BLDR-2024-52824

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 2023-35630

PIN # 4725 -- 54 -- 2784

APPLICANT/OWNER: AWT

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

SITE ADDRESS: 366 Monticello Rd, Statesville, NC 28625

PHONE: 336-668-2577

ALT. PHONE:

SITE DIRECTIONS: I40 -> Hwy 64 N -> R Hwy 90 -> R Monticello -> lot on L

SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: n/a SECTION: n/a LOT # n/a LOT AREA: 2 DESIGN FLOW: 480 gpd

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

Septic Tank 1250 (gal) STB 760 Date

Pump Tank (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 4 Linear Ft: 400

Trench Width 36 *Max. Trench Depth(Initial) 24 *Max. Trench Depth(Repair) 24 Gravel Depth N/A

* Measured on the downhill side of the trench

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

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

System Description: 25% Reduction

Repair System Description: 25% Reduction

Maintenance Agreement Required: ☐ YES ☑ NO

☑ GRAVITY ☐ PRESSURE

Usable Depth to LC (Initial): 36

☑ Residence No. Bedrooms 4

☐ Business No. Persons 8

☐ Other No. Employees

☑ Slab ☐ Crawl Space

☐ Basement w/plumbing ☐ Basement w/o plumbing

Usable Depth to LC (Repair): 36 *Limiting Condition*

Water Supply

☐ Private

☑ Public

☐ Community

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

Contact AWT with any questions or concerns.

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.

Installed as drawn

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:

IMPROVEMENT PERMIT by: D. Wieberg ✓ Date: 4/24/24

AUTHORIZATION TO CONSTRUCT by: D. Wieberg ✓ Date: 4/24/24

Installed by: Dewey Septic

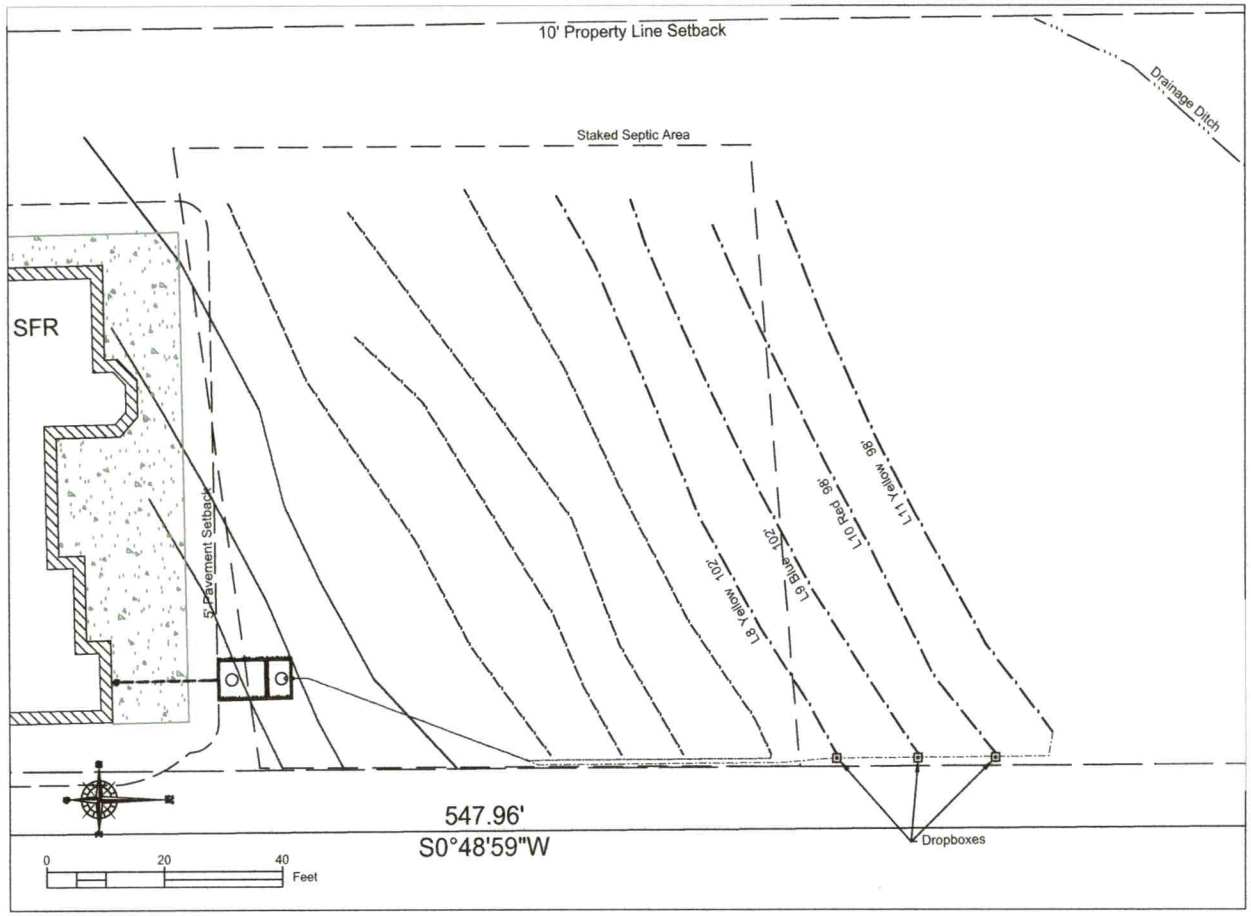
OPERATION PERMIT by: Matt Wilkie ✓ Date: 9/20/24

Existing System Inspected by: Date:

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.

Line	Use	Flag Color	Elevation (ft)	Line Length (ft)	Used as Primary (ft)	Used as Repair (ft)
8	Layout Line	Yellow	990.7	121	102	
9	Layout Line	Blue	989.5	120	102	
10	Layout Line	Red	988.1	119	98	
11	Layout Line	Yellow	986.9	112	98	



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, North Carolina 27502
919-859-0669
www.agriwaste.com

Tunnels to Towers
c/o Ryan Debaise
Tunnels to Towers- Monticello R

Project Location:
366 Monticello Rd
Statesville, NC 28625
Iredell County
PIN: 4725542784

Project Owner:
Tunnels to Towers
c/o Ryan Debaise
2361 Hylan Blvd
Staten Island, NY 10306
347-809-5724
ryan.debiase@t2t.org

