IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 224094

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

PIN # 4659160383

APPLICANT: Wendell Overby/Essex Homes APPLICANT ADDRESS: P.O. Box 832 Mooresville, NC 28115

SITE ADDRESS: 150 Clear Springs Rd Mooresville, NC PHONE: 704239-200 ALT. PHONE: 803 223-4003

SITE DIRECTIONS: Hwy 115/US 21 N TL Clear Springs Rd lot on right

SUBDIVISION: Autumn Grove SECTION: 2 LOT # 11 LOT AREA: .52 Acre DESIGN FLOW: 480gpd L.T.A.R.: .3

Septic Tank 1000 (gal) STB 160 Date 1-23-17
Pump Tank 1000 (gal) PT 319 Date 5-8-17
Pump Make ____ Model ____ Serial # ____
Nitrification Fields 1 # Lines 4 Linear Ft: 272'
Trench Width min. 24" Max. Trench Bottom Depth 30 in Gravel Depth N/A

☒ New System ☐ Repair ☐ Expansion System Type: I II III IV V VI
System Description: LP PPBPS
Repair System Description: LP PPBPS
Maintenance Agreement Required: ☒ YES ☐ NO
☐ GRAVITY ☒ PRESSURE

☒ Residence No. Bedrooms 4
☐ Business No. Persons 8
☐ Other No. Employees ____
☐ Slab ☐ Crawl Space
☒ Basement w/plumbing ☐ Basement w/o plumbing

Water Supply: ☒ Private ☐ Public ☐ Community

Comments / Conditions:

INITIAL SITE SKETCH

See Attached, Approved Septic plan by Soil & Forestry Services dated 1/3/17

AS BUILT SKETCH

8-18-17: Tanks checked. Still need to check for effluent filter and risers.

10/5/17: Pressure Transducer installed.
- Alarm ok
- Breakers ok

7" in 5 min 20 sec
21
147 gallons 27.56 gpm ok -SF

	Date	Initials
Drain Lines Checked	8-18-17	KW
Tanks Checked	8-18-17	KW

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

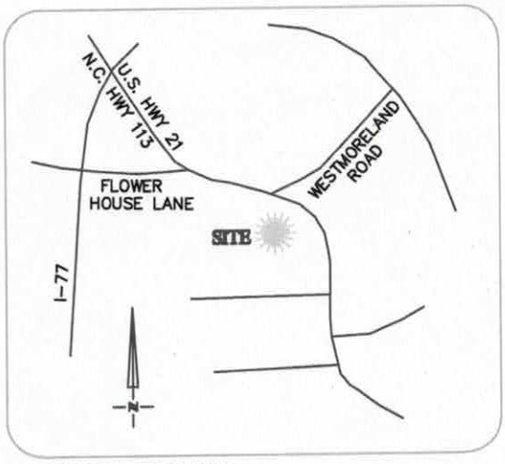
☐ IMPROVEMENT PERMIT with plat valid without expiration. ☒ IMPROVEMENT PERMIT with site plan valid for 60 mos. ☒ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.

Owner / Applicant Signature: [signature] Date: 1-24-17 Installed by: Michael w/ Sid Gaskins

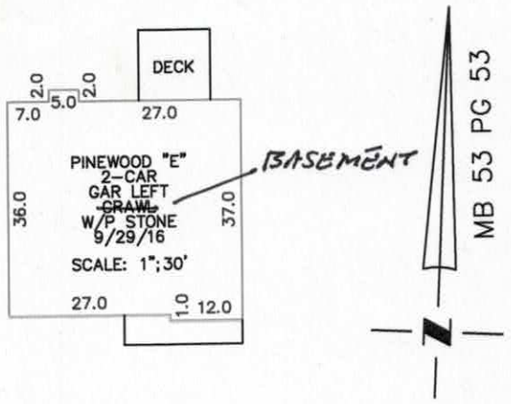
IMPROVEMENT PERMIT by: Maria Dotson Date: 1/23/17 OPERATION PERMIT by: Tom Shuck Date: 10/5/2017

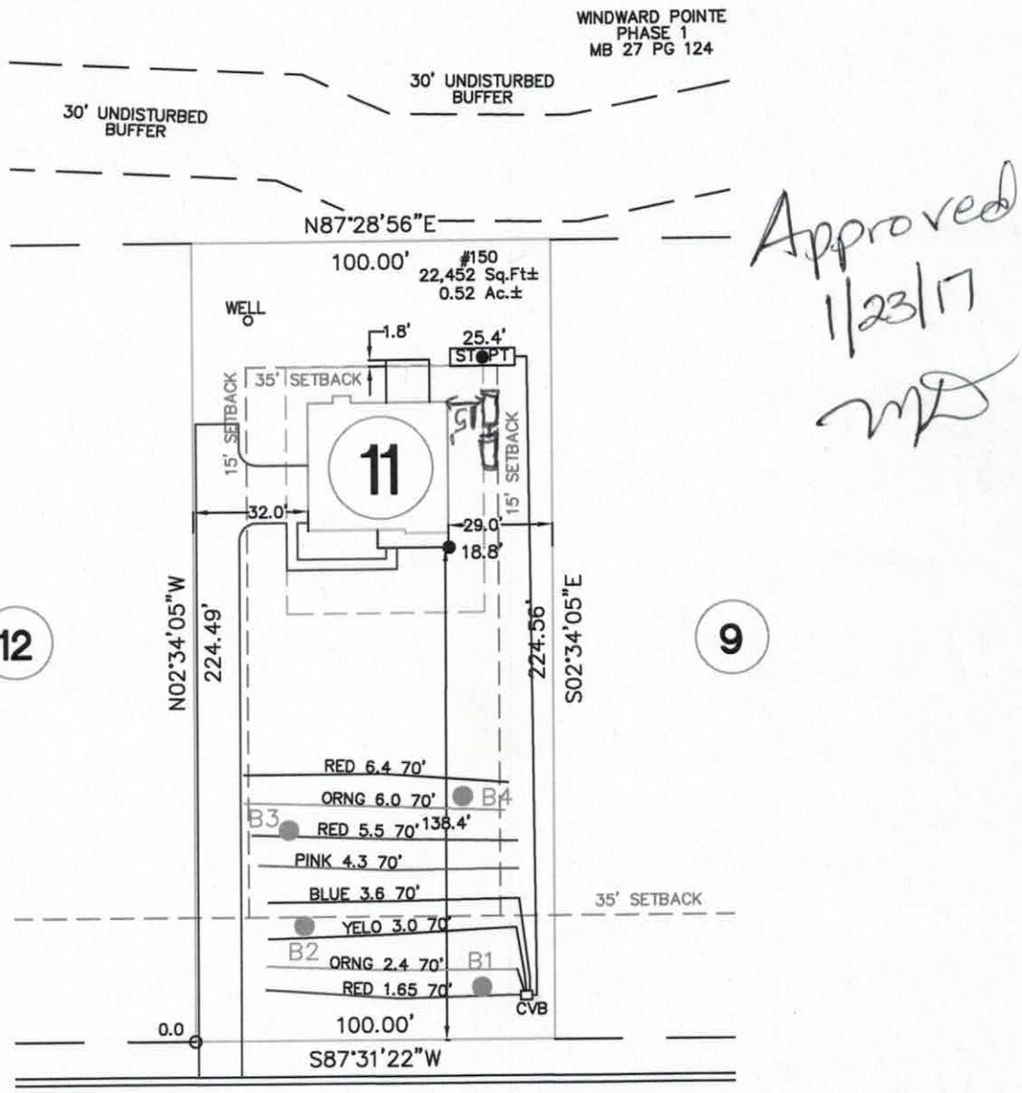
AUTHORIZATION TO CONSTRUCT by: Tom Shuck Date: 2-7-2017 Existing System Inspected by: ____ Date: ____

