IREDELL COUNTY HEALTH DEPARTMENT

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

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

PERMIT # 200168

PIN # 4646267049

APPLICANT: SCOTT McCONNELL APPLICANT ADDRESS: PO BOX 1703 MOORESVILLE N.C. 28115

SITE ADDRESS: 321 SUNDOWN RD - MOORESVILLE NC PHONE: ALT. PHONE: 704 2025791

SITE DIRECTIONS: WILLIAMSON RD FROM 150 - TR SUNDOWN - ON LT

SUBDIVISION: Laura Barbee Estate SECTION: — LOT # 4 LOT AREA: .53 AC DESIGN FLOW: 480 L.T.A.R.: .275

Septic Tank	1000	(gal)	STB	794	Date	4-10	☑ New System	☐ Repair	☐ Expansion	System Type: I II ☑ III IV V VI		☑ Residence	No. Bedrooms	4	Water Supply				
Pump Tank	1000	(gal)	PT	823	Date	4-6	System Description:			Pump PPBPS		☐ Business	No. Persons	8	☑ Private				
Pump Make	ZOELLER	Model	EN 140-D		Serial #		Repair System Description:			TSII DRIP		☐ Other	No. Employees		☐ Public				
# Nitrification Fields	1	# Lines			Linear Ft:	291	Maintenance Agreement Required:		☐ YES	☑ NO		☐ Slab	☑ Crawl Space		☐ Community				
Trench Width	5	Max. Trench Bottom Depth		24"	Gravel Depth	N/A			☐ GRAVITY	☑ PRESSURE		☐ Basement w/plumbing			☐ Basement w/o plumbing				

Comments / Conditions: ☆ - As of 2-9-17, all pre-requisites for AC issuance have been met. -BA ☆

INITIAL SITE SKETCH

See Carolina Soil & Septic Consulting's Design

AS BUILT SKETCH

	Date	Initials
Drain Lines Checked	5-10-17	BA
Tanks Checked	↓	BA
Pressure Manifold or Valve Box Checked	↓	BA
Pressure Head Set	7-13-17	BA
Electrical Checked	7-13-17	BA
Floats Set	↓	BA
Alarm Checked	↓	BA
Maintenance Contract Y / (N)	not required	

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

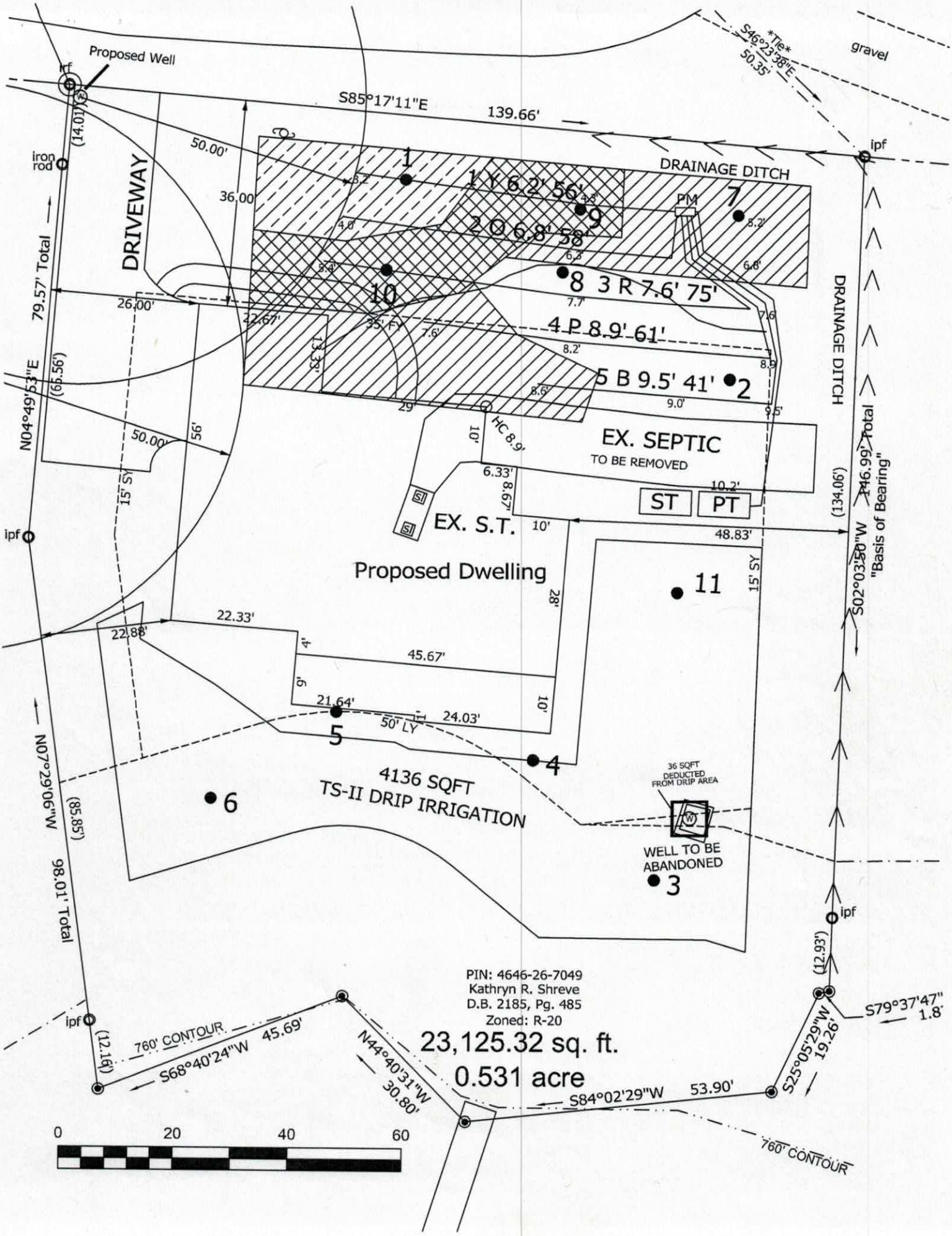
☐ IMPROVEMENT PERMIT *with plat, valid without expiration.* ☐ IMPROVEMENT PERMIT *with site plan valid for 60 mos.* ☐ AUTHORIZATION TO CONSTRUCT *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

