BLDR-2023-36110

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 x3456 Mooresville Office (704) 660-3625

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

PERMIT # OSWP 2024-62941

PIN # 4710 – 65 – 4836

APPLICANT/OWNER: AWT

APPLICANT ADDRESS: 501 N Salem St, Suite 203, Apex NC 27502

SITE ADDRESS: 123 Ridgecliff Dr, Statesville, NC 28677 ✓

PHONE: 919-859-0669

ALT. PHONE:

SITE DIRECTIONS: W Buffalo Shoals -> L Pineville -> R Sunny Path -> R Ridgecliff

SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: Ridgecliff ✓ SECTION: n/a LOT # 4 + 4A ✓ LOT AREA: 0.645 DESIGN FLOW: 480 gpd L.T.A.R.(Initial): 0.3 L.T.A.R (Repair): 0.3

Septic Tank 1000 (gal) STB Date

Pump Tank 1275 (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 4 Linear Ft: 405

Trench Width 36 *Max. Trench Depth(Initial) 18 *Max. Trench Depth(Repair) 18 Gravel Depth n/a

* Measured on the downhill side of the trench

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

☑ New System ☐ Repair ☐ Expansion System Type: I II III IV V VI

System Description: 25% Reduction - PM - IIIb

Repair System Description: HPPBPS - PM - IIIbe

Maintenance Agreement Required: ☐ YES ☑ NO

☐ GRAVITY ☑ PRESSURE

Usable Depth to LC (Initial): 30

☑ Residence No. Bedrooms 4

☐ Business No. Persons 8

☐ Other No. Employees

☐ Slab ☐ Crawl Space

☐ Basement w/plumbing ☑ Basement w/o plumbing

Usable Depth to LC (Repair): 30 *Limiting Condition*

Water Supply

☐ Private

☐ Public

☑ Community

Comments / Conditions: Do not pave, grade, drive, park, or bury utilties in drainfield.

Easement recorded B1315, P2178

INITIAL SITE SKETCH

Improvement permit issued pursuant to:
G.S. 130A-335(a2), (a3) & (a4) using signed & sealed LLS/LG Evaluation attached, from:

Jeff Vaughn

LSS# 1227

Construction authorization issued pursuant to: G.S. 130A-335(a2) & (a5)

AOWE# 10003E

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.

See attached as built

Verify supply line meets rules w/in 50'-100' of community well

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: Online Signature Date:

Installed by: Russell Williams

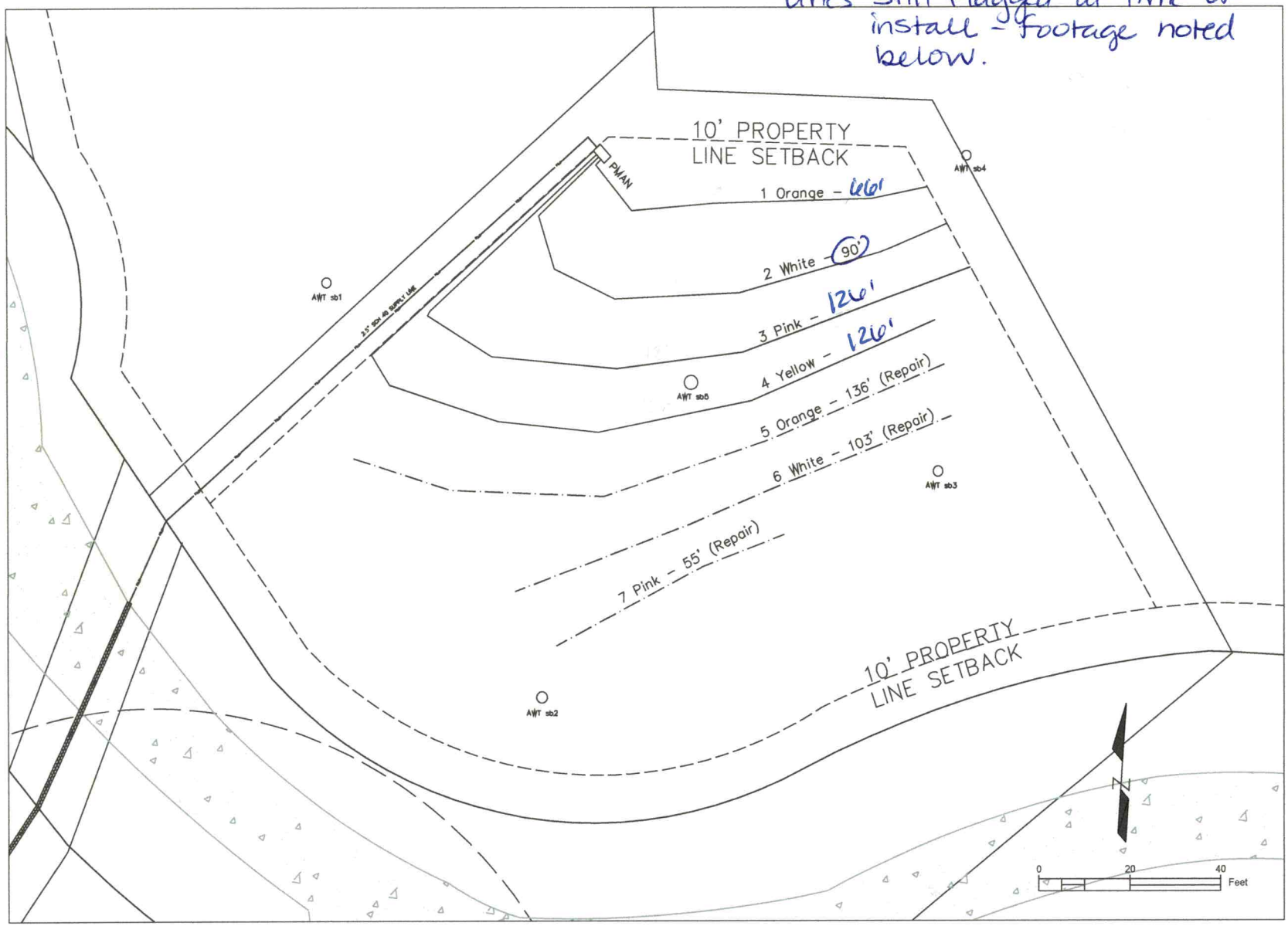
IMPROVEMENT PERMIT by: D. Wieberg Date: 10/22/24 ✓

OPERATION PERMIT by: Bryant C. White Date: 4-24-2025 ✓

AUTHORIZATION TO CONSTRUCT by: D. Wieberg Date: 10/22/24 ✓

Existing System Inspected by: Date:

As Built Sketch



AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0669
www.agriwaste.com

Corban Homes
WWTS

Owner Information:
Corban Homes of Cabarrus County Inc.
8410 Pit Stop Court NW,
Suite 122
Concord, NC 28027

Property Information:
123 Ridgecliff Drive
Statesville, NC 28677
Iredell County
PIN: 4710654836.000

For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Drainfield

DRAWN BY:	CREATED ON:
K. GREEN	8/9/2021
REVISED BY:	REVISED ON:
A. HUDSON	10/06/2023

SHEET NAME:
WW-3

supply from road to PM - 10/31/24 DW

	Date	Initials
Drain Lines Checked	10/31/24	DW
Tanks Checked	11/22/24	BM
Pressure Manifold or Valve Box Checked	10/31/24	DW
Pressure Head Set	4-22-2025	BCW
Electrical Checked	4-22-2025	BCW
Floats Set	4-22-2025	BCW
Alarm Checked	4-22-2025	BCW
Maintenance Contract Y / (N)		

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 x3456 Mooresville Office (704) 660-3625

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

PERMIT # OSWP 2024-62941

PIN # 4710 -- 65 -- 4836

APPLICANT/OWNER: AWT

APPLICANT ADDRESS: 501 N Salem St, Suite 203, Apex NC 27502

SITE ADDRESS: 123 Ridgecliff Dr, Statesville, NC 28677

PHONE: 919-859-0669

ALT. PHONE:

SITE DIRECTIONS: W Buffalo Shoals -> L Pineville -> R Sunny Path -> R Ridgecliff

SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: Ridgecliff

SECTION: n/a

LOT # 4 + 4A

LOT AREA: 0.645

DESIGN FLOW: 480 gpd

L.T.A.R.(Initial): 0.3

L.T.A.R (Repair): 0.3

Septic Tank 1000 (gal) STB Date

Pump Tank 1275 (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 4 Linear Ft: 405

Trench Width 36 *Max. Trench Depth(Initial) 18 *Max. Trench Depth(Repair) 18 Gravel Depth n/a

* Measured on the downhill side of the trench

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

☑ New System ☐ Repair ☐ Expansion System Type: I II ☑ III IV V VI

System Description: 25% Reduction - PM - IIIb

Repair System Description: HPPBPS - PM - IIIbe

Maintenance Agreement Required: ☐ YES ☑ NO

☐ GRAVITY ☑ PRESSURE

Usable Depth to LC (Initial): 30

☑ Residence ☐ Business ☐ Other ☐ Slab ☐ Crawl Space ☐ Basement w/plumbing

No. Bedrooms 4

No. Persons 8

No. Employees

☑ Basement w/o plumbing

Usable Depth to LC (Repair): 30 *Limiting Condition*

Water Supply

☐ Private ☐ Public ☑ Community

Comments / Conditions: Do not pave, grade, drive, park, or bury utilties in drainfield.

Easement recorded B1315, P2178

INITIAL SITE SKETCH

Improvement permit issued pursuant to:
G.S. 130A-335(a2), (a3) & (a4) using signed & sealed LLS/LG Evaluation attached, from:

Jeff Vaughn

LSS# 1227

Construction authorization issued pursuant to: G.S. 130A-335(a2) & (a5)

AOWE# 10003E

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.

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: Online Signature Date:

Installed by:

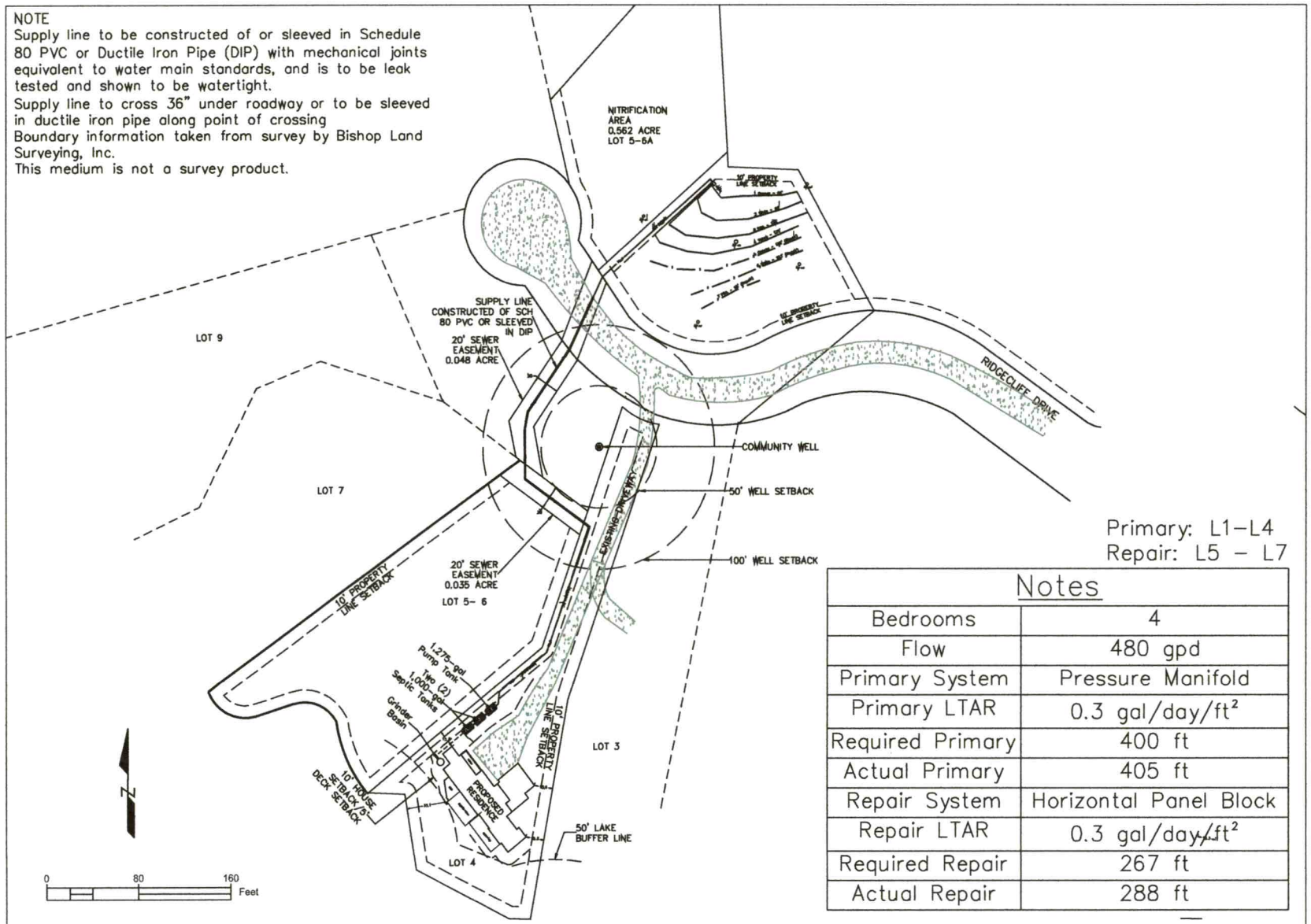
IMPROVEMENT PERMIT by: D. Wieberg Date: 10/22/24

OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: D. Wieberg Date: 10/22/24

Existing System Inspected by: Date:

NOTE
Supply line to be constructed of or sleeved in Schedule 80 PVC or Ductile Iron Pipe (DIP) with mechanical joints equivalent to water main standards, and is to be leak tested and shown to be watertight.
Supply line to cross 36" under roadway or to be sleeved in ductile iron pipe along point of crossing
Boundary information taken from survey by Bishop Land Surveying, Inc.
This medium is not a survey product.



