ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 x3456 | Mooresville Office (704) 660-3625

PERMIT: AP 319252

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

PIN # 4666-09-9116.

APPLICANT/OWNER: Bee Builders LLC | APPLICANT ADDRESS: 197 Timberland Loop Mooresville NC 28115

SITE ADDRESS: 143 Blackwelder Farm Dr. Mooresville NC 28115 | PHONE: 704-526-7115 | ALT. PHONE

SITE DIRECTIONS: Shearers Rd, Blackwelder Farm Drive | SAP CONTROLLED: ☒ YES ☐ NO

SUBDIVISION: | SECTION: - | LOT # - | LOT AREA: .79 AC | DESIGN FLOW: 480 | L.T.A.R.: .30

Septic Tank 1000 (gal)	STB 7160	Date 7/6/22	☒ New System ☐ Repair ☐ Expansion System Type: I II III IV V VI	☒ Residence	No. Bedrooms 4	Water Supply
Pump Tank 1000 (gal)	PT 3104	Date 7/11/22	System Description: LP-PPBPS-50% Reduction	☐ Business	No. Persons 8	☒ Private
Pump Make	Model	Serial #	Repair System Description: LP-PPBPS-50% Reduction	☐ Other	No. Employees	☐ Public
# Nitrification Fields 1	# Lines 3	Linear Ft 270	Maintenance Agreement Required: ☒ YES ☐ NO	☒ Slab	☐ Crawl Space	☐ Community
Trench Width 24in	Trench Bottom Depth(Low side) 29in	Gravel Depth -	☐ GRAVITY ☒ PRESSURE	☐ Basement w/plumbing	☐ Basement w/o plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11 . (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Soil & Forestry Scientists of North Carolina, PA

LSS # 1231 Dated 12/10/2021.

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.

	Date	Initials
Drain Lines Checked	8/24/22	DW
Tanks Checked	8/26/22	DW
Pressure Manifold or Valve Box Checked	8/26/22	DW
Pressure Head Set	8/26/22	DW
Electrical Checked	2/1/23	STH
Floats Set	8/26/22	DW
Alarm Checked	2/1/23	STH
Maintenance Contract (Y) / N	2/1/23	STH

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**

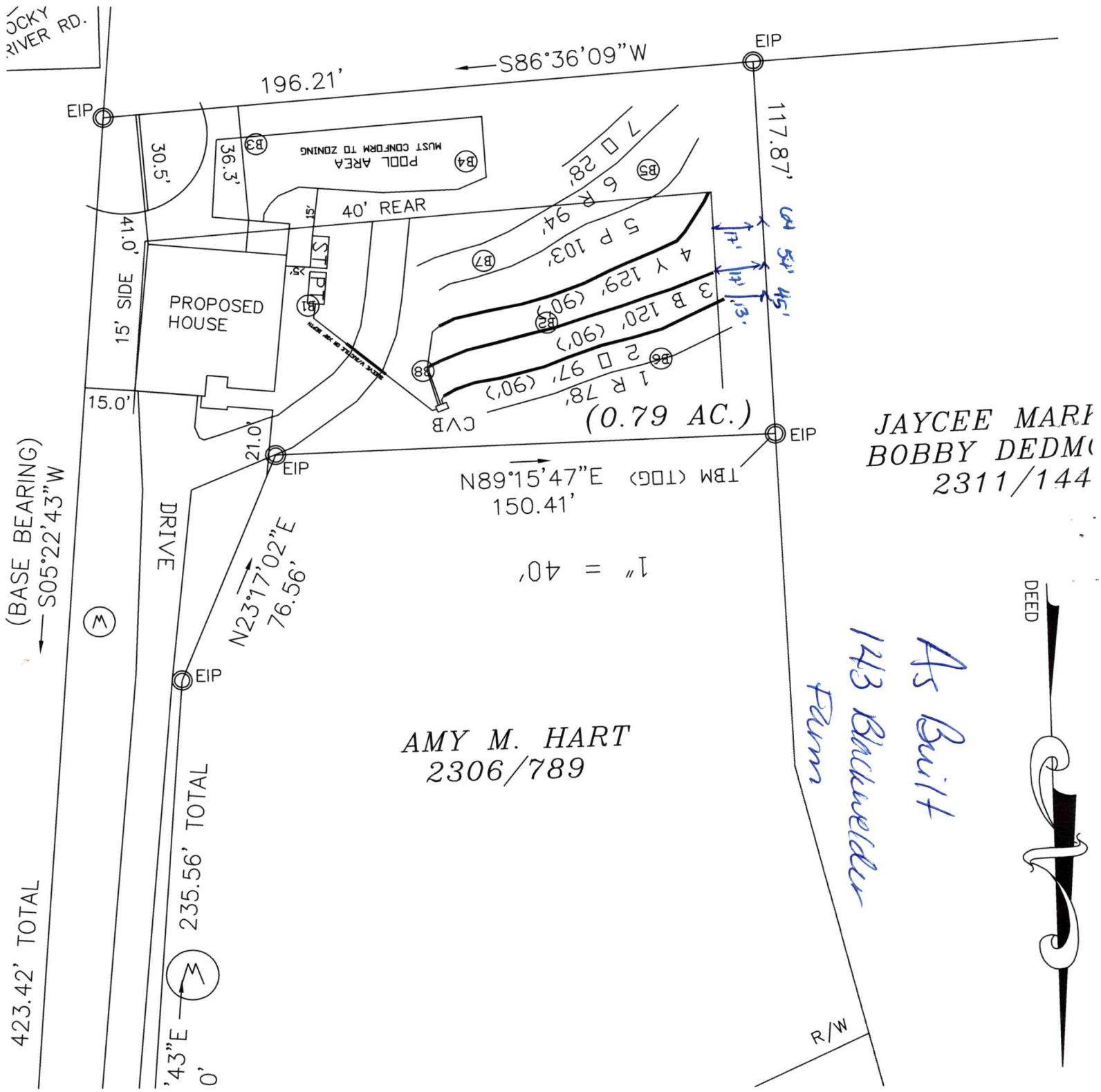
☐ **IMPROVEMENT PERMIT** *with plat valid without expiration.* ☒ **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* ☒ **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: | Date: 1-10-22 | Installed by: Stevens Septic

