ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # AP 3170605

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

PIN # 4778--69--3233

APPLICANT/OWNER: WJH LLC APPLICANT ADDRESS: 9325 Center Lake, Dr. Ste 160 Charlotte, NC 28216

SITE ADDRESS: 148 Jo Creek Lane, Harmony NC 28634 PHONE: 704-488-1100 ALT. PHONE 704-488-1100

SITE DIRECTIONS: (NW) Old Mocksville → (L) Bethel → (L) Jo Creek Ln → 1st on (R) SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: Rock Gate Estates SECTION: 2 LOT # 30 LOT AREA: 0.624 ac DESIGN FLOW: 360gpd L.T.A.R.: 0.3

Septic Tank	1000	(gal)	STB	601	Date	7/6	☑ New System	☐ Repair	☐ Expansion	System Type: I II (III) IV V VI	
Pump Tank	1000	(gal)	PT	365	Date	7/21	System Description:	Low Profile Chambers			
Pump Make	Little Giant	Model		QECV	Serial #		Repair System Description:	Drip			
# Nitrification Fields	1	# Lines	6		Linear Ft	400'	Maintenance Agreement Required:	☐ YES	☑ NO		
Trench Width	36"	Trench Bottom Depth(Low side)		11"	Gravel Depth	N/A		☐ GRAVITY	☑ PRESSURE		

☒ Residence	No. Bedrooms	3	Water Supply		
☐ Business	No. Persons	6	☐ Private		
☐ Other	No. Employees		☑ Public		
☑ Slab	☐ Crawl Space		☐ Community		
☐ Basement w/plumbing			☐ Basement w/o plumbing		

Comments / Conditions: See attached plans for specifications. All questions should be referred to Soil Scientist. Approved Cover will be required to keep 6" over entire system.

Soil evaluation does not include notes for soil depths > 35-38". Do NOT exceed 11" Low side, 16" high side. in repair only evaluated to 28" in initial

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:

Thompson Environmental Consulting
Michael Wood
LSS# 1219

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 permitted
Tanks - Lines - Pan - Pit - Floats - 9-1-22
- Needs Electrical & Landscape Final.

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

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

Owner / Applicant Signature: _____ Date: 2.17.22 Installed by: Marsha Gosling

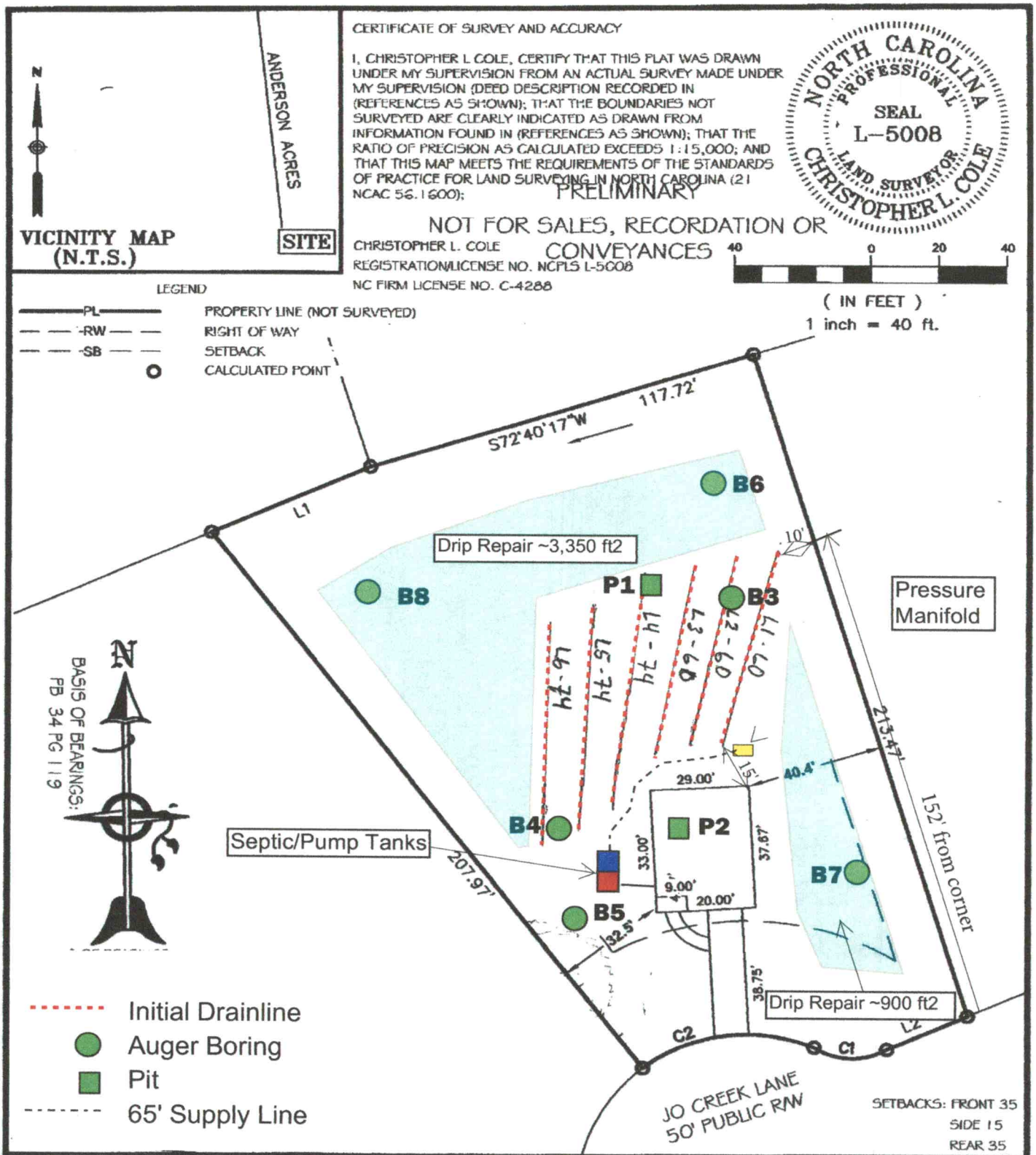
IMPROVEMENT PERMIT by: D. Wieberg Date: 2/15/22 OPERATION PERMIT by: Cary Whit Date: 11/17/22

