BLDR-2024-49588

ICHD - ENVIRONMENTAL HEALTH DIVISION

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

PERMIT # OSWP OSWP-2025-68096

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

PIN # 4762 -- 50 -- 1389

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

SITE ADDRESS: 149 High Rock Ct, Statesville, NC 28677 PHONE: 919-859-0669 ALT. PHONE:

SITE DIRECTIONS: Ostwalt Amity -> L Bethesda -> R Jordan Lake -> R Mountain Island -> L High Rock -> lot at end SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: Northlake SECTION: 3 LOT # 2 LOT AREA: 1.051 DESIGN FLOW: 360 gpd L.T.A.R.(Initial): 0.3 L.T.A.R (Repair): 0.3

Septic Tank 1000 (gal) STB Infiltrator Date
Pump Tank 1000 (gal) PT Date
Pump Make Model Serial #
Nitrification Fields 1 # Lines 4 Linear Ft: 202
Trench Width 36 *Max. Trench Depth(Initial) 20 *Max. Trench Depth(Repair) 23 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: HPPBPS - PM - IIIbe
Repair System Description: HPPBPS - PM - IIIbe
Maintenance Agreement Required: ☐ YES ☑ NO
☐ GRAVITY ☑ PRESSURE
Usable Depth to LC (Initial): 32

☑ Residence No. Bedrooms
☐ Business No. Persons
☐ Other No. Employees
☐ Slab ☑ Crawl Space
☐ Basement w/plumbing ☐ Basement w/o plumbing
Usable Depth to LC (Repair): 35 *Limiting Condition*

Water Supply
☐ Private
☑ Public
☐ Community

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

Basement floor plans submitted - crawl space to be constructed per LSS packet.

Do not exceed 28" on high side - Chroma 2 colors observed at 40"

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 sketches

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.*

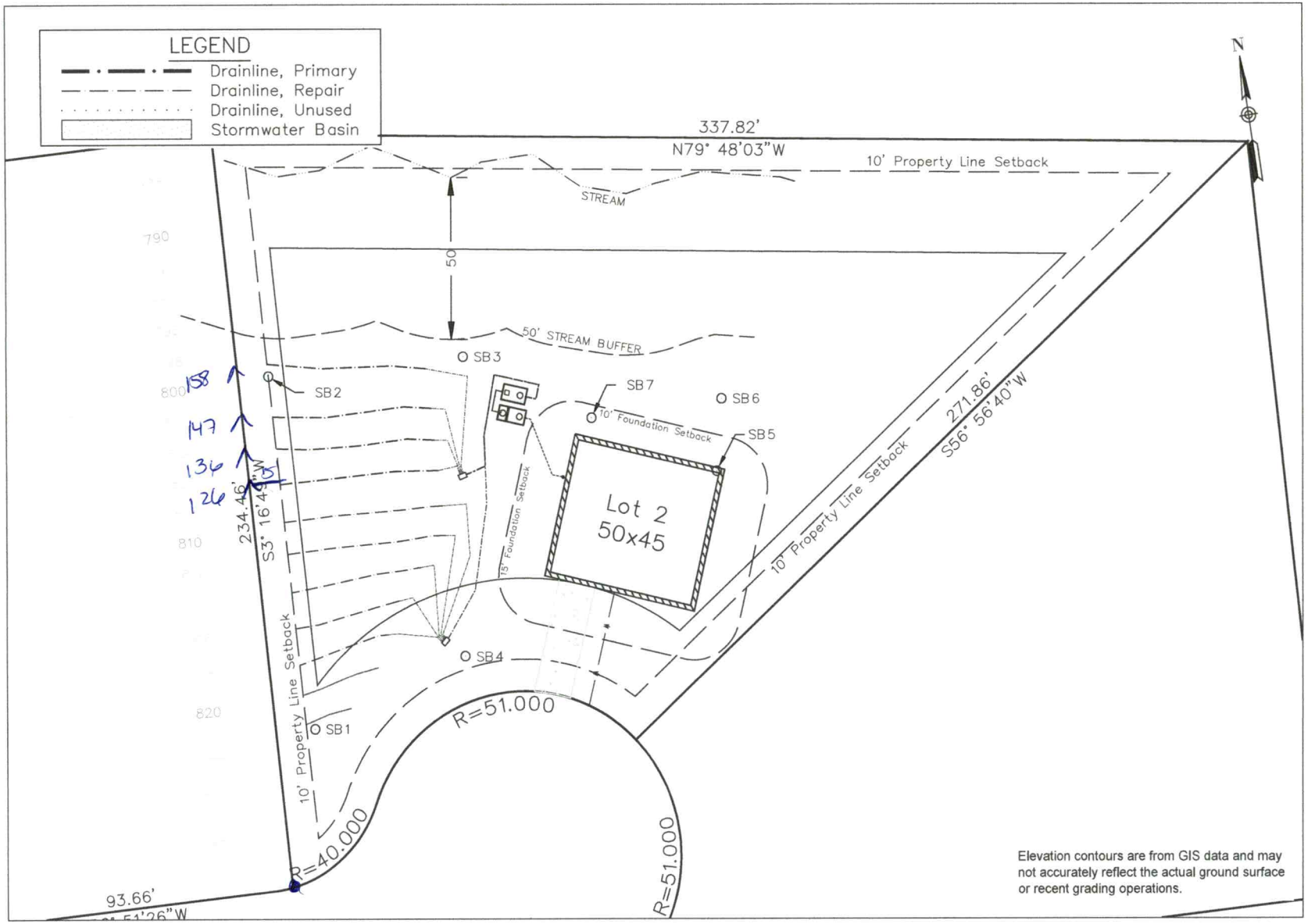
Owner / Applicant Signature: Online Signature Date: Installed by: Patriot Septic

IMPROVEMENT PERMIT by: D. Wieberg Date: 1/16/25 OPERATION PERMIT by: Date: 3/20/2025

AUTHORIZATION TO CONSTRUCT by: D. Wieberg Date: 1/16/25 Existing System Inspected by: Date:

	Date	Initials
Drain Lines Checked	1/21/25	DW
Tanks Checked	1/21/25	DW
Pressure Manifold or Valve Box Checked	1/21/25	DW
Pressure Head Set	3/20	BB
Electrical Checked	3/20	BB
Floats Set	3/20	BB
Alarm Checked	3/20	BB
Maintenance Contract Y / (N)		

As Built Sketch



PROPERTY LAYOUT
N.T.S. SOURCE: AWT, Inc.

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

Adams Homes AEC LLC
–Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

For Review Only

FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

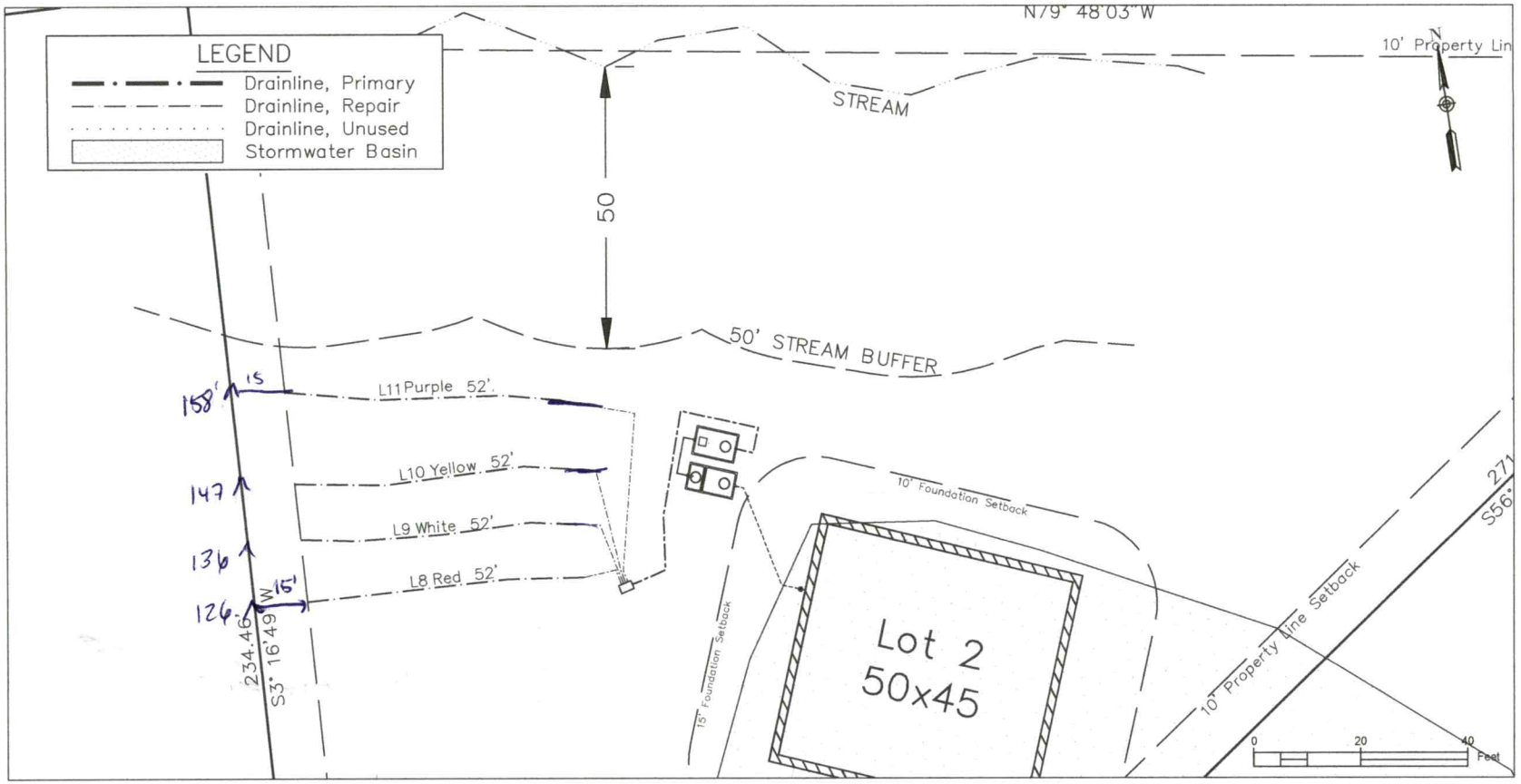
SHEET TITLE
Property Layout

Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-2

As Built Sketch

NTS



General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5-2 bales per 1000 sq. ft.

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R
8	Red	52	1/2in SCH 80	5.48	0.105	0.577
9	White	52	1/2in SCH 80	5.48	0.105	0.577
10	Yellow	52	1/2in SCH 80	5.48	0.105	0.577
11	Purple	52	1/2in SCH 80	5.48	0.105	0.577
	Total	**208**	**Total**	**21.92**	**Avg.**	**0.58**

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

1 WW-4 Primary Drainfield

SOURCE: Agri-Waste Technology, Inc.

AWT Engineers and Soil Scientists

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

Adams Homes AEC LLC
-Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Primary Drainfield

Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-4

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 OSWP-2025-68096

PIN # 4762 -- 50 -- 1389

APPLICANT/OWNER: AWT

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

SITE ADDRESS: 149 High Rock Ct, Statesville, NC 28677

PHONE: 919-859-0669

ALT. PHONE:

SITE DIRECTIONS: Ostwalt Amity -> L Bethesda -> R Jordan Lake -> R Mountain Island -> L High Rock -> lot at end

SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: Northlake

SECTION: 3

LOT # 2

LOT AREA: 1.051

DESIGN FLOW: 360 gpd

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

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

Septic Tank 1000 (gal) STB Date

Pump Tank 1000 (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 4 Linear Ft: 202

Trench Width 36 *Max. Trench Depth(Initial) 20 *Max. Trench Depth(Repair) 23 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: HPPBPS - PM - IIIbe

Repair System Description: HPPBPS - PM - IIIbe

Maintenance Agreement Required: ☐ YES ☑ NO

☐ GRAVITY ☑ PRESSURE

Usable Depth to LC (Initial): 32

☑ Residence No. Bedrooms

☐ Business No. Persons

☐ Other No. Employees

☐ Slab ☑ Crawl Space

☐ Basement w/plumbing ☐ Basement w/o plumbing

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

Water Supply

☐ Private

☑ Public

☐ Community

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

Basement floor plans submitted - crawl space to be constructed per LSS packet.

Do not exceed 28" on high side - Chroma 2 colors observed at 40"

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.