IMPROVEMENT PERMIT by: Benjamin A Botts | Date: 1/3/2022 | OPERATION PERMIT by: Sydney Holland | Date: 2/1/23

AUTHORIZATION TO CONSTRUCT by: Benjamin A Botts | Date: 1/3/2022 | Existing System Inspected by: | Date:

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


OCKY
RIVER RD.
EIP
S86°36'09"W
196.21'
117.87'
30.5'
36.3'
POOL AREA
MUST CONFORM TO ZONING
40' REAR
15'
41.0'
15' SIDE
PROPOSED
HOUSE
SEPTIC
7 D 28'
6 R 94'
5 P 103'
4 Y 129' (90')
3 B 120' (90')
2 D 97' (90')
1 R 78' (90')
CVB
(0.79 AC.)
15.0'
21.0'
EIP
EIP
EIP
TBM (TOG)
N89°15'47"E
150.41'
1" = 40'
(BASE BEARING)
S05°22'43"W
DRIVE
N23°17'02"E
76.56'
AMY M. HART
2306/789
JAYCEE MARI
BOBBY DEDM
2311/144
423.42' TOTAL
235.56' TOTAL
'43"E
0'
R/W
DEED
As Built
143 Blackwelder
Farm

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	Bec Builders, LLC
Current Address:	197 Timberland Loop Mooresville, NC 28115
Phone:	704.526.7115
County:	Iredell
Location:	143 Blackwelder Farm Road Mooresville, NC 28115
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480 gpd
System Flow:	25.83 gpm

Design Specifications

Drainfield Size:	270
Loading Rate (gpd/ft.^{2}):	0.3
Depth of Gravel in Trench:	NA (PPBPS)
Gravel Size:	NA (PPBPS)
Trench Depth (Low Side):	29 in., Repair 29 in. Trench Depth
Trench Width:	24 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	52
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	9.05
Dosing Volume:	226.80
Supply Manifold:	N/A
Supply Manifold Length:	N/A
Supply Manifold Volume:	N/A
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	0.93
Elevation Head:	9.40
Total Dynamic Head:	14.17
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 per lateral
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Soil & Forestry Services of the Carolinas, PA

143 Blackwelder Farm Road
LP PPBPS

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	540
TOTAL LATERAL LENGTH:	270
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	266.6666667
SUPPLY LINE LENGTH:	52
TOTAL DYNAMIC HEAD:	14.17
MANIFOLD SIZE:	N/A
DOSING VOLUME:	226.80
PUMP TANK DRAW DOWN*:	10.8
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	1000

