# ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # AP 319543

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

PIN # 3783 -- 43 -- 2759

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

SITE ADDRESS: 146 Pumice Lane Statesville NC 28625 PHONE: 704-301-3229 ALT. PHONE —

SITE DIRECTIONS: Walnut Tree Ln Pumice SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: River Rock SECTION: 2 LOT # 25 LOT AREA: 1.11 Ac DESIGN FLOW: 360 L.T.A.R.: .30

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Septic Tank | 1000 (gal) | STB | 760 | Date | 2/25/22 | ☒ New System | ☐ Repair | ☐ Expansion | System Type: I II (III) IV V VI | ☒ Residence | No. Bedrooms 3 |
| Pump Tank | 1000 (gal) | PT | 383 | Date | 3/4/22 | System Description: | PM - 50% Reduction | | | ☐ Business | No. Persons 6 |
| Pump Make | Goulds ½ | Model | WE0512HHU | Serial # | | Repair System Description: | PM - 50% Reduction | | | ☐ Other | No. Employees |
| # Nitrification Fields | 1 | # Lines | 4 | Linear Ft | 200 | Maintenance Agreement Required: | ☐ YES | ☒ NO | | ☐ Slab | ☒ Crawl Space |
| Trench Width | 24in | Trench Bottom Depth (~~Low Side~~) | | 28in max | | Gravel Depth | — | ☐ GRAVITY | ☒ PRESSURE | ☐ Basement w/plumbing | ☐ Basement w/o plumbing |

Water Supply: ☐ Private ☒ Public ☐ Community

Comments / Conditions: * Tanks checked under previous permit.

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:**

Three Oaks Engineering

**LSS #** 1219 Dated April 14, 2022.

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 6/13/22 CW
PM
Pressure Head
Floats.
Alarm.
Tanks.

Installed as Drawn

| | Date | Initials |
|---|---|---|
| Drain Lines Checked | 6-13-22 | CW |
| Tanks Checked | 6-13-22 | CW |
| Pressure Manifold or Valve Box Checked | 6-13-22 | CW |
| Pressure Head Set | 6-13-22 | CW |
| Electrical Checked | 6-28-22 | BW |
| Floats Set | 6-13-22 | CW |
| Alarm Checked | 6-13-22 | CW |
| Maintenance Contract Y (N) | Not Required | |
| Comments: | | |

*Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to th* **E PRIOR TO ANY EXCAVATION**

☐ **IMPROVEMENT PERMIT** *with plat valid without expiration.* ☒ **IMPROVEMENT PERMIT** *with site plan valid for 6* *MIT--not to exceed 60 mo.*

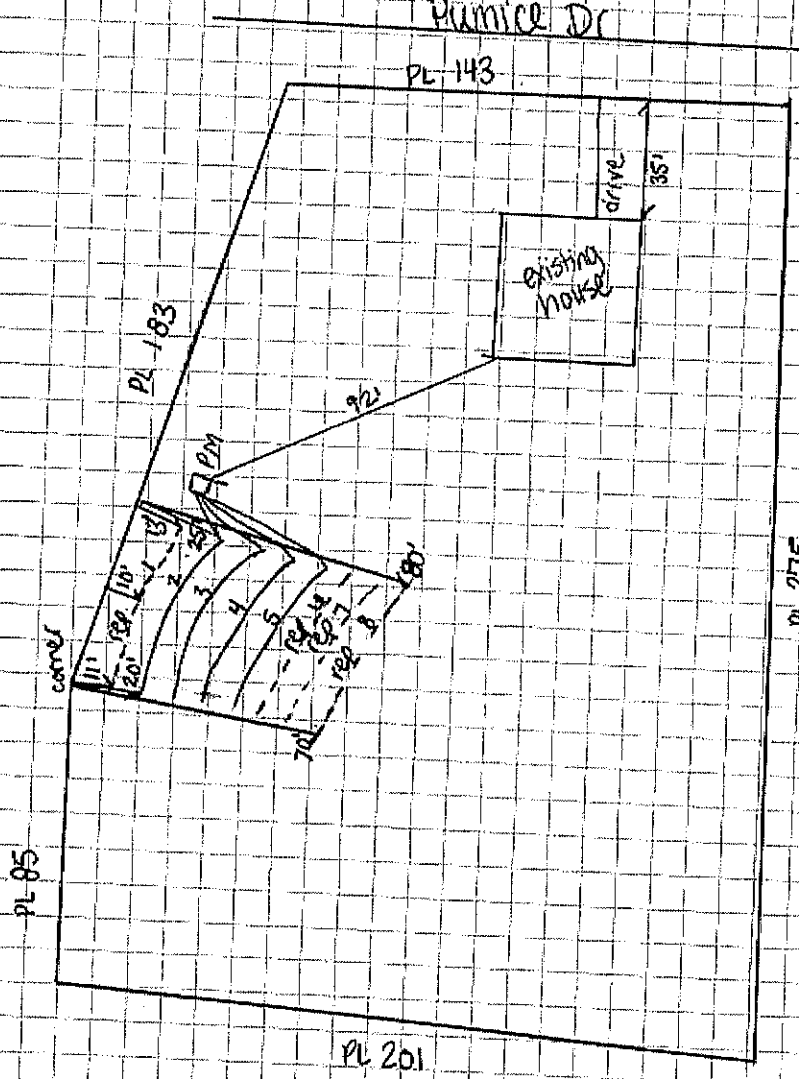
Owner / Applicant Signature: Date: 5-20-22 Installed by: Lentz Wastewater

IMPROVEMENT PERMIT by: Date: 5-18-2022 OPERATION PERMIT by: Date: 6-28-22

AUTHORIZATION TO CONSTRUCT by: Date: 5-18-2022 Existing System Inspected by: Date:

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

# 1416 Pumice Drive




Lines:
1 - green - 50' - repair
2 - white - 50' - initial
3 - orange - 50' - initial
4 - yellow - 50' - initial
5 - red - 50' - initial
6 - blue - 50' - repair
7 - yellow - 50' - repair
8 - orange 50' - repair