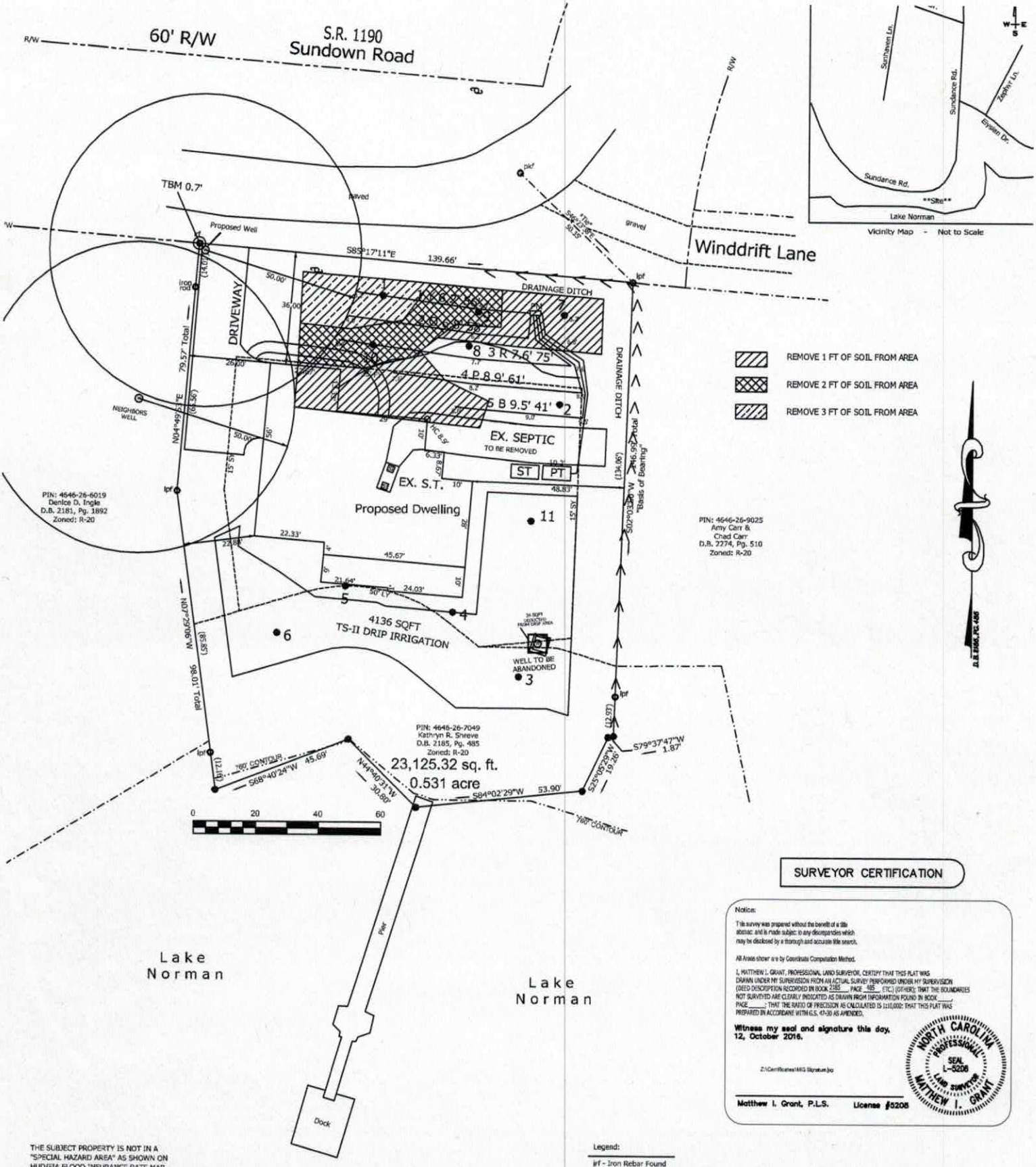
Owner / Applicant Signature: Date: 10/28/2016 Installed by: BASS BA-008

IMPROVEMENT PERMIT by: Date: 10/24/16 OPERATION PERMIT by: Date: 7-13-17

AUTHORIZATION TO CONSTRUCT by: Date: 2/9/17 Existing System Inspected by: Date:

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


Proposed Well
ipf
(14.01')
S85°17'11"E
139.66'
S46°23'38"E
50.35'
Tie
gravel
iron rod
ipf
DRAINAGE DITCH
DRIVEWAY
50.00'
36.00'
79.57' Total
26.00'
22.67'
35' FY
13.33'
N04°49'53"E
(66.56')
50.00'
56'
15' SY
1 Y 6.2' 56'
2 O 6.8' 58'
8 3 R 7.6' 75'
4 P 8.9' 61'
5 B 9.5' 41'
9
10
PM
7
2
EX. SEPTIC
TO BE REMOVED
HC 8.9'
10'
6.33'
8.67'
ST
PT
10.2'
EX. S.T.
Proposed Dwelling
10'
48.83'
ipf
DRAINAGE DITCH
(134.06')
146.99' Total
"Basis of Bearing"
S02°03'50"W
11
15' SY
28'
22.33'
22.88'
4'
45.67'
9'
10'
21.64'
24.03'
50' LY
5
4
6
4136 SQFT
TS-II DRIP IRRIGATION
36 SQFT
DEDUCTED
FROM DRIP AREA
WELL TO BE
ABANDONED
3
N07°29'06"W
(85.85')
98.01' Total
ipf
(12.93')
S79°37'47"
1.8'
PIN: 4646-26-7049
Kathryn R. Shreve
D.B. 2185, Pg. 485
Zoned: R-20
23,125.32 sq. ft.
0.531 acre
760' CONTOUR
S68°40'24"W
45.69'
(12.16')
N44°40'31"W
30.80'
S84°02'29"W
53.90'
S25°05'29"W
19.26'
760' CONTOUR
0
20
40
60



SURVEYOR CERTIFICATION

Notice:

This survey was prepared without the benefit of a title abstract and is made subject to any discrepancies which may be disclosed by a thorough and accurate title search.

All Areas shown are by Coordinate Computation Method.

I, MATTHEW I. GRANT, PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY PERFORMED UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK 2185 PAGE 485 ETC.) (OTHER); THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN BOOK ____, PAGE ____; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED.

Witness my seal and signature this day, 12, October 2016.

Z:\Certificates\MIG Signature.jpg

NORTH CAROLINA PROFESSIONAL SEAL L-5208 LAND SURVEYOR MATTHEW I. GRANT

Matthew I. Grant, P.L.S. License #5208

THE SUBJECT PROPERTY IS NOT IN A "SPECIAL HAZARD AREA" AS SHOWN ON HUD/FIA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 3710464600J EFFECTIVE DATE 3/18/2008.

Legend:

irf - Iron Rebar Found
ipf - Iron Pipe Found
R/W - Right of Way
si - Septic Lid
pkf - PK Nail Found
- Power Pole
- Computed Point
- Well

0 20 40 60

NOTES:

PROPERTY SUBJECT TO ANY FACTS THAT MAY BE

Zoning:

J. JORDAN

JOB NAME:
Scott McConnell

Carolina Soil & Septic Consulting, PLLC

P.O. Box 1703, Mooresville, NC 28115

Phone: (704) 202-5791 Email: adrianpruett@yahoo.com

NC Licensed Soil Scientist, SC Professional Soil Classifier,
Certified Septic System Operator, Licensed Septic Installer,
Certified Septic Inspector

Attached is a proposed design for a PPBPS Septic System with PRESSURE MANIFOLD distribution for a 4 bedroom single family residence on 321 Sundown Rd., Mooresville, Iredell County, North Carolina.

Contents: **Page**

Installer Information---------- 1

Design Information
- Install Specifications---------- 2
- Field Layout Specifications---------- 3
- Pressure Manifold Tapsheet---------- 4

Typical Pressure Manifold Diagram---------- 5

Site Plan/System Plan---------- 6-7

Dosing Calculations---------- 8

Profile Descriptions---------- 9-11

October 18, 2016
Job Number: 2016-057
Design By: Adrian L. Pruett LSS



INSTALLER INFORMATION:

- The permit should be read very carefully prior to submitting bid. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by NC DHHS, and certification supplied by the manufacturer.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- The installer is responsible for final grades and returning that grade to original, with exception of added structural features.
- The supply trench shall be compacted to eliminate any cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom has no more than 1/4"fall in 10 feet with no high or low areas within. If high or low areas do exist after trench excavation, high areas should be removed rather than filling in low areas. Do not over excavate trenches! Any fine grading should be completed by hand with a rake and shovel, leaving no loose material.
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral to prevent unwanted lateral water movement.
- Elevations at pin flag locations should be checked by the installer prior to beginning trenches to insure accuracy.
- Pump tank riser should be 6" above grade, control panel should be 12" above grade.
- If septic tank risers are used they should be a minimum of 6" above finished grade or within 6" of final grade if buried.
- Backfill minimum of 6" of material (County Approved) over panels, rake trench walls, lime side walls, install trenches **24"** wide.
- **System is specified as a PPBPS with Pressure Manifold Distribution.**
- **Repair is specified as an a TS-II Drip Irrigation installation**
- Where Supply Line cross under the driveway 30" depth must be maintained and it is suggested it is sleeved in larger diameter PVC pipe for ease of repair if need in the future.

