ICHD - ENVIRONMENTAL HEALTH DIVISION

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

PERMIT # AP320857

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

PIN # 3793 --54 --4934 V

APPLICANT/OWNER: Cornerstone III Properties | APPLICANT ADDRESS: 259 Textile Way Ft Mill SC 29715

SITE ADDRESS: 109 Top Flite Drive Statesville NC 28677 V | PHONE: 704-301-3229 | ALT. PHONE —

SITE DIRECTIONS: Mocksville Rd (Rt) Tilley R (Rt) in Top Flite | SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: Augusta Greens V | SECTION: - | LOT # 20 V | LOT AREA: .53AC | DESIGN FLOW: 480 | L.T.A.R.: .30

Septic Tank	1000	(gal)	STB 760	Date 11/1/21	☒ New System	☐ Repair	☐ Expansion	System Type: I II III IV V VI	☒ Residence	No. Bedrooms	4	Water Supply
Pump Tank		(gal)	PT	Date	System Description:	Grnd -25% Reduction V			☐ Business	No. Persons	8	☐ Private
Pump Make		Model		Serial #	Repair System Description:	PPBPS - 50% Reduction			☐ Other	No. Employees		☒ Public
# Nitrification Fields	1	# Lines	5	Linear Ft: 400	Maintenance Agreement Required:	☐ YES	☒ NO		☐ Slab	☒ Crawl Space		☐ Community
Trench Width	36	Trench Bottom Depth (low side)	24 in max		Gravel Depth	☒ GRAVITY	☐ PRESSURE		☐ Basement w/ plumbing			☐ Basement w/o plumbing

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11 . (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Piedmont Environmental Associates PA

LSS # 1229 Dated Jul, 29, 2021

AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

INSTALLED AS SHOWN

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: Stan Cornett | Date: 10/5/21 | Installed by: Lentz Westemeier

IMPROVEMENT PERMIT by: Benjamin M Betts | Date: 9/13/2021 | OPERATION PERMIT by: Burgin C. White | Date: 2-22-2022

AUTHORIZATION TO CONSTRUCT by: Benjamin M Betts | Date: 9/13/2021 | Existing System Inspected by: | Date:

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

Item	Date	Initials
Drain Lines Checked		
Tanks Checked		
Pressure Manifold or Valve Box Checked		
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Needed? Y / N		
Comments:		

Repairs Only	
	State Code
Failing System Code	
Type of Distribution	G or P
Type of Failure/Malfunction	
Primary Cause of Failure/Malfunction	
Age of System? _____	
Initial or Repair? _____	

PIEDMONT ENVIRONMENTAL ASSOCIATES, P.A.

Lot 20 Layout Map

216 S. Swing Rd. Suite 1
Greensboro, NC 27409
piedmontsoil.com

Job# 2410
Date: 7/29/2021
Client: Buller River Development Partners
County: Iredell

Initial

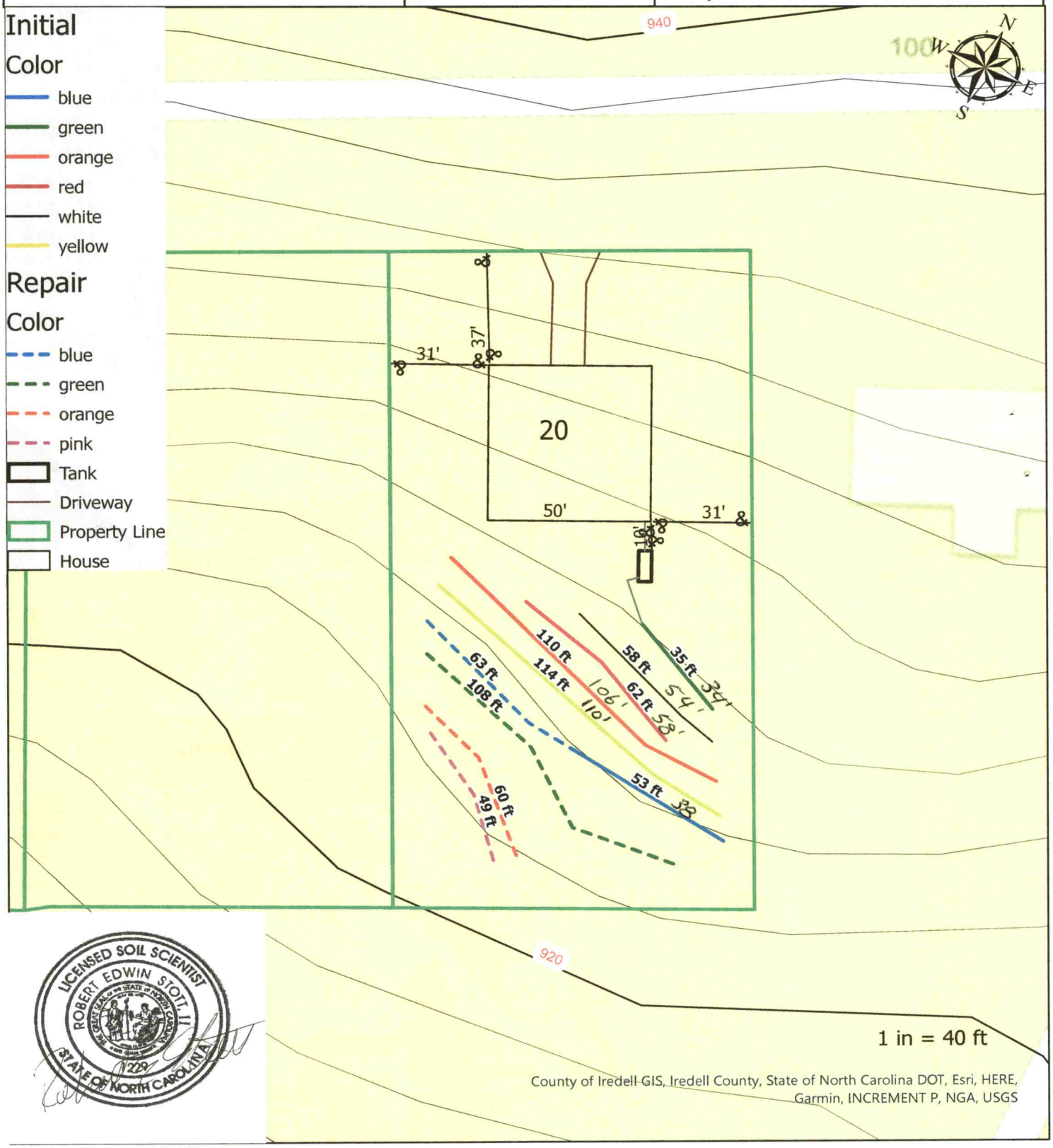
Color

- blue
- green
- orange
- red
- white
- yellow

Repair

Color

- blue
- green
- orange
- pink
- Tank
- Driveway
- Property Line
- House



LICENSED SOIL SCIENTIST
ROBERT EDWIN STOTT, II
229
STATE OF NORTH CAROLINA

1 in = 40 ft

County of Iredell GIS, Iredell County, State of North Carolina DOT, Esri, HERE, Garmin, INCREMENT P, NGA, USGS

0 10 20 40 60 80
Feet

Top Flite Dr., Iredell County, NC - Lot 20

Piedmont Environmental Associates Job # 2410

Layout for a 4-BR home

LINE #	FLAG COLOR	FLAGGED LINE LENGTH (ft)	DESIGN LINE LENGTH (ft)
TBM INSTR. 1			
1	**green**	**35**	**34**
2	**white**	**58**	**54**
3	**red**	**62**	**58**
4	**orange**	**110**	**110**
5	**yellow**	**114**	**114**
6	**blue**	**53**	**50**
7	blue	63	63
8	green	108	108
9	orange	60	60
10	pink	49	49
	Total:	**712**	**667**

	DESIGN LINE LENGTH (ft)	SOIL LTAR GPD/FT^2	SYSTEM TYPE	DESIGN LTAR GPD/FT^2	DISTRIBUTION MEDIA	DISTRIBUTION METHOD	DESIGN FLOW (GPD)
System	**400**	**0.3**	**Accepted**	**0.3**	Q4 Chamber	**Grav. to serial**	**480**
Repair	267	0.3	**Accepted**	0.3	PPBPS	**Grav. to serial**	480

Notes: **All measures in feet.
**Nitrification lines are demonstrated on contour via colored pin flags.

July 29, 2021 Job#2410

SL 114 - SITE/SYSTEM SUMMARY AND SPECIFICATIONS

"The LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11.(c)."

☒ **IMPROVEMENT PERMIT** ☒ **CONSTRUCTION AUTHORIZATION**

Applicant: Stan Pressley **Lot Number:** 20 **Subdivsion:** Augusta Greens
County: Iredell **Pin or Tax Map Number:** 3793544934
Site Address: 109 Top Flite Dr. **Directions:**

Number Bedrooms (residence): **4** **Daily Design Flow:** **480**

INITIAL SYSTEM: **25% RED.** **LTAR: .3** **LINEAR FOOTAGE:** **400'**
TRENCH DEPTH: **MIN** 18" **MAX** 24"

REPAIR SYSTEM: 50% RED **LTAR:** .3 **LINEAR FOOTAGE:** 267'
TRENCH DEPTH: **MIN** 18" **MAX** 23"

SEPTIC TANK: 1000 gal **PUMP TANK:** N/A
DISTRIBUTION: D-box or serial distribution at distal ends **LAST 2 INCHES OF STEPDOWNS MUST BE DUG BY HAND. USE QUICK 4 INFILTRATOR PRODUCT.**

Square Footage: 8,600 **Distance to property line:** 10 ft
Distance to house: 5 ft min **Distance to wells:** 50 ft min
Permit Conditions: Install on contour. Do not install during wet soil conditions. Do not clear septic area in wet conditions, keep disturbance to minimum when clearing septic area. Variation from design must be approved by LSS and Iredell County. Stepdowns must be correct height and on distal ends
Disclaimer: No warranty written or implied on any septic system. SEE REPORT.

PIEDMONT
ENVIRONMENTAL
ASSOCIATES, P.A.

July 29, 2021

Project #2410

Soil Report

SL 114

Client:

Buller River Development Partners

Attn: Stan Pressley

Site:

Lot 20, 109 Top Flite Dr., 3793544934

Iredell County, NC

Prepared by:

R. Edwin Stott

NC Licensed Soil Scientist #1229

216 S. Swing Rd, Suite 1, Greensboro, NC 27409

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SL 114 Soils Report	1-3
Setbacks	4
Landowner/LSS Statement	5
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Soil Profile Descriptions	7
System Layout Diagram	8
System Layout Specifications	9
Site/System Summary	10
COI	11

July 29, 2021 Project # 2410

Buller River Development Partners
Attn: Mr. Stan Pressley
259 Textile Way
Suite 102
Fort Mill, SC 29715

RE: SL 114 Soil Report, 109 Top Flite Dr., Iredell County, NC

Dear Mr. Pressley,

This report details the findings of a detailed site and soil evaluation performed on the property described above. The evaluation was conducted at the clients request in order to determine the site's suitability for the installation of sub-surface wastewater disposal systems to serve domestic strength wastewater for a four-bedroom single family residence using conventional or accepted type wastewater disposal systems.

The evaluation was conducted during moist soil conditions with the use of hand auger. Characteristics that affect the suitability of sub-surface systems include soil depth to expansive clay, seasonal high-water table, rock, and unusable saprolite. Topography and slope also affect the suitability of an area for septic systems. The evaluation of these components was conducted on the site in accordance with 15A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems". This report is intended to fulfill the requirements for a permitting process described in S.L. 2018-114 section 11(c). Criteria for this application process are given below:

§ 130A 335. Wastewater collection, treatment and disposal; rules
(a1) Any proposed site for a residence, place of business, or a place of public assembly located in an area that is not served by an approved wastewater system for which a new wastewater system is proposed or repair is necessary for compliance may be evaluated for soil conditions and site features by a person licensed pursuant to Chapter 89F of the General Statutes as a licensed soil scientist. For purposes of this subsection, "site features" include topography and landscape position; soil characteristics (morphology); soil wetness; soil depth; restrictive horizons; available space; and other applicable factors that involve accepted public health principles. A person licensed pursuant to Chapter 89E of the General Statutes as a licensed geologist may evaluate the proposed site or repair area, as applicable, for geologic and hydrogeologic conditions.
(a2) Evaluations conducted by a licensed soil scientist or a licensed geologist pursuant to subsection (a1) of this section to produce design and construction features for a new proposed wastewater system or a proposed repair project for an existing wastewater system, including the addressing of any special hydrologic conditions that may be required under the applicable rules for an authorization to construct or for permitting, shall be approved by the applicable permitting

authorities under G.S. 130A 336 and G.S. 130A 336.1, provided both of the following conditions are met:

(1) The evaluation of soil conditions, site features, or geologic and hydrogeologic conditions satisfies all requirements of this Article. The evaluation shall not cover areas outside the scope of the applicable license.

(2) The licensed soil scientist or licensed geologist conducting the evaluation maintains an errors and omissions liability insurance policy issued by an insurer licensed under Chapter 58 of the General Statutes in an amount commensurate with the risk.

Findings

Soils were found to be provisionally suitable with a recommended LTAR of .3 gpd/ft^2. A layout was performed on site and yielded enough line for a four-bedroom chamber type wastewater system. This system would need a maximum trench depth of 24 inches. Adequate space exists for a panel type repair system. Installation must maintain a proper setback of 50 feet from any well. Please note that mechanical grading or traffic over the drain field area is strictly prohibited. Traffic over the drain field area could render the site unsuitable. Take every possible precaution to protect and preserve the wastewater disposal area.

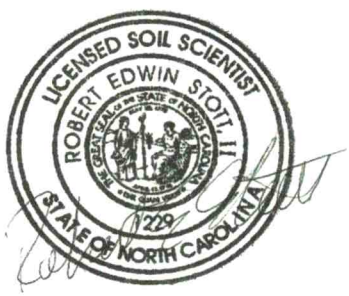
Design flow with residential systems utilizes the number of bedrooms and assumes no more than two residents per bedroom at 60 gallons per resident or 120 gallons per bedroom. This is how the design flow of 480 gallons per day is calculated. The wastewater system is designed to handle a *maximum* flow of 480 gallons per day. This flow should not be maintained for any sustained length of time or oversaturation can occur in the trenches. An average daily water usage of 50% is recommended for peak performance. **No garbage disposals should be added to the wastewater stream.** Water softener waste should not be added to the wastewater stream. Fats, oils and greases or FOG should not be added to the wastewater stream and can cause premature failure. Dispose of fats, oils, greases and garbage properly in household waste. There should be no traffic over the wastewater system area. Piedmont Environmental recommends a preconstruction conference prior to any installation to ensure that the system is placed in the correct area once the site is cleared of vegetation. Please note that mechanical clearing that is done in wet conditions or done by someone not following best management practices can render an otherwise usable site unsuitable. Piedmont Environmental Associates, PA highly recommends using a reputable septic system installer that is licensed in North Carolina to perform or oversee any clearing.

This report discusses the general location of potentially usable soils for on-site wastewater disposal and the soil and site limitations on the property that exists at the time of the evaluation. Piedmont Environmental Associates, PA ("Piedmont") provides professional consulting specializing in the practice of soil science and wastewater management. Piedmont is therefore hired for its professional opinion regarding these matters. This report is being prepared as part of a packet to obtain an improvement permit under SL114. Piedmont Environmental Associates provides no warranty either written or implied regarding the lifespan of any type of septic system. Piedmont Environmental Associates utilizes accepted soil science practices and assigns LTAR's and proposes trench depths based on field observation, law, rule, published data and accepted practice of the profession. Piedmont Environmental Associates however cannot guarantee the life

span of any type of septic system component, trench media, pretreatment device, distribution device, distribution method, or installation method as there are simply too many variables that are not within the control of Piedmont Environmental Associates.

If you have any further questions, please feel free to call. Thank you for the opportunity to serve.

Sincerely,



R. Edwin Stott, REHS, MSEH
NC Licensed Soil Scientist
Piedmont Environmental Associates

"The LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11.(c)."

15A NCAC 18A .1950 LOCATION OF SANITARY SEWAGE SYSTEMS

(a) Every sanitary sewage treatment and disposal system shall be located at least the minimum horizontal distance from the following:

(1) Any private water supply source, including any well or spring 100 feet;
(2) Any public water supply source 100 feet;
(3) Streams classified as WS-I 100 feet;
(4) Waters classified as S.A. 100 feet, from mean high water mark;
(5) Other coastal waters 50 feet, from mean high water mark;
(6) Any other stream, canal, marsh, or other surface waters 50 feet;
(7) Any Class I or Class II reservoir 100 feet, from normal pool elevation;
(8) Any permanent storm water retention pond 50 feet, from flood pool elevation;
(9) Any other lake or pond 50 feet, from normal pool elevation;
(10) Any building foundation 5 feet;
(11) Any basement 15 feet;
(12) Any property line 10 feet;
(13) Top of slope of embankments or cuts of 2 feet or more vertical height 15 feet;
(14) Any water line 10 feet;
(15) Drainage Systems:
    (A) Interceptor drains, foundation drains, and storm water diversions
        (i) upslope 10 feet,
        (ii) sideslope 15 feet, and
        (iii) downslope 25 feet;
    (B) Groundwater lowering ditches and devices 25 feet;
(16) Any swimming pool 15 feet;
(17) Any other nitrification field (except repair area) 20 feet;

(b) Ground absorption sewage treatment and disposal systems may be located closer than 100 feet from a private water supply, except springs and uncased wells located downslope and used as a source of drinking water, for repairs, space limitations, and other site-planning considerations but shall be located the maximum feasible distance and in no case less than 50 feet.

(c) Nitrification fields and repair areas shall not be located under paved areas or areas subject to vehicular traffic. If effluent is to be conveyed under areas subject to vehicular traffic, ductile iron or its equivalent pipe shall be used. However, pipe specified in Rule .1955 (e) may be used if a minimum of 30 inches of compacted cover is provided over the pipe.

(d) In addition to the requirements of Paragraph (a) of this Rule, sites to be used for subsurface disposal for design units with flows over 3,000 gallons per day, will require more stringent setback requirements.

PIEDMONT
ENVIRONMENTAL
ASSOCIATES, P.A.

July 29, 2021 Project # 2410

Iredell County Department of Public Health
Attn: Director or County Manager
318 Turnersburg Highway, Statesville, NC 28625

To whom it may concern,

In accordance with Regulatory Reform Act of 2018; Session Law 2018-114 Sections 9 through 12, this statement is submitted respectfully to satisfy signed and dated statement requirement from the property owner or owner's legal representative:

"The LSS Evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with SL 2018-114 Section 11. (c)."

Sincerely,

Mr. Stan Pressley
Buller River Development Partners
Cornerstone III

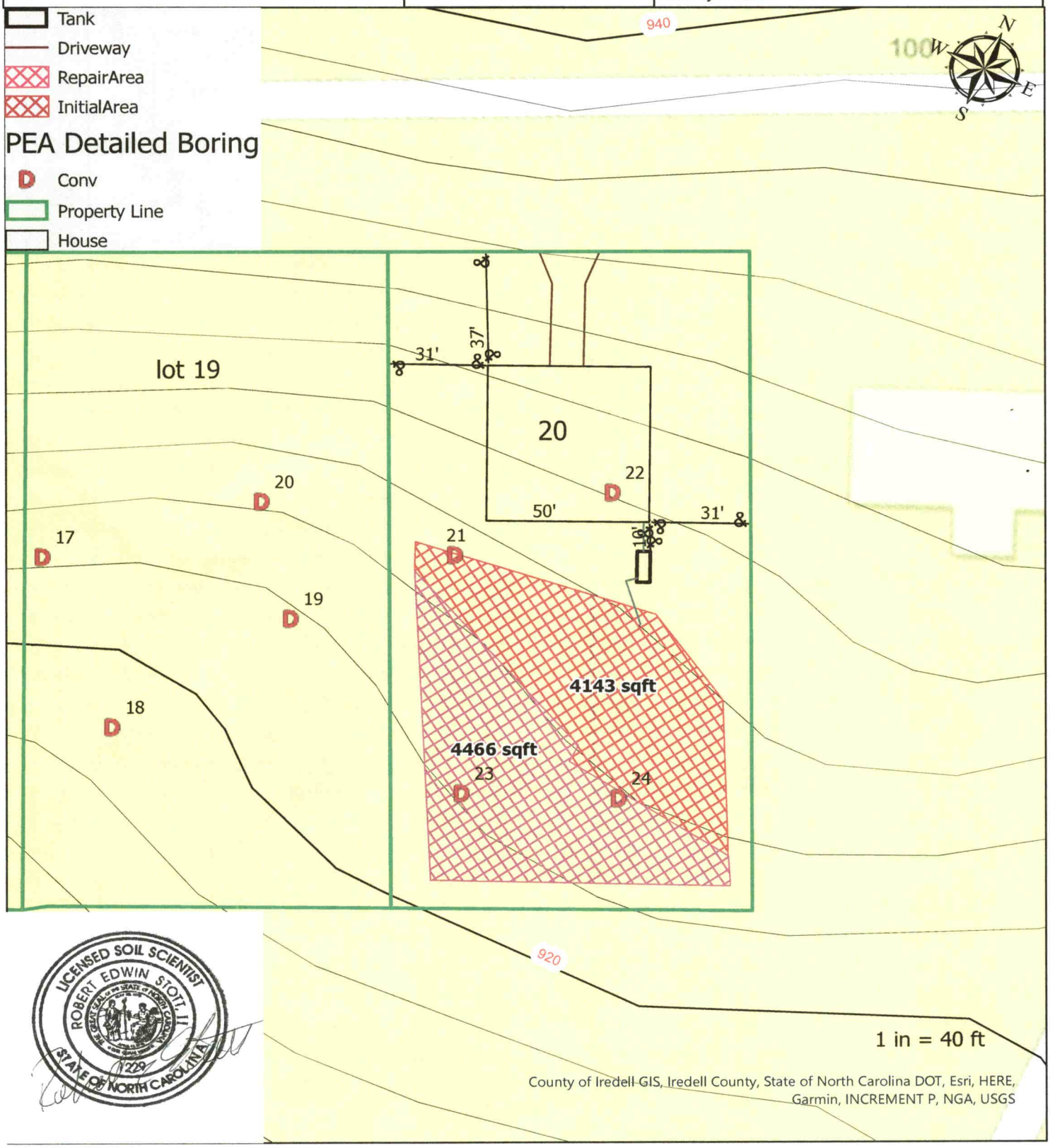
216 S. Swing Rd., Suite 1 Greensboro, NC 27409 (336) 344-4008

PIEDMONT ENVIRONMENTAL ASSOCIATES, P.A.

Lot 20 Soil Map

216 S. Swing Rd. Suite 1
Greensboro, NC 27409
piedmontsoil.com

Job# 2410
Date: 7/29/2021
Client: Buller River Development Partners
County: Iredell



LICENSED SOIL SCIENTIST
ROBERT EDWIN STOTT, II
1229
STATE OF NORTH CAROLINA

Client: Buller River Development
Lot Number: Lot 20
Parcel#: 3793449682
DATE: 7/29/2021
LSS: Edwin Stott
Eval Method: Auger
Facility/Flow: 4 BR/480 GPD

Site Classification: S
Initial System: Chamber
Initial System LTAR: 0.3
Repair System: Panel
Repair System LTAR: 0.3
Others Present: -
Water Supply: Public

PIEDMONT ENVIRONMENTAL ASSOCIATES, P.A.