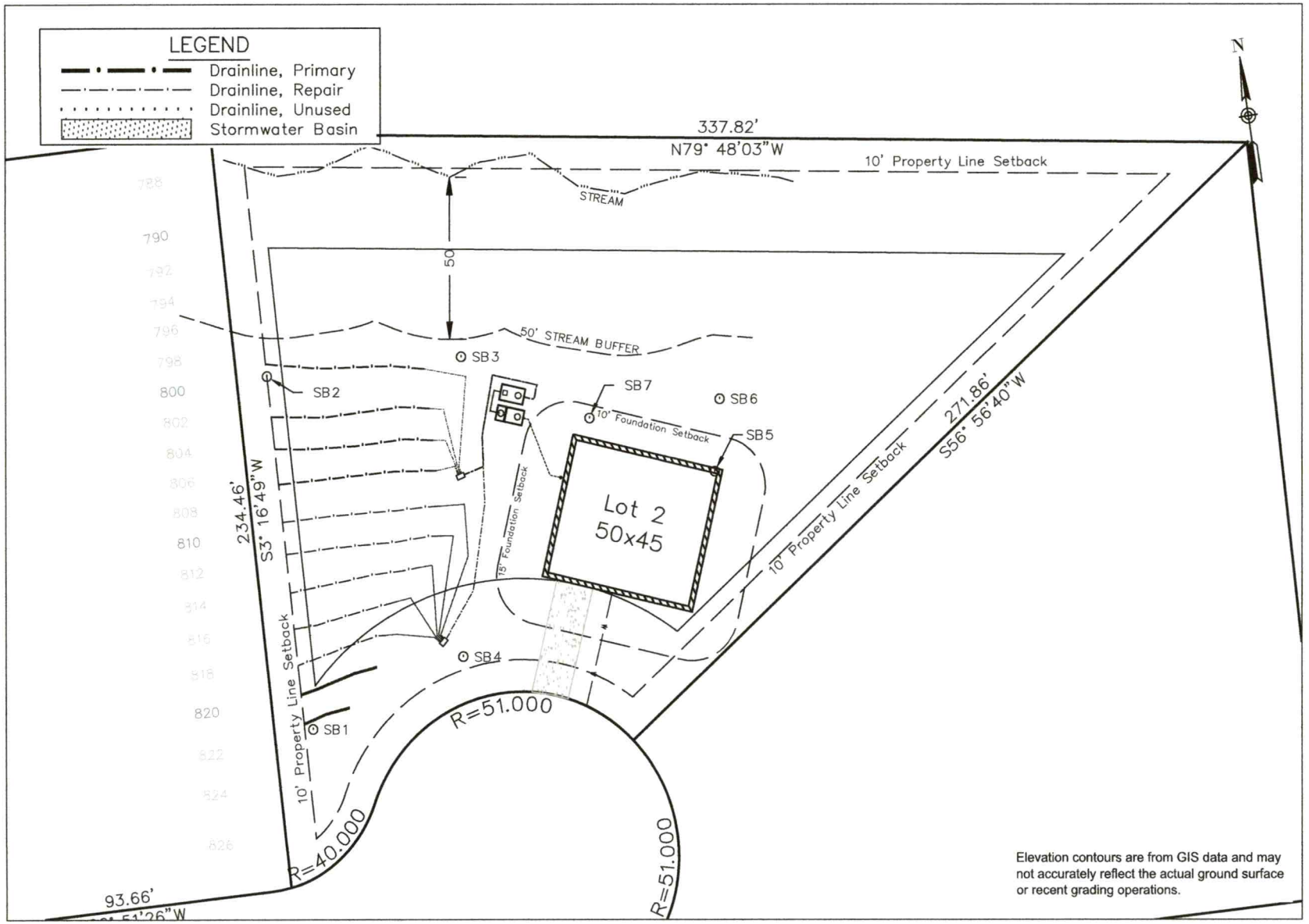
Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

☐ **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: 1/16/25 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: D. Wieberg Date: 1/16/25 Existing System Inspected by: Date:



Elevation contours are from GIS data and may not accurately reflect the actual ground surface or recent grading operations.

1 WW-2 N.T.S. PROPERTY LAYOUT

SOURCE: AWT, Inc.

AWT
Engineers and Soil Scientists

Agri-Waste Technology, Inc.
501 N Salem Street, Suite 205, Apex, NC 27502
agriwaste.com | 919.859.0669

Adams Homes AEC LLC
–Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

For Review Only

FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

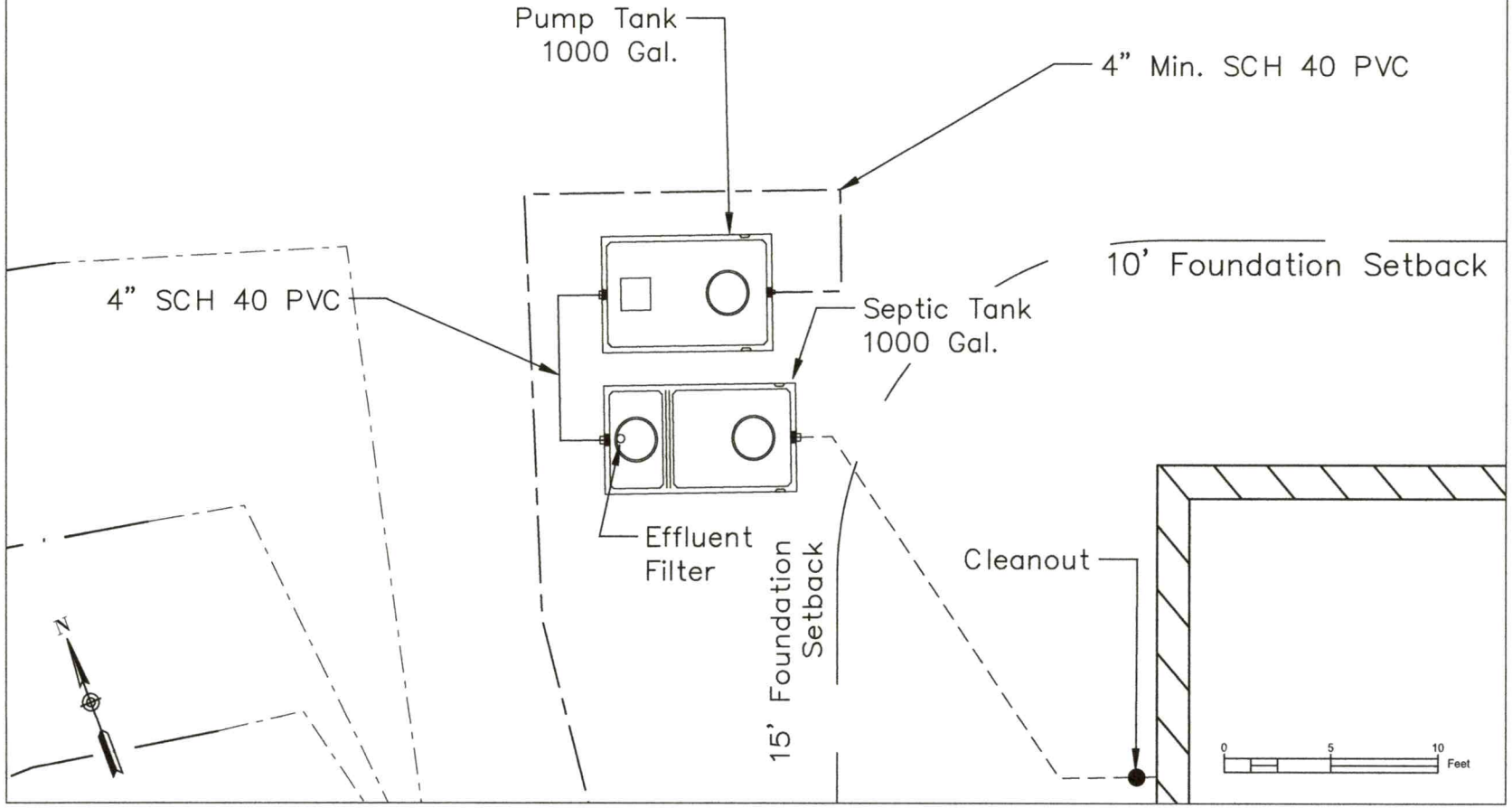
REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Property Layout

Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-2

NOTES – Contractor to adjust tank placements as necessary to maintain:
1. 25' downslope/15' sideslope/10' upslope setback from foundation drain
2. Min. 12" cover over Septic Tank (Not to exceed 36")
3. Min. 18" cover over pipes
4. Min. 2% grade on gravity pipe from house to Septic Tank



1 WW-3 N.T.S. COMPONENT LAYOUT
SOURCE: AWT, Inc.

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

Adams Homes AEC LLC
–Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

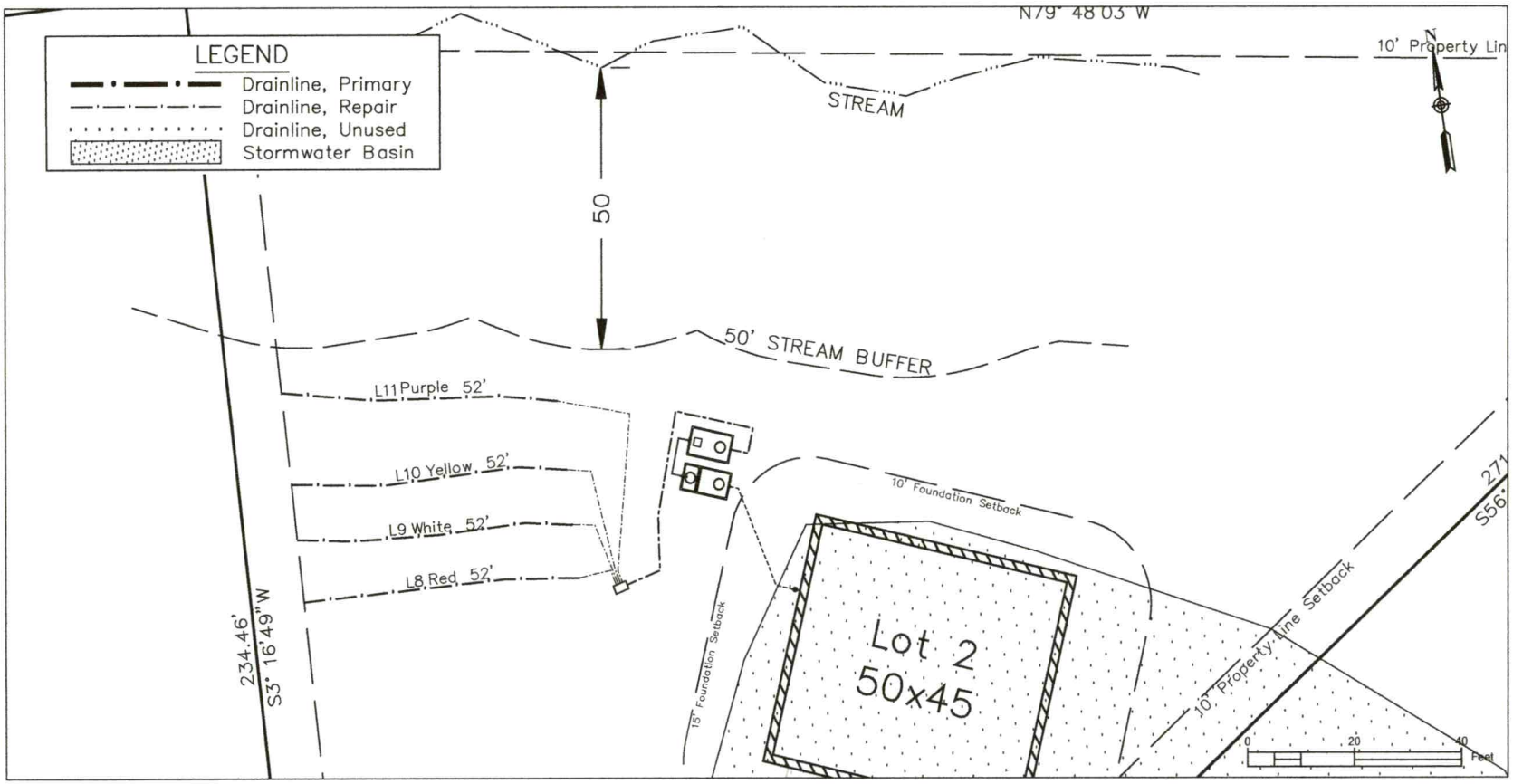
For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Component Layout

Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-3



General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5-2 bales per 1000 sq. ft.

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
8	Red	52	1/2in SCH 80	5.48	0.105	0.577
9	White	52	1/2in SCH 80	5.48	0.105	0.577
10	Yellow	52	1/2in SCH 80	5.48	0.105	0.577
11	Purple	52	1/2in SCH 80	5.48	0.105	0.577
	Total	**208**	**Total**	**21.92**	**Avg.**	**0.58**

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

1 WW-4 **Primary Drainfield**

SOURCE: Agri-Waste Technology, Inc.

AWT Engineers and Soil Scientists

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

Adams Homes AEC LLC
-Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Primary Drainfield

Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-4

Permit/File #: OSWP-2025-68096

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: 4762501389
Issued To: Adams Homes AEC LLC
Property Location: 149 High Rock Court, Statesville, NC 28677
Subdivision (if applicable) Northlake Lot #: 2 Block: _____ Section: _____
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: 3 Number of Occupants: 6 Other: _____
Design Wastewater Strength: ■ Domestic ☐ High Strength ☐ Industrial Process Wastewater
Proposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.3
Proposed Wastewater System Type*: Type IIIb, pump to 50% reduction drain field product (Initial) Pump Required: ■ Yes ☐ No ☐ May be required
Proposed Wastewater System Type*: Type IIIb, pump to 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]: 32" Usable Depth to LC (Repair)[x]: 35" [x] ***Limiting Condition***
Max. Trench Depth (Initial)[‡]: 20" Max. Trench Depth (Repair)[‡]: 23" [‡] ***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:

Licensed Soil Scientist Print Name: Jeff Vaughan
Licensed Soil Scientist Signature: _____ Date: 01/13/2025

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-2025-68096

This Section for Local Health Department Use Only

Initial submittal received: 1/15/25 *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: 1/16/25

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: 1/16/30

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: OSWP-2025-68096

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

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

PIN/Lot Identifier: 4762501389

Issued To: Adams Homes AEC LLC

Property Location: 149 High Rock Court, 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: 3 Number of Occupants: 6 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 50% reduction drain field product (Initial) Type IIIb, pump to 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: 360 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: 204 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft² Usable Depth to LC (Initial)ˣ: 32" ˣ***Limiting condition***

Soil Cover: - inches Slope Corrected Maximum Trench/Bed Depth‡: 20" inches ‡ ***Measured on the downhill side of the trench***

Pump Tank Size (if applicable): 1,000 gallons Requires more than 1 pump? ☐ Yes ■ No

Pump Requirements: 15.03 ft. TDH vs. 23.53 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:

_____

_____

_____

_____

_____

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: Jeff Vaughan Date: 01/13/2025

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-2025-68096

This Section for Local Health Department Use Only

Initial submittal received: 1/15/25 *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: 1/16/25

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: 1/16/30

See attached site sketch

Engineers and Soil Scientists

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

LETTER TO REVOKE SEPTIC PERMIT
149 High Rock Court, Statesville, NC 28677

PREPARED FOR: Iredell County

PREPARED BY: Jeff Vaughan, Senior Agronomist & Soil Scientist

DATE: January 13, 2025

To whom it may concern,

This letter is to facilitate the revocation of the existing septic permit on file for the home located at 149 High Rock Court, Statesville, NC, PIN# 47625071389. AWT hereby officially revokes the existing septic permit in order to re-submit an amended version of the package for permitting. This revision replaces any previous submittals.