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

143 Blackwelder Farm Road

Project #: 21-0066

LAYOUT FOR 4 BEDROOM HOME — December 10, 2021

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		2.3	102.3		100.00		
INSTR. 1							
HOUSE CNR	(RIGHT FRONT)			4.90	97.40		
P. TANK				7.50	94.80		
1	RED			2.80	99.50	78	78
2	***ORANGE***			***3.30***	***99.00***	***97***	***90***
3	***BLUE***			***4.00***	***98.30***	***120***	***90***
4	***YELLOW***			***4.80***	***97.50***	***129***	***90***
5	PINK			5.70	96.60	103	103
6	RED			6.60	95.70	94	94
7	ORANGE			6.90	95.40	28	28
					Total	**649**	**573**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***270***	***0.300***	***MOD.***	***0.300***	***PPBPS***	**LOW PRESSURE**
Repair	***303***	***0.300***	***MOD.***	***0.300***	***PPBPS***	**LOW PRESSURE**

Notes:

****All septic lines and borings located via GPS**
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags

LP PPBPS TAPSHEET -143 Blackwelder Farm Road

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
2	*ORANGE*	*99.00*	*90*	*0.156*	*0.41*	*180*	*21*
3	*BLUE*	*98.30*	*90*	*0.156*	*0.41*	*180*	*21*
4	*YELLOW*	*97.50*	*90*	*0.156*	*0.41*	*180*	*21*
	total	**feet =**	**270**	**gal/min =**	**25.83**		63
			Des. Flow	**480**			
			Pump Run=	**8.78**			
			soil LTAR	**0.3**			
			LTAR +5%	**0.315**			
			LTAR with mod.	**0.6**			
			LTAR with mod.. + 5%	**0.63**			

.156 equals 5/32 inch hole

CALCULATIONS

Location	143 Blackwelder Farm Road	
Project Number	21-0066	
Lot No:	N/A	
No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.3	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	52	ft.
Supply Line Volume	9.048	gal.
Required Feet of Line	266.6667	ft.
Amount of Line from Layout	270	ft.
Gallons per Minute	25.83	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Pump Tank Capacity	1000	gal.
Panel Volume	3.6	gal.
# of Panels	63	
Dosing Volume	226.80	gal.
	Note:	*Dosing Volume based on 100% of # of panels times 3.6 gal/panel*
Tank Draw Down	10.8	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	8.78	minutes
Elevation Head	9.4	ft.
Pressure Head	2	ft.
Friction Factor	1.78	ft./100 ft. *(From the interpolater.)*
Friction Head	0.93	ft.
Total Dynamic Head (+15%)	14.17	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

PROPERTY ID #: 4666609116
COUNTY: Iredell

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

OWNER: Bee Builders LLC
ADDRESS: 197 Timberland Loop Mooresville NC 28115
PROPOSED FACILITY: 3-4 BR
PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: 143 Blackwelder Farm Rd, Mooresville NC 28115
WATER SUPPLY: ☐ Private ☐ Public ☑ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☑ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

APPLICATION DATE
DATE EVALUATED: 8/5/21 8/11/21
PROPERTY SIZE: .90
PROPERTY RECORDED: Yes

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 1	L/5%	0-10	BSL Gr	Fr SS SP	Few to C. Fe Depl Possible Ch. R's 33-46"	45			PS 0.25 to 33" At Grade
		10-28	RBSCL wfsbk	" "					
		28-45	RBSC wf ABK	" "					
B 2	L/3%	0-9	BSL Gr	Fr SS SP	Few SAP Inclu.	50			PS 0.3-.325
		9-30	RC wmsbk/ABk	Fr SS SP					
		30-50	RBCL/SCL	Fr SS SP					
B 3	L/3%	0-10	BSL Gr	Fr SS SP	Few to C. SAP	50			PS 0.3
		10-32	BRC/SC wfsbk/ABk	Fr SS SP					
		32-50	RBSCL wfsbk	" "					
B 4	L/6-7%	0-6	BSL Gr	Fr SS SP	C. Fe Depl Ch. R's @ 13-42"	50			UN
		6-11	RBSCL wfsbk	Fr SS SP					
		11-50	BRC wm ABk/sbk	Fr SS SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	PPBDS/Low Pressure	PPBDS/Low Pressure
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: S. Ashley Rollins
OTHER(S) PRESENT: Chad Wagner

