IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 208792

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

PIN # 4765533~~2416~~ 5256.672

APPLICANT: Cool Springs VFD APPLICANT ADDRESS: 641 Mocksville Hwy Statesville, NC

SITE ADDRESS: 672 Mocksville Hwy Statesville, NC PHONE: 704872-3221 ALT. PHONE:

SITE DIRECTIONS: Broad St east TR on Mocksville Hwy just East of Beaver's Store on right

SUBDIVISION: N/A SECTION: LOT #: LOT AREA: 5 ac DESIGN FLOW: 625gpd L.T.A.R.: .3

Septic Tank 1500 (gal) STB 2061 1640 Date 8-12-16
Pump Tank 1500 (gal) PT 1539 Date 7-16-16
Pump Make Zoeller Model N152 Serial #
Nitrification Fields 1 # Lines 5 Linear Ft: 525
Trench Width 36" Max. Trench Bottom Depth 28" Gravel Depth N/A

☐ New System ☐ Repair ☐ Expansion System Type: I II (III) IV V VI
System Description: Pressure (pm) - 25% Reduction
Repair System Description: Pump - 50% Reduction
Maintenance Agreement Required: ☐ YES ☒ NO
☐ GRAVITY ☒ PRESSURE

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

Water Supply: ☐ Private ☒ Public ☐ Community

Comments / Conditions: Install per attached revised plan dated 4/29/17. by Larry Thompson.

6/9/17 Checked drainlines, & set 2" pressure

INITIAL SITE SKETCH

See attached plan by Larry Thompson LSS.

AS BUILT SKETCH

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: Date: 5/23/17 Installed by: Rowan Septic

IMPROVEMENT PERMIT by: Maria Dotson Date: 5/18/17 OPERATION PERMIT by: Maria Dotson (per MUNIS Date:

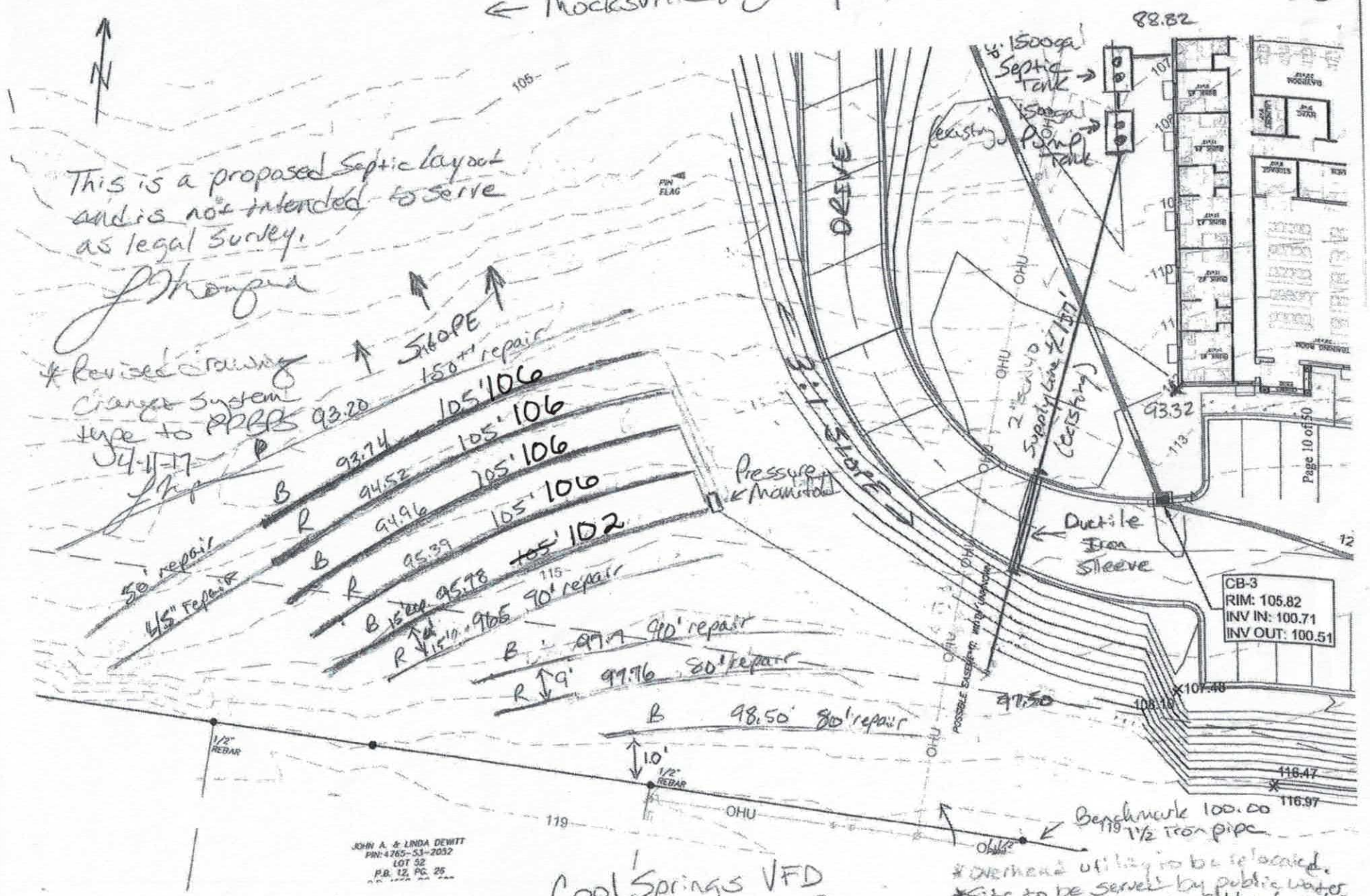
AUTHORIZATION TO CONSTRUCT by: Maria Dotson Date: 5/18/17 Existing System Inspected by: Date:

Health Dept. Copy - WHITE Applicant (Final Approval) - YELLOW Applicant (Conditional Approval) - PINK

Septic Layout

← Mocksville Highway →

Approved 5/19/17



Cool Springs VFD

Scale: 1 inch = 30 feet

Thompson Environmental Consulting, Inc
PO Box 241
Woodleaf, NC 27054

Property ID: 4765532217.000
Lot #:
File #:
AppID:

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Coal Springs VFD
Address: 688 Mocksville Highway, Statesville, NC
Proposed Facility: Fire Station Design Flow (.1949): 625 GPD (Recom)
Location of Site:
Water Supply: Public [V] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [V] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [V] Sewage [ ] Industrial Process [ ] Mixed

Applicant:
Date Evaluated: 3-9-16
Property Size: 5.3 acres
Property Recorded:
Confirmed w/ Soil Boring
Approved 5/19/16 MD