Primary: L1–L4
Repair: L5 – L7

Notes	
Bedrooms	4
Flow	480 gpd
Primary System	Pressure Manifold
Primary LTAR	0.3 gal/day/ft^2
Required Primary	400 ft
Actual Primary	405 ft
Repair System	Horizontal Panel Block
Repair LTAR	0.3 gal/day/ft^2
Required Repair	267 ft
Actual Repair	288 ft

PROPERTY LAYOUT

Scaled for 11"x17" output

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0689
www.agriwaste.com

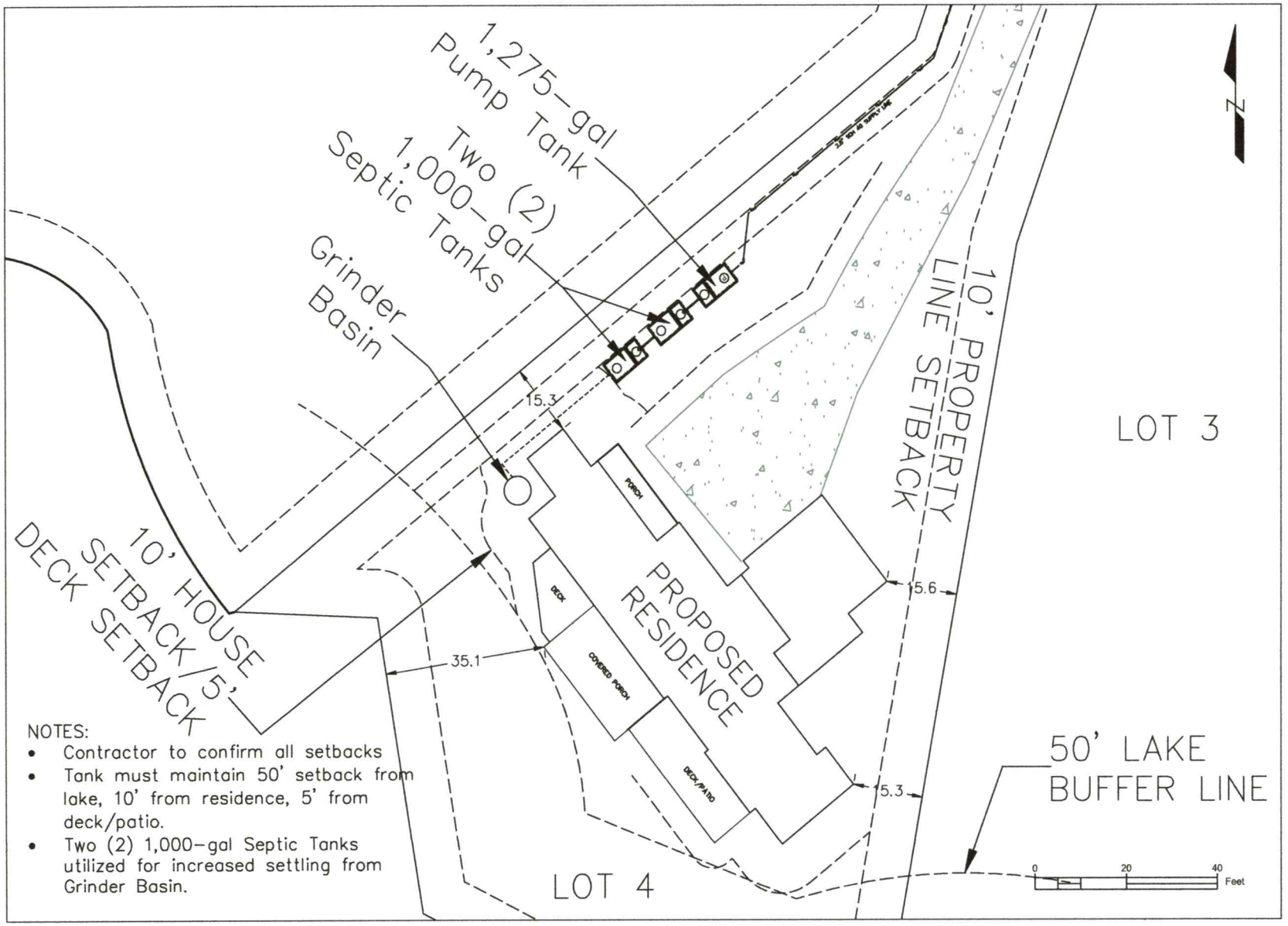
For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Property Layout

DRAWN BY:	CREATED ON:
K. GREEN	8/9/2021
REVISED BY:	REVISED ON:
A. HUDSON	10/06/2023

SHEET NAME:
WW-1



NOTES:

- Contractor to confirm all setbacks
- Tank must maintain 50' setback from lake, 10' from residence, 5' from deck/patio.
- Two (2) 1,000-gal Septic Tanks utilized for increased settling from Grinder Basin.

COMPONENT LAYOUT

Scaled for 11"x17" output

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0669
www.agriwaste.com

Corbon Homes
WWTS

Owner Information:
Corbon Homes of
Cabarrus County Inc.
8410 Pit Stop Court NW,
Suite 122
Concord, NC 28027

Property Information:
125 Ridgecliff Drive
Statesville, NC 28677
Iredell County
PIN: 4710804838.000

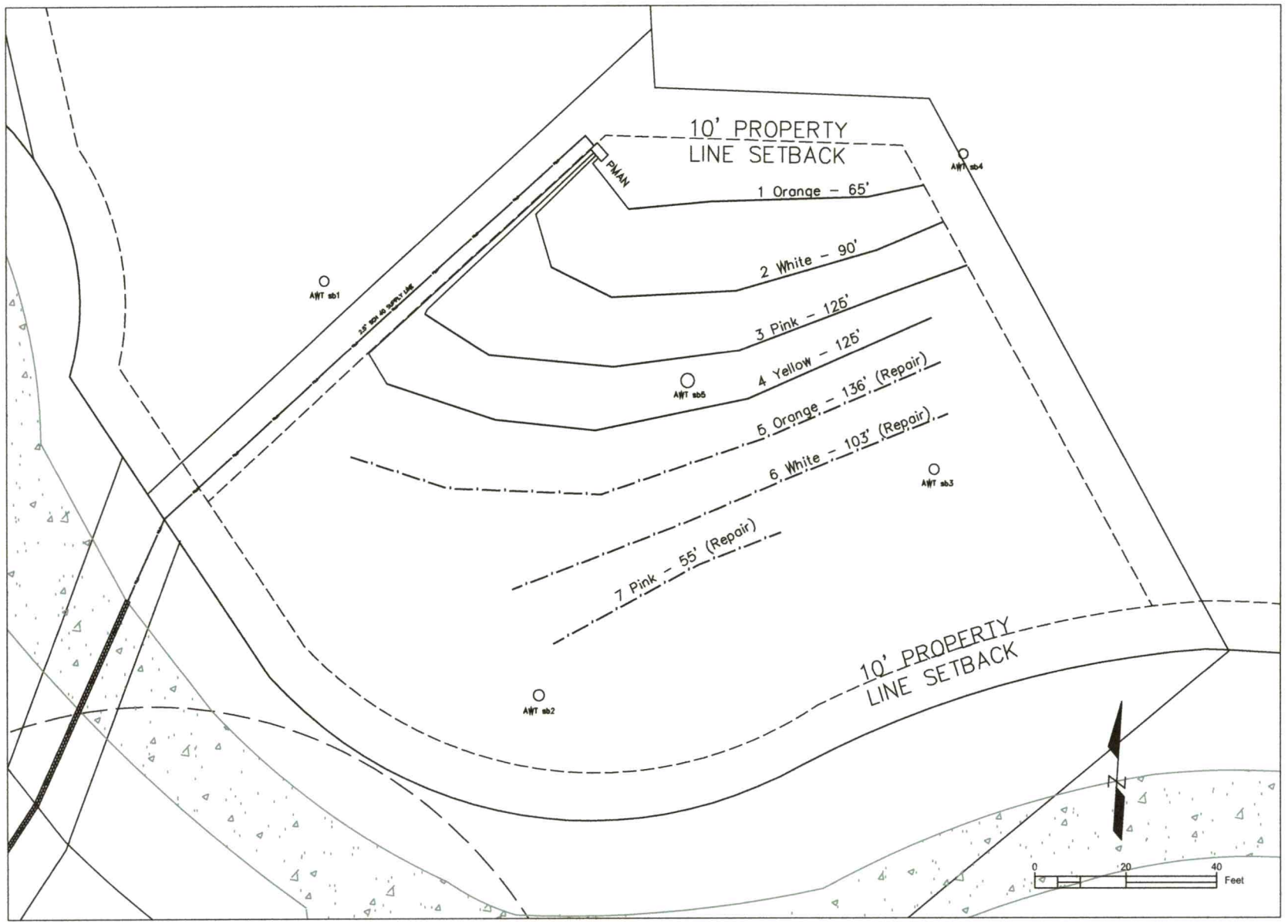
For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Component Layout

DRAWN BY:	CREATED ON:
K. GREEN	8/9/2021
REVISED BY:	REVISED ON:
A. HUDSON	10/06/2023

SHEET NAME:
WW-2



DRAINFIELD

Scaled for 11"x17" output

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0969
www.agriwaste.com

Carbon Homes
WWTS

Owner Information:
Carbon Homes of
Cabarrus County Inc.
8410 Pit Stop Court NW,
Suite 122
Concord, NC 28027

Property Information:
123 Ridgecliff Drive
Statesville, NC 28677
Iredell County
PIN: 4710854836.000

For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE

Drainfield

DRAWN BY:	CREATED ON:
K. GREEN	8/9/2021
REVISED BY:	REVISED ON:
A. HUDSON	10/06/2023

SHEET NAME:

WW-3

Permit/File #: OSWP-2024-62941

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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

Submittal Includes: ☒ (a2) Improvement Permit ☒ (a2) Construction Authorization ☐ Fee $_____

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

County: Iredell
PIN/Lot Identifier: 4710654836.000
Issued To: Ben and Jill Pleune
Property Location: 123 Ridgecliff Dr. Statesville, NC 28677
Subdivision (if applicable) Ridgecliff Lot #: 4 Block: na Section: na
LSS Report Provided: Yes ☒ No ☐
If yes, name and license number of LSS: Jeff Vaughan, License number: 1227

New ☒ Expansion ☐ System Relocation ☐ Change of Use ☐
Facility Type: Single Family Residence
Number of bedrooms: 4 Number of Occupants: 8 Other: _____
Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process Wastewater
Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.3
Proposed Wastewater System Type*: Type IIIb, pump to 25% reduction drain field product (Initial) Pump Required: ☒ Yes ☐ No ☐ May be required
Proposed Wastewater System Type*: Type IIIb, pump to horizontal PPBPS 50% reduction drain field product (Repair) Pump Required: ☒ Yes ☐ No ☐ May be required
**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*
Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW
Saprolite System (Initial): ☐ Yes ☒ No Saprolite System (Repair): ☐ Yes ☒ No
Fill System (Initial): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Fill System (Repair): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Usable Depth to LC (Initial)[x]: 30" Usable Depth to LC (Repair)[x]: 30" [x] ***Limiting Condition***
Max. Trench Depth (Initial)[‡]: 18" Max. Trench Depth (Repair)[‡]: 18" [‡] ***Measured on the downhill side of the trench***
Artificial Drainage Required: ☐ Yes ☒ No If yes, please specify details: _____
Type of Water Supply: ☒ Private well ☐ Public well ☐ Shared well ☐ Municipal Supply ☐ Spring ☐ Other: _____
Drainfield location meets requirements of Rule .0508: Yes ☒ No ☐ Drainfield location meets requirements of Rule .0601: Yes ☒ No ☐
Permit valid for: ☒ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:
TWO 1,000-GAL SEPTIC TANKS IN SERIES - FIRST TO BE USED AS SETTLING TANK FROM GRINDER BASIN
The drainfield is in an off-site easement area. An operations agreement will be required.

Licensed Soil Scientist Print Name: Jeff Vaughan
Licensed Soil Scientist Signature: _____ Date: 10/11/2024

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

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: OSWP-2024-62941

This Section for Local Health Department Use Only

Initial submittal received: 10/21/24 (*Date*) by DW (*Initials*)

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

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

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

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

The following items are missing:

_____

_____

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

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: D. Wieberg Date: 10/22/24

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

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

Improvement Permit Expiration Date: 10/22/29

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: OSWP-2024-62941

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

County: Iredell **Pre-Construction Conference Required:** Yes ■ No ☐

PIN/Lot Identifier: 4710654836.000

Issued To: Ben and Jill Pleune

Property Location: 123 Ridgecliff Dr. Statesville, NC 28677

AOWE/PE Plans/Evaluations Provided: Yes ■ No ☐ If yes, name and license number of AOWE/PE: Jeff Vaughan, 10003E

Facility Type: Single Family Residence

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

■ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ■ Yes ☐ No Basement Fixtures? ☐ Yes ■ No

Crawl Space? ☐ Yes ■ No Slab Foundation? ☐ Yes ■ No

Type of Wastewater System* Type IIIb, pump to 25% reduction drain field product (Initial) Type IIIb, pump to Horizontal PPBPS 50% reduction drain field product (Repair)

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

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

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

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

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

Installation Requirements/Conditions

Septic Tank Size: 1,000 gallons Total Trench/Bed Length: 405 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft² Usable Depth to LC (Initial)ˣ: 30" ˣ***Limiting condition***

Soil Cover: _____ inches Slope Corrected Maximum Trench/Bed Depth‡: 18" inches ‡ ***Measured on the downhill side of the trench***

Pump Tank Size (if applicable): 1,275 gallons Requires more than 1 pump? ☐ Yes ■ No

Pump Requirements: _____ ft. TDH vs. _____ GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ■ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ■ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.0204(g)]: ☐ Yes ■ No Declaration of Restrictive Covenants: ☐ Yes ■ No

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

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

Permit conditions:
TWO 1,000-GAL SEPTIC TANKS IN SERIES - FIRST TO BE USED AS SETTLING TANK FROM GRINDER BASIN
The drainfield is in an off-site easement area. An operations agreement will be required.

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

AOWE/PE Print Name: Jeff Vaughan

AOWE/PE Signature: _____ Date: 10/11/2024

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

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: OSWP-2024-62941

This Section for Local Health Department Use Only

Initial submittal received: 10/21/24 (*Date*) by DW (*Initials*)

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

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

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

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

The following items are missing: _____

_____

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

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: D. Wieberg Date of Issuance: 10/22/24

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

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

Construction Authorization Expiration Date: 10/22/29

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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

Application for Services

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5).
[hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for:
☑ (a2) Improvement Permit ☑ (a2) Construction Authorization ☐ (a2) Repair/Construction Authorization

If applying for a Construction Authorization, please indicate desired system type(s):
☐ Accepted ☐ Conventional ☐ Innovative ☑ Other Type IIIb, pump to 25% reduction drain field product ☐ Any

☑ New Construction ☐ Expansion ☐ System Relocation ☐ Change of Use ☐ Repair
☑ 5-Year Expiration Requested (site plan provided) ☐ Non-Expiring Permit Requested (plat provided, defined in G.S.130A-334(7a)
Requesting DHHS review? (systems >3000 GPD or IPWW) ☐ Yes ☑ No

Applicant: Trevor Hackney
Mailing Address: 501 N. Salem Street
City: Apex
State: NC Zip: 27502
Phone #: (704)268-9160
Email: thackney@agriwaste.com

Owner: Ben and Jill Pleune
Mailing Address: 4120 Moorland Drive
City: Charlotte
State: NC Zip: 28226
Phone #: 704-968-1419
Email: jillpleune7@gmail.com

If the answer to any of the following questions is "yes", applicant must attach supporting documentation.

☐ Yes	☒ No	Does the site contain any jurisdictional wetlands?
☐ Yes	☒ No	Is any wastewater going to be generated on the site other than domestic sewage?
☐ Yes	☒ No	Is the site subject to approval by any other public agency?
☒ Yes	☐ No	Are there any easements or right of ways on this property?