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Primary Drainfield

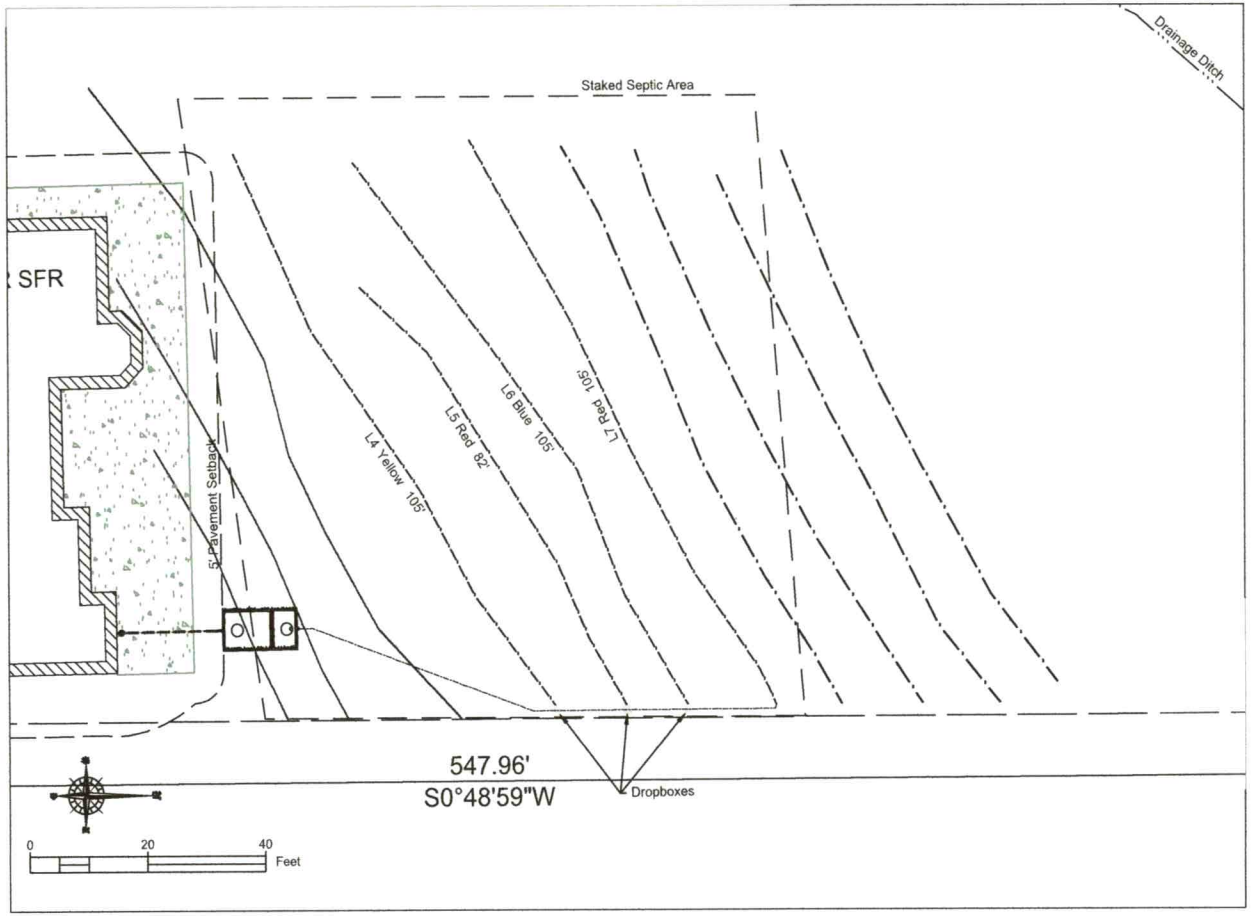
DRAWN BY:	CREATED ON:
S. Landers	8/16/2023
REVISED BY:	REVISED ON:
R Huffman	8/22/2023
RELEASED BY:	RELEASED ON:

DRAWING NUMBER
WW-4

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.

Line	Use	Flag Color	Elevation (ft)	Line Length (ft)	Used as Primary (ft)	Used as Repair (ft)
4	Layout Line	Yellow	995.1	120		106
5	Layout Line	Red	994.3	85		82
6	Layout Line	Blue	993.3	126		106
7	Layout Line	Red	992.0	122		106



Primary Drainfield

SOURCE: Agri-Waste Technology, Inc.

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

Tunnels to Towers
c/o Ryan Debaise
Tunnels to Towers- Monticello R

Project Location:
366 Monticello Rd
Statesville, NC 28625
Iredell County
PIN: 4725542784

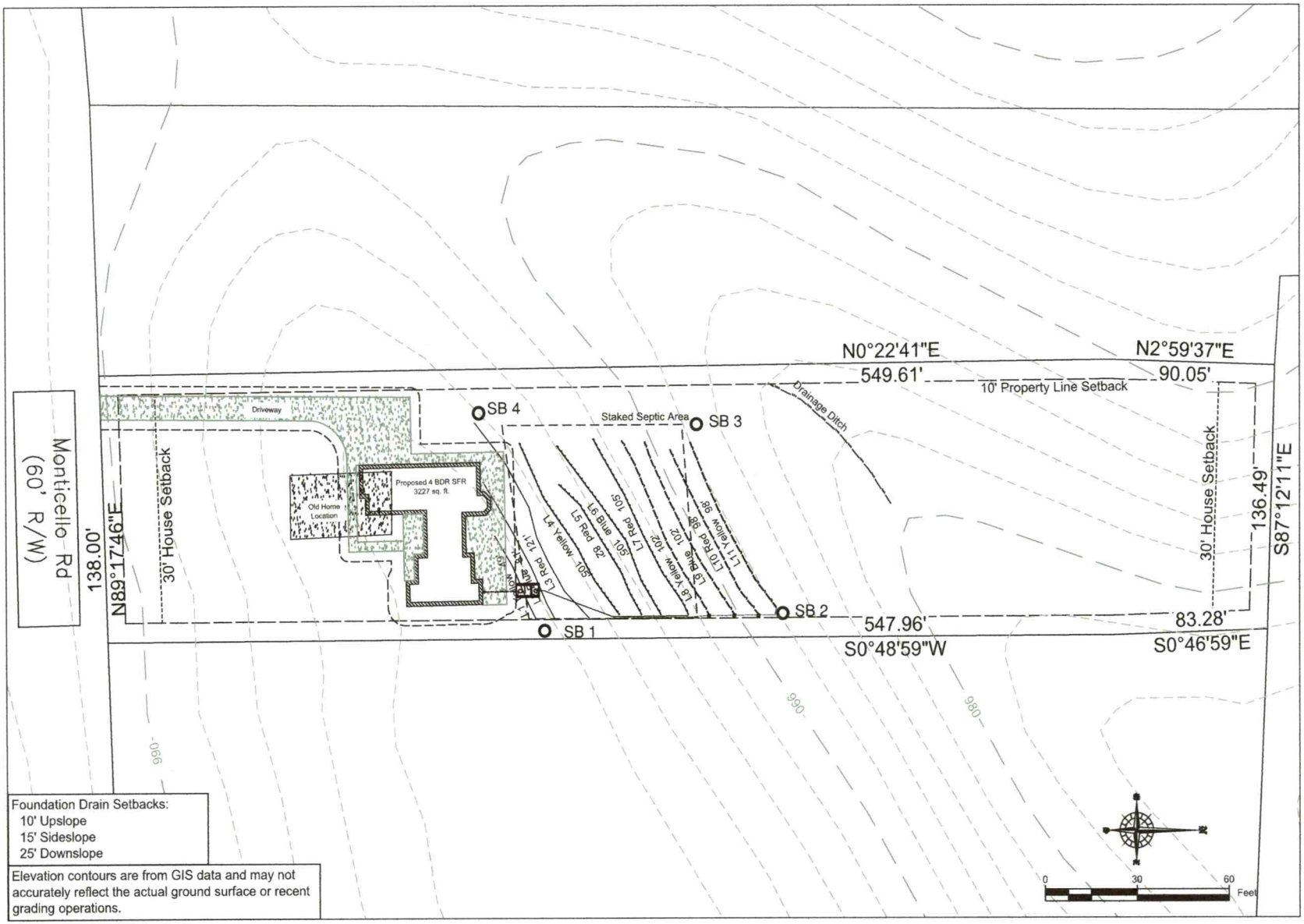
Project Owner:
Tunnels to Towers
c/o Ryan Debaise
2361 Hylan Blvd
Staten Island, NY 10306
347-809-5724
ryan.debaise@t2t.org