Number	UsableDep	LTAR	Boring Type	Horizon1	Horizon2	Horizon3	Horizon4	Landscape	Slope	Comments
21	36	0.3	Conv	a 0-10 l	Bt 10-36 c,f,s,sp,bcky,se	BC 30-36 cl,fr,ss,sp,bcky,se		r	5	
22	36	0.3	Conv	A 0-8 l	Bt 8-34 c,f,s,sp,bcky,se	BC 30-36 cl,fr,ss,sp,bcky,se		r	4	
23	36	0.3	Conv	A 0-4 l	Bt 4-30 c,f,s,sp,bcky,se	BC 30-36 cl,fr,ss,sp,bcky,se		r	4	
24	36	0.3	Conv	A 0-2 l	Bt 2-24 c,f,s,sp,bcky,se	BC 24-36 cl,fr,ss,sp,bcky,se		r	4	

Notes: Soil Wetness - 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.
Classification - S - Suitable, PS - Provisionally Suitable, U - Unsuitable
LTAR - Long Term Acceptance Rate
Landscape Position: SU - summit, SH - shoulder, BS - backslope, FS - footslope, TS - toeslope, SS - sideslope, HS - headslope
Mineralogy: SE - slightly expansive, EXP - expansive

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
6/10/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Younts Insurance Agency Inc 121 N Talbert Blvd Lexington NC 27292	**CONTACT NAME:** Valerie Leonard **PHONE (A/C, No, Ext):** 336-238-1053 **FAX (A/C, No):** 336-238-1054 **E-MAIL ADDRESS:** valerie@yountsinsurance.com
INSURED PIEDENV-02 Piedmont Environmental Associates, PA 216-1 S. Swing Road Greensboro NC 27409	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** **INSURER A :** Continental Casualty Company — 2186 **INSURER B :** Penn National Mutual Casualty Insurance Company — 14990 **INSURER C :** Ohio Casualty Insurance Company — 24074 **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1456259960 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	**COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE / OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PRO-JECT / LOC OTHER:			BP9 0741038	6/1/2021	6/1/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 2,000,000 $ 300,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $
B	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY X 19			AU90741038	6/1/2021	6/1/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Medical Payments	$ 1,000,000 $ $ $ $ 2,000
B	X **UMBRELLA LIAB** OCCUR **EXCESS LIAB** CLAIMS-MADE DED X RETENTION $ 0			UL9 0741038	6/1/2021	6/1/2022	EACH OCCURRENCE AGGREGATE $	$ 1,000,000 $ 1,000,000 $
C	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBEREXCLUDED? **(Mandatory in NH)** N / A If yes, describe under DESCRIPTION OF OPERATIONS below			XWO55203240	6/1/2021	6/1/2022	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
A	Professional Liability			EEH288330253	6/1/2021	6/1/2022	Each Claim Aggregate Deductible	2,000,000 2,000,000 3,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Piedmont Environmental Associates, PA
216-1 S. Swing Road
Greensboro NC 27409

CANCELLATION

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

AUTHORIZED REPRESENTATIVE

Diana Evans

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RECEIVED AUG 3 0 2021

AP 320857

APPLICATION MUST BE FILLED OUT COMPLETELY & BE LEGIBLE
OR IT WILL NOT BE PROCESSED

Iredell County Health Department – Environmental Health Division

SEPTIC

PAGE 1: *APPLICATION FORM*

Paid $500.00

Application For: ( ) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
( ) Septic Improvement Permit (✓) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED. APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted: ( ) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) beside whichever is submitted if applicable ( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information: (PRINT CLEARLY)

Applicant Name: Cornerstone II Properties Address: 259 Textile Way Ft Mill SC Zip: 29715

Applicant Email: [illegible] Phone: 704 341 3229 Alt. Phone: X

Owner Name: Heller River Bend L.P. Address: 259 Textile Way Ft Mill, SC Zip: 29715

Owner Email: N/A Phone: N/A Alt. Phone: N/A

Property Information:

Street Address: 109 Top Flite Drive PIN# 3793 54 4934

Subdivision Name: Augusta Greens Section/Phase: _____ Lot Number: 20

Driving Directions: Mock Mill Rd East / Rt. on Titleist Dr.
Rt on Top Flite

Site Development Information: *(check or complete ALL that apply)*

(✓) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem: _____

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 4
( ) Swimming Pool
( ) Other Addition/Structure: _____

CHECK FOUNDATION TYPE
(✓) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbing

Non-Residential Site Development: Type of Business: _____
Square Footage of Building: _____ Max. Number of Employees: _____ Max. Number of Seats/Beds/Other: _____

Water Supply: ( ) Replacement Well – Reason: _____
( ) Multi-connection Well Number of Houses: 1 Number of Persons: _____

( ) New Well ( ) Existing Well ( ) Community Well (✓) City Water ( ) Other Public Water

Desired Septic System Type: *(you may rank in order of preference)* Year existing system installed: _____
( ) No Preference ( ) Alternative (✓) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other: _____

Please answer the following to the best of your ability:

( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
( ) Yes (✓) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes (✓) No Is the site subject to approval by any other public agency?

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

Signature: Stan Cowley 8/20/21
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

(Check and sign only ONE of the options below)

1. *** APPLICANT AND OWNER ARE THE SAME. *** (*Sign here*) _____

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative: *Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship* In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:
Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form. If there are multiple property owners, then all property owners must sign the form that designates a legal representative.
By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

2. I, PAM HARDING/BULLER RIVER, am the legal owner(s) of the property located at 109 TOP FLITE DR., identified as

PIN (Parcel Identification Number) 3793 54 4934 located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) STAN PRESSLEY/CORNERSTONE III _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- Improvement Permit (IP) / Authorization to Construct (AC)
- Application for soil-site evaluation (new/repair)
- Application/permit for private drinking water well/well abandonment
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

Pam Harding/Buller River Developer
Signature of Owner(s)

8/20/21
Date

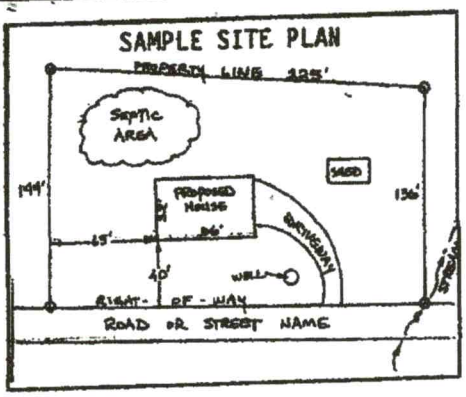
Mooresville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

Statesville - Environmental Health
adrienne.shea@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

SITE PLAN WORKSHEET

SEE THE "SAMPLE SITE PLAN" BELOW. *INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM OR WELL PERMIT!!!*



Place an (X) beside each item as you complete the site plan:

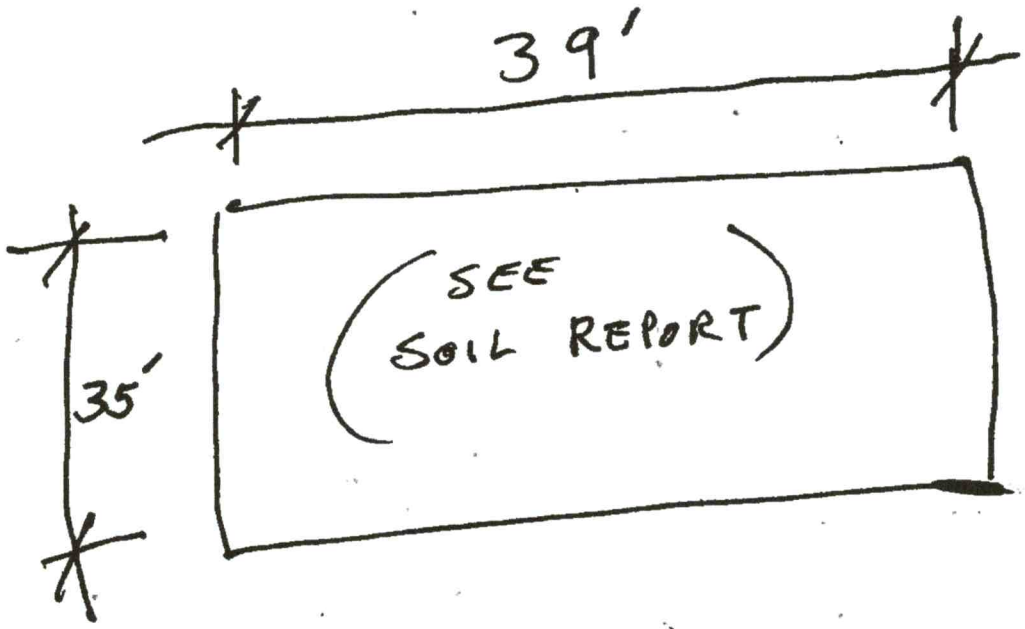
- (X) Property Line measurements are clearly identified
- (X) All proposed structures are indicated
- (X) Front and side setbacks from property line
- (X) Preferred driveway location
- (X) Preferred well location
- (X) Preferred septic system location
- (X) North arrow, or other sufficient indicator of direction

Circle N/A on the following if appropriate:

Location of septic systems and wells within 100' of your property (N/A)
Location of easements and rights of ways on your property (N/A)
Location of any designated wetlands on the property (N/A)

USE THIS SPACE TO DRAW YOUR SITE PLAN

Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

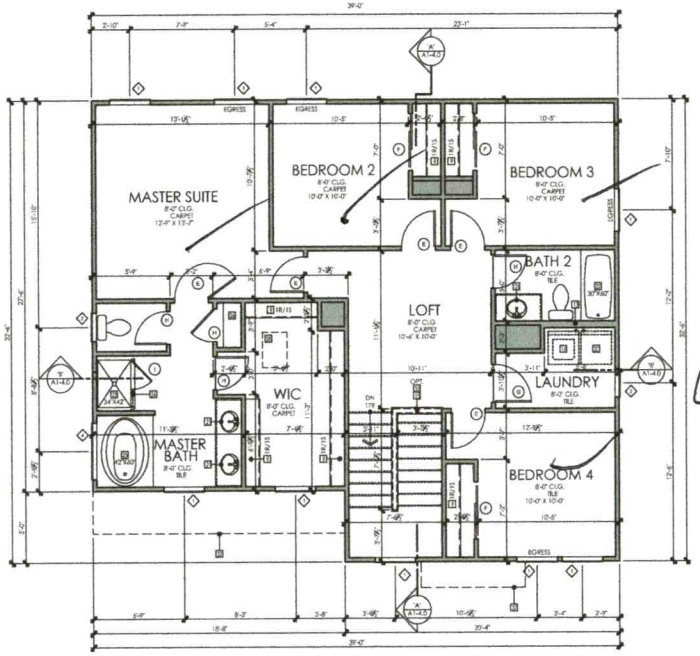


Signature: Stan Pauley

Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

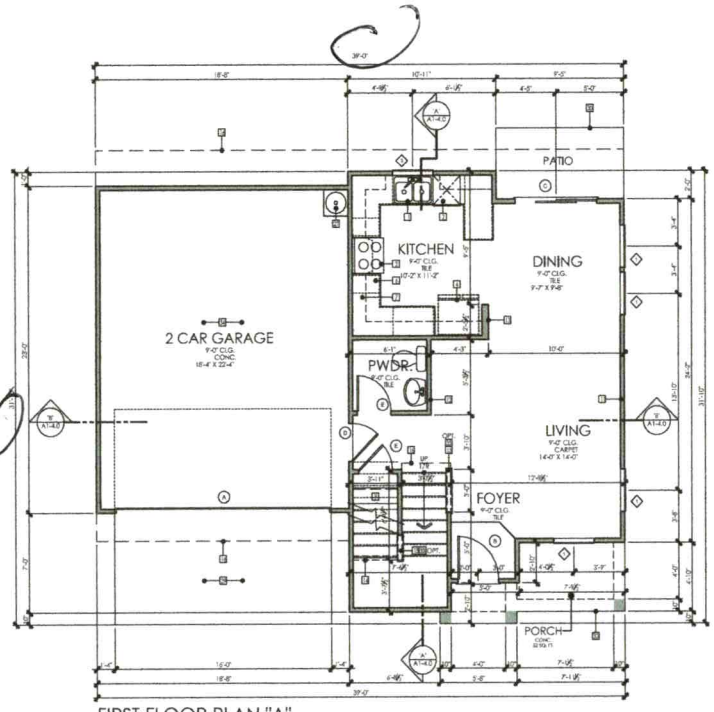
8/20/21

DATE



SECOND FLOOR PLAN "A"

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



FIRST FLOOR PLAN "A"

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

FLOOR PLAN NOTES

1	DOUBLE BASIN SINK W/GARBAGE DISPOSAL-VERIFY DIMS. w/SPECS.
2	DISHWASHER-PROVIDE SURFACE MOUNT AIR GAP-VERIFY DIMS w/SPECS.
3	RANGE WITH MICROWAVE HOOD ABOVE - VENT TO OUTSIDE AIR AND PROVIDE BACK DRAFT DAMPER - VERIFY DIMENSIONS WITH MFR. SPECS.
4	REFRIGERATOR/FREEZER SPACE W/ COLD WATER STUB-OUT FOR ICE MAKER RECESSED IN WALL
5	NOT USED
6	BASE CABINETS - REFER TO CABINET MANUFACTURER SHOP DRAWINGS
7	UPPER CABINETS-REFER TO CABINET MANUFACTURER SHOP DRAWINGS
8	NOT USED
9	SHELF AND POLE - PER PLAN
10	NOT USED
11	ALL EXTERIOR WALLS TO BE 2x4 STUDS AT 16" O.C. - U.N.O.
12	ALL INTERIOR WALLS TO BE 2X4 STUDS AT 24" O.C. - U.N.O.
13	2X6 STUDS AT 24" O.C. - U.N.O.
14	LOW WALL - REFER TO PLAN FOR HEIGHT
15	GUARDRAIL - 36" ABOVE FINISHED FLOOR
16	LINE OF FLOOR ABOVE
17	LINE OF WALL BELOW
18	UTILITY SINK
19	WASHER SPACE - PROVIDE DRAIN PAN AND HOT AND COLD WATER SUPPLY WITH WASTE LINE RECESSED IN WALL
20	DRYER SPACE - PROVIDE SHEET METAL DRYER BOX WITH DRYER VENT - VENT RUN SHALL COMPLY WITH MANUFACTURER'S SPECS. AND I.M.C. AHJ LOCAL JURISDICTION
21	VANITY SINK
22	TUB/SHOWER COMBO - TILE SURROUND
23	SHOWER - TILE SURROUND
24	SHATTERPROOF (TEMPERED) GLASS SHOWER ENCLOSURE w/ DOOR
25	DROP-IN TUB w/ DECK
26	LINEN WITH (5) SHELVES
27	WATER HEATER - INSTALL PER MANUFACTURER'S SPECS.
28	22" x 30" ATTIC ACCESS
29	MOTOR COURT-SLOPE AWAY FROM STRUCTURE-REFER TO LANDSCAPE PLAN
30	CONCRETE PATIO - SLOPE AWAY FROM STRUCTURE
31	10"X10" WRAPPED POST - REFER TO ELEVATION
32	ROOF BELOW
33	GUARDRAIL - 36" ABOVE FINISHED WALKING SURFACE
34	GARAGE SLAB - REFER TO STRUCTURAL PLANS
35	MANUFACTURED STONE VENEER, PER SPEC
36	SCREENED PORCH - ALUMINUM WIRE MESH w/ .011 DIAMETER
37	BRICK, PER SPEC

DOOR SCHEDULE

MARK	WIDTH	HEIGHT	QUANTITY	REMARK
DOOR SCHEDULE				
A	16'-0"	7'-0"	1	NON-INSULATED STEEL GARAGE DOOR
B	3'-0"	6'-8"	1	ENTRY DOOR W/ 12" TRANSOM WINDOW
C	6'-0"	6'-8"	1	SLIDING GLASS DOOR
D	2'-8"	6'-8"	1	SELF-CLOSING FIRE RATED DOOR
E	2'-6"	6'-8"	7	HOLLOW CORE PASSAGE DOOR
F	4'-0"	6'-8"	3	HOLLOW CORE BI-PASS DOOR
G	2'-8"	6'-8"	1	HOLLOW CORE PASSAGE DOOR
H	2'-4"	6'-8"	4	HOLLOW CORE PASSAGE DOOR
I	2'-0"		1	TEMP. GLASS SHOWER DOOR

WINDOW SCHEDULE

MARK	WIDTH	HEIGHT	QUANTITY	REMARK
WINDOW SCHEDULE				
1	3'-0"	5'-0"	13	SINGLE HUNG - EGRESS
2	2'-0"	3'-0"	2	SINGLE HUNG
3	3'-0"	3'-0"	3	SINGLE HUNG
4	4'-0"	4'-0"	1	FIXED GLASS - TEMPERED

AREA CALCULATION

FIRST FLOOR (GROSS)	81193
SECOND FLOOR (GROSS)	169080
TOTAL GROSS LIVING AREA	250273
PORCH	7543
GARAGE	61824

Acknowledgement of
Plans Submittal ONLY!

Stan Prewett Date 9/18/21

Date 10/5/21

PLOTTED: May 15, 2017 / Karla / BEDFORD CD 05 11 17.DWG

CHARLOTTE, NC

REVISIONS

FLOOR PLANS - BEDFORD ELEVATION 'A'

CORNERSTONE III PROPERTIES
4509 Faith Church Road
Indian Trail, NC 28079

SHEET No.
A1-1.0
DATE 03-13-17

IREDELL COUNTY · NC

IREDELL COUNTY
PO Box 788
349 North Center St.
Statesville, NC 28677

APPLICATION NUMBER
320857 Issue Date:

Permit Type: ZONING

Parcel Number	Street Address	Jurisdiction
3793544934.000	109 TOP FLITE DR	Iredell County

Owner Information	Applicant Information
Name: AUGUSTA DEVELOPERS LLC	Name: CORNERSTONE III PROPERTIES INC use this one
Address: C/O DARYL SUTHER 2200 OLD SALISBURY RD CONCORD, NC 28025	Address: 4509 FAITH CHURCH INDAIN TRAIL, 28 28203
Phone:	Phone: (704)906-6212

Use Requested	Zone Code
Single Family Dwelling	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
0.53	35	35	15	15	WSIV-PA Catawba/Lake Norman	NO

Remarks
sfd

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. The applicant further acknowledges that enforcement of deed restrictions, plat conditions and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Date: 08/26/2021

Signature of Owner/Contractor

Permit Number	320857	TOTAL FEES:	$77.25

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5308 Mooresville Office (704) 660-3825 PERMIT # AP 324891

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

PIN # 4740-40-1614

APPLICANT/OWNER: H H Wiltshire Holdings LLC APPLICANT ADDRESS: P.O. Box 3965 Mooresville, NC 28117

SITE ADDRESS: 174 E Panther Creek Rd Troutman, NC PHONE: 704 202-1524 ALT. PHONE

SITE DIRECTIONS: Perth Rd N TR Cloutz Hill Rd TR Ridge Creek TR Wiltshire TL E Panther Creek SAP CONTROLLED: ☒ YES ☐ NO

SUBDIVISION: Wiltshire Creek SECTION: LOT # 3 & 37 LOT AREA: .92 Acre DESIGN FLOW: 360gpd L.T.A.R: .3

Septic Tank	1000 (gal)	STB	Date	☒ New System	☐ Repair	☐ Expansion	System Type: I II (III) IV V VI	☒ Residence	No. Bedrooms	3	Water Supply
Pump Tank	1000 (gal)	PT	Date	System Description:	Pump-PM-25% Reduction			☐ Business	No. Persons	6	☒ Private
Pump Make		Model	Serial #	Repair System Description:	PPBPS			☐ Other	No. Employees		☐ Public
# Nitrification Fields	1	# Lines 3	Linear Ft 300	Maintenance Agreement Required:	☐ YES	☒ NO		☒ Slab	☐ Crawl Space		☐ Community
Trench Width	36"	Trench Bottom Depth(Low side)	32"	Gravel Depth	N/A	☐ GRAVITY	☒ PRESSURE	☐ Basement w/ plumbing		☐ Basement w/o plumbing	

Comments / Conditions: Use Sch 40 1½ taps per plan
See attached Septic plan by Soil & Forestry Services

* Recorded Septic Easement attached
Bk. 2742, P. 1353

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11. (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

S Ashley Rollan's

LSS# 1231

Alarm
Pump
Electrial
PM
} SH 2/23/23

AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

Drainlines checked 12/2/22 SH

Pressure Manifold 12/5/22 MW

Supply line from PM - Tank 12/15/22 MW

~~As~~ Ben wiser Tank info

1/12/23 MW Ductile line under river checked

1/18/23 - Supply line to Manifold good

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

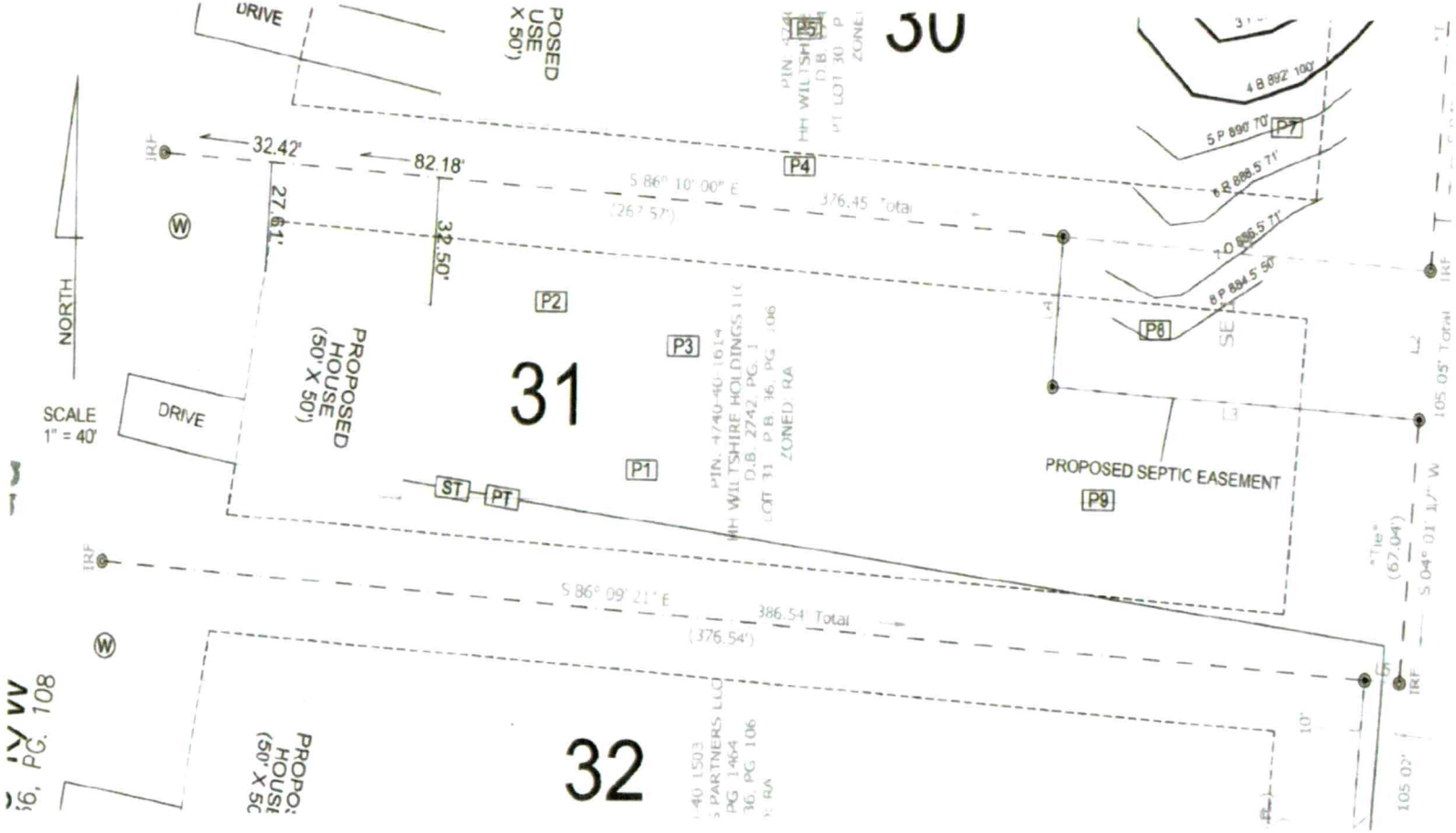
☐ IMPROVEMENT PERMIT with plat valid without expiration. ☐ IMPROVEMENT PERMIT with site plan valid for 60 mos. ☒ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.