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



VICINITY MAP
Not To Scale





Approved
1/23/17
MD

NOTE:
ALL LOTS ARE SUBJECT TO A 10' UTILITY AND DRAINAGE EASEMENT. 10' FEET ON EACH SIDE OF THE PROPERTY LINE.

CLEAR SPRINGS ROAD

50' PUBLIC R/W

REVISIONS

REV. #	DATE	COMMENT
REV. 1	12/15/16	SHIFTED BACK 18.4'

NOTE:
1. BUILDER ASSUMES RESPONSIBILITY FOR GRADING LOT AND/OR DESIGNING STEPS, PORCHES, DECKS, ETC. AS NECESSARY TO PREVENT ENCROACHMENT INTO SETBACKS.
2. HOUSE DIMENSIONS AND OPTIONS SHOULD BE VERIFIED WITH CONTRACTOR PRIOR TO CONSTRUCTION.
3. SETBACKS/ EASEMENTS SHOULD BE VERIFIED WITH DEVELOPER AND LOCAL OFFICIALS PRIOR TO CONSTRUCTION.
4. THIS IS A CONCEPTUAL DRAWING AND CONTENTS SHOWN HEREON ARE SUBJECT TO CHANGE UPON FINAL CONSTRUCTION.
THIS PROPERTY MAY BE SUBJECT TO ANY AND ALL APPLICABLE DEED RESTRICTIONS, EASEMENTS, RIGHT-OF-WAY, UTILITIES AND RESTRICTIVE COVENANTS WHICH MAY BE OF RECORD OR IMPLIED

THIS DRAWING DOES NOT REFLECT AS-BUILT INFORMATION

PRELIMINARY PLAT
NOT FOR RECORDATION, CONVEYANCES, OR SALES.

50 0 50
SCALE: 1" = 50'

EASTOVER
LAND SURVEYING COMPANY, P.A.
LAND SURVEYORS - PLANNERS (C-1833)
10430 PARK ROAD, SUITE #300
CHARLOTTE, NORTH CAROLINA 28210
PHONE (704) 927-8080
FAX (980) 309-0842

HOUSE LOCATION PLOT PLAN

FOR

LOT 11, AUTUMN GROVE SUBDIVISION, PHASE 2

Barringer Township, Iredell County, North Carolina

PROPERTY OF: ESSEX HOMES

MAP BOOK 53 PAGE 53 DEED REFERENCE

DRAWN BY: ERG | DATE: OCTOBER 13, 2016

Attached is a proposed design for a PPBPS Septic System with low pressure distribution for a 4 bedroom single family residence on Lot # 11 in Autumn Grove Subdivision, Iredell County, North Carolina

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
System Tapsheet	5
Site Plan	6
LP Panel diagram/cutaway	7
Calculations	8
Expedited Review Process Checklist	9
Iredell County Application for Improvements Permit	10
Iredell County Site Plan Form	11
Environmental Health Requirements for Septic Permits	12
Zoning Permit	13
Owner Authorization Form	14
Profile Descriptions	15

for Essex Homes Southeast, Inc.
Attn: Darek Burns
120 Cromer Road, Lexington, SC 29073
(803) 223-4003 / dburns@essexhomes.net

January 3, 2017
Design By: Wendell Overby (S&FS)



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 DHHS, and certification supplied by the manufacturer.
- 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.
- 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 and repair specified as a PPBPS installation.
- 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.
- Iredell County has approval to move system components such as tanks.

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Approved
1/23/17
MD

Owner/Applicant:	Essex Homes Darek Burns
Address:	120 Cromer Road Lexington, SC 29073
Phone:	803 223-4003
County:	Iredell
Location:	AUTUMN GROVE LOT 11

Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480
System Flow:	25.74

Design Specifications

Drainfield Size:	272
Loading Rate (gpd/ft.^{2}):	0.3
Depth of Gravel in Trench:	NA (PPBPS)
Gravel Size:	NA (PPBPS)
Trench Depth:	30 in.
Trench Width:	24 in.
Septic Tank Size:	1000
Pump Tank Size:	1000

Estimated Supply Line Length:	180
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	31.32
Dosing Volume:	151.96
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:	2.43
Elevation Head:	29.00
Total Dynamic Head:	33.79

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 S&FS

AUTUMN GROVE LOT 11
LP PPBPS

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	544
TOTAL LATERAL LENGTH:	272
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	270
SUPPLY LINE LENGTH:	180
TOTAL DYNAMIC HEAD:	33.79
MANIFOLD SIZE:	N/A
DOSING VOLUME:	151.96
PUMP TANK DRAW DOWN*:	7.2
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	1000