1" = 50'

flagged on contour, 8' on center

**PPBPS Design Worksheet**

Address: 146 Pumice Drive

Consultan Michael Wood
Phone: 919-417-8027

**System Requirements**

| | | |
|---|---|---|
| Design Flow | 360 | GPD |
| LTAR | 0.3 | GPD/ft^2 *Design rate - Not Assigned Rate |
| Linear Footage | 400 | ft. (conventional) |
| Linear Footage | 200 | ft. (50% reduction) |

**Initial Design Layout**

| Laterals | Length(ft) | # Panels | Gal/Line | Hole Size | flow/tap | Dose Time | |
|---|---|---|---|---|---|---|---|
| Line 2 | 50 | 12 | 41.5 | 1/2in SCH 40 | 7.11 | 5.84 | |
| Line 3 | 50 | 12 | 41.5 | 1/2in SCH 40 | 7.11 | 5.84 | |
| Line 4 | 50 | 12 | 41.5 | 1/2in SCH 40 | 7.11 | 5.84 | |
| Line 5 | 50 | 12 | 41.5 | 1/2in SCH 40 | 7.11 | 5.84 | |
| **Totals** | **200** | **46** | **166.2** | - | **28.44** | 5.84 | Time Used |

**Repair Design Layout**

| Laterals | Length(ft) | # Panels | Gal/Line | Hole Size | flow/tap | Dose Time | |
|---|---|---|---|---|---|---|---|
| Line 1 | 50 | 12 | 41.5 | 1/2in SCH 40 | 7.11 | 5.84 | |
| Line 6 | 50 | 12 | 41.5 | 1/2in SCH 40 | 7.11 | 5.84 | |
| Line 7 | 50 | 12 | 41.5 | 1/2in SCH 80 | 5.48 | 7.58 | |
| Line 8 | 50 | 12 | 41.5 | 1/2in SCH 80 | 5.48 | 7.58 | |
| **Totals** | **200** | **46** | **166.2** | - | **25.18** | 6.92 | Time Used |

**Absorption Area**

| Length (ft) | Width (ft) | Area (ft^2) |
|---|---|---|
| 200 | 3 | 600 |

| | | | |
|---|---|---|---|
| **System Pressure Head** | 2 | ft. | value selected by system designed (must be between 2-5 ft.) |
| **Total System Flow Rate** | 28.44 | GPM | Total tap size GPM |
| **System Dose Volume** | 166.1538 | gal. | Total number of panels required multiplied by 3.6 gal./panel |
| **Pump Run Time** | 5.84 | in. | System dose volume dvidided by total system flow rate |
| **Pump Tank Drawdown** | 8.307692 | in. | 1,000 gal. Infiltrator pump tank - volume is approximately 20 gallons per inch |

**Comments**

1. Install system using 2 ft. wide trenches
2. Instal drainlines on 8ft. Centers, level, and on contour.
3. System design requires effluent pump for distribution.

**Initial**

| | | |
|---|---|---|
| **Supply Line length:** | 92 | **ft** |
| **Diameter** | 2 | **in sch 40pvc** |
| **Friction Loss + Fitting Loss:** | 3.06 | **ft(supply line length + 70' for fittings in pump tank)** |
| **Design Head:** | 2 | **ft** |
| **Elevation Head:** | 9.40 | **ft** |
| **Total Head:** | 14.46 | **ft** |

**Pump to Deliver:** 28.44 **gals/min at** 14.46 **ft head**

# Residential Subsurface Wastewater Treatment and Disposal System Proposal

**for**

**146 Pumice Drive**
**Iredell County, NC**

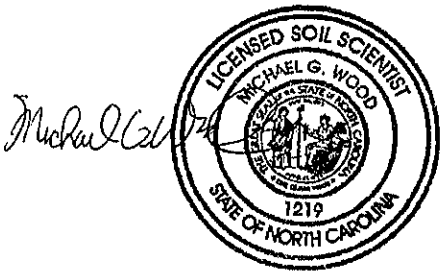
PIN # 3783-43-2759
April 14, 2022

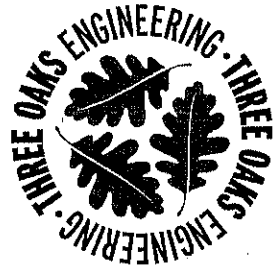
**Prepared for:**

Stan W Pressley
Cornerstone III Properties
704-301-3229
Stan@cornerstone3p.com

**Prepared by:**

Michael G. Wood, LSS
Three Oaks Engineering
324 Blackwell Street, Suite 1200
Durham, NC 27701
Phone: 919-732-1300




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).

SL-2018-114 LSS Evaluation

146 PUMICE DRIVE

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).

Stan Pounds 6/15/21

Owner's Signature Date

Owner's Legal Representative Signature Date

Michael G. Wood June 15, 2021

LSS Signature Date

Michael G. Wood

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

*Septic installer must be preapproved by Three Oaks Engineering, Inc.
*Septic drainfield area must be protected from construction traffic and grading throughout the life of the project. Orange barrier fencing is recommended to protect the septic drainfield area.

Cornerstone III Properties has contracted with Three Oaks Engineering, Inc. (Three Oaks) to prepare Session Law 2018-114 Section 11 (c) septic proposal for a new 3-bedroom single family residence to be located at 146 Pumice Drive, Iredell County, North Carolina (Iredell County Parcel Number: 3783-43-2759).

Based upon a soils investigation performed by Three Oaks, it has been determined that a sufficient amount of "Suitable" Group IV soils is available for the installation of a **Pressure Manifold to Gravity Vertical - Prefabricated Permeable Block Panel Systems (V-PPBPS)** for the initial system and repair system at a 0.30 GPD/ft. sq. long term acceptance rate (LTAR).

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

Location

From Statesville, take I-40 west to Exit 141. Take a right off ramp then next left onto Walnut Tree Road. Tomlin Mill Road and then left where it ends on Jennings Road. In 1.1 miles, take left onto Pumice Drive. 146 Pumice Drive is on the right in 0.2 mile.

