ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 305970

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

PIN # 4732167150

APPLICANT/OWNER: Smith Douglas Homes APPLICANT ADDRESS: PO Box 311, Midland

SITE ADDRESS: 1160 Sierra Chase Dr, Statesville 28677 PHONE: 704-578-4951 ALT. PHONE —

SITE DIRECTIONS: Old Mountain Rd → R on Wallace Springs → R Autumn Mist → L on Sierra Chase → @ end on R SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: Autumn Brook SECTION: 2 LOT # 19 LOT AREA: .77 ac DESIGN FLOW: 360 gpd L.T.A.R.: .3

Septic Tank	1000 (gal)	STB	160	Date	11-25-19	☒ New System	☐ Repair	☐ Expansion	System Type: I II (III) IV V VI
Pump Tank	(gal)	PT		Date		System Description:	25% reduction		
Pump Make		Model		Serial #		Repair System Description:	drip		
# Nitrification Fields	1	# Lines	5	Linear Ft	300'	Maintenance Agreement Required:	☐ YES	☒ NO	
Trench Width	36"	Trench Bottom Depth	36" max	Gravel Depth	—		☒ GRAVITY	☐ PRESSURE	

☒ Residence ☐ Business ☐ Other ☐ Slab ☒ Basement w/plumbing

No. Bedrooms 3 No. Persons 6 No. Employees — ☐ Crawl Space

Water Supply: ☐ Private ☒ Public ☐ Community

☐ Basement w/o plumbing

Comments / Conditions: Keep tank 15' from basement cut. Drainlines must be 15' from public storm drain pipes

INITIAL SITE SKETCH

See attached design by the Oaks Group, PA LSS 1313

AS BUILT SKETCH

Tank 30' off House

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.*

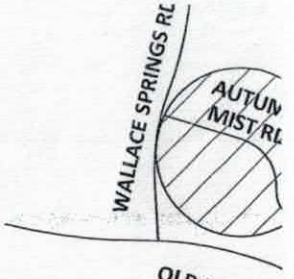
Owner / Applicant Signature: Acceptance of Permit Rec'd Date: 3-24-20 Installed by: Water Management of NC

IMPROVEMENT PERMIT by: Carla C. Nicks Date: 3-23-20 OPERATION PERMIT by: [signature] Date: 4-15-2020

AUTHORIZATION TO CONSTRUCT by: Carla C. Nicks Date: 3-23-20 Existing System Inspected by: Date:

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

PORCH = 153 SF
TOTAL LOT AREA = 0.77 AC = 33,471 SF
TOTAL PROPOSED IMPERVIOUS = 2,343 SF
PERCENT IMPERVIOUS = 7.0 %



1" = 40'

COMMON OPEN SPACE

N63°08'28"E 144.95'

S84°34'05"E 146.08'

S43°42'39"E 200.00'

S23°41'46"W 203.76'

35' REAR SETBACK

35' REAR SETBACK

20.0'

PUBLIC STORM DRAIN EASEMENT

*SEE NOTE 11

19

33,471 SF
0.77 AC

CANTILEVERED FIREPLACE

WD

PROPOSED SYDNEY-B BASEMENT 2 CAR RIGHT

PO

SW

DW

15' SIDE SETBACK

15' SIDE SETBACK

35' FRONT SETBACK

61.4'

36.9'

20.2'

36.0'

15.8'

117.2'

120'

C14

18

20

LEGEND

PO = PORCH
SP = SCREENED PORCH/PATIO
CP = COVERED PORCH/PATIO
WD = WOOD DECK
SW = SIDEWALK
DW = CONC DRIVEWAY
P = CONC PATIO
⊗ = COMPUTED POINT
○ = IRON PIPE FOUND (IPF)
◉ = IRON PIPE SET (IPS)
● = DRILL HOLE FOUND
WM = WATER METER
CO = CLEAN OUT
AC = AIR CONDITIONER
Ⓢ = SEWER MANHOLE
EB = ELECTRIC BOX
Ⓒ = CABLE BOX
= TELEPHONE PEDESTAL
CI = CURB INLET
= LIGHT POLE
SFE = SEPTIC FIELD EASEMENT

BUILDING SETBACKS:

FRONT = 35 ft
REAR = 35 ft
SIDE = 15 ft
CORNER = 25 ft

BUILDER
LOCATION, DII
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IDER THE SUPERVISION OF

URPOSES ONLY.