Approved
1/23/17
MD

Approved 1/23/17 MO

AUTUMN GROVE LOT 11

LAYOUT FOR 4 BEDROOM HOME

January 3, 2017

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		0.0			100.00		
INSTR. 1			100.00				
HOUSE CNR				18.80	81.20		
P. TANK				25.40	74.60		
1	***RED***			***1.65***	***98.4***	***70***	***68***
2	***ORNG***			***2.40***	***97.6***	***70***	***68***
3	***YELO***			***3.00***	***97.0***	***70***	***68***
4	***BLUE***			***3.60***	***96.4***	***70***	***68***
5	PINK			4.30	95.7	70	68
6	RED			5.50	94.5	70	68
7	ORNG			6.00	94.0	70	68
8	YELO			6.40	93.6	70	68
					Total	**420**	**408**

	LINE LENGTH	TRENCH BOTTOM	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***272***	***30***	***MOD.***	***0.300***	***PPBPS***	***LOW PRESSURE***
Repair	272	30	MOD.	0.300	PPBPS	LOW PRESSURE

**TBM located at front left EIP @ground

**All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**BS, HI, and FS indicate rod readings

LP PPBPS TAPSHEET -AUTUMN GROVE LOT# 11

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
1	***RED***	98.4	*68*	0.156	**0.41**	204	16
2	***ORNG***	97.6	*68*	0.156	**0.41**	204	16
3	***YELO***	97	*68*	0.156	**0.41**	204	16
4	***BLUE***	96.4	*68*	0.156	**0.41**	204	16
							63
	total	**feet =**	**272**	**gal/min =**	**25.74**		

Des. Flow	**480**
Pump Run=	**5.88**
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

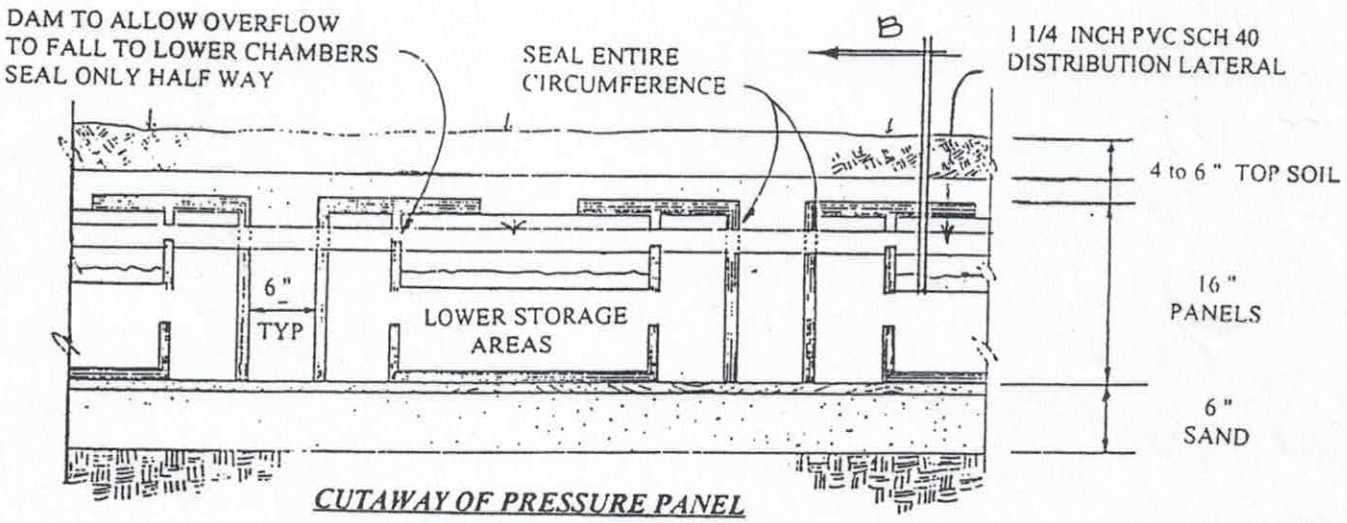
Approved
1/23/17

Panels With Pressure Distribution

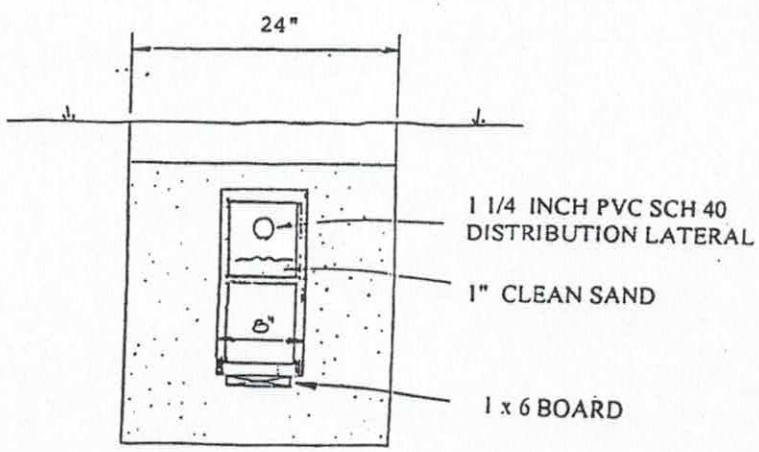
The LP Panel uses Technology similar to that of Low Pressure Pipe (LPP) System. The tables and distribution design described in the LPP manual is applicable to the pressure Panel System. The system should be used with two to four feet of head. In many respects a LP Panel is similar to a LPP with the holes discharging into the panels.

The dosing cycle for the Panel System is designed to pump enough effluent to fill the top chambers of all the panels in the system. The top chamber of a 16 inch panel hold 3.6 gallons. When the system has 34 panels and all holes are the same size, then you would multiply 34 x 3.6 to get 122 gallon per dose cycle. The holes are drilled in the distribution pipe at the 10 and the 2 o'clock position. These are then placed so that the effluent is pumped into the top chamber of the panel. If the hole sizing changes in the system the pump cycle is set by the hole that is discharging the fastest.

All valves and turnups should be neatly capped, covered and labeled for future service. Pump tanks should be constructed as shown in the drawing as to allow for service and repairs.



CUTAWAY OF PRESSURE PANEL



CALCULATIONS

Location AUTUMN GROVE

Project Number

Lot No: 11

No. of Bedrooms 4

Design Flow 480 $^{gal}/_{day}$

LTAR 0.300 $^{gal}/_{ft^2\ day}$

Approved
1/23/17
MD

PPBPS? (YES OR NO) YES

Supply Line Length 180 ft.