References

*Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900,* December 6, 2018.

*Design, Installation and Maintenance of the T & J Panel Wastewater Treatment System; 2021, published by T & J Panel.*

Primary Investigator's Credentials

NC Licensed Soil Scientist No. 1219

## 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 distribution box (D-Box) shall be 2-inch Schedule 40 PVC (approximate length of supply line is 92 feet).
4. There shall be a threaded PVC union above each pump to facilitate easy removal of the pumps for maintenance or replacement.

D. Pressure Manifold

1. The control valves (gate valves) for each lateral distribution line shall be contained within one manifold box/vault of adequate size. The box should be placed upon a gravel base.
2. The supply manifold conveys effluent from the pump to the lateral distribution lines.
3. The supply manifold should be constructed of 4" SCH 40 PVC with 4 taps to the drainfield. Tap sizes are shown on the PPBPS Design Worksheet.

E. Backfill

1. Backfill sand shall be clean, washed, medium sand that is naturally occurring and falls within the gradation of ASTM C-33 specification (used in the ready-mix industry and is readily available).

F. Drainfield Installation

1. The drainfield and the proposed septic tank location have been marked on-site utilizing metal stemmed flags. Once this area has been approved by the County, the property owner/builder should mark this area and isolate it as much as possible from construction traffic. Prior to the system installation, the septic contractor shall contact the County for a preconstruction conference at which time the drainfield area will be re-verified.
2. Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition. If the installer has doubts as to whether or not the drain field area is dry enough to begin construction, the environmental health specialist for this area should be contacted for permission to proceed with the installation.
3. The specified system is a Type III-B/E pump to manifold to gravity flow to V-PPBPS specifically the 16-inch high panel system manufactured by T&J Panel Wastewater Treatment System, Patent No. 4013559; telephone: 1-800-222-2577. The installer must follow the manufacturer's guidelines for installing the T&J Panel System and should request an installation manual from the manufacturer prior to beginning construction.
4. The initial drain field consists of four (4) lateral trenches 2 feet wide by 50 feet in length.
5. The lateral trenches are to be constructed on contour with the land with each trench being excavated level from beginning to end. The use of a tripod mounted engineer's level is essential to assure that each trench is constructed as level as possible.

6. The maximum trench depth for this system shall be **28 inches**. Each trench shall be placed on minimum 8-foot centers.
7. Once trenches are dug, the side walls shall be raked and a light dusting of lime applied.
8. Backfill the trench with 6 inches of sand and level to grade. Once leveled, place 1 x 4- or 6-inch boards on top of the sand the entire length of each trench. Once the grade boards have been set, the panels may be set into the trench. The panels should be placed 6-inches apart but can be slightly minimized as needed to allow for installation.
9. Once the panels have been set, line the top chamber of each panel with 10 – 12 pounds of clean particle sand (medium sand blasting sand). Coverage depth should be approximately 1 inch thick. *Please note that this sand is not the same material specified for backfill.*
10. Tar seal rope, or approved foam, should be placed in the "U" outs of each end of the panel to form seals. Once the tar rope is in place, the 2-inch Schedule 40 PVC laterals can be added and the seal completed by the addition of more tar rope on the top and sides of the pipe. Now that the connection and seals are complete, a block cap is placed on each end of the panel so that all openings are covered.
11. Once the lateral has been installed and the panels closed, the trench is ready to be backfilled to the top with the sand used in the trench bottom. At this point, the trenches should be left open for the final inspection by the County.

G. Proper Operation Check

1. After all components of the wastewater disposal system have been installed and connected, the system shall be checked for proper operation.

H. Final Landscaping

1. The drainfield shall be shaped to shed rainwater and be free from low spots.
2. 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.

I. 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.
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

J. Operation and Maintenance

The designed system is classified as a Type III-B/E wastewater treatment and disposal system and 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 septic tank shall be pumped out 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; for example, if you are using a garbage disposal, it is recommended that the septic and pump tanks be cleaned out annually.
2. The effluent filters should be inspected semi-annually. 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.
3. All piping and valves should be inspected semi-annually for damage and corrections/repairs made immediately.
4. The drain field area should be maintained to prevent overgrowth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

K. Suggestions to the Homeowner

1. A garbage disposal is not recommended. The ground up garbage adds large amounts of solids into a septic tank that tend to degrade at a very slow rate.
2. Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
3. Used motor oil or any oily liquids should not be disposed of in a septic tank.
4. Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
5. Run dishwashers and washing machines only when you have a full load.
6. Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
7. Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and in some cases certain additives have been found to be detrimental to the life of a system.

**Initial System Design Specifics**

| | |
|---|---|
| Daily Design Flow: | 360 GPD 3-bedroom house |
| Septic Tank Size: | 1,000 Gallons (minimum) |
| Pump Tank Size: | 1,000 Gallons (minimum) |
| Effluent Loading Rate: | 0.300 GPD per sq. ft. |
| Drainfield Type: | Vertical PPBPS (50% Reduction) |
| Maximum Trench Depth: | 28 Inches |
| Supply Size: | 2 Inch |
| Supply Line Length: | Approximately 92 feet |
| Number of Drainlines: | 4 |
| **Drain Lines: | (4) 2' Wide x 50' Long |
| **Drainline Spacing: | 8 Foot on Centers |
| Total Trench Length: | 200 Linear Feet |
| Total Number of Panels: | 46 |
| Distribution Method: | Manifold |
| Number of Taps: | 4: (1/2 Inch SCH 40) |
| Dosing Volume: | 166 Gallons |
| Pump Run Time: | 5.84 Minutes |
| Pressure Head: | 2 Feet |
| Elevation/Friction Head | 12.46 Feet |
| *Pump Requirements: | 28.44 GPM at 14.46 Feet TDH |
| Recommended Pump: | Zoeller 130 Series 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 Design Specifics**

| | |
|---|---|
| Daily Design Flow: | 360 GPD 3-bedroom house |
| Septic Tank Size: | 1,000 Gallons (minimum) |
| Pump Tank Size: | 1,000 Gallons (minimum) |
| Effluent Loading Rate: | 0.300 GPD per sq. ft. |
| Drainfield Type: | Vertical PPBPS (50% Reduction) |
| Maximum Trench Depth: | 28 Inches |
| Supply Size: | 2 Inch |
| Supply Line Length: | Approximately 92 feet |
| Number of Drainlines: | 4 |
| **Drain Lines: | (4) 2' Wide x 50' Long |
| **Drainline Spacing: | 8 Foot on Centers |
| Total Trench Length: | 200 Linear Feet |
| Total Number of Panels: | 46 |
| Distribution Method: | Manifold |
| Number of Taps: | 4: (1/2 Inch SCH 40) |