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RCH FOR EASEMENTS OF
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NE. IT IS LOCATED IN ZONE
H 18, 2008. FLOODPLAIN
M SAID PANEL.

OM IREDELL COUNTY

AROUND THE PERIMETER

THE OAKS GROUP, PA

To: Iredell County Environmental Health Department (ICHD)

From: Kathleen Saunders, LSS

RE: 160 Sierra Chase Dr

Date: March 17, 2020

Attached is the septic specification information required to permit 160 Sierra Chase Dr for an Improvement Permit and/or Construction Authorization Permit in Iredell County via the Expedited Review Process.

The attached information is not an Improvement Permit or an Authorization to Construct, and is only to assist the ICHD with permitting. The ICHD has to approve each lot and only the ICHD can issue these permits. The system should be installed according to the ICHD permits, policies, and NC Rules, which these specifications are in accordance with. If the ICHD wishes to change tank locations, distribution devices, etc they may do so at their discretion.

All information and specifications have been prepared in conjunction with ICHD permitting guidelines for the current lot owners to acquire an Improvement Permit and/or Authorization to Construct on this lot. It is ultimately the ICHD's responsibility to verify all specifications, including soil descriptions, before permitting and/or septic system installation.



Kathleen Saunders

Autumn Brook Lot 19 - The Oaks Group, PA

Number of Bedrooms	**3**
Basement or Crawl	**Basement with Plumbing**
Design Flow (gpd)	**360**
Primary System LTAR (gpd/ft2)	**0.3**
Primary System Type	**25% Reduction**
No. Lines	5 (See Table)
Total Linear Feet	300
Trench Width	3' min.
Trench Spacing	9' min.
Distribution Device	Drop Boxes or Other
Tank Size	1000 gallon tank
Max Trench Bottom Depth	36"
Maintenance Agreement Required	No
Repair System	**Anaerobic Sub Drip**
Total Linear Feet	3,600 sqft
Repair Loading Rate	0.1
Repair trench depth	6"

Table: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)
1	System	NF	25% Reduction	30 endfed
2	System	Orange	25% Reduction	65 endfed
3	System	Red	25% Reduction	80 endfed
4	System	Blue	25% Reduction	90 endfed
5	System	Orange	25% Reduction	35 endfed
				Total System: 300'
				Total Repair: xxx'

Note: Keep necessary setbacks to foundation drains if used
Tank locations and distribution devices can be altered at ICHD's discretion
Do not grade in septic areas

Autumn Brook Lot 19 Fast Track Septic System Information

Number of Bedrooms	4
Basement or Crawl	**Basement with Plumbing**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.3
Primary System Type	**LP PPBPS**
No. Lines	4 (See Table)
Minimum Linear Feet	267
Total Linear Feet	273
Trench Width	2' min.
Trench Spacing	8' min.
Trench Depth (low side)	36"
	42" High side JM
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	10' of **2"** SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	31.5 gpm
Elevation head	Approx: 6 ft
Pressure head	3 ft
Friction head	1.0 ft
20% Contingency	2 ft
Total Head	12 ft
Pump Requirements	31.5 gpm @ 12' of head To be designed by installer.
Maximum Dosing Volume	226.8 gal -2.1 doses/day @ design flow*
Volume of water pumped per dose	Calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Pump Run per dose	approx. 7.2 min.
Check Valve	Yes
Siphon Break hole	yes
Repair System	**Subsurface drip**
Total Linear Feet	4800 sqft
Repair LTAR	0.1