Supply Line Volume 31.32 gal.

Required Feet of Line 270 ft.
Amount of Line from Layout 272 ft.

Gallons per Minute 25.74 $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Minimum Standard Tank Size 1000

Panel Volume 3.6 gal.
# of Panels 63
Dosing Volume 151.96 gal.

Note: Dosing Volume based on 67% of # of panels times 3.6 gal/panel

Tank Draw Down 7.2 *Generic Draw Down of 21 gal.per in.*

Pump Run Time 5.90 minutes

Elevation Head 29 ft.
Pressure Head 2 ft.
Friction Factor 1.35 ft./100 ft. *(From the interpolater.)*
Friction Head 2.43 ft.
Friction Head+ 15% 2.79
Total Dynamic Head 33.79 ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
25.74	1.35
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

Sheet 1 of 1
PROPERTY ID #: 4659160383
COUNTY: IREDELL

Approved 1/23/17 MD

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

OWNER: ESSEX HOMES SE
ADDRESS: 120 CROMER RD LEXINGTON SC 29073
PROPOSED FACILITY: RESIDENCE PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: LOT 11 AUTUMN GROVE

APPLICATION DATE 1/3/17
DATE EVALUATED: 12/15/16
PROPERTY SIZE: 0.52
PROPERTY RECORDED: YES

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

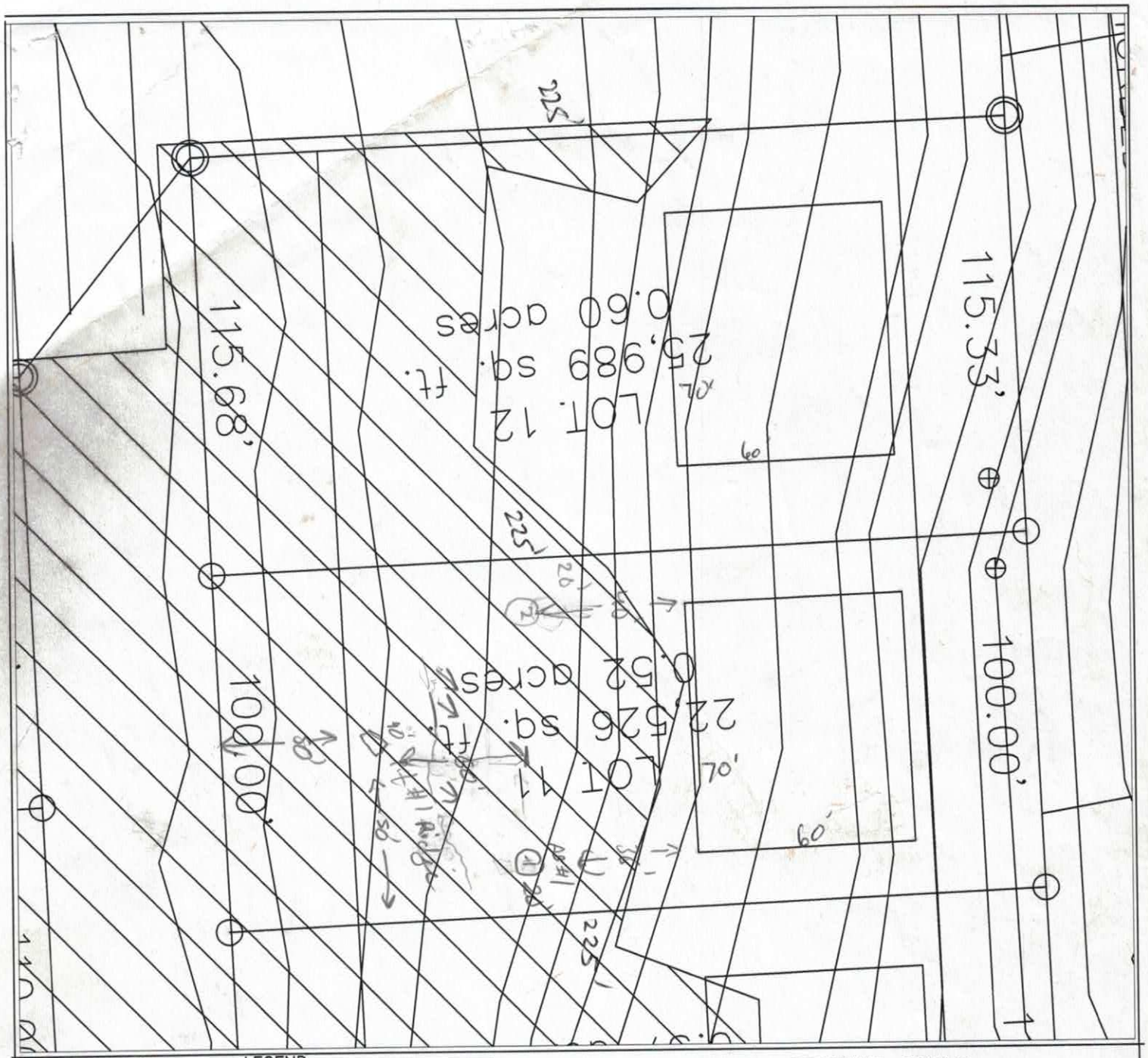
PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1	L/5%	0-6	RB SL WFGR	FR SS SP	N/A	48	–	–	PS .3
		6-33	BR C WMSBK	FR SS SP					
		33-48	BR CL WMSBK	FR SS SP f SAP					
2	L/5%	0-4	RB SL WFSBK	FR SS SP	N/A	48	–	–	PS .3
		4-30	R C WFSBK	FR SS SP					
		30-48	BR CL WMSBK	FR SS SP few SAP					
3	L/7%	0-17	RB SL WFGR	VFR HS NP	N/A	48	–	–	PS .3
		17-36	WMS R C	FR SS SP					
		36-48	R CL WMSBK	FR SS SP few SAP					
4	L/9%	0-5	RB SL WFGR	VFR HS NP	N/A	48	–	–	PS .3
		5-36	BR C WFSBK	FR SS SP					
		36-48	BR CL WMSBK	FR SS SP few SAP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	272	272
System Type(s)	LP PPBPS	LP PPBPS
Site LTAR	.3	.3

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

JAMES WENDELL OVERBY LICENSED SOIL SCIENTIST 1210 STATE OF NORTH CAROLINA

COMMENTS:



LEGEND

- House Box.
- System lines.
- Repair lines.
- House Corner Shot.
- T.B.M.