I understand that the documentation and fees, as required in G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application are to be used to issue an Improvement Permit and/or Construction Authorization pursuant to G.S. 130A-335(a2),(a3), and (a5). I understand that authorized county and state officials are granted right of entry to the property indicated on this application to conduct necessary inspections to determine compliance with applicable laws and rules. ***I understand that if the information in the application for an Improvements Permit and/or Construction Authorization is falsified, changed, or the site is altered, then the Improvement Permit and Construction Authorization shall become invalid.***

Applicant Signature: Trevor Hackney Date: 10/11/2024

Owner's Signature: [signature] Date: 10/11/2024

AGRITEC-01 CGARKALNS

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/12/2024

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	CONTACT NAME: Connie Garkalns	
Hartsfield & Nash Agency, Inc. 10405 Ligon Mill Rd., Ste H Wake Forest, NC 27587	PHONE (A/C, No, Ext): (919) 556-3698	FAX (A/C, No): (919) 556-8758
	E-MAIL ADDRESS: Connie@hartsfield-nash.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Selective Insurance Company of the Southeast	39926
INSURED	INSURER B : ACCIDENT FUND INSURANCE COMPANY OF AMERICA	10166
Agri-Waste Technology Inc 501 N. Salem St Ste 203 Apex, NC 27502	INSURER C : Evanston Insurance Company	35378
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **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		
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$	2,000,000
	CLAIMS-MADE X OCCUR			S 2253659	1/18/2024	1/18/2025	DAMAGE TO RENTED PREMISES (Ea occurrence)	$	300,000
							MED EXP (Any one person)	$	10,000
							PERSONAL & ADV INJURY	$	2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$	4,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$	4,000,000
	OTHER:							$	
A	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$	1,000,000
	X ANY AUTO			S 2253659	1/18/2024	1/18/2025	BODILY INJURY (Per person)	$	
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$	
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$	
								$	
A	UMBRELLA LIAB X OCCUR			S 2253659	1/18/2024	1/18/2025	EACH OCCURRENCE	$	2,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$	2,000,000
	DED RETENTION $							$	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			100003072	1/18/2024	1/18/2025	X PER STATUTE OTH-ER		
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N	N / A					E.L. EACH ACCIDENT	$	1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$	1,000,000
							E.L. DISEASE - POLICY LIMIT	$	1,000,000
C	Prof & Pollution			MKLV3ENV104078	8/22/2023	8/22/2024	Each Claim		5,000,000
A	Leased / Rented			S 2253659	1/18/2024	1/18/2025	Equipment		25,000

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

CERTIFICATE HOLDER

***This is ONLY For Informational Purposes
Contact Agency for Specific Holder info to be added
****

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

Connie Garkalns

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Engineers and Soil Scientists

Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.0669

Soil Suitability for Domestic Sewage Treatment and Disposal Systems

123 Ridge Cliff Drive (Lot 4 + Lot 4A),
Statesville, NC 28677
(Iredell County; PIN: 4710-65-4836)

PREPARED FOR: Ben and Jill Pleune - Client

PREPARED BY: Jeff Vaughan, Senior Agronomist & Soil Scientist
Trevor Hackney, Environmental Scientist

DATE: October 11, 2024

Soil suitability for domestic sewage treatment and disposal systems was evaluated on August 6, 2021 for the property located at 123 Ridge Cliff Drive (Lot 4 & 4A), Statesville, NC. Trent Bostic and Trevor Hackney of Agri-Waste Technology, Inc. (AWT) conducted the soil evaluation. AWT conducted a recent site visit to the property as of August 15, 2024, and the septic areas on site remain undisturbed. This evaluation was done to facilitate permitting for a septic system. This report and attached documents were prepared to meet the requirements for G.S. 130A-335(a2).

A drawing of the site plan, septic layout, and boring locations is included in Attachment 1. Profile descriptions for each boring are included in Attachment 2. Additional documentation about the property is included in Attachment 3.

The total property area is approximately 0.65 acres. There is an off-site easement associated with the property for the septic system area. The off-site easement area is approximately 0.5 acres. Both properties are completely wooded. The home, septic tanks, and pump tank are proposed on Lot 4 and the drain field is proposed within the offsite easement (Lot 4A). Two 1,000-gal septic tanks are proposed in series; the first to be used as settling tank from grinder basin. The proposed septic system is a type IIIb, pump septic system utilizing pressure manifold distribution with a 25% reduction drain-field product. The proposed repair septic system is a type IIIb, pump septic system utilizing horizontal PPBPS 50% reduction drain field product.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems
The drawing in Attachment 1 details the property boundaries (Kestler Surveying, INC.), soil boring locations, and layout of drain field trenches (Completed by AWT). Five soil

borings were assessed on Lot 4A. Soil borings were examined to determine soil suitability for on-site sewage disposal systems in accordance with 15A 18E Rules for Wastewater Treatment and Disposal Systems. These borings were advanced with a hand auger. A septic layout was performed to demonstrate available space (.0508). The layout in Attachment 1 indicates there is available space for a four-bedroom type IIIb, pump septic system utilizing pressure manifold distribution with an 25% reduction drain-field product for the primary system and the horizontal PPBPS 50% reduction drain field product for the repair system.

The proposed LTAR (Long Term Acceptance Rate) by AWT is 0.3 GPD/ft^2. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.3 GPD/ft^2, 667 linear feet of trench are necessary to support a four-bedroom home initial and repair systems. The attached drawing proves that 405 linear feet of trench can be installed for the primary septic system. The attached drawing proves that 288 linear feet of trench can be installed for the repair septic system with the proposed home location on the property. Since usable slope corrected soil depths meet or exceed 30", the maximum low side trench bottom should not exceed 18". At this installation depth 2 inches of fill soil should be brought in as a soil cap if the repair system is installed. AWT is recommending the use of the 25% reduction drain field product forthe initial system.

Any disturbances or grading done in the usable area or within the proposed setbacks will change the potential of using the area designated for a drain field.

We appreciate the opportunity to assist you in this matter. Please contact us with any questions, concerns, or comments.

Sincerely,

Jeff Vaughan, LSS/AOWE

Septic System Design - Summary Page

Engineers and Soil Scientists

Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.0669

Project: Corban Homes WWTS
Property: 123 Ridgecliff Drive
Statesville, NC 28677
Subdiv.:
Lot #:

Date: 1/2/2024
County: Iredell
Permit #:

Project Manager:
Trevor Hackney
thackney@agriwaste.com
704-268-9160

Owner: Ben and Jill Pleune
Address: 4120 Moorland Drive
Charlotte, NC 28226
Phone: 704-968-1419
Email: jillpleune7@gmail.com
EHS:

Type of System: III b

PIN: 4710654836.000

Soil Parameters

Soil Evaluation By:
Jeff Vaughan, PhD, LSS

Special Conditions/Notes:

LTAR: 0.30 gpd/ft^2

Design Parameters

Type of Establishment: Residence, 5 or fewer bedrooms
Unit: Bedroom
# of Units: 4

Septic Tank Specifications

Min. Tank Capacity: 1,000 gal
Actual Tank Volume: 1,000 gal
Tank Manufacturer: Shoaf
Tank Model: TS 1000 STB

	Exterior	Interior	
Length:	108.0	102.0	in.
Width:	58.0	52.0	in.
Depth:	67.5	60.5	in.

NOTE: TWO 1,000-GAL SEPTIC TANKS IN SERIES - FIRST TO BE USED AS SETTLING TANK FROM GRINDER BASIN

Primary Drainfield Specifications

Type of Distribution: Parallel Pressure Manifold
Trench Media: 25% reduction product
Trench Width: 3 ft
Trench Depth: 18 in.
(or as specified on permit)

Trench Bottom Area: 1600 ft^2
Minimum Drain Line: 400 ft
Actual Drain Line: 405 ft
Number of Lines: 4
Minimum Line Spacing: 9 ft O.C.

Wastewater Treatment System Design Calculations

Project: Corban Homes WWTS
Location: 123 Ridgecliff Drive
Statesville, NC 28677
County: Iredell

Septic Tank Sizing

Daily Flow Estimate:

Unit	# of Units	Flow/Unit	Flow/Day
Bedroom	4	120	480

Q= 480 gpd

Septic Tank Minimum Capacity: Per NCAC T15A:18A .1952(b)(1):

For individual residences with 4 bedrooms,

Minimum Liquid Capacity (V)= 1,000 gal

Septic Tank Specs:

Manufacturer:	Shoaf		
Model:	TS 1000 STB		
Volume:	1,000	gal	
Weight:	10,500	lbs	

	Exterior	Interior	
Length:	108.0	102.0	in.
Width:	58.0	52.0	in.
Depth:	67.5	60.5	in.

Shape of Risers: Circular
Diameter: 2.00 ft

NOTE: TWO 1,000-GAL SEPTIC TANKS IN SERIES -
FIRST TO BE USED AS SETTLING TANK FROM GRINDER BASIN

Pump Tank Storage & Float Settings

Project: Corban Homes WWTS
Location: 123 Ridgecliff Drive
Statesville, NC 28677
County: Iredell

Tank Manufacturer	Shoaf
Tank Model	TS 1275 PT

Interior Height (in.) **60.5** in.
Avg. Storage **21.07** gal/in.

Primary System

Elevations, measured from bottom towards top (0 = Interior Bottom of Tank):

Top of pump (including 4" block)	22.6 in.	(Pump height = 18 9/16")
Pump Off	23.0 in.	
Pump On	31.5 in.	(set for dose volume)
Alarm On	37.5 in.	(6 in. above On Float)

Emergency Storage Available
Pump Tank 485 gal
Days of Storage 1.01 days
(determined from "interior top of tank" - "High Water Alarm")

PRESSURE MANIFOLD DESIGN (Primary)

Site Information

Project: Corban Homes WWTS
Location: 123 Ridgecliff Drive
Statesville, NC 28677
County: Iredell

Design Information

Estimated Daily Flow	480	gal/day
L.T.A.R. (from Iredell Co.)	0.3	gal/day/ft^2
L.T.A.R. + 5%	0.315	gal/day/ft^2
Trench Width	3	ft.
Line Length Required	533	ft.
Length after 25% Reduction	400	ft
L.T.A.R. Reduced	0.400	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.420	gal/day/ft^2

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using 25% reduction product***

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	Orange	65	1/2in SCH 80	5.48	0.084	0.411
2	White	90	1/2in SCH 40	7.11	0.079	0.385
3	Pink	125	3/4in SCH 80	10.10	0.081	0.394
4	Yellow	125	3/4in SCH 80	10.10	0.081	0.394
	Total	**405**	**Total**	**32.79**	**Avg.**	**0.40**

Note: Line lengths are calculated in 5' increments to reflect use of 25% reduction product.

Total Run Time	14.64	min.	
Drainfield Capacity	264.5	gal	
% of Drainfield Cap	67.7%		(Req. Range 66-75%)
Dose Volume	179.0	gal/dose	
Run Time/Dose	**5.5**	**minutes**	Range 5-7 minutes unless uphill, checked
Volume/depth	21.07	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	8.50	in.	

Manifold Box

Number of Taps	4	with	0	Split(s)	
Manifold Length	3.5	ft.	(approximate)		

Drainfield Summary

Project Corban Homes
Location 123 Ridgecliff Drive
Statesville, NC 28677
County Iredell

Repair System

DRAINFIELD INFO.

Type of System/Distribution: ***Porous Block Panel System w/ LPP Distribution***

Line No.	Line Elev (ft)	Flag Color	Line Length (ft)	Pressure Head (ft)	Number of Panels	Orifice Size (in.)	Lateral Discharge (gpm)	Lateral Diameter (in.)
1	96.0	Orange	135	2.71	31	5/32	6.22	1
2	94.0	White	100	3.02	23	5/32	6.56	1
3	93.0	Pink	53	3.53	12	11/64	5.25	1
TOTAL			**288**		66		**22.95**	

Determination of Dose Volume - Primary System

Volume per Panel	3.6 gal
Number of Panels	66
Dose Volume (min)	238 gal
Runtime (min)	5.18 min

***Actual Dose and Runtime determined by Float Settings*

LPP Manifold & Laterals Design - Repair

Project: Corban Homes
Location: 123 Ridgecliff Drive, Statesville, NC 28677
County: Iredell

Manifold Design

Calc. Laterals are numbered from the supply end of the manifold to the distal lateral.

q_{supply} **22.95 gpm** Required flow at manifold inlet V_{system} **20.06 gal** Volume of manifold, headers, and laterals

Note: The laterals in this system do not drain because there are no downward-facing orifices.

Layout Lateral	Calc. Lateral	Head at Junction (ft)	Dist. To Next Junc. (ft)	Man. Diam. (in.)	Lateral Elev. (ft)	Disch. in Man. Section to Next Lat. (gpm)	Fric. Loss in Sect. to Next Lat. (ft)	Avg q_{orif} (gpm)	Δq_{orif} w/i Lateral	Lateral q_{orif} diff. from lowest lateral	Orifice Diam. (in.)	H_{min} in Lateral (ft)	Lateral Diam. (in.)	Lateral Area (in.^{2})	Lateral Vol. (gal)	Header Vol. (gal)
1	1	3.00	45.00	2	105	16.74	0.057	0.48	2.7%	0.0%	5/32	2.71	1	0.83	11.55	0.17
2	2	3.34	14.00	2	104.6	10.17	0.041	0.50	2.7%	5.5%	5/32	3.02	1	0.83	8.76	0.17
3	3	3.70	0.00	2	104.2	0.00	0.000	0.66	1.0%	37.3%	11/64	3.53	1	0.83	4.54	0.17
							0.108							2.49	24.85	0.69

Minimum Manifold ID **1.97** in. Based on 0.7 $\Sigma A_{lateral}$ Min. Manifold Area 1.75

Design Manifold Diameter **2** in. Nominal pipe size

Lateral Design

Lateral 1L	Dist. Incr. (ft)	Nom. Lateral Diam. (in.)	Friction Loss in Pipe (ft)	Head in Pipe (ft)	Flow in Pipe (gpm)	Orifice Diam. (in.)	Orifice Disch. (gpm)	Flow Vel. in Pipe (ft/s)
H_n				3.00		0.000		
Header	4.00	1	0.116	2.88	6.2			2.40
Orifice 1	2.42	1	0.022	2.86	3.3	5/32	0.49	1.29
Orifice 2	8.67	1	0.059	2.80	2.9	5/32	0.48	1.10
Orifice 3	8.67	1	0.042	2.76	2.4	5/32	0.48	0.92
Orifice 4	8.67	1	0.028	2.73	1.9	5/32	0.48	0.73
Orifice 5	8.67	1	0.016	2.72	1.4	5/32	0.47	0.55
Orifice 6	8.67	1	0.008	2.71	0.9	5/32	0.47	0.37
Orifice 7	8.67	1	0.001	2.71	0.5	5/32	0.47	0.18
Orifice 8	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 9	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 10	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 11	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 12	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 13	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 14	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 15	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
Orifice 16	8.67	1	0.000	2.71	0.0	5/32	0.00	0.00
	132.47		0.176					

Lateral 1R	Dist. Incr. (ft)	Nom. Lateral Diam. (in.)	Friction Loss in Pipe (ft)	Head in Pipe (ft)	Flow in Pipe (gpm)	Orifice Diam. (in.)	Orifice Disch. (gpm)	Flow Vel. in Pipe (ft/s)
Orifice 1	6.75	1	0.047	2.84	2.9	5/32	0.48	1.11
Orifice 2	8.67	1	0.043	2.79	2.4	5/32	0.48	0.92
Orifice 3	8.67	1	0.028	2.77	1.9	5/32	0.48	0.74
Orifice 4	8.67	1	0.000	2.77	1.4	5/32	0.48	0.55
Orifice 5	8.67	1	0.008	2.76	1.0	5/32	0.48	0.37
Orifice 6	8.67	1	0.002	2.76	0.5	5/32	0.48	0.18
Orifice 7	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 8	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 9	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 10	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 11	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 12	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 13	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 14	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 15	8.67	1	0.000	2.76	0.0	5/32	0.00	0.00
Orifice 16	6.75	1	0.000	2.76	0.0	5/32	0.00	0.00
	134.88		0.128					

Notes:
H_n is the head at the manifold junction with the lateral (or header). If there is no header, enter "0" for the "Dist. Incr."
The **Header** is the section containing valves, etc., between the manifold and the regular lateral.
Distance Increment to *Orifice 1* is from the header (or manifold junction if there is no header) to the first orifice. Subsequent *Distance Increments* are between successive orifices.