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 Structure/ Texture	SOIL MORPHOLOGY .1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
#1	LS 4%	0-10	SBK/SCL	FR SEVP	10YR 4/4	14/8"			S 0.3
		10-23	SBK/C	FI SEXP	10R 4/6				
		23-41	SBK/C	FI SEXP	10R 4/6				
		41-52	SBK/CL	FR SEXP	2.5YR 4/6				
#2	LS 4%	0-8	SBK/SCL	FR SEXP	10YR 4/4	7 4/8"			S 0.3
		8-30	SBK/C	FI SEXP	10R 4/6				
		30-45	SBK/C	FI SEXP	10R 4/8				
		45-54	SBK/CL	FR SEXP	2.5YR 4/6				
#3	LS 4%	0-9	SBK/SCL	FR SEXP	10YR 4/4	4/8			S 0.3
		9-28	SBK/C	FI SEXP	10R 4/6				
		28-38	SBK/C	FI SEXP	10R 4/4				
		38-48	SBK/CL	FR SEXP	2.5YR 4/8				
#4	LS 4%	0-10	SBK/CL	FR SEXP	10YR 4/4		42" Grape		PS 0.3
		10-24	SBK/C	FI SEXP	10R 4/4				
		24-42	SBK/C	FI SEXP	10R 5/8				
		42+	GR/SL	FR NE	2.5YR 4/4				
#5	LS 4%	0-10	SBK/SCL	FR SEXP	10YR 4/4	36" Auger Refusal	Hit feldspar rock		PS 0.3
		10-26	SBK/C	FI SEXP	10R 4/6				
		26-36	SBK/C	FI SEXP	10R 4/6				

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	25% Red	DPBPS
Site LTAR	0.3	0.3

Other Factors (.1946):
Soil Evaluation By:
Others Present:
Site Classification (.1948):
Site Evaluation By:
Others Present:

* See Boring Location on Layout Sheet

LICENSED SOIL SCIENTIST LARRY B. THOMPSON, JR. 1287 STATE OF NORTH CAROLINA

Thompson Environmental Consulting, Inc
PO Box 241
Woodleaf, NC 27054

Property ID: 4765532217.000
Lot #:
File #:
AppID:

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: CoolSprings VFD
Address: 688 Mocksville Highway, Statesville, NC
Proposed Facility: Fire Station Design Flow (.1949) 625 GPD
Location of Site:
Water Supply: Public [✓] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [✓] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [✓] Sewage [ ] Industrial Process [ ] Mixed

Applicant:
Date Evaluated: 3/21/16
Property Size: 5.3 acres
Property Recorded:
Approved 5/19/17 MD

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
#6	US 4%	0-10	SBK/SCL	FR SEXP	10YR 4/4	48+			S
		10-26	SBK/C	FI SEXP	10YR 4/6				0.3
		26-44	SBK/C	FI SEXP	10YR 4/8				
		44-51+	SBK/CL	FR SEXP	2.5YR 4/8				
#7	US 4%	0-8	SBK/SCL	FR SEXP	10YR 4/4	48+			S
		8-40	SBK/C	FI SEXP	10YR 4/6				0.3
		40-47	SBK/C	FI SEXP	10YR 4/8				
#8	US 4%	0-10	SBK/SCL	FR SEXP	10YR 4/4	48+			S
		10-28	SBK/C	FI SEXP	10YR 4/6				0.3
		28-45	SBK/C	FI SEXP	10YR 4/8				
		45-49+	SBK/CL	FR SEXP	2.5YR 4/8				

Description	Initial System	Repair System
Available Space (.1945)		
System Type(s)		
Site LTAR		

Other Factors (.1946):
Soil Evaluation By:
Others Present:
Site Classification (.1948):
Site Evaluation By:
Others Present:

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

PROPERTY ID #: 4765535256
COUNTY: Iredell

Approved 5/19/17 mD

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

OWNER: Cool Springs Volunteer Fire Dept. APPLICATION DATE
ADDRESS: 641 Mocksville Highway DATE EVALUATED: 4-27-16
PROPOSED FACILITY: Fire Station PROPOSED DESIGN FLOW (.1949): PROPERTY SIZE:
LOCATION OF SITE: 641 Mocksville Highway, Statesville, NC PROPERTY RECORDED:
WATER SUPPLY: ☐ Private ☑ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☐ Auger Boring ☑ Pit ☐ Cut TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