AUTHORIZATION TO CONSTRUCT by: D. Wieberg Date: 2/15/22 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		
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? _____	



Ascension Land Surveying P.C.
Professional Land Surveying & Consulting
116 Williams Road, Mocksville, NC 27028
Phone: (704) 579-7197
Email: surveyor.chris007@gmail.com
NC FIRM LICENSE NO: C-4288
NC PLS NO: L-5008

4/14/2021

PIN: 4778693233
DRAWN BY: CC
CHECKED BY: JH
SCALE: 1"=40'
JOB: 21-02-24

PLOT PLAN
LOT-30
148 JO CREEK
ROCK GATE ESTATES
TURNERSBURG TWNSHP, IREDELL CO., NC

Residential Subsurface Wastewater Treatment and Disposal System Proposal

for

Lot 30 – Rock Gate
148 Jo Creek Lane, Harmony
Iredell County, NC

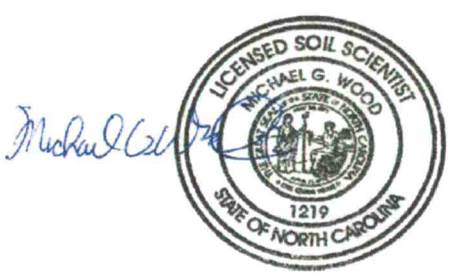
Tax Parcel # 4778693233
January 19, 2022

Prepared for:

Glenn Bird
Century Complete
9325 Center Lake Dr., Suite 160
Charlotte, NC 28216
1-833-791-0192

Prepared by:

Michael G. Wood, LSS
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
Phone: 704-301-4881
larry@thompsonenv.com



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).

To: Iredell County Environmental Health

From: Katie Dyess

Regarding: Lots 22, 23, and 30 – Rock Gate Subdivision
Session Law 2018-114 Permit Packages

The LSS evaluation attached to these applications is to be used to produce design and construction features for permitting in accordance with Session Law 2018-114 Section 11. (c).

1-28-22

Project Manager

Date

Details

Century Complete has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare Session Law 2018-114 Section 11 (c) septic proposal for the 3-bedroom single family residence on Lot 30 – Rock Gate Estates located at 148 Jo Creek Lane, Iredell County, North Carolina.

Based upon a soils investigation performed by TEC, it has been determined that a sufficient amount of "Suitable" Group IV soils is available for the installation of a **Pump-to Low-Profile Chamber System** for the initial system at a 0.30 GPD/ft. sq. long term acceptance rate (LTAR). The provided repair option is a Anaerobic Drip System at a 0.1 LTAR. The property is served by a municipal water supply.

Century Complete requests that Iredell County Environmental Health (ICEH) issue the appropriate permits for a subsurface wastewater treatment and disposal system based upon this proposal and Licensed Soil Scientist Evaluation. 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, which is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11. (c).

Location

From Statesville, take I-40 East to Exit 154. Left on Old Mocksville Road for 8.1 miles, then left onto Mt. Bethel Road for 0.8 mile. Left onto Four Andrews Drive, second left on Jo Creek Lane. Lot 30 is first lot on right before cul-de-sac.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-site Wastewater Section, December 6, 2018.

Innovative Wastewater System NO: IWWS-2010-1-R8 (May 4, 2021)

Primary Investigator's Credentials

NC Licensed Soil Scientist No. 1219
SC Professional Soil Classifier No. 114

Plans and Specifications

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1,000 gallons in capacity.
2. The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

B. Pump Tank

1. The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and 1,000 gallons capacity. Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
2. All pipe penetrations into the tank shall be booted (i.e., C-293 boot with a stainless-steel strap).
3. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
4. Floats, pump and control circuits, and the control panel shall meet the requirements of Rule .1952(c). Panel and control equipment shall include lightning protection, be protected from unauthorized access, and always remain accessible to the system operator.
5. The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion resistant, NEMA 4x rated control panel. The control panel must be securely mounted outside, adjacent to the pump tank riser and at a minimum of 12 inches above finished grade. Pump and float control wiring should be long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.
6. Float switch tie downs must be made of a corrosion resistant material (per OWPS, all metal in the tanks shall be stainless steel). Floats should be mounted on a separate "float tree" rather than the pump supply line (see pump tank detail).
7. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.

C. Pipes and Fittings

1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.

2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. The supply line from the pump tank to the pressure manifold shall be 2-inch Schedule 40 PVC (approximate length of supply line is 65 feet).
4. There shall be a threaded PVC union above each pump to facilitate easy removal of the pumps for maintenance or replacement.

D. Distribution Method – Pressure Manifold

1. The system will be fed by a pressure manifold.
2. The pressure manifold shall be contained within an adequately sized box/vault that will allow future repair lines to be installed and is designed to allow for drainage of effluent that may accumulate in it during flushing and head pressure adjustments. The box should be placed upon a gravel base.
3. A gate valve shall be provided at the pressure manifold box to allow for final pressure adjustment (2 foot of head pressure as per design).
4. The pressure manifold shall be constructed of SCH 80 PVC.
5. There shall be 6 taps; (3) 1/2in SCH 80 and (3) 1/2in SCH 40 PVC
6. The connecting pipe between the pressure manifold taps and the drainfield shall be constructed of PVC.

E. Drainfield Installation

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. The property owner/builder should mark this area and isolate it as much as possible from construction traffic
2. Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition.
3. The specified system the shallow placed innovative wastewater system Infiltrator Low-Profile Chamber System.
4. The drainfield consists of six (6) lateral trenches 3-foot wide and 60, 60, 60, 74, 74, and 74' long.
5. The trench depth for this system shall be **11-inches on the low side of trench**.
6. The laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
7. The trenches should be left open for the final inspection by the County.
8. Each trench shall be placed on a minimum of 9-foot on centers.

E. Final Landscaping

1. Final cover over the drainfield shall be at least 6-inches deep. Additional soil cover may be required to achieve the 6-inch requirement.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.
3. The entire area of the drainfield should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

F. Utility/Drive Conflicts

1. The builder and property owner must take special care in planning for utilities (water, power, gas, telephone, cable lines, etc.). All utilities shall be kept clear of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the County as soon as possible.
2. Water lines must be kept at least ten (10) feet from any portion of the septic system.
3. Irrigation systems should not be placed in the drain field area.