PRESSURE MANIFOLD SYSTEM
DESIGN SPECIFICATIONS

Owner:	Kathryn Shreve
Address:	8401 Browns Pond Ln. Charlotte, NC 28277
Client:	Scott McConnell
Telephone Number:	704-578-6392
Drainfield Design Flow (gpd):	480
Loading/Soil Application Rate (gpd/ft.^{2}):	0.275
Depth of Gravel in Trench:	NA (PPBPS)
Gravel Size:	NA (PPBPS)
Total Lateral Length From Layout:	291
Total Lateral Length Required:	290.9090909
Trench Depth:	25 in. LOW SIDE
Trench Width:	24 in.
Trench Bottom Area:	873
Trench Spacing:	8
Repair Trench Depth:	34 in.
Repair Trench Spacing:	2 ft.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	61
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	10.61
Dosing Volume:	237.60
Pump Tank Draw Down:	11.3
Supply Manifold Size:	4 in. SCH 80 PVC
Supply Manifold Length:	4 ft. (minimum)
Supply Manifold Volume:	N/A
Recommended Dosing Controls:	Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	NEMA 4X Control Panel or Equivalent, County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	4.58
Elevation Head:	9.00
Total Dynamic Head:	16.55
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Adrian L. Pruett, LSS

**Pump tank draw down based on an industry standard volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

FIELD LAYOUT SPECIFICATIONS
321 SUNDOWN RD., MOORESVILLE

LAYOUT FOR 4 BEDROOM HOME — October 18, 2016

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		0.7			100.00		
INSTR. 1			100.70				
HOUSE				8.90	91.80		
TANK				10.20	90.50		
1	*YELLOW*			*6.20*	*94.50*	*72*	*56*
2	*ORANGE*			*6.80*	*93.90*	*75*	*58*
3	*RED*			*7.60*	*93.10*	*80*	*75*
4	*PINK*			*8.90*	*91.80*	*61*	*61*
5	*BLUE*			*9.50*	*91.20*	*41*	*41*
6	TS-II DRIP					4046 SQFT	4046 SQFT
					Total	**329**	**291**

	LINE LENGTH	SYSTEM TYPE	SOIL LTAR GPD/FT[1]	TRENCH SYSTEM	DISTRIBUTION
** System*	*291*	*MOD.*	*0.275*	*PPBPS*	**PRESSURE MANIFOLD**
Repair	4046 SQFT	MOD.	0.125	TS-II DRIP IRR.	LOW PRESSURE

Notes:
** TBM located at front right corner (all elevations are based off after soil removal)
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags
**BS, HI, and FS indicate rod readings

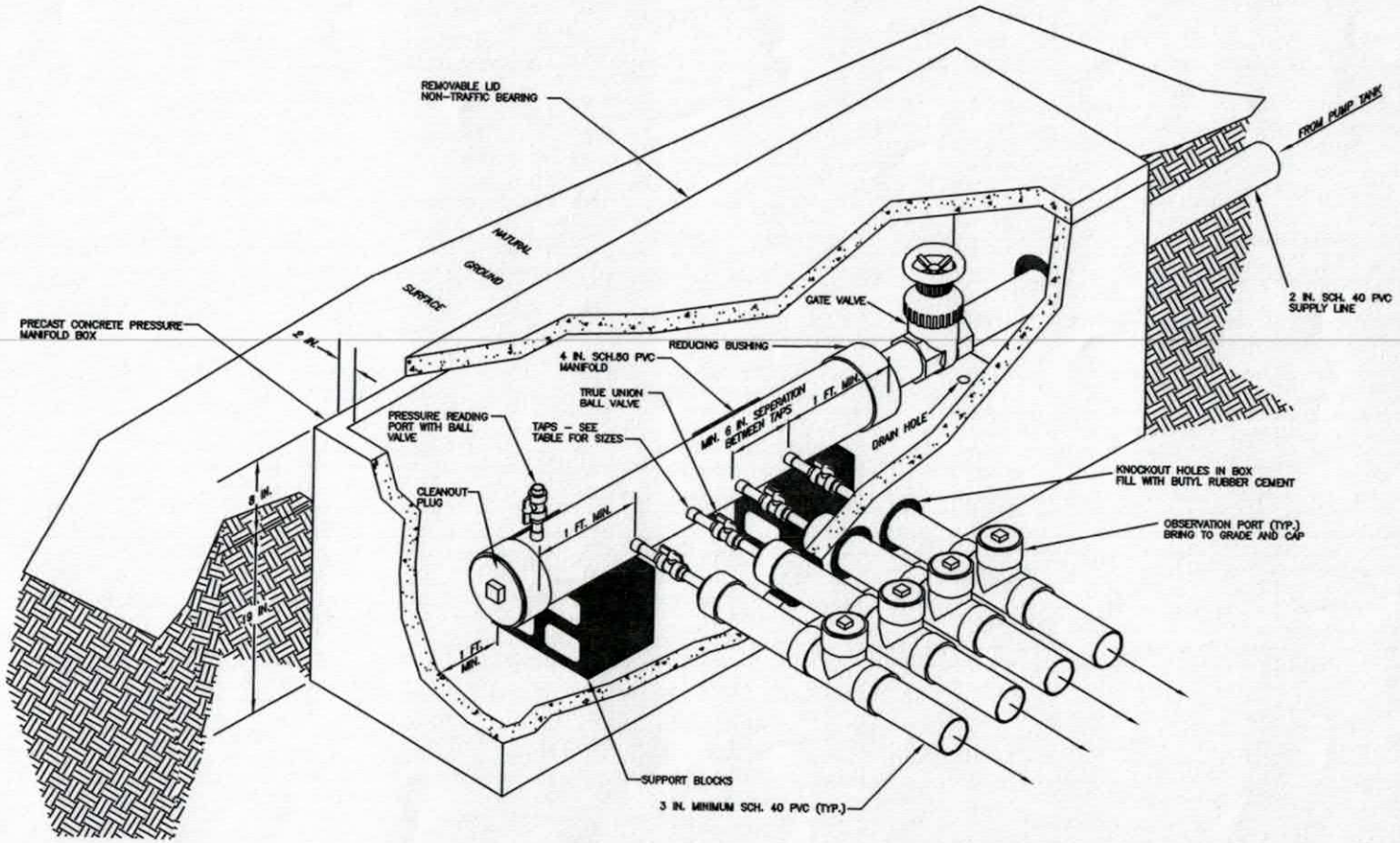
Comments: Soil must be removed from initial septic area per site plan. Do not over grade areas, it is recommended a representative of CS&SC be present during grading. Note field shot elevations on site plan.
Existing ditch line must be maintained and a berm must be created below ditch to keep channelized.
Existing septic system to be removed and the drainfield area replaced with clay and compacted.
Do not excavate existing system any larger than its width.
Septic lines must maintain 15 ft. from drainage feature on left property line.
All septic lines, tank and manifold must be placed where shown
House location is survey located and must be placed where shown
Drip Irrigation repair to maintain minimum of 5 ft. setback from all foundations.
This design percludes the use of foundation drains.
A minimum of 3 in. of approved soil cover to be placed over system to maintain the required 6 in. of cover