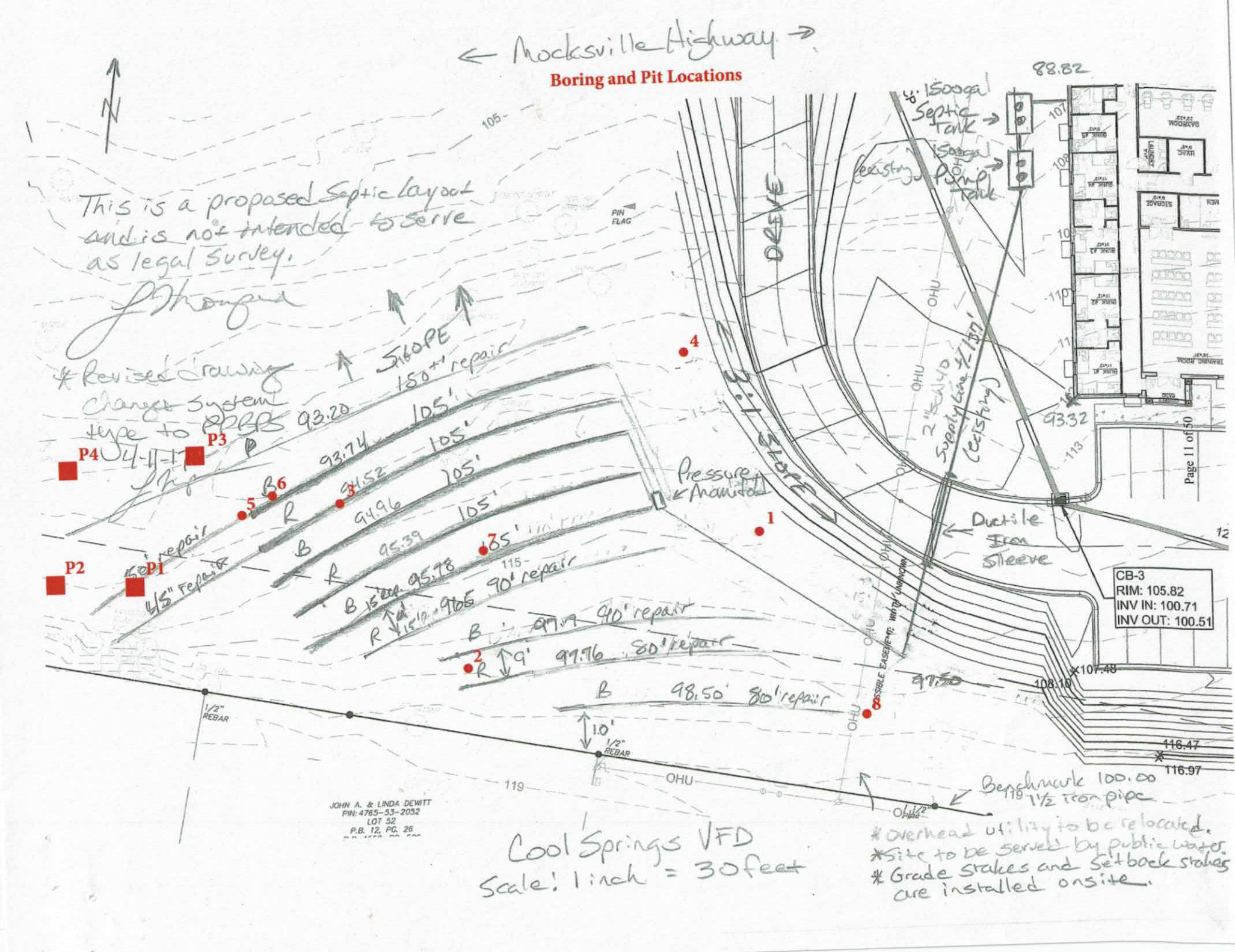
PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS 4%	0-4	gr/sl	fr/-	10YR 4/4	60+	N/A	N/A	S 0.3
		4-13	sbk/scl	fr/se	10R 4/8				
		13-60	sbk/cl	fi/sc	2.5YR 4/8				
2	LS 4%	0-4	gr/sl	fr/-	10YR 4/4	60+	N/A	N/A	S 0.3
		4-17	sbk/scl	fr/se	10R 4/8				
		17-60	sbk/c	fi/sbk	10R 4/8				
3	LS 4%	0-4	gr/sl	fr/-	10YR 4/4	60+	N/A	N/A	S 0.3
		4-12	sbk/scl	fr/se	10R 4/8				
		12-40	sbk/c	fi/se	10R 4/8				
		40-60	sbk/c	fi/se	10R 4/4				
4	LS 4%	0-10	sbk/c	fr/se	10R 4/8	60+	N/A	N/A	S 0.3
		10-46	sbk/c	fi/se	10R 4/6				
		46-60	sbk/cl	fi/se	2.5Y 4/4				

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

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

LICENSED SOIL SCIENTIST LARRY B. THOMPSON, JR. 1247 STATE OF NORTH CAROLINA

COMMENTS:


← Mocksville Highway →
Boring and Pit Locations
This is a proposed Septic layout and is not intended to serve as legal survey.
* Revised drawing change system type to PPBS 4-11-17
SLOPE
150+/- repair
P1
P2
P3
P4
B6
93.20
93.74
94.52
94.96
95.39
95.78
97.19
97.76
98.50
105'
90' repair
80' repair
4.5" repair
1
2
3
4
5
6
7
8
Pressure manifold
Ductile Iron Sleeve
CB-3
RIM: 105.82
INV IN: 100.71
INV OUT: 100.51
1500gal Septic Tank
1500gal Pump Tank
existing
DRIVE
OHU
2" SCH40 Supply Line (existing)
POSSIBLE EASEMENT: WITH UNKNOWN
88.82
93.32
107.48
108.10
116.47
116.97
Benchmark 100.00
1 1/2 iron pipe
1/2" REBAR
1.0'
119
JOHN A. & LINDA DEWITT
PIN: 4765-53-2052
LOT 52
P.B. 12, PG. 26
Cool Springs VFD
Scale: 1 inch = 30 feet
* overhead utility to be relocated.
* Site to be served by public water.
* Grade stakes and setback stakes are installed onsite.
Page 11 of 50

208'14

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
   ___Custom Site Plan, Scaled no more than 1 Inch = 60 Feet
   Place check ( ) beside whichever is submitted if applicable

3. **Applicant Information:**

CoolSprings VFD	641 Mocksville Hwy Statesville	704-872-3221	
Applicant Name	Mailing Address	Home Phone #	Alternate Phone #
Andy Webster - Fire Chief	same		828-381-0882
Owner Name	Mailing Address	Home Phone #	Alternate Phone #

4. **Property Information:**

672 Mocksville Hwy		
Street Address	Subdivision Name	Section/Phase and Lot Number

Driving Directions: Mocksville Hwy just east of Beaver's Store on the right.

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

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

Maximum Number of Bedrooms ___
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: Fire Station / Emergency Services
Square Footage of Building: 24,001
Maximum Number of Employees:
Maximum Number of Seats:

6. **Proposed Water Supply:**

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

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

( ) Alternative ( ) Conventional ( ) Innovative (X) Modified Conventional ( ) Other___

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

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right 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:** _____ 5/2/07
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

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, Cool Springs Vol. Fire Dept., am the legal owner(s) of the property located at 660 & 672 Mocksville Hwy and 116 Laura Knoll Lane, identified as PIN (Parcel Identification Number) 4765537235, 4765535267, 4765533246, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Thompson Enviromental Consulting, 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.

Fire Chief 3/29/2016
Signature of Owner(s) Date

3/29/16
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
JANE MURRAY, RN BSN MS
HEALTH DIRECTOR

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

Notice of Intent to SUSPEND/REVOKE Improvement Permit/Construction Authorization

4/3/17 (Date)

Owner: Cool Springs VFD
Address: 641 Mocksville Hwy
Statesville, NC

Subject: Notice of Intent to Revoke/Suspend Cool Springs VFD 662 Mocksville Hwy
(**specify name/location**) Improvement Permit/Construction Authorization

Dear Cool Springs VFD
(Owner's Name)

The Iredell County Health Department (ICHD) inspected the site for the on-site wastewater system located at 662 Mocksville Hwy (physical address) for compliance with the Laws (Article 11 of Chapter 130A of the North Carolina General Statutes), Rules (15A NCAC 18A .1900 et seq.), and Improvement Permit/Construction Authorization Type 3 Pump-25% Reduct (specify type and number) conditions. As a result of this inspection, the Department has determined the following violations:

Violation	Law or Rule Citation
Area for drainfield has been graded down.	15ANCAC 18A. 1937 Permits

[Example #1 - 18 inches of soil removed from site in violation of NCGS 130A-335(f), Rule .1937(g), Rule .1943, Rule .1947(c), and IP Condition No. 2.]
[Example #2 - Nitrification trenches installed at a depth of 30 inches in violation of Rule .1955 (m) and CA Condition No. 2.]