Maintenance

G. In General

The designed system does not require ongoing maintenance via a person certified (Certified Subsurface System Operator) by the North Carolina Department of Environment and Natural Resources to operate subsurface wastewater systems (Section .1961 Maintenance of Sewage Systems). However, the following maintenance should be considered by the owner.

1. The homeowner must maintain the drainfield area through periodic mowing. The drainfield must not be allowed to become overgrown.
2. The septic tank should be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 25% of the volume of the tank. In some situations, the tanks may need to be pumped more frequently. If you are using a garbage disposal, it is recommended that the septic and pump tanks be cleaned out annually.
3. When it becomes necessary to clean the effluent filters, the filters should be removed, and the accumulated debris washed back into the septic or pump tank – not onto the lawn.
4. Any damp areas, leakages or malfunctions in the drainfield should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the drainfield and septic and pump tanks.

Initial System Design Specifics

Daily Design Flow:	360 GPD – 3 bedroom house
Effluent Loading Rate:	0.300 GPD per sq. ft.
Drainfield Type:	Low-Profile Chamber
Maximum Trench Depth:	11 Inches on low-side
Supply Size:	2 Inch
Supply Line Length:	Approximately 65 feet
Number of Drainlines:	6
**Drain Lines:	3' Wide x 60, 60, 60, 74, 74, 74' Long
**Drainline Spacing:	9 Foot on Centers
Total Trench Length:	400 Linear Feet
Distribution Method:	Pressure Manifold
Number of Taps:	6
Dosing Volume:	170 Gallons
Pump Run Time:	4.5 Minutes
Pressure Head:	2 Feet
Total Elevation/Friction Head	19.82 Feet
*Pump Requirements:	37.77 GPM at 19.82 Feet TDH
Recommended Pump:	Goulds Pump WE05H or equiv.

* Total Dynamic Head (TDH) for system is estimated based upon existing elevations, approximate pump off elevation, design pressure head and supply line length. Total Dynamic Head should be reconfirmed by septic contractor at the time of system installation based upon actual tank depth and pressure manifold height.
** See drainfield layout for site locations and more details.

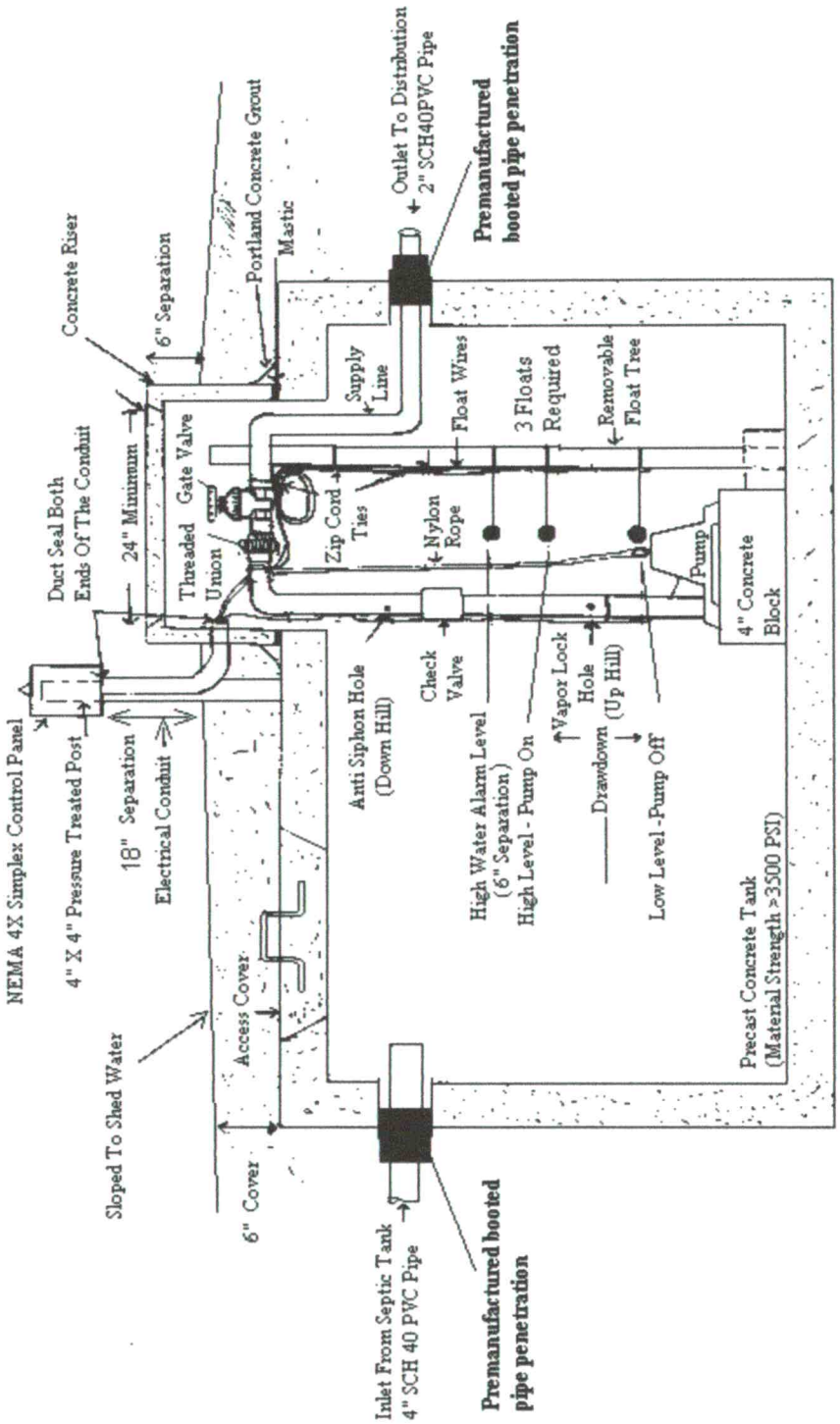
Repair System Option

Effluent Loading Rate:	0.10 GPD per sq. ft.
Drainfield Type:	Anaerobic Drip
Total Square Footage Required:	3,600 Square Feet
Total Drainline Length Required:	1,800 Linear Feet
Total Square Footage Available:	4,250 Square Feet
Maximum trench depth:	9 inches
Final Cover Requirement:	6 Inches