GRAPHIC SCALE
1" = 40'

40 0 40 80

FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE FINAL APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE, SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND COMPLEX TOPOGRAPHIC FEATURES. THIS MAP ONLY REFLECTS EXISTING SOIL SUITABILITY FOR ON-SITE SEPTIC TANK SYSTEMS.

PLEASE REFER TO ATTACHED SOIL REPORT FOR ADDITIONAL SITE SPECIFIC INFORMATION

ROLLANS SOIL & ENVIRONMENTAL SERVICES
2120 GRAHAM ROAD
MOUNT ULLA, NC 28125
PHONE/FAX: (704) 278 - 0989
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746 - 5046
EMAIL: ROLLANSFORTCJ@AOL.COM

MAP TITLE: SITE PLAN & DRAINFIELD AREAS

PROJECT NAME: Orchard Farms LLC/ AUTUMN GROVE

LOCATION/DATE: FERNHILL, BULLFINCH RD IREDELL COUNTY, NORTH CAROLINA FEBRUARY 2007

JOB # : 01-1043
FILE: C:\JOBS\01-1043
PROJECT MGR.: C.B.F.
FIELD WORK: C.B.F. & A.L.P.
DRAWN BY: C.B.F.

SOIL/SITE EVALUATION

(Continuation Sheet)

Sheet ___ of ___

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: _____
DATE OF EVALUATION: _____
COUNTY: _____

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
P11A	L/6-10	0-10	BR scl wsgk	Fr SS SP SEXP	Fr, Sap	57	—	—	PS 0.275
		10-42	RB c mfAbk	Fr SS P SEXP					
		42-57	R Cl wmsbk	Fr SS SP SEXP					

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: E-J Development
ADDRESS: _____
PROPOSED FACILITY: SFD
LOCATION OF SITE: Autumn Grove Lot 11
APPLICATION DATE _____
DATE EVALUATED: 7/18/07
PROPERTY SIZE: .52
PROPERTY RECORDED: _____
PROPOSED DESIGN FLOW (.1949): 480

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

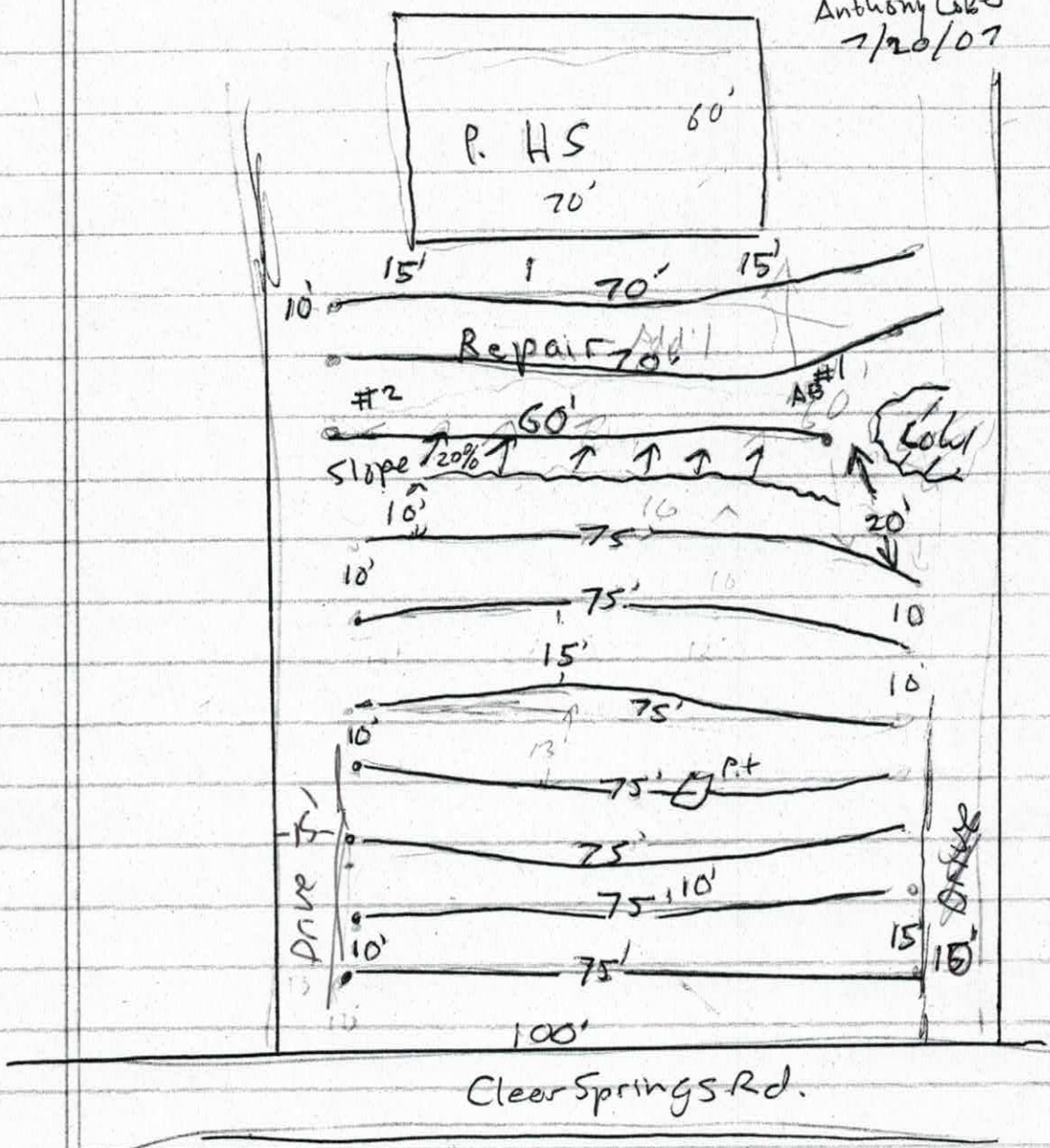
PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1	L 10%	0-10	L/scl w sbk	Pr SS Sp Sexp	Common sap				PS .275
		10-26	Red C m Gbk	Pr SS Sp Scxp					
		26-35	C m abk	Pr SS Sp Scxp					
		35-43	CL m sbk	Pr SS mp Sexp	many sap + mica				
2	L 7-10%	0-9	scl/m sbk	Pr SS Sp Sxp	Few sap inc- many sap inc				PS .275
		9-26	C Red m abk/sbk	Pr SS Sp Sxp					
		26-36	Red m abk/sbk	Pr SS Sp Sxp					
		36-43	CL m sbk	Pr SS mp Sexp					
3	L 7-10% pitted	0-12	w scl	Pr SS Sp Sexp	few sap com sap				PS .275
		12-28	C Red m abk/sbk	Pr SS Sp Scxp					
		28-38	CL w sbk	Pr SS Sp Sexp					
		38-57	CL w sbk	Pr SS Sp Sexp					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Anthony Culbreth
OTHER(S) PRESENT: Judy Melville