***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel.**

If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

Table 1: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading Elev. (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	Pink	LPPPBPS	65 endfed	2.96	15	15	1 per panel	5/32"
2	System	Red	LPPPBPS	80 endfed	5.25	18	18	1 per panel	5/32"
3	System	Blue	LPPPBPS	90 endfed	7.05	21	21	1 per panel	5/32"
4	System	Orange	LPPPBPS	38 endfed	8.95	9	9	1 per panel	5/32"
						Total: 63	Total: 63 (1 in each panel turned up)		
				Total System: 273'					
				Total Repair: xxx'					

Tank	Red	1000 gal (2 compartment)	
Pump Tank	Red	1000 gal.	5.80
House	blue		5.70

Note: Tanks and Distribution devices can be altered at the ICHD's discretion
Rod Readings should be verified by installer before installation

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

Sheet 1 of 1
PROPERTY ID #:
COUNTY: Iredell

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

OWNER: Autumn Brook, LLC
ADDRESS: 1542 Queens Rd W Charlotte
PROPOSED FACILITY: SFR
PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: Lot 19
APPLICATION DATE
DATE EVALUATED: 12-1-17
PROPERTY SIZE:
PROPERTY RECORDED: No

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
A	L 12-15%	0-10	Mo GR SL	FR ns/np	Br	55+	PS	N/A	0.3
		10-41	Mo SBK C	FR SS/SP	R; F sap				
		41-55	WK SBK C	↓	R; C sap				
		55-60	MA L sap	✓	Multi				
B	L 12-15%	0-10	Mo GR SL	FR ns/np	Br	60+	N/A	N/A	0.3
		10-32	Mo SBK C	FR SS/SP	R				
		32-60	WK SBK CL	↓	R; C sap				
C	L 12-15%	0-6	Mo GR SL	FR ns/np	Br	26+	N/A	26"	0.1 drip
		6-26	Mo SBK C	FR SS/SP	R				
		26"	Chroma 2's						
D	L 12-15%	0-25	Mo SBK C	FR SS/SP	R; F sap	55+	N/A	N/A	0.3
		25-55	WK SBK CL	↓	R; C sap				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	IV	Sub. drip
Site LTAR	0.3	0.1

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: KMS
OTHER(S) PRESENT:

COMMENTS:

RECEIVED MAR 1 8 2020 $225 Paid

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

APPLICATION FORM

AP 305970

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

Place an (X) beside whichever is submitted if applicable

Applicant Information: (PRINT CLEARLY)

Applicant Name: Smith Douglas Homes Address: PO Box 311 Midland NC Zip: 28107
Applicant Email: _____ Phone: _____ Alt. Phone: _____
Owner Name: Same Address: _____ Zip: _____
Owner Email: _____ Phone: _____ Alt. Phone: 704-578-4951 (LSS)

Property Information:

Street Address: 160 Sierra Chase Dr
Subdivision Name: Autumn Brook Section/Phase: _____ Lot Number: 19
Driving Directions: Old Mountain Rd, Wallace Springs, Autumn Mist, Sierra Chase

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

(X) 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: 3
Maximum Number of Occupants: 6
( ) Swimming Pool
( ) Other Addition/Structure: _____

CHECK FOUNDATION TYPE
( ) Crawl Space Foundation
( ) Concrete Slab Foundation
(X) 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 (X) 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 (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: Kathleen Saunders 3-18-2020
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

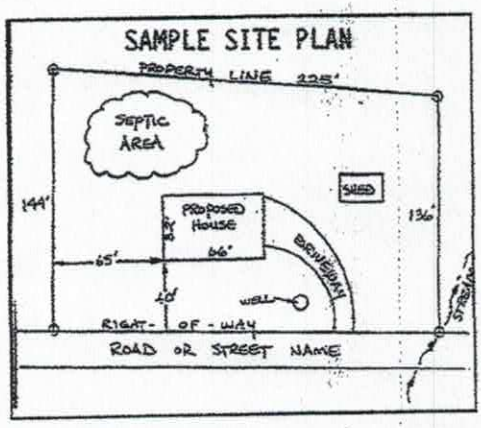
IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

