ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # AP 234501

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

PIN # 4664 8-9 ~~10422~~ 8334

APPLICANT/OWNER: Grey Brook Homes | APPLICANT ADDRESS: 11220 Elm Ln Ste 107 Charlotte, NC 28277

SITE ADDRESS: 182 Riverstone Dr Davidson, NC 28036 | PHONE: 7045076327 | ALT. PHONE

SITE DIRECTIONS: Shearers Rd South TL Anniston Way TR Burton TL Walking Horse TL Riverstone on Rt

SUBDIVISION: Riverstone @ Anniston | SECTION: | LOT # 13 | LOT AREA: .501 Acres | SAP CONTROLLED: ☐ YES ☒ NO | DESIGN FLOW: 480gpd | L.T.A.R.: .275

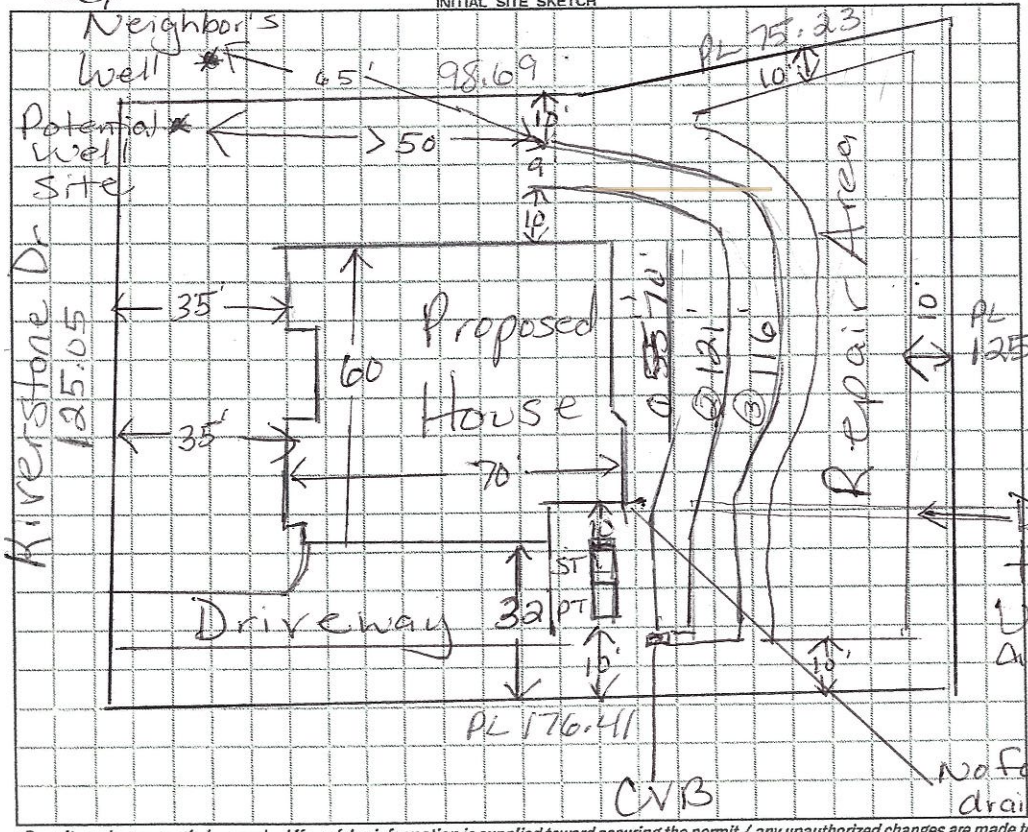
Septic Tank	1000 (gal)	STB	854	Date	5-26-21	☒ New System	☐ Repair	☐ Expansion	System Type: I II III IV V VI	☒ Residence	No. Bedrooms 4
Pump Tank	1000 (gal)	PT	169	Date	6-30-21	System Description:	Pump - LPPPBPS			☐ Business	No. Persons 8
Pump Make		Model		Serial #		Repair System Description:	Same			☐ Other	No. Employees
# Nitrification Fields	1	# Lines	3	Linear Ft.	292	Maintenance Agreement Required:	☒ YES	☐ NO		☐ Slab	☒ Crawl Space
Trench Width	24"	Trench Bottom Depth(Low side)	33"	Gravel Depth	N/A		☐ GRAVITY	☒ PRESSURE		☐ Basement w/plumbing	☐ Basement w/o plumbing

Water Supply: ☒ Private ☐ Public ☐ Community

Comments / Conditions: Start house @ 35ft setback. Divert Storm/Surface water away from Septic

Note: Use 1½" pipe in Panel lines 2 & 3 Must fill ditch as shown on site plan. Drill 5/32" hole 6 8 panels Dosing Volume 244.80gal

INITIAL SITE SKETCH



AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

Scale 1:40

2ft PH

OK to "cheat" grade on last line to retain more repair area.