** See drainfield layout for site locations and more details.

3783-43-2759 PROPERTY ID #: Sheet 1 of 1
COUNTY: IREDELL

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

OWNER: Bull River Development Partners
ADDRESS: 118 E. Kingston Ave Charlotte, NC 28703
PROPOSED FACILITY: RES
PROPOSED DESIGN FLOW (.1949): 360
LOCATION OF SITE: 116 Pumice Dr., Statesville, NC
APPLICATION DATE
DATE EVALUATED: 6-3-21
PROPERTY SIZE: 1.11 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) | | OTHER PROFILE FACTORS | | | | PROFILE CLASS & LTAR |
|---|---|---|---|---|---|---|---|---|---|
| | | | .1941 STRUCTURE/ TEXTURE | .1941 CONSISTENCE/ MINERALOGY | .1942 SOIL WETNESS/ COLOR | .1943 SOIL DEPTH | .1956 SAPR. O CLASS | .1944 RESTR HORIZ | |
| 1 | LS/6 | 0-12 | GR/cl | VFR, SS, SP, SE | - | 43" | - | 43" Cr | PS 0.3 |
| | | 12-43 | SBK/C | FI, SS, SP, SE | | | | | |
| | | 43+ | M/- | | | | | | |
| 2 | LS/6 | 0-16 | GR-SBK/cl | VFR, SS, SP, SE | - | >42" | - | - | PS 0.3 |
| | | 16-42+ | SBK/C | FI, SS, SP, SE | | | | | |
| 3 | LS/7 | 0-8 | GR/cl | VFR, SS, SP, SE | - | >42" | - | - | PS 0.3 |
| | | 8-42+ | SBK/SC | FI, SS, SP, SE | | | | | |
| 4 | LS/8 | 0-13 | SBK/cl | VFR, SS, SP, SE | - | >42" | - | - | PS 0.3 |
| | | 13-42+ | SBK/SC | VFR, SS, SP, SE | | | | | |

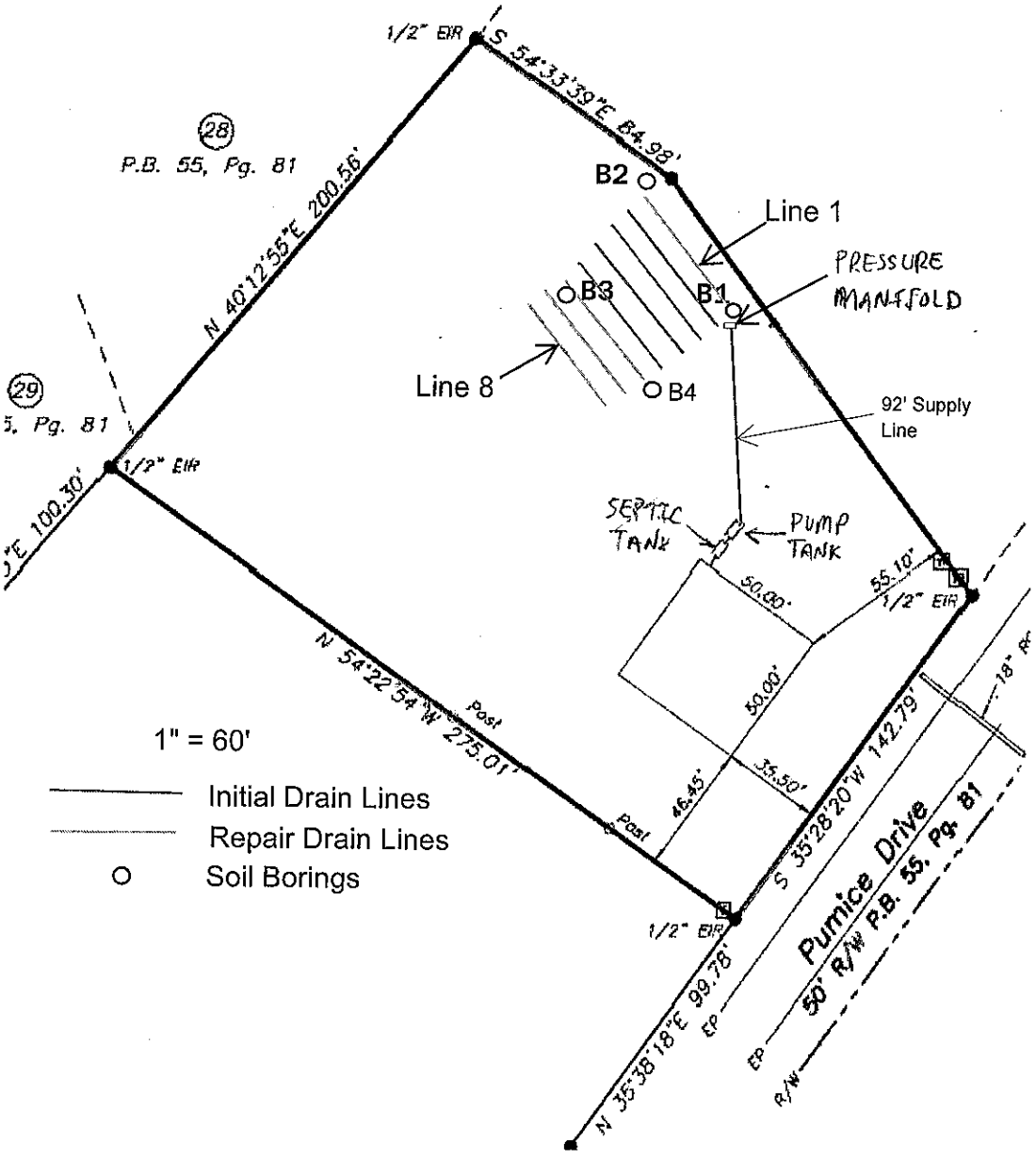
| DESCRIPTION | INITIAL SYSTEM | REPAIR SYSTEM |
|---|---|---|
| Available Space (.1945) | PS | PS |
| System Type(s) | V-PPBPS | V-PPBPS |
| Site LTAR | 0.3 | 0.3 |