LICENSED SOIL SCIENTIST Samuel A. Rollins GEORGIA 1231 NORTH CAROLINA

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

PROPERTY ID #: 4000089116
DATE OF EVALUATION: 8/5/21 8/11/21
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	L/6%	0-5	RBSCL wfsblc	Fr SS SP					PS 0.3 Drop >20" TB
		5-32	RBC wfsbk/ABK	" "	Few Fe Depl. 20"	50			
		32-50	RBSCL wfsblc	" "	Few to C SAP				
B 6	L/6%	0-7	RBSCL wfsbk	Fr SS SP					PS 0.3
		7-30	BRC wfsbk/ABK	" "		43			
		30-43	RBSCL wfsbk	" "					
		43-50	UAR SL mats	" "					
B 7	L/6%	0-5	RBSCL wfsbk	Fr SS SP					PS 0.3 >20" TB
		5-42	BRC wmsbk/ABK	" "	Fe Depl. 13-20"	50			
		42-50	RBSCL wfsbl	" "					
B 8	L/7%	0-9	BSL Gr						PS 0.3
		9-18	RBSCL wfsblc	Fr SS SP		50			
		18-34	BRC wfsblc/ABK	" " " "					
		34-50	BRSCL wfsblc	" " " "	Few SAP				

COMMENTS:

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Project#: 21-0066
December 10th, 2021

BEC BUILDERS, LLC
Attn: *Emil Bec*
Email: becbuilders2@gmail.com

RE: Soil & Site Evaluation for a 4 Bedroom Residence at 143 Blackwelder Farm Road, 0.80 ac Parcel, PIN# 4666009116, Mooresville, NC 28115.

Mr. Bec:

At your request Soil & Forestry Services of the Carolinas (S&FS) has performed soil/site evaluations on parcel noted above. The Lot size is noted on the attached survey map & soil evaluation form. The purpose of our work was to identify soil areas with potential to support subsurface wastewater disposal systems and provide design details for Session Law submittal to Iredell County Health Department.

Site Conditions

At the time of our evaluation land cover on the property was mostly open. Topography within the evaluated area was gentle slope near the house site and proposed drainfield area. Property lines and corners were marked at the time of the evaluation by Don Allen & Associates. The client provided an Autocad File of a survey as a basemap. The proposed septic layout was located via Trimble Submeter GPS/tape measures and used to produce the attached *Site Plan*. The house envelope is located on the Site Plan and will need to be located via survey prior to construction.

Methodology

We evaluated soil areas through the use of hand augers. Soil morphological conditions including color, texture, structure, etc. were reviewed in the field with eight boring locations on the property flagged and located via GPS. Five of the eight hand augers are located in the proposed septic layout. Soil suitability was determined by referencing 15A NCAC 18A.1900 "Laws and Rules for Sewage Treatment and Disposal Systems". *Soil & Site Evaluation Forms* were utilized to record the soil morphological data for each pit. The house envelope is illustrated on the Site Plan. An on-ground layout of system and repair was performed using a laser level. Pin flag locations of the layout were also located by GPS and tape measures. Detailed system & repair information is summarized in the following paragraph for this Lot.

143 Blackwelder Farm Road (*See Attached Design*)
The septic layout for this lot (9' centers) yielded a total of 649 linear feet of line. Lines 2 through 4 were trimmed to accommodate a drive. See design for supply line requirements under the driveway. The primary system is proposed as 270 linear feet of PPBPS (50% Reduction) drainfield with low pressure distribution. Trench depth (Low Side) is specified at 29 inches. The repair system is proposed as 270 linear feet of PPBPS (50% Reduction) drainfield with low pressure distribution. Trench depth (Low Side) is specified at 29 inches. There is 303 linear feet of repair available.

Session Law Requirements

An LSS Evaluation may be submitted in conjunction with a complete application to the LHD. The application shall include all information described in 15A NCAC 18A .1937(d) and be accompanied by a signed and dated statement from the applicant (owner or owner's legal representative) that reads as follows:

"The LSS Evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with SL 2018-114 Section 11.(c).".

Owner Date

Print Name EMIL BEC
Signature _____ 12/14/21

The LSS Evaluation shall include a statement bearing the LSS seal and signature that reads as follows:

"The LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11.(c)."

Disclaimer
This report reflects the findings of S&FS, PA. *This LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11.(c).* Any site modifications that impact the proposed septic areas on 143 Blackwelder Farm Road, Mooresville, NC 28115 may nullify this design. System design requirements and site requirements shall be adhered to for installation and Operations Permits to be issued by the local Health Department. If you have questions regarding these requirements a Pre-Construction meeting should be scheduled to discuss. Please contact S&FS if you have any questions regarding this report or the attached information. S&FS also offers septic system inspection, wetland delineation and forestry services.

Sincerely,



S. Ashley Rollans, LSS
Attachment: *Septic Design*

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for a PPBPS Septic System w/Low Pressure distribution for a 4 bedroom single family residence on 143 Blackwelder Farm Road, (PIN# 4666009116), Mooresville NC, 28115.