Pump Run 8.78 min

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

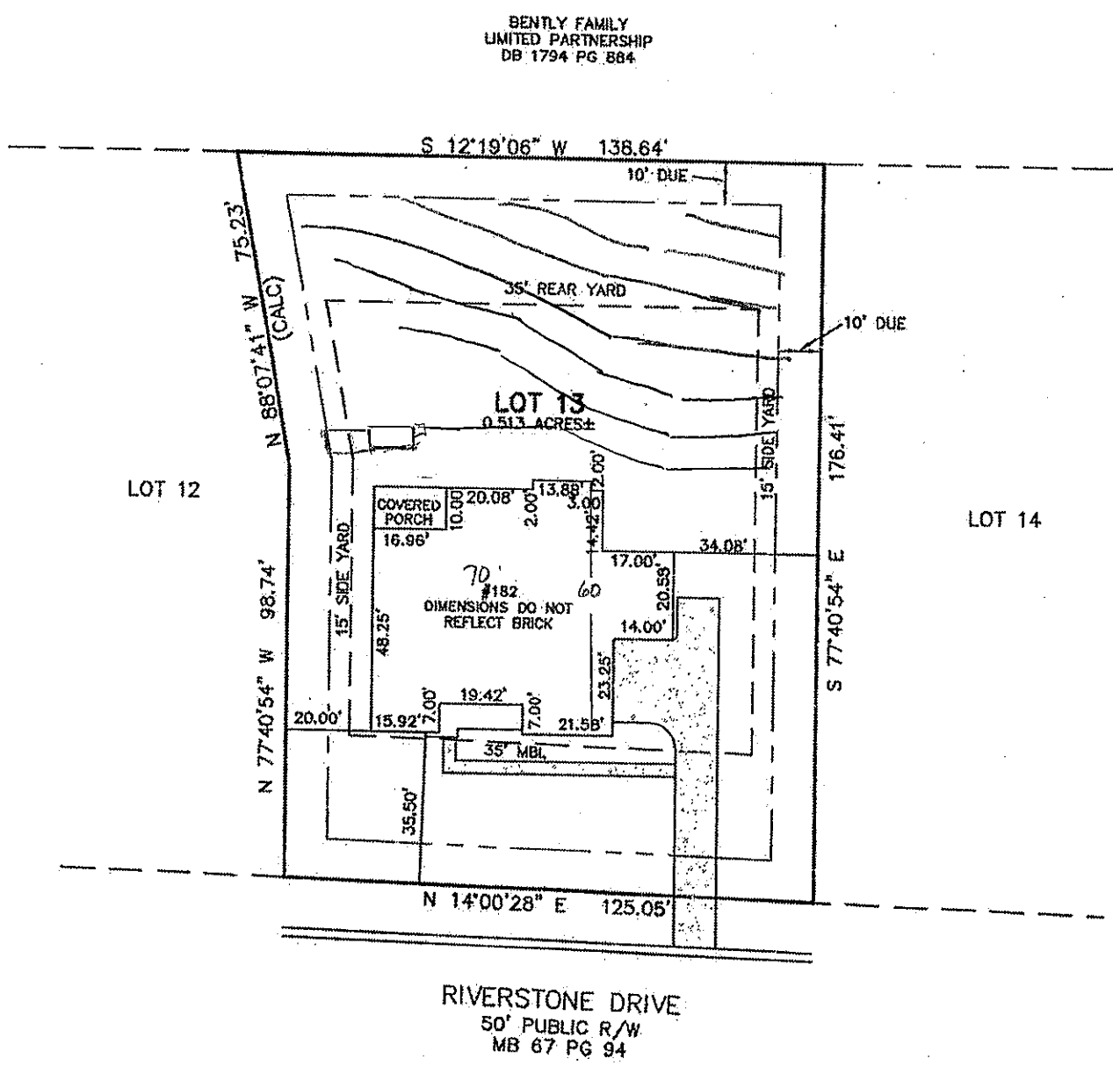
☐ IMPROVEMENT PERMIT *with plat valid without expiration.* ☒ IMPROVEMENT PERMIT *with site plan valid for 60 mos.* ☒ AUTHORIZATION TO CONSTRUCT *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: | Date: 4/29/21 | Installed by: A-1 Backhoe