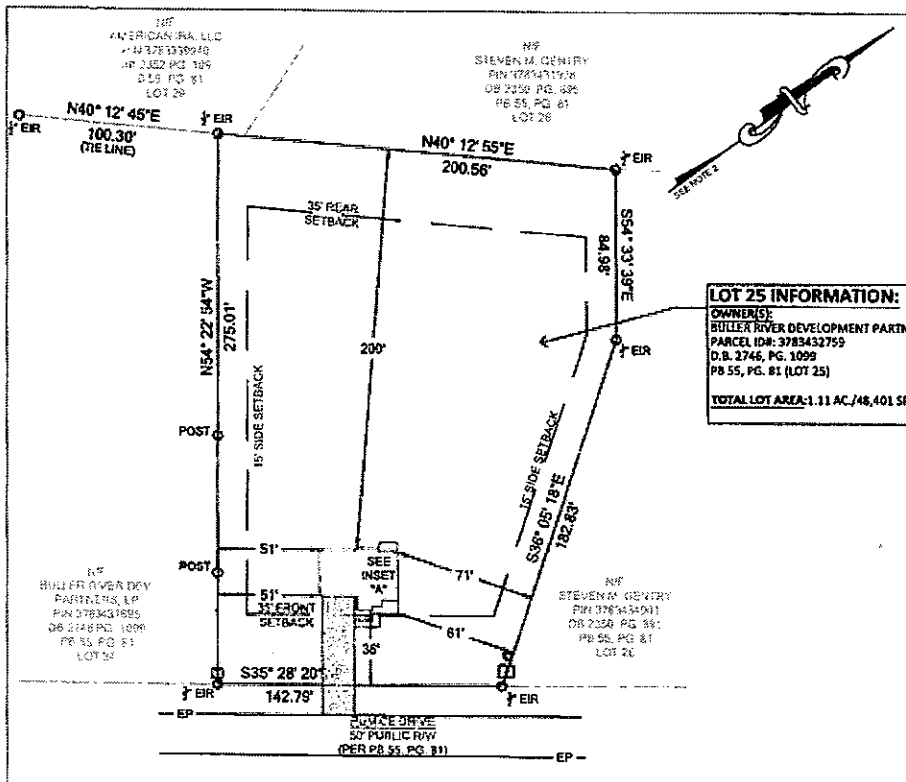
OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PROVISIONALLY SUITABLE
EVALUATED BY: M. Wood
OTHER(S) PRESENT:

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

Updated February 2014

# Figure 1. 146 Pumice Drive





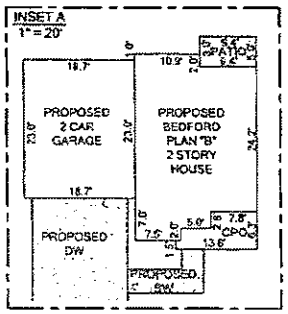

**LOT 25 INFORMATION:**

OWNER(S):
BULLER RIVER DEVELOPMENT PARTNERS, LP
PARCEL ID#: 3783432759
D.B. 2746, PG. 1099
PB 55, PG. 81 (LOT 25)

TOTAL LOT AREA: 1.11 AC./48,401 SF

LEGEND
- IPS - IRON PIPE SET
- EXISTING PROPERTY CORNER
- ELECTRICAL TRANSFORMER
- CABLE PEDESTAL
- TELEPHONE PEDESTAL
- ADJOINING PROPERTY
- EIR - EXISTING IRON ROD
- EP - EDGE OF PAVEMENT
- CPO - COVERED PORCH
- SW - SIDEWALK
- DW - DRIVEWAY

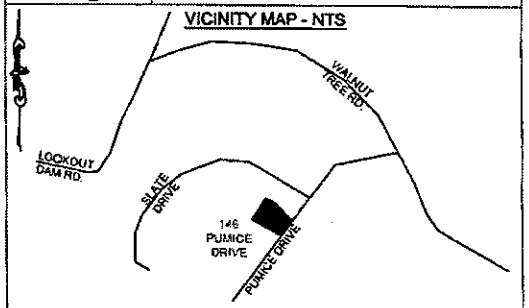
INSET A
1" = 20'





BATEMAN CIVIL SURVEY COMPANY
ENGINEERS • SURVEYORS • PLANNERS
2524 RELIANCE AVENUE, APEX, NC 27539
PHONE: (919) 577-1080 FAX: (919) 577-1081
INFO@BATEMANCIVILSURVEY.COM
NCBELS FIRM# C-2378


VICINITY MAP - NTS




I, STEVEN P. CARSON, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY DIRECT SUPERVISION FROM A SURVEY MADE UNDER MY SUPERVISION (PLAT BOOK REFERENCED IN TITLE BLOCK ); THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION LISTED UNDER REFERENCES; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000+; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARD OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA. L-4752
DATED:

PRELIMINARY

THIS MAP IS CONSIDERED PRELIMINARY, NOT FOR RECORDATION, CONVEYANCE OR SALES UNLESS SIGNED AND SEALED BY THE LICENSED SURVEYOR.