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

Please see Attached

Signature: Kathleen Saunders

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

3-18-2020

DATE

AUTHORIZATION TO ACT AS AGENT FOR OWNER

Any application/document/permit requiring a signature must be signed by the property owner or their authorized agent. This form shall be provided by the owner to allow specified individuals to act as agents for the owner. This form allows the specified individuals to sign or receive any application/document/permit on behalf of the owner. This form allows the authorized agent to make decisions on behalf of the owner pertaining to modifications of permits in the field. It is the responsibility of the owner to assure that any/all permit conditions specified on permits issued by this Division are followed.

I, Ron Willing/Smith Douglas Homes, am the legal owner of the property located at 160 Sierra Chase Dr, identified as PIN(Parcel Identification Number)_____, located in Iredell County, North Carolina.

I do hereby authorize (print authorized agent/company name) The Oaks Group _____, _____, _____, _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

1. Improvement Permit (IP)/ Authorization to Construct (AC).
2. Application for soil-site evaluation (new/repair).
3. Application/permit for water well/well abandonment.
4. Application for existing system.
5. Application for Improvement Permit (IP)/ Authorization to Construct (AC).

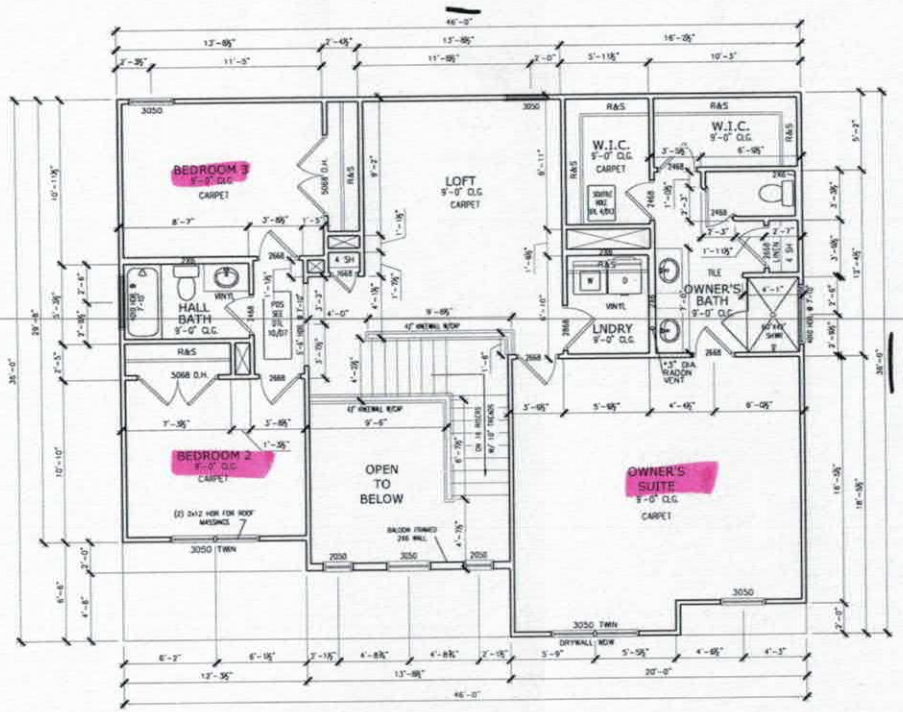
I agree to abide by any and all decisions and/or conditions between the agent acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division. This form must be fully executed before the individual's specified above will be recognized as the authorized agent.