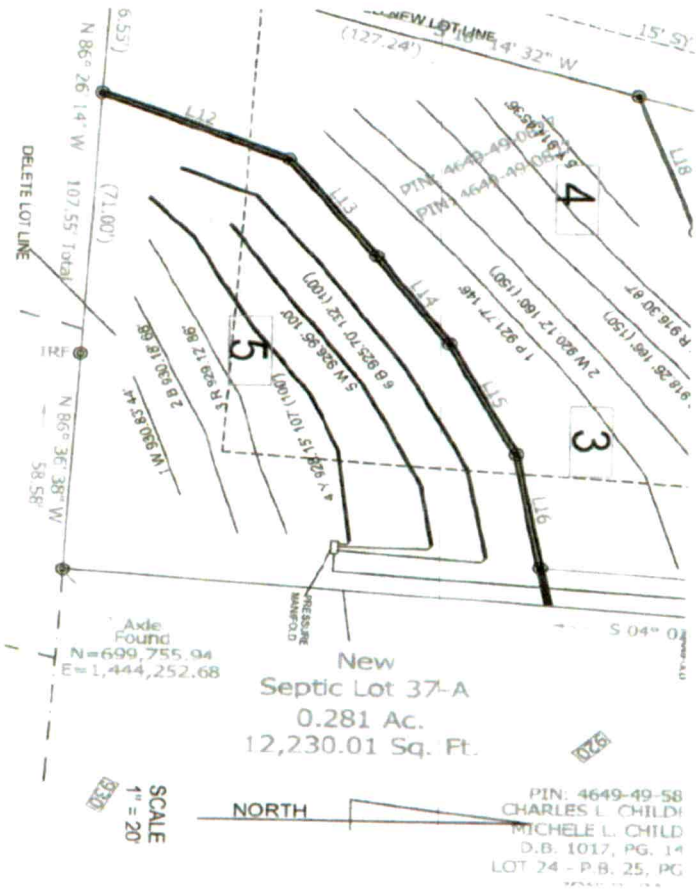
Owner / Applicant Signature: [signature] Date: 4/2/22 Installed by: Specialty Septic

IMPROVEMENT PERMIT by: [signature] Date: 4/2/22 OPERATION PERMIT by: Sydney Holleman Date: 2/23/23

AUTHORIZATION TO CONSTRUCT by: [signature] Date 8/30/22 Existing System Inspected by: Date:

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


DRIVE
POSED USE X 50')
30
P5
P4
P7
P6
P8
P9
P2
P3
P1
31
32
32.42'
82.18'
27.61'
32.50'
S 86° 10' 00" E
(267.57')
376.45' Total
NORTH
SCALE
1" = 40'
DRIVE
PROPOSED HOUSE (50' X 50')
PROPOSED SEPTIC EASEMENT
ST
PT
IRF
S 86° 09' 21" E
386.54' Total
(376.54')
105.05' Total
105.02'
"Tie"
(67.04')
S 04° 01' 37" W
PG. 108


NEW LOT LINE
(127.24')
S 14° 14' 32" W
15' SY
6.55')
N 86° 26' 14" W 107.55' Total
(71.00')
DELETE LOT LINE
IRF
N 86° 38' 38" W
58.58'
L12
L13
L14
L15
L16
L18
4
3
5
Axle
Found
N=699,755.94
E=1,444,252.68
New
Septic Lot 37-A
0.281 Ac.
12,230.01 Sq. Ft.
SCALE
1" = 20'
NORTH
PIN: 4649-49-58
CHARLES L. CHILDI
MICHELE L. CHILD
D.B. 1017, PG. 14
LOT 24 - P.B. 25, PG

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for an Accepted (25% reduction) Septic System with Pressure Manifold distribution for a 3 bedroom single family residence at 174 E Panther Creek Rd Lot 31, (PIN #:4740401614), Troutman NC, 28166.

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
System Tapsheet	5
Pressure Manifold Diagram	6
Site Plan/System Plan	7
Calculations	8
Profile Descriptions	9
Application	10-11
Agent Authorization Form	12
Green Sheet	13
Plat	14
Engineer Specifications for Design	15-19

January 13, 2022
Project No. 20-0091
Design By: Soil & Forestry Services of the Carolinas, PA

PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	HH Wiltshire Holdings LLC
Address:	P.O. Box 3965 Mooresville, NC 28117
Phone:	704.202.1524
County:	Iredell
Location:	174 E Panther Creek Rd Troutman, NC 28166
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	360 gpd
System Flow:	21.33

Design Specifications

Drainfield Size:	300
Loading Rate:	0.3
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
MaxTrench Depth (LOW SIDE):	32 in. Repair Trench Depth 32 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	1037
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	180.44
Dosing Volume:	146.93
Supply Manifold:	4 in. SCH 80 PVC
Supply Manifold Length:	4 ft. (minimum)
Supply Manifold Volume:	N/A
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel
Pressure Head:	2 ft
Friction Head:	See Pg15-19
Elevation Head:	See Pg15-19
Total Dynamic Head:	See Pg15-19
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Soil & Forestry Services of the Carolinas, PA.

Layout Specifications - 174 E Panther Creek Rd

Project #: 20-0091

LAYOUT FOR 3 BEDROOM HOME

January 13, 2022

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
HOUSE	RIGHT FRONT				868.14		
PUMP TANK					869.64		
INSTR. 1							
1	WHITE				930.83	44	44
2	BLUE				930.18	68	68
3	RED				929.12	86	86
4	*YELLOW*				*928.15*	*107*	*100*
5	*WHITE*				*926.95*	*100*	*100*
6	*BLUE*				*925.70*	*132*	*100*
					Total	537	498

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION	Low Side TRENCH DEPTH
** System*	*300*	*0.300*	*ACCEPT.*	*0.300*	*25% RED*	*PRESSURE MANIFOLD*	*32"*
Repair	237	0.300	MOD. CONV.	0.300	PPBPS	LOW PRESSURE	32"

Notes: **All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**Nitrification lines were located by SURVEY.

PRESSURE MANIFOLD TAPSHEET - 174 E Panther Creek Rd

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Trench Area	Line LTAR
4	YELLOW	928.15	100	SCH 40 1/2	7.11	300	0.16
5	WHITE	926.95	100	SCH 40 1/2	7.11	300	0.16
6	BLUE	925.70	100	SCH 40 1/2	7.11	300	0.16
	total	feet =	300	gal/min =	21.33		

Des. Flow	360
Pump Run=	6.89
soil LTAR	0.3
LTAR +5%	0.315
LTAR with ACCEPTED	0.4
LTAR with ACCEPTED + 5%	0.42

CALCULATIONS

Location 174 E Panther Creek Rd
Troutman, NC 28166
Project Number 20-0091

Lot No: 31

No. of Bedrooms 3

Design Flow 360 $^{gal}/_{day}$

LTAR 0.300 $^{gpd/ft^2}$

25% RED.? (YES OR NO) YES

Supply Line Length 1037 ft.

Supply Line Volume 180.438 gal.

Required Feet of Line 300 ft.
Amount of Line from Layout 300 ft.

Gallons per Minute 21.33 $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Minimum Standard Tank Size 1000

Lateral Line Volume 195.9 gal.

Dosing Volume 146.93 gal.
Note: Dosing Volume based on 75% of lateral line volume

Tank Draw Down 7.0 *Generic Draw Down of 21 gal per in*

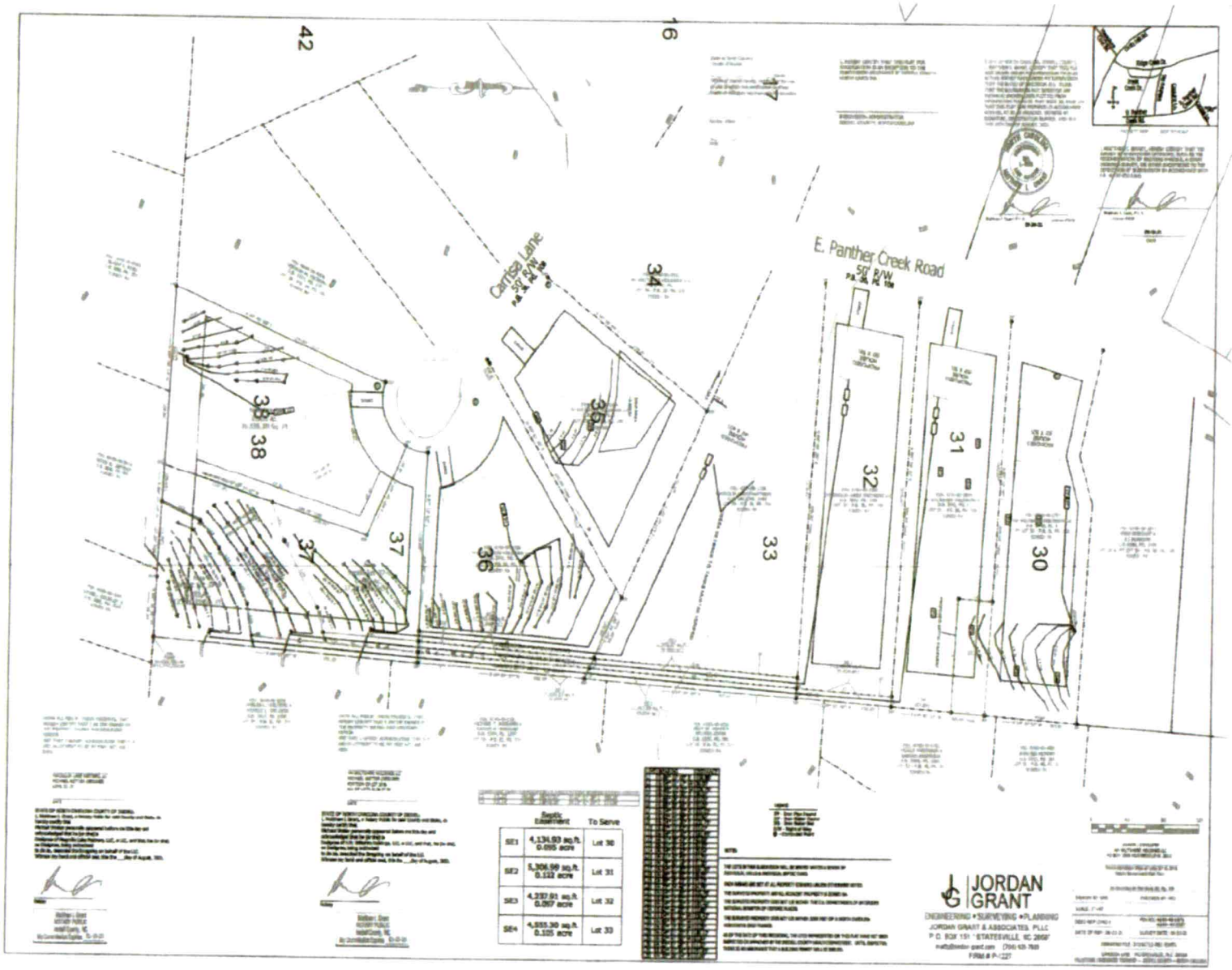
Pump Run Time 6.89 minutes

Elevation Head See Pg15-19 ft.
Pressure Head See Pg15-19 ft.
Friction Factor See Pg15-19 ft./100 ft. *(From the interpolater.)*
Friction Head See Pg15-19 ft.

Total Dynamic Head (+15%) See Pg15-19 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


42
16
Cartise Lane
50' R/W
E. Panther Creek Road
50' R/W
38
37
36
35
34
33
32
31
30
JORDAN GRANT
ENGINEERING • SURVEYING • PLANNING
JORDAN GRANT & ASSOCIATES, PLLC
P.O. BOX 151 · STATESVILLE, NC 28687
FIRM # P-127

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 DW Mooresville Office (704) 660-3625 PERMIT # AP 324891

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

PIN # 4740-40-1614

APPLICANT/OWNER: H.H. Wiltshire Holdings LLC APPLICANT ADDRESS: P.O. Box 3965 Mooresville, NC 28117

SITE ADDRESS: 174 E. Panther Creek Rd Troutman, NC PHONE: 704 202-1524 ALT. PHONE

SITE DIRECTIONS: Perth Rd N TR Clontz Hill Rd TR Ridge Creek TR Wiltshire TL E Panther Creek

SAP CONTROLLED: [X] YES [ ] NO

SUBDIVISION: Wiltshire Creek SECTION: LOT # 31 & 37 LOT AREA: .92 Acre DESIGN FLOW: 360 gpd L.T.A.R.: .3

Septic Tank	1000 (gal)	STB	Date	[X] New System [ ] Repair [ ] Expansion	System Type: I II III IV V VI	[X] Residence	No. Bedrooms	3	Water Supply
Pump Tank	1000 (gal)	PT	Date	System Description: Pump-PM-25% Reduction		[ ] Business	No. Persons	6	[X] Private
Pump Make		Model	Serial #	Repair System Description: PPBPS		[ ] Other	No. Employees		[ ] Public
# Nitrification Fields	1	# Lines 3	Linear Ft 300	Maintenance Agreement Required:	[ ] YES [X] NO	[X] Slab	[ ] Crawl Space		[ ] Community
Trench Width	36"	Trench Bottom Depth(Low side)	32"	Gravel Depth N/A	[ ] GRAVITY [X] PRESSURE	[ ] Basement w/plumbing			[ ] Basement w/o plumbing

Comments / Conditions: Use Sch 40 1/2 taps per plan. See attached Septic plan by Soil & Forestry Services

INITIAL SITE SKETCH

* Recorded Septic Easement attached

Bk. 2742, p. 1353

AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

This permit is issued pursuant to Section 11. (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

S. Ashley Rollans

LSS# 1231

MW 1/12

rain lines checked 12/2/22 SH

ressure Manifold 12/5/22 MW

Supply line from PM + Tank 12/5/22 MW

* Lsf Ben about Tank Info

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.* [X] **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* [X] **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

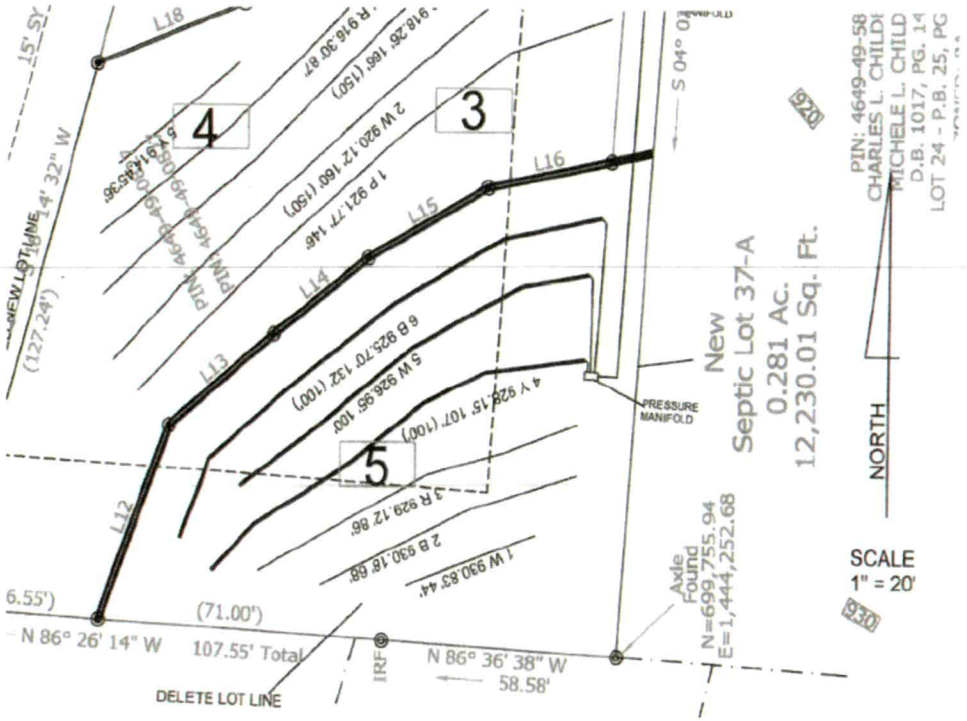
Owner / Applicant Signature: Date: 4/6/22 Installed by:

IMPROVEMENT PERMIT by: Date: 4/2/22 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by Date 8/30/22 Existing System Inspected by: Date:

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

SCALE
1" = 40'
NORTH
DRIVE
IRF
32.42'
82.18'
PROPOSED
HOUSE
(50' X 50')
31
32
P1
P2
P3
P4
P5
P7
P8
P9
ST
PT
S 86° 09' 21" E
(376.54')
386.54' Total
S 86° 10' 00" E
(267.57')
376.45' Total
PIN: 4740-40-1614
HH WILTSHIRE HOLDINGS LLC
D.B. 2742, PG. 1
LOT 31 - P.B. 36, PG. 106
ZONED: RA
PROPOSED SEPTIC EASEMENT
L1
L2
L3
L5
10'
105.02'
IRF
S 04° 01' 17" W
Tie
(67.04')
105.05' Total
IRF


4
3
5
L18
L16
L15
L14
L13
L12
PRESSURE MANIFOLD
New Septic Lot 37-A
0.281 Ac.
12,230.01 Sq. Ft.
PIN: 4649-49-58
CHARLES L. CHILD
MICHELE L. CHILD
D.B. 1017, PG. 14
LOT 24 - P.B. 25, PG
NORTH
SCALE
1" = 20'
Axle Found
N=699,755.94
E=1,444,252.68
(71.00')
N 86° 26' 14" W 107.55' Total
N 86° 36' 38" W
58.58'
DELETE LOT LINE
IRF
(127.24')

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for an Accepted (25% reduction) Septic System with Pressure Manifold distribution for a 3 bedroom single family residence at 174 E Panther Creek Rd Lot 31, (PIN #:4740401614), Troutman NC, 28166.

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
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Pressure Manifold Diagram	6
Site Plan/System Plan	7
Calculations	8
Profile Descriptions	9
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Agent Authorization Form	12
Green Sheet	13
Plat	14
Engineer Specifications for Design	15-19

January 13, 2022
Project No. 20-0091
Design By: Soil & Forestry Services of the Carolinas, PA

PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	HH Wiltshire Holdings LLC
Address:	P.O. Box 3965 Mooresville, NC 28117
Phone:	704.202.1524
County:	Iredell
Location:	174 E Panther Creek Rd Troutman, NC 28166
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	360 gpd
System Flow:	21.33

Design Specifications

Drainfield Size:	300
Loading Rate:	0.3
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
MaxTrench Depth (LOW SIDE):	32 in. Repair Trench Depth 32 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	1037
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	180.44
Dosing Volume:	146.93
Supply Manifold:	4 in. SCH 80 PVC
Supply Manifold Length:	4 ft. (minimum)
Supply Manifold Volume:	N/A
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	See Pg15-19
Elevation Head:	See Pg15-19
Total Dynamic Head:	See Pg15-19
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Soil & Forestry Services of the Carolinas, PA.

Layout Specifications - 174 E Panther Creek Rd

Project #: 20-0091

LAYOUT FOR 3 BEDROOM HOME

January 13, 2022

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
HOUSE	RIGHT FRONT				868.14		
PUMP TANK					869.64		
INSTR. 1							
1	WHITE				930.83	44	44
2	BLUE				930.18	68	68
3	RED				929.12	86	86
4	***YELLOW***				***928.15***	***107***	***100***
5	***WHITE***				***926.95***	***100***	***100***
6	***BLUE***				***925.70***	***132***	***100***
					Total	537	498

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION	Low Side TRENCH DEPTH
**** System***	***300***	***0.300***	***ACCEPT.***	***0.300***	***25% RED***	***PRESSURE MANIFOLD***	***32"***
Repair	237	0.300	MOD. CONV.	0.300	PPBPS	LOW PRESSURE	32"

Notes: **All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**Nitrification lines were located by SURVEY.

PRESSURE MANIFOLD TAPSHEET - 174 E Panther Creek Rd

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Trench Area	Line LTAR
4	YELLOW	928.15	100	SCH 40 1/2	7.11	300	0.16
5	WHITE	926.95	100	SCH 40 1/2	7.11	300	0.16
6	BLUE	925.70	100	SCH 40 1/2	7.11	300	0.16
	total	feet =	300	gal/min =	21.33		

Des. Flow	360
Pump Run=	6.89
soil LTAR	0.3
LTAR +5%	0.315
LTAR with ACCEPTED	0.4
LTAR with ACCEPTED + 5%	0.42

CALCULATIONS

Location 174 E Panther Creek Rd
Troutman, NC 28166
Project Number 20-0091

Lot No: 31

No. of Bedrooms 3

Design Flow 360 $^{gal}/_{day}$

LTAR 0.300 $^{gpd/ft^2}$

25% RED.? (YES OR NO) YES

Supply Line Length 1037 ft.

Supply Line Volume 180.438 gal.

Required Feet of Line 300 ft.
Amount of Line from Layout 300 ft.

Gallons per Minute 21.33 $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Minimum Standard Tank Size 1000

Lateral Line Volume 195.9 gal.

Dosing Volume 146.93 gal.
Note: Dosing Volume based on 75% of lateral line volume

Tank Draw Down 7.0 *Generic Draw Down of 21 gal.per in.*

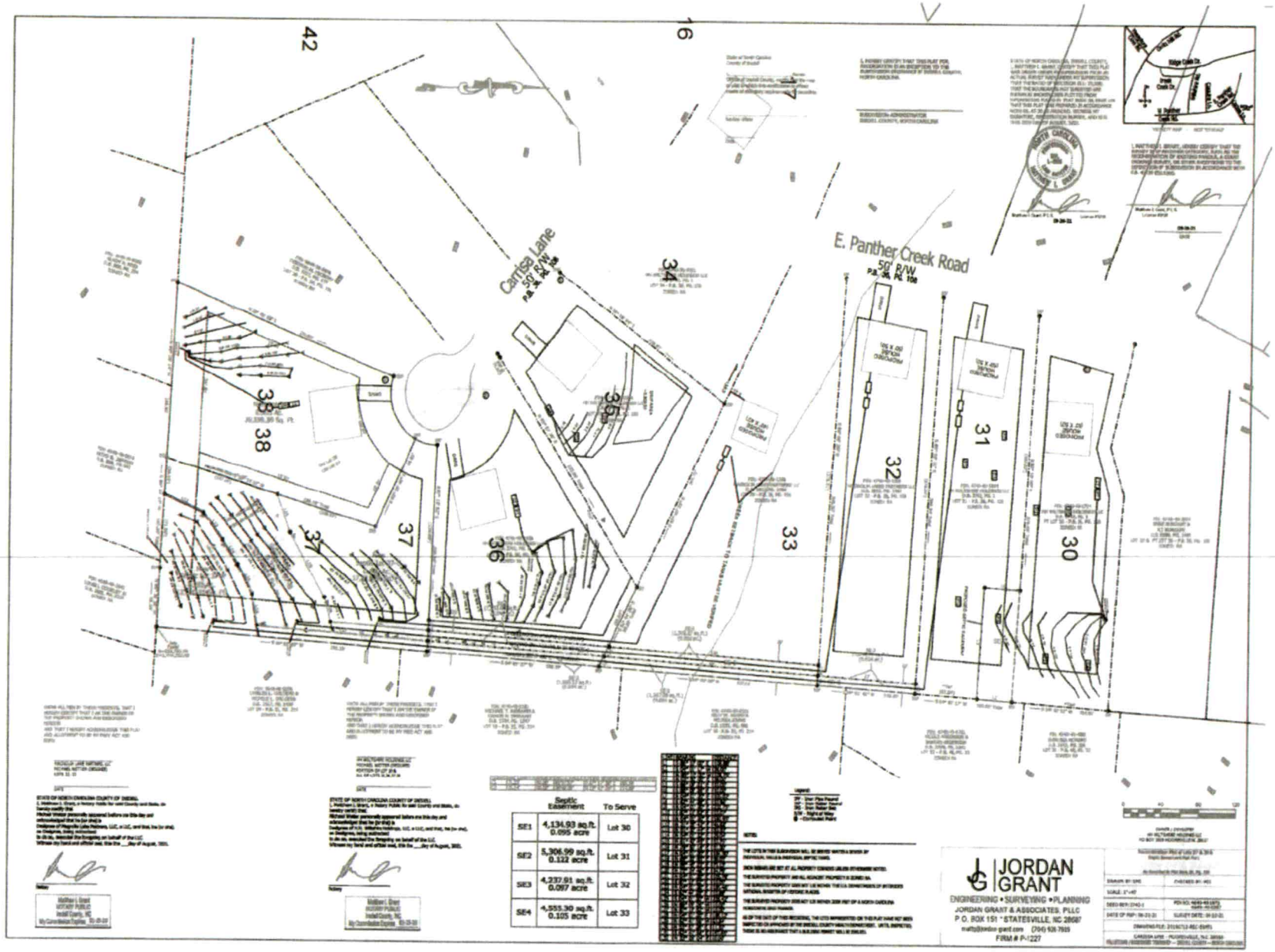
Pump Run Time 6.89 minutes

Elevation Head See Pg15-19 ft.
Pressure Head See Pg15-19 ft.
Friction Factor See Pg15-19 ft./100 ft. *(From the interpolater.)*
Friction Head See Pg15-19 ft.

Total Dynamic Head (+15%) See Pg15-19 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


E. Panther Creek Road
50' R/W
Carrisa Lane
50' R/W
42
16
34
38
37
36
35
33
32
31
30
Septic Easement
To Serve
SE1
4,134.93 sq.ft.
0.095 acre
Lot 30
SE2
5,306.99 sq.ft.
0.122 acre
Lot 31
SE3
4,237.91 sq.ft.
0.097 acre
Lot 32
SE4
4,551.30 sq.ft.
0.105 acre
Lot 33
JORDAN GRANT
ENGINEERING • SURVEYING • PLANNING
JORDAN GRANT & ASSOCIATES, PLLC
P.O. BOX 151 * STATESVILLE, NC 28687
(704) 626-7919
FIRM # P-1227

2:30

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # AP 324891

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

PIN # 4740 -- 40 -- 1614

APPLICANT/OWNER: H H Wiltshire Holdings LLC APPLICANT ADDRESS: P.O. Box 3965 Mooresville, NC 28117

SITE ADDRESS: 174 E. Panther Creek Rd Troutman, NC PHONE: 704 202-1524 ALT. PHONE

SITE DIRECTIONS: Perth Rd N TR Clontz Hill Rd TR Ridge Creek TR Wiltshire Ct E Panther Creek SAP CONTROLLED: ☒ YES ☐ NO

SUBDIVISION: Wiltshire Creek SECTION: LOT # 31 & 37 LOT AREA: .92 Acre DESIGN FLOW: 360 gpd L.T.A.R.: .3

Septic Tank	1000 (gal)	STB 760	Date 10-12-22	☒ New System	☐ Repair	☐ Expansion	System Type: I II III IV V VI	☒ Residence	No. Bedrooms 3
Pump Tank	1000 (gal)	PT 363	Date 10-15-22	System Description: Pump-PM-25% Reduction				☐ Business	No. Persons 6
Pump Make		Model		Serial #				☐ Other	No. Employees
# Nitrification Fields	1	# Lines	3	Linear Ft	300'	Repair System Description: PPBPS		☒ Slab	☐ Crawl Space
Trench Width	36"	Trench Bottom Depth(Low side)	32"	Gravel Depth	N/A	Maintenance Agreement Required:	☐ YES ☒ NO	☐ GRAVITY	☒ PRESSURE

☐ Basement w/plumbing ☐ Basement w/o plumbing

Water Supply: ☒ Private ☐ Public ☐ Community

Comments / Conditions: Use Sch 40 1/2 taps per plan. See attached Septic plan by Soil & Forestry Services

* Recorded Septic Easement attached.