IMPROVEMENT PERMIT by: Maria Dotson | Date: 4/27/21 | OPERATION PERMIT by: [signature] | Date: 11/15/21

AUTHORIZATION TO CONSTRUCT by: Maria Dotson | Date: 4/27/21 | Existing System Inspected by: | Date:

FOR SEPTIC FINAL INSPECTION: CALL 704-664-3703 between 8am-9am the day the inspection is needed.



STAKEOUT ☐

NOT FOR RECORDATION, CONVEYANCES OR SALES

Subdivision REVISED RIVERSTONE AT ANNISTON LOTS 3,4 AND 9-13 County IREDELL
Address 182 RIVERSTONE DRIVE Owner CONCEPT
Lot 13 Block ___ Plan COLUMBIA Elevation C Drive (Left) ___ (Right) X (Courtyard) ___ Deck ___
Patio ___ Fireplace ___ Garage (1 Car) ___ (2 Car) ___ (3 Car) X Brick ___ Basement ___ Curtain Wall ___
Crawl ___ Slab X Other REAR COVERED PORCH

REVISED:

DWN: TMM CKD: DATE: 08/27/20

LOW PRESSURE PPBPS SYSTEM
INSTALL SPECIFICATIONS

Location RIVERSTONE AT ANNISTON LOT 13

Owner/Applicant Information

Owner: RUFUS ROAD PARTNERS LLC
Address: 11220 ELM LN. SUITE 107
CHARLOTTE, NC 28277
Client: JOE DORITY
Phone Number: 803-381-5921

Approved
6/5/18
MD

Source of Wastewater Flow: 4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow: 480
System Flow: 27.88

Design Specifications

Drainfield Size: 292
Required Drainfield Size: 290.9090909
Loading Rate (gpd/ft.^{2}): 0.275
Depth of Gravel in Trench: NA (PPBPS)
Gravel Size: NA (PPBPS)
Trench Depth: 33 in.
Trench Width: 24 in.

Septic Tank Size: 1000
Pump Tank Size: 1000

Repair Trench Width: 24 in.
Repair Trench Depth: 27 in.

Estimated Supply Line Length: 3
Supply Line Diameter: 2 in. SCH 40 PVC
Supply Line Volume: 0.52
Dosing Volume: 244.80

Recommended Pump: Iredell County Approved Pump
Recommended Float Controls: Iredell County Approved Controls
Recommended Control Panel: Iredell County Approved Control Panel

Pressure Head: 2 ft.
Friction Head: 0.05
Elevation Head: 4.66
Total Dynamic Head: 8.06

Threaded Union: In Tank
Gate Valves: 1 in Tank
1 per lateral
Check Valves: In Tank
Anti-Siphon Hole: YES
Additional Comments: Soil suitability performed by Carolina Soil & Septic Consulting, PLLC

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

Approved
6/5/18
MD

LOW PRESSURE PPBPS TAPSHEET
RIVERSTONE AT ANNISTON LOT 13
SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
1	*ORANGE*		*55*	0.156	**0.41**	165	13
2	*BLUE*		*121*	0.156	**0.41**	363	28
3	*RED*		*116*	0.156	**0.41**	348	27
							68 TOTAL
	total	**feet =**	**292**	**gal/min =**	**27.88**		
			Des. Flow	**480**			
			Pump Run=	**8.78**			
			soil LTAR	**0.275**			