Sincerely,

Jeff Vaughan, AOWE

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 50% 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, Agri-Waste Technology Inc.
Mailing Address: 501 N. Salem Street
City: Apex
State: NC Zip: 27502
Phone #: 704-268-9160
Email: thackney@agriwaste.com

Owner: Adams Homes AEC LLC
Mailing Address: 3000 Gulf Breeze Parkway
City: Gulf Breeze
State: FL Zip: 32563
Phone #: (704)361-5437
Email: kferguson@adamshomes.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: 01/13/2025

Owner's Signature: DocuSigned by: Keith Ferguson 19956A5185AF442... Date: 01/13/2025

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
INSURER B : ACCIDENT FUND INSURANCE COMPANY OF AMERICA	10166
INSURER C : Evanston Insurance Company	35378
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

Agri-Waste Technology Inc
501 N. Salem St Ste 203
Apex, NC 27502

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

© 1988-2015 ACORD CORPORATION. All rights reserved.
The ACORD name and logo are registered marks of ACORD

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
(Lot 2) 149 High Rock Court, Statesville, NC. 28677
(Iredell County PIN: 4762501389)

PREPARED FOR: Adams Homes AEC LLC – Client

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

DATE: January 13, 2025

Soil suitability for domestic sewage treatment and disposal systems was evaluated on January 04, 2024, for the proposed property located at Lot 2 149 High Rock Court, Statesville, NC. 28677. Jeff Vaughan and Trevor Hackney of Agri-Waste Technology, Inc. (AWT) conducted the soil evaluation. 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.

This property is approximately 1.051 acres and is a grass hill and wooded at the back of the lot. The home is proposed near the front of the property and the septic system is proposed behind the home. The proposed septic system is a type IIIb, pump septic system utilizing a pressure manifold with a horizontal PPBPS 50% reduction drain-field product for the primary and repair areas. A stream runs near the rear property line and the bank was recorded by AWT during the evaluation and set 50' buffer from the stream bank.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems

The drawing in Attachment 1 details the property boundaries (as proposed by David B. Jordan & Associates, PLLC), soil boring locations, and layout of drain field trenches (Completed by AWT). Soil borings were examined to determine soil suitability for on-site sewage disposal systems in accordance with 15A NCAC 18E Rules for Wastewater Treatment and Disposal Systems. These borings were advanced with a hand auger. Soil Borings 1, 2, 3, and 4 should be used to delineate the primary and repair drain field areas.

A septic layout was performed to demonstrate available space (.0508). The layout in Attachment 1 indicates there is available space for a three-bedroom primary and repair type IIIb, pump septic system with the proposed home location designated.

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. Since usable slope corrected soil depths meet or exceed 32" AWT is recommending the use of horizontal PPBPS 50% reduction drain field product for the primary and repair systems. The maximum trench bottom should not exceed 20". With an LTAR of 0.3 GPD/ft^2, 200 linear feet of trench are necessary to support a three-bedroom home initial system. The attached drawing proves that 208 linear feet of trench can be installed for the primary septic system. The usable slope corrected soil depths meet or exceed 35" within the repair area. The maximum trench bottom for the repair system should not exceed 23". The repair system requires a minimum of 200 linear feet of trench. The attached drawing proves that 212 linear feet of trench can be installed for the repair septic system with the proposed home location on the property. 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



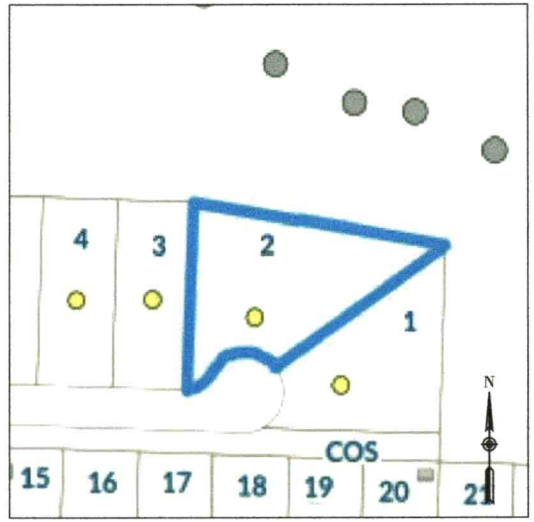
Adams Homes AEC LLC—NORTHLAKE LOTS

Project Location
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

Project Consultant
Jeff Vaughan, L.S.S
(919) 367—6313
Agri—Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, NC 27502
(919) 859—0669
(919) 233—1970 Fax

System Overview
Single Family Residence
Three (3) Bedroom, 360 gpd
PPBPS Horizontal Dispersal System
Pressure Manifold Distribution



VICINITY MAP

Sheet Index

Sheet 1	Cover Sheet
Sheet 2	Property Layout
Sheet 3	Component Layout
Sheet 4	Primary Drainfield
Sheet 5	Repair Drainfield
Sheet 6	Detail Sheet
Sheet 7	Excavation Safety

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

Adams Homes AEC LLC
—Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

For Review Only

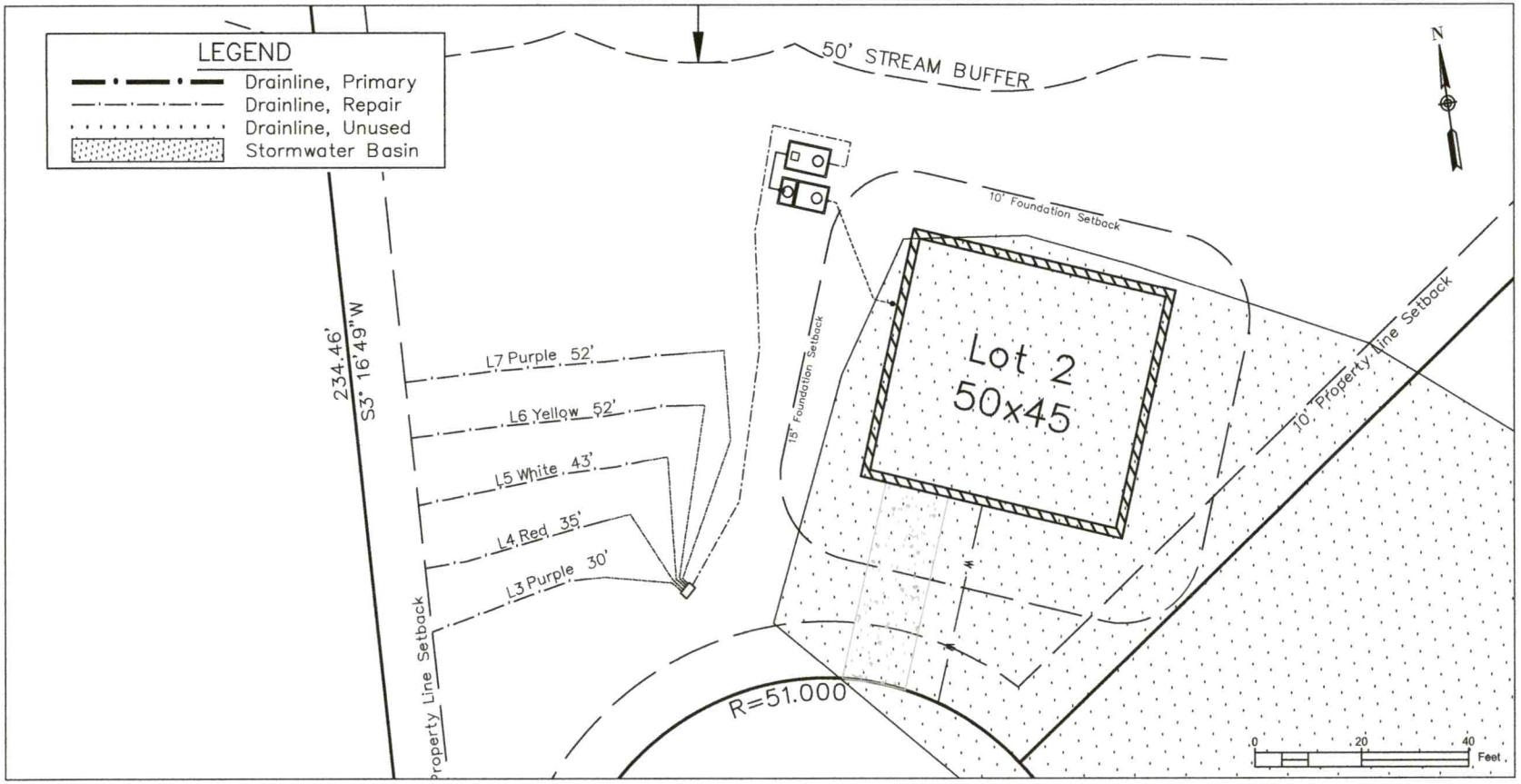
FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Cover Sheet

Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-1



General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5-2 bales per 1000 sq. ft.

DRAINFIELD INFO. - **Repair**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
3	Purple	30.3	1/2in SCH 80	5.48	0.181	0.567
4	Red	34.7	1/2in SCH 80	5.48	0.158	0.495
5	White	43.3	1/2in SCH 40	7.11	0.164	0.515
6	Yellow	52	3/4in SCH 80	10.10	0.194	0.609
7	Purple	52	3/4in SCH 80	10.10	0.194	0.609
	Total	**212**	**Total**	**38.27**	**Avg.**	**0.56**

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

1 WW-5 **Repair Drainfield**

SOURCE: Agri-Waste Technology, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.0069

Adams Homes AEC LLC
—Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

For Review Only

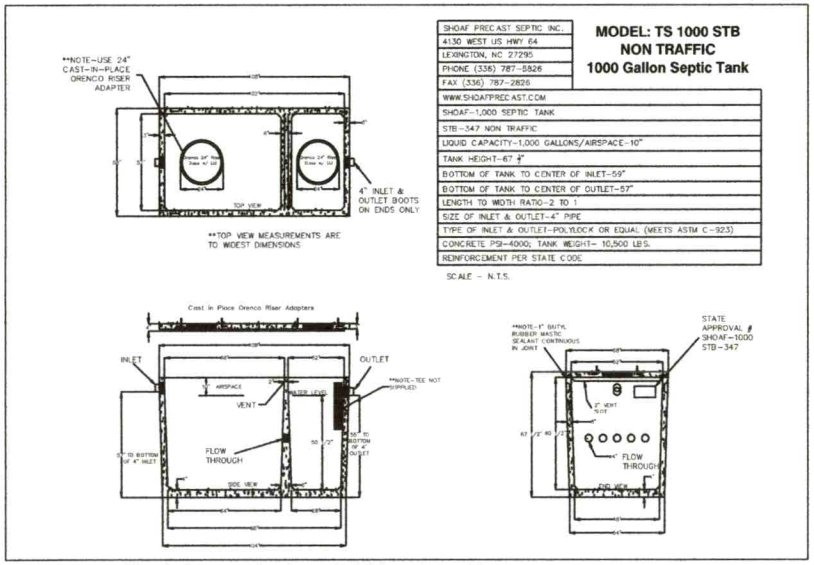
FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Repair Drainfield

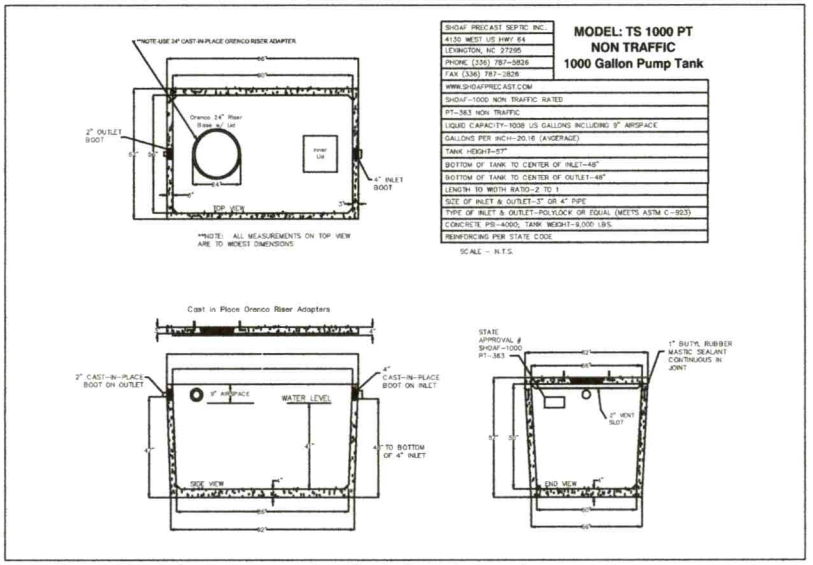
Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-5



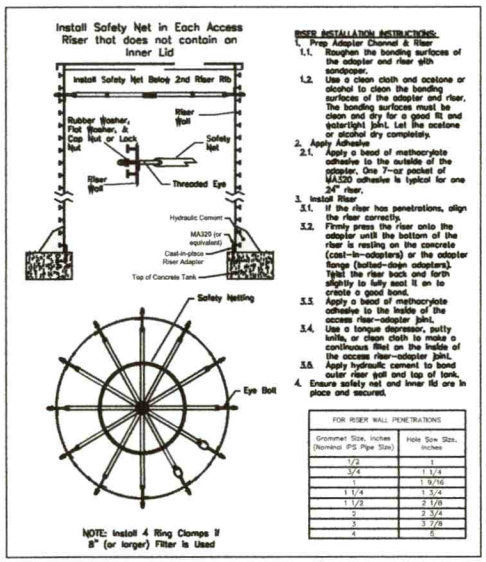
1 WW-6 Septic Tank (or equivalent 1,000-gal tank)

SOURCE: Shoaf Precast Septic, Inc.