H-W C	150
Equiv Length %	15%

Avg. q_{orif} in the highest lateral should be 10-30% greater than avg. q_{orif} in the lowest lateral.

	Left		Right		Overall	
	H, ft	q_{orif}, gpm	H, ft	q_{orif}, gpm	H, ft	q_{orif}, gpm
Max	2.86	0.49	2.84	0.48	2.86	0.49
Min	2.71	0.47	2.76	0.48	2.71	0.47
Avg	2.76	0.48	2.78	0.48	2.77	0.48
% Drop	5.4%	2.7%	2.8%	1.4%	5.4%	2.7%

q_{Lat} **6.22 gpm**

Lateral 2L	Dist. Incr. (ft)	Nom. Lateral Diam. (in.)	Friction Loss in Pipe (ft)	Head in Pipe (ft)	Flow in Pipe (gpm)	Orifice Diam. (in.)	Orifice Disch. (gpm)	Flow Vel. in Pipe (ft/s)
H_n				3.34				
Header	4.00	1	0.128	3.21	6.6			2.53
Orifice 1	2.42	1	0.025	3.19	3.5	5/32	0.51	1.36
Orifice 2	8.67	1	0.066	3.12	3.0	5/32	0.51	1.16
Orifice 3	8.67	1	0.047	3.08	2.5	5/32	0.50	0.97
Orifice 4	8.67	1	0.031	3.05	2.0	5/32	0.50	0.77
Orifice 5	8.67	1	0.018	3.03	1.5	5/32	0.50	0.58
Orifice 6	8.67	1	0.009	3.02	1.0	5/32	0.50	0.39
Orifice 7	8.67	1	0.001	3.02	0.5	5/32	0.50	0.19
Orifice 8	8.67	1	0.000	3.02	0.0	5/32	0.00	0.00
Orifice 9	8.67	1	0.000	3.02	0.0	5/32	0.00	0.00
Orifice 10	8.67	1	0.000	3.02	0.0	5/32	0.00	0.00
Orifice 11	8.67	1	0.000	3.02	0.0	5/32	0.00	0.00
Orifice 12	8.67	1	0.000	3.02	0.0	5/32	0.00	0.00
Orifice 13	2.42	1	0.000	3.02	0.0	5/32	0.00	0.00
	102.63		0.195					

Lateral 2R	Dist. Incr. (ft)	Nom. Lateral Diam. (in.)	Friction Loss in Pipe (ft)	Head in Pipe (ft)	Flow in Pipe (gpm)	Orifice Diam. (in.)	Orifice Disch. (gpm)	Flow Vel. in Pipe (ft/s)
Orifice 1	6.75	1	0.052	3.16	3.0	5/32	0.51	1.17
Orifice 2	8.67	1	0.047	3.12	2.5	5/32	0.51	0.97
Orifice 3	8.67	1	0.031	3.08	2.0	5/32	0.51	0.78
Orifice 4	8.67	1	0.018	3.07	1.5	5/32	0.50	0.58
Orifice 5	8.67	1	0.000	3.07	1.0	5/32	0.50	0.39
Orifice 6	8.67	1	0.002	3.06	0.5	5/32	0.50	0.19
Orifice 7	8.67	1	0.000	3.06	0.0	5/32	0.00	0.00
Orifice 8	8.67	1	0.000	3.06	0.0	5/32	0.00	0.00
Orifice 9	8.67	1	0.000	3.06	0.0	5/32	0.00	0.00
Orifice 10	8.67	1	0.000	3.06	0.0	5/32	0.00	0.00
Orifice 11	8.67	1	0.000	3.06	0.0	5/32	0.00	0.00
Orifice 12	6.75	1	0.000	3.06	0.0	5/32	0.00	0.00
Orifice 13	0.00	1	0.000	3.06	0.0	5/32	0.00	0.00
	100.20		0.151					

	Left		Right		Overall	
	H, ft	q_{orif}, gpm	H, ft	q_{orif}, gpm	H, ft	q_{orif}, gpm
Max	3.19	0.51	3.16	0.51	3.19	0.51
Min	3.02	0.50	3.06	0.50	3.02	0.50
Avg	3.07	0.50	3.09	0.51	3.08	0.50
% Drop	5.3%	2.7%	3.1%	1.6%	5.3%	2.7%

q_{Lat} 6.56 gpm

Lateral 3L	Dist. Incr. (ft)	Nom. Lateral Diam. (in.)	Friction Loss in Pipe (ft)	Head in Pipe (ft)	Flow in Pipe (gpm)	Orifice Diam. (in.)	Orifice Disch. (gpm)	Flow Vel. in Pipe (ft/s)
H_n				3.70				
Header	4.00	1	0.085	3.62	5.3			2.03
Orifice 1	2.42	1	0.014	3.60	2.6	11/64	0.66	1.02
Orifice 2	8.67	1	0.030	3.57	2.0	11/64	0.66	0.76
Orifice 3	8.67	1	0.014	3.56	1.3	11/64	0.66	0.51
Orifice 4	8.67	1	0.003	3.56	0.7	11/64	0.66	0.25
Orifice 5	8.67	1	0.000	3.56	0.0	11/64	0.00	0.00
Orifice 6	8.67	1	0.000	3.56	0.0	11/64	0.00	0.00
Orifice 7	6.75	1	0.000	3.56	0.0	11/64	0.00	0.00
	52.52		0.061					

Lateral 3R	Dist. Incr. (ft)	Nom. Lateral Diam. (in.)	Friction Loss in Pipe (ft)	Head in Pipe (ft)	Flow in Pipe (gpm)	Orifice Diam. (in.)	Orifice Disch. (gpm)	Flow Vel. in Pipe (ft/s)
Orifice 1	6.75	1	0.040	3.58	2.6	11/64	0.66	1.01
Orifice 2	8.67	1	0.030	3.55	2.0	11/64	0.66	0.76
Orifice 3	8.67	1	0.014	3.53	1.3	11/64	0.65	0.50
Orifice 4	8.67	1	0.001	3.53	0.7	11/64	0.65	0.25
Orifice 5	8.67	1	0.000	3.53	0.0	11/64	0.00	0.00
Orifice 6	8.67	1	0.000	3.53	0.0	11/64	0.00	0.00
Orifice 7	2.42	1	0.000	3.53	0.0	11/64	0.00	0.00
	52.52		0.084					

	Left		Right		Overall	
	H, ft	q_{orif}, gpm	H, ft	q_{orif}, gpm	H, ft	q_{orif}, gpm
Max	3.60	0.66	3.58	0.66	3.60	0.66
Min	3.56	0.66	3.53	0.65	3.53	0.65
Avg	3.57	0.66	3.55	0.66	3.56	0.66
% Drop	1.3%	0.7%	1.3%	0.6%	1.9%	1.0%

q_{Lat} 5.25 gpm

501 N Salem St, Suite 203
Apex, NC 27502

919.859.0669
agriwaste.com

AWT
Engineers and Soil Scientists

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

OWNER: Ben and Jill Pleune APPLICATION DATE: _____
ADDRESS: 123 Ridgecliff Dr. Statesville, NC 28677 EVALUATION DATE: 08/06/2021
PROPERTY ID: 4710-65-4836 COUNTY: Iredell
PROPOSED FACILITY: Single Family Residence PROPOSED DESIGN FLOW (.0400): 480 GPD PROPERTY SIZE: 0.645 + 0.52 ac.
LOCATION OF SITE: 123 Ridgecliff Dr. Statesville, NC 28677 PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Public ☐ Single Family Well ☑ Shared Well ☐ Spring ☐ Other _____ WATER SUPPLY SETBACK: >100ft
EVALUATION METHOD: ☑ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☑ Domestic ☐ High Strength ☐ IPWW

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY .0503 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY .0503 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
1	12%	0-8"	SCL; GR	SS; SP; Fr	-	34"	-	Saprolite	0.3 GPD/Ft2	30"
		8-25"	C; SBK	SS; SP; FI						
		25-34"	CL; WSBK	SS; SP; Fr						
		34+"	CL; MA	SS; SP; Fr						
2	21%	0-4"	SCL; GR	SS; SP; Fr	-	42"	-	Saprolite	0.3 GPD/Ft2	34"
		4-30"	C; SBK	SS; SP; FI						
		30-42"	CL; WSBK	SS; SP; Fr						
		42+"	CL; MA	SS; SP; Fr						
3	25%	0-6"	SCL; Gr	SS; SP; Fr	-	46"	-	-	0.3 GPD/Ft2	37"
		6-35"	C; SBK	SS; SP; FI						
		35-46+"	CL;W SBK	SS; SP; Fr						
4	10%	0-18"	C SBK	SS; SP; Fr	-	47"	-	-	0.3 GPD/Ft2	43"
		18-47+"	CL; WSBK	SS; SP; FI						
5	20%	0-6"	SCL; Gr	SS; SP; Fr	-	45"	-	-	0.3 GPD/Ft2	38"
		6-34"	C; WSBK	SS; SP; FI						
		34-45+"	CL; SBK	SS; SP; Fr						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	Provisionally Suitable	Provisionally Suitable
System Type(s)	Type IIIb, 25% reduction drain field product	Type IIIb, 50% Reduction Horizontal PPBPS
Site LTAR	0.3 GPD/Ft2	0.3 GPD/Ft2
Maximum Trench Depth	18"	18"

SITE CLASSIFICATION (.0509): _____

EVALUATED BY: Trevor Hackney

OTHER(S) PRESENT: Nathan Estevez

Comments: _____

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, Ben and Jill Pleune, am the legal owner(s) of the property located at 123 Ridgecliff Dr. Statesville, NC 28677, identified as PIN (Parcel Identification Number) 4710654836.000, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**)

Trevor Hackney, Agriwaste Technology Inc., 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.

_____ 10/11/2024

Signature of Owner(s) Date

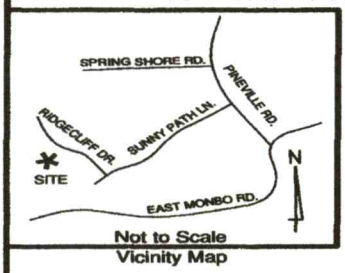
Mooresville - Environmental Health
barbara.nebel@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

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

SURVEY WAS DONE UNDER MY SUPERVISION OF THE PROPERTY SHOWN HEREON. THIS MAP IS NOT INTENDED TO MEET GS 47-30 RECORDING REQUIREMENTS.

SIGNED Robert G. Bishop

Bishop Land Surveying, Inc.
10719 Trolley Run Dr.
Cornelius, N.C. 28031
Phone: (704) 634-9356
Business License #: C-2674



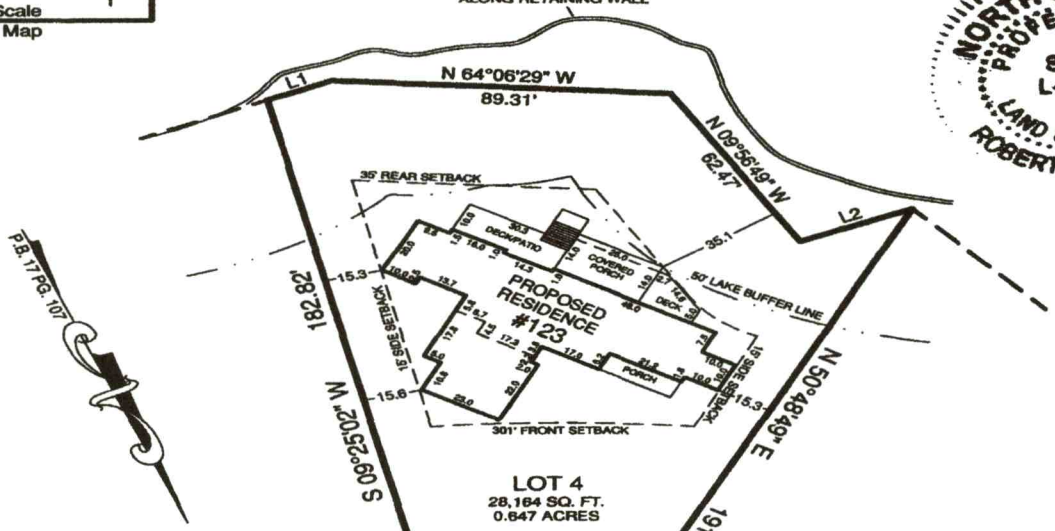
Not to Scale
Vicinity Map

NOTES

1. PROPERTY SURVEYED WITHOUT BENEFIT OF A THOROUGH TITLE REPORT.
2. PROPERTY MAY BE SUBJECT TO OTHER SETBACKS, EASEMENTS, RIGHT-OF-WAYS, COVENANTS, AND/OR RESTRICTIONS NOT SHOWN HEREON.
3. PROPERTY IS NOT LOCATED IN A F.E.M.A. REGULATED FLOOD ZONE AS SHOWN ON F.I.R.M. PANEL #: 3710471000 J DATED: MARCH 18, 2008.
4. PROPERTY IS LOCATED WITHIN THE WS-IV WATER SUPPLY WATERSHED DESIGNATED BY THE N.C. DIVISION OF ENVIRONMENTAL MANAGEMENT.