.156 equals 5/32 inch hole

RIVERSTONE AT ANNISTON LOT 13
FIELD LAYOUT SPECIFICATIONS

LAYOUT FOR 4 BEDROOM HOME

March 21, 2018

LINE #	FLAG COLOR	IH	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM				807.62		
INSTR. 1 HOUSE CNR				806.26		
P. TANK				808.64		
1	***ORANGE***			***808.30***	*55*	*55*
2	***BLUE***			***807.16***	*121*	*121*
3	RED			805.92	25	25
3	***RED***			***805.92***	*116*	*116*
4	YELLOW			804.29	25	25
4	YELLOW			804.29	80	80
5	PINK			802.29	25	25
5	PINK			802.29	58	58
6	ORANGE			800.48	25	25
6	ORANGE			800.48	30	30
7	BLUE			798.59	23	23
				Total	**583**	**583**

	LINE LENGTH	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
** System*	*292*	*MOD.*	*0.275*	*PPBPS*	*LOW PRESSURE*
Repair	291	MOD.	0.275	PPBPS	LOW PRESSURE

Approved
6/5/18
MS

Notes: ** TBM located top of ground at EIP at corner of lot (see site plan)
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags
**IH, and FS indicate rod readings

Comments: **Fill ditch as shown on site plan.**
1 1/2" pipe required in lines 2 & 3
System must be installed as shown.
Iredell County has permission from CS&SC to change tank and distribution device locations.

DOSING CALCULATIONS

Location RIVERSTONE AT ANNISTON

Lot No: 13

Approved
6/5/18
MS

No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.275	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	3	ft.
Supply Line Volume	0.522	gal.
Required Feet of Line	290.9091	ft.
Amount of Line from Layout	292	ft.
Gallons per Minute	27.88	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	gal.
# of Panels	68	
Dosing Volume	244.80	gal.

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

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

Tank Draw Down	11.7	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	8.78	minutes
Elevation Head	4.66	ft.
Pressure Head	2	ft.
Friction Factor	1.78	ft./100 ft. *(From the interpolater.)*
Friction Head	0.05	ft.
Total Dynamic Head (+20%)	8.06	ft.

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

Approved
6/5/18 MD

PROPERTY ID #: 4664898334
COUNTY: IREDELL

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

OWNER: RUFUS RD. PARTNERS LLC
ADDRESS: 11220 ELM. LN. SUITE 107, CHARLOTTE, NC 28277
PROPOSED FACILITY: SFR
PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: RIVERSTONE AT ANNISTON LOT 13

APPLICATION DATE 3-20-18
DATE EVALUATED: 3-19-18
PROPERTY SIZE: .501 AC
PROPERTY RECORDED: YES

WATER SUPPLY: ☒ Private ☐ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
PIT 1	LSS 7%	0-41	RC,S,ABK	FI,S,SP,SEXP	NA	58"	COM INC @ 41"	58"	.3
		41-58	RC,M,SBK	FR,SS,SP,SEXP					
PIT 2	LSS 9%	0-5	COMPACTED		CH2 @ 42" FEW Y/BR 0-52"	52"	NA	42"	.275
		5-21	BR/RC,S,ABK	FI,S,SP,SEXP					
		21-52	RC,S,ABK	FI,S,SP,SEXP					
PIT 3	LSS 9%	0-16	BR/RC,S,ABK	FR,SS,SP,SEXP	FEW Y/BR @ 0-16"	55"	NA	55"	.275
		16-45	RC,M,ABK	FR,SS,SP,SEXP					
		45-55	RC,M,SBK	FR,SS,SP,SEXP					
PIT 4	LSS 9%	0-26	BR/RC,S,ABK	FR,SS,SP,SEXP	FEW Y/BR 0-26"	56"	COM IN 50-56"	56"	.275
		26-56	RC,M,ABK	FR,SS,SP,SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	LP PPBPS	LP PPBPS
Site LTAR	.275	.275

OTHER FACTORS (.1946): NONE
SITE CLASSIFICATION (.1948): PS

EVALUATED BY: BEN ALDRIDGE
OTHER(S) PRESENT: JACOB CONRAD, DAVID BEANE

COMMENTS:

RECEIVED NOV 2 4 2020

AP-312791 fee only
AP-234501 $320.00

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

APPLICATION FORM

intermediate

Application For: ( ) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(X) Septic Improvement Permit ( ) Authorization to Construct ( ) Existing System Inspection ( ) 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: ( ) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) beside whichever is submitted if applicable ( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information: (PRINT CLEARLY)