2 WW-6 Pump Tank (or equiv. tank with 1-day storage)

SOURCE: Shoaf Precast Septic, Inc.



3 WW-6 Riser Safety Nets

SOURCE: SIM-TECH, Inc.

NOTES

1. Installation to follow all NC DHHS and IREDELL County applicable rules and regulations.
2. IREDELL County to perform construction inspections and final system certification.
3. Septic Tank to have approved effluent filter.
4. Contractor to abide by all safety regulations during system installation.
5. Contractor shall backfill around all access areas such that storm water is shed away from potential entry points.
6. Invert elevations of all components to be verified in field by contractor to insure proper operation.
7. All system piping to be SCH40 PVC (except where noted).
8. All gravity elbows to be long radius or long sweeping type elbows.
9. Actual installation and placement of treatment system to be overseen by Contractor.
10. Tanks to be set on 6" minimum gravel base. Use #5 or #57 stone for base.
11. Contractor to seed and/or mulch disturbed areas to coincide with existing landscape. Area shall not be left with uncovered soil.
12. Mount Control Panel a minimum of 24" above grade.
13. Power to panel to be installed by licensed electrician per code. One 15-amp circuit and one 20-amp circuit with individual neutrals to be run from house to control panel.
14. All risers to have cast-in-place tank adapters and be single-piece riser. Risers to extend 6" above soil surface and be designed to prevent surface water inflow.
15. Backfill around tank(s) shall be gravel or tank hole shall be over-excavated a minimum of 2' in all directions to allow for mechanical tamping of backfill.
16. All penetrations to be sealed.
17. Spigot to be located on outside of building within 50' of tanks.
18. All pressure lines to maintain 18" min. cover.
19. Contractor to adjust tank placement to meet site constraints.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.0969

Adams Homes AEC LLC
-Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

For Review Only

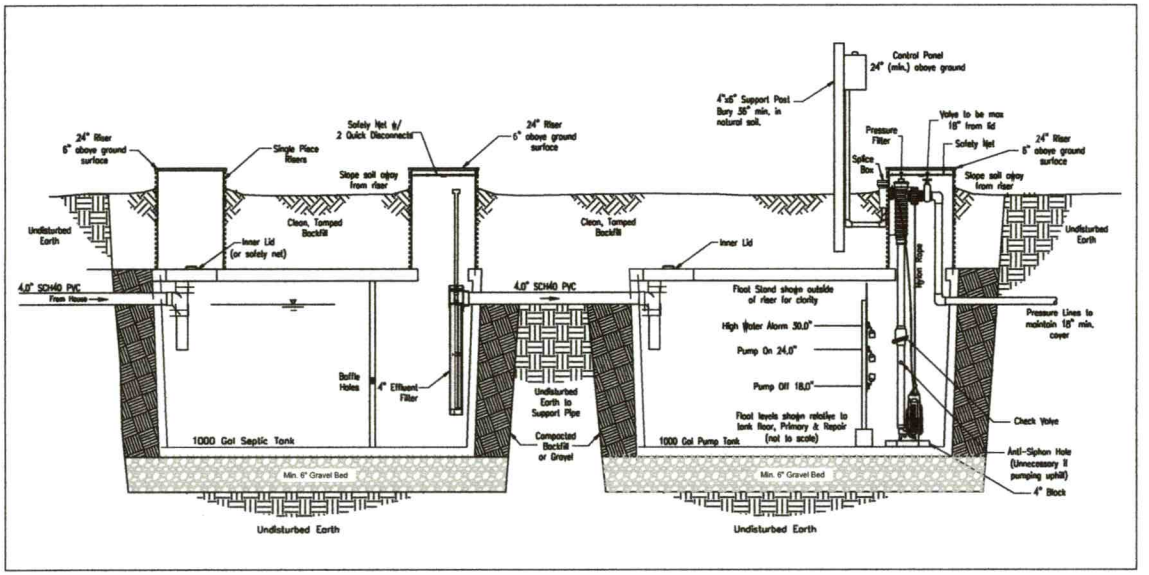
FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Detail Sheet 1

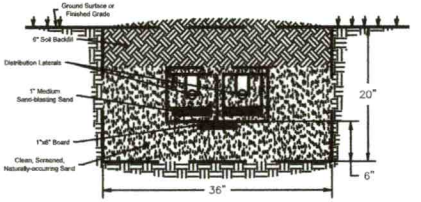
DRAWN BY:	CREATED ON:
C. Barbee	11/13/2023
REVISED BY:	REVISED ON:
--	--
RELEASED BY:	RELEASED ON:
--	--

DRAWING NUMBER
WW-6



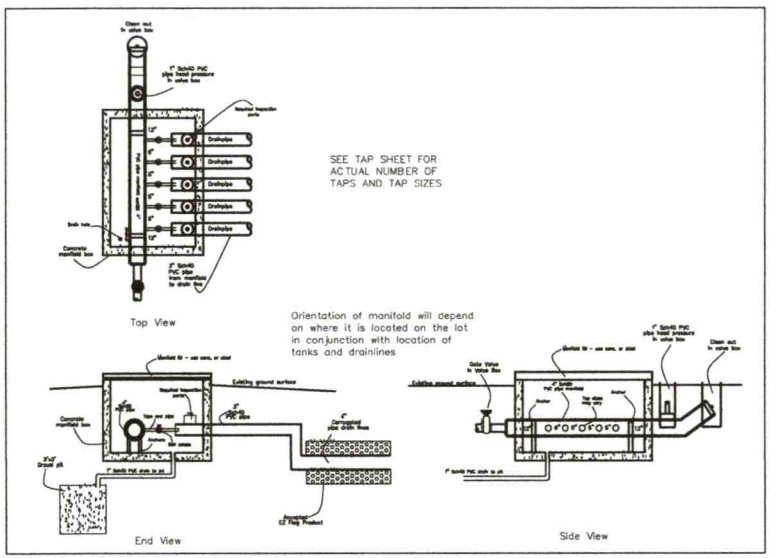
1 WW-7 **SYSTEM PROFILE VIEW**

N.T.S.



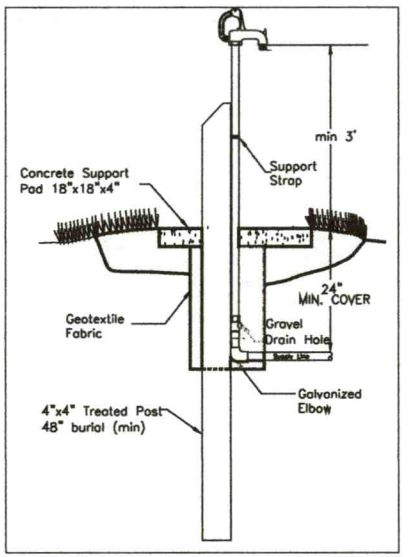
2 WW-7 **TRENCH X-SECTION (Typical)**

N.T.S. Source: AWT



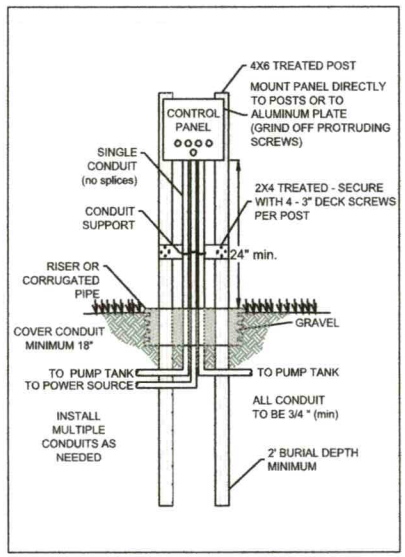
4 WW-7 **PRESSURE MANIFOLD INSTALLATION (Typical) - For Illustration Only**

N.T.S. SOURCE: AWT



5 WW-7 **YARD HYDRANT (if required)**

N.T.S. SOURCE: AWT



6 WW-7 **CONTROL PANEL SUPPORT**

N.T.S. SOURCE: AWT

AWT
Engineers and Soil Scientists

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

Adams Homes AEC LLC
–Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

For Review Only

FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE

Detail Sheet 2

DRAWN BY:	CREATED ON:
C. Barbee	11/13/2023
REVISED BY:	REVISED ON:
--	--
RELEASED BY:	RELEASED ON:
--	--

DRAWING NUMBER

WW-7

Trenching and Excavation Safety

The employer must comply with the trenching and excavation requirements of 29 CFR 1926.651 and 1926.652 or comparable OSHA-approved state plan requirements.

Inspection of Excavations

OSHA standards require that a competent person inspect trenches daily and as conditions change before worker entry to ensure elimination of excavation hazards. A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to workers, soil types and protective systems required, and who is authorized to take prompt corrective measures to eliminate these hazards and conditions.

Access and Egress

OSHA standards require safe access and egress to all excavations, including ladders, steps, ramps, or other safe means of exit for employees working in trench excavations 4 feet (1.22 meters) or deeper. These devices must be located within 25 feet (7.6 meters) of all workers.

Recommendations

Heavy equipment and trucks should stay as far as possible from the edge of any trench.
Always use pads under stabilizers to minimize ground pressures that could lead to failures.

(b) Definitions

"Cemented soil" means a soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.

"Cohesive soil" means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sidesloopes, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.

"Dry soil" means soil that does not exhibit visible signs of moisture content.

"Fissured" means a soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.

"Granular soil" means gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.

"Layered system" means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.

"Moist soil" means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.

"Plastic" means a property of a soil which allows the soil to be deformed or molded without cracking, or appreciable volume change.

"Saturated soil" means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or sheer vane.

"Soil classification system" means, for the purpose of this subpart, a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and the characteristics of the deposits and the environmental conditions of exposure.

"Stable rock" means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

"Submerged soil" means soil which is underwater or is free seeping.

"Type A" means cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A.

However, no soil is Type A if:

(i) The soil is fissured; or
(ii) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
(iii) The soil has been previously disturbed; or
(iv) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
(v) The material is subject to other factors that would require it to be classified as a less stable material.

"Type B" means:

(i) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or
(ii) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
(iii) Previously disturbed soils except those which would otherwise be classed as Type C soil.
(iv) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or
(v) Dry rock that is not stable; or
(vi) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

"Type C" means:

(i) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or
(ii) Granular soils including gravel, sand, and loamy sand; or
(iii) Submerged soil or soil from which water is freely seeping; or
(iv) Submerged rock that is not stable, or
(v) Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.

"Unconfined compressive strength" means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.

"Wet soil" means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

(c) Requirements

(1) Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.

(2) Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification system.

(3) Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of this appendix, shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.

(4) Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.

(5) Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a competent person. The deposit shall be reclassified as necessary to reflect the changed circumstances.

(d) Acceptable visual and manual tests

(1) Visual tests. Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

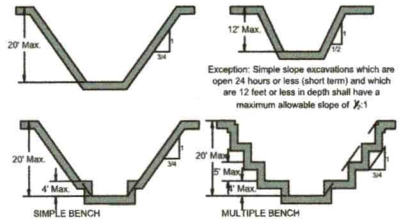
(i) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.
(ii) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does not stay in clumps is granular.
(iii) Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tension cracks could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of moving ground and are indications of potentially hazardous situations.
(iv) Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed soil.
(v) Observe the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation. Estimate the degree of slope of the layers.
(vi) Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seeping from the sides of the excavation, or the location of the level of the water table.
(vii) Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.

(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(i) Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two inch (50 mm) length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.
(ii) Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular (any combination of gravel, sand, or silt). If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry soil breaks into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.
(iii) Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. (This test is based on the thumb penetration test described in American Society for Testing and Materials (ASTM) Standard designation D2488 - "Standard Recommended Practice for Description of Soils (Visual - Manual Procedure).") Type A soils with an unconfined compressive strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.
(iv) Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetrometer or by using a hand-operated shearvane.
(v) Drying test. The basic purpose of the drying test is to differentiate between cohesive material with fissures, unfissured cohesive material, and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick (2.54 cm) and six inches (15.24 cm) in diameter until it is thoroughly dry.
(A) If the sample develops cracks as it dries, significant fissures are indicated.
(B) Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.
(C) If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cohesive with fissures. If they pulverize easily into very small fragments, the material is granular.

