IREDELL COUNTY HEALTH DEPARTMENT

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

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

PERMIT # 227937

PIN # 4727566257

APPLICANT/OWNER: Trinity VFD

APPLICANT ADDRESS: 2997 Wilkesboro Hwy Statesville NC

SITE ADDRESS: 2968 Wilkesboro Hwy Statesville NC 28625 PHONE: 704-876-3646 ALT. PHONE 704-929-4082

SITE DIRECTIONS: 115 N Lot on corner off 115 and Yadkin Valley Rd

SUBDIVISION: N/A SECTION: N/A LOT # N/A LOT AREA: 3.996ac

SAP CONTROLLED: ☐ YES ☒ NO

DESIGN FLOW: 625 L.T.A.R.: 0.3

Septic Tank	1500 (gal)	STB 528	Date 5-9-14	☒ New System ☐ Repair ☐ Expansion	System Type: I II III IV V VI
Pump Tank	(gal)	PT	Date	System Description:	25% Reduction
Pump Make		Model	Serial #	Repair System Description:	25% Reduction
# Nitrification Fields	1	# Lines 4	Linear Ft 528	Maintenance Agreement Required:	☐ YES ☒ NO
Trench Width	36"	Trench Bottom Depth(Low side)	27"	Gravel Depth N/A	☒ GRAVITY ☐ PRESSURE

☐ Residence	No. Bedrooms 5	Water Supply	
☐ Business	No. Persons	☐ Private	
☒ Other	No. Employees 12	☒ Public	
☒ Slab	☐ Crawl Space	☐ Community	
☐ Basement w/plumbing		☐ Basement w/o plumbing	

Comments / Conditions: Install per plan by Larry Thompson See site plan for Septic tank location.

INITIAL SITE SKETCH

* See plan by Larry Thompson 455

AS BUILT SKETCH

Drainfield Installed as Drawn Used Quick 4. (ST adjacent to 1st line of Drainfield)

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:

IMPROVEMENT PERMIT by: Date:

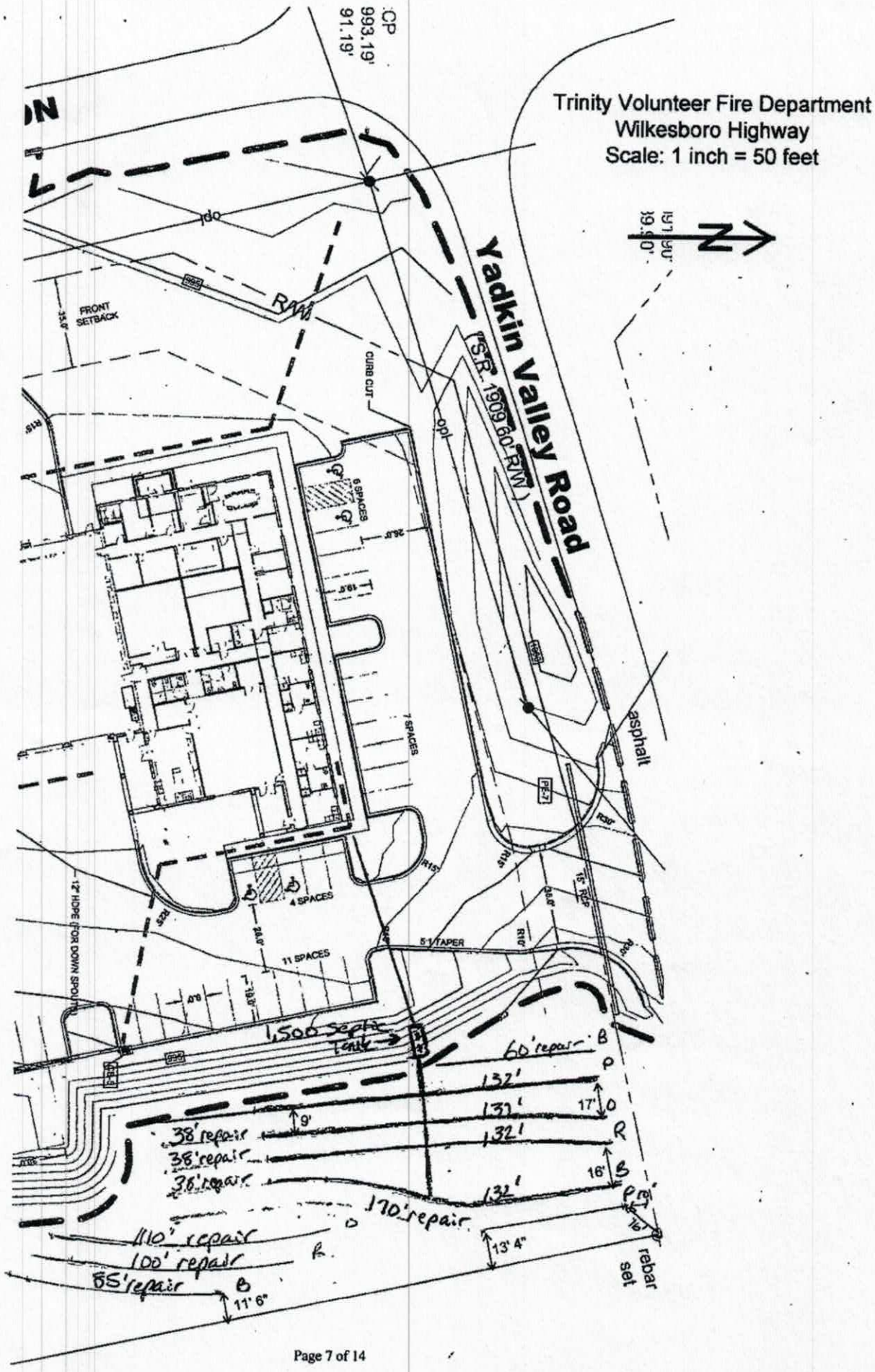
AUTHORIZATION TO CONSTRUCT by: Date: 07/06/17