Contents: **Page**

Information for the Installer---------- 1

Design Information
- Design Specifications---------- 2-3
- Layout Specifications---------- 4
- System Tapsheet---------- 5

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

Calculations---------- 8

Profile Descriptions---------- 9-10

Septic Application---------- 11-12

Green Sheet---------- 13

Agent Authorization---------- 14

LICENSED SOIL SCIENTIST
Samuel A. Rollins
1231
STATE OF NORTH CAROLINA

December 10, 2021
Project #: 21-0066
Design By: Soil & Forestry Services of the Carolinas, PA

INFORMATION FOR THE INSTALLER:

The permit should be read very carefully prior to bidding. 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.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate 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 is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as a PPBPS installation with low pressure distribution.
- Repair is specified as a PPBPS installation with low pressure distribution.
- Backfill 4 - 6" of material (County Approved) over panels, rake trench walls, lime side-walls, install trenches 24" wide and have no more than 1/4" fall in 10 feet.
- **Supply Line must be sleeved with ductile iron or >30" install under drive**

RECEIVED DEC 14 2021

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

APPLICATION FORM

S.L. AP-319252 $500.00

Application For: (✓) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(✓) 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 (X) Custom Site Plan, scaled no more than 1 inch = 60 feet

****

Applicant Information: (PRINT CLEARLY)

Applicant Name: Bec Builders LLC Address: 197 Timberland Cp, Mooresville NC Zip: 28115
Applicant Email: becbuilders2@gmail.com Phone: 704.526.7115 Alt. Phone: _____
Owner Name: Same Address: Same Zip: _____
Owner Email: Same Phone: Same Alt. Phone: _____

****

Property Information:

Street Address: 143 Blackwelder Farm Dr., Mooresville NC 28115

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

Driving Directions: Shearers Rd, Blackwelder Farm Dr,

****

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

CHECK FOUNDATION TYPE

(✓) 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: _____

( ) 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 (X) No Does the site contain any jurisdictional wetlands?
( ) Yes (✓) 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: _____ 12/10/21
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

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, Bec Builders LLC, am the legal owner(s) of the property located at 148 Blackwader Farm Dr., Mooresville NC 28115, identified as PIN (Parcel Identification Number) 4666009116, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) SFS / Ashley Rollans, _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- Improvement Permit (IP) / Authorization to Construct (AC)
- Application for soil-site evaluation (new/repair)
- Application/permit for private drinking water well/well abandonment
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

Signature of Owner(s)	Date	Signature of Witness	Date
[signature]	12/14/21		

Please return this signed form to the appropriate office:

Mooresville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-662-3239
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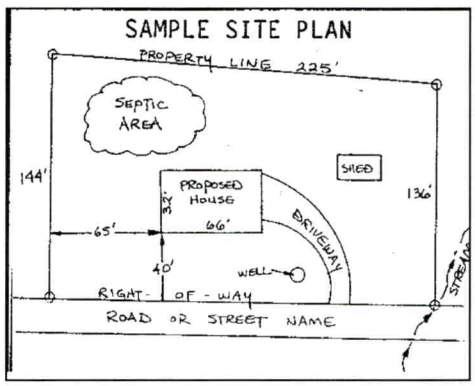
IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

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:

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

See Attached

Signature: Samuel A Tollison

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

12/10/21

DATE

GENERAL PLAN NOTES

1. DRAWINGS ARE NOT TO BE SCALED; DIMENSIONS IN QUESTION SHALL BE CLARIFIED BY ARCHITECT.
2. ALL EXTERIOR DIMENSIONS ARE SHOWN TO THE OUTSIDE FACE OF STUD UNLESS NOTED OTHERWISE.
3. ALL INTERIOR DIMENSIONS ARE SHOWN TO THE INSIDE FACE OF STUD UNLESS NOTED OTHERWISE.
4. ALL INTERIOR WALLS ARE ASSUMED TO BE 3-1/2" WOOD STUDS; UNLESS NOTED OTHERWISE.
5. ALL EXTERIOR WALLS ARE ASSUMED TO BE 3-1/2" WOOD STUDS (PLUS 1/2" EXTERIOR WALL SHEATHING ; UNLESS NOTED OTHERWISE.
6. ALL DOORS TO BE CENTERED; UNLESS NOTED OTHERWISE.
7. PROVIDE WOOD BLOCKING IN WALLS FOR MOUNTING OF ALL CABINETS, TOILET ACCESSORIES AND OTHER WALL MOUNTED ITEMS.
8. ALL CABINETRY TO BE DESIGNED BY OTHERS AND SHALL MEET ALL APPLICABLE ACCESSIBILITY CODES (IF REQUIRED)
9. ALL FINISH AND COLOR SELECTIONS TO BE APPROVED BY ARCHITECT/O.
10. NUMBER OF EXTERIOR RISERS TO BE FIELD VERIFIED; AT LOCATIONS WHERE 4 OR MORE ARE REQUIRED A HANDRAIL WILL ALSO BE REQUIRED.
11. PROVIDE TERMITE CHEMICAL AT FOUNDATION; AS REQUIRED.
12. MINIMUM 22-1/2" (+) x 54-1/2" (-) ATTIC ACCESS DOOR w/ PULL DOWN LADDER TO BE DETERMINED ON SITE AND WEATHERSTRIPPED AND INSULATED WITH MIN. R-6.
13. HVAC RETURN (S) TO BE DETERMINED ON SITE.
14. ALL COUNTERTOPS TO BE 36" A.F.F.; UNLESS NOTED OTHERWISE.
15. ALL DOOR HEIGHTS ARE SHOWN ON PLANS.