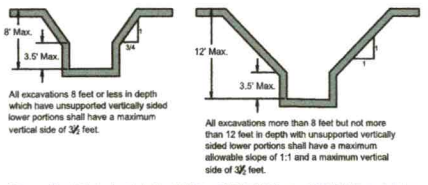
EXCAVATIONS IN TYPE A SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of ¾:1.



Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of ½:1

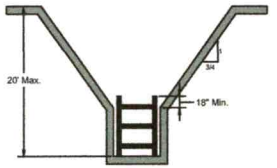
All benched excavations 20 feet or less in depth shall have a maximum allowable slope of ¾:1 and maxium bench dimensions as follows:



All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3½ feet.

All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3½ feet.

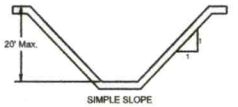
All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of ¾:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



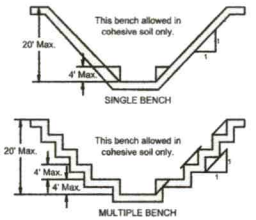
All other simple slope, compound slope, and vertically sided lower portion excavations shall be in accordance with the other options permitted under § 1926.652(b).

EXCAVATIONS IN TYPE B SOILS

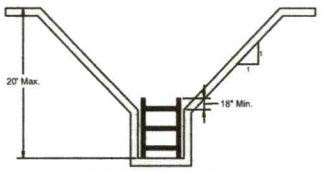
All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1.



All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maxium bench dimensions as follows:



All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 1:1. The support or shield system must extend at least 18 inches above the top of the vertical side.

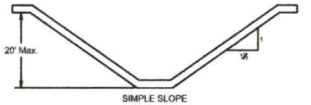


VERTICALLY SIDED LOWER PORTION

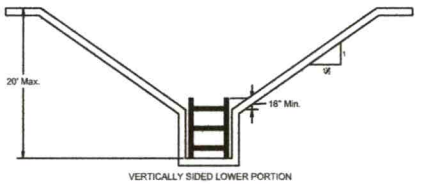
All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

EXCAVATIONS IN TYPE C SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1½:1.



All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 1½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.

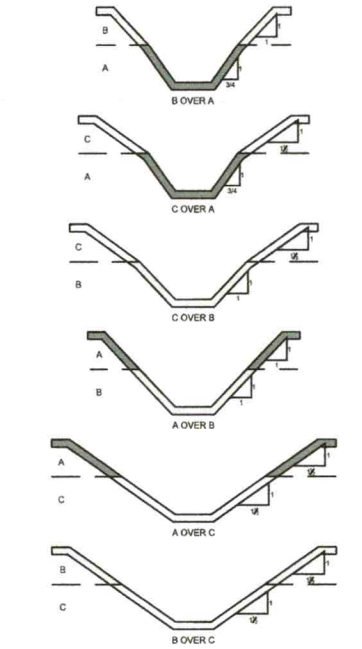


VERTICALLY SIDED LOWER PORTION

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

EXCAVATIONS IN LAYERED SOILS

All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

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

Adams Homes AEC LLC
–Northlake Lots

Project Location:
149 High Rock
Statesville, NC
Iredell County
PIN: 4762501389

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze FL 32563
(704)361-5437
kferguson@adamshomes.com

PROFESSIONAL ENGINEER SEAL

For Review Only

FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE

Excavation Safety

Drawn By:	Drawn On:
C. Barbee	11/13/2023
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:

WW-8

Septic System Design - Summary Page

Engineers and Soil Scientists
Agri-Waste Technology, Inc.

Project Manager:
Jeff Vaughan, PhD, LSS
jvaughan@agriwaste.com
919-859-0669

Daniel Harkins, PE
dharkins@agriwaste.com
0

Project: Northlake Lots - Lot 2
Property: 149 High rock
Statesville, NC
Subdiv.:
Lot #: 2
Owner: Adams Homes AEC LLC
Address: 3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
Phone: (704)361-5437
Email: kferguson@adamshomes.com
EHS:

Date: 1/6/2025
County: Iredell
Permit #:
Type of System: III b
PIN: 4762501389

Soil Parameters

Soil Evaluation By:
-

Special Conditions/Notes:

LTAR: 0.30 gpd/ft^2

Design Parameters

Type of Establishment: Residence, 5 or fewer bedrooms
Unit: Bedroom
# of Units: 3

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.

Primary Drainfield Specifications

Type of Distribution: Parallel Pressure Manifold
Trench Media: PPBPS, Horizontal
Trench Width: 3 ft
Trench Depth: in.
(or as specified on permit)

Trench Bottom Area: 1200 ft^2
Minimum Drain Line: 200 ft
Actual Drain Line: 208 ft
Number of Lines: 4
Minimum Line Spacing: 8 ft O.C.

Wastewater Treatment System Design Calculations

Project: Northlake Lots - Lot 2
Location: 149 High rock
Statesville, NC
County: Iredell

Septic Tank Sizing

Daily Flow Estimate:

	Unit	# of Units	Flow/Unit	Flow/Day
1A	Bedroom	3	120	360
2A				
3B				
			Q=	360 gpd

Septic Tank Minimum Capacity: Per 15A NCAC 18E .0801

For individual residences with 4 or fewer 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

Pump Tank Storage & Float Settings

Project: Northlake Lots - Lot 2
Location: 149 High rock
Statesville, NC
County: Iredell

Tank Manufacturer	Shoaf
Tank Model	TS 1000 PT

Interior Height (in.) **50.0** in.
Avg. Storage **20.16** gal/in.

Primary System

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

Top of pump (including 4" block)	16.1 in.	(Pump height = 12 1/16")
Pump Off	18.0 in.	
Pump On	24.5 in.	(set for dose volume)
Alarm On	30.5 in.	(6 in. above On Float)

Emergency Storage Available
Pump Tank 393 gal
Days of Storage 1.09 days
(determined from "interior top of tank" - "High Water Alarm")

Repair System

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

Top of pump (including 4" block)	16.4 in.	(Pump height = 12 13/32")
Pump Off	18.5 in.	
Pump On	25.0 in.	(set for dose volume)
Alarm On	31.0 in.	(6 in. above On Float)

Emergency Storage Available
Pump Tank 383 gal
Days of Storage 1.06 days
(determined from "interior top of tank" - "High Water Alarm")

ELEVATIONS

Project: Northlake Lots - Lot 2
Location: 149 High rock
Statesville, NC
County: Iredell

Benchmark	0	
BM Elev	0 ft	
Septic Tank	1,000 gal	
Ground Surface		804.6 ft
Depth of Soil Cover	12 in.	1.00 ft
Overall Ht of Tank	67.5 in.	5.63 ft
Elev, Base of Tank		797.93 ft
Ht to 4" Inlet Invert	57 in.	4.75 ft
Elev, 4" Inlet Invert		802.68 ft
Ht to 4" Outlet Invert	55 in.	4.58 ft
Elev, 4" Outlet Invert		802.51 ft
Gravel Base	6 in.	0.50 ft
Elev, Bot of Excavation		797.43 ft
Pump Tank	1008 gal	
Ground Surface		802.9 ft
Depth of Soil Cover	12 in.	1.00 ft
Overall Ht of Tank	57 in.	4.75 ft
Elev, Base of Tank		797.12 ft
Ht to 4" Inlet Invert	46 in.	3.83 ft
Elev, 4" Inlet Invert		800.95 ft
Ht to 2" Outlet Invert	58 in.	4.83 ft
Elev, 2" Outlet Invert		801.95 ft
Gravel Base	6 in.	0.50 ft
Elev, Bot of Excavation		796.62 ft
ST Inlet Pipe		
Grade @ Stub-out		805 ft
Depth of Stub-out, top		1.5 ft
Elev, Stub-out Invert		803.15 ft
Elev @ ST Inlet Invert		802.68 ft
Length		15 ft
Slope		3.1 %
Pipe, ST to PT		
ID	4 in.	0.33 ft
OD	4.5 in.	0.38 ft
Elev, ST Outlet Invert		802.51 ft
Elev, PT Inlet Invert		800.95 ft
Length		11 ft
Slope		14.1 %
Cover over inlet pipe		1.52 ft
Pump Reqmt.		
Floor Thickness	4 in.	0.33 ft
Elev, Pump Tank Floor		797.45 ft
Pump Block Ht.	4 in.	0.33 ft
Elev, Pump Intake		797.79 ft
Grade @ Primary Manifold		808.00 ft
Grade @ Repair Manifold		819.10 ft
Min. Cover	18 in.	1.50 ft
Max Elev, Primary		806.50 ft
Elev Diff, Primary		8.71 ft

Drainfield Design

Project	Northlake Lots - Lot 2
Location	149 High rock
	Statesville, NC
County	Iredell

Drainfield Sizing

Primary

LTAR	0.3 gpd/ft^2		
Daily Design Flow	360 gpd	**Type of Drainfield Media**	PPBPS, Horizontal
Req. Drainfield Area	1,200 ft^2	**Required Drainline**	
Trench Width, Eff.	3 ft	**After 50% Reduction**	200 ft
Required Drainline	400 ft	**Minimum Line Spacing**	8 ft (O.C.)

Repair

LTAR	0.3 gpd/ft^2		
Daily Design Flow	360 gpd	**Type of Drainfield Media**	PPBPS, Horizontal
Req. Drainfield Area	1,200 ft^2	**Required Drainline**	
Trench Width, Eff.	3 ft	**After 50% Reduction**	200 ft
Required Drainline	400 ft	**Minimum Line Spacing**	8 ft (O.C.)

Drainfield Layout

Line	Use	Color	Elevation	Length	Primary	Repair
1 & 2	Layout Line	hite & Yellow		42		
3	Layout Line	Purple		32		30.3
4	Layout Line	Red		38		34.7
5	Layout Line	White		47		43.3
6	Layout Line	Yellow		58		52.0
7	Layout Line	Purple		62		52.0
8	Layout Line	Red		63	52.0	
9	Layout Line	White		66	52.0	
10	Layout Line	Yellow		77	52.0	
11	Layout Line	Purple		61	52.0	
			Total	546	208	212
			Count	10	4	5

Line lengths shown in drawings include 2' for endcaps.

PRESSURE MANIFOLD DESIGN (Primary)

Site Information

Project: Northlake Lots - Lot 2
Location: 149 High rock
Statesville, NC
County: Iredell

Design Information

Estimated Daily Flow	360	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	400	ft.
Length after 50% Reduction	200	ft
L.T.A.R. Reduced	0.600	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.630	gal/day/ft^2

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
8	Red	52	1/2in SCH 80	5.48	0.105	0.577
9	White	52	1/2in SCH 80	5.48	0.105	0.577
10	Yellow	52	1/2in SCH 80	5.48	0.105	0.577
11	Purple	52	1/2in SCH 80	5.48	0.105	0.577
	Total	**208**	**Total**	**21.92**	**Avg.**	**0.58**

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

Total Run Time	16.42	min.	
Drainfield Capacity	172.8	gal	
% of Drainfield Cap	73.2%		(Max. 104.0% to not exceed 7.2 gal/panel)
Dose Volume	126.4	gal/dose	
Run Time/Dose	**5.8**	**minutes**	
Volume/depth	20.16	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	6.27	in.	

Manifold Box

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

PRESSURE MANIFOLD SYSTEM DESIGN (Repair)

Site Information

Project: Northlake Lots - Lot 2
Location: 149 High rock
Statesville, NC
County: Iredell

Design Information

Estimated Daily Flow	360	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	400	ft.
Length after 50% Reduction	200	ft
L.T.A.R. Reduced	0.600	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.630	gal/day/ft^2

DRAINFIELD INFO. - **Repair**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
3	Purple	30.3	1/2in SCH 80	5.48	0.181	0.567
4	Red	34.7	1/2in SCH 80	5.48	0.158	0.495
5	White	43.3	1/2in SCH 40	7.11	0.164	0.515
6	Yellow	52	3/4in SCH 80	10.10	0.194	0.609
7	Purple	52	3/4in SCH 80	10.10	0.194	0.609
	Total	**212**	**Total**	**38.27**	**Avg.**	**0.56**

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

Total Run Time	9.41	min.	
Drainfield Capacity	172.8	gal	
% of Drainfield Cap	73.2%		(Max. 98.5% to not exceed 7.2 gal/panel)
Dose Volume	126.4	gal/dose	
Run Time/Dose	**3.3**	**minutes**	Time to deliver max. 3.6 gal/panel
Volume/depth	20.16	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	6.27	in.	