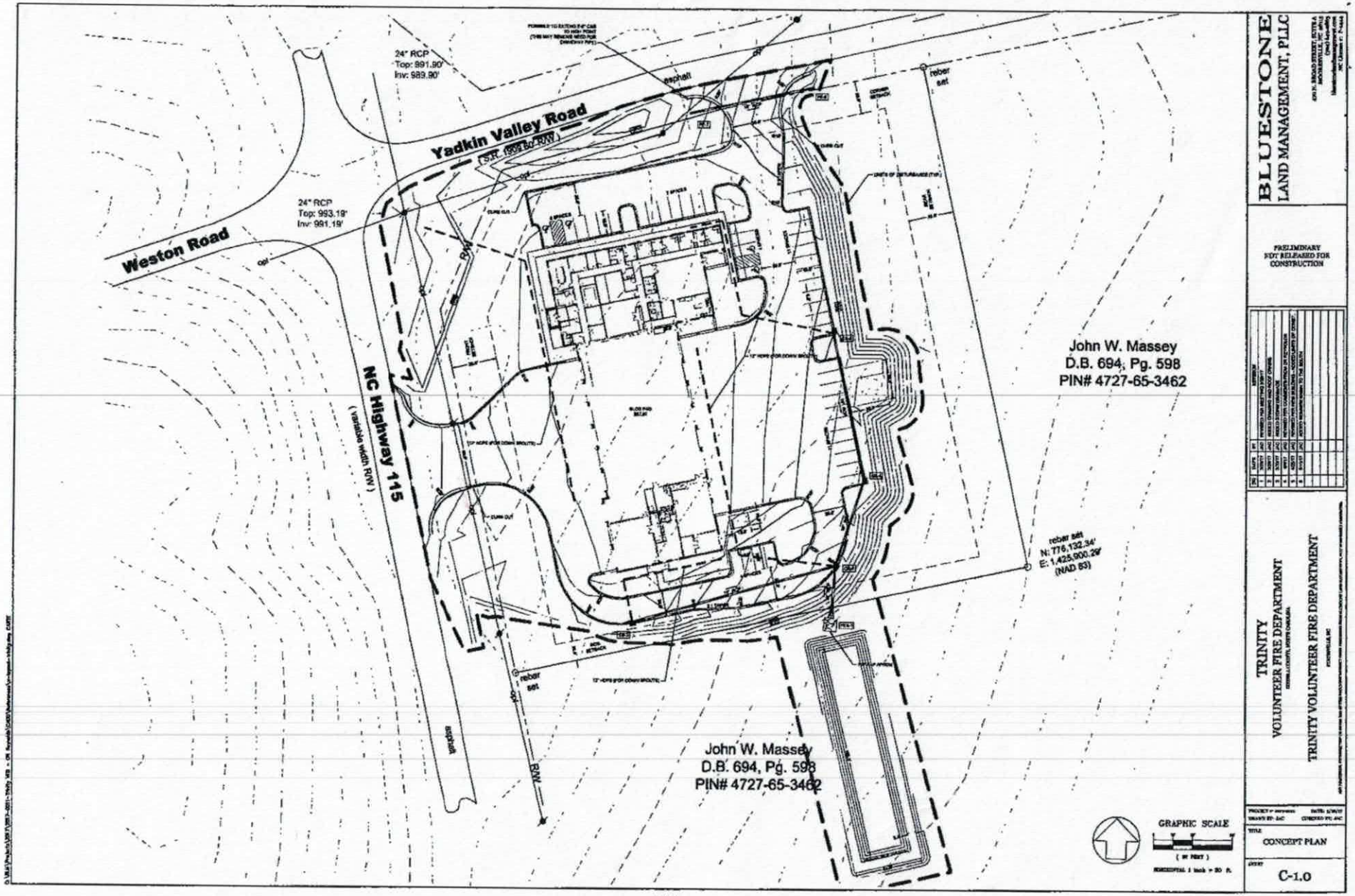
Installed by: Yountz Grading

OPERATION PERMIT by: Maria Dotson Date: 4/29/19

Existing System Inspected by: Date: 07/06/17

Trinity Volunteer Fire Department
Wilkesboro Highway
Scale: 1 inch = 50 feet





BLUESTONE
LAND MANAGEMENT, PLLC

PRELIMINARY
NOT RELEASED FOR
CONSTRUCTION

TRINITY
VOLUNTEER FIRE DEPARTMENT

TRINITY VOLUNTEER FIRE DEPARTMENT

TITLE
CONCEPT PLAN

C-1.0

Design Specifics

Daily Design Flow:	625 GPD – 25 Employees
Septic Tank Size:	1500 gallons (minimum)
Effluent Loading Rate:	Design Rate = 0.3 GPD/ft. sq.
Drainfield Type:	Accepted 25% Reduction
Distribution Method:	Serial
Number of Drainlines:	4
Drain Lines:	3 Feet Wide x 132 Feet Long
Total Trench Length:	528 Linear Feet
Maximum Trench Depth:	31 Inches
Trench Spacing:	9 Feet on Centers

Repair Specifics

Effluent Loading Rate:	0.3 GPD/ft. sq.
Drainfield Type:	25% Reduction
Distribution Method:	Serial
Available Trench Length:	639 Linear Feet
Maximum Trench Depth:	31 Inches
Trench Spacing:	9 Feet on Centers

*See septic layout for additional details.

227937

Commercial Subsurface Wastewater Treatment and Disposal System Proposal

for

Trinity Volunteer Fire Department
Wilkesboro Highway and Yadkin Valley Road
Statesville, North Carolina

PIN: 4727566257.000
May 30, 2017

Prepared for:

Trinity Volunteer Fire Department, Inc.
2997 Wilkesboro Highway
Statesville, NC 28625



Prepared by:

Larry Thompson, REHS, LSS
Thompson Environmental Consulting, Inc.
PO Box 241
Woodleaf, NC 27054
Phone: 704-301-4881
Fax: 206-350-8895
larry@thompsonenv.com



Details

Trinity Volunteer Fire Department, Inc. (TVFD) has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare a septic proposal for the construction of a new fire station located at the corner of Wilkesboro Highway and Yadkin Valley Road in, Statesville, North Carolina.

Based upon a previous soil investigations performed on the property, TEC had determined that a sufficient amount of "Suitable" Group IV soils are available for the installation of a Type III accepted system (25% reduction approval) for the initial wastewater treatment and disposal system as well as the proposed repair system at a 0.3 GPD/ft. sq. long-term acceptance rate. The station will be served by a municipal water supply.

TVFD would like to request that Iredell County Environmental Health (ICEH) consider issuing a new Improvement Permit and Construction Authorization for a 625 gallon per-day (25 employees) wastewater treatment and disposal system to serve their new fire station based upon the following proposal.

Location

From downtown Statesville, take NC 115 north approximately 6.7 miles to the intersection of NC 115 and Yadkin Valley Road. The proposed fire station will be located on the left in the southeast corner of this intersection.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, July 2016.

Accepted Wastewater System No. AWWS-05-01; North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, April 2, 2005.

Accepted Wastewater System No. AWWS-05-02-R1; North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, April 2, 2005.