FRAMING CONSTRUCTION-OTHER THAN ROOF

1. STEEL BEAMS MUST HAVE (S) 2x4 STUD JACKS UNDER EACH END SUPPORT; UNLESS NOTED OTHERWISE.
2. MICRO-LAM BEAMS MUST HAVE (3) 2x4 STUD JACKS UNDER EACH END SUPPORT; UNLESS NOTED OTHERWISE.
3. ALL BRICK OVER LOWER ROOFS MUST HAVE ANGLE WITH STOPS LAG SCREWS TO STUDS ABOVE AND ACCORDANCE WITH DETAIL.
4. ALL WOOD I-JOISTS AND OPEN JOISTS MUST BE BRACED IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS PLUS DETAILS SHOWN ON PLANS.
5. ALL RAFTER BRACES MUST HAVE 2 STUDS FROM PLATE TO FOUNDATION OR BEAM BELOW THEM AT ALL FLOORS, NO BRACES ON CEILING PLATE WITHOUT STUDS DIRECTLY UNDER THEM.
6. WHERE PARTITIONS FALL BETWEEN FLOOR TRUSSES, 2"x4" LADDERS @ 16"o.c MUST BE PLACED PERPENDICULAR TO THE TRUSSES TO SUPPORT THE PLYWOOD DECKING.
7. ON ALL OPEN WEB FLOOR TRUSSES OVER A 16' SPAN A MIN. SINGLE LINE OF 2"x4" SHALL BE NAILED TO DIAGONAL MEMBERS OR VERTICAL MEMBERS IN THE APPROXIMATE MID-SPAN AS A LOAD DISTRIBUTION MEMBER.
8. WHERE CEILING JOISTS ARE PARALLEL TO EXTERIOR WALLS AND RAFTERS BEAR ON STUD WALL TOP PLATE ADJACENT TO CEILING JOISTS, SPACE RAFTERS AND TOP PLATE TO 24" MAX WHERE 9" LONG (MIN) ON 6' CENTERS ALONG LENGTH OF CEILING JOISTS.
9. ALL 3-STORY OPEN GREAT ROOMS, LIVING ROOMS, WITH 2 OR MORE ADJACENT OPENINGS OF 3' OR LESS MUST USE A 8-1/2"x5-1/2"x1/2" STEEL ANGLE VERTICALLY FROM FLOOR TO TOP PLATE LAGGED TO KING STUDS WITH (3) 4"x3" LAGS @ 24"o.c. VERTICALLY AND LAGGED TO FLOOR AND TOP PLATE WITH (1) 3/4"x4" LAG THROUGH A 1/4" PLATE AT THE TOP AND BOTTOM. MULTIPLE OPENINGS WITH 3' OR LESS SPACE BETWEEN ROUGH OPENINGS SHALL HAVE AT LEAST (1) STEEL ANGLE VERTICALLY IN EACH MULLION SPACE. THE SHEATHING ON THIS STEEL REINFORCED PARTITION SHALL BE 1/2" PLYWOOD, NO OTHER SHEATHING SHALL BE PERMITTED.

STAIRWAYS

1. TREADS SHALL BE 9" WIDE PLUS A 1" NOSING
2. RISERS SHALL BE FIELD VERIFIED (NOT TO EXCEED 8-1/4")
3. STAIR SHALL BE 36" WIDE CLEAR MINIMUM AND SHALL HAVE A HANDRAIL AT A HEIGHT ABOVE THE NOSING OF 34"-38".
4. GUARD RAIL HEIGHT SHALL BE A MINIMUM OF 36" IN HEIGHT PER R312.2
5. REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM WALKING SURFACE TO GUARD RAIL HEIGHT THAT ALLOW PASSAGE OF A 4" SPHERE.
6. GUARDS ON OPEN SIDES OF STAIRS SHALL NOT HAVE OPENINGS ALLOWING PASSAGE OF A 4-3/8" SPHERE
7. TRIANGLE FORMED BY RISER, TREAD AND BOTTOM GUARD RAIL SHALL NOT ALLOW PASSAGE OF A 6" SPHERE.