PROJECT# 210510

Plot Plan Exclusively For:
Buller River Development Partners, LP

146 PUMICE DRIVE (LOT 25)
RIVER ROCK SUBDIVISION - PHASE 2
STATESVILLE, NC 28625
SHILOH TOWNSHIP, IREDELL COUNTY
DRAWN BY: GCS CHECKED BY: SPC DATE: 7/26/2021
REFERENCE: SEE NOTE 2 SCALE:1"=60'

SCALE:
1" = 60 ft.

IMPERVIOUS:

PROPOSED IMPERVIOUS = 1,883 SF
HOUSE & GARAGE: 993 SF
DW: 712 SF
SW: 63 SF
CPO: 68 SF
PATIO: 47 SF
TOTAL LOT AREA = 1.11 AC / 48,401 SF
PERCENT IMPERVIOUS = 3.89%

THIS MAP IS OF AN EXISTING PARCEL OF LAND AND IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP NOT FOR RECORDATION. NO TITLE REPORT PROVIDED.

BUILDER TO VERIFY HOUSE LOCATION, DIMENSIONS AND REVIEW TOTAL IMPERVIOUS NOTED ON THIS PLOT PLAN.

NOTES

1. SURVEY PERFORMED BY TED BENBOW LAND SURVEYING, INC AND ALL EXISTING FEATURES ARE SCALED IN FROM SURVEY TITLED "BOUNDARY SURVEY FOR BULLER RIVER DEVELOPMENT PARTNERS, LP" DATED 05/21/2021.

2. ALL HORIZONTAL GROUND DISTANCES AND ALL BEARINGS ARE BASED ON TED BENBOW LAND SURVEYING, INC. AND ALL EXISTING FEATURES ARE SCALED IN FROM SURVEY TITLED "BOUNDARY SURVEY FOR BULLER RIVER DEVELOPMENT PARTNERS, LP" DATED 05/21/2021.

3. THE PROPERTY LIES IN ZONE "X" PER NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP # 3710378300K DATED 03/18/2008.

4. SITE ZONED "RA" PER IREDELL COUNTY.
FRONT: 35' SIDE: 15' REAR: 35'

5. AREAS COMPUTED BY COORDINATE METHOD.

6. NO GRID MONUMENTS FOUND WITHIN 2000' PER REFERENCE.

7. THIS MAP IS NOT FOR RECORDATION AND SHOULD BE REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH APPLICABLE LAND DEVELOPMENT REGULATIONS.

8. THIS PLAN HAS BEEN PREPARED FOR LAYOUT AND PERMITTING PURPOSES ONLY.

9. SURVEY HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

10. THERE IS A 10' DRAINAGE AND UTILITY EASEMENT ALONG EACH SIDE OF ALL LOT LINES, PER PLAT BOOK 55, PAGE 81.

RECEIVED APR 2 7 2022

* REVISION: ALREADY HAVE SEPTIC PERMIT *

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

AP-319543

**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 (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
*Please 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: COBBLESTONE III PROPERTIES Address: 259 TEXTILE WAY FT. MILL SC Zip: 29715

Applicant Email: STAN@COBBLESTONEIII.COM Phone: 704 314 3229 Alt. Phone: X

Owner Name: ROLLER RIVER DEVELP. Address: 259 TEXTILE WAY FT. MILL, SC Zip: 29715

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

**Property Information:**

Street Address: 146 PUMICE LANE PIN 3783-43-2769

Subdivision Name: RIVERROCK Section/Phase: _____ Lot Number: _____

Driving Directions: NORTH WALNUT TREE / LEFT ON PUMICE, OR / RT ON PUMICE

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

(X) 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: 3
Maximum Number of Occupants: 4
( ) Swimming Pool
( ) Other Addition/Structure: _____

**CHECK FOUNDATION TYPE**
(X) 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: 4

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

**Desired Septic System Type:** *(you may rank in order of preference)* Year existing system installed: _____
( ) No Preference ( ) Alternative (X) 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: Stan Cowley 4/26/22
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/BUFFER RIVER, am the legal owner(s) of the property located at 146 PUMICE LANE, identified as

PIN (Parcel Identification Number) 3783-43-2559, 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/Buffer River Dairy Farm
Signature of Owner(s)

4/26/22
Date

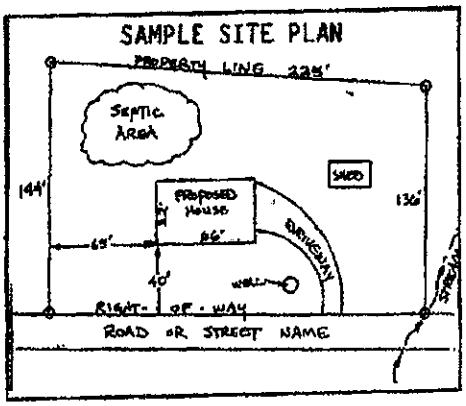
**Mooresville - Environmental Health**
ronda.hart@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

**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:**

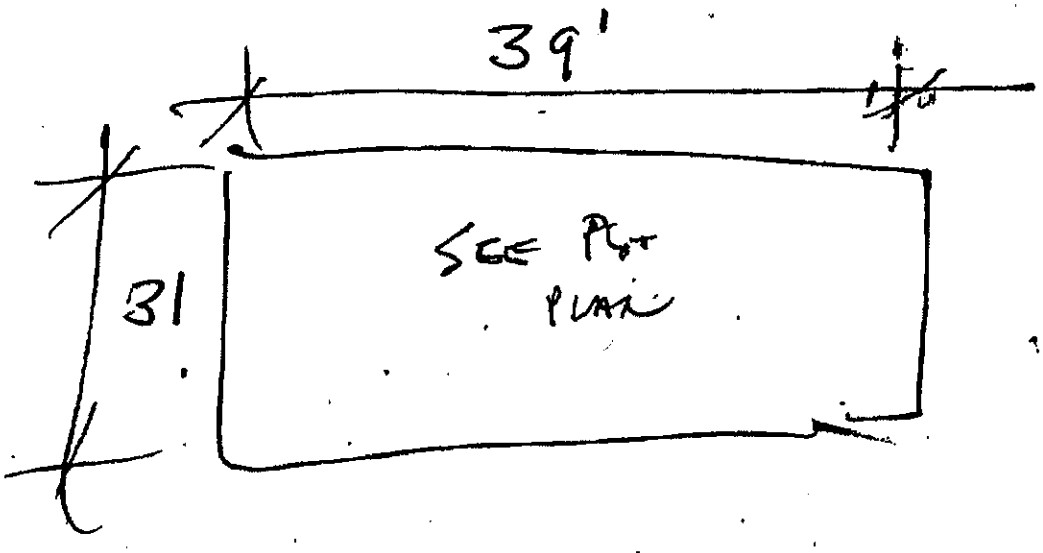
- (X) Property Line measurements are clearly identified
- (X) All proposed structures are indicated
- (X) Front and side setbacks from property line
- (X) Preferred driveway location
- (X) Preferred well location
- (X) Preferred septic system location
- (X) North arrow, or other sufficient indicator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