Bk. 2942, p. 1353

INITIAL SITE SKETCH

AS BUILT SKETCH

This permit is issued pursuant to Section 11. (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

S Ashley Rollans

LSS# 1231

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

12-1-22. Tues.

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: [signature] Date: 4/6/22 Installed by: Specialty Septic

IMPROVEMENT PERMIT by: [signature] Date: 4/2/22 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by [signature] Date 8/30/22 Existing System Inspected by: Date:

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

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 DW Mooresville Office (704) 660-3625 PERMIT # AP 324891

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

PIN # 4740--40--1614

APPLICANT/OWNER: H.H. Wiltshire Holdings LLC APPLICANT ADDRESS: P.O. Box 3965 Mooresville, NC 28117

SITE ADDRESS: 174 E. Panther Creek Rd Troutman, NC PHONE: 704 202-1524 ALT. PHONE

SITE DIRECTIONS: Perth Rd N TR Clontz Hill Rd TR Ridge Creek TR Wiltshire TL E Panther Creek

SAP CONTROLLED: [X] YES [ ] NO

SUBDIVISION: Wiltshire Creek SECTION: LOT # 31 & 37 LOT AREA: .92 Acre DESIGN FLOW: 360gpd L.T.A.R.: .3

Septic Tank	1000 (gal)	STB	Date	[X] New System	[ ] Repair	[ ] Expansion	System Type: I II III IV V VI	[X] Residence	No. Bedrooms	3	Water Supply
Pump Tank	1000 (gal)	PT	Date	System Description:	Pump-PM-25% Reduction			[ ] Business	No. Persons	6	[X] Private
Pump Make		Model	Serial #	Repair System Description:	PPBPS			[ ] Other	No. Employees		[ ] Public
# Nitrification Fields	1	# Lines	3 Linear Ft: 300'	Maintenance Agreement Required:	[ ] YES	[X] NO		[X] Slab	[ ] Crawl Space		[ ] Community
Trench Width	36"	Trench Bottom Depth(Low side)	32"	Gravel Depth	N/A	[ ] GRAVITY	[X] PRESSURE	[ ] Basement w/plumbing		[ ] Basement w/o plumbing	

Comments / Conditions: Use Sch 40 1½ taps per plan. See attached Septic plan by Soil & Forestry Services

* Recorded Septic Easement attached.

Bk. 2942, P. 1353

INITIAL SITE SKETCH

AS BUILT SKETCH

This permit is issued pursuant to Section 11. (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

S. Ashley Rollans

LSS# 1231

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

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.* [X] **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* [X] **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: [signature] Date: 4/6/22 Installed by:

IMPROVEMENT PERMIT by: [signature] Date: 4/2/22 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: [signature] Date 8/30/22 Existing System Inspected by: Date:

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

Item	Date	Initials
Drain Lines Checked	12-2-22	SH
Tanks Checked		
Pressure Manifold or Valve Box Checked		
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Needed? Y / N		
Comments:		

Repairs Only	
	State Code
Failing System Code	
Type of Distribution	G or P
Type of Failure/Malfunction	
Primary Cause of Failure/Malfunction	
Age of System? _____	
Initial or Repair? _____	

PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	HH Wiltshire Holdings LLC
Address:	P.O. Box 3965 Mooresville, NC 28117
Phone:	704.202.1524
County:	Iredell
Location:	174 E Panther Creek Rd Troutman, NC 28166
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	360 gpd
System Flow:	21.33

Design Specifications

Drainfield Size:	300
Loading Rate:	0.3
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
MaxTrench Depth (LOW SIDE):	32 in. Repair Trench Depth 32 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	1037
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	180.44
Dosing Volume:	146.93
Supply Manifold:	4 in. SCH 80 PVC
Supply Manifold Length:	4 ft. (minimum)
Supply Manifold Volume:	N/A
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	See Pg15-19
Elevation Head:	See Pg15-19
Total Dynamic Head:	See Pg15-19
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Soil & Forestry Services of the Carolinas, PA.

174 E Panther Creek Rd
PRESSURE MANIFOLD DESIGN

DESIGN FLOW:	360
SOIL APPLICATION RATE:	0.3
TOTAL AREA TRENCH BOTTOM:	900
TOTAL LATERAL LENGTH:	300
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	300
SUPPLY LINE LENGTH:	1037
TOTAL DYNAMIC HEAD:	See Pg15-19
MANIFOLD SIZE:	4 in.SCH 80 PVC
DOSING VOLUME:	146.93
PUMP TANK DRAW DOWN*:	7.0
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	1000

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

Layout Specifications - 174 E Panther Creek Rd

Project #: 20-0091

LAYOUT FOR 3 BEDROOM HOME

January 13, 2022

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
HOUSE	RIGHT FRONT				868.14		
PUMP TANK					869.64		
INSTR. 1							
1	WHITE				930.83	44	44
2	BLUE				930.18	68	68
3	RED				929.12	86	86
4	***YELLOW***				***928.15***	***107***	***100***
5	***WHITE***				***926.95***	***100***	***100***
6	***BLUE***				***925.70***	***132***	***100***
					Total	537	498

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION	Low Side TRENCH DEPTH
**** System***	***300***	***0.300***	***ACCEPT.***	***0.300***	***25% RED***	***PRESSURE MANIFOLD***	***32"***
Repair	237	0.300	MOD. CONV.	0.300	PPBPS	LOW PRESSURE	32"

Notes: **All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**Nitrification lines were located by SURVEY.

PRESSURE MANIFOLD TAPSHEET - 174 E Panther Creek Rd

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Trench Area	Line LTAR
4	*YELLOW*	*928.15*	*100*	*SCH 40 1/2*	*7.11*	*300*	*0.16*
5	*WHITE*	*926.95*	*100*	*SCH 40 1/2*	*7.11*	*300*	*0.16*
6	*BLUE*	*925.70*	*100*	*SCH 40 1/2*	*7.11*	*300*	*0.16*
	total	**feet =**	**300**	**gal/min =**	**21.33**		
			Des. Flow	**360**			
			Pump Run=	**6.89**			
			soil LTAR	**0.3**			
			LTAR +5%	**0.315**			
			LTAR with ACCEPTED	**0.4**			
			LTAR with ACCEPTED + 5%	**0.42**			

CALCULATIONS

Location 174 E Panther Creek Rd
Troutman, NC 28166
Project Number 20-0091

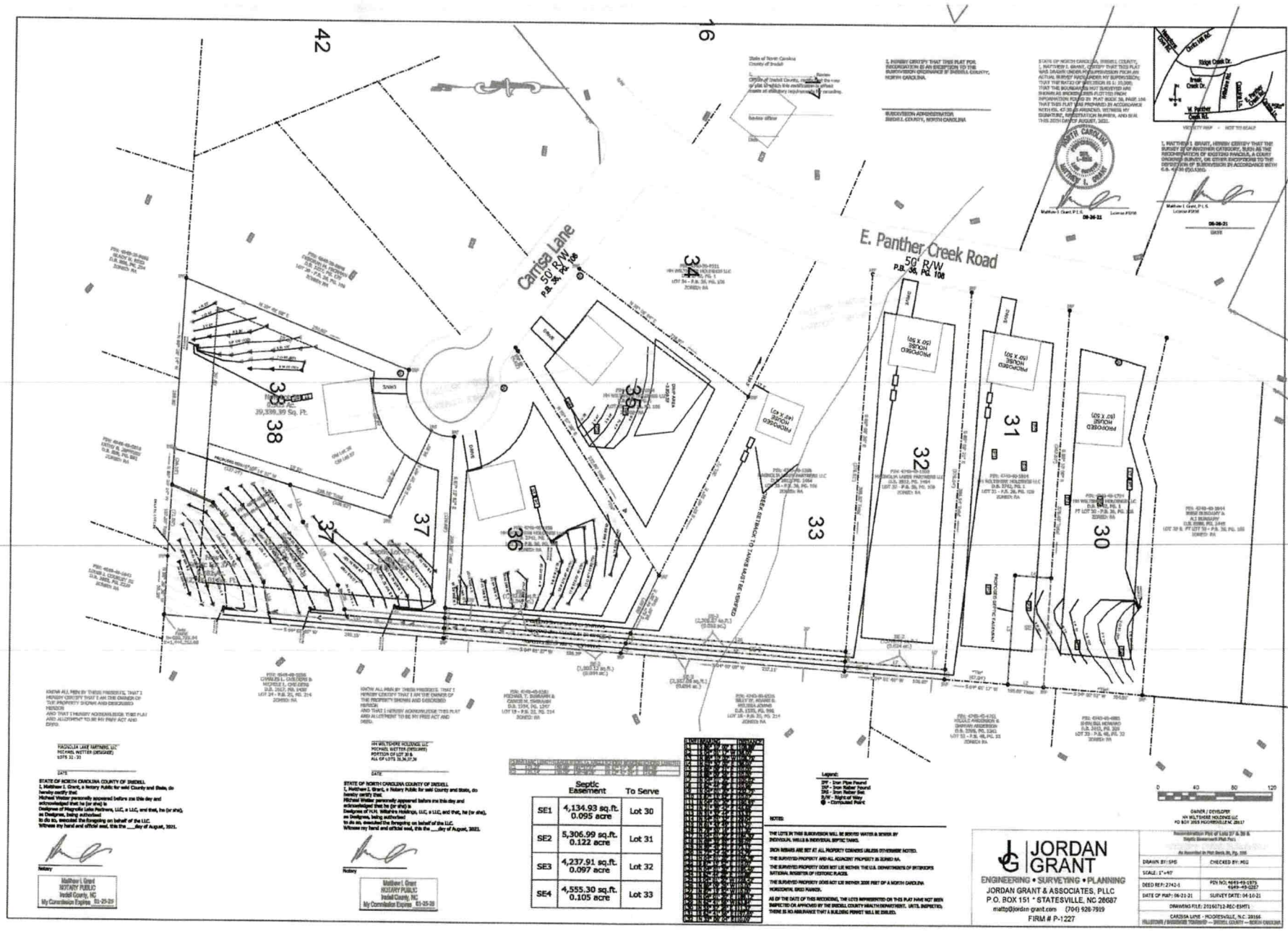
Lot No:	31	
No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.300	$^{gpd/ft^2}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	1037	ft.
Supply Line Volume	180.438	gal.
Required Feet of Line	300	ft.
Amount of Line from Layout	300	ft.
Gallons per Minute	21.33	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Lateral Line Volume	195.9	gal.
Dosing Volume	146.93	gal.

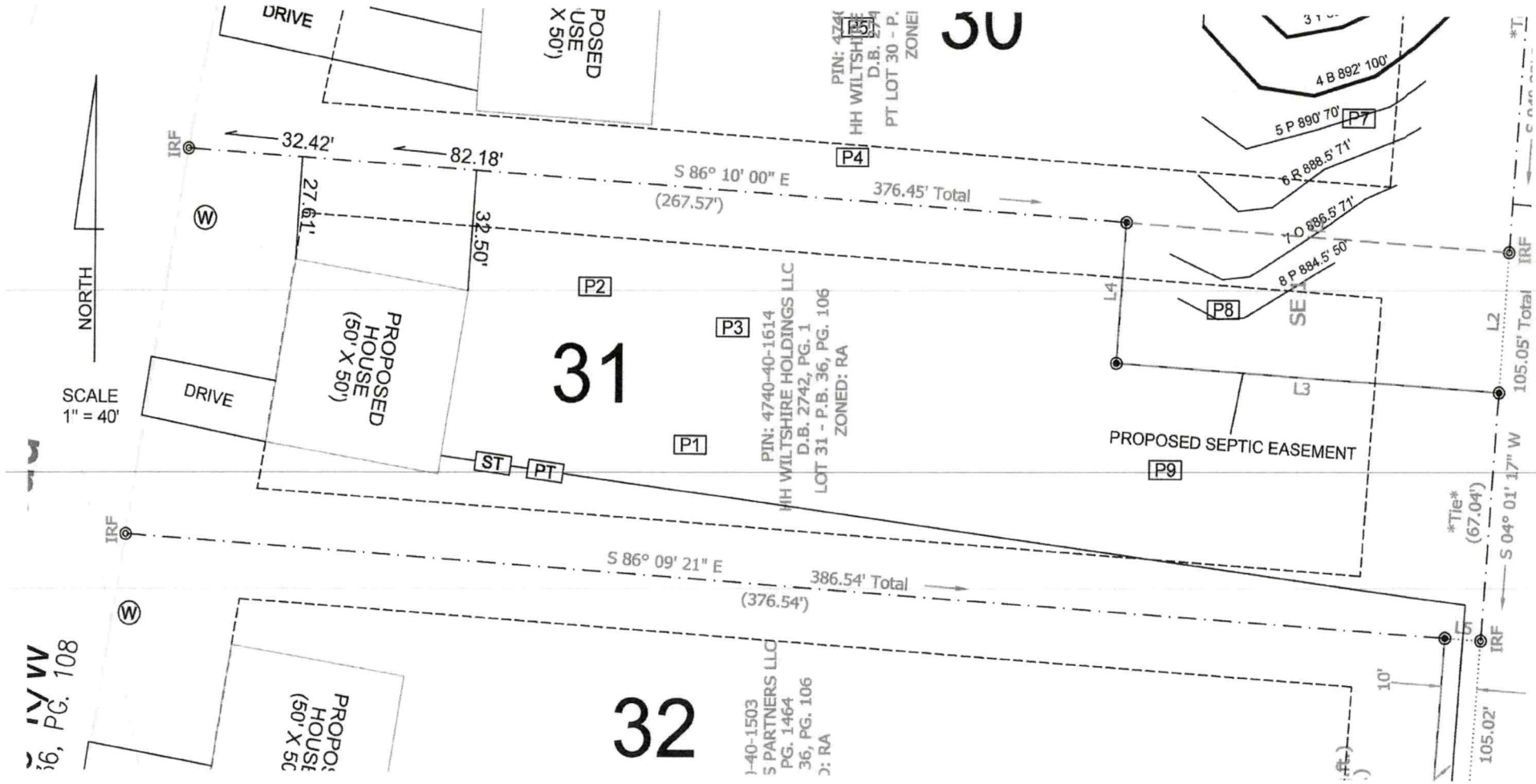
Note: Dosing Volume based on 75% of lateral line volume

Tank Draw Down	7.0	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	6.89	minutes
Elevation Head	See Pg15-19	ft.
Pressure Head	See Pg15-19	ft.
Friction Factor	See Pg15-19	ft./100 ft. *(From the interpolater.)*
Friction Head	See Pg15-19	ft.
Total Dynamic Head (+15%)	See Pg15-19	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


Carrisa Lane
50' R/W
P.B. 36, Pg. 108
E. Panther Creek Road
50' R/W
P.B. 36, Pg. 108
PROPOSED HOUSE (50' X 50')
PROPOSED SEPTIC FACILITY
Lot 30
Lot 31
Lot 32
Lot 33
Lot 34
Lot 36
Lot 37
Lot 38
SE1 4,134.93 sq.ft. 0.095 acre
SE2 5,306.99 sq.ft. 0.122 acre
SE3 4,237.91 sq.ft. 0.097 acre
SE4 4,555.30 sq.ft. 0.105 acre
Septic Easement
To Serve
Legend:
IPF - Iron Pipe Found
IRF - Iron Rebar Found
IRS - Iron Rebar Set
R/W - Right of Way
⊕ - Corrugated Pipe
NOTES:
THE LOTS IN THIS SUBDIVISION WILL BE SERVED WATER & SEWER BY INDIVIDUAL WELLS & INDIVIDUAL SEPTIC TANKS.
IRON REBARS ARE SET AT ALL PROPERTY CORNERS UNLESS OTHERWISE NOTED.
THE SURVEYED PROPERTY AND ALL ADJACENT PROPERTY IS ZONED RA.
THE SURVEYED PROPERTY DOES NOT LIE WITHIN THE U.S. DEPARTMENTS OF INTERIORS NATIONAL REGISTER OF HISTORIC PLACES.
THE SURVEYED PROPERTY DOES NOT LIE WITHIN 2000 FEET OF A NORTH CAROLINA HORIZONTAL GRID MARKER.
AS OF THE DATE OF THIS RECORDING, THE LOTS REPRESENTED ON THIS PLAT HAVE NOT BEEN INSPECTED OR APPROVED BY THE IREDELL COUNTY HEALTH DEPARTMENT. UNTIL INSPECTED, THERE IS NO ASSURANCE THAT A BUILDING PERMIT WILL BE ISSUED.
JORDAN GRANT
ENGINEERING • SURVEYING • PLANNING
JORDAN GRANT & ASSOCIATES, PLLC
P.O. BOX 151 * STATESVILLE, NC 28687
mattg@jordan grant.com (704) 928-7919
FIRM # P-1227
Recombination Plat of Lots 37 & 38 & Septic Easement & Plat Part
As Recorded in Plat Book 36, Pg. 108
DRAWN BY: SMS
CHECKED BY: MG
SCALE: 1"=40'
DEED REF: 2742-1
PIN NO: 4649-49-1975, 4649-49-2267
DATE OF MAP: 06-21-21
SURVEY DATE: 04-10-21
DRAWING FILE: 20160713-REC-ESMT1
CARRISA LANE - MOORESVILLE, N.C. 28166
OWNER / DEVELOPER
HH WILTSHIRE HOLDINGS LLC
PO BOX 2858 MOORESVILLE NC 28117


DRIVE
POSED USE X 50')
P5
30
PIN: 4740
HH WILTSHIRE
D.B. 27
PT LOT 30 - P.
ZONEI
4 B 892' 100'
5 P 890' 70'
P7
6 R 888.5' 71'
7 O 886.5' 71'
8 P 884.5' 50'
P8
IRF
32.42'
82.18'
S 86° 10' 00" E
(267.57')
376.45' Total
P4
27.61'
32.50'
NORTH
SCALE
1" = 40'
DRIVE
PROPOSED HOUSE (50' X 50')
P2
31
P3
PIN: 4740-40-1614
HH WILTSHIRE HOLDINGS LLC
D.B. 2742, PG. 1
LOT 31 - P.B. 36, PG. 106
ZONED: RA
P1
ST
PT
L4
L2
105.05' Total
L3
PROPOSED SEPTIC EASEMENT
P9
Tie
(67.04')
S 04° 01' 17" W
IRF
IRF
S 86° 09' 21" E
(376.54')
386.54' Total
32
PROPOSED HOUSE (50' X 50')
10'
105.02'
IRF

NEW LOT LINE
(127.24')
S 10° 14' 32" W
15' SY
6.55')
N 86° 26' 14" W 107.55' Total
(71.00')
DELETE LOT LINE
IRF
N 86° 36' 38" W
58.58'
L12
L13
L14
L15
L16
L18
PIN: 4649-49-0
PIN: 4649-49-08
4
3
5
Axle
Found
N=699,755.94
E=1,444,252.68
PRESSURE MANIFOLD
S 04° 0
New
Septic Lot 37-A
0.281 Ac.
12,230.01 Sq. Ft.
920
930
SCALE
1" = 20'
NORTH
PIN: 4649-49-58
CHARLES L. CHILDE
MICHELE L. CHILD
D.B. 1017, PG. 14
LOT 24 - P.B. 25, PG

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for an Accepted (25% reduction) Septic System with Pressure Manifold distribution for a 3 bedroom single family residence at 174 E Panther Creek Rd Lot 31, (PIN #:4740401614), Troutman NC, 28166.

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January 13, 2022
Project No. 20-0091
Design By: Soil & Forestry Services of the Carolinas, PA

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Project#: 20-0091
January 14th, 2022

NEST HOMES
Attn: *Michael Wetter*
Email: mwetter@nesthomes.com

RE: Soil & Site Evaluation for a 3 Bedroom Residence on Lot 31 Wiltshire Creek Subdivision, 0.92 ac Parcel, PIN# 4740401614, 174 E. Panther Creek Road, Troutman, NC 28166.

Mr. Wetter:

At your request Soil & Forestry Services of the Carolinas (S&FS) has performed soil/site evaluations on parcel noted above. This parcel was found to have unsuitable soil conditions. We evaluated Lot 37 for Septic Field easements and designated Lot 37A for sewage disposal. The Lot size is noted on the attached survey map & soil evaluation form. The purpose of our work was to identify soil areas with potential to support subsurface wastewater disposal systems and provide design details for Session Law submittal to Iredell County Health Department.

Site Conditions

At the time of our evaluation land cover on the property was mostly mixed pine/hardwood. Topography within the evaluated area was gentle to moderate slope near the house site and proposed drainfield area. Property lines and corners were marked at the time of the evaluation by Jordan-Grant Surveying. The surveyor provided an Autocad File of a survey as a basemap. The proposed septic layout was located via Survey/tape measures and used to produce the attached *Site Plan*. The house envelope was located via survey. A septic easement was required on to Lot 37 (37A) to accommodate the drainfield. This easement was surveyed by Jordan Grant & Associates. (See Plat)

Methodology

We evaluated soil areas through the use of backhoe pits. Soil morphological conditions including color, texture, structure, etc. were reviewed in the field with six pit locations on the property flagged and located via GPS. One of the six backhoe pits are located in or adjacent to the proposed septic layout. Soil suitability was determined by referencing 15A NCAC 18A.1900 "Laws and Rules for Sewage Treatment and Disposal Systems". *Soil & Site Evaluation Forms* were utilized to record the soil morphological data for each pit. The house envelope was located via survey. An on-ground layout of system and repair was

performed using a laser level. Pin flag locations of the layout were also located by survey and tape measures. Detailed system & repair information is summarized in the following paragraph for this Lot.

174 E. Panther Creek Road (*See Attached Design*)
The septic layout for this lot (9' centers) yielded a total of 537 linear feet of line. The primary system is proposed as 300 linear feet of Accepted (25% Reduction) drainfield with pressure manifold distribution. Trench depth (Low Side) is specified at 32 inches. The repair system is proposed as 200 linear feet of PPBPS (50% Reduction) drainfield with low pressure distribution. There is 237 linear feet available for repair. Trench depth (Low Side) is specified at 32 inches. See Pages 15 – 19 of Design for Engineer Specs.

Session Law Requirements

An LSS Evaluation may be submitted in conjunction with a complete application to the LHD. The application shall include all information described in 15A NCAC 18A .1937(d) and be accompanied by a signed and dated statement from the applicant (owner or owner's legal representative) that reads as follows:

"The LSS Evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with SL 2018-114 Section 11.(c).".

Owner Date

Print Name Tim Carr
Signature Tim Carr 1-21-22

The LSS Evaluation shall include a statement bearing the LSS seal and signature that reads as follows:

"The LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11.(c)."

Disclaimer
This report reflects the findings of S&FS, PA. *This LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11.(c).* Any site modifications that impact the proposed septic areas on Lot 31 (Lot37A Septic Easement) of Wiltshire Creek Subdivision may nullify this design. System design requirements and site requirements shall be adhered to for installation and Operations Permits to be issued by the local Health Department. If you have questions regarding these requirements a Pre-Construction meeting should be scheduled to discuss. Please contact S&FS if you have any questions regarding this report or the attached information. S&FS also offers septic system inspection, wetland delineation and forestry services.