Primary Investigator's Credentials

NC Registered Sanitarian No. 1208
NC Licensed Soil Scientist No. 1287
SC Professional Soil Classifier No. 111
Professional Wetland Scientist No. 1346
NC Subsurface Septic System Operator No. 22199
NC Grade IV Wastewater System Installer No. 1762
NC Certified Wastewater System Inspector No. 17621

Plans and Specifications

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and **1500 gallons** in capacity.
2. The septic tank will be fitted with an approved effluent filter.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

B. Pipe, Fittings and Supply Line

1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.
2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.

C. Distribution Method

1. Drainlines shall be fed by serial distribution.

D. Drainfield Installation

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. Once this area has been approved by the ICEH, the property owner/builder should mark this area and isolate it as much as possible from construction traffic. Prior to the system installation, the septic contractor shall contact the ICEH and the system designer for a preconstruction conference at which time the drainfield area will be re-verified.
2. Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition. If the installer has doubts as to whether or not the drainfield area is dry enough to begin construction, the ICEH should be contacted for permission to proceed with the installation.
3. The specified system is a shallow placed approved accepted system; **Infiltrator Quick4 Standard Chamber System** or other systems with a 25% reduction approval granted by the state.
4. The drainfield consists of four (4) lateral trenches to be constructed 3-foot-wide by 132 feet long.
5. The maximum trench depth for this system shall be **31 inches**.
6. Laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
7. The trenches should be left open for the final inspection by the ICEH.

E. Final Landscaping

1. Final cover over the drainfield shall be at least 6 inches deep.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.

3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

F. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the ICEH as soon as possible.
2. Lawn irrigation should not be placed over the drainfield area.

G. Grading/Fill Operations

1. The proposed drainfield and repair field must be protected from encroachment at all times.
2. TEC recommends that the drainfield area be isolated from construction traffic and grading operations by the installation of orange barrier fencing.
3. Unauthorized impacts to the drainfield area may void the septic permit.

Maintenance

G. In General

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

HS 6/30/17

THOMPSON ENVIRONMENTAL CONSULTING, INC.
PO BOX 241
WOODLEAF, NC 27054

Sheet 1 of 1
PROPERTY ID #: 4725 [illegible]
COUNTY: Iredell

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

OWNER: Trinity Volunteer Fire Department
ADDRESS: 2997 Wilkesboro Hwy, Statesville, NC 28625
PROPOSED FACILITY: Fire Station
PROPOSED DESIGN FLOW (.1949): 625GPD
LOCATION OF SITE: NC 115 and Yadkin Valley Road, Statesville
APPLICATION DATE
DATE EVALUATED: 5/26/17
PROPERTY SIZE: 3.996 acres
PROPERTY RECORDED: 04/06/17
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS 9%	0-6	scl/sbk	fr/ss/sp	N/A	48	N/A	N/A	S 0.3
		6-48+	c/sbk	fi/ss/sp					
2	LS 9%	0-8	scl/sbk	fr/ss/sp	N/A	48	N/A	N/A	S 0.3
		8-48+	c/sbk	fi/ss/sp					
3	LS 9%	0-8	scl/sbk	fr/ss/sp	N/A	48	N/A	N/A	S 0.3
		8-48+	c/sbk	fi/ss/sp					
4	LS 9%	0-7	scl/sbk	fr/ss/sp	N/A	48	N/A	N/A	S 0.3
		7-48+	c/sbk	fi/ss/sp					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	Accepted	Accepted
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: L. Thompson, LSS
OTHER(S) PRESENT:

COMMENTS:

IREDELL COUNTY HEALTH DEPARTMENT *ENVIRONMENTAL HEALTH DIVISION*

(THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED - APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS)

1. APPLICATION FOR: ✓ Improvement Permit ✓ Authorization To Construct ___ Existing System Inspection

2. Page 2: *Site Plan Worksheet* Form MUST Accompany This Application
The following optional attachments may also be submitted: ✓ Survey Plat, Scaled no more than 1 Inch = 60 Feet
Place check ( ) beside whichever is submitted if applicable ___ Custom Site Plan, Scaled no more than 1 Inch = 60 Feet

3. **Applicant Information:**

Applicant Name	Mailing Address	Home Phone #	Alternate Phone #
TRINITY VFD	2997 Wilkesboro Hwy	(704) 876-3646	(704) 929-4082
Owner Name	**Mailing Address**	**Home Phone #**	**Alternate Phone #**
TRINITY VFD			

4. **Property Information:**

Street Address	Subdivision Name	Section/Phase and Lot Number
~~2997~~ 2968 W. Wilkesboro Hwy		

Driving Directions: _____

5. **RESIDENTIAL Site Development Information:** *(Check or Complete ALL that apply)*

( ) New, Single Family Residence
( ) New, Multi-Family Residence
( ) Expansion of Existing Septic System
(✓) Repair To Failing Septic System due to _____
( ) Other _____

Maximum Number of Bedrooms 3
Maximum Number of Occupants ___
If Expansion, Current Number of Bedrooms ___

( ) Crawl Space Foundation?
( ) Concrete Slab Foundation?
( ) Basement w/Plumbing?
( ) Basement w/out Plumbing?