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Repair Drainfield

DRAWN BY:	CREATED ON:
S. Landers	8/16/2023
REVISED BY:	REVISED ON:
R Huffman	8/22/2023
RELEASED BY:	RELEASED ON:

DRAWING NUMBER
WW-5



Foundation Drain Setbacks:
- 10' Upslope
- 15' Sideslope
- 25' Downslope

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

PROPERTY LAYOUT

WW-2 N.T.S. SOURCE: AWT, Inc.

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

Tunnels to Towers
c/o Ryan Debaise
Tunnels to Towers- Monticello R

Project Location:
366 Monticello Rd
Statesville, NC 28625
Iredell County
PIN: 4725542784

Project Owner:
Tunnels to Towers
c/o Ryan Debaise
2361 Hylan Blvd
Staten Island, NY 10306
347-809-5724
ryan.debaise@t2t.org

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE

Property Layout

DRAWN BY:	CREATED ON:
S. Landers	8/16/2023
REVISED BY:	REVISED ON:
R Huffman	8/22/2023
RELEASED BY:	RELEASED ON:

DRAWING NUMBER

WW-2

Permit #: OSWP-2023-35630

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • 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: 4725-54-2784
Issued To: Tunnels to Towers Foundation C/O John Koch
Property Location: 366 Monticello Road, Statesville, NC. 28625
Subdivision (if applicable) N/A Lot #: N/A Block: N/A Section: N/A
LSS Report Provided: Yes ☑ No ☐
If yes, name and license number of LSS: Jeff Vaughan, License number: 1227 Certification number:10003E
New ☑ Expansion ☐ System Relocation ☐ Change of Use ☐
Proposed Structure: Single Family Residence
Number of bedrooms: 4 Number of Occupants: 8 Other: _____
Design Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process
Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.3
Proposed Wastewater System Type*: Gravity 25% Reduction (Initial) Pump Required: ☐ Yes ☑ No ☐ May be required
Proposed Wastewater System Type*: Gravity 25% Reduction (Repair) Pump Required: ☐ Yes ☑ No ☐ May be required
**Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)*
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 Soil Depth (Initial): 36" Usable Soil Depth (Repair): 36"
Max. Trench Depth (Initial)‡: 24" Max. Trench Depth (Repair)‡: 24" ‡ ***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 .1945: Yes ☑ No ☐ Drainfield location meets requirements of Rule .1950: 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: 8/242023

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

See attached site sketch

NCDHHS

Permit #: OSWP-2023-35630

This Section for Local Health Department Use Only

Initial submittal received: 4/20/24 (*Date*) by DC (*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: _____

[X] Complete

State Authorized Agent: D. Wieberg Date: 04/24/2024

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 by the Health Department 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 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 evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: 4/24/29

See attached site sketch

NCDHHS

Permit #: OSWP-2023-35630

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

County: Iredell

PIN/Lot Identifier: 4725-54-2784

Issued To: Tunnels to Towers C/O John Koch

Property Location: 366 Monticello Road, Statesville, NC. 28625

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

Facility Type: Single Family Residence

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

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☑ No

Type of Wastewater System* Gravity 25% Reduction (Initial) Gravity 25% Reduction (Repair)

**Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)*

Design Daily Flow: 480 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

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

Installation Requirements/Conditions

Septic Tank Size: 1250 gallons Total Trench/Bed Length: 400 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft²

Soil Cover: 6+ inches Slope Corrected Maximum Trench/Bed Depth‡: 24" inches ‡ ***Measured on the downhill side of the trench***

Aggregate Depth: _____inches above pipe _____inches below pipe 12 inches total

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

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

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

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

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

Multi-party Agreement Required [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

Pre-Construction Conference Required: Yes ☐ No ☑

Conditions: _____

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Jeff Vaughan Expiration Date: 8/242028

AOWE/PE Signature: _____ Date: 8/242023

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

See attached site sketch

NCDHHS

Permit #: OSWP-2023-35630

This Section for Local Health Department Use Only

Initial submittal received: 4/20/24 (*Date*) by DC (*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: _____

---

x] Complete

State Authorized Agent: D. Wieberg Date of Issuance: 04/24/2024

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: 4/24/29

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • 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

Please check one of the following:
☑ New Construction ☐ Expansion ☐ System Relocation ☐ Change of Use ☐ Repair
☑ 5 Year Expiration Requested (site plan provided)
☐ Non-Expiring Permit Requested (plat provided, as defined in G.S. 130A-334(7a)

Property Owner Name: Tunnels to Towers C/O John Koch
Property Owner Mailing Address: 2361 Hylan Blvd, Staten Island, NY, 10306
Property Owner Phone Number: 347-809-5724
Property Owner Email Address: John.Koch@t2t.org

Applicant Name: Jeff Vaughan
Applicant Mailing Address: 501 N Salem St, Suite 203, Apex, NC, 27502
Applicant Phone Number: 919-859-0669
Applicant Email Address: jvaughan@agriwaste.com

Does the property include, or is subject to, any of the following:
☐ Yes ☑ No Previously identified jurisdictional wetlands
☐ Yes ☑ No Existing or proposed easements, rights-of-way, encroachments, or other areas subject to legal restrictions
☐ Yes ☑ No Approval by other public agencies

A site plan or plat is required, **OR** the site sketch submitted from the LSS/AOWE, must include the following:
(A) existing and proposed facilities, structures, appurtenances, and wastewater systems
(B) proposed wastewater system showing setbacks to property line(s) or other fixed reference point(s)
(C) existing and proposed vehicular traffic areas
(D) existing and proposed water supplies, wells, springs, and water lines; and
(E) surface water, drainage features, and all existing and proposed artificial drainage, as applicable.