Thompson Environmental Consulting
PO Box 541
Midland, NC 28107-0541

Lot 30 Rock Gate

Recommended Pump Tank Design



PRESSURE MANIFOLD DESIGN - Initial System

Name: Michael Wood **Address:** Rock Gate - Lot 30

Daily Flow: 360 gal/day **L.T.A.R.:** 0.300 gal/day/sq.ft

Septic Tank: 1000 gals **Pump Tank:** 1000 gals **Sq. Foot:** 1206

Number of Taps: 6 **Length of Trenches:** 402 ft(See Tap Chart for Details)

Depth of Trenches: 11 in **Manifold Length:** 54 in

Manifold Diameter: 4in sch 80pvc **Tap Configuration: 6 in spacing** 1 side(s) of manifold

Supply Line: length: 65 ft **Diameter:** 2 in sch 40pvc

Friction Loss + Fitting Loss: 4.32 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft **Elevation Head:** 13.50 ft

Total Head: 19.82 ft **Pump to Deliver:** 37.77 gals/min at 19.82 ft head

Dosing Volume: 170 gals,

Drawdown: 170 gals divided by 20 gals/in = 8.5 inches

TAP CHART

Bench Mark	5.8	is = 100.00	Line 1				**Design Head:**	2	
Pump tank elev.			92.50	**Pump elev.**	87.50		**Manifold elev.**	101.00	
line	**color**	**rod read**	**Elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
1	Green	5.8	100.00	60	1/2in SCH 80	5.48	52.23	180	0.290
2	Orange	6.8	99.00	60	1/2in SCH 80	5.48	52.23	180	0.290
3	White	8.8	97.00	60	1/2in SCH 80	5.48	52.23	180	0.290
4	Green	11.4	94.40	74	1/2in SCH 40	7.11	67.77	222	0.305
5	Orange	13.6	92.20	74	1/2in SCH 40	7.11	67.77	222	0.305
6	White	15.4	90.40	74	1/2in SCH 40	7.11	67.77	222	0.305
		total	**feet =**	**402**	**gal/min =**	**37.77**		**LTAR =**	**0.300**
% of Dose Vol.		65		**Des. Flow**	360			**(ltar + 5%)**	0.315
Dose Volume		170		**Pump Run=**	9.53			**(ltar W/ INOV)**	0.400
Dose Pump Time		4.50		**Tank Gal/IN**	20			**(ltar + 5%)**	0.420
Drawdown in Inches		8.5		**Elev. Head**	13.50				
Supply Line Length		65							

Comments:

Michael G. Wood, LSS
620 Lee Fox Lane
Hillsborough, NC 27278

ROCK GATE LOT 30

PROPERTY ID #: 4778-69-3233
COUNTY: IREDELL

SOIL/SITE EVALUATION
***for* ON-SITE WASTEWATER SYSTEM**

OWNER: DAVIDSON LAND DVEPMT CO.
ADDRESS: 896 SHIPTON ROAD, LEXINGTON, NC 27292
PROPOSED FACILITY: RES PROPOSED DESIGN FLOW (.1949): 360
LOCATION OF SITE: 148 JO CREEK LN, HARMONY, NC

DATE EVALUATED: 1-15-22
PROPERTY SIZE: 0.624 AC
PROPERTY RECORDED:

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	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1 Pit+	LS 15%	0-6	SBk/SCL	Fr/S		35		35 Cr	PS 0.3
		6-24	SBk/SC	Fr/S					
		24-35	SBk/SCL	Fr/S					
		35+	M/CR	Fr/S					
2 Pit	LS 15%	0-8	SBk/SCL	Fr/S		>40			PS 0.3
		8-40+	SBk/SC	Fr/S					
3	LS 14%	0-4	SBk/SL	Fr/S		28		28 Cr	LPC
		4-28	SBk/SC	Fr/S					
		28+	M/CR	Fr/S					
4	LS 14%	0-3	SBk/SCL	Fr/S		28	28		LPC 0.3
		3-28	SBk/SC	Fr/S					
		28+	M/SCL	Vfr/S					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	LOW-PROFILE CHAMBER	Anaerobic Drip
Site LTAR	0.3	0.1

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PROV. SUIT
EVALUATED BY: M. WOOD
OTHER(S) PRESENT: E. WOOD

LICENSED SOIL SCIENTIST MICHAEL G. WOOD 1219 STATE OF NORTH CAROLINA

COMMENTS:

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

Michael G. Wood, LSS
620 Lee Fox Lane
Hillsborough, NC 27278

Rock Gate Lot 30

PROPERTY ID #: 4778-69-3233
COUNTY: Iredell

SOIL/SITE EVALUATION
***for* ON-SITE WASTEWATER SYSTEM**

OWNER:
ADDRESS:
PROPOSED FACILITY: PROPOSED DESIGN FLOW (.1949):
LOCATION OF SITE:
DATE EVALUATED:
PROPERTY SIZE:
PROPERTY RECORDED:
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	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
#1 5	LS 14%	0-13	SBk/SCL	Fr/S		13	13		DRIP 0.15
		13+	M/SCL	Vfr/S					
#2 6	LS 18%	0-18	SBk/SCL	Fr/S		24	24		DRIP 0.15
		18-24	SBk/SC	Fr/S					
		24+	M/SR	Fr/S					
#3 7	LS 14%	0-10	SBk/C	Fr/S		38	38		PS 0.35
		10-17	SBk/CL	Fr/S					
		17-38	SBk/CL	Fr/S					
		38+	M/L	Fr/S					
#4 8	LS 16%	0-8	SBk/SC	Fr/S		>28		AR 28in	EPC 0.3
		8-21	SBk/SC	Fr/S					
		21-28+	SBk/SCL	Fr/S					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY: M. Wood
OTHER(S) PRESENT: E Wood

COMMENTS:

GOULDS PUMPS



Submersible Effluent Pump

MODEL 3885

WE Series

PROSURANCE AVAILABLE FOR RESIDENTIAL APPLICATIONS.