IF Non-Residential Site Development:
Type of Business: Vol. Fire Dept
Square Footage of Building: 22,797
Maximum Number of Employees: 7
Maximum Number of Seats: ___

6. **Proposed Water Supply:**

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

7. **Desired Septic System Type:** *(You may rank in order of preference, if any)* ( ) EXISTING SYSTEM installed ____ *Year*

( ) Alternative (✓) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other _____

8. **Please Answer The Following** ( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
To The Best of Your Ability: ( ) Yes (✓) No Is any non-domestic sewage (i.e. industry) to be generated?
( ) Yes (✓) No Is the site subject to approval by any other public agency?

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

9. Signature: _____
Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

6-29-17
DATE

TRINITY VOLUNTEER FIRE DEPARTMENT
2997 Wilkesboro Highway
Statesville, NC 28625
704-876-3646

To: Heath Snow

Re: Kitchen, Washing Machine and Extractor use

Date: 07/06/2017

Heath,

The washing machine and extractor will be used by active volunteers and on duty personnel only. Both of these combined will be used less than 5 times a month. Our kitchen will not be for public use and we do not do any cooking in the kitchen for the public. It is only used by active volunteers and on duty personnel.

Shannon Goodman, Fire Chief

Public Health
Prevent. Promote. Protect.
Iredell County Health Department

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

Public Health
Prevent. Promote. Protect.
Iredell County Health Department

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

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.

I, Trinity VFD - Shannon Goodman, am the legal owner(s) of the property located at 2968 Wilkesboro Hwy, identified as PIN (Parcel Identification Number) _____, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Bob Rawson - DR Reynolds Larry Thompson - Thompson Enviro, 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.

[signature]	6-29-17	_____	_____
Signature of Owner(s)	Date	Signature of Witness	Date

Please return this signed form to the appropriate office:

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

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

IREDELL COUNTY HEALTH DEPARTMENT *ENVIRONMENTAL HEALTH DIVISION:*

SITE PLAN WORKSHEET

SEE THE "SAMPLE SITE PLAN" BELOW. ***INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!***

Place an (X) beside each item as you complete the site plan:

_____ Property Line measurements are clearly identified... **_____ All proposed structures are indicated...**

SHOW: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

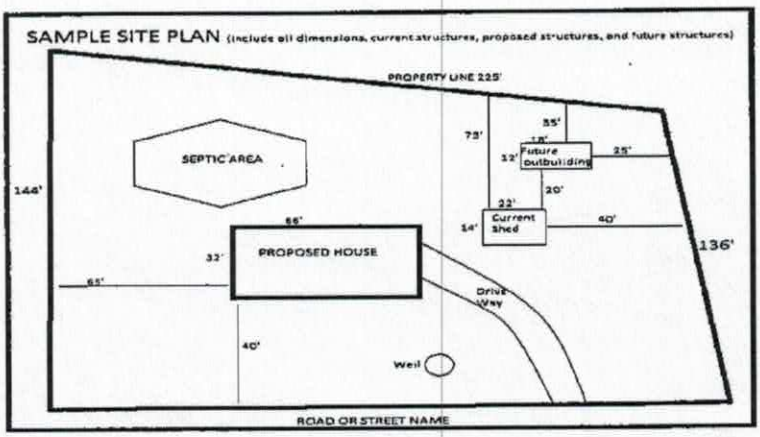
_____ Front and side setbacks from property line... **_____ Preferred driveway location and configuration, preferred well location...**

_____ Area you prefer your septic system to be placed... **_____ North arrow, or other sufficient indicator of direction...**

Circle N/A on the following if appropriate:

_____ Location of septic systems and wells within 100' of your property... N/A

_____ Location of easements and rights of ways on your property... N/A **_____ Location of any designated wetlands on the property... N/A**