Requesting DHHS review: ☑ Yes ☐ No

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: Jeff V Date: 8/24/2023

Owner's Signature: VP of Const. Date: 8/24/2023

AGRITEC-01 GKROHL

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 3/14/2023

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	
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							
	CLAIMS-MADE X OCCUR			S 2253659	1/18/2023	1/18/2024	EACH OCCURRENCE	$ 2,000,000
							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	1/18/2023	1/18/2024	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	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$ 2,000,000
	EXCESS LIAB CLAIMS-MADE			S 2253659	1/18/2023	1/18/2024	AGGREGATE	$ 2,000,000
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N N (Mandatory in NH)	N / A		100003072	1/18/2023	1/18/2024	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			MKLV3ENV103400	8/22/2022	8/22/2023	Each Claim	5,000,000
A	Leased / Rented			S 2253659	1/18/2023	1/18/2024	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

Gina Krohl

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Engineers and Soil Scientists

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



Soil Suitability for Domestic Sewage Treatment and Disposal Systems
366 Monticello Road, Statesville, NC. 28625
Iredell County Parcel ID: 4725-54-2784

PREPARED FOR: Tunnels to Towers, C/O John Koch

PREPARED BY: Jeff Vaughan, Licensed Soil Scientist
Trevor Hackney, Environmental Scientist

DATE: August 22, 2023

Soil suitability for domestic sewage treatment and disposal systems was evaluated on July 25. 2023, for the property located at 366 Monticello Road, Statesville, NC 28625. Trevor Hackney and Nathan Estevez of Agri-Waste Technology, Inc. (AWT) conducted the soil evaluation. This evaluation was done to facilitate permitting for a four-bedroom home. This report and attached documents were prepared *to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3). The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).*

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

The total property area is approximately 2 acres. An old home has been demolished and removed from the property. The approximate location of the old home can be seen in the drawings in Attachment 1. AWT probed extensively and could not locate any septic system that served the original home. Iredell County does not have any records on file that indicate any permit for the original home. The property is mostly an open field. The new home is proposed near the middle of the property. The proposed system is behind the home and will be a gravity 25% reduction primary and repair system. This property is served by a public water source.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems
The drawing in Attachment 1 details the property boundaries (as surveyed by Don Allen and Associates), 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 18A .1900 Rules for Sewage Treatment and Disposal Systems. These borings were advanced with a hand auger.

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 36" AWT is recommending the use of innovative style trench to utilize the 25% reduction for the primary and repair system. The maximum trench bottom should not exceed 24". With an LTAR of 0.3 GPD/ft^2, 800 linear feet of innovative trench are necessary to support a four-bedroom home primary and repair system. The attached drawing proves that 400 linear feet of trench can be installed for the primary and repair system with the proposed home location.

Any disturbances or grading done in the usable area will change the potential of using the area designated for a drain field. Prior to moving forward with building on the property, Iredell County Environmental Health Department should be contacted to complete the necessary review of this documentation to issue an IP (Improvement Permit) for the property and the CA (Construction Authorization).

Conclusions

An IP (Improvement Permit) and CA (Construction Authorization) for this property can be issued with the site plan that is in Attachment 1. A CA permit will be required in order to secure a building permit for the property. The county issues an Operation Permit after the system has been installed to meet the specifications of the Authorization to Construct. Additional septic layouts have been or will be performed as needed. It will be critical to not disturb any of the proposed septic area or there is a risk that the IP and CA will be revoked. The LSS/AOWE Evaluation and attached documents were prepared *to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3). The LSS/AOWE evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)*

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

Sincerely,

Jeff Vaughan

Trevor Hackney

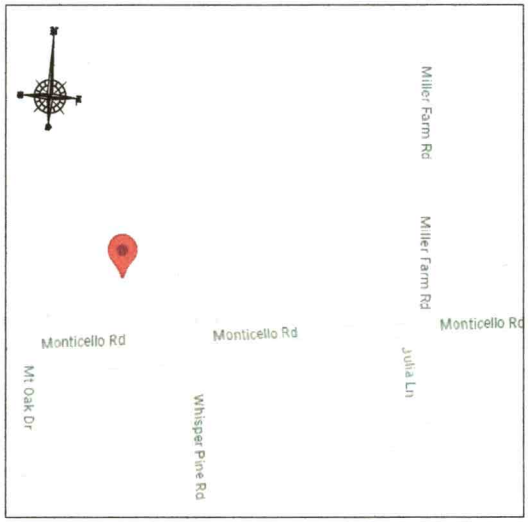
TUNNELS TO TOWERS- MONTICELLO RD

Project Location
366 Monticello Rd
Statesville, NC 28625
Iredell County
PIN: 4725542784

Project Owner
Tunnels to Towers c/o John Koch
2361 Hylan Blvd
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Project Consultant
Jeff Vaughan, L.S.S
(919) 367-6313
Trevor Hackney
(704) 268-9160
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
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(919) 859-0669
(919) 233-1970 Fax

System Overview
Single Family Residence
Four (4) Bedroom, 480 gpd
Chamber Dispersal System
w/ Gravity (Dropbox) Distribution



VICINITY MAP

Sheet Index

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

North Carolina 811 www.nc811.org

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Tunnels to Towers- Monticello Rd
Project Location:
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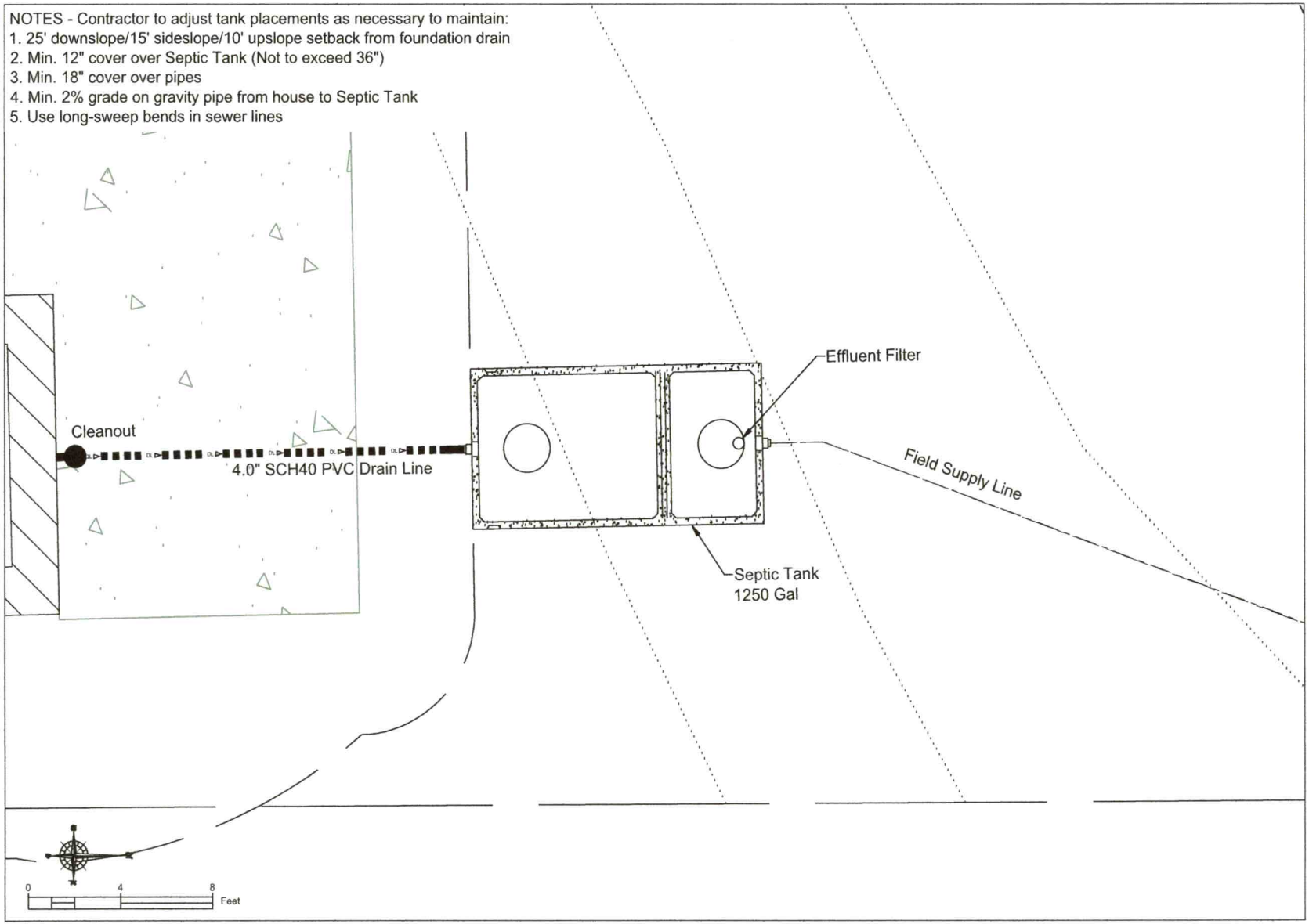
REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Cover Sheet