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

**DATE** 4/26/22

## Notice

* Property subject to any easements and right of way on record, and all NCDOT easements and rights of way.

* This survey is subject to any facts that may be disclosed by a full and accurate title search.

* This survey plat does not show any unrecorded, written or unwritten easements, dedications or other encumbrances. Such burdens could exist on this property and not appear on this plat. Accordingly, users of this plat are warned to remain alert for the existence of such unrecorded burdens not shown hereon.

* This plat was drawn for the exclusive use of the party named hereon. Said certificates do not extend to any unnamed person without an express recertification by the surveyor naming said person.

* This plat represents an actual field survey that meets or exceeds the minimum requirements of a Class C Survey in accordance with the Standards of Practice for Land Surveying in North Carolina according to North Carolina Administrative Code Title 21, Chapter 56, Section 1600.

* The ratio of precision before any adjustments is 1:14,631.

* Area determined by coordinate computations.

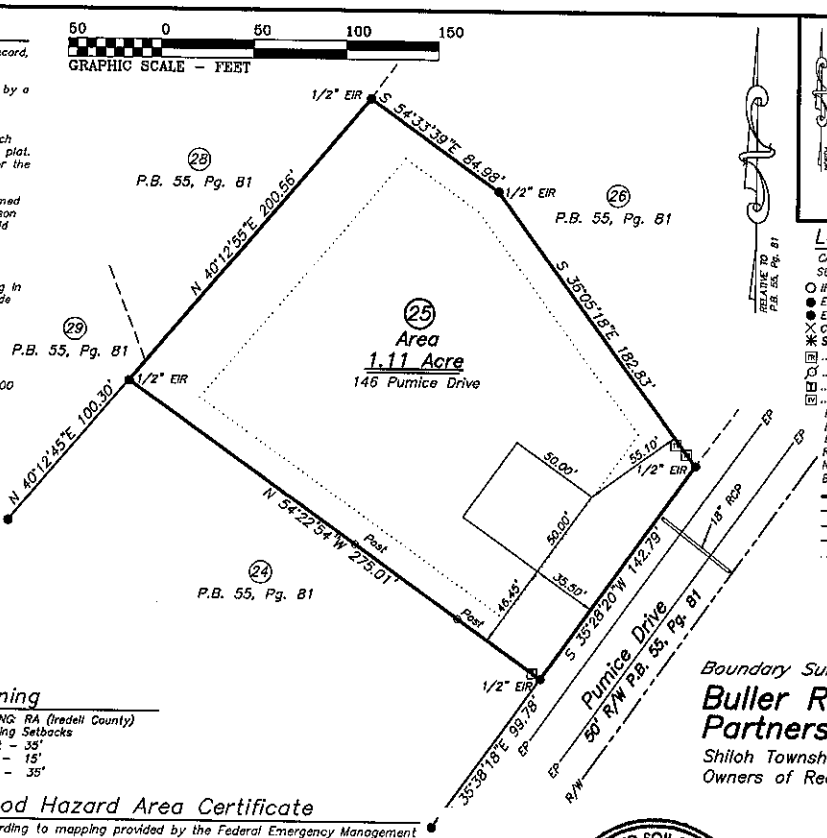
* No NGS or NCGS Horiz. Control Monument found within 2,000 feet of the site.

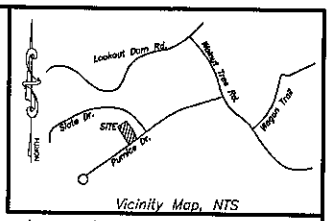
Witness this my original signature, registration number and seal this 21 day of May, 2021 A.D.

Ted M. Benbow NC PLS L-3175
Firm License # C-1588

NORTH CAROLINA PROFESSIONAL SEAL L-3175 LAND SURVEYOR TED M. BENBOW

GRAPHIC SCALE – FEET
50 0 50 100 150



Vicinity Map, NTS

## Legend

CAPS ON MONUMENTS SET CONTAIN THE SURVEYORS NAME AND LICENSE NUMBER.

- IRS ..... 1/2" IRON ROD SET WITH YELLOW CAP
- EIP ..... EXISTING IRON PIPE AS SHOWN
- EIR ..... EXISTING IRON ROD AS SHOWN
- CP ..... COMPUTED POINT
- SSS ..... SURVEY SPIKE SET
- TR ..... TRANSFORMER
- UP ..... UTILITY POLE
- TP ..... TELEPHONE PEDESTAL
- CATV ..... CATV PEDESTAL
- PIN ..... PARCEL IDENTIFICATION NUMBER
- RCP ..... REINFORCED CONCRETE PIPE
- EP ..... EDGE OF PAVEMENT
- R/W ..... RIGHT OF WAY
- NTS ..... NOT TO SCALE
- BSL ..... BUILDING SETBACK LINE
- LINE SURVEYED
- TIE LINE SURVEYED
- LINE NOT SURVEYED
- RIGHT-OF-WAY LINE
- SETBACK LINE

## Zoning

ZONING: RA (Iredell County)
Building Setbacks
Front – 35'
Side – 15'
Rear – 35'

## Flood Hazard Area Certificate

According to mapping provided by the Federal Emergency Management Agency and shown on the Digital Flood Insurance Rate Map (DFIRM) Panel 3783, Iredell County, North Carolina, effective date: 3/18/2008, the property shown hereon is not located within a special flood hazard area. The property is entirely within an area designated "Zone X – other areas". Areas determined to be outside the 0.2% annual chance floodplain: areas outside future conditions 1% annual chance floodplain.