USE THIS SPACE TO DRAW YOUR SITE PLAN

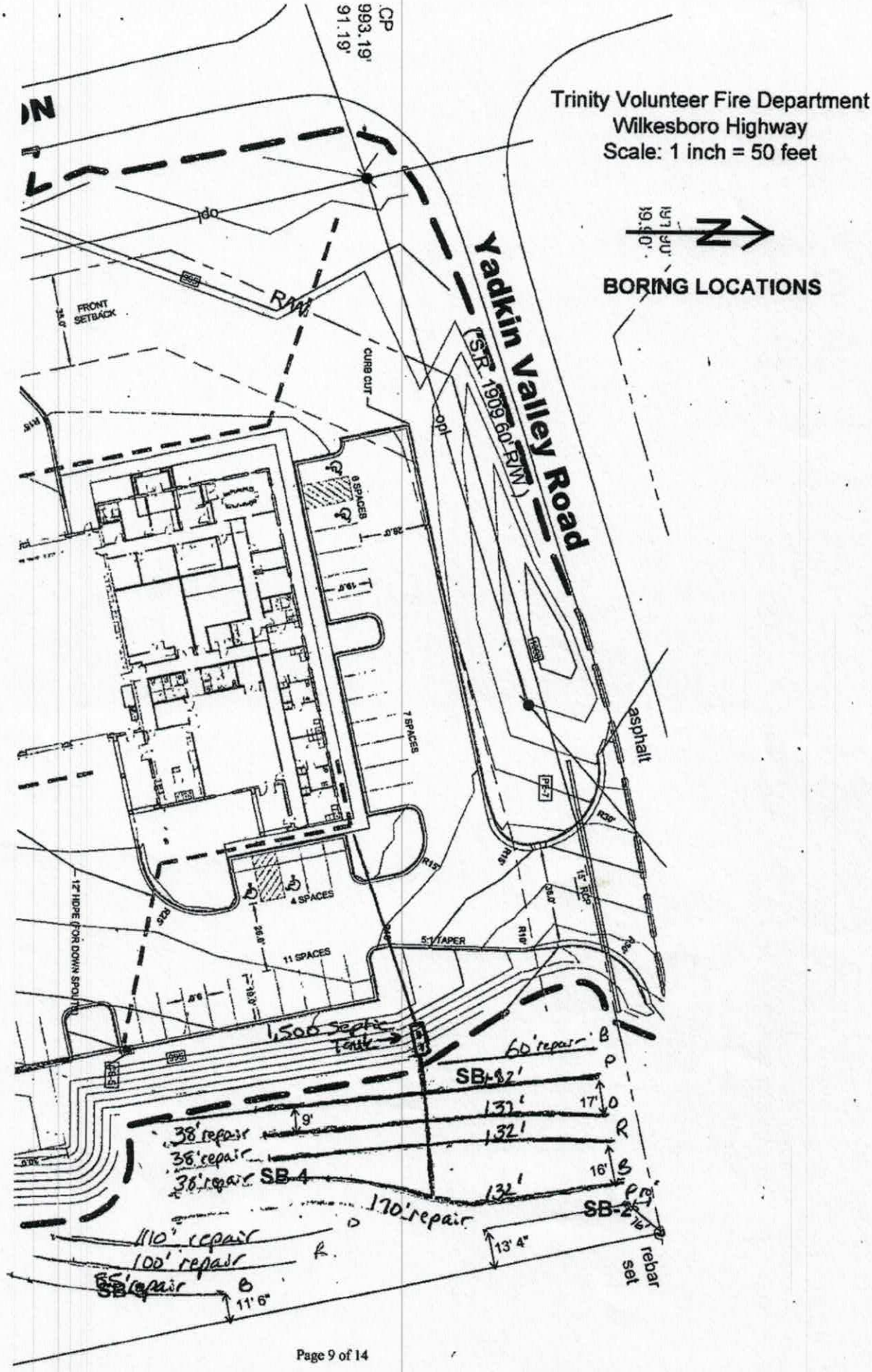
PLEASE SEE SITE PLAN IN PACKET

Signature: _____

REQUIRED **property owner or owner's legal representative signature.**

6-29-17

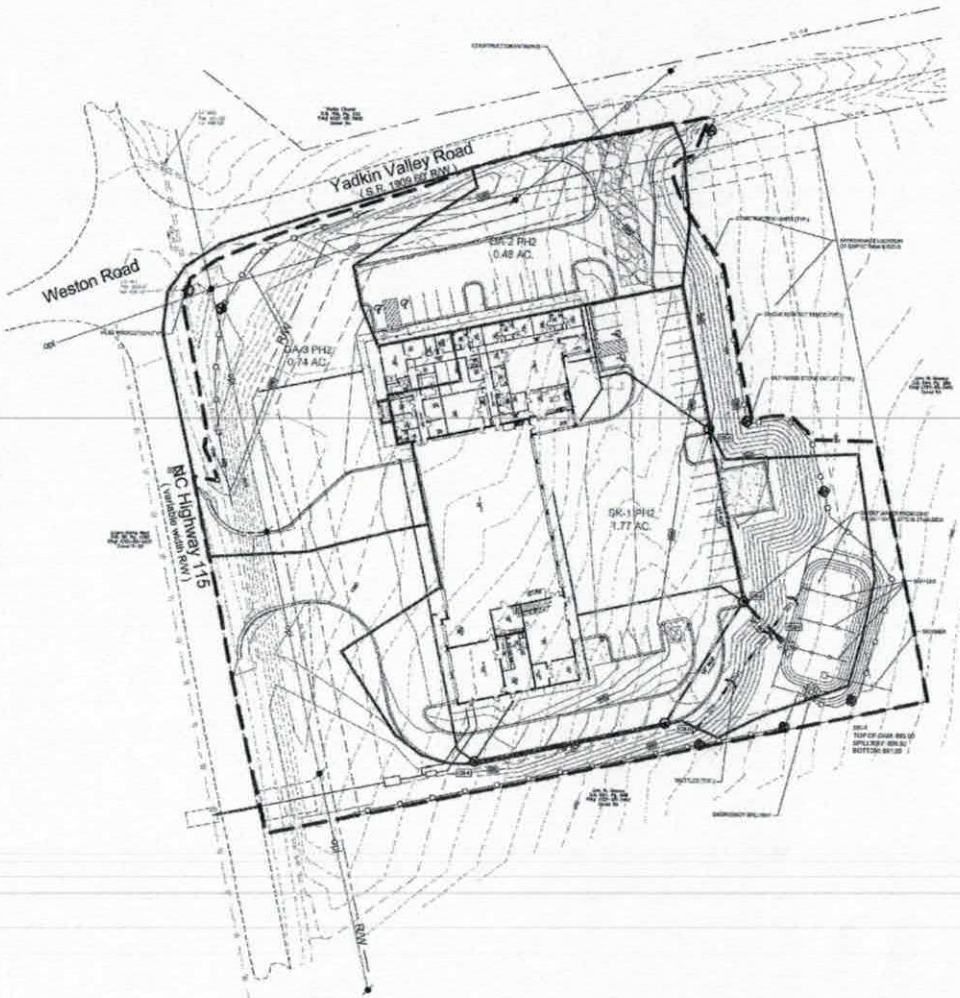
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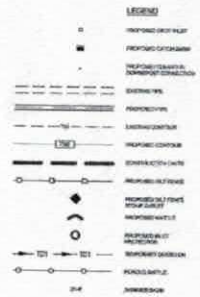

Trinity Volunteer Fire Department
Wilkesboro Highway
Scale: 1 inch = 50 feet
BORING LOCATIONS
Yadkin Valley Road
(S.R. 1909 60' R/W)
CP
993.19'
91.19'
FRONT SETBACK
CURB CUT
8 SPACES
7 SPACES
4 SPACES
11 SPACES
5:1 TAPER
asphalt
12" HDPE FOR DOWN SPOUTS
1,500 Septic Tank
60' repair
SB-3
132'
131'
17'
38' repair
38' repair
38' repair
SB-4
9'
132'
16'
170' repair
SB-2
110' repair
100' repair
55' repair
SB-1
11' 6"
13' 4"
rebar set

No Floor Drains

For Active member use only.







CONSTRUCTION SEQUENCE

MAINTENANCE PLAN

EROSION CONTROL NOTES

GRAPHIC SCALE

Acknowledgement Of Plans Submittal ONLY!