PRESSURE MANIFOLD TAPSHEET - 321 SUNDOWN RD., MOORESVILLE

SYSTEM

Line #	Color	Elevation	Length	Pipe Size	Flow/Tap	Line GPD	Line Capacity	Line Trench Area	Flow/Line	Line LTAR	# of Panels
1	*YELLOW*	*94.50*	*56*	*SCH 80 3/4*	*10.1*	*48.08*	*46.52*	*112*	*0.86*	*0.43*	*13*
2	*ORANGE*	*93.90*	*58*	*SCH 80 3/4*	*10.1*	*48.08*	*48.18*	*116*	*0.83*	*0.41*	*13*
3	*RED*	*93.10*	*75*	*SCH 40 3/4*	*12.5*	*59.51*	*62.31*	*150*	*0.79*	*0.40*	*17*
4	*PINK*	*91.80*	*61*	*SCH 80 3/4*	*10.1*	*48.08*	*50.68*	*122*	*0.79*	*0.39*	*14*
5	*BLUE*	*91.20*	*41*	*SCH 40 1/2*	*7.11*	*33.85*	*34.06*	*82*	*0.83*	*0.41*	*9*
											66
		total feet =	**291**	**gal/min =**	**49.91**						
			Des. Flow	**480**							
			Pump Run=	**4.76**							
			soil LTAR	**0.275**							

TYPICAL PRESSURE MANIFOLD DETAIL



CALCULATIONS

Location 321 Sundown Rd., Mooresville

No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.275	$^{gpd}/_{ft^2}$
PPBPS RED.? (YES OR NO)	YES	
Supply Line Length	61	ft.
Supply Line Volume	10.614	gal.
Required Feet of Line	290.9091	ft.
Amount of Line from Layout	291	ft.
Gallons per Minute	49.91	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	
Number of Panels	66	
Dosing Volume	237.60	gal.

Note: Dosing Volume based on 100% of # of panels times 3.6gal/panel

Tank Draw Down	11.3	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	4.76	minutes
Elevation Head	9	ft.
Pressure Head	2	ft.
Friction Factor	4.58	ft./100 ft. *(From the interpolater.)*
Friction Head	2.79	ft.
Total Dynamic Head (+20%)	16.55	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 4646267049
COUNTY: Iredell

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

OWNER: Kathryn Shreve APPLICATION DATE 10/19/16
ADDRESS: 8401 Browns Pond Ln., Charlotte, NC 28277 DATE EVALUATED: 10/2016
PROPOSED FACILITY: 4 bedrooms PROPOSED DESIGN FLOW (.1949): 480 gpd PROPERTY SIZE: 0.531 ac
LOCATION OF SITE: 321 Sundown Rd., Mooresville PROPERTY RECORDED: Yes
WATER SUPPLY: X Private ☐ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: X Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: X 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	
B 1	LSS 5%	0-6	FILL		N/A	96"	N/A	N/A	PS
		6-24	BR CL WFSBK	FR SS SP SEXP					
		24-48	DR C WFSBK	FR SS SP SEXP	-COM Mn -COM MICA				0.275 GPD/SQFT TO 48"
		48-60	R C WFSBK	FR SS SP SEXP					0.3 GPD/SQFT 48-96"
		60-96	R CL WFSBK	FR SS SP SEXP	-COM SAP				
B 2	LSS 5%	0-7	FILL		N/A -COM Mn	48"	N/A	N/A	PS
		7-30	R C WFABK	FI S P SEXP					
		30-40	R C WFABK	FI S P SEXP	-COM SAP, YELL MINERALS, FEW Mn				0.275 GPD/SQFT 7-40"
		40-48	YR CL WFSBK	FR SS SP SEXP	-COM SAP, POSSIBLE YB				0.25 GPD/SQFT 40-48"
B 3	LSS 6%	0-26	FILL		N/A -COM Mn	26-48"	N/A	N/A	PS
		26-40	B CL WFSBK	FR SS SP SEXP					
		40-49	YR C/SC WFSBK	FR SS SP SEXP	-FEW/COM YB				0.125 GPD/SQFT 26-48"
B 4	LSS/HS 3%	0-20			N/A	20-49"	N/A	N/A	PS
		20-30	R SL WFSBK	FR SS SP SEXP					
		30-36	BR C/CL WFSBK	FR SS SP SEXP	-COM Mn -FEW/COM YB -COM Mn, COM YB				0.125 GPD/SQFT 20-49"
		36-48	R C WFSBK	FR SS SP SEXP					
		48-49	R C WFSBK	FR SS SP SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	PM PPBPS	TS-II DRIP IRR
Site LTAR	0.275	0.125

OTHER FACTORS (.1946): GRADING OF SITE
SITE CLASSIFICATION (.1948): PS

EVALUATED BY: ADRIAN L. PRUETT
OTHER(S) PRESENT: NONE

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: _4646267049__
DATE OF EVALUATION: __10/2016_____
COUNTY: __IREDELL___

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 5	LSS 5%	0-13	FILL		N/A -FEW/COM Mn -FEW Mn -COM Mn, COM Y MINERAL, FEW YB	13-49"	N/A	N/A	PS 0.25 GPD/SQFT 13-49"
		13-28	B CL WFSBK	FR SS SP SEXP					
		28-43	YR C WFSBK	FR SS SP SEXP					
		43-49	YR C WFSBK	FR SS SP SEXP					
B 6	LSS 5%	0-28	FILL		N/A -COM Mn -FEW/COM Mn -FEW Mn	28-49"	N/A	N/A	PS 0.125 GPD/SQFT 28-49"
		28-38	B CL WFSBK	FR SS SP SEXP					
		38-44	BR C/CL WFSBK	FR SS SP SEXP					
		44-49	R C WFSBK	FR SS SP SEXP					
B 7	TOP OF BERM 3%	0-20	FILL		-COM Y SAP/MINERAL, FEW YB, R C AROUND ROOTS -COM Y SAP/MINERAL, FEW LITHO CH 2, FEW YB, FEW ROOTS W/ R C AROUND, POSSIBLE CHR 2	65"	UN	N/A	PS 0.25 GPD/SQFT 20-50"
		20-35	RB SC WFSBK	FR SS SP SEXP					
		35-43	R C WFSBK	FR SS SP SEXP					
		43-50	R C WFSBK	FR SS SP SEXP					
		50-55	R C WFSBK	FR SS SP SEXP					
		55-65	R C WFSBK	FR SS SP SEXP	-MANY Y SAP/MINERAL, FEW LITHO CH 2, FEW YB, POSSIBLE CH 2 -COM LITHO CH 2, POSSIBLE CH 2				
		65-70	VAR CL SAP M	FI SS SP SEXP					
B 8	LSS/FS OF BERM 5%	0-4	DB SCL GR	FR SS SP SEXP	N/A -COM Mn COM/MANY Mn	59"	N/A	N/A	PS 0.275 GPD/SQFT
		4-15	RB SC WFSBK	FR SS SP SEXP					
		15-34	R C WFSBK	FR SS SP SEXP					
		34-44	R C WFSBK	FR SS SP SEXP					
		44-59	BR C WFSBK	FR SS SP SEXP					