EGRESS WINDOW REQUIREMENTS

NCRC 2012 310.1

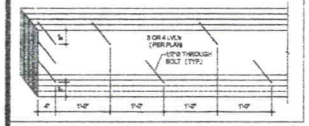
EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EXTERIOR WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. THE UNITS MUST BE OPERABLE FROM THE INSIDE TO A FULL, CLEAR OPENING WITHOUT THE USE OF A KEY OR TOOL. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE, THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR.

NCRC 310.1.1
THE MIN. NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24". THE MIN. NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20". THE NET CLEAR OPENING AREA SHALL NOT BE LESS THAN 4 SQ. FT.



NCRC 310.1.1
EACH EGRESS WINDOW FROM SLEEPING ROOMS MUST HAVE A MIN. TOTAL GLASS AREA OF NOT LESS THAN 5 SQ. FT. IN THE CASE OF A GROUND FLOOR WINDOW AND NOT LESS THAN 5.7 SQ. FT. IN THE CASE OF A SECOND STORY WINDOW.

LVL BOLTING PATTERN DETAIL



TYP. HANGERS FOR JOIST & BEAMS

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO., INC. (BRAND-NAME EQUIVALENTS ACCEPTABLE)

MEMBERS	HANGERS
2x6	LUS26
2x10	LUS210
2x12	LUS210
(2) 2x6	HUS26-2
(2) 2x10	HUS210-2
(2) 2x12	HUS212-2
(3) 2x6	LUS26-3
(3) 2x10	LUS210-3
(3) 2x12	HUS212-3 MIN.
(2) 1-3/4"x9-1/4" LVL	HGUS410
(2) 1-3/4"x9-1/2" LVL	HGUS410
(2) 1-3/4"x11-7/8" LVL	HGUS412
(2) 1-3/4"x11-7/8" LVL	HGUS412
(2) 1-3/4"x14" LVL	HGUS414
(2) 1-3/4"x14" LVL	HGUS414
(3) 1-3/4"x9-1/4" LVL	HGUS5.5/10
(3) 1-3/4"x9-1/2" LVL	HGUS5.5/10
(3) 1-3/4"x11-7/8" LVL	HGUS5.5/12
(3) 1-3/4"x11-7/8" LVL	HGUS5.5/12
(3) 1-3/4"x14" LVL	HGUS5.5/14
(3) 1-3/4"x14" LVL	HGUS5.5/14
(4) 1-3/4"x9-1/4" LVL	HGUS7.25/10
(4) 1-3/4"x9-1/2" LVL	HGUS7.25/10
(4) 1-3/4"x11-7/8" LVL	HGUS7.25/12
(4) 1-3/4"x11-7/8" LVL	HGUS7.25/12
(4) 1-3/4"x14" LVL	HGUS7.25/14
(4) 1-3/4"x16" LVL	HGUS7.25/14
(4) 1-3/4"x18" LVL	HGUS7.25/14