DRAWN BY: S. Landers	CREATED ON: 8/16/2023
REVISED BY: R Huffman	REVISED ON: 8/22/2023
RELEASED BY: ####	RELEASED ON: ####

DRAWING NUMBER
WW-1

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
5. Use long-sweep bends in sewer lines



1 WW-3 Component Layout

SOURCE: Agri-Waste Technology, Inc.

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c/o Ryan Debaise
Tunnels to Towers- Monticello R

Project Location:
366 Monticello Rd
Statesville, NC 28625
Iredell County
PIN 4725542784

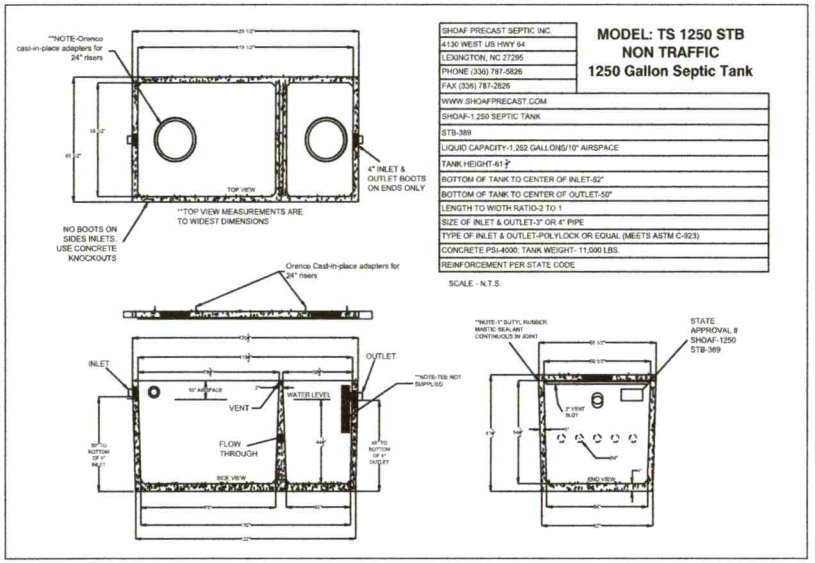
Project Owner
Tunnels to Towers
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ryan.debaise@t2t.org

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Component Layou

DRAWN BY:	CREATED ON:
S. Landers	8/16/2023
REVISED BY:	REVISED ON:
R Huffman	8/22/2023
RELEASED BY:	RELEASED ON:

DRAWING NUMBER
WW-3



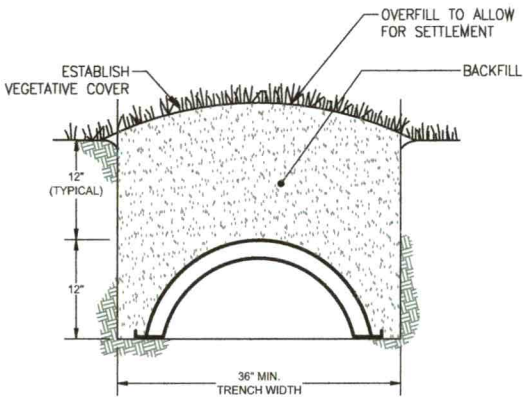
SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5826
FAX (336) 787-2826
WWW.SHOAFPRECAST.COM
SHOAF-1,250 SEPTIC TANK
STB-389
LIQUID CAPACITY-1,262 GALLONS/10" AIRSPACE
TANK HEIGHT-61 ½"
BOTTOM OF TANK TO CENTER OF INLET-52"
BOTTOM OF TANK TO CENTER OF OUTLET-50"
LENGTH TO WIDTH RATIO-2 TO 1
SIZE OF INLET & OUTLET-3" OR 4" PIPE
TYPE OF INLET & OUTLET-POLYLOCK OR EQUAL (MEETS ASTM C-923)
CONCRETE PSI-4000; TANK WEIGHT- 11,000 LBS.
REINFORCEMENT PER STATE CODE

MODEL: TS 1250 STB
NON TRAFFIC
1250 Gallon Septic Tank

SCALE - N.T.S.

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

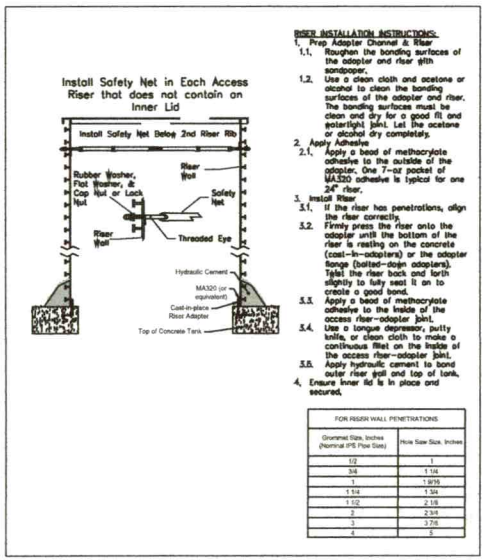
SOURCE: Shoaf Precast Septic, Inc.



NOTES:
1. Mound backfill above the Natural Ground Surface to allow for settlement.
2. Perforated corrugated plastic pipe shall meet requirements of ASTM D 2729.
3. Pipe shall be level, 0.00% slope.
4. End cap shall be provided at end of all corrugated plastic lines.
5. Trench bottom shall be level.