Autumn Grove Lot 11

Anthony Coker 7/20/07



725' flagged out

436+290 726 Needed for 25% Red. 50% Repair

RECEIVED JAN 30 2016

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 1: *APPLICATION FORM*

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

Applicant Information:

Applicant Name: Essex Homes **Address:** 13000 S. Tryon St. F-4 205 **Phone:** 704-301-3229

Owner Name: Same **Address:** " " **Phone:** " "

Property Information:

Street Address: 150 Clear Springs Rd

Subdivision Name: Autumn Grove **Section/Phase:** 2 **Lot Number:** 11

Driving Directions: I-77 to Exit 42, East toward Mooresville, Right onto Clear Springs

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

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

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: _____
( ) 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: _____
Maximum Number of Employee: _____
Maximum Number of Seats/Beds/Other: _____

Water Supply:

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

1/30/17
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, ESSEX Homes, am the legal owner of the property located at AUTUMN GROVE LOT, identified as PIN(Parcel Identification Number) Lot 11, located in Iredell County, North Carolina. 150 Clear Springs Rd

I do hereby authorize (print authorized agent/company name) CORNERSTONE II PROPERTIES, STAN PRESSLEY, 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.

Signature of Owner — Date 1/30/17 — Darek Burns

Signature of Witness — Date 1/30/17

224094 Pd $850

IREDELL COUNTY HEALTH DEPARTMENT *ENVIRONMENTAL HEALTH DIVISION*

(THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED - APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS)

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

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

The following optional attachments may also be submitted: ✓ Survey Plat, Scaled no more than 1 Inch = 60 Feet

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

3. Applicant Information:

Applicant Name	Mailing Address	Home Phone #	Alternate Phone #
WENDELL OVERBY	PO BOX 832 MOORESVILLE NC 28115	704 239-2001	
Owner Name	**Mailing Address**	**Home Phone #**	**Alternate Phone #**
ESSEX HOMES SE	120 CROMER RD LEXINGTON SC 29073		803 223-4003

4. Property Information:

Street Address	Subdivision Name	Section/Phase and Lot Number
150 CLEAR SPRINGS RD	AUTUMN GROVE	11

Driving Directions: FROM DOWNTOWN MOORESVILLE NORTH ON 115 TO CLEAR SPRINGS ROAD. GO LEFT IN SUBDIVISION. LOT ON RIGHT

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

- (✓) New, Single Family Residence
- ( ) New, Multi-Family Residence
- ( ) Expansion of Existing Septic System
- ( ) 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: Wendell Overby — 1.3.17

Property owner or owner's legal representative signature (SIGNATURE REQUIRED) — 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, Essex Homes, am the legal owner of the property located at Autumn Grove II, identified as PIN(Parcel Identification Number) 4659160383, located in Iredell County, North Carolina.

I do hereby authorize (print authorized agent/company name) Soil & Forestry Services, _____, _____, _____, 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.

Signature of Owner — Date: 10-11-16 — Darek Burns

Signature of Witness — Date: 10-11-16

IREDELL COUNTY HEALTH DEPARTMENT

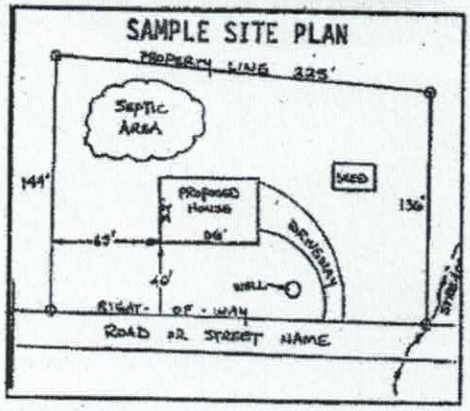
ENVIRONMENTAL HEALTH DIVISION

PAGE 2: *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**
- ( ) **Front and side setbacks from property line**
- ( ) **Preferred driveway location and well location**
- ( ) **Area you prefer your septic system to be placed**
- ( ) **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

150 Clear Springs Rd.

See attached Site Plan

Signature: Stan Pressley

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

1/30/17

DATE

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:

X **Property Line measurements are clearly identified…**

X **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

X **Front and side setbacks from property line…**

X **Preferred driveway location and configuration, preferred well location…**

X **Area you prefer your septic system to be placed…**

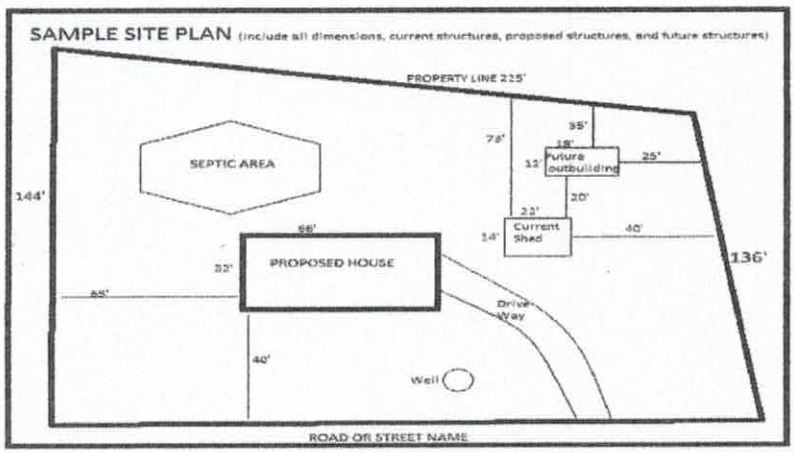
X **North arrow, or other sufficient indicator of direction…**