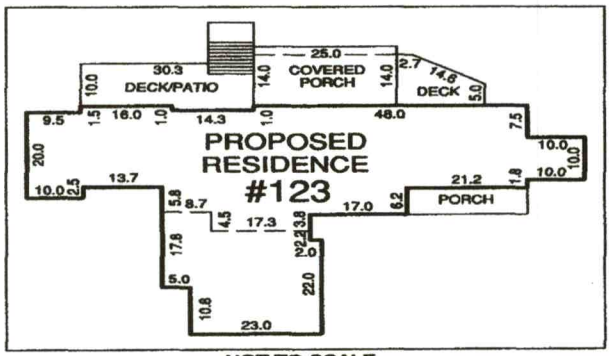
NORTH CAROLINA PROFESSIONAL SEAL L-3957 LAND SURVEYOR ROBERT G. BISHOP

LAKE NORMAN
760' LAKE CONTOUR FOLLOWS ALONG RETAINING WALL



LOT 3
GARY W. THOMAS
& JESSIE ANN M. CONLEY
DB 742 PG 398
TAX PARCEL #: 4710-65-5829

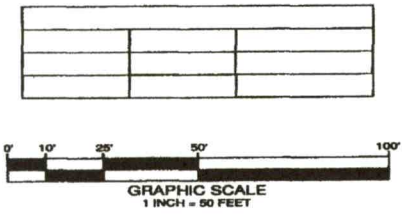
LOTS 5 & 6
CAROLINE J. CARRICK
DB 2548 PG 2063
TAX PARCEL #: 4710-65-3941



NOT TO SCALE

LEGEND

IPF	IRON PIPE FOUND
RF	REBAR FOUND
RS	REBAR SET
CMF	CONCRETE MONUMENT FOUND
CP	COMPUTED POINT
———	PROPERTY LINE
— — —	ADJOINER PROPERTY LINE BY DEED OR PLAT
PSDE	PUBLIC STORM DRAINAGE EASEMENT
CLOSURE	EXCEEDS 1' in 10,000'
ZONING	PRD (TROUTMAN)



GRAPHIC SCALE
1 INCH = 50 FEET



RIDGECLIFF DRIVE
60' PUBLIC R/W

Plot Plan SURVEY

OF

Lot 4, Ridgecliff Subdivision - Tax Parcel #: 4710-65-4836

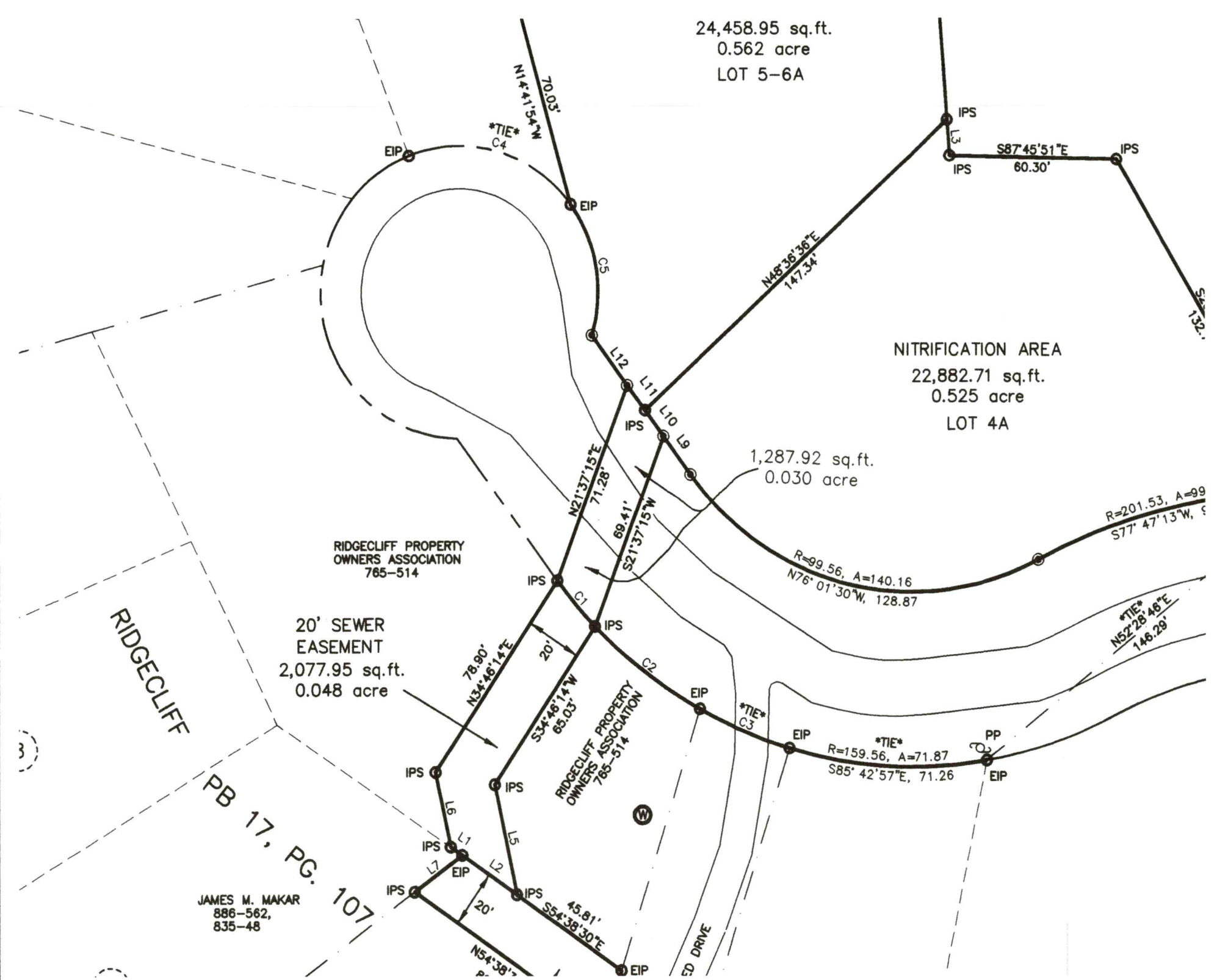
Fallstown Twsp., Iredell County, N.C.

SCALE 1"= 50'

THE PROPERTY OF Scott Benjamin Pleune and wife, Jill Pleune

PLAT RECORDED IN BOOK 17 AT PAGE 107 DEED RECORDED IN BOOK 2823 PAGE 709

FILE:C:\Land Projects\Iredell County\dwg\Ridgecliff L4.dwg Drawn By: RGB


24,458.95 sq.ft.
0.562 acre
LOT 5-6A
NITRIFICATION AREA
22,882.71 sq.ft.
0.525 acre
LOT 4A
1,287.92 sq.ft.
0.030 acre
20' SEWER
EASEMENT
2,077.95 sq.ft.
0.048 acre
RIDGECLIFF PROPERTY
OWNERS ASSOCIATION
765-514
RIDGECLIFF
PB 17, PG. 107
JAMES M. MAKAR
886-562,
835-48
N14°41'54"W 70.03'
N48°36'36"E 147.34'
S87°45'51"E 60.30'
N21°37'15"E 71.28'
S21°37'15"W 69.41'
N34°46'14"E 78.90'
S34°46'14"W 65.03'
S54°38'30"E 45.81'
R=99.56, A=140.16
N76° 01'30"W, 128.87
R=201.53, A=99
S77° 47'13"W,
R=159.56, A=71.87
S85° 42'57"E, 71.26
TIE N52°28'48"E 146.29'
20'
IPS
EIP
PP
TIE
C1
C2
C3
C4
C5
L1
L2
L3
L5
L6
L7
L9
L10
L11
L12

PAGES 2178 - 2183

Iredell County, NC
Recorded 01/28/2002 01:13:21pm
No 9999-00053161 1 of 6 pages
Brenda D. Bell, Register of Deeds

This instument was prepared by: Edwin A. Pressly P.O. Drawer 232 Statesville, N.C. 28687

NORTH CAROLINA

IREDELL COUNTY

EASEMENT AND RIGHT OF WAY

SEPTIC SYSTEM EASEMENT AND RIGHT OF WAY BENEFITING LOT NO. 4 and LOT NO. 5-6 OF RIDGECLIFF PLANNED RESIDENTAL DEVELOPMENT

GRANTORS: JANE T. JENNINGS and ABIGAIL M. JENNINGS as Co-Trustees of the James A. Jennings Living Trust dated October 28, 1997 of James A. Jennings, JANE T. JENNINGS, Executrix of the Estate of James A. Jennings, and THE RIDGECLIFF PROPERTY OWNERS ASSOCIATION.

GRANTEES: ELISA T. PRESSLY, LOT NO 4, RIDGECLIFF, Deed Book 822 Page 245, Iredell County Registry and JANE T. JENNINGS and ABIGAIL M. JENNINGS as Co-Trustees of the James A. Jennings Living Trust dated October 28, 1997 of James A. Jennings, Lot 5-6, Deed Book 720 Page 519, Iredell County Registry.

THIS EASEMENT AND RIGHT OF WAY(hereinafter referred to as "Easement") DEED made and entered into this 16 day of JAN, 2002, by and between Grantors and Grantees. The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors and assigns.

WITNESSETH:

THE PROPERTY described herein is part of a planned residential development. There is a common area owned by Ridgecliff Property Owners Association as well as Ridgecliff Drive, which is a paved private road and both are dedicated to the planned residential development and the members thereof in Plat Book 17 Page 107, Iredell County Registry. These tracts and road are more accurately set forth on the attached plat thereof by Kestler Surveying, Inc. dated May 18, 1999 for James A. Jennings and Elisa T. Pressly.

THE PARTIES desire that septic systems be erected on the property Lots numbers 15-20 formally owned by James A. Jennings in Deed Book 720 Page 519 and currently owned by the Estate of James A. Jennings and the James A. Jennings Living Trust of October 28, 1997. It is the desire that the owners of Lots 4 and 5-6 be allowed to cross the common area, and Ridgecliff Drive to access the nitrification area shown on the attached survey and on the Jennings Trust property. The owners of Lot 4 shall also be permitted to cross and use the strip over Lot 5-6 as described hereafter.

NOW, THEREFORE, the Grantors, for a valuable consideration paid by the Grantees, the receipt of which is hereby acknowledged, has and by these presents doeth grant, bargain, sell and convey unto the Grantees a RIGHT OF WAY AND EASEMENT described hereafter over that certain land situated in Fallstown Township, Iredell County, and commonly referred to as part of the Ridgecliff Planned Unit Development.

The description of the boundaries of the Easement is as follows:

BEGINNING at an existing iron pin, north corner of Lot 5-6 common corner with Lot No. 7 of Ridgecliff Subdivision Plat Book 17 Page 107 Iredell County Registry and proceeding from said point of BEGINNING North 55 deg. 13 min. 46 sec. West 5.02 feet to an iron pin set in Lot No. 7; thence leaving Lot No. 7 and proceeding North 11 deg. 01 min. 37 sec. West 25.97 feet to an iron pin set; thence North 34 deg. 46 min. 14 sec. East 78.90 feet to an iron pin set in the 60 foot right of way of Ridgecliff Drive; thence proceeding across Ridgecliff Drive North 21 deg. 37 min. 15 sec. East 71.28 feet to a point at the edge of the 60 foot right of way of Ridgecliff; thence with said right of way North 35 deg. 41 min. 30 sec. West 21.28 feet to a point; thence along a curve to the left having a radius of 50.00, an arc of 47.03, a chord bearing of North 08 deg. 48 min. 49 sec. West and a distance of 45.32 feet; thence leaving the Ridgecliff right of way and proceeding with the Stevens line North

RECORD OF POOR QUALITY DUE TO CONDITION
OF THE ORIGINAL DOCUMENT
AMENDED G.S. 161-14

Work File 9999-00053161

14 deg. 41 min. 54 sec. West 70.03 feet to an iron pin set; thence leaving the Stevens line and proceeding onto the Jennings property North 43 deg. 04 min. 34 sec. East 169.95 feet to an iron pin set; thence North 86 deg. 43 min. 07 sec. East 28.29 feet to an iron pin set; thence South 03 deg. 16 min. 53 sec. East 167.07 feet to an iron pin set; thence South 03 deg. 16 min. 53 sec. East 12.24 feet to an iron pin set; thence South 87 deg. 45 min. 51 sec. East 60.30 feet to an iron pin set; thence South 29 deg. 41 min. 48 sec. East 132.78 feet to an iron pin set in the Ridgecliff Drive right of way; thence following said right of way along a curve to the left, having a radius of 201.53, an arc of 99.51, a chord bearing of South 77 deg. 47 min. 13 sec. West and a distance of 98.50 feet to a point; thence along a curve to the right, a radius of 99.56 feet, an arc of 140.16, a chord bearing of North 76 deg. 01 min. 30 sec. West 128.87 feet to a point; thence North 35 deg. 41 min. 30 sec. West 16.31 feet to a point; thence crossing Ridgecliff Drive South 21 deg. 37 min. 15 sec. West 69.41 feet to an iron pin set in the southern right of way of Ridgecliff Drive; thence leaving said right of way and proceeding South 34 deg. 46 min. 14 sec. West 65.03 feet to an iron pin set; thence South 11 deg. 01 min. 37 sec. East 38.43 feet to an iron pin set in the northern line of Lot 5, 6; thence with said line South 54 deg. 38 min. 30 sec. East 45.81 feet to an existing iron pin in the Pressly line; thence with the Pressly line South 18 deg. 25 min. 27 sec. West 20.91 feet to an iron pin set; thence North 54 deg. 38 min. 30 sec. West 82.83 feet across the Jennings property to an iron pin set in the Makar, line, Lot 7; thence with the Makar line North 54 deg. 41 min. 18 sec. East 21.19 feet to the point of BEGINNING all according to the survey of Kestler Surveying, Inc. for James A. Jennings and Elisa T. Pressly of May 18, 1999, a copy of which is attached hereto, recorded herewith and incorporated herein by reference for further description. The Easement hereby granted to the Grantees is to provide access from their respective lots to their nitrification areas shown on the above referred to survey. The Easement is for the building or installing of a septic, or similar purpose system, to and on the nitrification area marked 4A to service Lot 4 and area marked 5-6A to service Lot 5-6 of Ridgecliff. The Easement shall run with the land to allow the landowners the right to cross said Easement for purposes of building and installing such septic or similar system together with all purposes and needs for improving, replacing, maintaining, repairing, clearing or grubbing land, sowing grass or other vegetation thereon and any other use necessary for the proper use, operation and enjoyment of such septic or similar system to service the septic requirements of the lots noted thereby. The system may pass under or through the road. The owners of Lot 4 shall use the nitrification area only designated as Lot 4A. The owners of Lot 5-6 shall use the nitrification area only designated as Lot 5-6 on the attached survey. Each party using the Easement shall repair any damage to the property crossed or used. Such repair shall include, but not be limited to, grading, seeding and maintaining the easement area so as to be aesthetically pleasing and well kept to the reasonable satisfaction of the owner of the land used. All such use, maintenance, and repair of the easement area shall be at the sole cost of the Grantee conducting such use or maintenance.

TO HAVE AND TO HOLD the aforesaid Easement and all privileges and appurtenances thereto belonging to the Grantees in fee simple.

And the Grantors covenant with the Grantees, that Grantors are seized of the premises in fee simple, have the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantors will warrant and defend the title against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the Grantors hereunto set their hands and seals and, has caused this instrument to be signed in the Association name by the duly authorized officers by authority of its members, the day and year first written above.