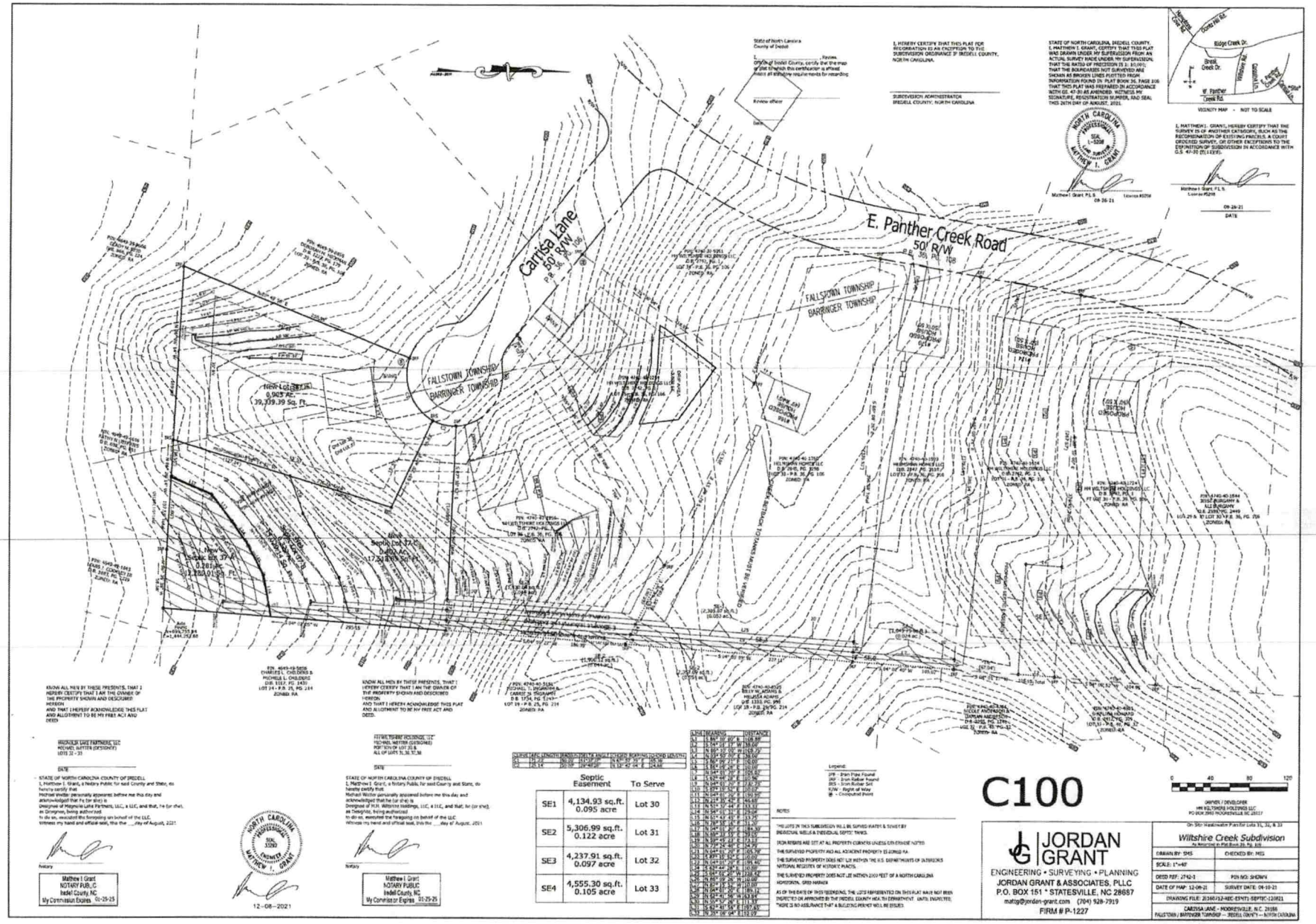
Sincerely,

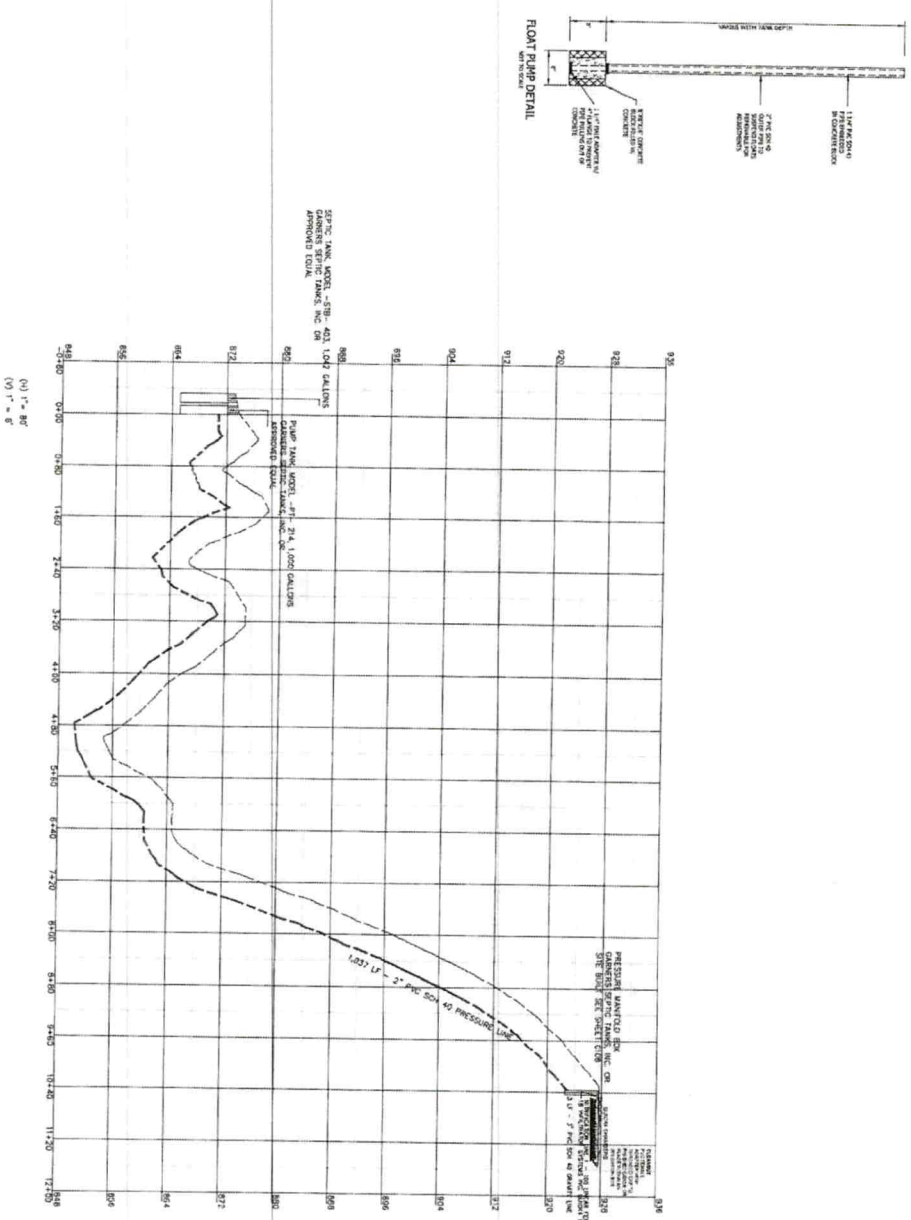


S. Ashley Rollans, LSS
Attachment: *Septic Design*

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DHHS, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- 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 is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- 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 pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as an Accepted 25% reduction installation w/Pressure Manifold.
- Repair is specified as a PPBPS installation with Low Pressure Distribution.
- Rake trench walls, lime sidewalls, install trenches 36" wide and have no more than 1/4" fall in 10 feet.
- **See Design Specifications from Engineer on Pages 15 - 19**


Carrisa Lane
50' R/W
E. Panther Creek Road
50' R/W
FALLSTOWN TOWNSHIP
BARRINGER TOWNSHIP
New Lot 30 (A)
0.905 AC
39,339.39 Sq. Ft.
New Lot 31 (B)
0.281 AC
12,260.01 Sq. Ft.
Septic Exclusion Area
Septic Exclusion Area
Septic Exclusion Area



Sheet No:	MAP REVISIONS:			
C101	NO.	DATE	DESCRIPTION	BY

JOB NAME: ON SITE WASTEWATER DETAILS FOR LOT 33

Wiltshire Creek Subdivision

LOCATION ADDRESS: 174 E PANTHER CREEK ROAD

OWNER: HELMSMAN HOMES LLC
PO BOX 3965
MOORESVILLE NC 28117

DRAWN BY: EWS | CHECKED BY: MBS
SCALE: 1" = 80'
DATE OF FIELD SURVEY: 04-10-2021
DATE OF MAP: 12-08-2021
DEED REF: 3740-1 | PIN NO: 4743-69-1376
CARSSIA LANE - MOORESVILLE, N.C. 28166
FALLSTOWN / BARIUNGER TOWNSHIP -- IREDELL COUNTY -- NORTH CAROLINA

DRAWING FILE: 20160712-REC-E3MTI-SEPTIC-20831

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ENGINEERING • SURVEYING • PLANNING
JORDAN GRANT & ASSOCIATES, PLLC
P.O. BOX 151 * STATESVILLE, NC 28687
mattg@jordan-grant.com (704) 928-7919
FIRM # P-1227

12-08-2021

FLOW CALCULATIONS FOR LOT 33:

DAILY DESIGN FLOW: 3 BDRM TIMES 120 GALLONS/DAY = 360 GPD

TRENCH BOTTOM AREA: 360 GPD/0.40 LTAR = 900 SF

LINEAR FOOTAGE: 900 sf/3' WIDE TRENCHES = 300 LF

USE 3 LINES AT 100 LF = 300 LF OF NITRIFICATION LINES

DOSE VOULME: 147 GALLONS (75% OF 4" LINE CAPACITY)

PUMP TANK SIZING:

PUMP HEIGHT IS 12" AND TANK WITH 18 GALLONS PER INCH:

PUMP SUBMERGENCE VOLUME	= 216 GALLONS
DOSE VOLUME	= 147 GALLONS
EMERGENCY STORAGE	= 665 GALLONS
PUMP TANK SIZE (MIN.)	= 1028 GALLONS

PUMP CALCULATIONS:

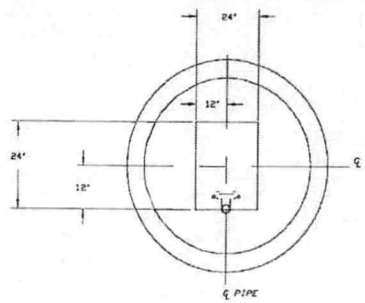
PUMP DESIGN FLOW	= 47 GPM
PUMP DESIGN RUN TIME=28 GALLONS/5GPM	= 3.2 MINUTES
ELEVATION HEAD	= 58 FEET
PRESSURE HEAD	= 2 FEET
FRICTION HEAD=474'X0.866FT/100FT	= 4 FEET
TOTAL DESIGN HEAD	= 64 FEET

CONTROL PANEL:

THE CONTROL PANEL SHALL MEET STATE APPROVAL AND MEET THE SPECIFICATIONS SET FORTH IN RULE .1952(c)(6) WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

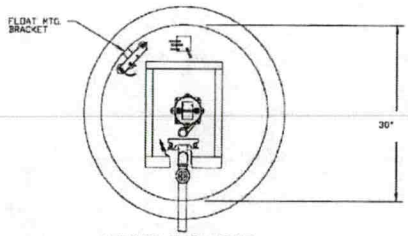
1. HIGH WATER LEVEL ALARM EVENT COUNTER
2. PUMP EVENT COUNTER
3. PUMP ELAPSED TIME METER
4. MAGNETIC MOTOR CONTACTOR
5. HOA SWITCH
6. CONTROL CIRCUIT FUSE
7. ALARM CIRCUIT FUSE
8. FLOAT SWITCH TERMINAL BLOCK
9. CIRCUIT BREAKER FOR EACH PUMP
10. CIRCUIT BREAKER FOR THE ALARM/CONTROL CIRCUIT
11. NEMA 4X ALARM STROBE BEACON
12. NEMA 4X ALARM HORN (83 DECIBELS @ 3' MINIMUM) WITH AUTO RESET
13. NEMA 4X EXTERIOR HORN TEST/NORMAL/SILENCE SWITCH
14. GROUND LUG
15. 2 LOCKABLE HASPS OR ONE LOCKABLE HASP & 2 CAPTIVE SCREWS OPPOSITE THE HINGES OF THE NEMA 4X ENCLOSURE
16. PUMP RUN LIGHT

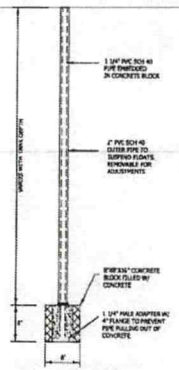
CONTROLS SHALL REQUIRE THE PUMP ENABLE FLOAT SWITCH TO BE ACTIVATED (MINIMUM DOSE VOLUME PRESET) BEFORE THE START OF ANY PUMP CYCLE. CYCLES SHALL BE SHUT OFF BY THE RUN TIMER OR THE LOW-WATER CUT-OFF FLOAT (NOT BY DEACTIVATION OF THE ENABLE FLOAT).



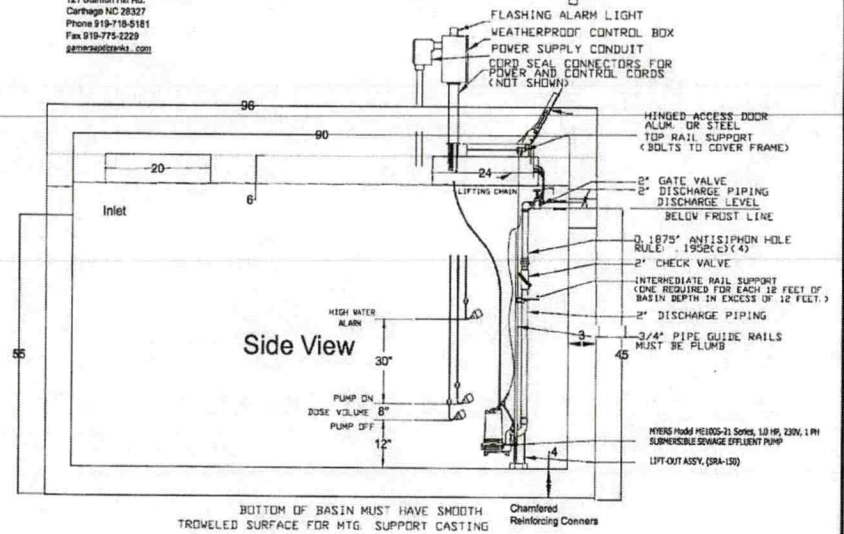
PT - 214
Approval Date 12-16-93
Liquid Capcity 1028 Gallons
Non Traffic Rated
Reinforcing Schedule: #3 Grade 60 Rebar
4,500 PSI Concrete w/ State Approved Structrual Fiber
2 Yds. Est Weight 6,200 lbs.

Manufactured By:
Garners Septic Tanks, Inc.
121 Stanton Hill Rd.
Carthage NC 28327
Phone 919-718-5181
Fax 919-775-2229
garnerssepticinc.com





FLOAT PUMP DETAIL
NOT TO SCALE



BOTTOM OF BASIN MUST HAVE SMOOTH TROWELED SURFACE FOR MTG. SUPPORT CASTING

Chamfered Reinforcing Corners

TYPICAL INSTALLATION
SIMPLEX SUBMERSIBLE SEWAGE PUMP

Flow Through Orifices, Pressure Manifolds

A. Sch 40 taps

Head (ft)	½-inch (.622)	3/4-inch (.824)	1-inch (1.049)	1-1/4 inch (1.38)	1-1/2 inch (1.61)	2-inch (2.067)
1.5	6.16	10.8	17.5	30.3	41.3	68.0
2	7.11	12.5	20.2	35.0	47.7	78.5
2.5	7.95	14.0	22.6	39.1	53.3	87.8
3	8.71	15.3	24.8	42.9	58.4	96.2
3.5	9.41	16.5	26.8	46.3	63.0	104
4	10.1	17.7	28.6	49.5	67.4	111

B. Sch 80 taps

Head (ft)	½-inch (.546)	3/4-inch (.742)	1-inch (.957)	1-1/4 inch (1.278)	1-1/2 inch (1.50)	2-inch (1.939)
1.5	4.75	8.77	14.6	24.0	35.8	59.9
2	5.48	10.1	16.8	28.0	41.4	69.1
2.5	6.13	11.3	18.8	31.6	46.2	77.5
3	6.71	12.4	20.6	34.8	50.7	84.7
3.5	7.25	13.4	22.3	39.7	54.7	91.4
4	7.75	14.3	23.8	42.5	58.5	97.8

Q= 13.d² h^½
Where: Q=flow per orifice (gpm)
d=diameter of orifice (inches)
h= pressure head (feet)

12-08-2021

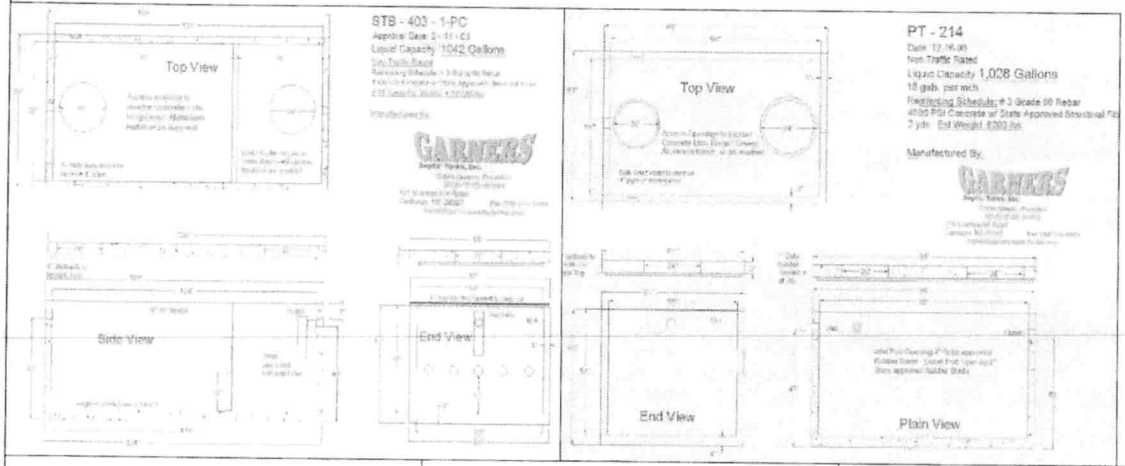
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ENGINEERING • SURVEYING • PLANNING
JORDAN GRANT & ASSOCIATES, PLLC
P.O. BOX 151 • STATESVILLE, NC 28687
mail@jordangrant.com (704) 929-7919
FIRM # P-1227

JOB NAME: ON SITE WASTEWATER DETAILS FOR LOT 33
Wiltshire Creek Subdivision
LOCATION ADDRESS: 1744 PANTHER CREEK ROAD
OWNER: HELMSMAN HOMES LLC
PO BOX 1
MOORESVILLE, NC 28117
DRAWN BY: DVG | CHECKED BY: MEG
SCALE: 1" = 40'
DATE OF FIELD SURVEY: 09-10-2021
DATE OF MAP: 12-08-2021
DEED REF: 3742-1 | PIN NO: 4749-56-1376
CAROLINA LAND - MOORESVILLE, N.C. 28166
TOWNSHIP - IREDELL COUNTY - STATESVILLE, N.C. 28625
DRAWING FILE: 2018\01\3 MOORE\DWG\ SEPTIC\20201

MAP REVISIONS:

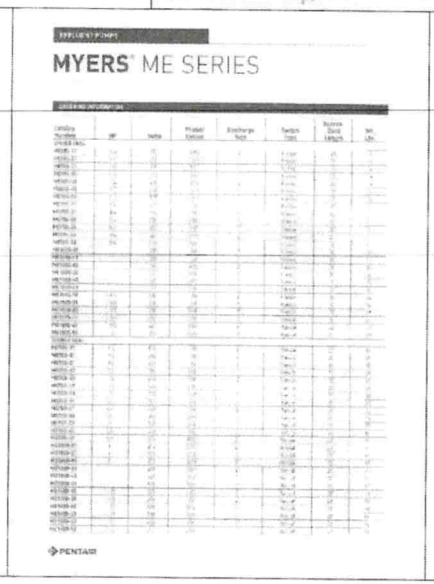
NO.	DATE	DESCRIPTION	BY

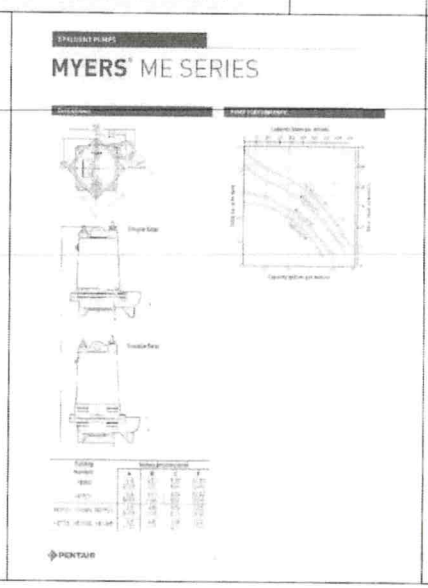
Sheet No:
C106

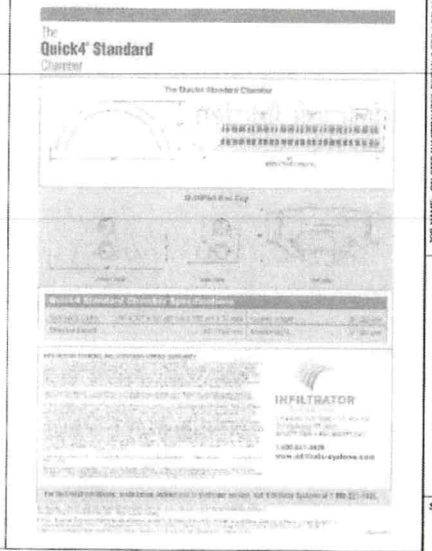












12-08-2021

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P.O. BOX 151 • STATESVILLE, NC 28687
notpjgordon-grant.com (704) 928-7919
FIRM # P-1227

JOB NAME: ON SITE WASTEWATER DETAILS FOR LOT 33
Wiltshire Creek Subdivision

LOCATION ADDRESS:
LOT 33 WILTSHIRE CREEK ROAD

OWNER: HELPINGHAM HOMES LLC
PO BOX 39825
HUNTERSVILLE, NC 28111

DRAWN BY: CWG | CHECKED BY: MSG
SCALE: 1" = 40'
DATE OF FIELD SURVEY: 09-10-2021
DATE OF PMP: 12-08-2021
DEED REF: 1744-1 | PIN NO: 4745-59-1376
CARTER LANE - MOORESVILLE, N.C. 28166
ELEVATION: NAVD88 DATUM - BASED ON GPS OBSERVATIONS

MAP REVISIONS:

NO.	DATE	DESCRIPTION	BY

DRAWING FILE: 2019073 ABC EMFL; SEPTIC 210831

Sheet No:

C107

I. EXCAVATION AND SITEWORK

A. General Requirements

Construction of the nitrification system shall be done in accordance with the Engineer's plans, these specifications, and as directed by the Engineer or representatives of the On-Site Wastewater Section. Should conditions be encountered in the work which are not covered by these specifications or where it would not be practical or feasible to proceed with the work in strict accordance with the specifications, then the Contractor shall notify the Engineer and await instructions from him before proceeding with the work.

B. Clearing and Grubbing

1. Clearing – All trees, logs, brush, boulders, and other objectionable material shall be removed and burned, or otherwise disposed of by the Contractor as the Engineer may direct. Unless directed in writing by the Engineer, trees or brush must not be thrown on the adjacent lands. All merchantable timber shall be cut into logs of standard length, as directed and piled along the edge of the clearing, or otherwise disposed of as stated in the proposal or plans.

2. Grubbing – All stumps and roots and other objectionable matter shall be grubbed and removed. Such material shall be burned, or otherwise disposed of as the Engineer may direct.

C. Underground Obstructions

The Contractor shall anticipate all underground obstructions such as water lines, gas lines, sewer lines, utility lines, concrete and debris. No extra payment will be allowed for the removal, replacement, repair or possible increased cost caused by underground obstructions. Any such lines or obstructions indicated on the map show only the approximate location and must be verified in the field by the Contractor. The Owner and Engineer will endeavor to familiarize the Contractor with all known underground utilities and obstructions, but this will not relieve the Contractor from full responsibility in anticipating all underground obstructions.

D. Excavation and Backfilling

The Contractor shall make, in open cut, to the lines and grades shown on the plans, trenches for the pipe and tanks. The Contractor shall do all excavation of whatever substances encountered. Excavation shall not be carried below the required level. Excess excavation below the required level shall be backfilled with earth, sand, gravel, or concrete, as directed by the Engineer, and thoroughly tamped. Unstable soil shall be removed and replaced with gravel, crushed stone, or crushed slag, which shall be thoroughly tamped. The Engineer shall determine the depth of the removal of the unstable soil. The Contractor shall exercise care to make neat cuts and fits and finish to the lines and grades as shown on the plans. Trench width shall be not less than pipe outside diameter plus 12 inches. Hydrostatic tests shall be conducted in accordance with the specifications before backfilling. Backfill will be thoroughly tamped, to the satisfaction of the Engineer, under, beside and to a height of 12 inches over the pipe. The remainder of the trench shall be filled in 12 inch layers and rolled with mechanical equipment. Flushing will not be permitted in the backfill. Rail trales shall be dug after the trench bottom has been graded, and shall be of sufficient depth and width to provide ample room for caulking. Bell holes shall be excavated accurately by hand.