SOIL/SITE EVALUATION

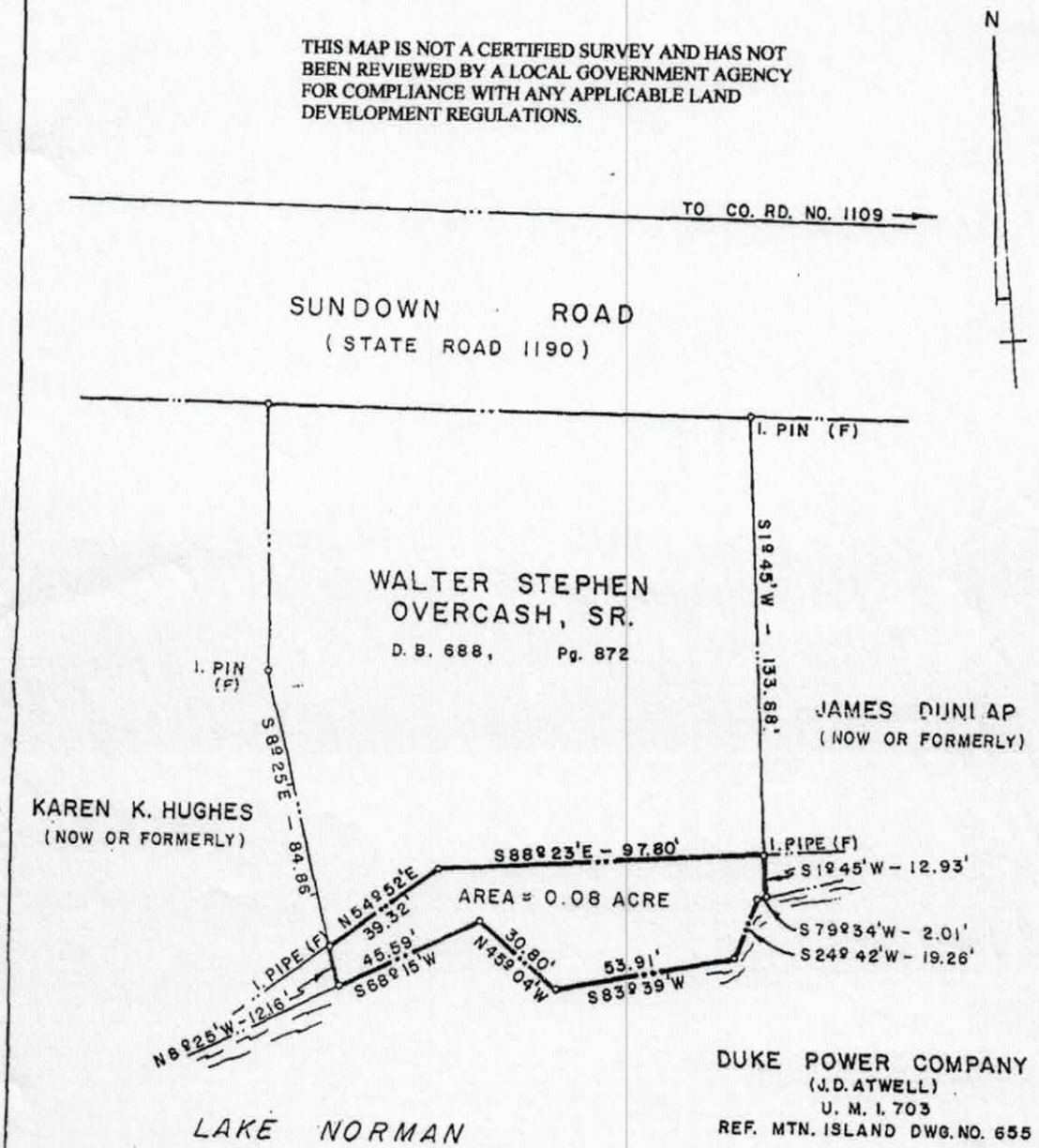
(Continuation Sheet-Complete all field in full)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 4646267049
DATE OF EVALUATION: 10/2016
COUNTY: IREDELL

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 9	TOP OF BERM 2%	0-21	FILL		N/A	21-96"	N/A	N/A	PS
		21-39	RB SC WFSBK	FR SS SP SEXP					
		39-50	R C WFSBK	FR SS SP SEXP					0.3 GPD/SQFT 21-96"
		50-65	R C WFSBK	FR SS SP SEXP	-COM MICA				
		65-72	R C WFSBK	FR SS SP SEXP	-COM SAP				
		72-88	R CL WFSBK	FR SS SP SEXP	-COM SAP				
		88-96	R CL WFSBK	FR SS SP SEXP	-MANY SAP				
B 10	LSS 10%	0-8	FILL		N/A	8-96"	N/A	N/A	PS
		8-40	RB SC/C WFSBK	FR SS SP SEXP	-COM Mn				
		40-72	BR C WFSBK	FR SS SP SEXP	-COM Mn				0.275 GPD/SQFT 8-96"
		72-85	R C WFSBK	FR SS SP SEXP	-COM MICA				
		85-96	YR CL WFSBK	FR SS SP SEXP	-COM SAP				
B 11	LSS 6%	0-18	FILL		N/A	18-58"	N/A	N/A	PS
		18-22	RB SC WFSBK	FR SS SP SEXP					
		22-35	RY C WFSBK	FR SS SP SEXP					
		35-48	RY C WFSBK	FR SS SP SEXP	-COM YB				0.125 GPD/SQFT 18-48"
		48-58	YB C WFSBK	FR SS SP SEXP	-FEW/COM RY VEINS, RY C AROUND ROOTS				

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



NOTE:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT INTENDED AS A BOUNDARY SURVEY OF THE PROPERTY SHOWN. NO RELIANCE MAY BE PLACED ON ITS ACCURACY.

DUKE POWER COMPANY
COWANS FORD DEVELOPMENT
LAND LEASED TO
WALTER STEPHEN OVERCASH, SR.
DAVIDSON TOWNSHIP
IREDELL COUNTY, N. C.

SCALE : 1" = 40'
MISC. BOOK NO. 813

MAY 21, 1985
MTN. ISLAND FILE NO. 1295

IREDELL COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
PAGE 1: *APPLICATION FORM*

Application For:

( ) Septic Improvement Permit ( ) New Well Permit (X) Authorization to Construct ( ) Well Repair Permit ( ) Existing System Inspection ( ) Well Abandonment ( ) Septic System Repair

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.

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted:
Place an (X) beside whichever is submitted if applicable

( ) Survey Plat, scaled no more than 1 inch = 60 feet
( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information:

Applicant Name: Scott McConnell **Address:** 541 Jetton St. Davidson, NC 28036 **Phone:** 704-578-639

Owner Name: Scott McConnell **Address:** 541 Jetton St. Davidson, NC 28036 **Phone:** 704-578-639

Property Information:

Street Address: 321 Sundown Rd. Mooresville, NC 28117

Subdivision Name: _____ **Section/Phase:** _____ **Lot Number:** _____

Driving Directions: I-77, Exit 33; West on Williamson Rd; 1.8 miles, Left on Sundown Rd; 0.9 miles property is on the left.