Date 7-10-17

Date 07/06/17

BLUESTONE
LAND MANAGEMENT, PLLC

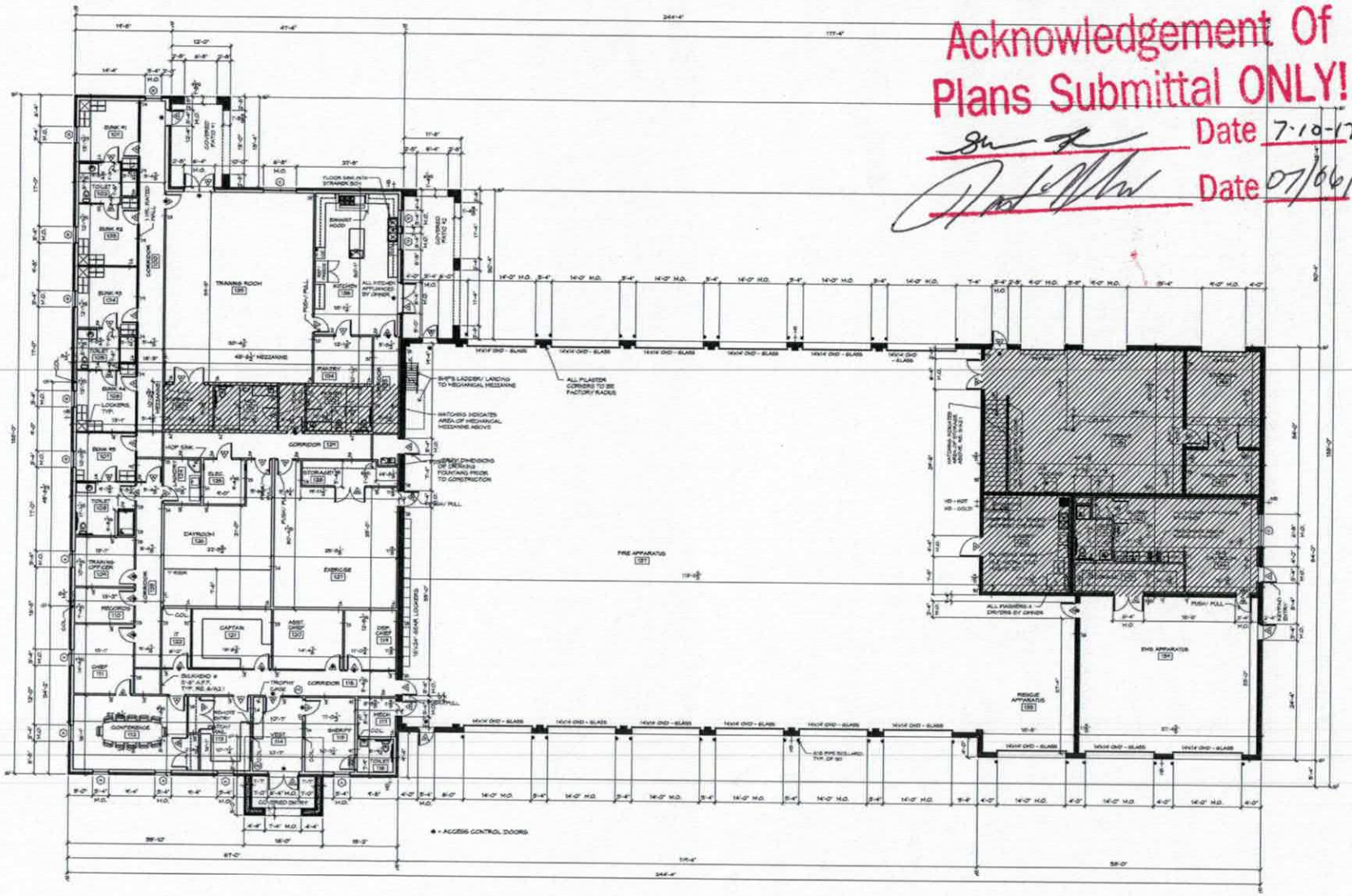
D.R. REYNOLDS COMPANY, INC.

TRINITY
VOLUNTEER FIRE DEPARTMENT

TRINITY VOLUNTEER FIRE DEPARTMENT

EROSION CONTROL
PHASE 2

C-3.1



Acknowledgement Of
Plans Submittal ONLY!

Date 7-10-17

Date 07/06/17

1 FLOOR PLAN
A2.0 SCALE: 1/8" = 1'-0"

PINNACLE ARCHITECTURE
PROFESSIONAL ASSOCIATION
P.O. BOX 135, 920 TEAM ROAD, SUITE 260
MATTHEWS, NORTH CAROLINA 28106
PH: (704) 847-9831 FX: (704) 847-0853

D. R. REYNOLDS COMPANY, INC.
GENERAL CONTRACTORS
7208 GRIFFITH FARM ROAD
WAKE FOREST, NORTH CAROLINA 27587
(919) 556-3366

TRINITY FIRE STATION
AND EMS FACILITY
STATESVILLE, NC

FLOOR PLAN

REVISION SCHEDULE

#	DATE	REVISION

A2.0