This is to notify you that based on these violations, the Department intends to suspend/revoke (specify) your Improvement Permit/Construction Authorization (specify) 30 days from the date of this notice.

If the ICHD determines that all of the violations have been corrected before thirty (30) days expire, the suspension/revocation (specify) will not go into effect. *[Insert for suspension]* If the permit is suspended, the health department must determine that the violations have been corrected before the suspension will be lifted. *[Insert for revocation]* If the permit is revoked, you must apply for a new Improvement Permit/Construction Authorization and meet the requirements of the current laws and rules necessary to obtain a new IP/CA.

You have a right to an informal review of this decision. You may request an informal review by the environmental health supervisor at the local health department. You may also request an informal review by the NC Department of Health and Human Services Regional Soil Scientist. A request for informal review must be made in writing to the local health department.

You also have a right to a formal appeal of this decision. To pursue a formal appeal, you must file a petition for a contested case hearing with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. You may write the Office of Administrative Hearings, call the office at (919) 431-3000 or get a copy of the petition form from the OAH web site at http://www.ncoah.com/forms.html . The petition for a contested case hearing must be filed in accordance with the provision of North Carolina General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B. North Carolina General Statute 130A-335 (g) provides that your hearing would be held in the county where your property is located.

If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** The date of this letter is 4/3/17. Meeting the 30 day deadline is critical to your formal appeal.

If you file a petition for a contested case hearing with the Office of Administrative Hearings, you are required by law (NC General Statute 150B-23) to serve a copy of your petition on the Office of General Counsel, NC Department of Health and Human Services, 2001 Mail Service Center, Raleigh, NC 27699-2001.

Do not serve the petition on your local health department. Sending a copy of your petition to the local health department will not satisfy the legal requirement in NC General Statute 150B-23 that you send a copy to the Office of General Counsel, 2001 Mail Service Center, NC Department of Health and Human Services.

You may contact our office at 704-878-5305 x3456 or by fax at 704-871-3483.

Sincerely,

Marian Dotson

Signature of DHHS Authorized Agent

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 20816Z

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

PIN # 4765533246

APPLICANT: Cool Springs VFD APPLICANT ADDRESS: 641 Mocksville Hwy Statesville NC

SITE ADDRESS: ~~1262~~ Mocksville Hwy Statesville NC PHONE: 704-872-3221 ALT. PHONE: 828-381-0882

SITE DIRECTIONS: Mocksville Hwy just east of Beaver's Store on right

SUBDIVISION: N/A SECTION: N/A LOT # N/A LOT AREA: 5 ac DESIGN FLOW: 625 L.T.A.R.: 0.3

Septic Tank 1500 (gal) STB Date

Pump Tank 1500 (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 5 Linear Ft: 525

Trench Width 36" Max. Trench Bottom Depth 28" Gravel Depth N/A

[X] New System [ ] Repair [ ] Expansion System Type: I II [III] IV V VI

System Description: 25% Reduction-Pump

Repair System Description: 50% Reduction-Pump

Maintenance Agreement Required: [ ] YES [X] NO

[ ] GRAVITY [X] PRESSURE

[ ] Residence No. Bedrooms 5

[ ] Business No. Persons

[X] Other No. Employees 12

[X] Slab [ ] Crawl Space

[ ] Basement w/plumbing [ ] Basement w/o plumbing

Water Supply: [ ] Private [X] Public [ ] Community

Comments / Conditions: Install per plan by Larry Thompson

INITIAL SITE SKETCH

* See plan by Larry Thompson LSS *

AS BUILT SKETCH

Revoked

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**

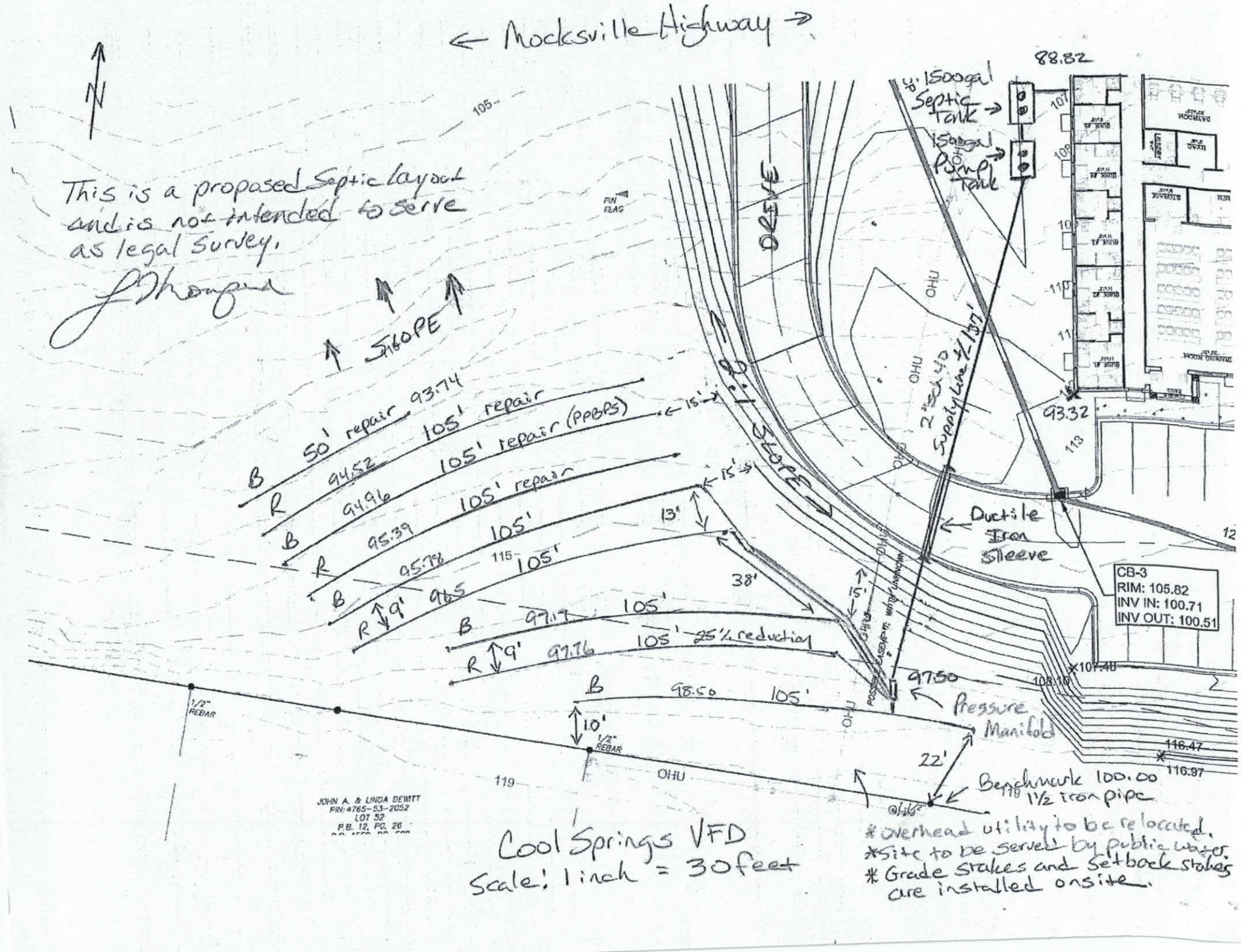
[ ] **IMPROVEMENT PERMIT** *with plat valid without expiration.* [X] **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* [X] **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: Date: 4/13/16 Installed by:

IMPROVEMENT PERMIT by: Date: 04/12/16 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: Date: 07/06/16 Existing System Inspected by: Date:

Health Dept. Copy - WHITE Applicant (Final Approval) - YELLOW Applicant (Conditional Approval) - PINK


← Mocksville Highway →
N
This is a proposed Septic layout and is not intended to serve as legal survey.
SLOPE
DRIVE
FIN FLAG
B 50' repair 93.74
R 94.52 105' repair
B 94.96 105' repair (PPBPS)
R 95.39 105' repair
B 95.78 105'
R 9' 96.5 105'
B 97.17 105'
R 9' 97.76 105' 25% reduction
B 98.50 105'
15'
13'
38'
10'
1/2" REBAR
119
115
OHU
JOHN A. & LINDA DEWITT
PIN: 4765-53-2052
LOT 52
P.B. 12, PG. 26
1500gal Septic Tank
1500gal Pump Tank
2" sch 40 Supply Line ±130'
88.82
93.32
Ductile Iron Sleeve
CB-3
RIM: 105.82
INV IN: 100.71
INV OUT: 100.51
97.50
Pressure Manifold
107.48
108.10
116.47
116.97
22'
Benchmark 100.00
1½ iron pipe
Cool Springs VFD
Scale: 1 inch = 30 feet
* Overhead utility to be relocated.
* Site to be served by public water.
* Grade stakes and setback stakes are installed onsite.

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:

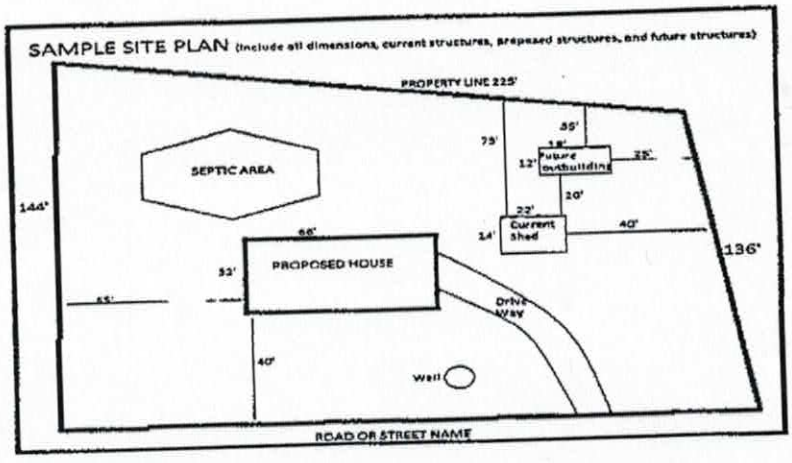
- ↘ Property Line measurements are clearly identified...
- ↘ All proposed structures are indicated...

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...
- ↘ Area you prefer your septic system to be placed...
- ↘ Preferred driveway location and configuration, preferred well location...
- ↘ North arrow, or other sufficient indicator of direction...

Circle N/A on the following if appropriate:

- N/A 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
- N/A Location of any designated wetlands on the property... N/A



USE THIS SPACE TO DRAW YOUR SITE PLAN

This has been submitted already by Larry Thompson from Thompson Enviromental Consulting Inc. Relayout Papers attached

Signature: _____ 5/2/17
REQUIRED property owner or owner's legal representative signature. DATE

Commercial Subsurface Wastewater Treatment and Disposal System Proposal

for

Cool Springs Volunteer Fire Department
641 Mocksville Highway
Statesville, North Carolina

PIN: 4765535256.000
April 29, 2017

Prepared for:

Cool Springs Volunteer Fire Department, Inc.
Andy Webster, Chief
641 Mocksville Highway
Statesville, NC 28625
828-381-0882



Prepared by:

Larry Thompson, REHS, LSS
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
Phone: 704-301-4881
Fax: 206-350-8895
larry@thompsonenv.com



Details

Cool Springs Volunteer Fire Department, Inc. (CSVFD) has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare a revised septic proposal for the construction of their new fire station located at 641 Mocksville Highway, Statesville, North Carolina.

Based upon a previous soils investigation 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 with a prefabricated porous block panel system (PPBPS) repair. Grading operations encroached upon the previously approved drainfield area resulting in the need for a revised septic proposal.

TEC revisited the site on April 27, 2017 and performed a supplemental soil evaluation with deep pits. The soils observed were "Suitable" Group IV soils which allowed TEC to expand the original drainfield area to accommodate a Type II accepted system (25% reduction approval) for both the initial as well as the proposed repair system.

CSVFD 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 wastewater treatment and disposal system to serve their new fire station based upon the following revised proposal.

Location

The project site is located at 688 Mocksville Highway in Statesville. From downtown Statesville, take US-64 E/Davie Avenue/Mocksville Road out of town. Travel approximately 4.4 miles and the subject property will be located on the right just after Beaver's Country Store.

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, October 2011.

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. Pump Tank

1. The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and **1500 gallons** in capacity. Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
2. All pipe penetrations into the tank shall be booted (i.e., C-293 boot with a stainless steel strap).
3. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
4. Floats, pump and control circuits, and the control panel shall meet the requirements of Rule .1952(c). Panel and control equipment shall include lightning protection, be protected from unauthorized access, and remain accessible at all times to the system operator.
5. The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion resistant, Nema 4x rated control panel. The control panel must be securely mounted outside, adjacent to the pump tank riser and at a minimum of 12 inches above finished grade. Pump and float control wiring should be long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.

6. Float switch tie downs must be made of a corrosion resistant material (per OWPS, all metal in the tanks shall be stainless steel). Floats should be mounted on a separate "float tree" rather than the pump supply line (see pump tank detail).
7. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.

C. Pipes and Fittings

1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.
2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. The supply line from the pump tank to the pressure manifold shall be 2-inch Schedule 40 PVC (approximate length of supply line is 205 feet).
4. The supply line shall be sleeved under the drive in a larger diameter steel or iron sleeve that extends a minimum of 5 feet on either side of the compacted/paved roadway.