_____ 3-18-2020
Signature of Owner Date

_____ 3-18-2020
Signature of Witness Date

Acknowledgement Of
Plans Submittal ONLY!
Kathleen Sundae Date 3-18-2020
Cole C. Nolte Date 3-23-20

AUTUMN BROOK - LOT 19



SECOND FLOOR PLAN ELEVATION
SCALE : 1/8" = 1'-0"

*RADON VENT PROVIDED PER LOCAL CODE

REFER TO MANUFACTURER'S SPECS. FOR DRAIN LOCATIONS ON DETAIL SHEETS D12,D12.1,D12.2 & D12.3

BY	REVISION	DATE

SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

FLOOR PLANS
SECOND FLOOR
SYDNEY

SMITH DOUGLAS HOMES
119 VILLAGE TRAIL
SUITE 215
WOODSTOCK, GA 30188
www.smithdouglas.com

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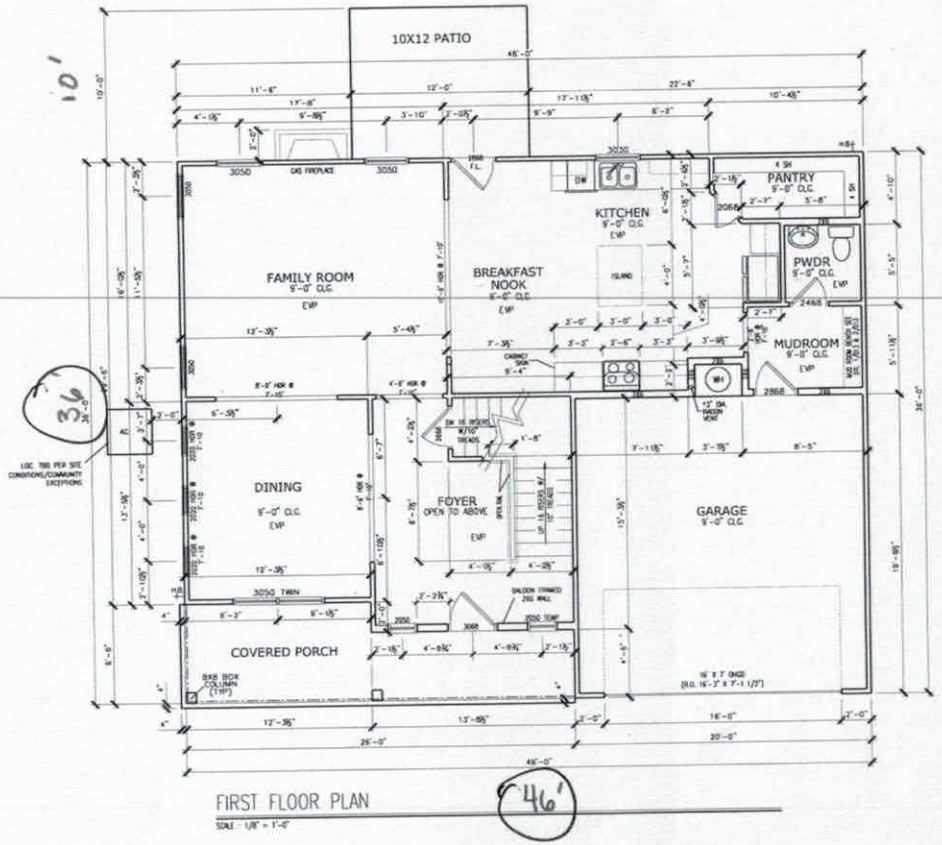
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Acknowledgement Of
Plans Submittal ONLY!
~~Kathleen Saunders~~ Date 3-18-2020
Cade C. Nicks Date 3-23-20

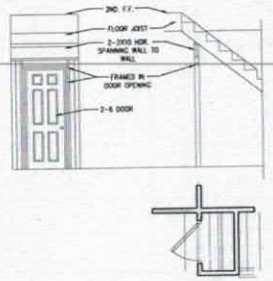
AUTUMN BROOK - LOT 19

46' total

10'



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



STAIR HEADER FRAMING DETAIL

*RADON VENT PROVIDED PER LOCAL CODE

BY	DATE	REVISION

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FLOOR PLANS
FIRST FLOOR
SYDNEY