E. Shoring

Whatever necessary to prevent caving of the banks or injury to the pipe, work, workmen, or building, the Contractor shall, at his own expense, brace and sheath the trenches or excavation by order of the Engineer. It shall be cut off one foot below grade and shall be paid for by the Owner at the price agreed upon, but otherwise the Contractor shall receive no extra compensation for it.

F. Water in Trenches

Whatever ground water is encountered the Contractor will be required to install such equipment and carry on the construction in such a manner as to provide the best possible laying conditions. He shall remove all water which may be accumulated or be found in the trenches or other excavations made under the contract by pumping or bailing, and no pipe shall be laid until such water has been removed from the trench. Water so removed from the trench must be disposed of in such manner as not to cause injury to the public's health, not to public or private property, nor cause any interference with the use of the streets by the public.

G. Existing Pipes

The Contractor shall use every precaution to preserve intact all pipes and cables under the ground. Where one is damaged he shall repair or replace it immediately at his own expense.

H. Obstructions to Traffic

The excavated material shall be placed on one side of the trench in such manner as not to obstruct any drain or unnecessarily obstruct any passageway. All street hydrants, water valve boxes, fire alarm boxes and letter boxes shall be kept accessible for immediate use. At street crossings, the Contractor must, when necessary, provide a safe bridge with railings, to allow pedestrians to cross the trench. The Contractor shall provide, without additional compensation, suitable temporary channels for the water that may flow along or across the site of the work.

I. Pavement Repair

When it is necessary to remove existing pavement, prepared road surfaces, sidewalks or curbing, these surfaces shall be removed by the Contractor in such a manner as to do as little harm to the surfaces as possible and only to the extent necessary for the installation of the pipe or other structure involved. After the installation of the pipe or structure has been completed and the 12 inches below the surface, the Contractor shall then fill the trench with gravel (to which calcium chloride has been added at the rate of seven pounds per ton of gravel, the calcium chloride shall be hand spread as approved by the Engineer) and shall maintain it in a safe condition for traffic during the construction period or until released, in writing, by the Engineer. This same care and method of backfilling shall apply where macadam or gravel or topsoil roads or alleys are cut. This work shall be included in the price bid for trenching and backfilling. The Contractor at his expense will replace the pavement and restore this surface to a satisfactory condition.

J. Grassing

All disturbed areas will be grassed immediately. Suitable erosion control measures will be taken until grass is established.

K. Siltation and Erosion Control

The Contractor shall institute a program to hold siltation and erosion to a minimum during the construction of the lines.

L. Final Cleaning Up

Upon completion of the work, the Contractor shall remove all materials not required on the job, and shall leave all disturbed areas in as good or better condition than when he began construction. All disturbed areas will be grassed.

M. Maintenance

The Contractor shall refill for settlement all backfilled areas for a period of one year.

II. PIPE

A. Gravity Collection and Leader Pipe

All gravity collection sewer pipe shall be polyvinyl chloride (PVC), drain-waste-vent (DWV) pipe in sizes as shown on the plans. All gravity collection sewer pipe and fittings shall be PVC Schedule 40, furnished in accordance with ASTM 1784 and 1785, and bear the National Sanitation Foundation (NSF) seal. All fittings shall be PVC Schedule 40 glue joint type. Installation and testing shall be in accordance with manufacturer's recommendations, the North Carolina State Building Code Volume II, Plumbing, and ASTM D 2321 latest revision.

No sooner than 10 days following completion of backfill, the Contractor along with the Engineer shall determine the level of the ground water table. If the lower of the ground water table is above the top of the pipe, the sewer line shall be tested for infiltration. If there is no ground water above the top of the pipe, the sewer line shall be low pressure air tested. Each test shall be performed as follows:

Infiltration: Weirs shall be furnished and installed by the Contractor. The infiltration shall not exceed 0.01 gallon per day per inch diameter per foot. There shall be no visible points of infiltration.

Low Pressure Air Test: tests shall be performed in accordance with ASTM C-828 and C-924. Test pressure will be measured by gauges furnished and installed by the Contractor at one end of the line opposite the air supply. The pipeline tested shall hold the test pressure with no pressure loss for a period of 4 hours.

B. Force Main Pipe

All force main pipe shall be polyvinyl chloride (PVC) pipe in sizes as shown on the plans. All force main pipe shall be PVC 1120, furnished in accordance with ASTM D2241, and must be Pressure Class 200 with a Standard Dimension Ratio (SDR) of 21 or less. PVC pressure pipe shall be made from white or blue pigmented Virgin materials whose Cell Classifications are either Class 12454A or 12454B, and shall be furnished in lengths of 20 feet. Lesser lengths will be accepted to allow the proper alignment of fittings, valves, etc. All PVC pressure pipe shall be shipped, stored, and strung at the project in such a manner as to be protected from total accumulated exposure to sunlight and possible ultraviolet radiation of no more than four (4) weeks.

Pipe jointing will be elastomeric joints only. Joints shall conform to ASTM D3139. Pipe bells, with gasket seats, shall be formed as the pipe is extruded. Sleeve couplings are not permitted except as necessary for repairs during pressure/leakage testing.

All fittings for PVC pressure pipe shall be threaded malleable iron or push on joint PVC. Malleable iron fittings shall be furnished with threaded PVC adaptors to connect the fittings to the push on joint pipe. Elastomeric joints for PVC adaptors and PVC fittings with push on joints shall conform to ASTM D3139. PVC adaptors and fittings shall have a minimum pressure rating of 220 PSI and shall, except for threaded areas on adaptors, have a SDR of 13.5.

PVC pressure pipe shall be installed substantially in accordance with the Standard Recommended Practices for UNDERGROUND INSTALLATION OF FLEXIBLE THERMOPLASTIC SEWER PIPE, ASTM D2774.

All bends deflecting 11-1/4 degrees or more on PVC pressure pipe shall be provided with thrust blocking, poured as shown on the plans and/or as directed by the Engineer Bagged mix concrete may be used for blocking. Blocking shall be placed between solid ground and the fitting to be anchored. The area bearing on the pipe and on the ground in each instance shall be that shown or directed by the Engineer. The blocking shall be so placed that the pipe and fittings will be accessible for repair.

On completion of the line or sections of the lines, the line shall be filled with water and hydrostatically tested. All leaks and any defective material shall be repaired or replaced to the satisfaction of the Engineer and the tests repeated until the requirements of this specification are met. Any special equipment, pumps, etc. required to make the test shall be furnished and operated by the Contractor as directed by the Engineer. The Contractor shall use great care to be sure that all air is expelled from each section under test. The test pressure will be 200 PSI at the low point of the section under test. Allowable leakage will be determined by the formula $L = .0001QD$ where S is the length of pipe under test in feet, D is the pipe diameter in inches, and L is the allowable leakage in gallons per hour. The pressure and leakage tests will be run concurrently and for a duration of four hours. The maximum allowable leakage shall be 100 gallons per day per inch of pipe diameter per mile.

C. Manifold Pipe

All manifold pipe shall be polyvinyl chloride (PVC) pipe in sizes as shown on the plans. All manifold pipe shall be PVC Schedule 40, furnished in accordance with ASTM 1784 and 1785, and bear the National Sanitation Foundation (NSF) seal. All fittings shall be PVC Schedule 40 glue joint type. Installation and testing shall be in accordance with manufacturer's recommendations, the North Carolina State Building Code Volume II, Plumbing, and ASTM D 2774 latest revision.

D. Nitrification Drain Pipe

All nitrification drain pipe shall use the Infiltrator System Quick 4 Chambers Low Pressure Design. Pipe and fittings shall be made of virgin PE compounds which conform to the requirements of Type III or IV, Category 3, 4, or 5, Grade P 33, Class C; or Grade P 34, Class C as defined and described in ASTM 1248.

III. NITRIFICATION FIELDS

Nitrification fields shall consist of one new field consisting of 4 lines of 140 feet in length. (see plan chart) with Infiltrator Systems, Inc. Quick4 standard chamber lines spaced at 6'-0" min. centers. The new field has been designated "Primary". The lines have been numbered P1 thru P4.

A. Trenches

Trenches shall be excavated in accordance with this specification to neat lines and grades. Trenches must be installed level and parallel to the natural ground contours, without the use of stepdowns. Individual trench lengths vary; see plan chart. Trench width shall be 3'-0". Trench depth shall be a minimum of 18" and a maximum of 24" below grade on the downslope side. During the trenching process, attention shall be given to avoid the smearing of side walls in trenches and should any occur, there shall be raking or shoveling off of the smeared area. Open trenches shall not be exposed to rainfall. ABSOLUTELY NO TRENCHING SHALL BE DONE WHEN THE SITE IS WET.

B. Backfill

The trenches shall be filled with native soils. Soils may include group I, II, III, or IV soil. Soil should be mounded over the trench to allow drainage and vegetation establishment. Six (6) inches of minimum protective cover will be required in non-traffic areas and twelve (12) inches required in traffic areas.

C. Finish Grading and Seeding

The Contractor shall carefully plan his site preparations for the installation of the nitrification fields. Special attention shall be directed to surface drainage, layout and minimizing nitrification field disturbance by machinery and labor. Final system cover-up shall be in accordance with the drawings and specifications. Final surface drainage and landscaping shall be done as specified by the Engineer and/or the owner. Finished slopes shall be protected and established with permanent grass immediately upon completion of cut and fill operations. Surface drainage shall be made to remove surface runoff at non-erosive velocities to stable outlets and to prevent surface runoff from damaging cut faces and fill slopes. All disturbed areas shall be graded to neat and finished appearance. Chisel or rip on the contour and spread available topsoil to a minimum of 3" deep over areas not designated to receive water coverage. Remove all loose rock, roots, etc. from the surface that will interfere with establishment and maintenance vegetation. Uniformly apply finely ground agriculture lime at the rate of 2(ton) tons per acre (90#/1000sy). Uniformly apply (30) lbs per acre (25# per 1000sy) 10-20-20 fertilizer and thoroughly mix into soil with disk and or other plow to a depth of 4 inches. Continue tillage (on the contour) until a well-pulverized firm seedbed is prepared. Seed shall be placed on a freshly prepared firm seedbed. Equipment used shall apply seed uniformly and seed shall be covered lightly with seeding equipment or cultipacker after seeding. Seed Kentucky 31 Fescue on the area using at least 140 lbs. per acre (3#/100sy). Seed shall have purity of 98% and a minimum germination of 90%. Mulch all areas immediately after seeding using 3000 lbs. per acre (.65 bales per 100sy). Mulch applied to all slopes shall be tacked with cut back asphalt at the rate of 150 gallons per acre (2.5 gallons per 100sy).

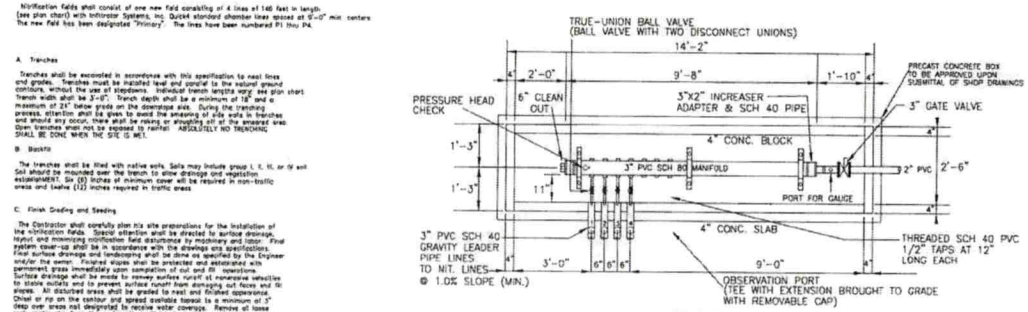
IV. OPERATION AND MAINTENANCE PROCEDURES

A. Responsible Operating Agent

The responsible agent for the proposed facilities is the owner, 2690 SALISBURY, LLC, 2690 Salisbury Road, Statesville, NC, 28677, telephone number 410-913-5393

B. Routine Maintenance Schedule

1. Collection system	6–12 months	check for blockages and infiltration
2. Settling tank	3 months	check for solids accumulation, blockages, or damage to outlet baffle, excess infiltration, pump wastage as solids approach 1/3 the liquid level
3. Pump tank	2–4 weeks	check pumps, controls, and high water alarm
	1 month	collect sample for laboratory analysis to monitor wastewater for COD, TSS, TDS, alkalinity, pH, and temperature
	3–6 months	check for solids accumulation and pump as required, check for in/exfiltration
4. Supply lines, Force mains	6–12 months	check for pipe exposure, leakage
5. Ground absorption	2–4 weeks	maintenance of field vegetative cover
	3–6 months	check for erosion, surfacing of effluent

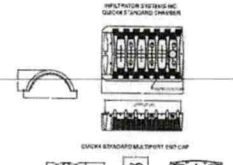


PLAN

SECTION

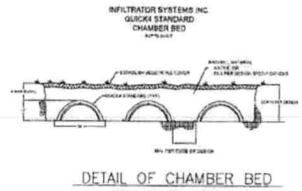
DETAIL OF MANIFOLD

SCALE: 1/2" = 1'-0"



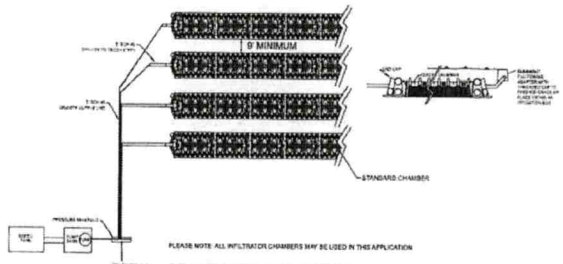
DETAIL OF END CAP

SCALE: NO SCALE



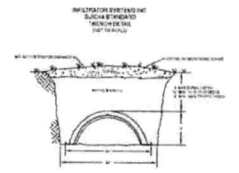
DETAIL OF CHAMBER BED

SCALE: NO SCALE



DETAIL OF NITRIFICATION SYSTEM

SCALE: NO SCALE



DETAIL OF TRENCH

SCALE: NO SCALE

NORTH CAROLINA SEAL 33252 ENGINEER MATTHEW L. GRANT

12-08-2021

JORDAN GRANT
ENGINEERING • SURVEYING • PLANNING
JORDAN GRANT & ASSOCIATES, PLLC
P.O. BOX 151 • STATESVILLE, NC 28687
mattg@jordan-grant.com (704) 928-7919
FIRM # P-1227

JOB NAME: ON SITE WASTEWATER DETAILS FOR LOT 33
Wiltshire Creek Subdivision

LOCATION ADDRESS: 165, 170, 174 F PANTHER CREEK ROAD

OWNER: MS BRIDAN HOMES LLC, PO BOX 3965, MOORESVILLE NC 28117

DRAWN BY: DMG | CHECKED BY: MSG
SCALE: 1" = 40'
DATE OF FIELD SURVEY: 04-10-2021
DATE OF MAP: 12-08-2021
DEED REF: 3740-1 | PIN NO.: 4765-09-1376
CAROLA LANE - MOORESVILLE, N.C. 28146
ALLISON - BARRIGER TOWNSHIP — IREDELL COUNTY — NORTH CAROLINA

MAP REVISIONS:

NO.	DATE	DESCRIPTION	BY

DRAWING FILE: 20210813-MG-SEPTIC-DETAILS.DWG

Sheet No:

C108

[redacted]
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION [redacted]

Sheet 1 of 2
PROPERTY ID #: 9740 0164
COUNTY: Iredell

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

OWNER: HH Wiltshire Holdings LLC
ADDRESS: PO Box 3965 Mooresville NC 28117
PROPOSED FACILITY: 3BR (4 bdrms) PROPOSED DESIGN FLOW (.1949): 360 gpd
LOCATION OF SITE: Lots 31-33 Easements W. Iltshire Lot 3 7 174 E. Part on Creek Rd Troutman NC 28166
APPLICATION DATE
DATE EVALUATED: 8-4-16
PROPERTY SIZE: 0.92ac
PROPERTY RECORDED: yes

WATER SUPPLY: ☒ Private ☐ Public ☒ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	18%	0-8"	sl wk gr	fr nsp nap		43"	PS		13 to 43"
		8-24"	red sbk C wk mod sbk	fr ss sp slep					
		24-43"	red brown CL wk f sbk	fr ss sp slep	common sap				
		43-72"	loamy sap wk gr	fr nsp nap					
2	18%	0-5"	brown CL wk f sbk	fr ss sp slep		16"	PS		.4-.7
		5-16"	red C wk med sbk	fr ss sp slep					
		16-[illegible]"	massive sap loam wk f	fr nsp nep					
3	18%	0-9"	sl gr wk	fr ss sp slep		70"			13 to 33"
		9-33"	brown red sbk C wk mod sbk	fr ss sp slep					34"+ >.35
		33-70"	red brown CL wk f sbk	fr ss sp slep	common sap inclusions				
4	18%	0-6	brown sl wk f gr	fr ss sp slep		42"	PS		.3-.35
		6-28	red brown C wk mod sbk/blk	fr ss sp slep					.4 (sap)
		28-42"	red brown CL wk mod sbk	fr ss sp slep					
		42-80"	ver. stied loam sap massive						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
[illegible]ilable Space (.1945)	PS	PS
System Type(s)	Accepted	PPBPS
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: W. Overby
OTHER(S) PRESENT: S. Ashley Rollins

COMMENTS:

Updated February 2014

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

Sheet 2 of 2

[redacted]

PROPERTY ID #: sand

DATE OF EVALUATION: 4

COUNTY: 4

W. Halve Lot 37 Easements for Wiltshire Lots 31, 32 & 33

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
5	60/0 L	0-8"	brown SL wk fi gr	Fr SS SP SLP	Aw SAP inclusions	48"	PS	-	1275 to 321
		8-32"	red C wk med sbk	Fr SS SP SLP					33" & 35-
		32-48"	red brown C wk med sbk	Fr SS SP SLP					
		48-75"	Variegated sandy loam fi gr	V Fr NP NS SP					
P6	L/22%	0-6	BL Gr	Fr SS SP SEXP	Few Tor. SAP Few WR Rock	49	PS	-	PS .325 Shallow
		6-30	BRC wms sbk/1AB11	Fr SS SP					
		30-49	RBCL wfsbk	Fr SS SP					
		49-64	VAR L. MASS	Fr SS SP					

COMMENTS: _____

MD

RECEIVED JAN 2 4 2022

324891

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

APPLICATION FORM

Paid $500.00 Session Law

Application For:
( ) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(X) Septic Improvement Permit ( ) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED. APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted: ( ) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) beside whichever is submitted if applicable (X) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information: (PRINT CLEARLY)

Applicant Name: HH Wiltshire Holdings LLC Address: P.O. Box 3965 Mooresville NC Zip: 28117
Applicant Email: mwetherington@nesthomes.com Phone: 704.202.1524 Alt. Phone:
Owner Name: Same Address: Same & Zip: Same
Owner Email: Same Phone: Same Alt. Phone:

Property Information:

Street Address: 174 E Panther Creek Rd. Troutman NC 28166
Subdivision Name: Wiltshire Creek Section/Phase: SHT3 Lot Number: 31
Driving Directions: Peeth Rd, Clontz Hill Rd, Ridge Creek Dr, Wiltshire Rd, E Panther Creek

Site Development Information: *(check or complete ALL that apply*

(✓) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem:
Non-Residential Site Development: Type of Business:
Square Footage of Building: Max. Number of Employees: Max. Number of Seats/Beds/Other:

Maximum Number of Bedrooms: 3
Maximum Number of Occupants: 6
( ) Swimming Pool
( ) Other Addition/Structure:

CHECK FOUNDATION TYPE
( ) Crawl Space Foundation
(✓) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbing

Water Supply: ( ) Replacement Well – Reason:
( ) Multi-connection Well Number of Houses: Number of Persons:
(✓) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

Desired Septic System Type: *(you may rank in order of preference)* Year existing system installed:
( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional (✓) Other: Accepted

Please answer the following to the best of your ability:
( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
( ) Yes (✓) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes (✓) No Is the site subject to approval by any other public agency?

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

Signature: Property owner or owner's legal representative signature (SIGNATURE REQUIRED) 1/13/22 DATE

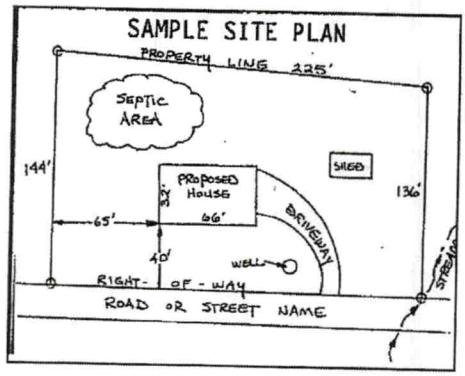
IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

SITE PLAN WORKSHEET

SEE THE "SAMPLE SITE PLAN" BELOW. *INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM OR WELL PERMIT!!!*

Place an (X) beside each item as you complete the site plan:

- (X) **Property Line measurements are clearly identified**
- (X) **All proposed structures are indicated**
- (X) **Front and side setbacks from property line**
- (X) **Preferred driveway location**
- (X) **Preferred well location**
- (X) **Preferred septic system location**
- (X) **North arrow, or other sufficient indicator of direction**



Circle N/A on the following if appropriate:

Location of septic systems and wells within 100' of your property (N/A)
Location of easements and rights of ways on your property (N/A)
Location of any designated wetlands on the property (N/A)

USE THIS SPACE TO DRAW YOUR SITE PLAN

Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

See Attached

Signature: Samuel A Keller

Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

1/13/22

DATE

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative:

Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship

In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:

Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form.

If there are multiple property owners, then all property owners must sign the form that designates a legal representative.

By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

I, HH Wiltshire Holdings LLC/Michael Weiler, am the legal owner(s) of the property located at 174 E Panther Creek Rd Troutman NC 28166, identified as PIN (Parcel Identification Number) 4740401614, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) SFS / Ashley Rollens, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- Improvement Permit (IP) / Authorization to Construct (AC)
- Application for soil-site evaluation (new/repair)
- Application/permit for private drinking water well/well abandonment
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

* Tim Carr — 1-21-22
Signature of Owner(s) — Date

Angela King — 1/21/2022
Signature of Witness — Date

Please return this signed form to the appropriate office:

Mooresville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

Statesville - Environmental Health
adrienne.shea@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

ENVIRONMENTAL HEALTH REQUIREMENTS for SEPTIC and WELL PERMITS

The following items must be completed *PRIOR* to the *SUBMITTAL* of any Environmental Health Application. Incomplete applications will be returned to the applicant and cannot be processed or placed on the work list.

*** Initial all lines below to indicate you have submitted each form and completed every site requirement ****

S.A.R. **Complete all Environmental Health forms:**
- S.A.R. Application
- S.A.R. Site Plan with dimensions of proposed structure, addition, pool etc.
- S.A.R. Documentation to Authorize Owner Agent (if the property owner is not the applicant)
- S.A.R. Copy of Zoning Permit when applicable
- S.A.R. Sign this sheet after you have completed all items

S.A.R. **Lot must be cleared of heavy undergrowth.** In order to evaluate the lot, the footprint of the proposed structure must be visible. Adequate area for the septic drain field and repair area must be sufficiently cleared of heavy undergrowth, with **50 feet of visibility** in all directions. Inspectors must be able to evaluate the property, shoot laser level elevations, layout the drain field, do soils work, etc. **If the lot is not cleared sufficiently, then a $100 site revisit fee will be charged and the evaluation will be put on HOLD until the requirement is met.**

S.A.R. **Clearly mark all property corners by locating existing iron or concrete markers**. Flag all property lines every 25 feet if adjacent corners are not visible when standing on any given corner. Property lines must be flagged by a licensed NC surveyor & easily identified **prior to application submittal** (exception may apply for septic repair evaluations only).
'Mow lines' and/or fence lines do NOT constitute marked lines. **If the property lines are not properly marked when the lot is ready to be evaluated, then the application will be put on HOLD and a $100 site re-visit fee charged**.

S.A.R. **Stake or flag the footprint of the proposed structure, addition, pool etc. to match the site plan submitted.** The proposed structure, etc. **must be staked** out on the property as per the site plan.

S.A.R. If an **Authorization to Construct (AC) is desired**, submit a recorded copy of the plat for newly created or subdivided lot(s) and a LEGIBLE copy of the basic floor plan no larger than 8 ½" x 14" for each floor of the structure including decks, porches, etc. **The overall dimensions must be clearly noted & the rooms labeled.**

Any site not meeting the above requirements when staff arrives for the evaluation will result in a $100 site revisit fee being charged and the request being placed on HOLD. This will delay the processing of the application.
Once work by Environmental Health staff begins, the up-front fees paid toward securing any health department permit are non-refundable. Refunds for work not started, due to a customer changing their mind or plans, are subject to an administrative fee of $50 to defray a portion of the costs of processing the refund.