D. Manifold

1. A pressure manifold will be required for this system.
2. The pressure manifold shall be contained within an adequately sized box/vault that is designed to allow for drainage of effluent that may accumulate in it during flushing and head pressure adjustments. The box should be placed upon a gravel base.
3. A gate valve shall be provided at the pressure manifold box to allow for final pressure adjustment (2 foot of head pressure as per design).
4. The pressure manifold shall be constructed of SCH 80 PVC.
5. There shall be 5 taps (SCH. 80 PVC - direct thread or saddle), ½ inch in diameter, each to have a true union ball valve that will allow for future removal/replacement. NOTE: Using SCH 40 taps will increase the required pump delivery rate beyond that which is specified in this design.
6. The connecting pipe between the Pressure Manifold taps and the drainfield shall be constructed of PVC.

E. Drainfield

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 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 drain field area while the soil is in a wet condition. If the installer has doubts as to whether or not the drain field area is dry enough to begin construction, the ICEH should be contacted for permission to proceed with the installation.

3. The specified system is an approved accepted system; the **Infiltrator Quick4 Standard Chamber System, EZ*flow* 1203H** or any other system with a 25% reduction approval granted by the state and approved for installation by ICEH.
4. The drainfield consists of five (5) lateral trenches to be constructed 3-foot wide by 105-feet in length.
5. The maximum trench depth for this system shall be **28 inches**.
6. The drainlines are to be fed equally via a pressure manifold.
7. The laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
8. The trenches should be left open for the final inspection by the ICEH.

F. Proper Operation Check

1. After all components of the waste water disposal system have been installed and connected, the system shall be checked for proper operation.
2. With the electrical power turned off, fill the pump tank with water until the liquid rises to a level high enough to activate the high water alarm float. Turn on the electrical power. The alarm, alarm light and pump should activate at this time. Turn off the electrical power once these checks have been performed and prepare to set the head pressure at the manifold.

G. Pressure Head Adjustment

1. The pressure head must be adjusted to match the design specifications. The pressure head is measured by the height of the liquid coming from the turn ups at the end of each lateral when the pump is running (utilizing stand pipes).
2. Prepare a length ½ inch pipe (stand pipe), cut to the desired head pressure height (2 feet) and fitted with a threaded adapter that will screw into the existing manifold. Adjust the gate valve within the supply manifold box to achieve the specified head pressure (liquid height in the stand pipe should equal the design head pressure).
3. Once the pressure head has been adjusted, allow the pump to run through the remainder of the cycle. The pump float switch will automatically turn the pump off if it is operating properly. Make sure that the effluent pump is completely submerged in the remaining water, making adjustments to the float switch(es) as needed. This completes the checks for proper operation of the pump, alarm and float switches.
4. At this point, the standpipe may be removed and replaced with the threaded cap.
5. If the existing manifold does not have a gate valve or ½ inch threaded plug, these will need to be added to adjust the head pressure for the manifold.

H. Utility Conflicts

1. The builder/project manager must take special care in planning for utilities (water, power, gas, telephone, cable lines, etc.). All utilities shall be kept clear of the proposed septic tank, pump tank, supply line and drainfield areas.

2. The existing overhead utility that is identified in the attached layout will be relocated. There is no recorded right-of-way within the proposed septic drainfield area.
3. Water lines must be kept at least ten (10) feet from any portion of the septic system.
4. Irrigation systems should not be placed in the drain field area.

Maintenance

I. In General

1. The fire department 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 church have 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.

Design Specifics

Daily Flow:	625 Gallons per Day
Septic Tank Size:	1500 Gallons
Pump Tank Size:	1500 Gallons
Supply Line Length:	Approximately 205 Feet
Supply Line Diameter and Material:	2-inch SCH 40 PVC
Distribution Method:	Pressure Manifold
Manifold Material:	SCH 80 PVC
Manifold Taps Material:	SCH 80 PVC
Number and Size of Taps:	(5) Taps ½ Inch in Diameter
Drainfield Type:	Accepted – 25% Reduction
Number and Length of Drainlines:	(5) 3' Wide x 105' Long

Total Length of Drainline:	525 Linear Feet
Maximum Trench Depth:	28 Inches
Trench Separation Distance:	9-Foot on Centers
Dosing Volume:	252 gallons per dose
Flow Rate Through System:	27.4 gallons per minute
Elevation/Friction Head:	15 feet
Pressure Head:	2 feet
Pump Requirements:	27.4 GPM at 17 Feet TDH
Recommended Pump:	Goulds WEO3L (or equiv.)
Check Valve Required:	Yes
Pump Run Time:	9.2 minutes
Pump Tank Drawdown:	8.4 Inches (30 Gallons per Inch)

Repair System Specifics

Septic Tank:	Use Existing
Pump Tank:	Use Existing
Supply Line:	2-inch SCH 40 PVC
Distribution Method:	Serial or Modified Manifold
Drainfield Type:	Accepted – 25% Reduction
Number and Length:	(5) New – Various Lengths 2 at 80 Linear Feet 2 at 90 Linear Feet 1 at 150 Linear Feet (2) Extended 1 at 45 Linear Feet 1 at 50 Linear Feet

Total Length of Repair Available: 585 Linear Feet

*30 gallons per inch is based upon Dellinger PT-477 1,500 gallon pump tank. Other 1,500 gallon pump tanks may vary in gallons per inch.

*See septic layout for additional information and details.

C:\BLM\Projects\2015\2015-0002- Cool Springs VFD\CADD\Plansheets\C4.0 Grading Plan.dwg JONATHANC

GENERAL CONSTRUCTION NOTES:

1. APPROVAL OF THE PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS REQUIRE GRADING BEYOND THE LIMITS SHOWN, WRITTEN PERMISSION FROM THE AFFECTED PROPERTY OWNERS MUST BE OBTAINED BEFORE GRADING BEGINS.
2. ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES INCLUDING ASPHALT. REFER TO DRAWINGS OF CROSS SECTIONS FOR SUBGRADE ELEVATIONS. SUBGRADE SHALL BE ADJUSTED TO ACCOMMODATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
3. CONTRACTOR SHALL VERIFY ALL EARTHWORK QUANTITIES AND SHALL REPORT ANY DISCREPANCIES TO ENGINEER IMMEDIATELY.
4. CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER OR ENGINEER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN ON THE PLANS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.
5. ALL EARTH FILL TO BE COMPACTED TO MINIMUM 95% OF STD. PROCTOR MAXIMUM DRY DENSITY.
6. TOP 12" OF SUBGRADE OF BUILDING PADS AND PARKING AREAS TO BE COMPACTED TO MINIMUM 100% OF STD. PROCTOR MAXIMUM DRY DENSITY.
7. ALL RCP CULVERTS TO BE MINIMUM CLASS IV RCP WITH TONGUE AND GROOVE JOINTS WITH RUBBER GASKETS PER ASTM C443. ALL RCP TO BE WITH RUBBER GASKETS PER FSS-SS-S-00210.
8. SUBGRADE OF PARKING AREAS TO BE PROOF ROLLED PRIOR TO STONE PLACEMENT.
9. ABC STONE TO BE COMPACTED TO 100% OF STD. PROCTOR.
10. BITUMINOUS PAVEMENT BASE COURSE TO BE COMPACTED TO 100% OF STD. PROCTOR. BITUMINOUS SURFACE COURSE SHALL BE COMPACTED TO A DENSITY OF 95% MARSHALL MIX DESIGN. BASE COURSE TO BE COMPACTED TO A DENSITY OF 95%.
11. ALL CONCRETE FOR SIDEWALKS AND CURBS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.
12. REFER TO ARCHITECTURAL DRAWINGS FOR DOWN SPOUT LOCATIONS. BUILDING ROOF DRAINAGE OUTLETS WILL BE TURNED AWAY FROM ANY ADJACENT PROPERTIES.
13. BEARING SHALL HAVE 4" CLEAN, GRADED AND COMPACTED (NO SLAG) ABC STONE BELOW FOUNDATION. COMPACTED TO 100% STANDARD PROCTOR MAX DRY DENSITY.

COOL SPRINGS
VOLUNTEER FIRE DEPARTMENT
IREDELL COUNTY, NORTH CAROLINA

COOL SPRINGS VOLUNTEER FIRE DEPARTMENT
640 MOORESVILLE HWY
STATESVILLE, NC 28625

NO	DATE	BY	REVISION

PRELIMINARY NOT FOR CONSTRUCTION

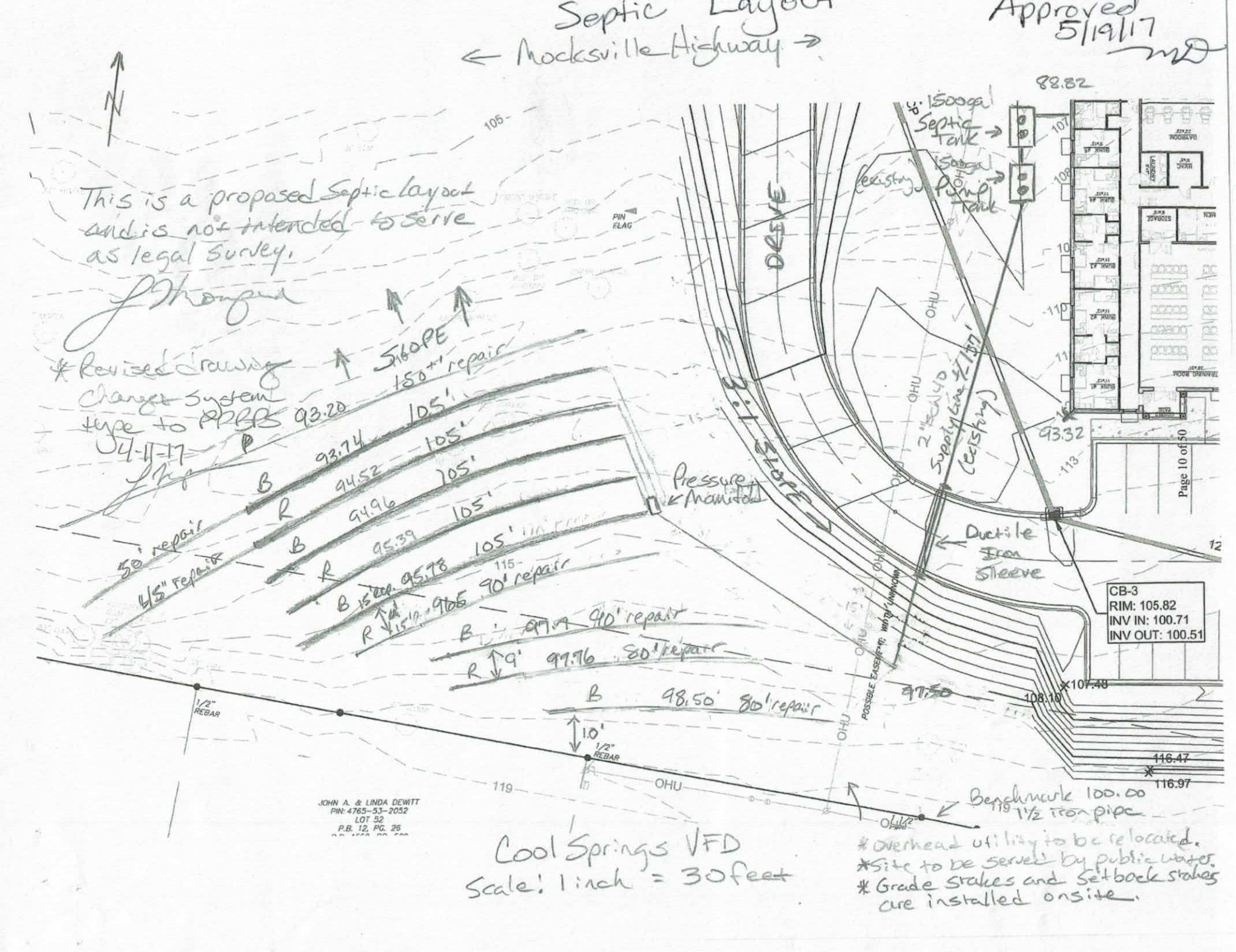
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NC License #: P-1444