Manifold Box

Number of Taps	5	with	0	Split(s)	
Manifold Length	4.0	ft.	(approximate)		

PUMP DESIGN

System (initial/repair): **Primary**

Project: Northlake Lots - Lot 2
Location: 149 High rock
Statesville, NC
County: Iredell

Friction Losses

Suction Head	0	ft	*(submersible 0)*
Elev. Difference (highest point from pump)	8.71	ft	
Design Pressure At Outlet	2	ft	

Supply Line - 2" Schedule 40 PVC

Pipe Diameter, Nominal	2	in.			
Pipe Diameter (ID)	2.047	in.	Flow	21.92	gpm
Pipe Length	58	ft	Velocity	2.14	ft/sec
Pipe Length for Fittings	5.8	ft	Meets requirement that 2 ft/s < v < 5 ft/s.		
Equivalent Length	63.8	ft			
Estimated Friction Loss in Supply Line	0.58	ft			

Pressure Filter Friction Loss	0.23	ft	*(from manufacturer)*
Friction Loss - Taps/Special Fittings	3.5	ft	
TOTAL	**15.03**	**ft.**	

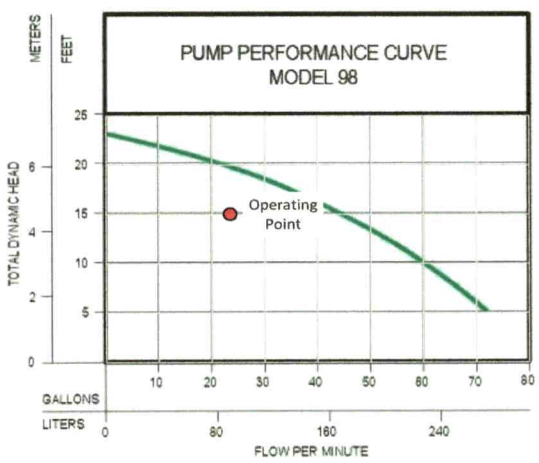
Flow for Anti-Siphon Hole

Hole Diameter	3/16	in.
Hole Flowrate	1.61	gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**23.53**	**gpm**
Required Horsepower	0.14	hp
TDH	**15.03**	**ft**

Pump Selection

Manufacturer:	Zoeller
Model:	N98
Horsepower:	**0.5**



PUMP DESIGN

System (initial/repair): **Repair**

Project: Northlake Lots - Lot 2
Location: 149 High rock
Statesville, NC
County: Iredell

Friction Losses

Suction Head	0 ft		*(submersible 0)*
Elev. Difference (highest point from pump)	19.81 ft		
Design Pressure At Outlet	2 ft		

Supply Line - 2" Schedule 40 PVC

Pipe Diameter, Nominal	2 in.		
Pipe Diameter (ID)	2.047 in.	Flow	38.27 gpm
Pipe Length	107 ft	Velocity	3.73 ft/s
Pipe Length for Fittings	10.7 ft		Meets requirement that 2 ft/s < v < 5 ft/s.
Equivalent Length	117.7 ft		
Estimated Friction Loss in Supply Line	3.02 ft		

Pressure Filter Friction Loss	0.23 ft	*(from manufacturer)*
Friction Loss - Taps/Special Fittings	3.5 ft	
TOTAL	**28.56 ft.**	

Flow for Anti-Siphon Hole

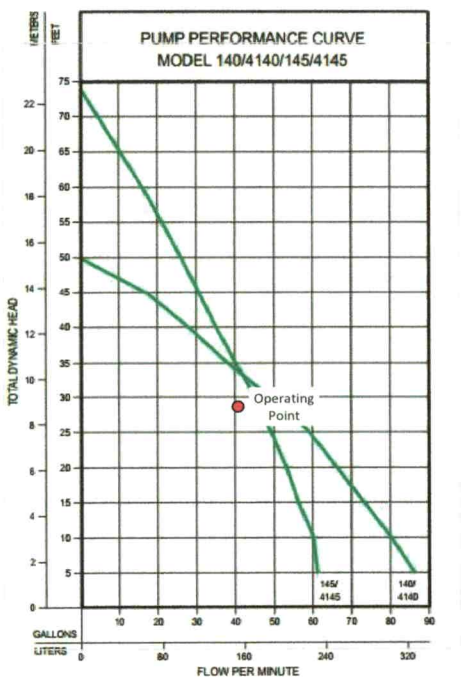
Hole Diameter	3/16	in.
Hole Flowrate	2.22	gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**40.49 gpm**	

Required Horsepower	0.46 hp
TDH	**28.56 ft.**

Pump Selection

Manufacturer:	Zoeller
Model:	N140
Horsepower:	1



501 N Salem St, Suite 203
Apex, NC 27502

AWT
Engineers and Soil Scientists

919.859.0669
agriwaste.com

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

OWNER: Adams Homes LLC APPLICATION DATE: _____
ADDRESS: 149 High Rock Court, Statesville, NC 28677 EVALUATION DATE: 01/04/2024
PROPERTY ID: 4762501389 COUNTY: Iredell
PROPOSED FACILITY: Single Family Residence PROPOSED DESIGN FLOW (.0400): 360 gpd PROPERTY SIZE: 1.05 acres
LOCATION OF SITE: 149 High Rock Court, Statesville, NC 28677 PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Public ☐ Single Family Well ☐ Shared Well ☐ Spring ☐ Other _____ WATER SUPPLY SETBACK: _____
EVALUATION METHOD: ☑ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☑ Domestic ☐ High Strength ☐ IPWW

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	OTHER PROFILE FACTORS .0505 SOIL DEPTH	OTHER PROFILE FACTORS .0506 SAPRO CLASS	OTHER PROFILE FACTORS .0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
1	19%	0-12"	SCL; GR	SS; SP; FR	-	51"	-	-	0.3 gpd/ft2	44"
		12-40"	C; SBK	SS; SP; FI						
		40-51"	CL; WSBK	SS; SP; FR						
2	19%	0-16"	SCL; GR	SS; SP; FR	-	42"	-	-	0.3 gpd/ft2	35"
		16-42"	C; SBK	SS; SP; FI						
		42+"	C; SBK	SS; SP; FI	Chroma 2 Observed					
3	24%	0-14"	SCL; GR	SS; SP; FR	-	41"	-	-	0.3 gpd/ft2	32"
		14-41"	C; SBK	SS; SP; FI						
		41+"	C; SBK	SS; SP; FI	Chroma 2 Observed					
4	19%	0-10"	SCL; GR	SS; SP; FR	-	50"	-	-	0.3 gpd/ft2	43"
		10-30"	C; SBK	SS; SP; FI						
		30-50"	CL; WSBK	SS; SP; FR						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	Suitable	Suitable
System Type(s)	Type IIIb, pump to 50% reduction drain field product	Type IIIb, pump to 50% reduction drain field product
Site LTAR	0.3 gpd/ft2	0.3 gpd/ft2
Maximum Trench Depth	20"	23"

SITE CLASSIFICATION (.0509): _____
EVALUATED BY: Trevor Hackney
OTHER(S) PRESENT: Nathan Estevez

Comments: _____

501 N Salem St, Suite 203
Apex, NC 27502

AWT
Engineers and Soil Scientists

919.859.0669
agriwaste.com

SOIL/SITE EVALUATION

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0503 SLOPE CORRECTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0506 SOIL DEPTH	.0507 SAPRO CLASS	.0508 RESTR HORIZ		
5	20%	0-8"	SCL; GR	SS; SP; FR		48"				
		8-40"	C; SBK	SS; SP; FI						
		40-48+"	CL; WSBK	SS; SP; FR					0.3 gpd/ft2	41"
6	30%	0-12"	SCL; GR	SS; SP; FR		48"				
		12-40"	C; SBK	SS; SP; FI						
		40-48"	CL; WSBK	SS; SP; FR					0.3 gpd/ft2	37"
7	35%	0-18"	SCL; GR	SS; SP; FR		60"				
		18-48"	C; SBK	SS; SP; FI						
		48-60"	CL; WSBK	SS; SP; FR					0.3 gpd/ft2	47"

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, Adams Homes AEC LLC, am the legal owner(s) of the property located at 149 High Rock Court, Statesville, NC 28677, identified as PIN (Parcel Identification Number) 47625071389, located in Iredell County, North Carolina.

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

Trevor Hackney, Agri-Waste 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.

DocuSigned by:
Keith Ferguson
19956A5185AF442...

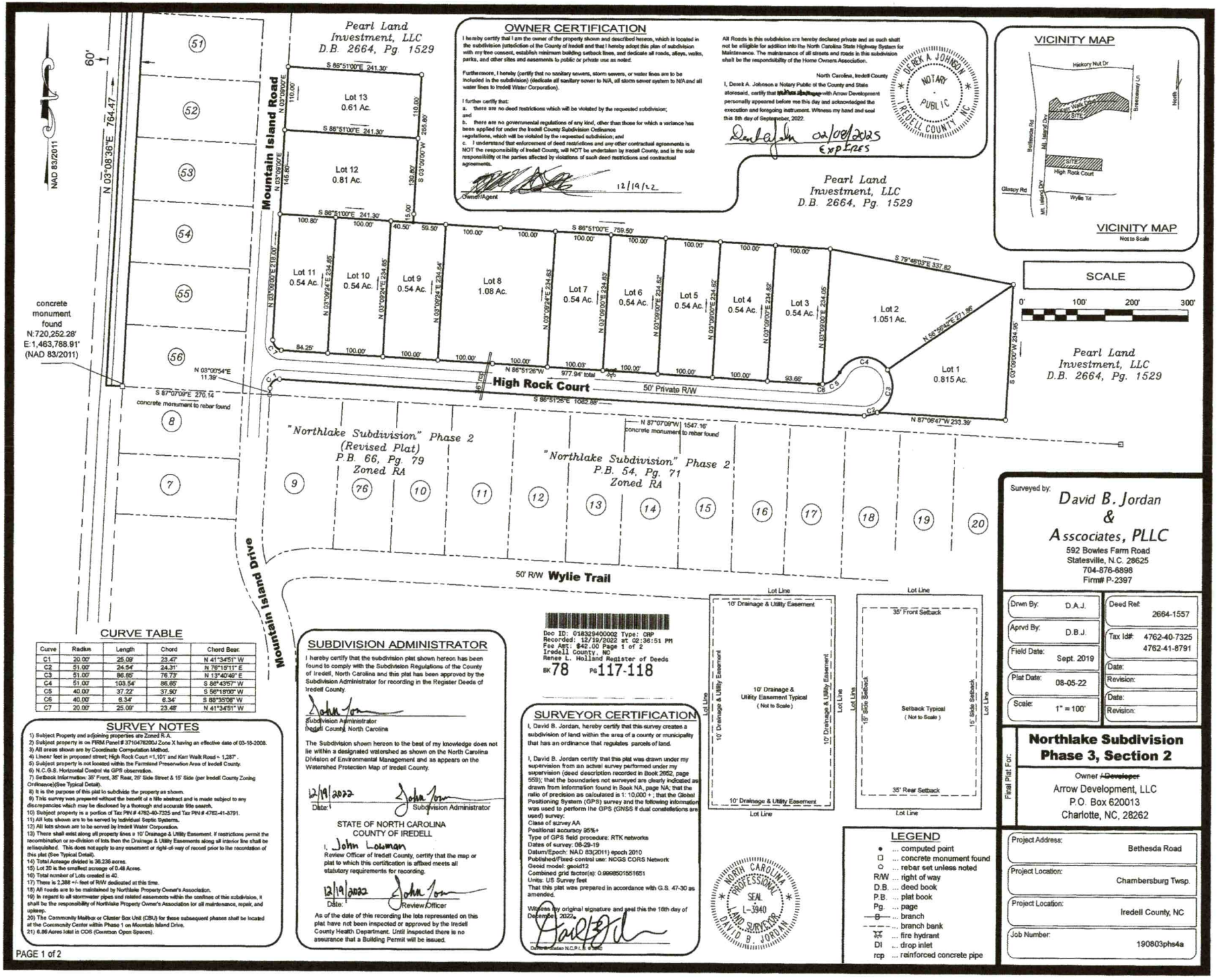
Signature of Owner(s)

01/13/2025
Date

Mooresville - Environmental Health
latasha.fleming@iredellcountync.gov

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

Statesville - Environmental Health
ronda.hart@iredellcountync.gov
debra.comeaux@iredellcountync.gov
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677



OWNER CERTIFICATION

I hereby certify that I am the owner of the property shown and described hereon, which is located in the subdivision jurisdiction of the County of Iredell and that I hereby adopt this plan of subdivision with my free consent, establish minimum building setback lines, and dedicate all roads, alleys, walks, parks, and other sites and easements to public or private use as noted.

Furthermore, I hereby (certify that no sanitary sewers, storm sewers, or water lines are to be included in the subdivision) (dedicate all sanitary sewer to N/A, all storm sewer system to N/A and all water lines to Iredell Water Corporation).

I further certify that:

a. there are no deed restrictions which will be violated by the requested subdivision; and

b. there are no governmental regulations of any kind, other than those for which a variance has been applied for under the Iredell County Subdivision Ordinance regulations, which will be violated by the requested subdivision; and

c. I understand that enforcement of deed restrictions and any other contractual agreements is NOT the responsibility of Iredell County, will NOT be undertaken by Iredell County, and is the sole responsibility of the parties affected by violations of such deed restrictions and contractual agreements.

Owner/Agent 12/19/22

All Roads in this subdivision are hereby declared private and as such shall not be eligible for addition into the North Carolina State Highway System for Maintenance. The maintenance of all streets and roads in this subdivision shall be the responsibility of the Home Owners Association.

North Carolina, Iredell County

I, Derek A. Johnson a Notary Public of the County and State aforesaid, certify that [illegible] with Arrow Development personally appeared before me this day and acknowledged the execution and foregoing instrument. Witness my hand and seal this 8th day of September, 2022.