Circle N/A on the following if appropriate:

X **Location of septic systems and wells within 100' of your property… N/A**

X **Location of easements and rights of ways on your property… N/A**

X **Location of any designated wetlands on the property… N/A**



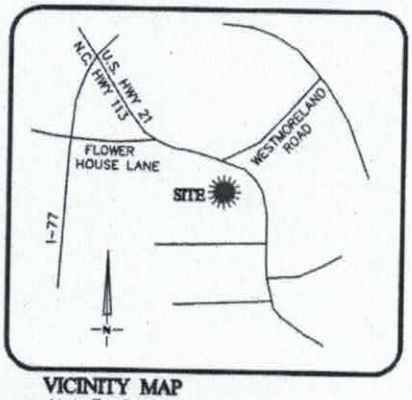
USE THIS SPACE TO DRAW YOUR SITE PLAN

Signature: _____

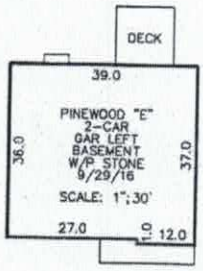
REQUIRED **property owner or owner's legal representative signature.**

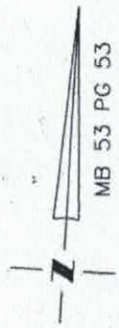
1-3-17

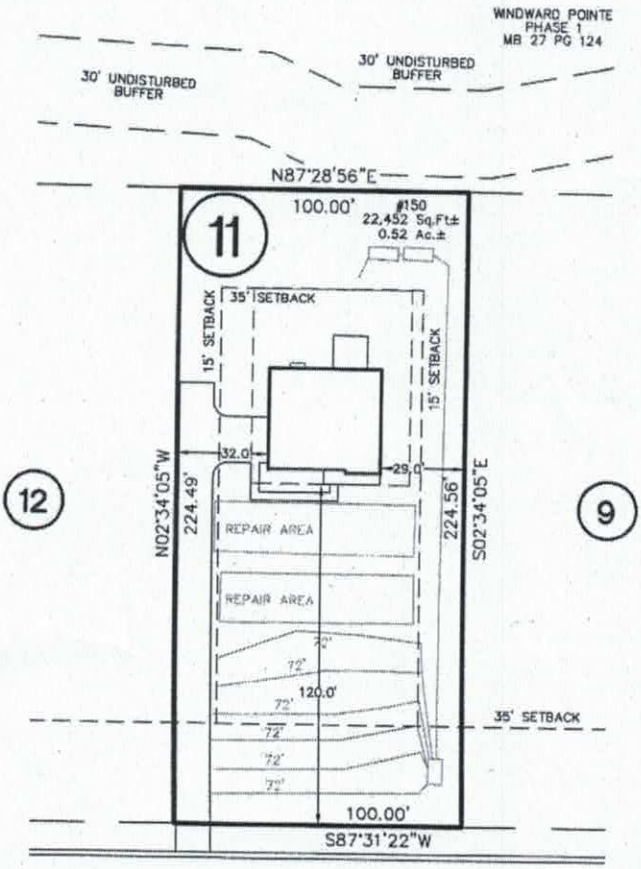
DATE



VICINITY MAP
Not To Scale







NOTE:
ALL LOTS ARE SUBJECT TO A 10' UTILITY AND DRAINAGE EASEMENT. 10' FEET ON EACH SIDE OF THE PROPERTY LINE.

150 CLEAR SPRINGS ROAD

50' PUBLIC R/W

Stan Kessler 1/30/17

NOTE:
1. BUILDER ASSUMES RESPONSIBILITY FOR GRADING LOT AND/OR DESIGNING STEPS, PORCHES, DECKS, ETC. AS NECESSARY TO PREVENT ENCROACHMENT INTO SETBACKS.
2. HOUSE DIMENSIONS AND OPTIONS SHOULD BE VERIFIED WITH CONTRACTOR PRIOR TO CONSTRUCTION.
3. SETBACKS/ EASEMENTS SHOULD BE VERIFIED WITH DEVELOPER AND LOCAL OFFICIALS PRIOR TO CONSTRUCTION.
4. THIS IS A CONCEPTUAL DRAWING AND CONTENTS SHOWN HEREON ARE SUBJECT TO CHANGE UPON FINAL CONSTRUCTION.
THIS PROPERTY MAY BE SUBJECT TO ANY AND ALL APPLICABLE DEED RESTRICTIONS, EASEMENTS, RIGHT-OF-WAY, UTILITIES AND RESTRICTIVE COVENANTS WHICH MAY BE OF RECORD OR IMPLIED

REVISIONS

REV. #	DATE	COMMENT
REV. 1	12/15/16	SHIFTED BACK 18.4'
REV. 2	1/3/17	CHANGED TO BASEMENT FND.
REV. 3	1/17/17	SHIFT FORWARD 18.4'

THIS DRAWING DOES NOT REFLECT AS-BUILT INFORMATION

PRELIMINARY PLAT
NOT FOR RECORDATION, CONVEYANCES, OR SALES.

50 0 50
SCALE: 1" = 50'

EASTOVER
LAND SURVEYING COMPANY, P.A.
LAND SURVEYORS - PLANNERS (C-1833)
10430 PARK ROAD, SUITE #300
CHARLOTTE, NORTH CAROLINA 28210
PHONE (704) 927-8080
FAX (980) 309-0842

HOUSE LOCATION PLOT PLAN

FOR

LOT 11, AUTUMN GROVE SUBDIVISION, PHASE 2
Barringer Township, Iredell County, North Carolina

PROPERTY OF: ESSEX HOMES

MAP BOOK 53 PAGE 53 DEED REFERENCE

DRAWN BY: ERG | DATE: OCTOBER 13, 2016

NOTE:
IF BUILDING IS LESS THAN 10' FROM PROPERTY LINE PROVIDE SOFFIT PROTECTION PER NC STATE BUILDING CODE SECTION 302 AND 703.11.

