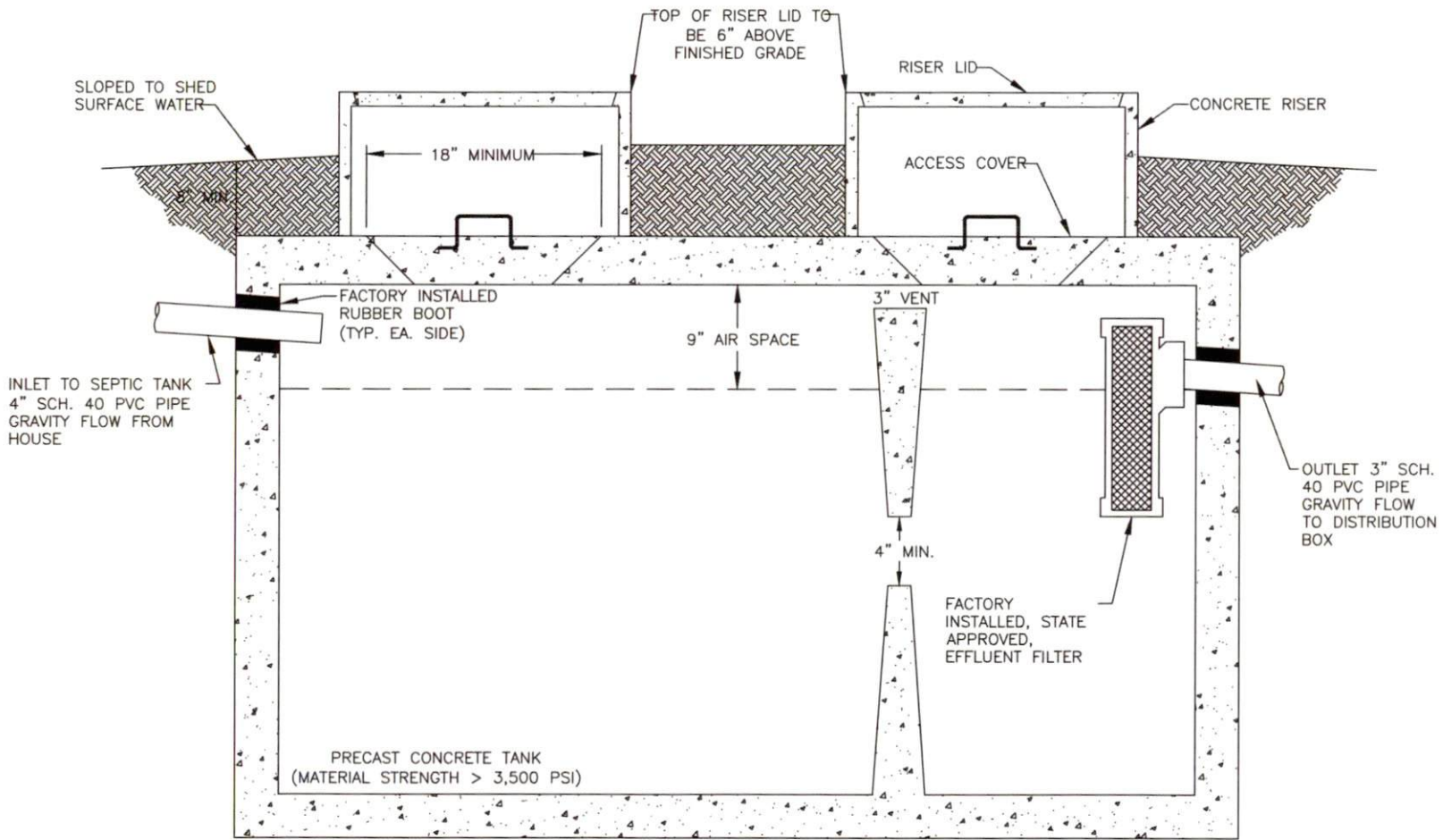


MITCHELL ENVIRONMENTAL, PA
 C-2917
 1501 LAKESTONE VILLAGE LANE
 SUITE 205
 FUQUAY VARINA, NC 27526

PREPARED FOR : LQ Homes
 5511 Capital Center Drive
 Suite 560
 Raleigh, NC 27612
 DATE : January 8, 2025
 DESIGNER CONTACT:
 ADAM AYCOCK, E
 DRAWN BY:
 ADAM AYCOCK, E