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

SPECIFICATIONS

Pump

- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

FEATURES

■ **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

■ **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge.

■ **Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE** sealing faces. Stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion-resistant, stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.

■ **Fasteners:** 300 series stainless steel.

■ Capable of running dry without damage to components.

■ Designed for continuous operation when fully submerged.

MOTORS

■ Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

■ Class B insulation on ⅓-1½ HP models.

■ Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- ⅓ and ½ HP models have NEMA three prong grounding plugs.
- ¾ HP and larger units have bare lead cord ends.

Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

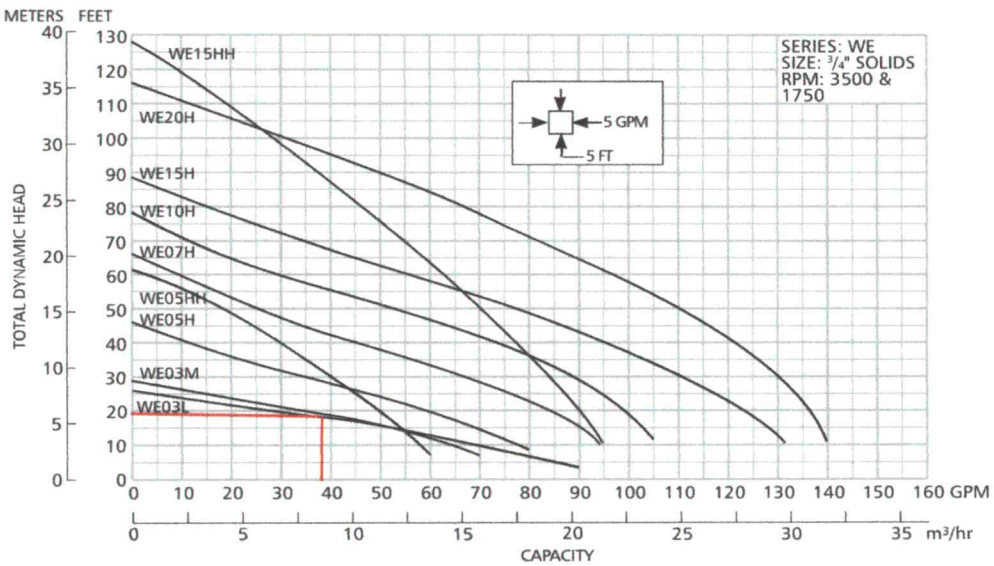
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #LR38549

Goulds Pumps is ISO 9001 Registered.



Goulds Pumps

ITT Industries

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Effective July, 2003
B3885

GOULDS PUMPS

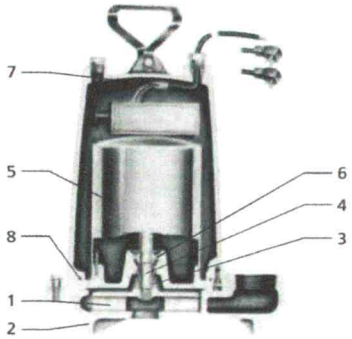
Submersible Effluent Pump

MODEL 3885

WE Series

COMPONENTS

Item No.	Description
1	Impeller
2	Casing
3	Mechanical Seal
4	Motor Shaft
5	Motor
6	Ball Bearings
7	Power Cable
8	Casing O-Ring



MODELS

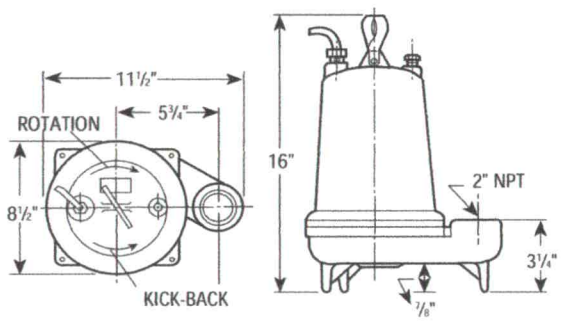
Order No.	HP	Volts	Phase	Max. Amp.	RPM	Solids	Wt. (lbs.)
WE0311L	⅓	115	1	10.7	1750	¾"	56
WE0318L		208		6.8			
WE0312L		230		4.9			
WE0311M		115		10.7			
WE0318M		208		6.8			
WE0312M		230		4.9			
WE0511H	½	115	1	14.5	3500		60
WE0518H		208		8.1			
WE0512H		230		7.3			
WE0538H		200	3	4.9			
WE0532H		230		3.3			
WE0534H		460		1.7			
WE0537H		575		1.4			
WE0511HH		115	1	14.5			
WE0518HH		208		8.1			
WE0512HH		230		7.3			
WE0538HH		200	3	4.9			
WE0532HH		230		3.6			
WE0534HH		460		1.8			
WE0537HH		575		1.5			
WE0718H	¾	208	1	11.0			70
WE0712H		230		10.0			
WE0738H		200	3	6.2			
WE0732H		230		5.4			
WE0734H		460		2.7			
WE0737H		575		2.2			
WE1018H	1	208	1	14.0			
WE1012H		230		12.5			
WE1038H		200	3	8.1			
WE1032H		230		7.0			
WE1034H		460		3.5			
WE1037H		575		2.8			
WE1518H	1½	208	1	17.5			80
WE1512H		230		15.7			
WE1538H		200	3	10.6			
WE1532H		230		9.2			
WE1534H		460		4.6			
WE1537H		575		3.7			
WE1518HH		208	1	17.5			
WE1512HH		230		15.7			
WE1538HH		200	3	10.6			
WE1532HH		230		9.2			
WE1534HH		460		4.6			
WE1537HH		575		3.7			
WE2012H	2	230	1	18.0			83
WE2038H		200	3	12.0			
WE2032H		230		11.6			
WE2034H		460		5.8			
WE2037H		575		4.7			

PERFORMANCE RATINGS (gallons per minute)