2 WW-6 **Chambers - Trench Cross-Section (Typical)**

INFILTRATOR Water Technologies, LLC



RISER INSTALLATION INSTRUCTIONS:

1. Prep Adapter Channel & Riser
   - 1.1. Roughen the bonding surfaces of the adapter and riser with sandpaper.
   - 1.2. Use a clean cloth and acetone or alcohol to clean the bonding surfaces of the adapter and riser. The bonding surfaces must be clean and dry for a good fit and watertight joint. Let the acetone or alcohol dry completely.
2. Apply Adhesive
   - 2.1. Apply a bead of methacrylate adhesive to the outside of the adapter. One 7-oz packet of MA320 adhesive is typical for one 24" riser.
3. Install Riser
   - 3.1. If the riser has penetrations, align the riser correctly.
   - 3.2. Firmly press the riser onto the adapter until the bottom of the riser is resting on the concrete (cast-in-adapters) or the adapter flange (bolted-down adapters). Twist the riser back and forth slightly to fully seat it on to create a good bond.
   - 3.3. Apply a bead of methacrylate adhesive to the inside of the access riser-adapter joint.
   - 3.4. Use a tongue depressor, putty knife, or clean cloth to make a continuous fillet on the inside of the access riser-adapter joint.
   - 3.5. Apply hydraulic cement to bond outer riser wall and top of tank.
4. Ensure inner lid is in place and secured.

FOR RISER WALL PENETRATIONS:	
Grommet Size, Inches (Nominal IPS Pipe Size)	Hole Saw Size, Inches
1/2	1
3/4	1 1/4
1	1 9/16
1 1/4	1 3/4
1 1/2	2 1/8
2	2 3/4
3	3 7/8
4	5

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. 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.
13. 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.
14. All penetrations to be sealed.
15. Spigot to be located on outside of building within 50' of tanks.
16. Contractor to adjust tank placement to meet site constraints.

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c/o Ryan Debaise
Tunnels to Towers- Monticello R

Project Location:
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REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Detail Sheet

DRAWN BY: S. Landers	CREATED ON: 8/16/2023
REVISED BY: R Huffman	REVISED ON: 8/22/2023
RELEASED BY:	RELEASED ON:

DRAWING NUMBER
WW-6

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 sideslopes, 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.

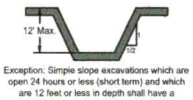
(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(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.

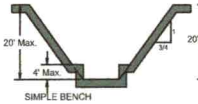
EXCAVATIONS IN TYPE A SOILS

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

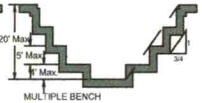




Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of ½:1

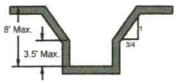


SIMPLE BENCH

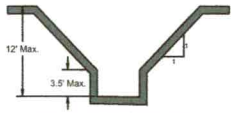


MULTIPLE BENCH

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

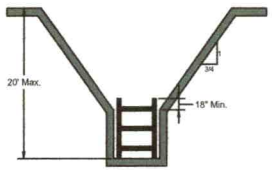


All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3½ feet.



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.

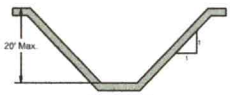
All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of ¾:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



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).

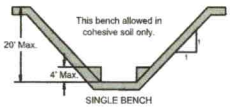
EXCAVATIONS IN TYPE B SOILS

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

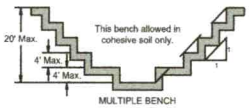


SIMPLE SLOPE

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

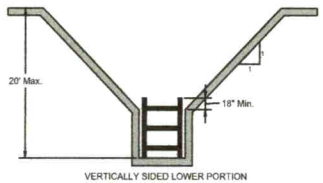


SINGLE BENCH



MULTIPLE BENCH

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.

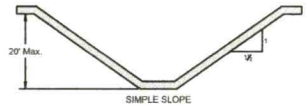


VERTICALLY SIDED LOWER PORTION

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

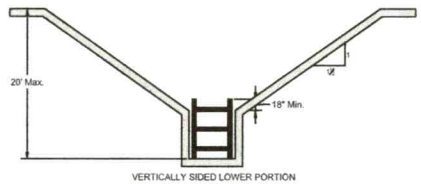
EXCAVATIONS IN TYPE C SOILS

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



SIMPLE SLOPE

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.

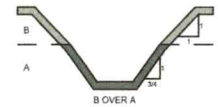


VERTICALLY SIDED LOWER PORTION

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

EXCAVATIONS IN LAYERED SOILS

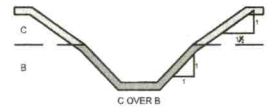
All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



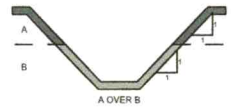
B OVER A



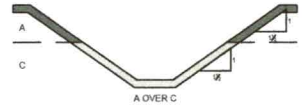
C OVER A



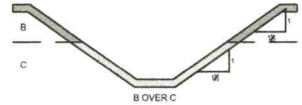
C OVER B



A OVER B



A OVER C



B OVER C

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, North Carolina 27502
919-859-0669
www.agriwaste.com

Tunnels to Towers
c/o Ryan Debaise
Tunnels to Towers- Monticello R

Project Location:
366 Monticello Rd
Statesville, NC 28625
Iredell County
PIN: 4725542784

Project Owner:
Tunnels to Towers
c/o Ryan Debaise
2361 Hylan Blvd
Staten Island, NY 10306
347-809-5724
ryan.debaise@t2t.org

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE

Excavation Safety

DRAWN BY:	CREATED ON:
S. Landers	8/16/2023
REVISED BY:	REVISED ON:
RELEASED BY:	RELEASED ON:

DRAWING NUMBER

WW-7

COUNTY: Iredell Co.__

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

CLIENT: Tunnels to Towers C/O John Koch
APPLICATION DATE_____
ADDRESS: 366 Monticello Road, Statesville, NC. 28625
DATE EVALUATED: 7/25/2023
PROPOSED FACILITY: Single Family Residence
PROPOSED DESIGN FLOW (.1949): 480 GPD
PROPERTY SIZE: 2 ac.
LOCATION OF SITE: 366 Monticello Road, Statesville, NC. 28625
PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
SB 1	10%	0-10"	SCL; GR	SS; SP; FR	-	50"	-	-	0.3 GPD/Ft^2
		10-40"	C; SBK	SS; SP; FI					
		40-50"	CL; WSBK	SS; SP; FR					
SB 2	12%	0-8"	SCL; WSBK	SS; SP; FR	-	50"	-	-	0.3 GPD/Ft^2
		8-50"	C; ABK	SS; SP; FI					
SB 3	10%	0-6"	SCL; WSBK	SS; SP; FR	-	40"	-	Saprolite	0.3 GPD/Ft^2
		6-40"	C; SBK	SS; SP; FI					
		40+"	SCL; MA	SS; SP; FR					
SB 4	10%	0-6"	SCL; WSBK	SS; SP; FR	-	50"	-	-	0.3 GPD/Ft^2
		6-34"	C; SBK	SS; SP; FI					
		34-50"	CL; WSBK	SS; SP; FR					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	Provisionally Suitable	Provisionally Suitable
System Type(s)	25% Reduction	25% Reduction
Site LTAR	0.3 GPD/Ft^2	0.3 GPD/Ft^2