Backhoe pits are required for all applications that require a soils evaluation.
DO NOT DIG PITS UNTIL THE EH SPECIALIST HAS AUTHORIZED AND SCHEDULED YOUR EVALUATION TIME.
- **All utilities shall be marked before pits are dug. Call NC 811 for this service.**
- **The applicant/agent is responsible for securing these services**
- **Backhoe pits are to be dug at the locations and depths determined by the Environmental Health Specialist or a NC Licensed Soil Scientist. A minimum of four pits must be dug.**
- **The EH specialist will contact you when your application is ready to be processed for pit scheduling.**
- **Your backhoe operator must be on site during the EH Specialist's evaluation to prevent your operator from having to return to the property for additional work.**

By signing below I am acknowledging the above specifications have been met and the site is READY to be evaluated AND I understand the backhoe pit requirement and will secure those services (if applicable).

Signature _____ **Date** 1/13/22

Questions? Contact the Environmental Health Offices below:

Statesville Office
349 North Center Street (2nd Floor Building Standards)
Statesville, NC 28677-4063
Phone: (704)878-5305 ext. 3456

Mooresville Office
610 East Center Avenue (2nd Floor Govt. Center South)
Mooresville, NC 28115-2548
Phone: (704)660-3625

IREDELL COUNTY · NC

IREDELL COUNTY
PO Box 788
349 North Center St.
Statesville, NC 28677

APPLICATION NUMBER
324891 Issue Date:

Permit Type: ZONING

Parcel Number	Street Address	Jurisdiction
4740401614.000	174 E PANTHER CREEK RD	Iredell County

Owner Information	Applicant Information
Name: HH WILTSHIRE HOLDINGS LLC	Name: HELMSMAN HOMES
Address:	Address: PO BOX 3965
,	MOORESVILLE, NC 28117
Phone:	Phone:

Use Requested	Zone Code
Single Family Dwelling	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
0.92	35	35	15	15	WSIV-PA Catawba/Lake Norman	NO

Remarks
SFD

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. The applicant further acknowledges that enforcement of deed restrictions, plat conditions and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Date: 01/24/2022

Signature of Owner/Contractor

Permit Number	324891	TOTAL FEES:	$77.25

IREDELL COUNTY PLANNING & DEVELOPMENT
PO BOX 788, STATESVILLE NC 28687-0788
349 N. Center Street / Building Standards Center
(704) 878-3118 / FAX (704)928-2025

Residential Zoning Permit Application

What are you building?(Please check) ***No building or addition shall be used for commercial, business, or other non-residential use unless appropriate permits and approval are obtained from Iredell County for commercial use.**

Stick built ✓ Modular___ Duplex___ Singlewide___ Doublewide___ Pier___ Addition___ Bedroom addition___

Accessory dwelling (ie: M-I-L Suite, guest house) ___ Accessory building (ie: garage, shed)___ Swimming pool___

Are there any other structures currently on the property such as dwellings, sheds, garages? (Please list type below)

Is there a septic tank on the property? Yes (No) If residence how many bedrooms? 3 and stories? 2

Please describe project (Details, Purpose, or Use): Single Family Home

Please list square footage of project (Pier, Addition, Accessory Dwelling, Accessory Building only): 2,112

Does the property have community water? (Yes) No If yes, please list who provides it: Turnover

Does the property have community sewer? Yes (No) If yes, please list who provides it: _____

Owner Information

Property Owner's Name Helmsman Homes Phone # (704) 604-8406

Owner's Current Address 326 Raceway Dr. Ste. 7, Mooresville 28117

Property Information

Property Address 174 E. Panther Creek Rd Parcel # _____

Subdivision:_____ Lot:____ Zoning:_____ Watershed: Y / N Flood Plain: Y / N Township:_____

Directions to property (from a MAIN ROAD) _____

Application Information

Applicant's Name or Company Helmsman Homes Applicant's Phone # 704 604-8406

Applicant's Address 326 Raceway Dr., Ste. 7, Mooresville 28117

If Company, Representative's Name and Title John Morrow PM

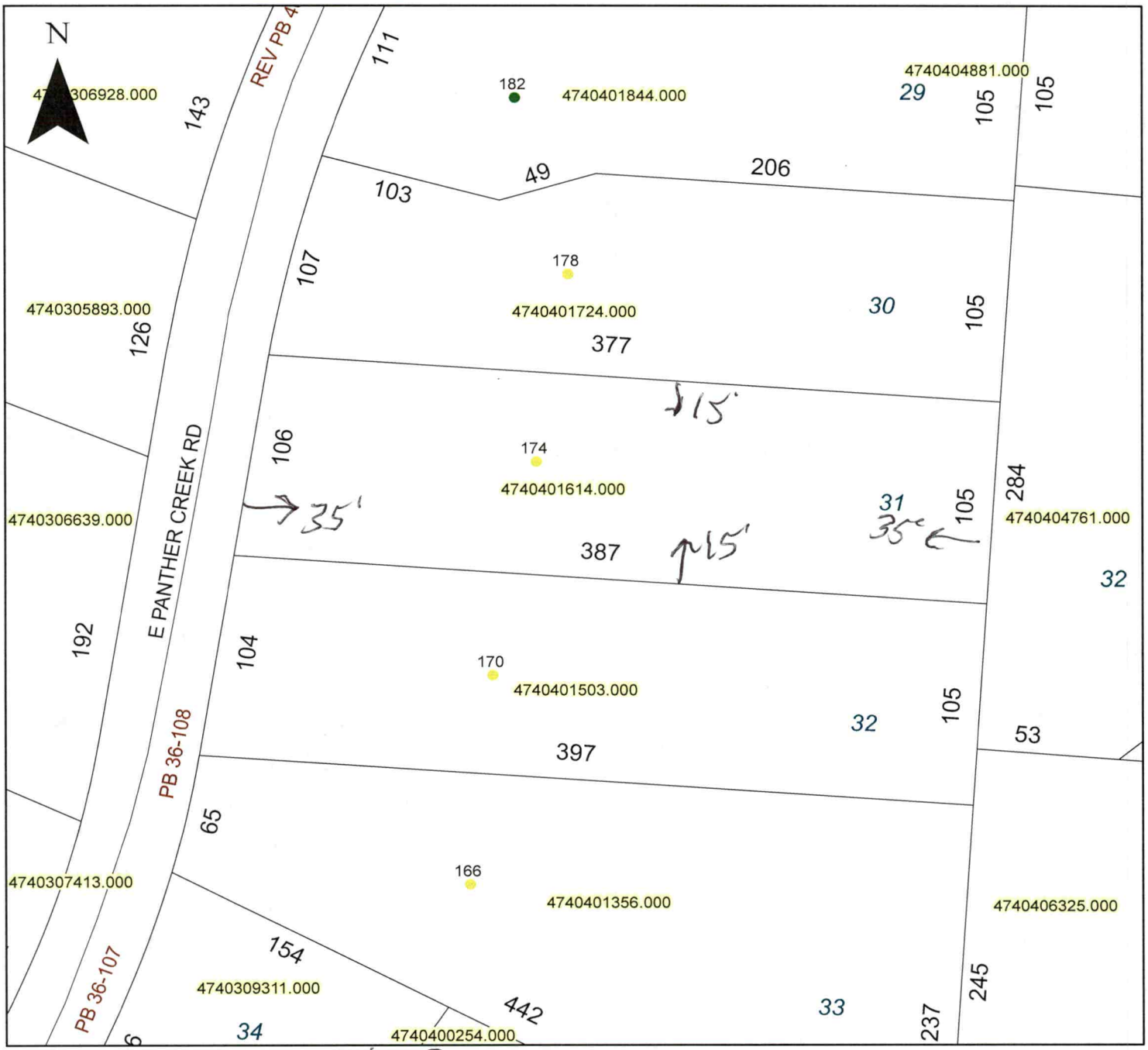
IN APPLYING FOR A ZONING PERMIT I CERTIFY THAT ALL INFORMATION ON THIS APPLICATION IS CORRECT AND THAT ALL WORK WILL COMPLY WITH IREDELL COUNTY ZONING REGULATIONS. THE IREDELL COUNTY PLANNING & DEVELOPMENT DEPARTMENT WILL BE NOTIFIED OF ANY CHANGES THAT ARE MADE TO THIS PROJECT. I AM AWARE THAT THIS IS AN APPLICATION ONLY - NOT A PERMIT - AND DOES NOT CONSTITUTE APPROVAL OF THIS PROJECT. HOWEVER, IF THIS PROJECT IS APPROVED, THIS SIGNATURE IS VALID FOR MY PERMIT.

SIGNATURE OF APPLICANT _____ DATE 1/24/22

acres.92 Catawba/WRW
Iredell RA WS-IV-PA flood.no

324891.

ZONING DISCLAIMER



Property Address 174 E Panther Creek

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. Applicant further acknowledges that the enforcement of deed restrictions, plat conditions, and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Applicant

4/24/22
Date

IREDELL COUNTY · NC

Cash Register Receipt

Iredell County

Receipt Number
R14496

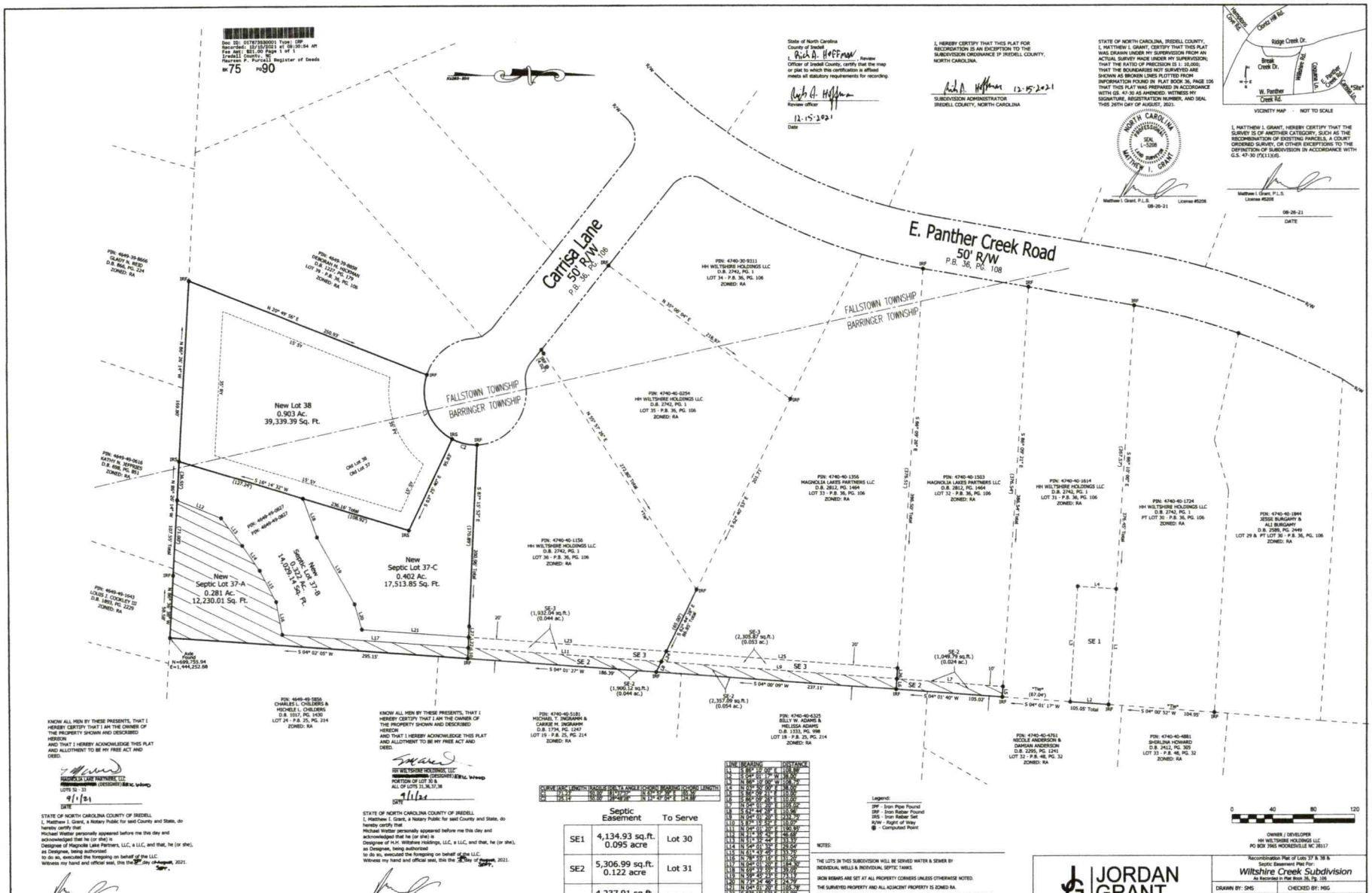
DESCRIPTION	ACCOUNT	QTY	PAID
PermitTRAK			**$577.25**
AP-324891 Address: 174 E PANTHER CREEK RD APN: 4740401614.000			**$577.25**
EH NEW SYSTEM PERMITS			$500.00
GRAVITY SYSTEM	10492751-447004	0	$500.00
ZONING			$77.25
TECH FEE ZONING	104563-460450	0	$2.25
ZONING PERMIT	104563-472223	0	$75.00
TOTAL FEES PAID BY RECEIPT:R14496			**$577.25**

Date Paid: Monday, January 24, 2022

Paid By: HELMSMAN HOMES

Cashier: AP

Pay Method: CHECK 3177

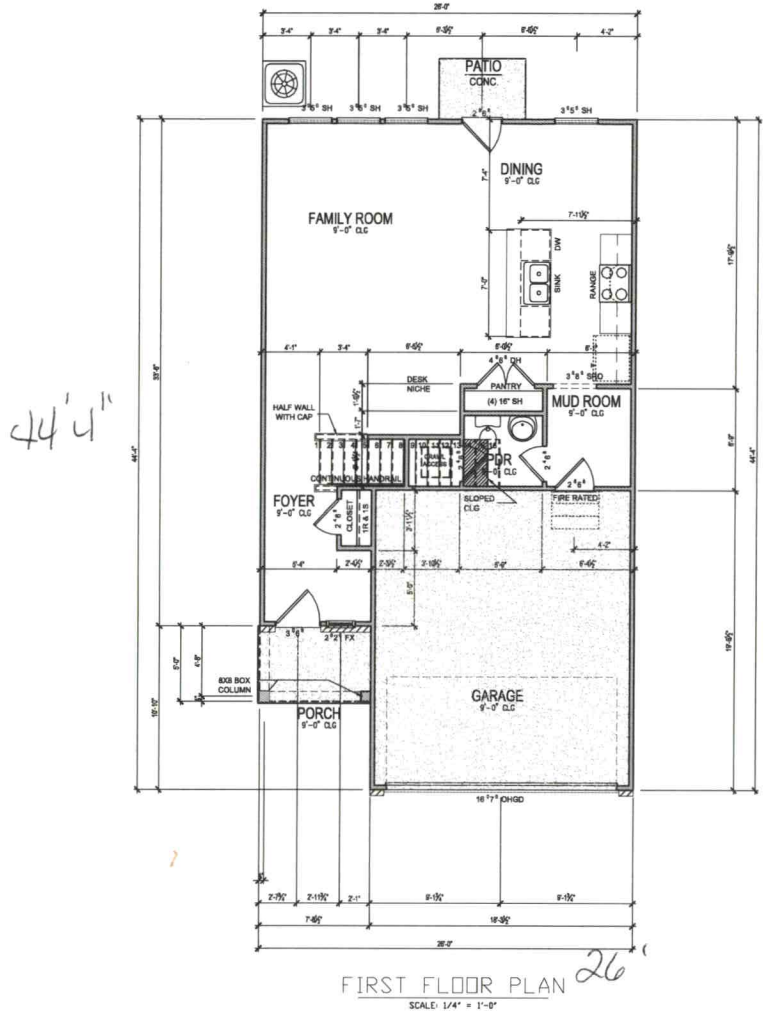

E. Panther Creek Road
50' R/W
P.B. 36, Pg. 108
Carrisa Lane
50' R/W
P.B. 36, Pg. 106
FALLSTOWN TOWNSHIP
BARRINGER TOWNSHIP
New Lot 38
0.903 Ac.
39,339.39 Sq. Ft.
New
Septic Lot 37-A
0.281 Ac.
12,230.01 Sq. Ft.
New
Septic Lot 37-B
0.332 Ac.
14,459.14 Sq. Ft.
New
Septic Lot 37-C
0.402 Ac.
17,513.85 Sq. Ft.
Old Lot 38
Old Lot 37
SE 1
SE 2
SE 3
SE-1
(4,134.93 sq.ft.)
(0.095 ac.)
SE-2
(1,900.12 sq.ft.)
(0.044 ac.)
SE-3
(1,932.04 sq.ft.)
(0.044 ac.)
SE-4
(2,357.29 sq.ft.)
(0.054 ac.)
SE-5
(2,305.87 sq.ft.)
(0.053 ac.)
SE-6
(1,048.79 sq.ft.)
(0.024 ac.)
Ridge Creek Dr.
Break Creek Dr.
Millstone Rd.
Coverdale Ln.
Barringer Ln.
Carrisa Ln.
W. Panther Creek Rd.
VICINITY MAP - NOT TO SCALE
PIN: 4649-39-8606
GLADY N. REED
D.B. 866, PG. 224
ZONED: RA
PIN: 4649-39-9606
DEBORAH M. HOWARD
D.B. 1210, PG. 106
LOT 39 - P.B. 36, PG. 106
ZONED: RA
PIN: 4740-30-9311
HH WILTSHIRE HOLDINGS LLC
D.B. 2742, PG. 1
LOT 34 - P.B. 36, PG. 106
ZONED: RA
PIN: 4649-39-9016
KATHY N. REYNOLDS
D.B. 696, PG. 883
ZONED: RA
PIN: 4740-40-0254
HH WILTSHIRE HOLDINGS LLC
D.B. 2742, PG. 1
LOT 35 - P.B. 36, PG. 106
ZONED: RA
PIN: 4649-49-0827
PIN: 4649-49-0627
PIN: 4740-40-1356
MAGNOLIA LAKES PARTNERS LLC
D.B. 2812, PG. 1464
LOT 33 - P.B. 36, PG. 106
ZONED: RA
PIN: 4740-40-1503
MAGNOLIA LAKES PARTNERS LLC
D.B. 2812, PG. 1464
LOT 32 - P.B. 36, PG. 106
ZONED: RA
PIN: 4740-40-1614
HH WILTSHIRE HOLDINGS LLC
D.B. 2742, PG. 1
LOT 31 - P.B. 36, PG. 106
ZONED: RA
PIN: 4740-40-1724
HH WILTSHIRE HOLDINGS LLC
D.B. 2742, PG. 1
PT LOT 30 - P.B. 36, PG. 106
ZONED: RA
PIN: 4740-40-1894
JESSE BURGAMY &
ALI BURGAMY
D.B. 2589, PG. 2449
LOT 29 & PT LOT 30 - P.B. 36, PG. 106
ZONED: RA
PIN: 4649-49-1643
LOUIS J. COCKLEY III
D.B. 1882, PG. 2229
ZONED: RA
PIN: 4740-40-1156
HH WILTSHIRE HOLDINGS LLC
D.B. 2742, PG. 1
LOT 36 - P.B. 36, PG. 106
ZONED: RA
Axle Found
N=699,755.94
E=1,444,252.68
PIN: 4649-49-5856
CHARLES L. CHILDERS &
MICHELE L. CHILDERS
D.B. 1017, PG. 1430
LOT 24 - P.B. 25, PG. 214
ZONED: RA
PIN: 4740-40-5181
MICHAEL T. INGRAMM &
CARRIE M. INGRAMM
D.B. 1734, PG. 1247
LOT 19 - P.B. 25, PG. 214
ZONED: RA
PIN: 4740-40-6325
BILLY W. ADAMS &
MELISSA ADAMS
D.B. 1333, PG. 998
LOT 18 - P.B. 25, PG. 214
ZONED: RA
PIN: 4740-40-4751
NICOLE ANDERSON &
DAMIAN ANDERSON
D.B. 2295, PG. 1241
LOT 32 - P.B. 48, PG. 32
ZONED: RA
PIN: 4740-40-4881
SHIRLINA HOWARD
D.B. 2412, PG. 305
LOT 33 - P.B. 48, PG. 32
ZONED: RA
"Tie" (67.04')
"Tie" 104.95'
105.05' Total
105.02'
295.15'
186.39'
237.11'
N 39° 49' 56" E
300.83'
S 16° 14' 32" W
(127.24')
236.16' Total
(106.92')
S 04° 02' 05" W
S 04° 01' 27" W
S 04° 08' 09" W
S 04° 01' 40" W
S 04° 01' 17" W
S 04° 00' 52" W
N 39° 49' 56" E
300.83'
N 39° 49' 56" E
315.57'
N 39° 49' 56" E
172.80' Total
(172.80')
S 04° 40' 33" E
201.11'
S 04° 40' 33" E
(196.57')
S 04° 40' 33" E
(196.57')
S 04° 40' 33" E
(196.57')

Acknowledgement Of
Plans Submittal ONLY!

Maria Dotson Date 4/2/22

Maneuvered Date 4/16/22

26'



44'4"

44'4"

FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

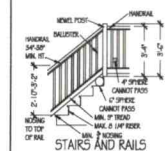
26'

FARMHOUSE "A"
TRADITIONAL "A"

WALL STUD REQUIREMENTS	
EXT. WALL HEIGHT (h) / STUD SIZE AND SPACING	
h < 10'-0"	2x4 @ 16" O.C.
10'-0" < h < 11'-0"	2x6 @ 16" O.C.
11'-0" < h < 18'-0"	2x6 @ 16" O.C.
h > 18'-0"	CONSULT ENGINEER

SQUARE FOOTAGE	
FIRST FLOOR (HEATED)	708
SECOND FLOOR (H EATED)	1044
TOTAL (HEATED)	1752
GARAGE (UNHEATED)	360
FRONT PORCH	40

1. STAIRWAYS SHOULD BE NO LESS THAN 36" IN WIDTH
2. THE LENGTH OF RUN AND HEIGHT OF RISER SHALL NOT VARY MORE THAN 3/8 IN ENTIRE RUN OF STAIRS
3. STAIRS ARE REQUIRED TO BE ILLUMINATED
4. OPEN SIDES PERIMETER IF CRITERIA IS LESS THAN 4"
5. GUARDRAIL REQUIRED ON DECKS AND STAIRWAYS MORE THAN 30" ABOVE GRADE OR FLOOR BELOW
6. Handrails with a circular cross section shall have an outside diameter of not less than 1 1/4" and not greater than 2". If the handrail is not circular, it shall have a perimeter dimension of not less than 4 inches (100 mm) and not greater than 6 1/4" with a cross section of dimension of not more than 2 1/4". Edges shall have a radius of not less than 0.01 inch



STAIRS AND RAILS

I-JOIST NOTES

FRAMING CONSTRUCTION NOTES:

BRACED WALL LINE NOTE:
THIS STRUCTURE HAS BEEN ANALYZED FOR LATERAL LOADING USING CONTINUOUSLY SHEATHED WALL SHEATHING AS INDICATED IN THE GENERAL NOTES. WHERE BRACED WALLS DO NOT MEET THE PRESCRIPTIVE REQUIREMENTS OF SECTION R602.10 OF THE CODE, IT HAS BEEN ANALYZED BY ENGINEERING ANALYSIS INCORPORATING ENGINEERED LATERAL BRACING ELEMENTS WHERE NEEDED TO MEET THE INTENT OF THE CODE.