RIDGECLIFF PROPERTY
OWNERS ASSOCIATION

by: _____
Chairman

attested by:

_____
sec/treas

_____ (SEAL)
JANE T. JENNINGS Co-Trustee
of James A. Jennings Living Trust dated 10/28/97

_____ (SEAL)
ABIGAIL W. JENNINGS Co-Trustee
of James A. Jennings Living Trust dated 10/28/97

_____ (SEAL)
JANE T. JENNINGS, Executrix of the
Estate of James A. Jennings

NORTH CAROLINA
IREDELL COUNTY

I, _____, Notary Public of Iredell County, North Carolina hereby certify that _____ personally appeared before me this day and acknowledged that he is the secretary /treasurer of RIDGECLIFF PROPERTY OWNERS ASSOCIATION, and that by authority duly given by the Association, the foregoing instrument was signed in its name by its Chairman and attested by him as secretary/ treasurer.

Witness my hand and seal this _____ day of _____, 2001.

_____
Notary Public

My Commission Expires:

NORTH CAROLINA
IREDELL COUNTY

I, Suzanne W. McCann, Notary Public of Iredell County, North Carolina hereby certify that Jane T. Jennings, Abigail M. Jennings as Co-Trustees of the James A. Jennings Living Trust dated 10/28/97 and Jane T. Jennings as Executrix of the Estate of James A. Jennings, personally appeared before me this day and executed the foregoing document.

Witness my hand and seal this 10 day of January, 2002

Suzanne W. McCann
Notary Public

My Commission Expires: 5/17/06

The foregoing Certificate(s) of Suzanne W. McCann

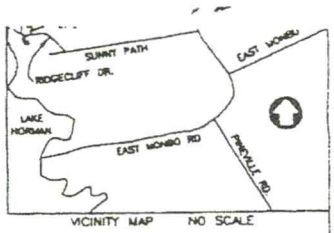
_____ is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the front of this document.

Brenda D. Bell REGISTER OF DEEDS for Iredell COUNTY

BY: Sally B. Lewis Deputy ~~Assistant~~ Register of Deeds

Official

THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.



VICINITY MAP NO SCALE

JAMES A. JENNINGS
720-519

)N AREA
sq.ft.
acre
-6A

IPS
S87°45'31"E
80.30'
IPS

JAMES A. JENNINGS
720-519

NITRIFICATION AREA
22,882.71 sq.ft.
0.525 acre
LOT 4A

87.92 sq.ft.
.030 acre

R=201.53, A=99.51
S77° 47' 13"W, 98.60

R=99.56, A=140.16
N76° 01' 30"W, 128.87

N52° 28' 48"E
148.29'

R=159.56, A=71.87
S83° 42' 37"E, 71.25

IPS
EIP
PP

RIDGECLIFF DRIVE
(paved)
60' R/W
P.B. 17, PG. 107

3

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

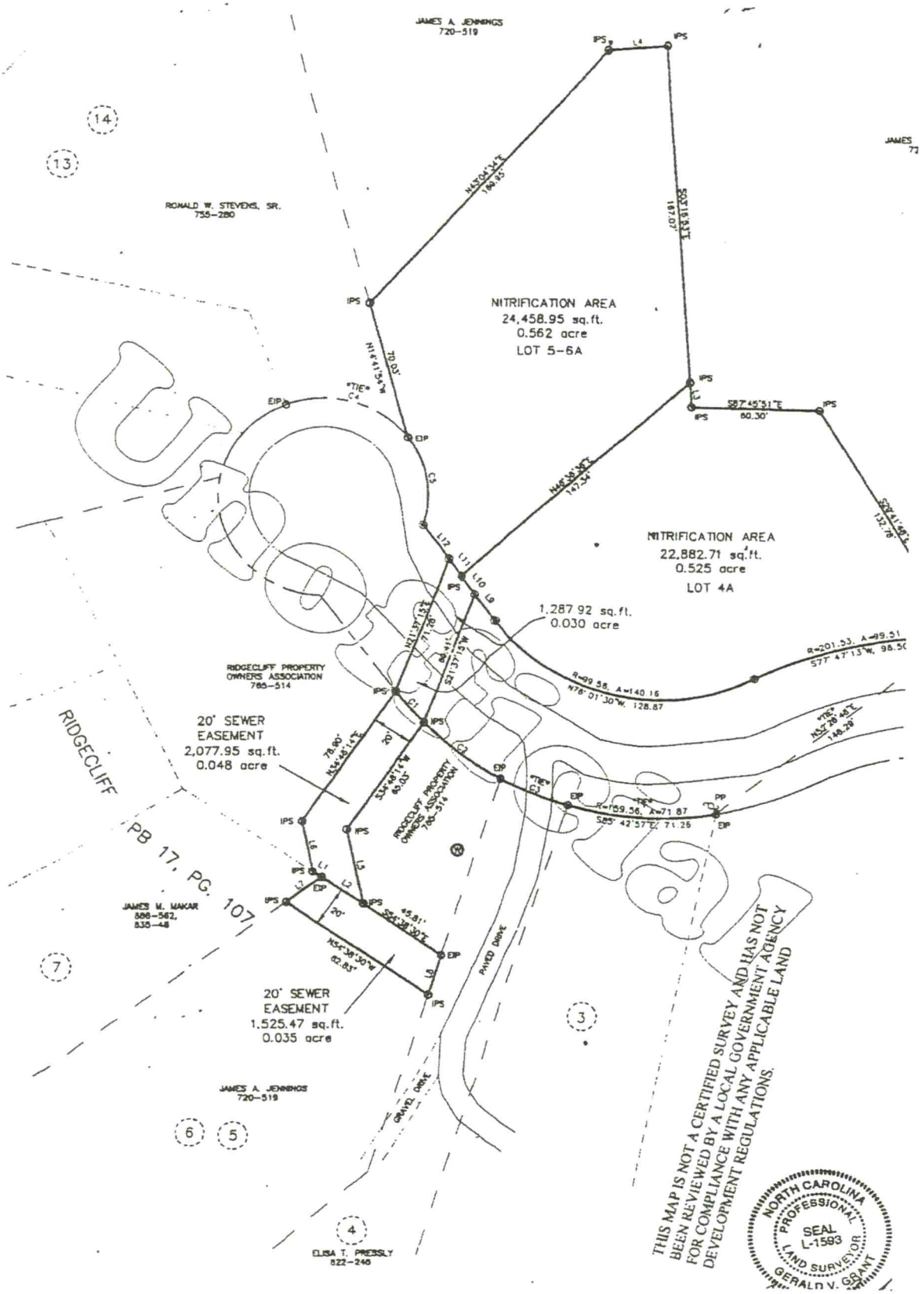
REVISED: 10-08-99
REVISED: 08-24-99

SURVEY FOR
ELISA T. PRESSLY & JAMES A. JENNINGS PROPERTY

SCALE: 1"=40'	APPROVED BY:	DRAWN BY: SMS
DATE: 05-18-99		
DEED REF.: 720-519, 765-514		PIN NO: 4710-65-4836 68-4101
FALLSTOWN TOWNSHIP	IREDELL COUNTY	NORTH CAROLINA
KESTLER SURVEYING, INC. P.O. BOX 1783 STATESVILLE, N.C. 28687 PH. 704 - 872 - 0212		DRAWING NUMBER 04698

NORTH CAROLINA PROFESSIONAL SEAL L-1593 LAND SURVEYOR GERALD V. GRANT

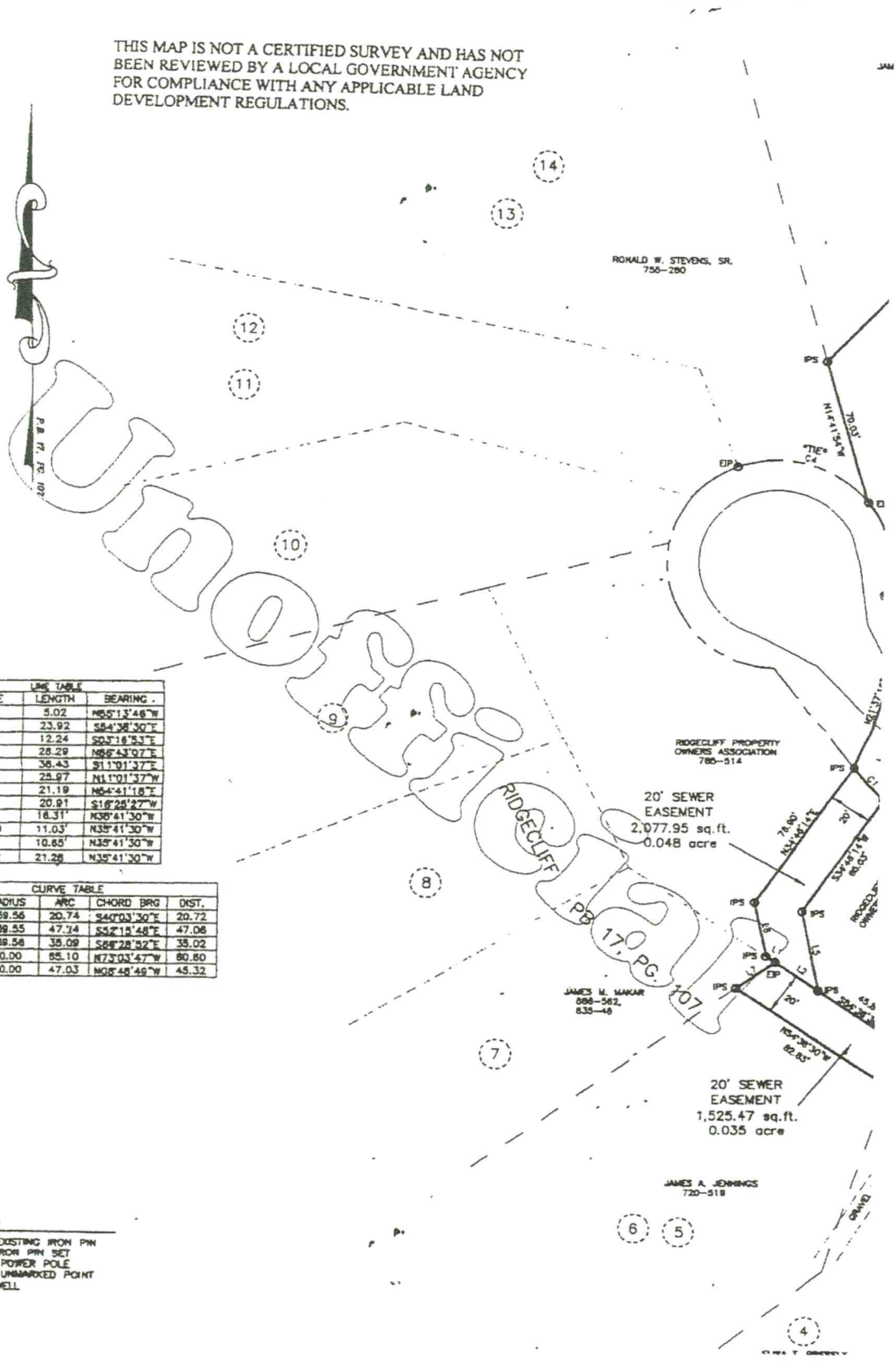
Book:1315,Page:2178



THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.

NORTH CAROLINA PROFESSIONAL SEAL L-1593 LAND SURVEYOR GERALD V. GRANT

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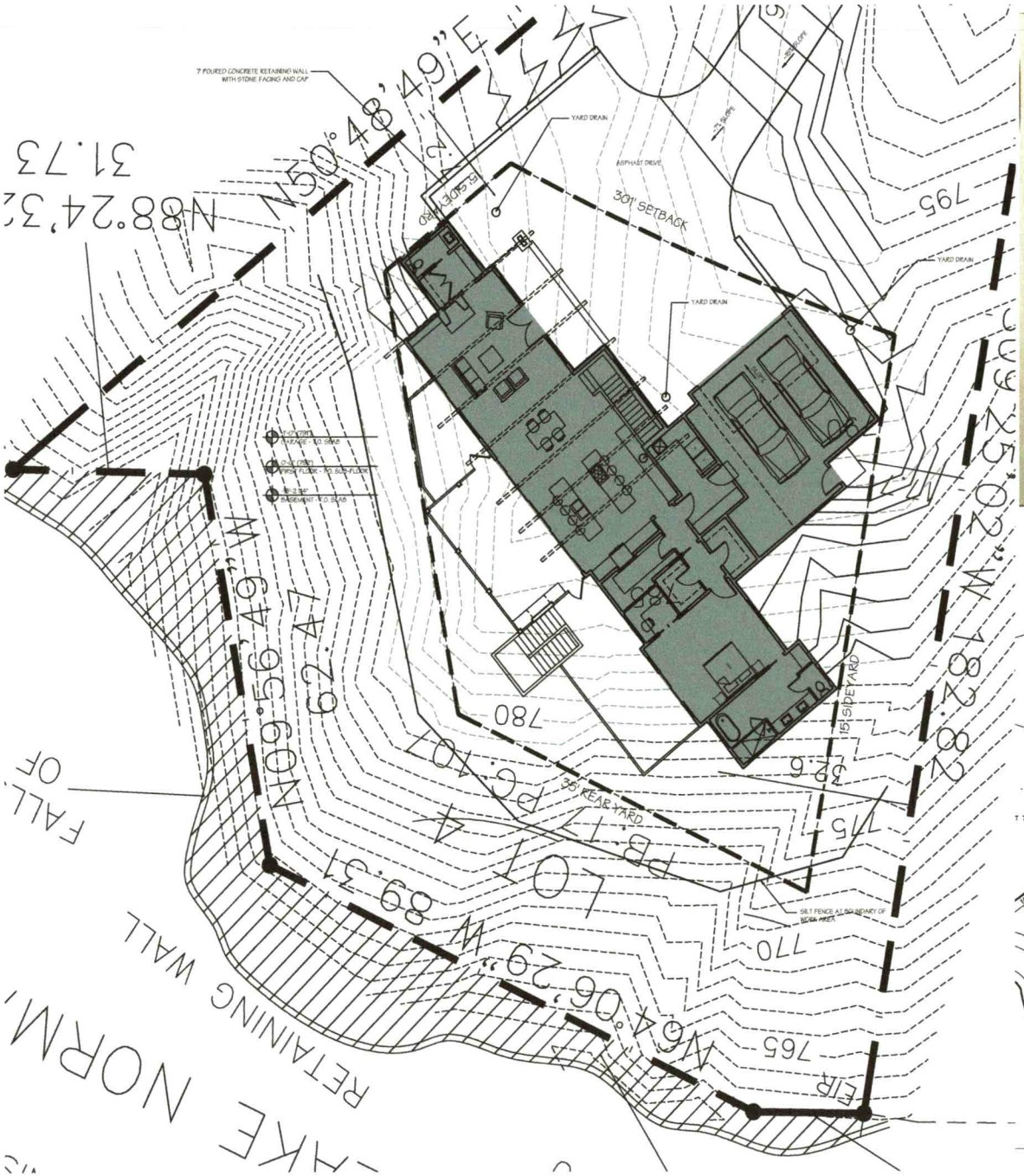
LINE TABLE		
LINE	LENGTH	BEARING
L1	5.02	N55°13'48"W
L2	23.92	S84°38'30"E
L3	12.24	S03°18'53"E
L4	28.28	N56°43'07"E
L5	38.43	S11°01'37"E
L6	28.97	N11°01'37"W
L7	21.19	N64°41'18"E
L8	20.91	S16°28'27"W
L9	16.31'	N35°41'30"W
L10	11.03'	N35°41'30"W
L11	10.65'	N35°41'30"W
L12	21.26	N35°41'30"W