DEREK A. JOHNSON NOTARY PUBLIC IREDELL COUNTY, NC

09/08/2025 Expires

VICINITY MAP

VICINITY MAP
Not to Scale

SCALE

0' 100' 200' 300'

CURVE TABLE

Curve	Radius	Length	Chord	Chord Bear.
C1	20.00'	25.09'	23.47'	N 41°34'51" W
C2	51.00'	24.54'	24.31'	N 76°15'11" E
C3	51.00'	86.85'	76.73'	N 13°40'49" E
C4	51.00'	103.54'	86.65'	S 86°43'57" W
C5	40.00'	37.22'	37.90'	S 56°18'00" W
C6	40.00'	6.34'	6.34'	S 88°35'06" W
C7	20.00'	25.09'	23.48'	N 41°34'51" W

SURVEY NOTES

1) Subject Property and adjoining properties are Zoned R-A.
2) Subject property is on FIRM Panel # 3710478200J Zone X having an effective date of 03-18-2008.
3) All areas shown are by Coordinate Computation Method.
4) Linear feet in proposed street; High Rock Court =1,101' and Karr Walk Road = 1,287'.
5) Subject property is not located within the Farmland Preservation Area of Iredell County.
6) N.C.G.S. Horizontal Control via GPS observation.
7) Setback Information: 35' Front, 35' Rear, 25' Side Street & 15' Side (per Iredell County Zoning Ordinance)(See Typical Detail).
8) It is the purpose of this plat to subdivide the property as shown.
9) This survey was prepared without the benefit of a title abstract and is made subject to any discrepancies which may be disclosed by a thorough and accurate title search.
10) Subject property is a portion of Tax PIN # 4762-40-7325 and Tax PIN # 4762-41-8791.
11) All lots shown are to be served by Individual Septic Systems.
12) All lots shown are to be served by Iredell Water Corporation.
13) There shall exist along all property lines a 10' Drainage & Utility Easement. If restrictions permit the recombination or re-division of lots then the Drainage & Utility Easements along all interior line shall be relinquished. This does not apply to any easement or right-of-way of record prior to the recombination of this plat (See Typical Detail).
14) Total Acreage divided is 36.236 acres.
15) Lot 20 is the smallest acreage of 0.48 Acres.
16) Total number of Lots created is 42.
17) There is 2,368 +/- feet of R/W dedicated at this time.
18) All roads are to be maintained by Northlake Property Owner's Association.
19) In regard to all stormwater pipes and related easements within the confines of this subdivision, it shall be the responsibility of Northlake Property Owner's Association for all maintenance, repair, and upkeep.
20) The Community Mailbox or Cluster Box Unit (CBU) for these subsequent phases shall be located at the Community Center within Phase 1 on Mountain Island Drive.
21) 6.86 Acres total in COS (Common Open Spaces).

SUBDIVISION ADMINISTRATOR

I hereby certify that the subdivision plat shown hereon has been found to comply with the Subdivision Regulations of the County of Iredell, North Carolina and this plat has been approved by the Subdivision Administrator for recording in the Register Deeds of Iredell County.

Subdivision Administrator
Iredell County, North Carolina

The Subdivision shown hereon to the best of my knowledge does not lie within a designated watershed as shown on the North Carolina Division of Environmental Management and as appears on the Watershed Protection Map of Iredell County.

12/19/2022 Date: Subdivision Administrator

STATE OF NORTH CAROLINA
COUNTY OF IREDELL

I, John Lowman Review Officer of Iredell County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

12/19/2022 Date: Review Officer

As of the date of this recording the lots represented on this plat have not been inspected or approved by the Iredell County Health Department. Until inspected there is no assurance that a Building Permit will be issued.

Doc ID: 018329400002 Type: CRP
Recorded: 12/19/2022 at 02:36:51 PM
Fee Amt: $42.00 Page 1 of 2
Iredell County, NC
Renee L. Holland Register of Deeds
BK 78 PG 117-118

SURVEYOR CERTIFICATION

I, David B. Jordan, hereby certify that this survey creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land.

I, David B. Jordan certify that this plat was drawn under my supervision from an actual survey performed under my supervision (deed description recorded in Book 2652, page 559); that the boundaries not surveyed are clearly indicated as drawn from information found in Book NA, page NA; that the ratio of precision as calculated is 1: 10,000 + ; that the Global Positioning System (GPS) survey and the following information was used to perform the GPS (GNSS if dual constellations are used) survey:

Class of survey AA
Positional accuracy 95%+
Type of GPS field procedure: RTK networks
Dates of survey: 08-29-19
Datum/Epoch: NAD 83(2011) epoch 2010
Published/Fixed-control use: NCGS CORS Network
Geoid model: geoid12
Combined grid factor(s): 0.9998501551651
Units: US Survey feet

That this plat was prepared in accordance with G.S. 47-30 as amended.

Witness my original signature and seal this the 16th day of December, 2022.

Date of Datum N.C.P.L.S. # Seal

NORTH CAROLINA PROFESSIONAL SEAL L-3940 LAND SURVEYOR DAVID B. JORDAN

LEGEND

- ● ... computed point
- □ ... concrete monument found
- ○ ... rebar set unless noted
- R/W ... right of way
- D.B. ... deed book
- P.B. ... plat book
- Pg. ... page
- —B— ... branch
- ---- ... branch bank
- ⋇ ... fire hydrant
- DI ... drop inlet
- rcp ... reinforced concrete pipe

Surveyed by:
David B. Jordan & Asscociates, PLLC
592 Bowles Farm Road
Statesville, N.C. 28625
704-876-6898
Firm# P-2397

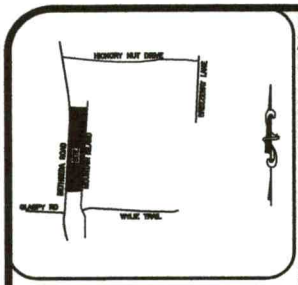
Drwn By: D.A.J.	Deed Ref: 2664-1557
Aprvd By: D.B.J.	Tax Id#: 4762-40-7325, 4762-41-8791
Field Date: Sept. 2019	Date:
Plat Date: 08-05-22	Revision:
Scale: 1" = 100'	Date:
	Revision:

Final Plat For:

Northlake Subdivision Phase 3, Section 2

Owner ~~/ Developer~~
Arrow Development, LLC
P.O. Box 620013
Charlotte, NC, 28262

Project Address:	Bethesda Road
Project Location:	Chambersburg Twsp.
Project Location:	Iredell County, NC
Job Number:	190803phs4a



VICINITY MAP (NTS)

LEGEND
AC=AIR CONDITIONING UNIT
AG=ABOVE GROUND
BOC=BACK OF CURB
BG=BELOW GROUND
CATV=CABLE TV
CB=CATCH BASIN
CVRD=COVERED
DW=CONC DRIVEWAY
EB=ELECTRIC BOX
EM=ELECTRIC METER
EOP=EDGE OF PAVEMENT
EP=ELECTRIC PEDESTAL
FH=FIRE HYDRANT
ICV=IRRIGATION CONTROL VALVE
LP=LIGHT POLE
MTR=METER
N/F=NOW OR FORMERLY
PO=PORCH
PP=POWER POLE
RCP=REINFORCED CONC PIPE
R/W=RIGHT OF WAY
SCO=CLEANOUT
SW=SIDEWALK
TP=TELEPHONE PEDESTAL
TF=TRANSFORMER
WM=WATER METER
WV=WATER VALVE
○ EIP=EXISTING IRON PIPE
◉ IRON PIPE SET
○ EIR=EXISTING IRON ROD

NORTH CAROLINA PROFESSIONAL SEAL L-4817 LAND SURVEYOR NICHOLAS M. FRENCH

THIS EXHIBIT MAP IS OF AN EXISTING PARCEL OR PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

NICHOLAS M. FRENCH, PLS L-4817 DATE

THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION. NO TITLE REPORT PROVIDED.

THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.

GENERAL NOTES:

1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

2. AREAS SHOWN HEREON WERE COMPUTED USING THE COORDINATE METHOD.

3. LINES NOT SURVEYED ARE SHOWN AS DASHED LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS SURVEY.

4. PROPERTY MAY BE SUBJECT TO ANY/ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS SURVEY IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND OR DEEDED AND HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH AND LOCATION OF EASEMENTS, AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION.

5. DRIVEWAY IMPERVIOUS CALCULATION SHOWN HEREON CALCULATED TO THE FRONT PROPERTY LINE/RIGHT-OF-WAY.

6. THIS PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AS INDICATED ON CID NO. 370313 PANEL 4762, SUFFIX J IREDELL COUNTY WITH AN EFFECTIVE DATE OF 03/18/2008.

SETBACKS PER
PB 77 PG 126-127

FRONT	35'
SIDE	15'
REAR	35'

IMPERVIOUS AREA

HOUSE	1,661 SQ.FT.
DRIVE TO R/W	734 SQ.FT.
WALK	32 SQ.FT.
TOTAL	2,427 SQ.FT.

PLAT BOOK 78, PG 117

N/F
PEARL LAND
INVESTMENT, LLC
D.B. 2664 PG. 1529

S 79°48'03" E 337.82'

N 03°09'00" E 234.05'

96.4'

98.6'

37.0'

PROPOSED SEPTIC

2

42,829 ± S.F.
0.98± AC.

10' DRAINAGE & UTILITY EASEMENT

S 56°56'42" W 271.86'

1

3

C1

C2

HIGH ROCK COURT
50' PUBLIC R/W

10' DRAINAGE & UTILITY EASEMENT

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	151.00'	103.54'	86.65'	N 86°43'57" E
C2	40.00'	39.48'	37.90'	N 56°18'00" E

REVISION: ADDED SEPTIC AND MOVED HOUSE PER REQUEST 04-05-2024 SEER

GRAPHIC SCALE
50 0 25
1 inch = 50 ft.

PRELIMINARY PLOT PLAN

PROJECT:	NORTHLAKE PHASE 3
DRAWN BY:	AMW
SURVEYED BY:	N/A
SCALE:	1"=50'
FIELD WORK:	N/A
DWG DATE:	02-27-2024

FOR
ADAMS HOMES
149 HIGH ROCK COURT
LOT 2 NORTHLAKE SUBDIVISION PHASE 3
CHAMBERSBURG TWP., IREDELL CO., NC
P.B. 78, PG. 117

ECLS GLOBAL, INC
U.S. VETERAN-OWNED
19 N McKINLEY ST
COATS, NC 27521
910.897.3257 ECLSGLOBALINC.COM
910.897.2329 (FAX) CO#C-4175

Residence for

Adams Homes AEC, LLC
Builder Plan 2307 "B" FE (R) NR002

GENERAL NOTES

1. ALL WORK IS TO BE DONE IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE, 2018 EDITION (HEREWITH SHOWN AS N.C.S.R.B.C.).
2. DIMENSIONS SHOWN ON DRAWINGS GOVERN OVER SCALE.
3. STUD WALL DESIGN SHALL CONFORM TO ALL N.C.S.R.B.C. REQUIREMENTS.
4. CONTRACTOR SHALL USE TEMPERED SAFETY GLASS IN ALL LOCATIONS AS REQUIRED BY N.C.S.R.B.C., 2018 EDITION, SECTION R308.4
5. ANY HABITABLE ROOM SHALL MEET ALL LIGHT/VENTILATION AND EGRESS AS REQUIRED BY N.C.S.R.B.C., 2018 EDITION, SECTIONS R-303.1 AND R-310.1
6. ALL WALLS SHOWN ON FLOOR PLANS ARE 2x4 FRAME UNLESS NOTED OTHERWISE.
7. ALL ANGLED WALLS SHOWN ON FLOOR PLANS ARE 45° UNLESS NOTED OTHERWISE.
8. ALL WINDOWS SHALL HAVE A MINIMUM DPI RATING OF 25. BUILDER SHALL VERIFY WITH WINDOW MANUFACTURER THAT UNITS INSTALLED MEET THESE REQUIREMENTS AS PER N.C.S.R.B.C., 2018 EDITION, TABLE 301.2(6).
9. ENERGY EFFICIENCY REQUIREMENTS FOR THE SPECIFIC CLIMATE ZONE WHERE STRUCTURE IS BEING BUILT SHALL BE IN ACCORDANCE WITH CHAPTER 11 OF THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION, AS SHOWN IN TABLES N1101.2 AND N1102.1.
10. TERMITE TREATMENT - BORATE APPLIED TO ALL FRAME MEMBERS WITHIN 24" AFF.

MATERIALS LEGEND

EARTH/COMPACT FILL	FINISH WOOD
CONCRETE	ROUGH WOOD
BRICK	BLOCKING
CONCRETE BLOCK/STONE	PLYWOOD
STEEL	BATT INSULATION
ALUMINUM	RIGID INSULATION

TOILET ACCESSORIES LEGEND

PROVIDE 2x4 BLOCKING IN THE WALL FOR THE FOLLOWING:

TB	TOWEL BAR
TP	TOILET PAPER HOLDER
TR	TOWEL RING
MC	MEDICINE CABINET
MR	MAGAZINE RACK

THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. ANY ERRORS AND/OR OMISSIONS FOUND IN THIS SET SHOULD IMMEDIATELY BE REPORTED TO ADAMS HOMES FOR CLARIFICATION OR CORRECTION. THE CONTRACTOR SHOULD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.