Applicant Name: *Rufus Rd Partners Address: 11220 Elm Ln Suite 107 Zip: 28277
Applicant Email: nick@greybrookhomes.com Phone: 704-507-6327 Alt. Phone:
Owner Name: Joe Dority Address: 11220 Elm Ln Suite 107 Zip: 28277
Owner Email: Joe@greybrookhomes.com Phone: 803-381-5921 Alt. Phone:

Property Information:

Street Address: 182 Riverstone Dr. Davidson, NC 28036
Subdivision Name: Anniston Section/Phase: Lot Number: 13
Driving Directions: Shearers Rd to Anniston Way to Burton to Walking Horse Trail to Riverstone Dr.

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

( ) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem:

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 8
( ) Swimming Pool
( ) Other Addition/Structure:

CHECK FOUNDATION TYPE
( ) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbing

Non-Residential Site Development: Type of Business:
Square Footage of Building: Max. Number of Employees: Max. Number of Seats/Beds/Other:

Water Supply: ( ) Replacement Well – Reason:
( ) Multi-connection Well Number of Houses: Number of Persons:
( ) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

Desired Septic System Type: *(you may rank in order of preference)* Year existing system installed:
( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other:

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. industrial) 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.

Signature: Nick Belk 11/17/2020
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

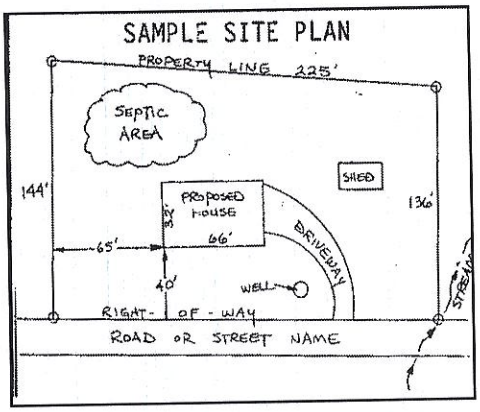
IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

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 OR WELL PERMIT!!!*

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

- (✓) Property Line measurements are clearly identified
- (✓) All proposed structures are indicated
- (✓) Front and side setbacks from property line
- (✓) Preferred driveway location
- (✓) Preferred well location
- (✓) Preferred septic system 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

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

Signature: Nick Belk

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

11/17/2020
DATE

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

(Check and sign only ONE of the options below)

1. *** APPLICANT AND OWNER ARE THE SAME. * (***Sign here***)** Nick Belk

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative: *Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship* In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:
Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form. If there are multiple property owners, then all property owners must sign the form that designates a legal representative.
By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

2. I, Joe Dority, am the legal owner(s) of the property located at 183 Riverstone Dr., identified as PIN (Parcel Identification Number) 4664-89-6422, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Nick Belk, GreyBrook Homes, 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.