Order No.		WE03L	WE03M	WE05H	WE07H	WE10H	WE15H	WE05HH	WE15HH	WE20H
Total Head Feet of Water	HP	⅓	⅓	½	¾	1	1½	½	1½	2
	RPM	1750	1750	3500	3500	3500	3500	3500	3500	3500
	5	86	–	–	–	–	–	–	–	–
	10	70	63	78	–	–	–	58	–	–
	15	52	50	70	90	–	–	53	–	–
	20	27	35	60	83	98	123	49	90	136
	25	–	–	48	76	94	117	45	87	133
	30	–	–	35	67	88	110	40	83	130
	35	–	–	20	57	82	103	35	80	126
	40	–	–	–	45	74	95	30	77	121
	45	–	–	–	35	64	86	25	74	116
	50	–	–	–	25	53	77	–	70	110
	55	–	–	–	–	40	67	–	66	103
	60	–	–	–	–	30	56	–	63	96
	65	–	–	–	–	20	45	–	58	89
	70	–	–	–	–	–	35	–	55	81
	75	–	–	–	–	–	25	–	51	74
	80	–	–	–	–	–	–	–	47	66
	90	–	–	–	–	–	–	–	37	49
	100	–	–	–	–	–	–	–	28	30

DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)



Goulds Pumps and the ITT Engineered Blocks Symbol are registered trademarks and tradenames of ITT Industries.

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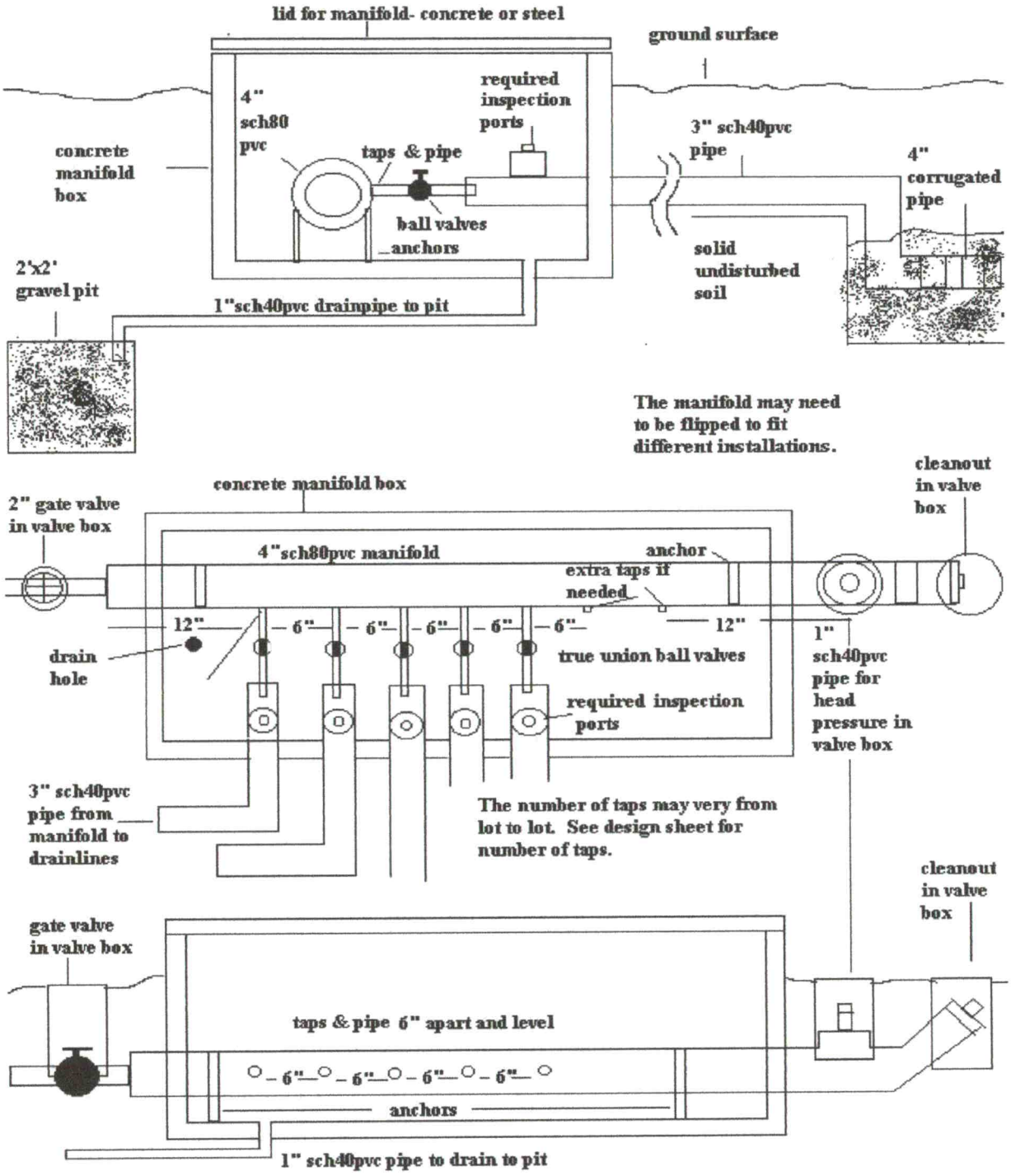
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Goulds Pumps

ITT Industries

Thompson Environmental Consulting
PO Box 541
Midland, NC 28107-0541

Lot 30 Rock Gate



INFILTRATOR®
water technologies

Quick4 PLUS CHAMBER SYSTEMS

The Quick4® Plus Equalizer 36 Low Profile (LP) Chamber

Quick4 Plus™ Series

The Quick4 Plus Equalizer 36 Low Profile (LP) offers maximum strength through its two center structural columns. This chamber can be installed in a 24-inch-wide trench. It is 4 inches shorter in height than other Equalizer 36 model chambers, allowing for shallower installation. Like the original line of Quick4 chambers, it offers advanced contouring capability with its Contour Swivel Connection™, which permits turns up to 15°, right or left. The Quick4 Plus All-in-One 8 and Quick4 Plus Endcaps provide increased flexibility in system design and configurations.