Site Development Information: *(check or complete ALL that apply)*

(X) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 5
( ) Swimming Pool
( ) Other Addition/Structure: _____

(X) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbing

Non-Residential Site Development:

Type of Business: _____
Square Footage of Building: _____
Maximum Number of Employee: _____
Maximum Number of Seats/Beds/Other: _____

Water Supply:

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

Desired Septic System Type: *(you may rank in order of preference)*

( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other: _____

Year existing system installed: _____

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. industrial) 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 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.

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

12/20/2016
DATE

RECEIVED OCT 19 2016

IREDELL COUNTY HEALTH DEPARTMENT *ENVIRONMENTAL HEALTH DIVISION* 10/7

(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)

Paid $225.00

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

****

2. Page 2: *Site Plan Worksheet* Form MUST Accompany This Application

#200168

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:

Scott McConnell/CS2SC	PO Box 1703, Mooresville NC 28115		704-202-5791
Applicant Name	**Mailing Address**	**Home Phone #**	**Alternate Phone #**
Kathryn Shreve	8401 Browns Pond Ln, Charlotte NC 28277		
Owner Name	**Mailing Address**	**Home Phone #**	**Alternate Phone #**

4. Property Information:

321 Sundown Rd		
Street Address	**Subdivision Name**	**Section/Phase and Lot Number**

Driving Directions: Brantley Sch Rd, TR on Williamson, TR on Sundown, Lot on L in curve

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 4
Maximum Number of Occupants 8
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 _____
Square Footage of Building _____
Maximum Number of Employees _____
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 To The Best of Your Ability:
( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
( ) 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: _____ 10-18-16

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, Kathryn Shreve, am the legal owner(s) of the property located at 321 Sundown Rd., Mooresville, NC 28117, identified as PIN (Parcel Identification Number) 4646-26-7049.000, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Adrian L. Pruett, Carolina Soil & Septic Consulting, PLLC, 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.

Kathryn Shreve — Oct 4, 2016
Signature of Owner(s) — Date

Sherry Marsh — 10-4-16
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 *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:

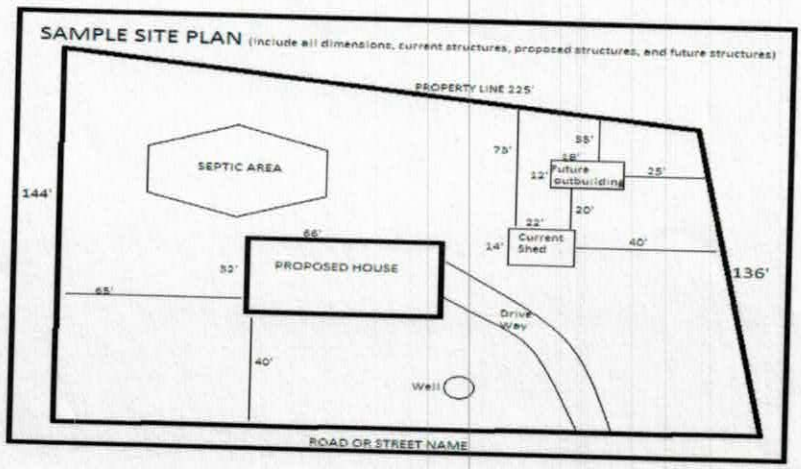
- ✓ **Property Line measurements are clearly identified…**
- ✓ **All proposed structures are indicated…**

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:

- ✓ **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

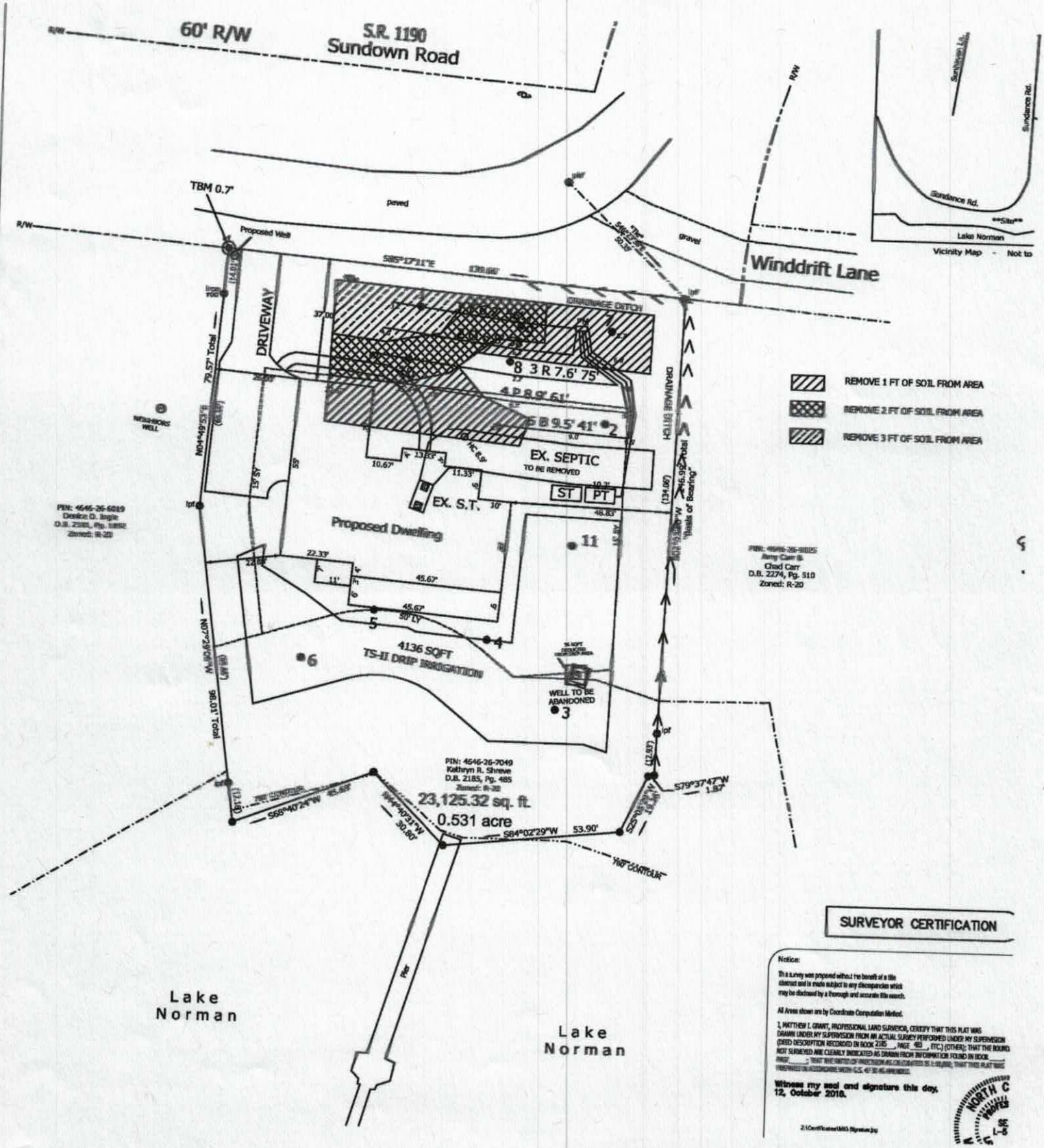
See Attached Site Plan

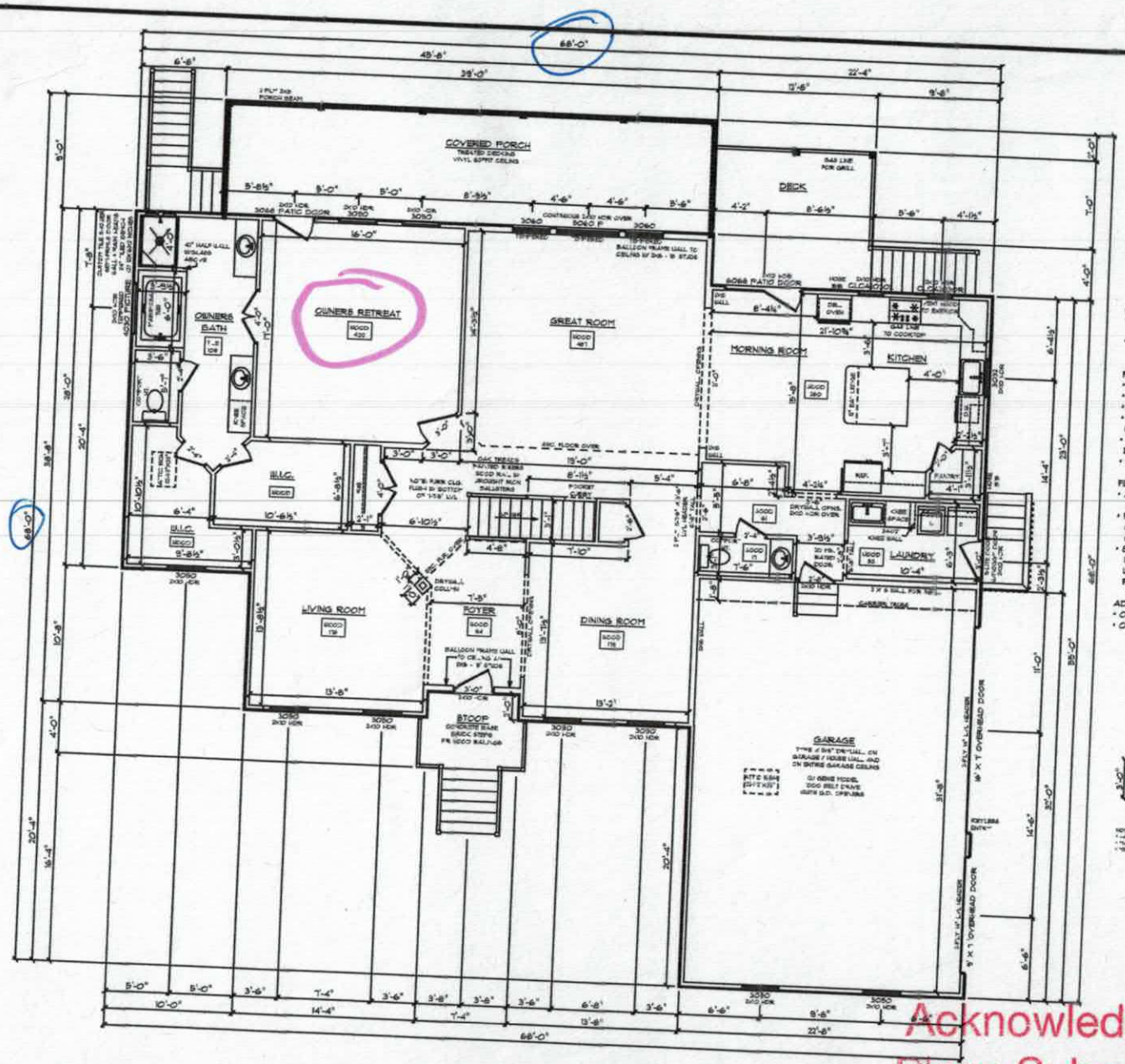
Signature: [signature]

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

10-18-16

DATE


60' R/W
S.R. 1190
Sundown Road
TBM 0.7'
Proposed Well
paved
gravel
Winddrift Lane
DRIVEWAY
DRAINAGE DITCH
S85°17'11"E
139.68'
79.57' Total
N04°49'43"E
EX. SEPTIC
TO BE REMOVED
ST
PT
EX. S.T.
Proposed Dwelling
4136 SQFT
TS-II DRIP IRRIGATION
WELL TO BE ABANDONED
N07°29'06"W
98.10'
S68°40'24"W
45.62'
N44°40'31"W
30.80'
S84°02'29"W
53.90'
S79°37'47"W
1.87'
23,125.32 sq. ft.
0.531 acre
PIN: 4646-26-7049
Kathryn R. Shreve
D.B. 2185, Pg. 485
Zoned: R-20
PIN: 4646-26-6019
Deidre D. Ingle
D.B. 2585, Pg. 1892
Zoned: R-20
Chad Carr
D.B. 2274, Pg. 510
Zoned: R-20
Pier
Lake Norman
Lake Norman
Sundance Rd.
Lake Norman
Vicinity Map - Not to
REMOVE 1 FT OF SOIL FROM AREA
REMOVE 2 FT OF SOIL FROM AREA
REMOVE 3 FT OF SOIL FROM AREA
SURVEYOR CERTIFICATION
Notice:
All Areas shown are by Coordinate Computation Method.
Witness my seal and signature this day, 12, October 2018.



Acknowledgement of Plans Submittal ONLY!

Date 12/20/2016

Date 2-9-17

RIDGEWOOD CUSTOM
FIRST FLOOR PLAN
9' CEILING HEIGHT

SCHUMACHER HOMES
Charlotte, NC
341 Alcove Road
Mooresville, NC 28117
(877) 267-3482
www.schumacherhomes.com

CUSTOM BUILT FOR: SCOTT & CHRISTINA McCONNELL
LOT: CH 67B 016 0193
CTY: 23491
LOCATION: 321 SUNDOWN ROAD
MOORESVILLE, NC 28117
IREDELL COUNTY

FIRST FLOOR LIVING AREA = 2851 SQ. FT.
SECOND FLOOR LIVING AREA = 1498 SQ. FT.
GARAGE AREA = 722 SQ. FT.
CRAWL SPACE AREA = 2160 SQ. FT.
PORCH AREA = 540 SQ. FT.