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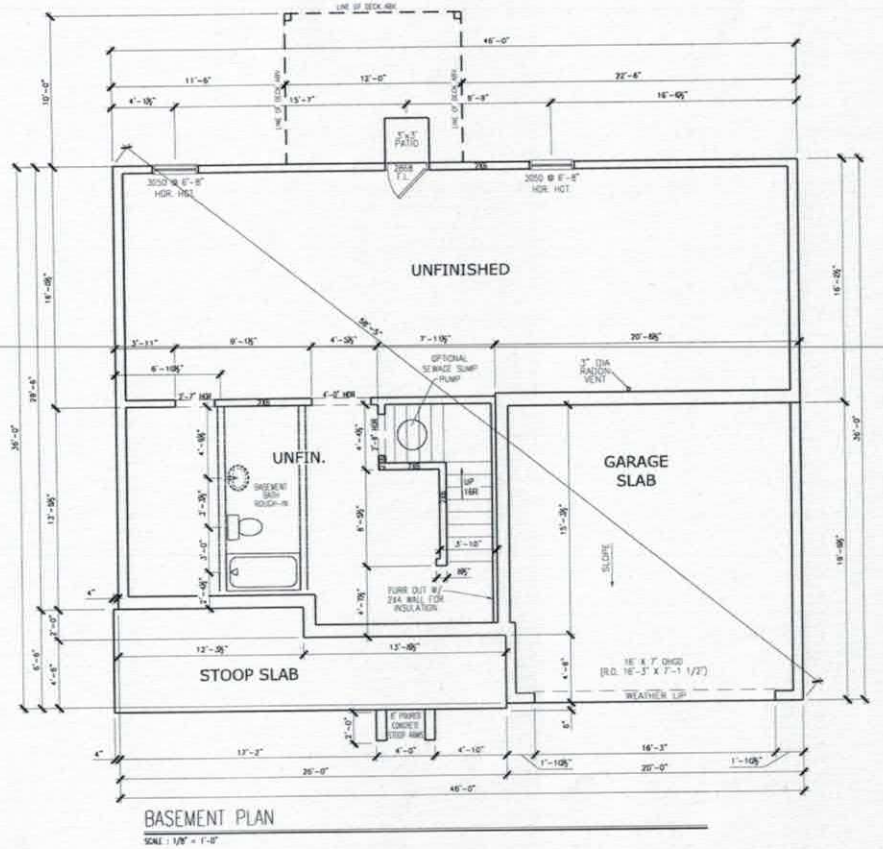
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BY	CK
SL	AW
DATE: 2/19/2020	
FACADE OPT: B	
PLAN ID:	
PHO: ALL	ELEV: B
SHEET NO: A5.1	

© SMITH DOUGLAS HOMES 2020

Acknowledgement Of
Plans Submittal ONLY!
Kathleen Saunders Date 3-18-2020
Code Nicks Date 3-23-20

AUTUMN BROOK - LOT 19



BASEMENT PLAN
SCALE : 1/8" = 1'-0"

REVISION | BY | DATE

SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

FOUNDATION PLAN
BASEMENT PLAN
SYDNEY

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BY	CHK
SL	AW
DATE	2/19/2020
FACADE OPT	B
PLAN ID	
FND	ALL
ELEV	B
PAGE NO	A4.1

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IREDELL COUNTY HEALTH DEPARTMENT
JANE HINSON, RN BSN MS
HEALTH DIRECTOR

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

ACKNOWLEDGEMENT OF ACCEPTANCE OF PERMIT DESIGN AND CONDITIONS

Any permit requiring a signature must have this form signed by the property owner or their authorized agent. Once this form is signed and returned to Environmental Health an official copy of the permit will be emailed to the email that you provide.

I, Kathleen Saunders, am the legal owner or the agent of the property located at 160 Sierra Chase Dr, identified as PIN(Parcel Identification Number) 4732 16 7150, located in Iredell County, North Carolina.
Permit # 305970.

I do hereby agree to the permit design and the conditions of this permit.

Kathleen Saunders 3/24/2020
Signature of ~~Owner~~ Agent Date

3/24/2020
Signature of Witness Date

RWilling@SmithDouglas.com
email