INDEX TO DRAWINGS:

	COVER SHEET
1	FRONT AND LEFT SIDE ELEVATIONS
2	REAR AND RIGHT SIDE ELEVATIONS
3	BASEMENT FLOOR PLAN
4	FIRST FLOOR PLAN
5	SECOND FLOOR PLAN
6	BASEMENT ELECTRICAL PLAN
7	FIRST FLOOR ELECTRICAL PLAN
8	SECOND FLOOR ELECTRICAL PLAN
OPTI	FLOOR PLAN OPTIONS
D1	CONSTRUCTION DETAILS
S1.0	BASEMENT FOUNDATION PLAN
S1.1	BASEMENT CEILING FRAMING PLAN
S2	FIRST FLOOR CEILING FRAMING PLAN
S3	SECOND FLOOR CEILING FRAMING PLAN
S4	ROOF FRAMING PLAN
SD1	STRUCTURAL DETAILS
SD2	STRUCTURAL DETAILS
SPEC	STRUCTURAL SPECIFICATIONS
S8	PLAN OPTIONS

RESIDENTIAL BUILDING CODE SUMMARY

1. PLANS ARE DESIGNED TO THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
2. HOUSE IS DESIGNED FOR 115 MPH, 3 SECOND GUST (84 MPH FASTEST WIND), EXPOSURE B.
3. ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER WITH STANDARD WASHER AND NUT AND SHALL EXTEND 7" MIN. INTO MASONRY OR CONCRETE. BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" OF CORNERS. ALTERNATE ANCHOR STRAPS CAN BE USED INSTEAD OF ANCHOR BOLTS SPACED AT THE EQUIVALENT SPACING AND INSTALLED PER MANUFACTURER'S SPECIFICATION'S EXCEPT AT GARAGE LIG PTS.
4. MEAN ROOF HEIGHT: 24'-11"
5. COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS:

MEAN ROOF HGT:	UP TO 30'	30'-1" TO 35'	35'-1" TO 40'	40'-1" TO 45'
ZONE 1	16.5, -18.0	17.3, -18.9	18.0, -19.6	18.5, -20.2
ZONE 2	16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 3	16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 4	18.0, -19.5	18.9, -20.5	19.6, -21.3	20.2, -21.8
ZONE 5	18.0, -24.1	18.9, -25.3	19.6, -26.3	20.2, -27.0

6. MINIMUM VALUES FOR ENERGY COMPLIANCE: ZONE 4
7. MAXIMUM GLAZING U-FACTOR: 0.35
8. INSULATING VALUES: CEILING: R-30* / WALLS: R-15 / FLOOR: R-19 / SLABS: R-10. CODE REFERENCE: TABLE N1102.1 (*R-30 ONLY IF UNCOMPRESSED, R-38 REQUIRED IF COMPRESSED)
9. FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R703.8 OF THE N.C.R.B.C.
10. FIREBLOCKING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R602.8 OF THE N.C.R.B.C.
11. DRAFTSTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R302.12 OF THE N.C.R.B.C.

AREA CALCULATIONS

BASEMENT:	905	GARAGE:	456
1ST FLOOR:	967	FRONT PORCH:	98
2ND FLOOR:	1340	COV. PATIO:	140
TOTAL:	3212	DECK:	140
		TOTAL:	834

WIDTH: 34'-0"
DEPTH: 34'-0"

FOUNDATION VENTING CALCULATIONS

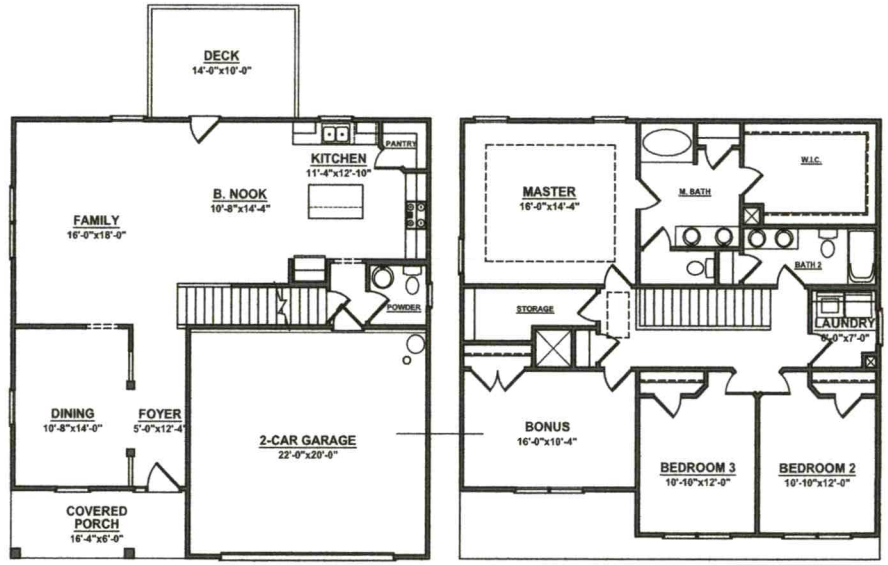
NOT NEEDED WITH SLAB FOUNDATION

ATTIC VENTILATION REQUIREMENTS

NATURAL ROOF VENTILATION	MECHANICAL ROOF VENTILATOR
1521 SQ. FT. / 150 = 10.14 SQ. FT. VENT REQ'D	1521 SQ. FT. / 300 = 5.07 SQ. FT. VENT REQ'D

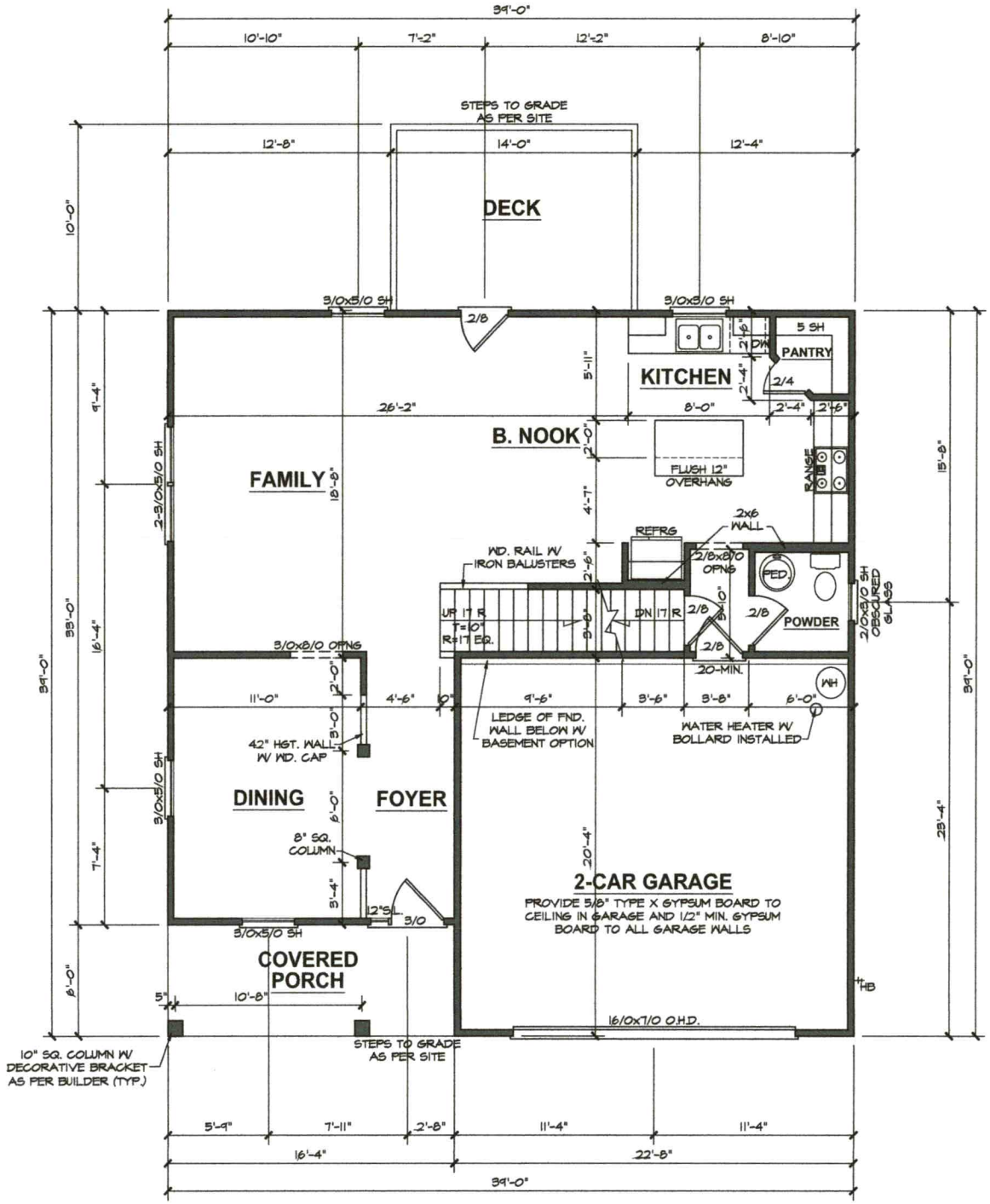
BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE





6547

ADAMS HOMES AEC, LLC



NOTE: STONE VENEER NOT DIMENSIONED ON PLANS, SEE ELEVATIONS FOR LOCATIONS

FIRST FLOOR PLAN

9'-0" (NOM.) CLG. HGT. U.N.O. SCALE: 1/4"=1'-0"

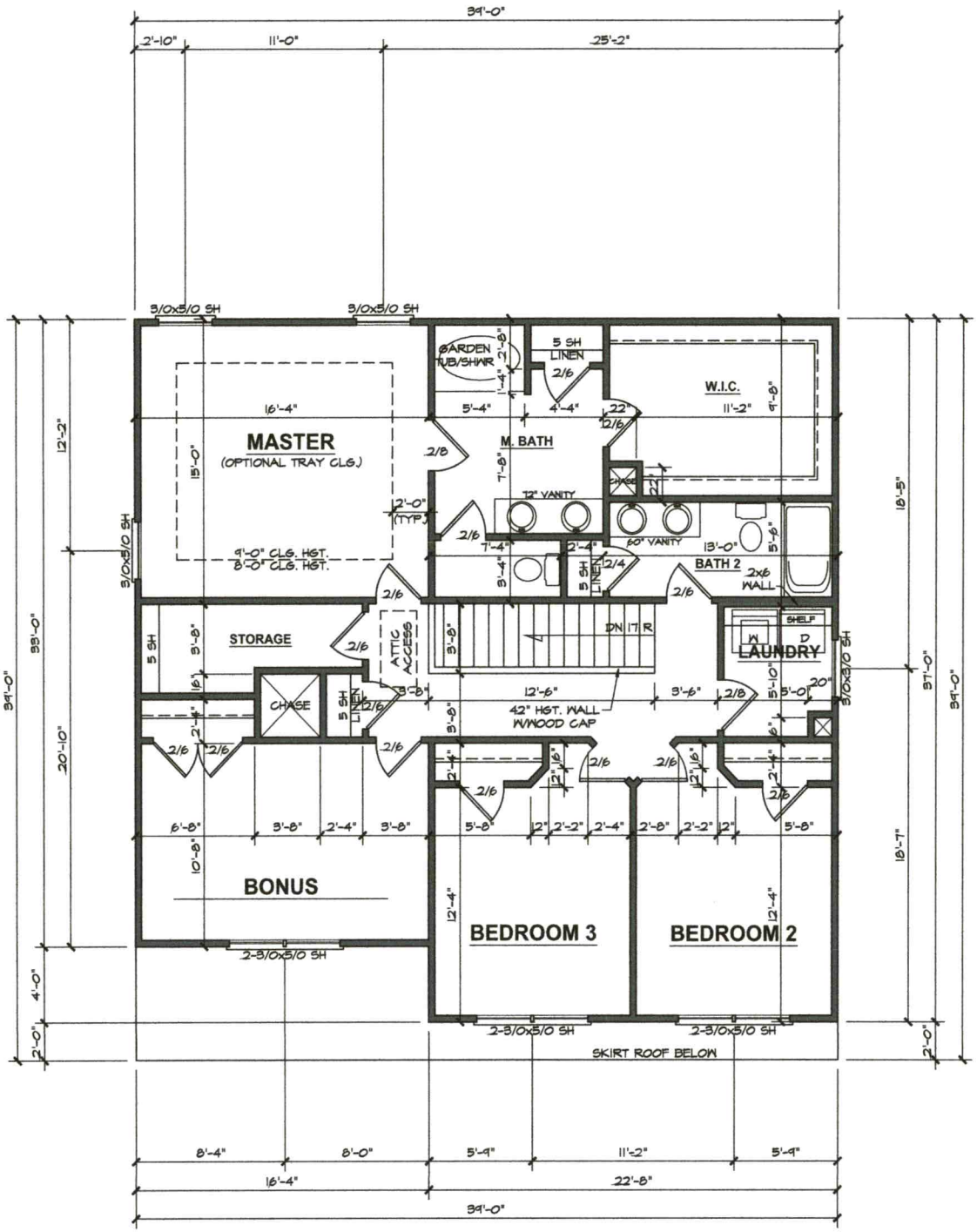
SET WINDOWS @ 7'-0" U.N.O.

ADAMS HOMES AEC, LLC

2307 "B" FE R NR002

DATE DRAWN
2/29/2024
PROJECT
6547
REVISIONS

SHEET
4



SECOND FLOOR PLAN

8'-0" (NOM.) CLG. HGT. U.N.O. SCALE: 1/4"=1'-0"
SET WINDOWS @ 7'-2" U.N.O.

ADAMS HOMES AEC, LLC

2307 "B" FE R NR002

DATE DRAWN	2/29/2024
PROJECT	6547
REVISIONS	

SHEET 5