Maximum Strength

Quick4 Plus Equalizer 36 LP Chamber Specifications

Size 22"W x 53"L x 8"H (559 mm x 1346 mm x 203 mm)
Effective Length 48" (1219 mm)
Louver Height 6.3" (160 mm)
Storage Capacity 20 gal (76 L)
Invert Height 3.3" (84 mm), 9.6" (244 mm)



Quick4 Plus Equalizer 36 Low Profile (LP) Chamber Benefits:

- Low profile design makes this chamber ideal for shallow applications
- Reduces imported fill needed for cap and fill systems
- Two center structural columns offer superior strength
- Advanced contouring connections
- Latching mechanism allows for quick installation
- Four-foot chamber lengths are easy to handle and install
- Supports wheel loads of 16,000 lbs/axle with 12" of cover



Quick4 Plus All-in-One Periscope Benefits:

- Allows for raised invert installations
- 180° directional inletting
- 12" raised invert is ideal for serial applications



Quick4 Plus All-in-One 8 Endcap Benefits:

- May be used at the end of chamber row for an inlet/outlet or can be installed mid-trench
- Mid-trench connection feature allows center feed inletting of chamber rows
- Center-feed connection allows for easy installation of serial distribution systems
- Variable pipe connection options allow for side, end or top inletting
- Piping drill points are set for gravity or pressure pipe



Quick4 Plus Endcap Benefits:

- Simple, flat design
- Allows installation of a pipe from the end only
- Piping drill points are set for gravity or pressure pipe

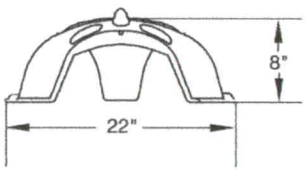
Certified by the International Association of Plumbing and Mechanical Officials (IAPMO)

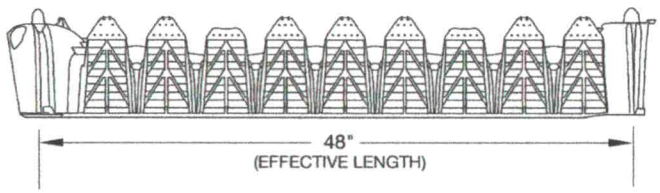
IAPMO R&T

APPROVED in _____

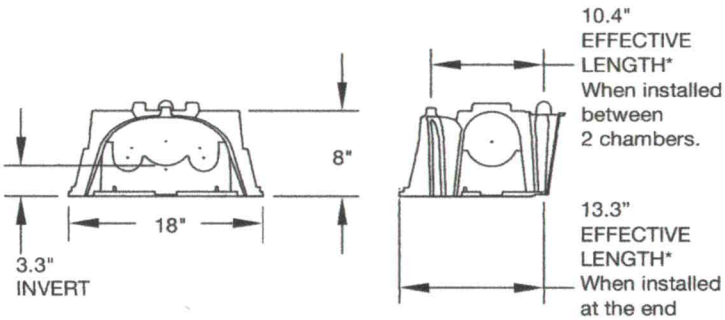
Quick4 Plus™ Series

Quick4 Plus Equalizer 36 Low Profile Chamber

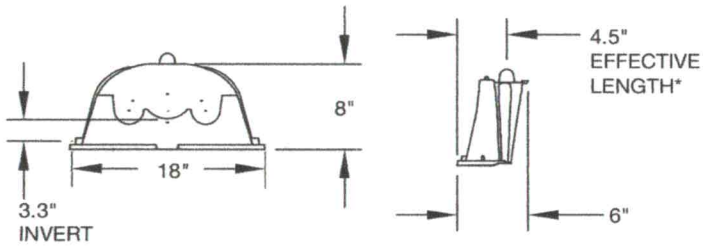




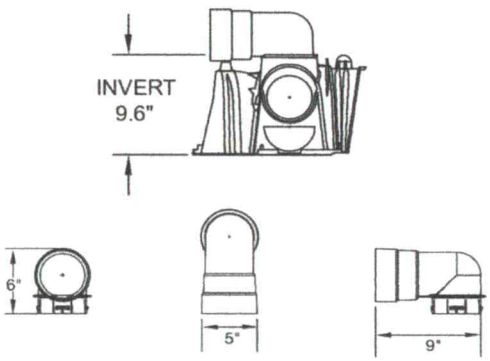
Quick4 Plus All-in-One 8 Endcap



Quick4 Plus Endcap



Quick4 Plus All-in-One Periscope



INFILTRATOR WATER TECHNOLOGIES STANDARD LIMITED WARRANTY

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

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

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

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

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

INFILTRATOR®
water technologies

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

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending.
Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark in Mexico.
Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies.
PolyLok is a trademark of PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.
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Contact Infiltrator Water Technologies' Technical Services Department for assistance at 1-800-221-4436

RECEIVED JAN 2 8 2022

APPLICATION MUST BE FILLED OUT COMPLETELY & BE LEGIBLE
OR IT WILL NOT BE PROCESSED AP- 317065

Iredell County Health Department – Environmental Health Division

PAGE 1: *APPLICATION FORM* Paid $1200.00 Session Law

Application For: ( ) 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: ( ) 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: WJH LLC Address: 9325 Center Lake Drive Ste 160 Charlotte NC 28216 Zip: _____
Applicant Email: katie.dyess@centurycommunities.com Phone: 704-488-1100 Alt. Phone: _____
Owner Name: WJH LLC Address: _____ Zip: _____
Owner Email: _____ Phone: _____ Alt. Phone: _____

Property Information:

Street Address: 148 Jo Creek Lane
Subdivision Name: Rock Gate Section/Phase: _____ Lot Number: 30
Driving Directions: Turn right onto Kelly St, Turn right onto Feimster St, Take I-40 E and Old Mocksville Rd to Mt Bethel Rd, Turn left onto N Center St, ~~Turn right to merge onto I-40 E, Take exit 154 for Old Mocksville Rd, Turn left onto Old Mocksville Rd, Turn~~ left onto Mt Bethel Rd. Drive and turn left into Rock Gate Development

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: _____ (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: _____

( ) New Well ( ) Existing Well ( ) Community Well ( ) City Water (X) 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 (X) Other: See Session Package

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?
(X) 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: Katie Dyess for WJH LLC 1-28-22
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

30

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*) WJH LLC

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.