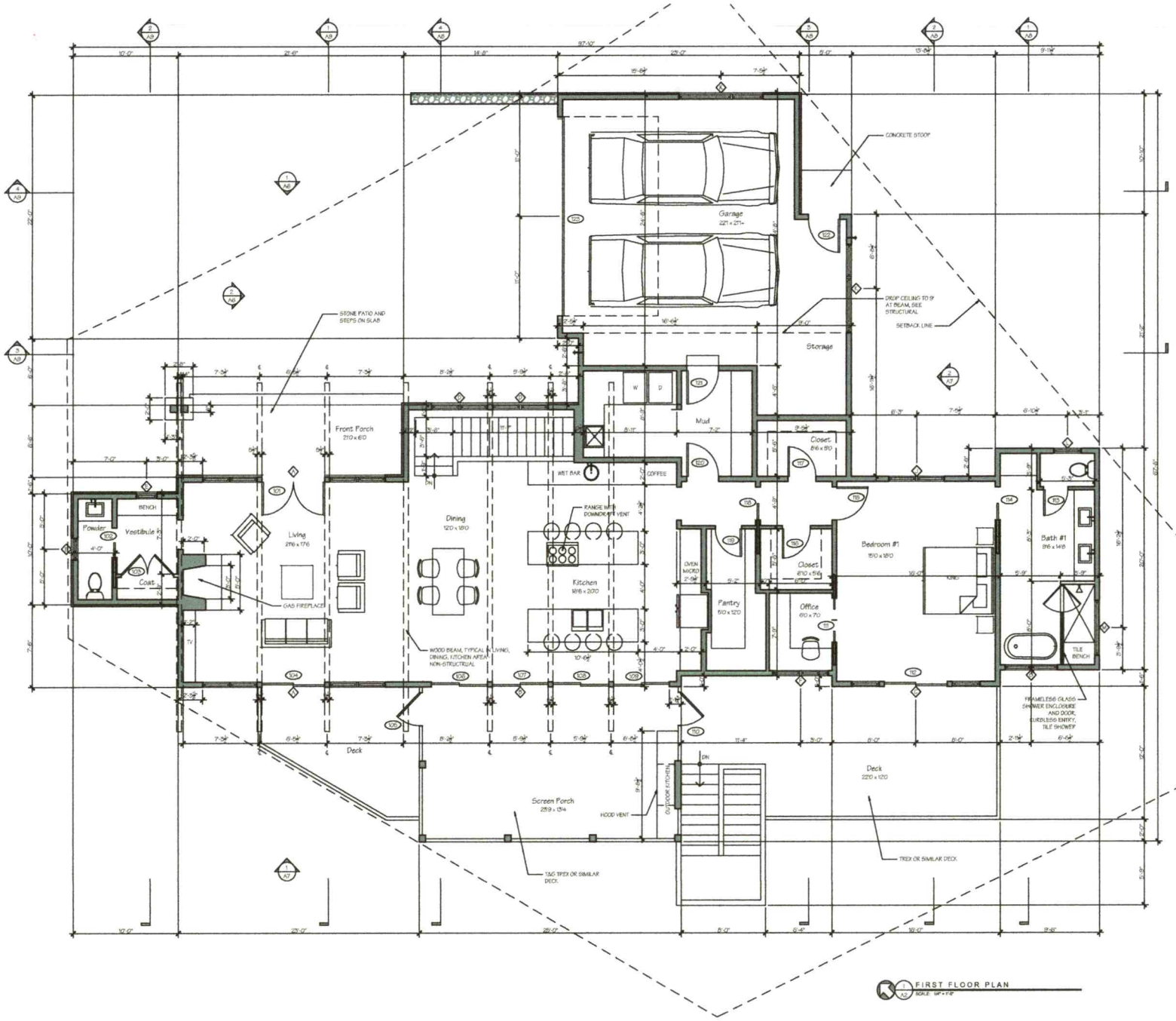
CURVE TABLE				
CURVE	RADIUS	ARC	CHORD BRG	DIST.
C1	159.56	20.74	S40°03'30"E	20.72
C2	159.55	47.74	S53°15'48"E	47.06
C3	159.56	35.09	S69°28'52"E	35.02
C4	50.00	85.10	N73°03'47"W	80.80
C5	50.00	47.03	N05°48'49"W	45.32

LEGEND:

EIP – EXISTING IRON PIN
IPS – IRON PIN SET
PP – POWER POLE
● – UNMARKED POINT
W – WELL

Book:1315,Page:2178


7' POURED CONCRETE RETAINING WALL WITH STONE FACING AND CAP
YARD DRAIN
ASPHALT DRIVE
301' SETBACK
YARD DRAIN
YARD DRAIN
780
775
770
765
35' REAR YARD
15' SIDE YARD
SILT FENCE AT BOUNDARY OF DISTURBED AREA
LOT 4
PB 1, PG 107
N 06°06'29" W 89.31'
N 06°06'29" W 89.31'
N 06°06'29" W 89.31'
RETAINING WALL
FALL OF
LAKE NORM
N 88°24'32" E 31.73'
N 88°24'32" E 31.73'
N 88°24'32" E 31.73'
N 06°06'29" W 89.31'
N 06°06'29" W 89.31'
N 06°06'29" W 89.31



AREA CALCULATIONS

FIRST FLOOR	= 2092 SF
LOWER LEVEL (FINISHED)	= 1715 SF
TOTAL HEATED	= 3807 SF

GENERAL PLAN NOTES

NOTES:

1. PAPER DISPENSERS (TP) TO BE MOUNTED ON BLOCKING @ 25" ASF. CONFIRM LOCATIONS WITH OWNER.
2. TOWEL BARS (TB) TO BE MOUNTED ON BLOCKING. CONFIRM LOCATIONS WITH OWNER. 40" ASF @ WALL, 58" ASF @ VANITIES, 36" ABOVE FINISHED TUB DECK, OR 72" AFF IN TUB/SHOWER.
3. TOWEL HOOKS (TH) TO BE MOUNTED ON BLOCKING @ 60" ASF, CONFIRM LOCATIONS WITH OWNER.
4. ALL SHELVES SHALL BE 3/4" VENEER PLYWOOD WITH A 2" SOLID WOOD EDGE. PROVIDE SHELVES AT 15" O.C. FROM FLOOR TO CEILING W/ A 4" KICK. CONFIRM ALL SHELVING WITH OWNER.
5. ALL CLOSETS SHALL HAVE A SHELF AS DESCRIBED ABOVE AND A HANGING ROD. CONFIRM DESIGN WITH OWNER.
6. PROVIDE TERMITE TREATMENT APPROVED BY THE NC DEPT OF AGRICULTURE THAT USES LOW TOXICITY CHEMICALS OR ELIMINATES CHEMICAL TERMITE TREATMENTS.
7. DOOR OPENING NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALLS AS SHOWN OR LOCATED 6" FROM FINISH WALL TO FINISH JAMB U.O.N.
8. DISHWASHER SHALL BE A ENERGY STAR LABELED PRODUCT
9. REFRIGERATOR SHALL BE ENERGY STAR LABELED
10. GAS COOK TOP WITH ELECTRONIC IGNITION
11. KITCHEN RANGE HOOD SHALL EXHAUST A MINIMUM OF 100 CFM BUT LESS THAN 350 CFM
12. PROVIDE SHOP DRAWINGS OF ALL TRUSS AND ENGINEERED BEAMS FOR REVIEW BY ARCHITECT BEFORE CONSTRUCTION
13. PROVIDE SPRAY ON WATERPROOFING AND DRAINAGE MAT ON ALL BELOW GRADE WALLS. WATERPROOFING AND DRAINAGE MAT SHALL BE BY J. COLEMAN WATERPROOFING OR APPROVED EQUAL.
14. PROVIDE CONTINUOUS 4" DIAMETER PERFORATED PVC DRAIN PIPE, COVERED IN WASHED STONE AND FILTER FABRIC AT ALL FOOTINGS AND SLOPE TO DAYLIGHT. ENSURE THAT PIPE IS INSTALLED A MINIMUM OF 8" BELOW THE LEVEL OF ANY CONCRETE SLAB

GENERAL INSULATION NOTES

NOTES:

1. INSULATE ALL HEADERS TO R-10
2. FRAME HOME WITH INSULATED 1" WALLS
3. FRAME CORNERS TO ALLOW FOR INSULATION
4. AIR-SEAL THE LIVING SPACE FROM THE GARAGE SO THAT WHEN THE HOUSE IS DEPRESSURIZED BY 50 PASCALS, THE GARAGE TO HOUSE PRESSURE IS AT LEAST 40 PASCALS
5. PROVIDE SOUND INSULATION AT ALL BATHROOM WALLS
6. ICYNENE INSULATION IN WALLS, ROOF RAFTER BAYS, RIM JOISTS, AND FLOORS OVER UNCONDITIONED SPACE, TYPICAL
7. QC TO PERFORM RES CHECK TO ENSURE CODE COMPLIANCE
8. IF BATT INSULATION IS SUBSTITUTED, PROVIDE ROOF VENTING PER CODE
9. R-10 RIGID INSULATION UNDER ENTIRE BASEMENT SLAB

GENERAL ROOF NOTES

NOTES:

1. 24 GAUGE STANDING SEAM METAL ROOF. ENGLERT A1500 OVER MANUFACTURES APPROVED UNDERLAYMENT. THIS ROOF IS NOT VENTED AND SHALL BE APPROVED BY THE MANUFACTURER FOR THIS CONDITION.
2. INSTALL ROOFING OVER TITANIUM ROOF ICE AND WATER SHIELD UNDERLAYMENT OR APPROVED EQUAL PER MANUFACTURES INSTALLATION INSTRUCTIONS.
3. GUTTERS ARE 6" ALUMINUM BOX GUTTERS. GUTTERS SHALL SLOPE A MIN. OF 1" IN 40'. ALUMINUM BOX DOWNSPOUTS SHALL DISCHARGE A MIN. OF 5' FROM THE FOUNDATION OF THE HOME.
4. OVERHANG DIMENSION IS FROM FACE OF STUD TO END OF ROUGH RAFTER.
5. PROVIDE METAL STEP AND COUNTER FLASHING AT CHIMNEY AND ALL SIDE WALL CONDITIONS.
6. PROVIDE METAL OPEN VALLEY FLASHING AT ALL ROOF VALLEYS.
7. PROVIDE METAL FLASHING AT ROOF TO WALL CONDITION. LOCATE VENTS AND MISC. ROOF MOUNTED ITEMS ON THE BACK OF THE HOUSE IF POSSIBLE. CONFIRM ALL LOCATIONS WITH ARCHITECT/OWNER. PROVIDE APPROPRIATE FLASHINGS.

STRUCTURAL NOTES

NOTES:

1. ALL STRUCTURAL MEMBERS & CONNECTIONS SHALL BE DESIGNED BY THE CONTRACTOR OR A QUALIFIED STRUCTURAL ENGINEER TO MEET THE NORTH CAROLINA BUILDING CODE. THE ARCHITECT IS NOT RESPONSIBLE FOR THE SIZING OF ANY STRUCTURAL MEMBERS OR THE DESIGN OF ANY STRUCTURAL CONNECTIONS REGARDLESS OF WHAT IS WRITTEN OR IMPLIED IN THIS SET OF CONSTRUCTION DOCUMENTS.
2. SEE BUILDING SECTIONS FOR TRUSS HEEL HEIGHTS.
3. PROVIDE SHOP DRAWINGS OF ALL STEEL, TRUSS, AND ENGINEERED BEAMS FOR REVIEW BY THE ARCHITECT PRIOR TO CONSTRUCTION.

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PLEUNE RESIDENCE

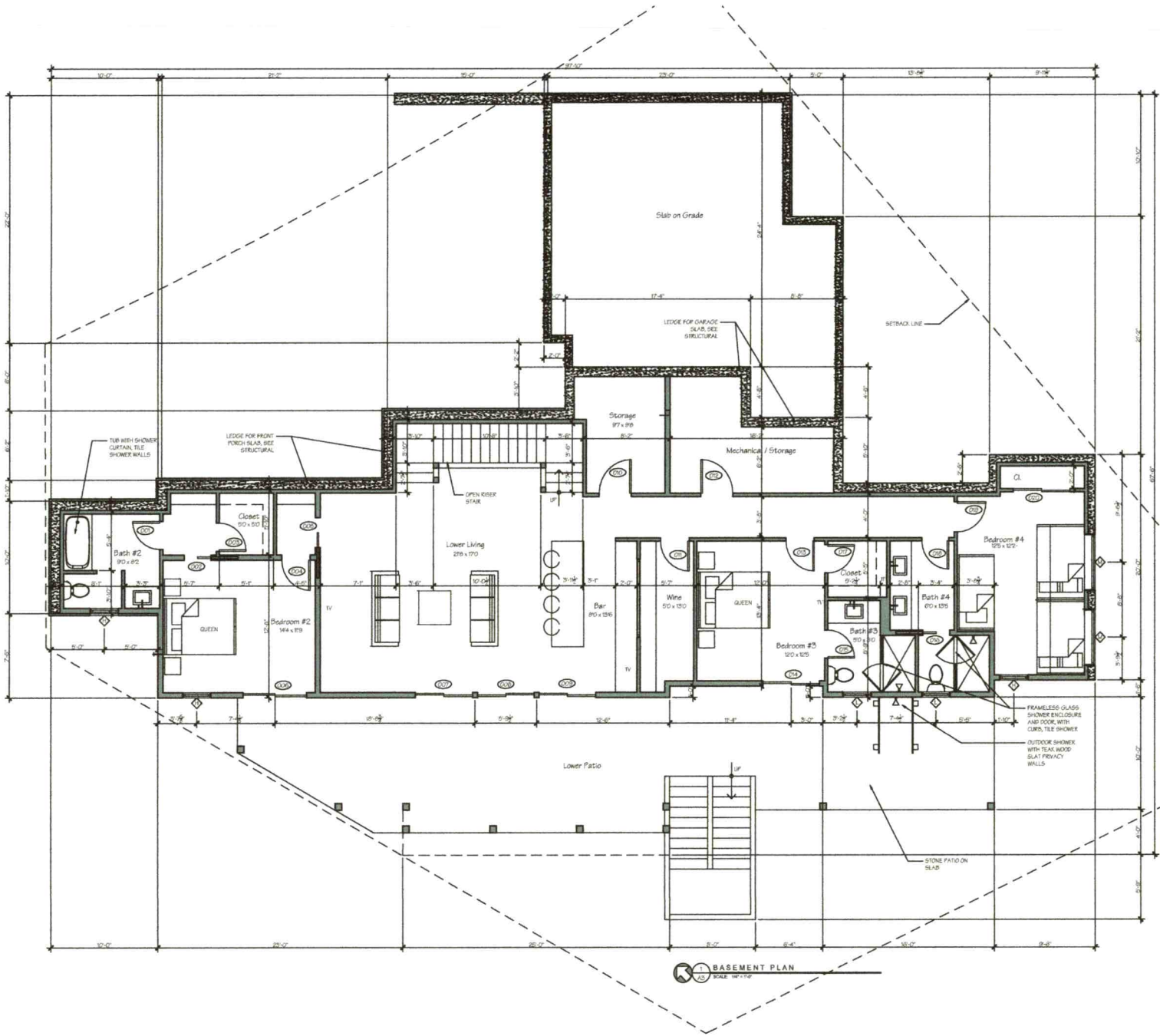
123 Ridgecliff Drive
Statesville, NC 28677