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

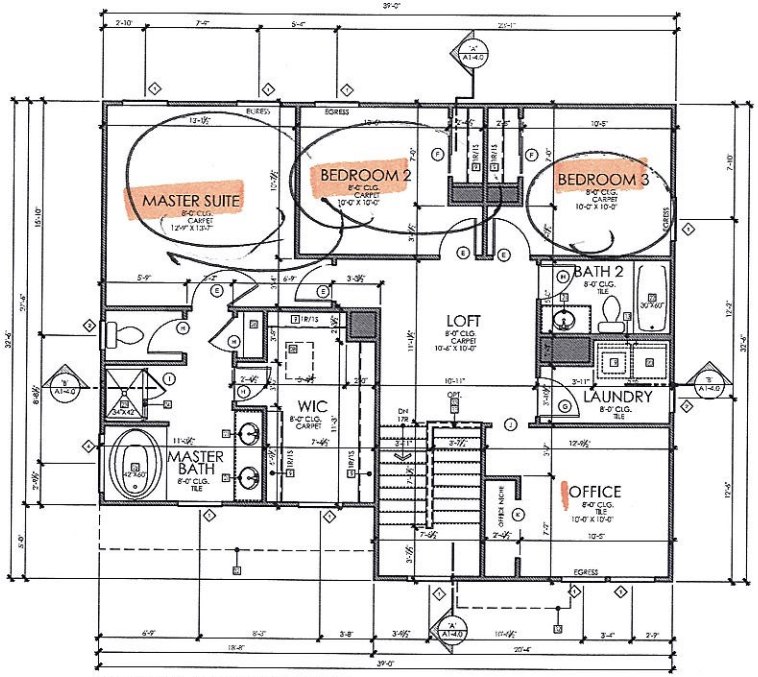

**TED BENBOW Land Surveying**
Proudly Surveying Iredell County Since 1989
630 SIGNAL HILL DRIVE EXT., STATESVILLE, NC 28625
PHONE (704) 878-9661
www.boundarydevelopment.com


Boundary Survey For:

# Buller River Development Partners, LP

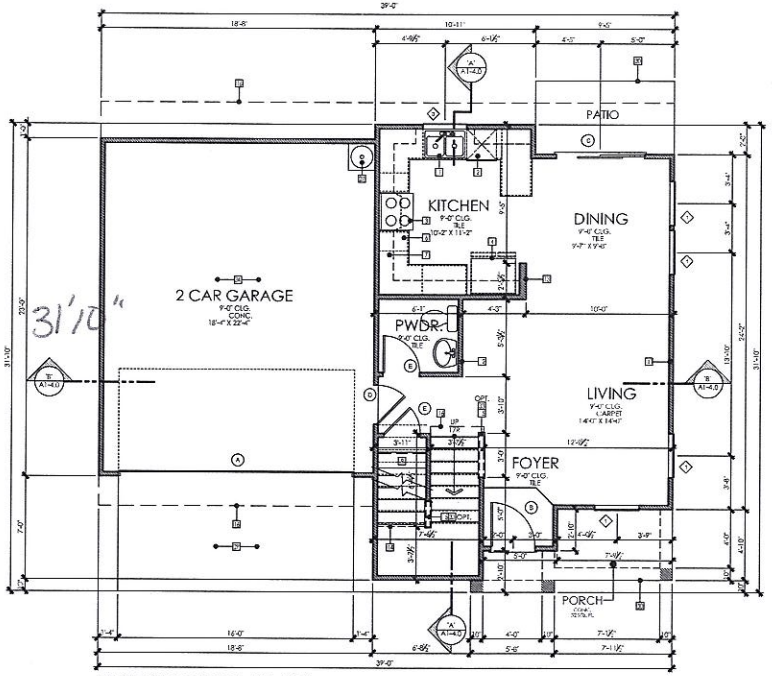
Shiloh Township, Iredell County, NC
Owners of Record: Buller River Development Partners, LP
e: D.B. 2746, Pg. 1099
: P.B. 55, Pg. 81
-2759
105137.DWG (2009161A.CRD)
·18-2021
21-2021

39




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 | GUARDWALL - 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 MANUFACTURERS SPECS. AND I.M.C. AND 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'-6" | 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 |

## DRYWALL WRAPPED OPENING SCHEDULE

| MARK | WIDTH | HEIGHT | QUANTITY | REMARK |
|---|---|---|---|---|
| OFFICE ENTRANCE AND OFFICE NICHE | | | | |
| J | 2'-9" | 6'-11" | 1 | OFFICE ENTRANCE |
| K | 4'-3" | 6'-11" | 1 | OFFICE NICHE |

## WINDOW SCHEDULE

| MARK | WIDTH | HEIGHT | QUANTITY | REMARK |
|---|---|---|---|---|
| WINDOW SCHEDULE | | | | |
| 1 | 5'-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!

Date 6-23-2021

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: 05-13-21

IREDELL COUNTY · NC

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

| APPLICATION NUMBER |
|---|
| 319543<br>Issue Date: |

**Permit Type: ZONING**

| Parcel Number | Street Address | Jurisdiction |
|---|---|---|
| 3783432759.000 | 146 PUMICE DR | Iredell County |

| Owner Information | Applicant Information |
|---|---|
| Name: BULLER RIVER DEV PARTNERS LP | Name: CORNERSTONE III PROPERTIES INCc |
| Address: | 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 |
|---|---|---|---|---|---|---|
| 1.11 | 35 | 35 | 15 | 15 | WSIV-CA 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.

Signature of Owner/Contractor

**Date:** 07/09/2021

| Permit Number | 319543 |
|---|---|

| TOTAL FEES: | $77.25 |
|---|---|