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2. "DBL" INDICATES DOUBLE JOIST
3. RIM BOARDS AND BANDS PARALLEL TO FLOOR FRAMING TO BE DOUBLED.
4. ALL LOAD- BEARING HEADERS SHALL BE (2)2X8 SPF#2 UNLESS OTHERWISE NOTED ON THE PLAN.
5. WHERE DIMENSIONS ARE NOT INDICATED, BEAMS THAT RUN PARALLEL TO FLOOR JOISTS ARE INTENDED TO ALIGN UNDER LOAD BEARING WALLS. SEE THE ARCHITECTURAL PLANS FOR DIMENSIONS TO WALLS.
6. ALL WALLS UP TO 10 FT. TALL SHALL BE 2X4 SPF#2 @ 16" O.C. UNLESS NOTED OTHERWISE ON THE PLAN. TALLER WALLS SHALL COMPLY WITH TABLE R602.3(4) OF THE CODE OR AS NOTED ON THE PLAN.
7. WOOD BEAMS SHALL BE SUPPORTED BY METAL HANGERS OF ADEQUATE CAPACITY WHERE FRAMING INTO BEAMS OR LEDGERS. THE FOLLOWING HANGER SCHEDULE MAY BE USED UNLESS NOTED OTHERWISE ON THE PLAN:

MEMBER SIZE	SIMPSON HANGERS
(2) 2X8	LUS 28-2
(2) 2X10	LUS 210-2
(2) 2X12	LUS 210-2
(2) 1¾" X 9¼" LVL	HUS 410
(2) 1¾" X 11⅞" LVL	HUS 412
(2) 1¾" X 14" LVL	HUS 412
ALL TRIPLE LVLs	HHUS 5.50/10

8. NOTE: FILL ALL OF THE HOLES IN HANGERS WITH 16d x 3½" COMMON NAILS (3¼"x 0.162") OR 16d x3½" (3¼"x 0.162") NAILS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DO NOT BEND OR MODIFY THE HANGER OR USE INAPPROPRIATE FASTENERS. DO NOT USE 10dX 1½" "HANGER NAILS" UNLESS OTHERWISE NOTED ON THE PLANS OR IN SITUATIONS WHERE ONLY ½" OR LESS OF WOOD IS PROVIDED TO NAIL INTO.
9. STEEL BEAMS MUST HAVE (5)-2X4 OR (4)-2X6 STUDS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.
10. "LVL" AND GLU-LAM BEAMS MUST HAVE ENOUGH STUDS TO SUPPORT ALL PLIES AT EACH END WITH A MINIMUM OF (3)-2X4 OR (2)-2X8 STUDS UNDER EACH END UNLESS NOTED OTHERWISE.
11. ALL POINT LOADS FROM ROOF BRACES, JACK STUDS, BEAM SUPPORTS -WHETHER WOOD OR STEEL- CANNOT BEAR ON SHEATHING ALONE. BLOCKING EQUAL TO OR BETTER THAN THE POINT LOAD SUPPORTS ABOVE MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION. INSTALL 2X4 SQUASH BLOCKS (S.B.) OF EQUAL NUMBER TO COLUMN ABOVE BETWEEN SUBFLOOR AND FOUNDATION WALL OR LOWER PLATE. RIM BOARDS AND I-JOIST BLOCKING SHALL NOT BE CONSIDERED AS AN ACCEPTABLE MEANS OF SUPPORT UNDER CONCENTRATE POINT LOADS FROM LVL AND STEEL BEAMS OR WHERE "S.B" IS INDICATED ON THE PLAN.
12. FASTEN ALL TRIPLE PLY LVLs TOGETHER WITH TWO ROWS OF 8" LONG TRUSSLOK OR SIMPSON SDS SCREWS @ 16" O.C. AND FOUR PLY LVLs WITH TWO ROWS OF 8½" TRUSSLOK SCREWS @ 16" O.C. UNLESS NOTED OTHERWISE ON THE PLANS. THE SCREWS SHALL BE LOCATED A MINIMUM OF 2" AND A MAXIMUM OF 3" FROM THE TOP OR BOTTOM OF THE BEAM.
13. FASTEN FIRST KING STUD TO LUMBER HEADER WITH AT LEAST THREE 16D (3¼"X0.162") IN EACH PLY.
14. JACK AND KING STUD SCHEDULE AT WALL OPENINGS:
TO BE INSTALLED AT EACH END OF OPENING UNLESS OTHERWISE NOTED AS "NJ" OR "NK" ON PLAN)
SPANS UP TO 4'-0" ..... 1 JACK, 1 KING
SPANS >4'-0" TO 6'-0" ..... 1 JACK, 2 KINGS
SPANS >5'-0" TO 6'-0" ..... 2 JACK, 3 KINGS
SPANS >6'-0" ..... SEE PLAN

256 Raceway Drive Suite 7
Mooresville, NC 28117
PH: 704-658-4251

Township/County
TOWNSHIP
COUNTY

Engineer

Stamp/seal

Project name/owner
2175 PLAN
ELEVATION A

OWNER NAME/TITLE
ADDRESS LINE 1
ADDRESS LINE 2
PH: 000-000-0000
PH: 000-000-0000

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Date
August 12, 2021

Drawn by
MCML

Reviewed by
NEST

Plan set scale
24x36 sheet
1/4" = 1'-0"
11x17 sheet
1/8" = 1'-0"

Project/plan code
XX.XX.XXXX

Drawing set
FOR CONSTRUCTION

Sheet title/description

Sheet no.
A-3.0

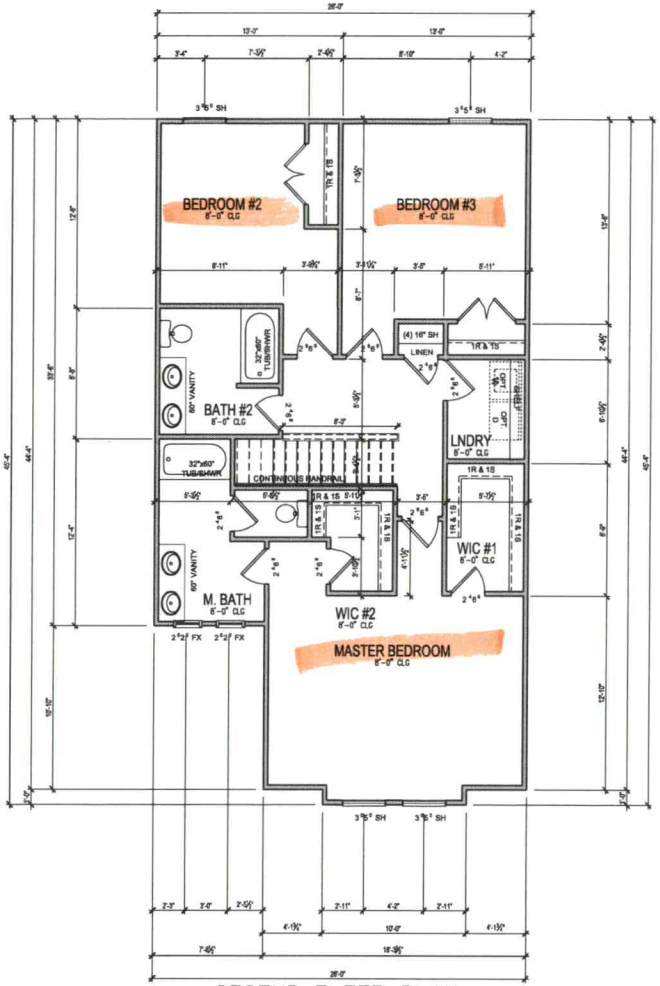
Master plan version
-1.0

174 E. Poplar

Acknowledgement Of Plans Submittal ONLY!

Maria Dotson Date 4/2/22

Nemenchek Date 4/6/22



SECOND FLOOR PLAN

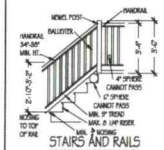
SCALE: 1/4" = 1'-0"

FARMHOUSE "A"
TRADITIONAL "A"

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~~EXT.~~ WALL HEIGHT (h)	STUD SIZE AND SPACING
h < 10'-0"	2x4 @ 16" O.C.
10'-0" < h <11'-0"	2x4 @ 12" O.C.
11'-0" < h < 18'-0"	2x6 @ 16" O.C.
h > 18'-0"	CONSULT ENGINEER

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FIRST FLOOR (HEATED)	708
SECOND FLOOR (H EATED)	1044
TOTAL (HEATED)	1752
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STAIRS AND RAILS

I-JOIST NOTES

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SPANS >6'-8" TO 8'-8" ..... 2 JACK, 3 KINGS
SPANS >8'-8" ..... SEE PLAN

236 Raceway Drive Suite 7
Mooresville, NC 28117
PH: 704-658-4251

Township/County
TOWNSHIP
COUNTY

Engineer

Stamp/seal

Project name/owner
2175 PLAN
ELEVATION A

OWNER NAME/TITLE
ADDRESS LINE 1
ADDRESS LINE 2
PH: 000-000-0000
PH: 000-000-0000

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Date
August 17, 2021

Drawn by
MCML

Reviewed by
NEST

Plan set scale
24x36 sheet
1/4" = 1'-0"
11x17 sheet
1/8" = 1'-0"

Project/plan code
XX.XX.XXXX

Drawing set
FOR CONSTRUCTION

Sheet title/description

Sheet no.
A-4.0

Master plan version
-1.0

RECEIVED JUL 15 2022

APPLICATION MUST BE FILLED OUT COMPLETELY & BE LEGIBLE OR IT WILL NOT BE PROCESSED

Iredell County Health Department – Environmental Health Division

PAGE 1: *APPLICATION FORM* AP-324891 $530.00

Application For: (X) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
( ) Septic Improvement Permit (X) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED. APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted: (X) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) *beside whichever is submitted if applicable* ( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information: (PRINT CLEARLY)

Applicant Name: Helmsman Homes, LLC **Address:** 116 Gasoline Alley, Suite 105, Mooresville, NC **Zip:** 28117

Applicant Email: cnewsome@helmsmanhomes.com **Phone:** 980-500-1251 **Alt. Phone:** _____

Owner Name: Helmsman Homes, LLC **Address:** 116 Gasoline Alley, Suite 105, Mooresville, NC **Zip:** 28117

Owner Email: permitting@helmsmanhomes.com **Phone:** 980-500-1251 **Alt. Phone:** _____

Property Information:

Street Address: 174 East Panther Creek

Subdivision Name: Wiltshire Creek **Section/Phase:** _____ **Lot Number:** 31

Driving Directions: I-77 to exit 42, Hwy 21N to Troutman, Left on Flower House Loop Left on Clontz Hill Road to Wiltchire Creek

Site Development Information: *(check or complete ALL that apply*

CHECK FOUNDATION TYPE

(X) New Single Family Residence — Maximum Number of Bedrooms: 3 — ( ) Crawl Space Foundation
( ) New Multi-Family Residence — Maximum Number of Occupants: 6 — (X) Concrete Slab Foundation
( ) Accessory Building — ( ) Swimming Pool — ( ) Basement with Plumbing
( ) Bedroom(s) Addition — ( ) Other Addition/Structure: _____ — ( ) Basement without Plumbing
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem: _____
Non-Residential Site Development: Type of Business: _____
Square Footage of Building: _____ Max. Number of Employees: _____ Max. Number of Seats/Beds/Other: _____

Water Supply: ( ) Replacement Well – Reason: _____
( ) Multi-connection Well Number of Houses: _____ Number of Persons: _____

(X) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

Desired Septic System Type: *(you may rank in order of preference)* Year existing system installed: _____
( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other: _____

Please answer the following to the best of your ability:

( ) Yes (X) No Does the site contain any jurisdictional wetlands?
( ) Yes (X) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes (X) No Is the site subject to approval by any other public agency?

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

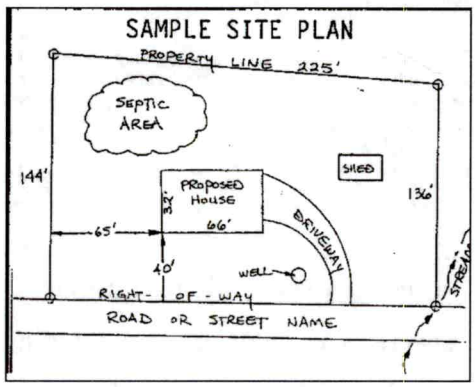
Signature: _____ 6-22-22
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 2: *SITE PLAN WORKSHEET*

SEE THE "SAMPLE SITE PLAN" BELOW. *INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!*



Place an (X) beside each item as you complete the site plan:

- ( ) **Property Line measurements are clearly identified**
- ( ) **All proposed structures are indicated**
- ( ) **Front and side setbacks from property line**
- ( ) **Preferred driveway location and well location**
- ( ) **Area you prefer your septic system to be placed**
- ( ) **North arrow, or other sufficient indicator of direction**

Circle N/A on the following if appropriate:

Location of septic systems and wells within 100' of your property	**N/A**
Location of easements and rights of ways on your property	**N/A**
Location of any designated wetlands on the property	**N/A**

USE THIS SPACE TO DRAW YOUR SITE PLAN

Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

See attached plot plan

Signature: _____

Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

6-22-22

DATE

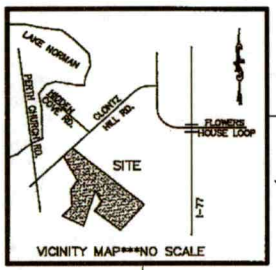
DAS DON ALLEN & ASSOCIATES, P.A.
"Since 1971"
Commercial * Residential * Mortgage Surveys * Multi-Family
Construction Staking * Subdivision Design * Topographical
131 Crosslake Park Drive – Suite 102 * Mooresville * NC * 28117
(704) 664-7029 (704) 664-8041 Fax

I, certify that this map was drawn under my supervision from an actual survey made under my supervision recorded in deed book 2742, page 1, and/or plat book 36, page 106, that the ratio of precision is 1':10,000, that this map was prepared in accordance with the General Statutes of North Carolina Chapter 89C.

my hand and seal on the 11, day of FEBRUARY, A.D. 20 22.

WILLIAM M. ALLEN, PLS

NORTH CAROLINA PROFESSIONAL SEAL L-3499 LAND SURVEYOR WILLIAM M. ALLEN



LEGEND
P.P. = POWER POLE
I.P.S. = #4 REBAR SET
R/W = RIGHT-OF-WAY
W = WELL
CP = COMPUTED POINT

0' 25' 50' 100'
SCALE IN FEET

SCALE 1" = 50'

ACQUIRED BY: HELMSMAN HOMES

PLOT PLAN SURVEY

OF

174 E PANTHER CREEK
LOT 31 WILTSHIRE CREEK

FALLSTOWN TWSP., IREDELL CO., N.C.

NOTES
1) THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHTS OF WAY OF RECORD.
2) ACREAGE COMPUTED BY THE COORDINATE METHOD.
3) UNDERGROUND POWER
4) NO GRID MONUMENT FOUND WITHIN 2000 FEET.

FIELD BOOK:
FILE: WILTSHIRE CREEK 30-38
DC FILE:
TAX MAP NO: 4740401614.000

Public Health
Prevent. Promote. Protect.
Iredell County Health Department

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

Public Health
Prevent. Promote. Protect.
Iredell County Health Department

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

(Check and sign only ONE of the options below)

☒ **1. * APPLICANT AND OWNER ARE THE SAME. *** (*Sign here*) CNem

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative: *Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship*
In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:
Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form. If there are multiple property owners, then all property owners must sign the form that designates a legal representative.
By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

☐ **2.** I, _____, am the legal owner(s) of the property located at _____, identified as PIN (Parcel Identification Number)_____, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) _____, _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- Improvement Permit (IP) / Authorization to Construct (AC)
- Application for soil-site evaluation (new/repair)
- Application/permit for private drinking water well/well abandonment
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

_____ 6-22-22
Signature of Owner(s) Date

Mooresville - Environmental Health
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

Statesville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

ENVIRONMENTAL HEALTH REQUIREMENTS for SEPTIC and WELL PERMITS

The following items must be completed *PRIOR* to the *SUBMITTAL* of any Environmental Health Application. Incomplete applications will be returned to the applicant and cannot be processed or placed on the work list.

** *Initial all lines below to indicate you have submitted each form and completed every site requirement* **

CN **Complete all Environmental Health forms**:

- ✓ Application
- ✓ Site Plan including the dimensions of proposed structure, addition, pool etc.
- ✓ Documentation to Authorize Owner Agent (even if the property owner is the applicant – complete section 1 or 2)
- ✓ Copy of Zoning Permit when applicable
- ✓ Sign this sheet after you have completed all items

CN **Lot must be cleared of heavy undergrowth**. In order to evaluate the lot, the footprint of the proposed structure must be visible. Adequate area for the septic drain field and repair area must be sufficiently cleared of heavy undergrowth, with 50 feet of visibility in all directions. Inspectors must be able to evaluate the property, shoot laser level elevations, layout the drain field, do soils work, etc. **If the lot is not cleared sufficiently, then a $100 site revisit fee will be charged and the evaluation will be put on HOLD until the requirement is met.**

CN **Clearly mark all property corners by locating existing iron or concrete markers.** Flag all property lines every 25 feet if adjacent corners are not visible when standing on any given corner. Property lines must be flagged by a licensed NC surveyor & easily identified **prior to application submittal** (exception may apply for septic repair evaluations only). 'Mow lines' and/or fence lines do NOT constitute marked lines. **If the property lines are not properly marked when the lot is ready to be evaluated, then the application will be put on HOLD and a $100 site re-visit fee charged**.

CN **Stake or flag the footprint of the proposed structure, addition, pool etc. to match the site plan submitted**. The proposed structure, etc. must be staked out on the property as per the site plan.

CN **If an Authorization to Construct (AC) is desired,** submit a recorded copy of the plat for newly created or subdivided lot(s) and a LEGIBLE copy of the basic floor plan no larger than 8 ½" x 14" for each floor of the structure including decks, porches, etc. **The overall dimensions must be clearly noted & the rooms labeled.**

Any site not meeting the above requirements when staff arrives for the evaluation will result in a $100 site revisit fee being charged and the request being placed on HOLD. This will delay the processing of the application. *Once work by Environmental Health staff begins, the up-front fees paid toward securing any health department permit are nonrefundable. Refunds for work not started, due to a customer changing their mind or plans, are subject to an administrative fee of $50 to defray a portion of the costs of processing the refund.*

Backhoe pits are required for all applications that require a soils evaluation.
DO NOT DIG PITS UNTIL THE EH SPECIALIST HAS AUTHORIZED AND SCHEDULED YOUR EVALUATION TIME.

- **All utilities shall be marked before pits are dug. Call NC 811 for this service.**
- The applicant/agent is responsible for securing these services
- Backhoe pits are to be dug at the locations and depths determined by the Environmental Health Specialist or a NC Licensed Soil Scientist. A minimum of four pits must be dug.
- The EH specialist will contact you when your application is ready to be processed for pit scheduling.
- Your backhoe operator must be on site during the EH Specialist's evaluation to prevent your operator from having to return to the property for additional work.

By signing below, I am acknowledging the above specifications have been met and the site is READY to be evaluated AND I understand the backhoe pit requirement and will secure those services (if applicable).

Signature CN **Date** 6/22/22

Questions? Contact the Environmental Health Offices below:

Statesville Office
349 North Center Street (2nd Floor Building Standards)
Statesville, NC 28677-4063
Phone: (704)878-5305 ext. 3456

Mooresville Office
610 East Center Avenue (2nd Floor Govt. Center South)
Mooresville, NC 28115-2548
Phone: (704)660-3625

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Signature CNeum **Date** 6/22/22

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Phone: (704)660-3625

IREDELL COUNTY · NC

Cash Register Receipt

Iredell County

Receipt Number
R17356

DESCRIPTION	ACCOUNT	QTY	PAID
PermitTRAK			**$550.00**
AP-324891 Address: 174 E PANTHER CREEK RD APN: 4740401614.000			**$550.00**
EH WELL PROGRAM			$550.00
NEW WELL PERMIT	10492751-447004	0	$550.00
TOTAL FEES PAID BY RECEIPT: R17356			**$550.00**

Date Paid: Thursday, June 23, 2022

Paid By: HELMSMAN HOMES

Cashier: BBN

Pay Method: CHECK 4772

Type: CONSOLIDATED REAL PROPERTY
Recorded: 8/26/2022 4:05:42 PM
Fee Amt: $26.00 Page 1 of 3
Revenue Tax: $0.00
Iredell County, NC
Maureen P. Purcell Register of Deeds

BK 2942 PG 1353 - 1355

Excise Tax **$0.00** Recording Time, Book and Page

Parcel Identifier No. **4740 40 1614.000 & 4649 49 1880.000**

Mail after recording to **Grantee**
This instrument was prepared by Todd J. Farlow, Attorney at Law, PO Box 3965, Mooresville, NC 28117

Brief Description for the index | **LOT 31 WILTSHIRE CREEK S/D; PB 36-108 and SEPTIC LOT 37-A WILTSHIRE CREEK S/D; PB 75-90**

CORRECTIVE NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made August 25, 2022, by and between

GRANTOR	GRANTEE
HELMSMAN HOMES, LLC **A NORTH CAROLINA LIMITED LIABILITY COMPANY** **PO BOX 3965** **MOORESVILLE, NC 28117**	**HELMSMAN HOMES, LLC** **A NORTH CAROLINA LIMITED LIABILITY COMPANY** **Mailing Address of Grantee:** **PO BOX 3965** **MOORESVILLE, NC 28117** **Address of Property Conveyed:** **174 E. PANTHER CREEK DRIVE** **TROUTMAN, NC 28166**

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g., corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in **IREDELL** County, North Carolina and more particularly described as follows:

SEE PAGE 2 FOR LEGAL DESCRIPTION

Submitted electronically by "Nest Homes, LLC"
in compliance with North Carolina statutes governing recordable documents
and the terms of the submitter agreement with the Iredell County Register of Deeds.

BEING ALL OF LOT 31 OF WILTSHIRE CREEK SUBDIVISION AS THE SAME IS PLATTED, PLANNED, AND RECORDED IN PLAT BOOK 36, AT PAGE 106-108 IN THE OFFICE OF THE REGISTER OF DEEDS FOR IREDELL COUNTY, NORTH CAROLINA.

TOGHETHER THEREWITH, AS AN APPURTENANCE TO THE OWNERSHIP OF LOT 31, ALL OF GRANTORS RIGHTS TITLE AND INTEREST IN AND TO THAT CERTAIN SEPTIC EASEMENT 2 (AKA SE 2) AS SHOWN ON PLAT ENTITLED "RECOMBINATION PLAT OF LOTS 37 & 38 SEPTIC EASEMENT PLAT FOR WILTSHIRE CREEK SUBDIVISION", AND SEPTIC LOT 37-A, ALL AS PLATTED, PLANNED, AND RECORDED IN PLAT BOOK 75, PAGE 90, AS RECORDED IN THE REGISTER OF DEEDS FOR IREDELL COUNTY, NORTH CAROLINA. SAID EASEMENT SHALL RUN WITH THE TITLE TO LOT 31 AS AN APPURTENANT EASEMENT THERETO AND SHALL NOT BE SEVERED BY ANY CHANGE OF OWNERSHIP.

THE SEPTIC EASEMENT 2 AREA AND SEPTIC LOT 37-A SHALL BE UTILIZED FOR SYSTEM INSTALLATION, OPERATION MAINTENANCE, MONOTIRING AND REPAIR OF THE SEPTIC LINES AND SYSTEM, AND INGRESS AND EGRESS ACROSS THE SEPTIC EASEMENT 2 AREA AND SEPTIC LOT 37-A TO EFFECTUATE THE SAME. THE EASEMENTS CREATED HEREIN MAY NOT BE SEVERED FROM OWNERSHIP OF LOT 31 FOR SO LONG AS THE OFF-SITE SEPTIC SYSTEM IS REQUIRED FOR THE RESIDENTIAL HOME TO BE CONSTRUCTED ON LOT 31.

THE PURPOSE OF THIS DEED IS TO UPDATE THE CHAIN OF TITLE TO REFLECT THE RECORDATION OF OFF-SITE SEPTIC EASEMENTS.

THE AFOREDESCRIBED PROPERTIES ARE VACANT LOTS AND THE PARTIES HERETO ARE BUSINESS ENTITIES, THEREFORE NO PRIMARY RESIDENCE APPLIES.
THE PREPARER OF THIS DEED NEITHER CERTIFIES TITLE TO, NOR PARTICIPATED IN THE SETTLEMENT CLOSING OF THE AFOREDESCRIBED PROPERTIES.

The property hereinabove described was acquired by Grantor by instrument recorded in Book 2902, page 2500 and instrument recorded immediately preceding the recordation of this deed.

A map showing the above described property is recorded in **Plat Book 36, at Pages 106-108 and Plat Book 75, at Page 90**

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated.

Title to the property hereinabove described is subject to the following exceptions:

Ad valorem taxes for current and subsequent years. Closing attorney certifies that delinquent taxes, if any, shall be paid from closing proceeds.

Any and all valid easements, restrictions and rights of way in existence in or over said premises which may appear as of record in the Office of the Register of Deeds for said County.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

HELMSMAN HOMES, LLC
A NORTH CAROLINA LIMITED LIABILITY COMPANY

BY: _____ (SEAL)
ERIC M. WOOD
MANAGER

IREDELL County, NORTH CAROLINA

SEAL-STAMP

I certify that the following person(s) personally appeared before me this day, and I have seen satisfactory evidence of the principal's identity, by a current state or federal identification with the principal's photograph in the form of a **NC** driver license; each acknowledging to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: **ERIC M. WOOD, MANAGER OF HELMSMAN HOMES, LLC; GRANTOR**

Date: August 25, 2022

_____
Notary Public

Notary Public: Lois Grindstaff

My Commission Expires: April 20, 2024

Lois Grindstaff NOTARY PUBLIC Lincoln County, NC