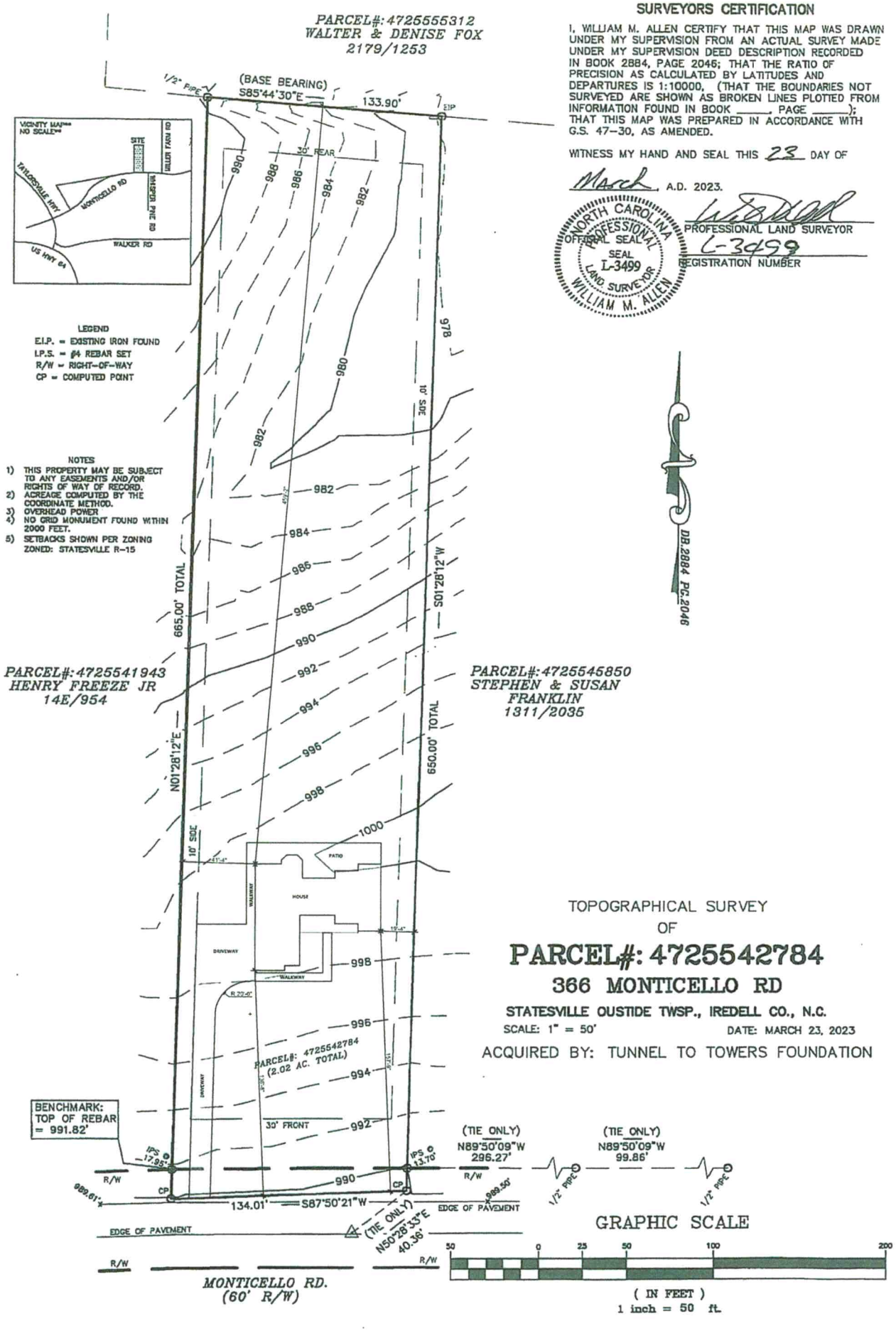
OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____

EVALUATED BY: Trevor Hackney
OTHER(S) PRESENT: Nathan Estevez

COMMENTS

LEGEND

Updated February 2014



SURVEYORS CERTIFICATION

I, WILLIAM M. ALLEN CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION DEED DESCRIPTION RECORDED IN BOOK 2884, PAGE 2046; THAT THE RATIO OF PRECISION AS CALCULATED BY LATITUDES AND DEPARTURES IS 1:10000, (THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION FOUND IN BOOK _____, PAGE _____); THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH G.S. 47-30, AS AMENDED.

WITNESS MY HAND AND SEAL THIS 23 DAY OF March A.D. 2023.

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

PROFESSIONAL LAND SURVEYOR

L-3499
REGISTRATION NUMBER

TOPOGRAPHICAL SURVEY
OF

PARCEL#: 4725542784

366 MONTICELLO RD

STATESVILLE OUSTIDE TWSP., IREDELL CO., N.C.

SCALE: 1" = 50' DATE: MARCH 23, 2023

ACQUIRED BY: TUNNEL TO TOWERS FOUNDATION

DOOR SCHEDULE

1. 3'-0" X 6'-8" INSULATED ENTRY DOOR W/SIDELIGHT & VISION PANEL
2. 3'-0" X 6'-8" INSULATED ENTRY DOOR W/VISION PANEL
3. (2) 3'-0" X 6'-8" FRENCH DOORS
4. 3'-0" X 6'-8" SOLID CORE INTERIOR DOOR
5. 3'-0" X 6'-8" HOLLOW METAL INTERIOR DOOR (45-MINUTE RATING)
6. 1'-6" X 6'-8" SOLID CORE INTERIOR DOOR
7. (2) 3'-0" X 6'-8" SOLID CORE INTERIOR DOOR DOOR
8. (2) 2'-6" X 6'-8" SOLID CORE INTERIOR DOOR
9. (2) 2'-6" X 6'-8" LOUVERED DOOR
10. 3'-0" X 6'-8" SOLID CORE INTERIOR POCKET DOOR
11. 16'-0" X 8'-0" O.H.D. INSULATED W/VISION PANELS

NOTES:
1. SEE FLOOR PLANS FOR ADDITIONAL INFORMATION.
2. ALL DOORS TO BE SELECTED BY OWNER.
3. DOOR HARDWARE TO BE SELECTED BY OWNER.
4. DOOR HANDING TO BE VERIFIED IN FIELD.
5. ALL DOORS TO BE SOLID DOORS

WINDOW SCHEDULE

A. 3'-6" X 5'-0" DOUBLE HUNG (TH3440*)

B. (2) 3'-0" X 5'-0" DOUBLE HUNG (TH2104IO) FACTORY MULLED

C. 2'-6" X 5'-0" DOUBLE HUNG (TH2444IO) FACTORY MULLED

D. 2'-0" X 2'-0" AWNING (A21)

NOTES:
1. SEE FLOOR PLAN FOR ADDITIONAL WINDOW INFORMATION.
2. ALL WINDOWS ARE ANDERSON 400 SERIES TILT WASH U.O.N.
3. ALL WINDOW SETS TO BE FACTORY MULLED
4. VERIFY R.O.'s w/MANUFACTURER
5. OWNER TO SELECT WINDOW FINISH, HARDWARE & ACCESSORIES
6. GIVEN WINDOW SIZES ARE TO BE VERIFIED BY MANUFACTURER TO ENSURE THAT ALL REQ'D EGRESS WINDOWS MEET THE FOLLOWING STANDARDS:
   (A) MIN. 5 SF NET CLEAR OPENING
   (B) OPERABLE HIGH TO BE MIN. 30" HIGH & 24" WIDE NET CLEAR OPENING
   (C) MAX 36" FROM FINISHED FLOOR
7. MANUFACTURER TO DETERMINE IF WINDOWS NEED TO BE TEMPERED, BASE HAZARDOUS LOCATIONS PER IBC
8. AN ASTERISK NEXT TO WINDOW NEEDS TO MEET OR EXCEED MIN. EGRESS REQUIREMENTS.
9. SEE FLOOR PLAN FOR MIN. LIGHT AND AIR REQUIREMENTS.
10. PROVIDE U-VALUE .29 & SHGC OF .37, SEE ENERGY SHEETS FOR ADD. INFO. (TYP)