WJH LLC
Signature of Owner(s)

1/28/22
Date

Mooresville - Environmental Health

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

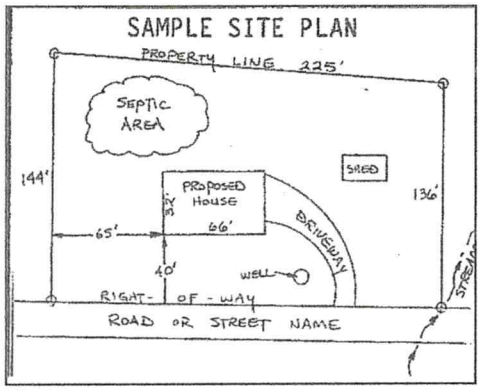
Statesville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

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:

- (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 and well location
- (X) Area you prefer your septic system to be placed
- (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 session Permit paperwork

Signature: Katie Dyess for WJH LLC — 1-28-22

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

Lot 30-148 Jo Creek Lane 1602B RH

Acknowledgement Of
Plans Submittal ONLY!

Date 2.17.22

Date 2/15/22

TABLE R302.6 Dwelling/Garage Separation	
Separation	Material
From the residence and attics	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From all habitable rooms above the garage	Not less than 5/8-inch Type X gypsum board or equivalent
Structures supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent

WALL LEGEND

FULL HEIGHT 2X4 WOOD STUD PARTITION

STONE VENEER

BRICK VENEER

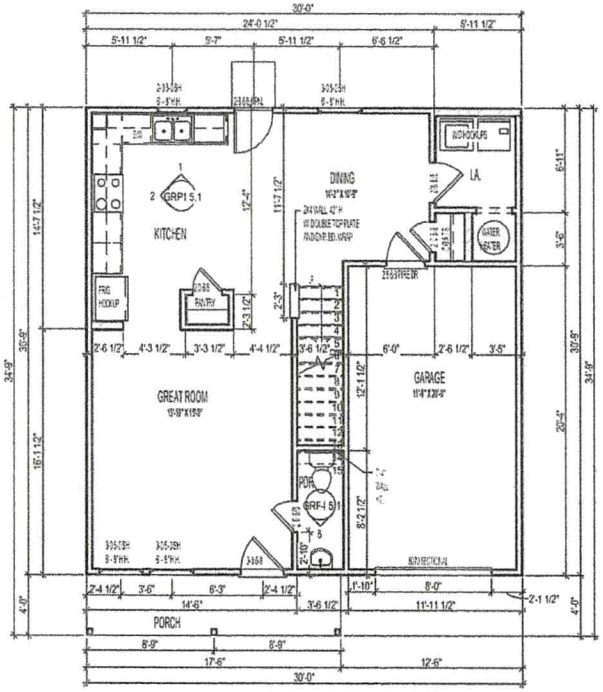
STUD WALL BELOW: HEIGHT AS DETAILED OR ABOVE

FULL HEIGHT 2X6 WOOD STUD PARTITION

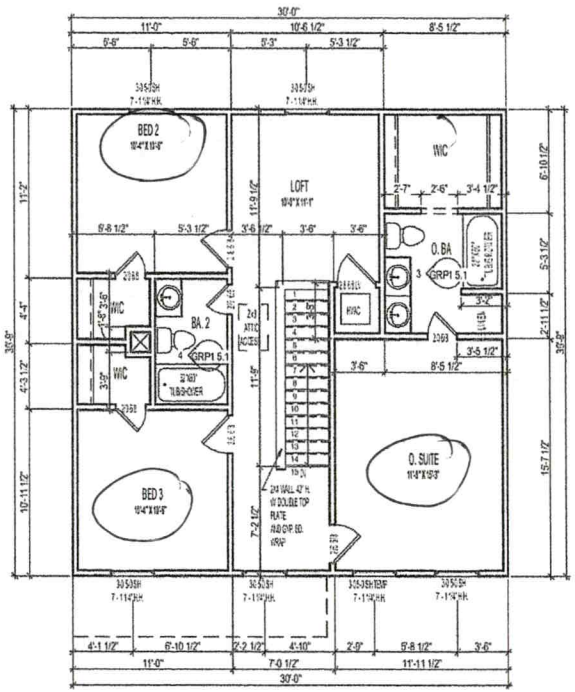
DRYWALL CEILING HEIGHT AS NOTED ON PLAN 8'-0" NOM.

1 RUN BASE

NOTE: EXTERIOR WALLS FRAMED AT 16" O.C. IN INTERIOR NON-BEARING WALLS FRAMED AT 24" O.C. REFER TO STRUCTURAL SHEETS FOR BEARING WALL SPECIFICATIONS AND PLATE ELEVATION



1 FIRST FLOOR PLAN ELEV 'B'
1/4" = 1'-0" AT 22" X 34" LAYOUT
1/8" = 1'-0" AT 11" X 17" LAYOUT



2 SECOND FLOOR PLAN ELEV 'B'
1/4" = 1'-0" AT 22" X 34" LAYOUT
1/8" = 1'-0" AT 11" X 17" LAYOUT

CENTURY Complete
MORE HOME • LESS MONEY
3091 GOVERNORS LAKE DR.
SUITE 300
NORCROSS, GA 30071
PHONE: 336-282-3606

GRP1 - 'B'

FLOOR PLANS

JOB #:
LOT #:
COMMUNITY:
ADDRESS:

PLAN # / ORIENTATION:
3021603 / RH

SERIES NAME:
CELEBRATION

PLAN NAME:

LAST REVISION
2.02

SHEET #
GRP1 1.2

IREDELL COUNTY · NC

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

APPLICATION NUMBER
317065 Issue Date:

Permit Type: ZONING

Parcel Number	Street Address	Jurisdiction
4778693233.000	148 JO CREEK LN	Iredell County

Owner Information	Applicant Information
Name: BARKER PHILLIP P	Name: WJH, LLC
Address:	Address: 9325 CENTER LAKE DR CHARLOTTE, NC 28216
Phone:	Phone: (704)488-1100

Use Requested	Zone Code
Single Family Dwelling	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
0.624	35	35	15	15	N/A	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: 04/22/2021

Signature of Owner/Contractor

Permit Number	317065	TOTAL FEES:	$77.25