PROJECT #: 2015-0002
DRAWN BY: JAC
CHECKED BY: JAC
DATE ISSUED: 10/6/15

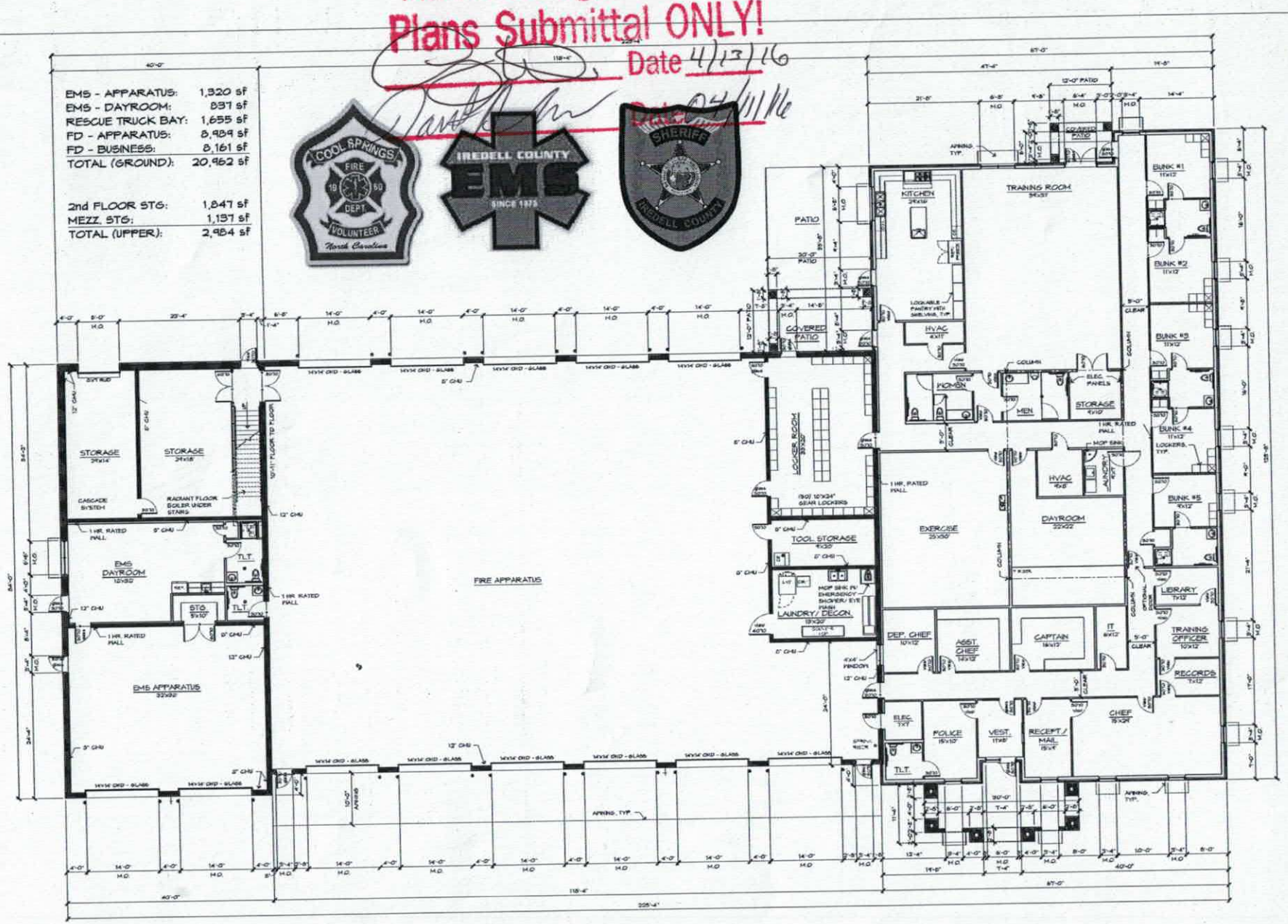
TITLE: GRADING & STORMWATER PLAN

SHEET: C-4.0


Septic Layout
← Mocksville Highway →
Approved
5/19/17
N
This is a proposed Septic layout and is not intended to serve as legal survey.
*Revised drawing changes system type to PRESS 4-4-17
SLOPE
B 93.20 150'+ repair
R 93.74 105'
B 94.52 105'
R 94.96 105'
B 95.39 105'
R 95.78 105'
B 96.05 90' repair
B 97.14 90' repair
R 9' 97.76 80' repair
B 98.50' 80' repair
50' repair
45° repair
Pressure Manifold
Drive
Soil Slope
PIN FLAG
OHU
POSSIBLE EASEMENT WITH UNKNOWN
2" HDPE Supply Line 12/1/17 (existing)
Ductile Iron Sleeve
88.82
1500gal Septic Tank
1500gal Pump Tank
existing
CB-3
RIM: 105.82
INV IN: 100.71
INV OUT: 100.51
93.32
107.48
108.10
97.50
116.47
116.97
1/2" REBAR
1.0'
1/2" REBAR
119
OHU
JOHN A. & LINDA DEWITT
PIN: 4765-53-2052
LOT 52
P.B. 12, PG. 26
Benchmark 100.00
1½ iron pipe
Cool Springs VFD
Scale: 1 inch = 30 feet
* Overhead utility to be relocated.
* Site to be served by public water.
* Grade stakes and setback stakes are installed onsite.

Acknowledgement Of
Plans Submittal ONLY!
Date 4/13/16
Date 04/11/16

EMS - APPARATUS:	1,320 sf
EMS - DAYROOM:	837 sf
RESCUE TRUCK BAY:	1,655 sf
FD - APPARATUS:	8,989 sf
FD - BUSINESS:	8,161 sf
TOTAL (GROUND):	20,962 sf
2nd FLOOR STG:	1,847 sf
MEZZ. STG:	1,137 sf
TOTAL (UPPER):	2,984 sf



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

PINNACLE ARCHITECTURE
PROFESSIONAL ASSOCIATION
P.O. BOX 187, 630 TRADD ROAD, SUITE 200
MATTHEWS, NORTH CAROLINA 28106
PH: (704) 847-9831 F: (704) 847-9853

COOL SPRINGS VFD
AND EMS FACILITY
STATESVILLE, NC

PROPOSED FLOOR PLAN

REVISION SCHEDULE
#	DATE	REFERENCE

A2.0

THIS DRAWING IS THE PROPERTY OF THIS ARCHITECT & MAY NOT BE USED FOR CONSTRUCTION PURPOSES OR REPRODUCED WITHOUT WRITTEN CONSENT OF THE ARCHITECT.

IREDELL COUNTY

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

APPLICATION NUMBER
208792
Issue Date: 11/18/2015

ZONING PERMIT

Open Space

Parcel Number	Street Address	Jurisdiction
4765533246.000	662 MOCKSVILLE HIGHWAY, STATESVILLE, NC	IREDELL COUNTY

Owner Information	Applicant Information
Owner: CASH LEON ANDREW+SARAH	Applicant: COOL SPRINGS VOLUNTEER
Address: 229 IREDELL CO, NC 28625	Address: 641 MOCKSVILLE HIGHWAY STATESVILLE, NC 28625
Phone:	Phone:

Use Requested	Zone Code
NEW COOL SPRING FIRE DAPARTMENT PERK ONLY; HOLD BUILDING PERMIT UNTIL SITE PLAN APPROVED	R20

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
1.078					NOT	X

Remarks:

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. The applicant further acknowledges that enforcement of deed restrictions, plat conditions and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Applicant: _____ Date: _____

Permit Number	64064	TOTAL FEES:	$ 77.25