PARTITION TYPES

1. 2"x4" WOOD STUDS @ 16" O.C. w/ 1/2" GYP. BD. ON BOTH SIDES

   PARTITION HT.: TO UNDERSIDE OF ROOF STRUCTURE RATING: NONE REQUIRED

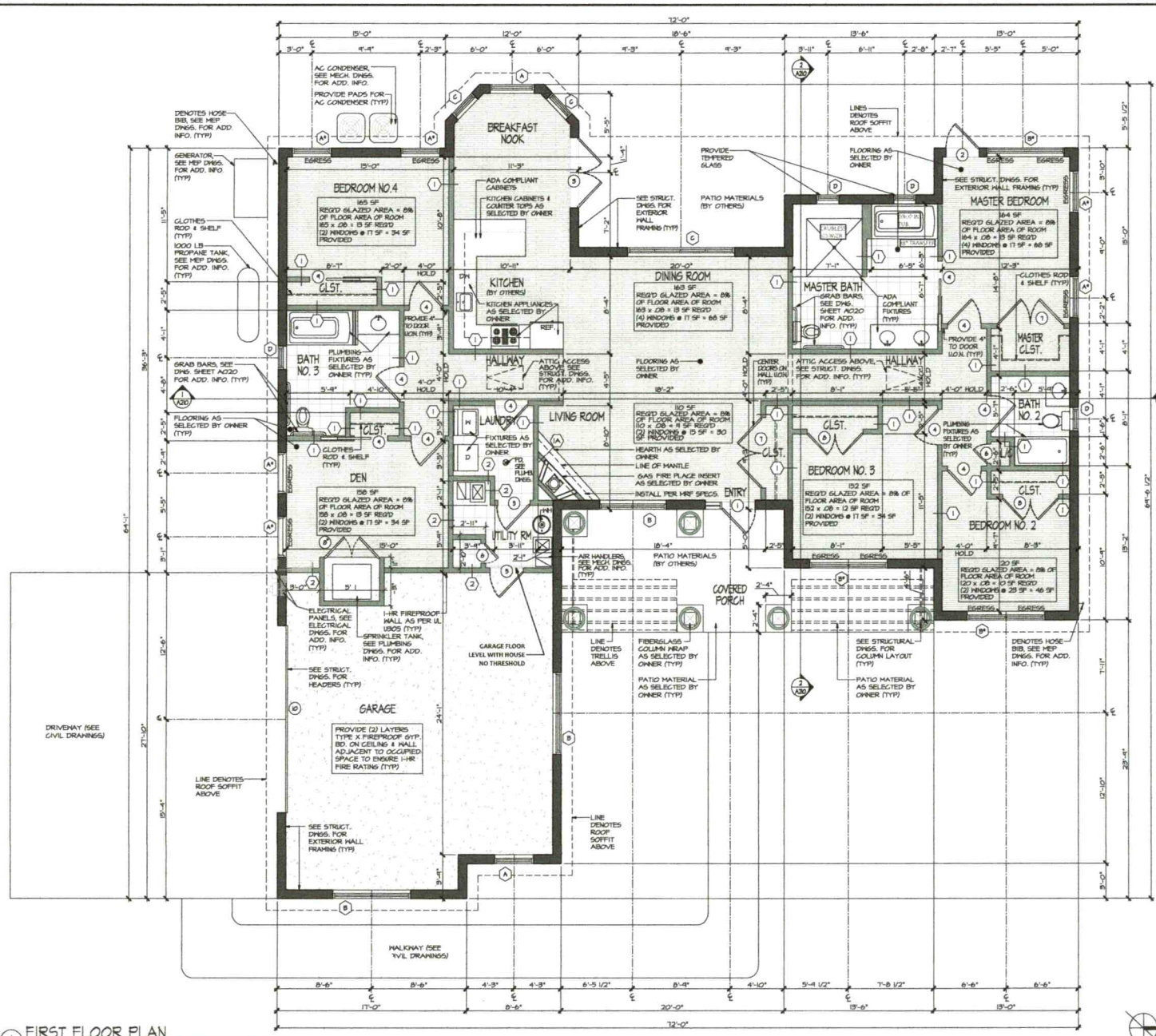
1A. SAME AS PARTITION TYPE 1 W/GYP. BD. ON ROOM SIDE ONLY

2. 2"x4" WOOD STUDS @ 16" O.C. w/ 5/8" FIRE RATED GYP. BD. ON BOTH SIDES

   PARTITION HT.: TO UNDERSIDE OF ROOF STRUCTURE RATING: 1-HOUR (UL U305)

NOTE:
1. PROVIDE WATER & MOLD RESISTANT GYP. BD. AT ALL WET AREAS.
2. PROVIDE PRESSURE TREATED WOOD WHERE IN CONTACT W/CONCRETE.
3. PARTITION TYPES w/WALL FINISHES NOT INDICATED, COORDINATE W/OWNER FOR ALL FINISH WALL MATERIALS OVER GYP. BD. WALLS.
4. PROVIDE 1/2" CEMENT BD. IN LIEU OF GYP. BD. WHERE ANY TILES, STONE, MASONRY IS BEING INSTALLED.
5. PROVIDE 4" TO DOOR JAMB UNLESS OTHERWISE NOTED.

NOTE:
1. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION & DETAILS.
2. SEE MEP DRAWINGS FOR ADDITIONAL INFORMATION & DETAILS.
3. SEE MEP DRAWINGS FOR MECHANICAL VENTILATION.
4. SEE ENERGY DRAWINGS FOR ENERGY COMPLIANCE.



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

GAMBINO + LAPORTA ARCHITECTURE, PC
2298 RICHMOND ROAD STATEN ISLAND, NY 10304
PHONE 718.667.6682 | FAX 718.667.1196
EMAIL STUDIO@GL-ARCH.COM
WWW.GL-ARCH.COM

DESCRIPTION	DATE
ISSUED FOR BUILDING PERMIT	12/06/18

Larry McCorkle
366 Monticello Dr. Statesville,NC 28625

STEPHEN SILLER TUNNEL TO TOWERS FOUNDATION
2286 HYLAN BLVD, STATEN ISLAND, NY 10306

FIRST FLOOR PLAN

SCALE: AS NOTED

DRAWN BY: TJL
CHECKED BY: PN
DATE: 12/06/18
JOB NO.: SLAB-0525

SHEET NO.: A100
SHEET 06 OF 18