SD SET: 2.12.22
DD SET: 6.1.22
DD SET: 7.1.22
REVIEW SET: 8.22.23

SHEET TITLE:
FIRST FLOOR PLAN

PROJECT NUMBER:
21-009

SHEET NUMBER:
A2



1 BASEMENT PLAN
A3 SCALE: 1/4" = 1'-0"

AREA CALCULATIONS

FIRST FLOOR	= 2092 SF
LOWER LEVEL (FINISHED)	= 1775 SF
TOTAL HEATED	= 3867 SF

GENERAL PLAN NOTES

NOTES:

1. PAPER DISPENSERS (TP) TO BE MOUNTED ON BLOCKING @ 25" ASF, CONFIRM LOCATIONS WITH OWNER.
2. TOWEL BARS (TB) TO BE MOUNTED ON BLOCKING, CONFIRM LOCATIONS WITH OWNER. 40" ASF @ WALL, 56" ASF @ VANITIES, 36" ABOVE FINISHED TUB DECK, OR 72" AFF IN TUB/SHOWER.
3. TOWEL HOOKS (TH) TO BE MOUNTED ON BLOCKING @ 60" ASF, CONFIRM LOCATIONS WITH OWNER.
4. ALL SHELVES SHALL BE 3/4" VENEER PLYWOOD WITH A 2" SOLID WOOD EDGE. PROVIDE SHELVES AT 15" O.C. FROM FLOOR TO CEILING W/ A 4" KICK. CONFIRM ALL SHELVING WITH OWNER.
5. ALL CLOSETS SHALL HAVE A SHELF AS DESCRIBED ABOVE AND A HANGING ROD. CONFIRM DESIGN WITH OWNER.
6. PROVIDE TERMITE TREATMENT APPROVED BY THE NC DEPT OF AGRICULTURE THAT USES LOW TOXICITY CHEMICALS OR ELIMINATES CHEMICAL TERMITE TREATMENTS.
7. DOOR OPENING NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALLS AS SHOWN OR LOCATED 6" FROM FINISH WALL TO FINISH JAMB U.O.N.
8. DISHWASHER SHALL BE A ENERGY STAR LABELED PRODUCT
9. REFRIGERATOR SHALL BE ENERGY STAR LABELED
10. GAS COOK TOP WITH ELECTRONIC IGNITION
11. KITCHEN RANGE HOOD SHALL EXHAUST A MINIMUM OF 100 CFM BUT LESS THAN 350 CFM
12. PROVIDE SHOP DRAWINGS OF ALL TRUSS AND ENGINEERED BEAMS FOR REVIEW BY ARCHITECT BEFORE CONSTRUCTION.
13. PROVIDE SPRAY ON WATERPROOFING AND DRAINAGE MAT ON ALL BELOW GRADE WALLS. WATERPROOFING AND DRAINAGE MAT SHALL BE BY J. COLEMAN WATERPROOFING OR APPROVED EQUAL.
14. PROVIDE CONTINUOUS 4" DIAMETER PERFORATED PVC DRAIN PIPE COVERED IN WASHED STONE AND FILTER FABRIC AT ALL FOOTINGS AND SLOPE TO DAYLIGHT. ENSURE THAT PIPE IS INSTALLED A MINIMUM OF 6" BELOW THE LEVEL OF ANY CONCRETE SLAB.

GENERAL INSULATION NOTES

NOTES:

1. INSULATE ALL HEADERS TO R-10
2. FRAME HOME WITH INSULATED T-WALLS
3. FRAME CORNERS TO ALLOW FOR INSULATION
4. AIR-SEAL THE LIVING SPACE FROM THE GARAGE SO THAT WHEN THE HOUSE IS DEPRESSURIZED BY 50 PASCALS, THE GARAGE TO HOUSE PRESSURE IS AT LEAST 49 PASCALS
5. PROVIDE SOUND INSULATION AT ALL BATHROOM WALLS
6. ICYNENE INSULATION IN WALLS, ROOF RAFTER BAYS, RIM JOISTS, AND FLOORS OVER UNCONDITIONED SPACE, TYPICAL
7. GC TO PERFORM RES CHECK TO ENSURE CODE COMPLIANCE
8. IF BATT INSULATION IS SUBSTITUTED, PROVIDE ROOF VENTING PER CODE
9. R-10 RIGID INSULATION UNDER ENTIRE BASEMENT SLAB

GENERAL ROOF NOTES

NOTES:

1. 24 GAUGE STANDING SEAM METAL ROOF. ENGLERT ATOOO OVER MANUFACTURES APPROVED UNDERLAYMENT. THIS ROOF IS NOT VENTED AND SHALL BE APPROVED BY THE MANUFACTURER FOR THIS CONDITION.
2. INSTALL ROOFING OVER TITANIUM ROOF ICE AND WATER SHIELD UNDERLAYMENT OR APPROVED EQUAL PER MANUFACTURES INSTALLATION INSTRUCTIONS.
3. GUTTERS ARE 6" ALUMINUM BOX GUTTERS. GUTTERS SHALL SLOPE A MIN. OF 1" IN 40'. ALUMINUM BOX DOWNSPOUTS SHALL DISCHARGE A MIN. OF 5' FROM THE FOUNDATION OF THE HOME.
4. OVERHANG DIMENSION IS FROM FACE OF STUD TO END OF ROUGH RAFTER.
5. PROVIDE METAL STEP AND COUNTER FLASHING AT CHIMNEY AND ALL SIDE WALL CONDITIONS.
6. PROVIDE METAL OPEN VALLEY FLASHING AT ALL ROOF VALLEYS.
7. PROVIDE METAL FLASHING AT ROOF TO WALL CONDITION.
8. LOCATE VENTS AND MISC. ROOF MOUNTED ITEMS ON THE BACK OF THE HOUSE IF POSSIBLE. CONFIRM ALL LOCATIONS WITH ARCHITECT/OWNER. PROVIDE APPROPRIATE FLASHINGS.

STRUCTURAL NOTES

NOTES:

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3. PROVIDE SHOP DRAWINGS OF ALL STEEL, TRUSS, AND ENGINEERED BEAMS FOR REVIEW BY THE ARCHITECT PRIOR TO CONSTRUCTION.

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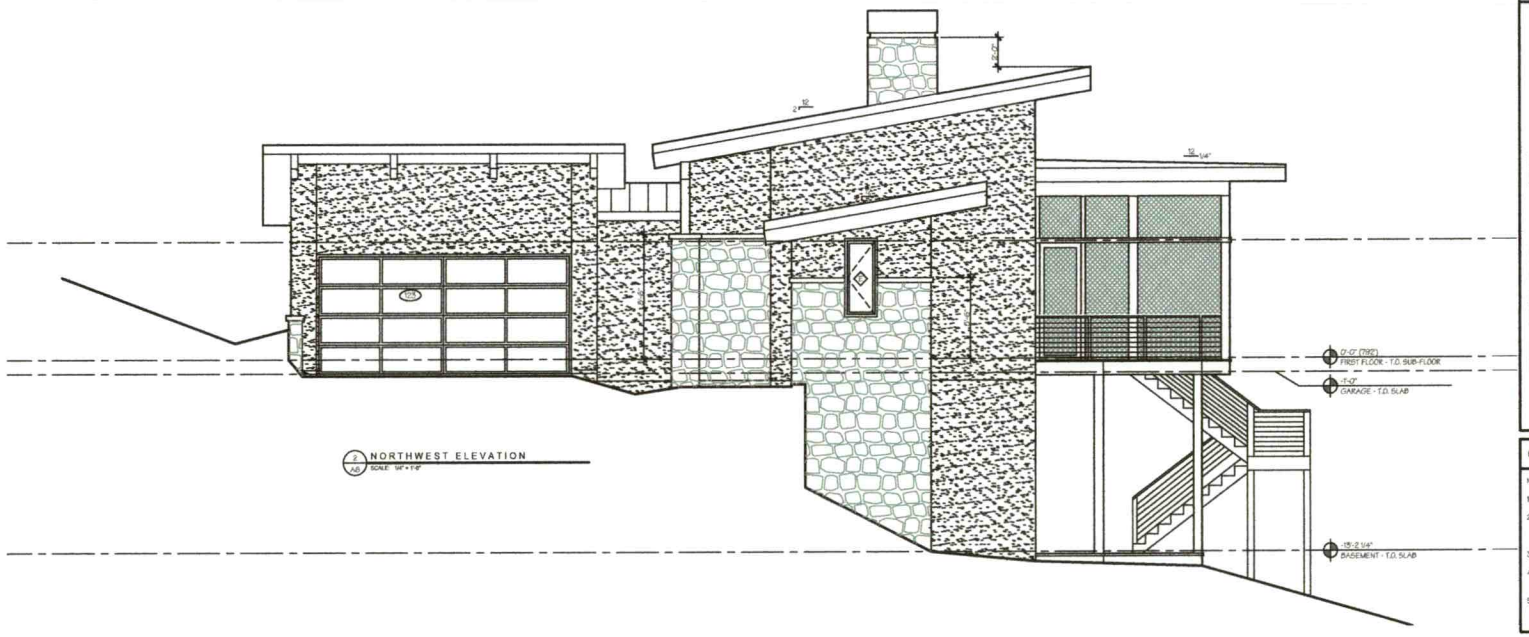
PLEUNE RESIDENCE
123 Ridgecliff Drive
Statesville, NC 28677

SD SET: 2.12.22
DD SET: 6.1.22
DD SET: 7.1.22
REVIEW SET: 8.22.23

SHEET TITLE:
BASEMENT PLAN

PROJECT NUMBER:
21-009

SHEET NUMBER:
A3



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

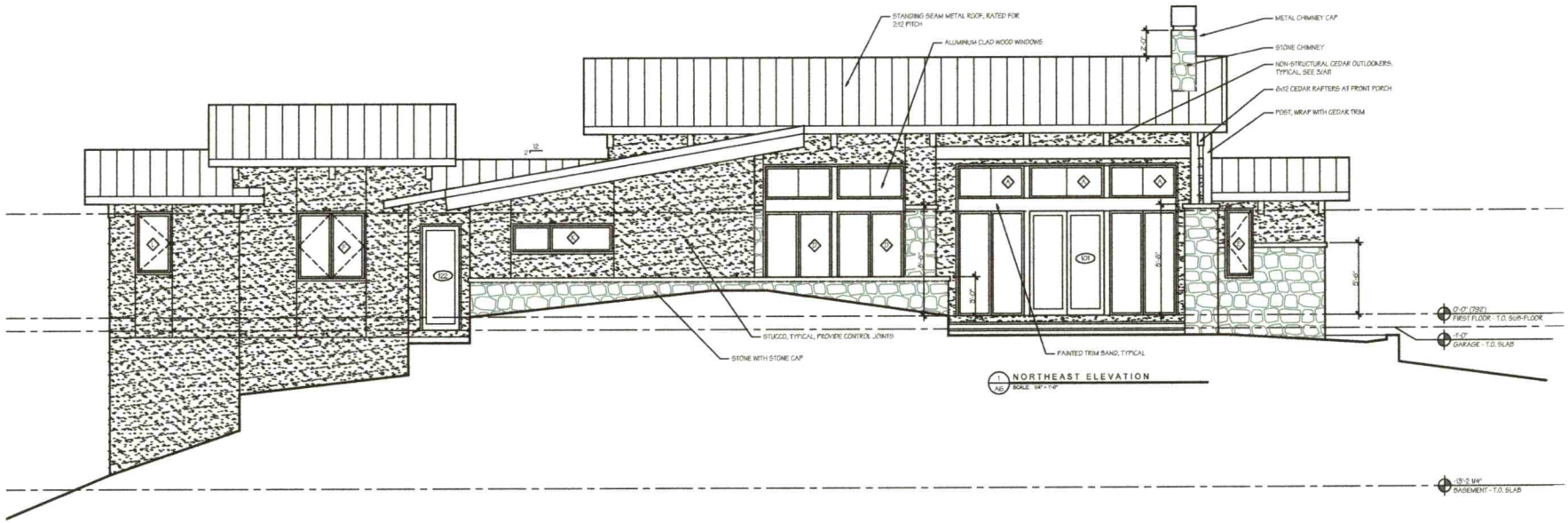
MATERIAL LEGEND

- NATURAL STONE VENEER
- STANDING SEAM METAL ROOFING RATED FOR 2/12 ROOF PITCH
- TRADITIONAL 3 COAT STUCCO WITH A SMOOTH ACRYLIC FINISH COAT OVER TWO LAYERS OF BUILDING WRAP AND METAL LATH. ONE LAYER OF TYVEK STUCCO WRAP AND ONE LAYER OF JUMBO TEX. CONTROL JOINTS AS SHOWN.
- SCREEN PORCH - SCREEN TIGHT "MINI-TRACK" SYSTEM

GENERAL NOTES

NOTES:

1. INSTALL ALL SIDING AND ROOFING MATERIALS PER MANUFACTURERS RECOMMENDATIONS
2. INSTALL ROOFING OVER MFR. RECOMMENDED UNDERLAYMENT or TITANIUM ROOF UNDERLAYMENT AND 5/4" PLYWOOD ROOF SHEATHING, UNLESS NOTED OTHERWISE
3. INSTALL SIDING OVER TYVEK HOUSE WRAP AND 1/2" PLYWOOD SHEATHING, UNLESS NOTED OTHERWISE
4. ALL EXTERIOR TRIM, INCLUDING DOOR AND WINDOW TRIM SHALL BE 5/4 HARDIE TRIM or WOOD SPECIES TO MATCH SIDING, SMOOTH SIDE OUT, PAINTED
5. PROVIDE METAL DRIP FLASHING OVER ALL HORIZONTAL TRIM, TYP



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

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REVIEW SET: 8.22.23

SHEET TITLE:
ELEVATIONS

PROJECT NUMBER:
21-000

SHEET NUMBER:
A6