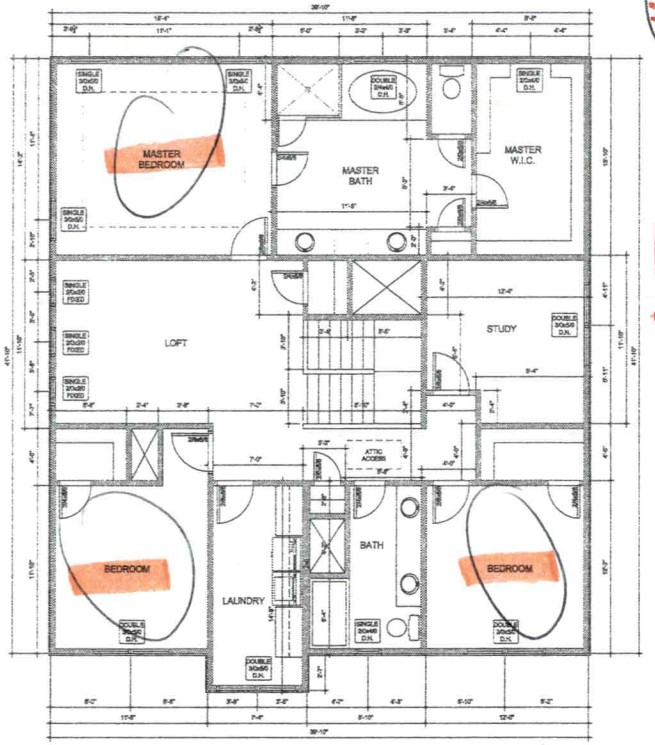
HEADER SIZE REQUIREMENTS

SIZES	EXTERIOR SPANS	INTERIOR SPANS	JACK STUDS
(2) 2x8's	4'-3-0"	4'-2-6"	1
(2) 2x8's	2'-0" thru 3'-6"	0'-6" thru 3'-6"	2
(2) 2x12's	3'-0" thru 5'-6"	0'-6" thru 5'-6"	3
SEE PLAN	5'-0"+	5'-6"+	SEE PLAN

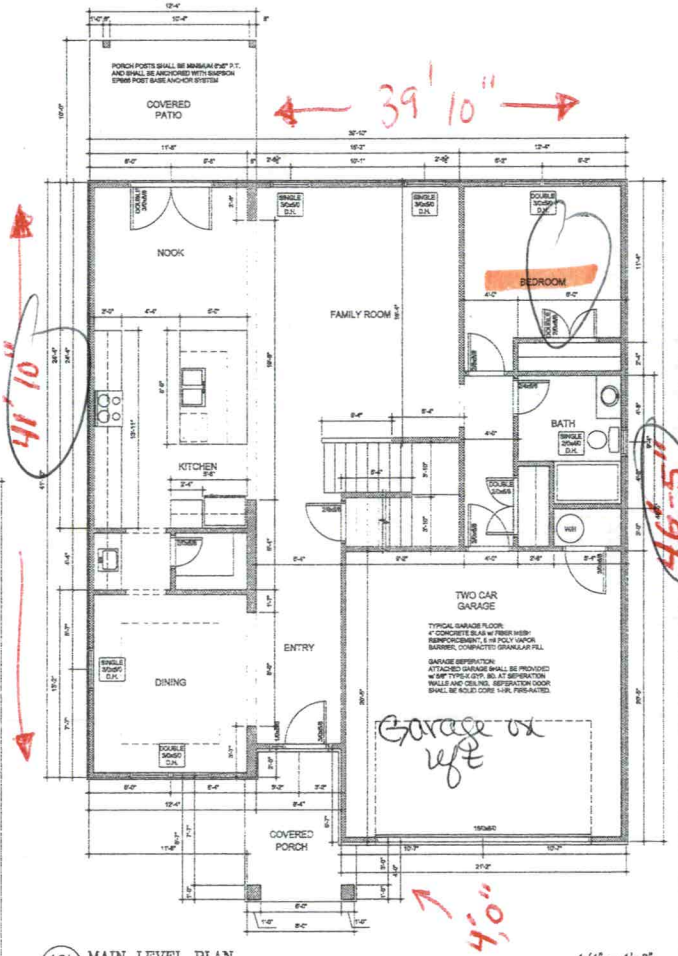
WALL STUD REQUIREMENTS

EXTERIOR WALL HEIGHT	STUD SIZE AND SPACING
H < 10'-0"	2x4 @ 16" o.c.
10'-0" < H < 11'-0"	2x4 @ 12" o.c.
10'-0" < H < 11'-0"	2x6 @ 16" o.c.
H > 18'-0"	CONSULT ENGINEER

MAIN LEVEL	
HEATED SQUARE FOOT	1,322 SQ. FT.
COVERED FRONT PORCH	100 SQ. FT.
GARAGE	471 SQ. FT.
COVERED REAR PATIO	120 SQ. FT.
UPPER LEVEL	
HEATED SQUARE FOOT	1,023 SQ. FT.
TOTAL	
HEATED SQUARE FOOT	2,345 SQ. FT.
UNHEATED SQUARE FOOT	691 SQ. FT.



102 A1.0 UPPER LEVEL PLAN 1/4" = 1'-0"



101 A1.0 MAIN LEVEL PLAN 1/4" = 1'-0"

Acknowledgement Of Plans Submittal ONLY!

Date 11/3/22.

Date 1-10-22

1901 PORCH ROAD
LINCOLNTON, NC 28092
(704) 240-0997
SBEAL3940@YAHOO.COM

MSJ DRAFTING

A1.0

MAIN LEVEL PLAN AND NOTES

PROJECT FOR:
A NEW RESIDENCE FOR:
CLIENT: ETEC
PROJECT: XXXX
XXX
NORTH CAROLINA

A1.0