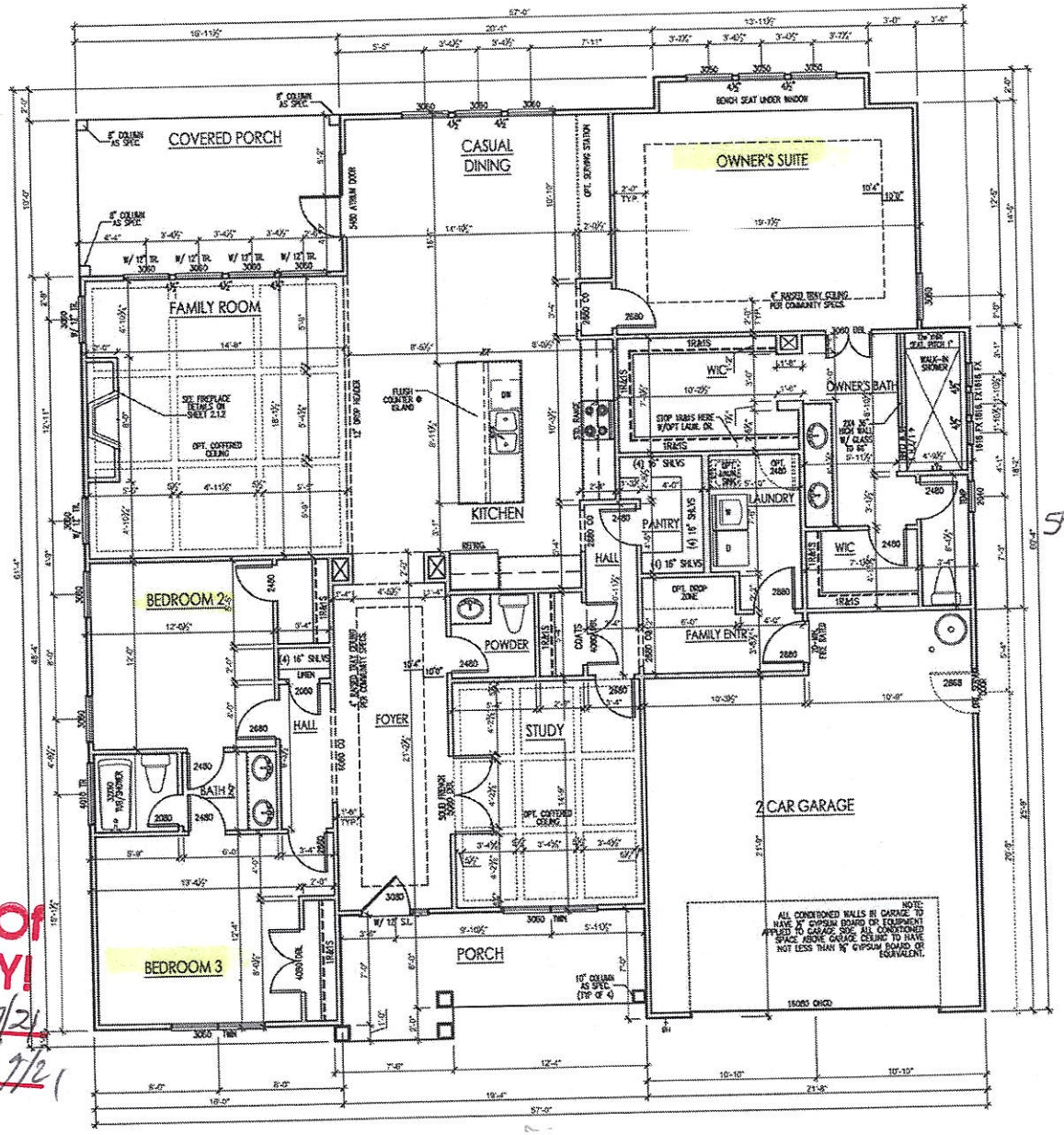
Nick Belk
Signature of Owner(s)

11/17/2020
Date

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

60.4



57'

61.4

57'

57'

Acknowledgement Of
Plans Submittal ONLY!
Date 4/27/21
Date 4/27/21

182 Riverstone

SOUTH DESIGNS
(O) 919-556-2226
(F) 919-556-2228
www.southdesigns.com

Concept Homes

REV. #	DESCRIPTION	DATE
1	PROTOTYPE WALK DRAWERS, ELECTRICAL, ADDED SCRN PORCH OPT	10/18/2018
2	---	---
3	---	---
4	---	---
5	---	---
6	---	---
7	---	---
8	---	---

3141 - COLUMBIA - RH
SIGNATURE COLLECTION
First Floor Plan 'C'

DRAWN BY: South Designs
ISSUE DATE: 10/18/2018
CURRENT REVISION DATE: 10/18/2018
SCALE: 1/8" = 1'-0"
SHEET 2.1c

IREDELL COUNTY

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

APPLICATION NUMBER
234501
Issue Date: 03/29/2018

ZONING PERMIT

Parcel Number	Street Address	Jurisdiction
4664898334.000	182 RIVERSTONE DRIVE, DAVIDSON, NC 28036	

Owner Information	Applicant Information
Owner: RUFUS ROAD PARTNERS LLC	Applicant: CAROLINA SOIL SEPTIC C
Address: 242 JOHNSON DAIRY ROAD	Address: 162 WEST B ST
MOORESVILLE, NC 28115	KANNAPOLIS, NC 28081
Phone:	Phone: 704-202-5791

Use Requested	Zone Code
SFD	

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
	35.00	35.00	15.00	15.00	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	133878	TOTAL FEES:	$ 77.25