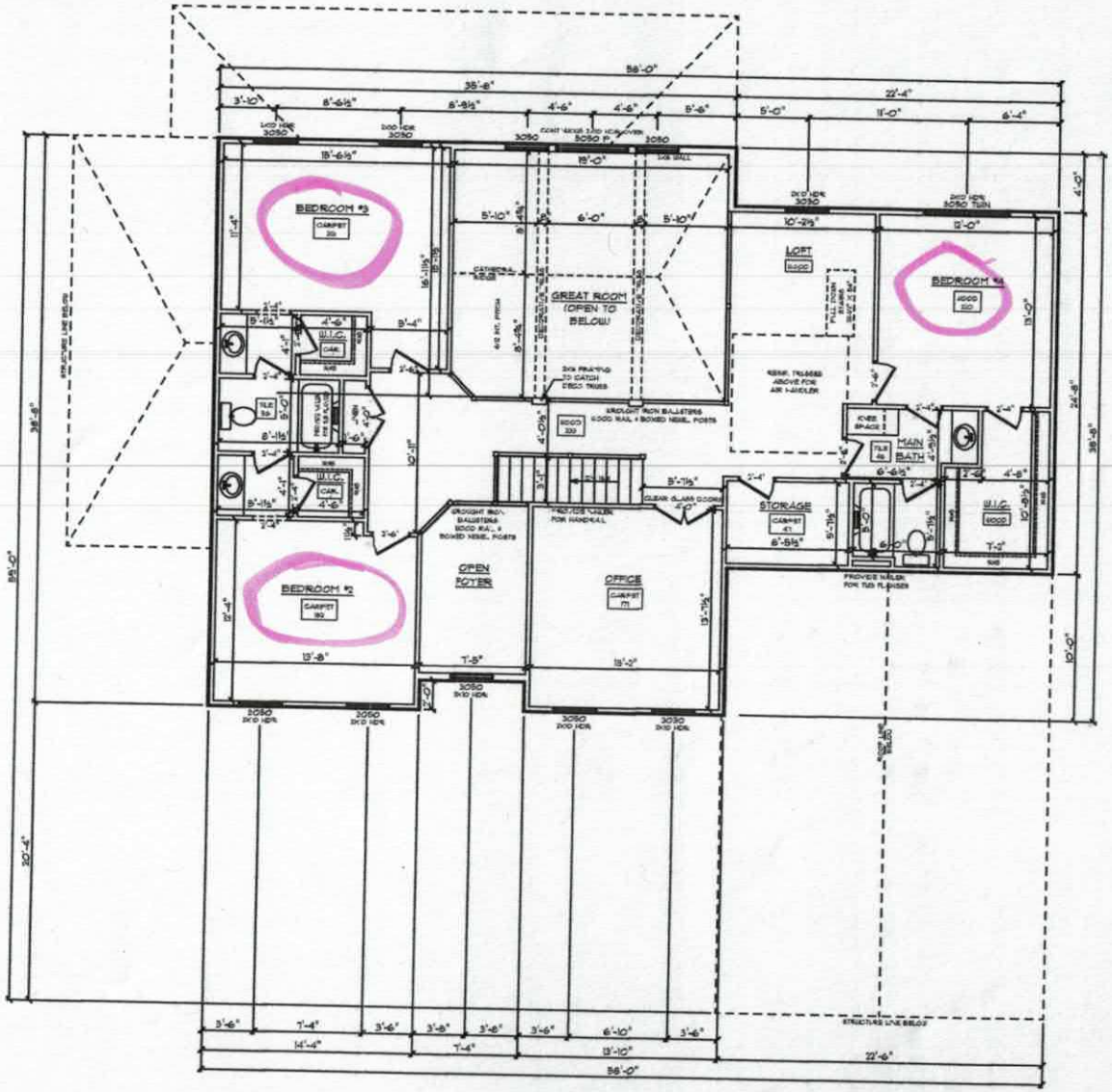
PROJECT: JAE
DATE:
SCALE: 1/8" = 1'-0"
SHEET 4

© COPYRIGHT 2016 SCHUMACHER HOMES, INC. ALL RIGHTS RESERVED. NO PORTION OF THIS DOCUMENT MAY BE UTILIZED IN ANY FORM OR BY ANY MEANS WITHOUT PRIOR WRITTEN PERMISSION OF SCHUMACHER HOMES, INC. A COPYRIGHT VIOLATION IS PUNISHABLE TO THE FULLEST EXTENT OF THE LAW. THIS DOCUMENT IS THE PROPERTY OF SCHUMACHER HOMES, INC. AND IS NOT TO BE REPRODUCED OR ALTERED IN ANY FORM OR MANNER WHATSOEVER NOR IS IT TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND APPROPRIATE LEGAL CONVEYANCE FROM SCHUMACHER HOMES, INC.

Acknowledgement of
Plans Submittal ONLY!

Date 12/20/2016

Date 2-9-17

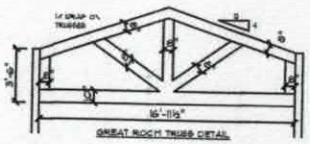


GENERAL FRAMING NOTES:
- DRYWALLED OPENINGS TO BE 8'-0" HEIGHT UNLESS OTHERWISE NOTED
- HEADERS TO BE 2-PLY 2X10 W/ (1) KING & (1) JACK STUDS UNLESS OTHERWISE NOTED

PLAN NOTES:
- SMOOTH CEILINGS THROUGHOUT HOME
- PAINTED TRIM
- 5-1/4" BASEBOARDS
- 3-1/4" CASING ON INTERIOR DOORS AND WINDOWS HAVE DRYWALLED RETURNS
- 6-PANEL, HOLLOW CORE MOLDED INTERIOR DOORS
- PLY-GEM LOW-E VINYL WINDOWS

FLOORING NOTES:
- ALL FLOORING BREAKS OCCUR @ CENTER LINE OF DOOR OPENINGS UNLESS OTHERWISE NOTED
- FLOORING SQUARE FOOTAGES INCLUDE CLOSETS RELATIVE TO THE AREA UNLESS OTHERWISE NOTED
- SOME FLOORING SQUARE FOOTAGES MAY INCLUDE HALLS OR AREAS THAT CONNECT WITHOUT WALL SEPARATION IF THE SAME FINISH IS CONTINUED

ADDITIONAL NOTES:
- OMIT ALL SHEET MIRRORS IN BATHROOMS
- OMIT BASEBOARD TRIM IN W.I.C.'s



GREAT ROOM TRUSS DETAIL

RIDGEWOOD / CUSTOM
SECOND FLOOR PLAN
8' CEILING HEIGHT

SCHUMACHER HOMES
Charlotte, NC
341 Alcove Road
Mooresville, NC 28117
(877) 267-3482
www.schumacherhomes.com

CURRENT BUILT FOR: SCOTT & CHRISTINA McCONNELL
JOB #: CH 615 016 0183
DWG #: 23491
LOCATION: 321 SUNDOWN ROAD MOORESVILLE, NC 28117 IREDELL COUNTY

FIRST FLOOR LIVING AREA = 2191 SQ. FT.
SECOND FLOOR LIVING AREA = 1498 SQ. FT.
GARAGE AREA = 722 SQ. FT.
CRAWL SPACE AREA = 2160 SQ. FT.
PORCH AREA = 540 SQ. FT.

DRAWN BY: JAE
DATE:
SCALE: 1/8" = 1'-0"
SHEET 5

© COPYRIGHT 2016 SCHUMACHER HOMES, INC. ALL RIGHTS RESERVED. NO PORTION OF THIS DOCUMENT MAY BE REUSED, REPRODUCED, OR MODIFIED IN ANY FORM OR MANNER WITHOUT PRIOR WRITTEN PERMISSION OF SCHUMACHER HOMES, INC. ALL RIGHTS ARE EXPRESSLY RESERVED TO THE FIRST PROVIDER OF INFORMATION LEADING TO THE HOMES, INC. FOR COPYRIGHT PURPOSES BY SCHUMACHER

IREDELL COUNTY

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

APPLICATION NUMBER
200168
Issue Date: 10/14/2016

ZONING PERMIT

Residential

Parcel Number	Street Address	Jurisdiction
4646267049.000	321 SUNDOWN ROAD, MOORESVILLE, NC	IREDELL COUNTY

Owner Information	Applicant Information
Owner: SHREVE KATHRYN RUTH	Applicant: RUSEK, JAMES
Address: 321 SUNDOWN RD MOORESVILLE, NC 28117	Address: 8401 BROWNS POND LN CHARLOTTE, NC 28277
Phone:	Phone: 917-232-5747

Use Requested	Zone Code
SINGLE FAMILY HOUSE JUST LOOKING TO GET WELL AND SEPTIC FOR NOW	R20

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
.540	35.00	50.00	15.00	15.00	CACL	AE

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	83156	TOTAL FEES:	$ 77.25