REVISION NO.	DATE
Original Submittal	January 8, 2025
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

SHEET NUMBER
 3 of 5
 Boone Trail Village
 Lot 14
 Repair Nitrification Field



1,000 GALLON SEPTIC TANK

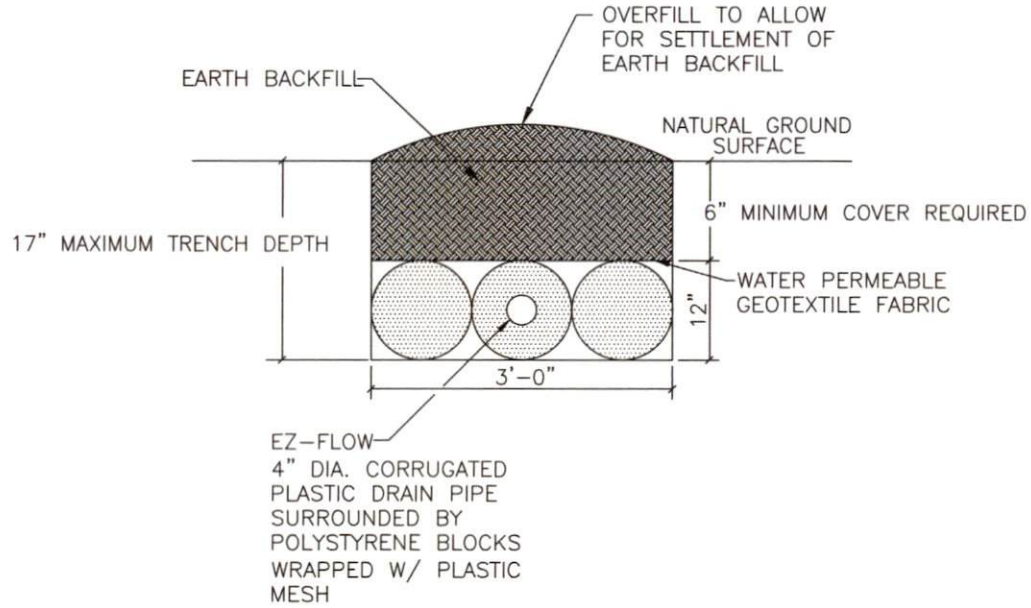
SEPTIC TANK DETAIL

N.T.S.

SHEET NUMBER		4 of 5	
Boone Trail Village Lot 14 Septic Tank Detail			
DATE	January 8, 2025	REVISION NO.	Original Submitted
		Revision 1	
		Revision 2	
		Revision 3	
		Master Set	
PREPARED FOR:	LR Homes Center Drive Suite 500 Raleigh, NC 27612	DATE:	January 8, 2025
DESIGNER CONTACT:	ADAM AYCOCK, B	DRAWN BY:	ADAM AYCOCK, B
MITCHELL ENVIRONMENTAL, PA C-2911 1501 LAKESTONE VILLAGE LANE SUITE 205 FUQUAY VARINA, NC 27526			


NITRIFICATION TRENCH DETAIL FOR EZ-FLOW

N.T.S.



NOTES:

1. PERFORATED CORRUGATED PLASTIC PIPE SHALL MEET REQUIREMENTS OF ASTM D 2729.
2. PIPE SHALL BE LEVEL.
3. ENDCAP SHALL BE PROVIDED AT END OF ALL CORRUGATED PLASTIC PIPE LINES.
4. TRENCH BOTTOM SHALL BE LEVEL.
5. HAND RAKE TRENCH WALLS PRIOR TO PLACEMENT OF TRENCH MEDIA IF SOIL SMEARING IS PRESENT.

	MITCHELL ENVIRONMENTAL, PA C-2917		1501 LAKESTONE VILLAGE LANE SUITE 205 FUYQUAY VARINA, NC 27526	SHEET NUMBER 5 of 5
	PREPARED FOR : LG Homes Center Drive Suite 540 Raleigh, NC 27612		DESIGNER CONTACT: ADAM AYCOCK, B	Boone Forest Village Lot 14 French Detail
DATE : January 8, 2025		DRAWN BY: ADAM AYCOCK, B		REVISION NO. Original Submittal Revision 1 Revision 2 Revision 3 Master Set
DATE : January 8, 2025		DATE : January 8, 2025		DATE : January 8, 2025