PLANS ARE DESIGNED TO MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE 2012 EDITION AND THE SOUTH CAROLINA RESIDENTIAL CODE, 2015 EDITION

NOTE:
CABINET BLOCKING
-FOR 36" PULLED AND STAGGERED 96" TO CENTER OF BLOCKING AT FRIDGE AND MICRO.
96" ALL OTHER LOCATIONS.
-FOR 42" PULLED AND STAGGERED 102" TO CENTER OF BLOCKING AT FRIDGE AND MICRO.
96" ALL OTHER LOCATIONS.

GENERAL NOTES

WALLS:
ALL WALLS ARE DRAWN 3-1/2" THICK U.N.O.
ANGLED WALL ARE DRAWN @45 U.N.O.

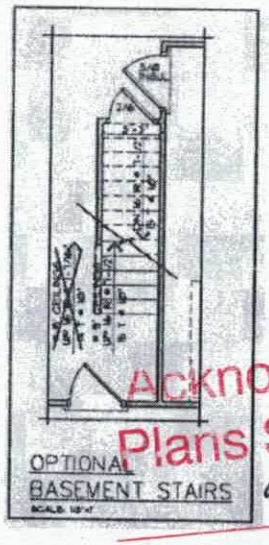
SMOKE DETECTORS:
LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.

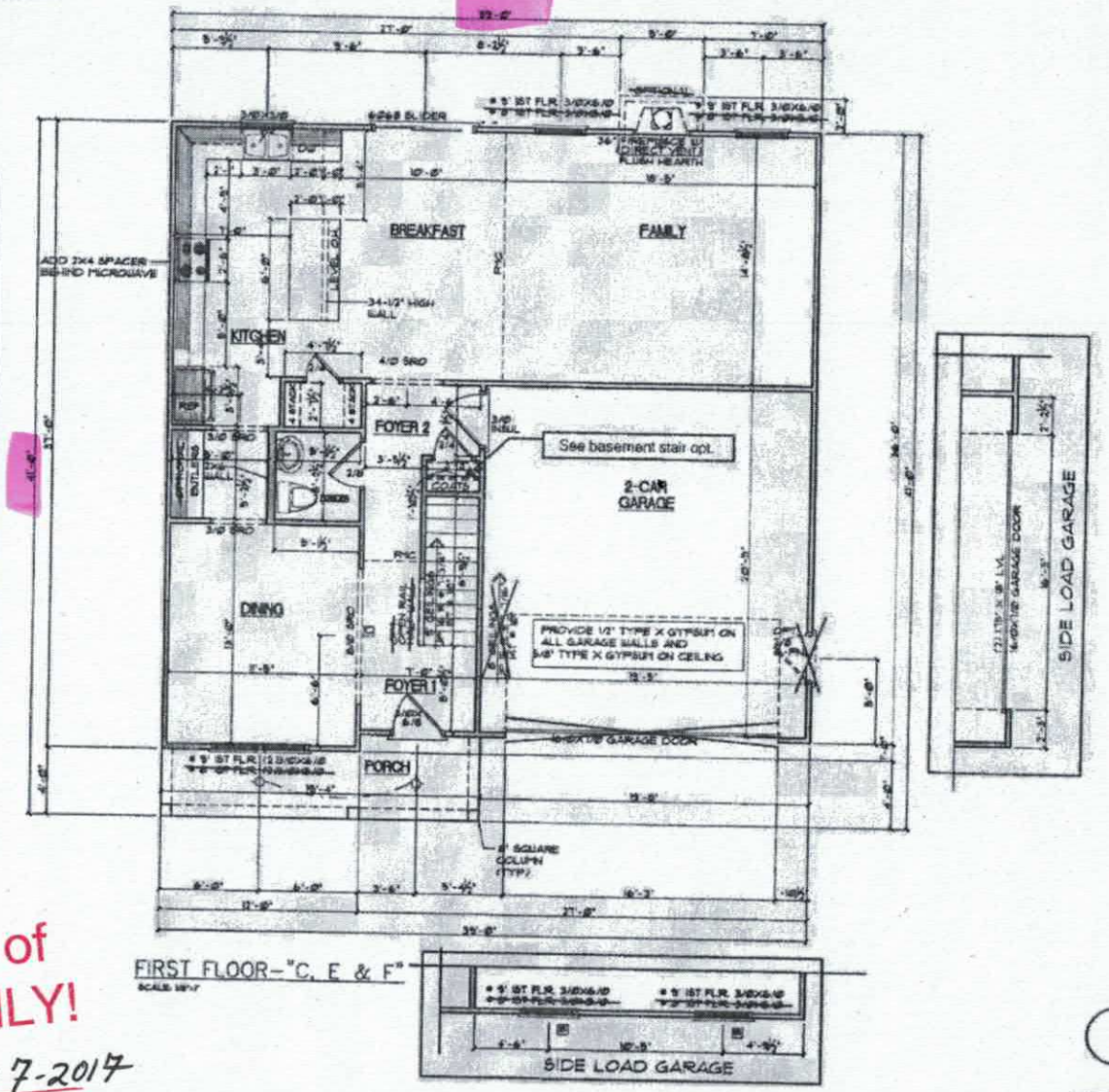
EGRESS:
ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH CONFORMS TO R-310 OF THE N.C. & S.C. BLDG. CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CHOSEN WINDOWS MEET EGRESS REQUIREMENTS AS MANUFATURERS VARY.

ATTIC ACCESS:
MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED ON SITE.

WALL/CEILING HGT.
WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL WALL SIZE.
KNEE WALL HEIGHT LABELS FOR WALLS UNDER RAFTERS ASSUME AN EXTRA 2" FOR FURRING (IN HEATED SPACES) FOR INSULATION. THE WALL HEIGHT REFERS TO THE HGT. FROM THE FLOOR DECKING TO THE BOTTOM OF THE FURRING.

CLIMATE ZONE	FENESTRATION U-FACTOR	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE
3	U-0.35/ SHGC-0.30	30	13	5/10	13	5/13	0	5/13
4	U-0.35/ SHGC-0.30	38	13 OR 15/20	5/10	19	10/13	10, 2 FT.	10/13





FIRST FLOOR-"C, E & F"

Acknowledgement of Plans Submittal ONLY!

Date 2-7-2017

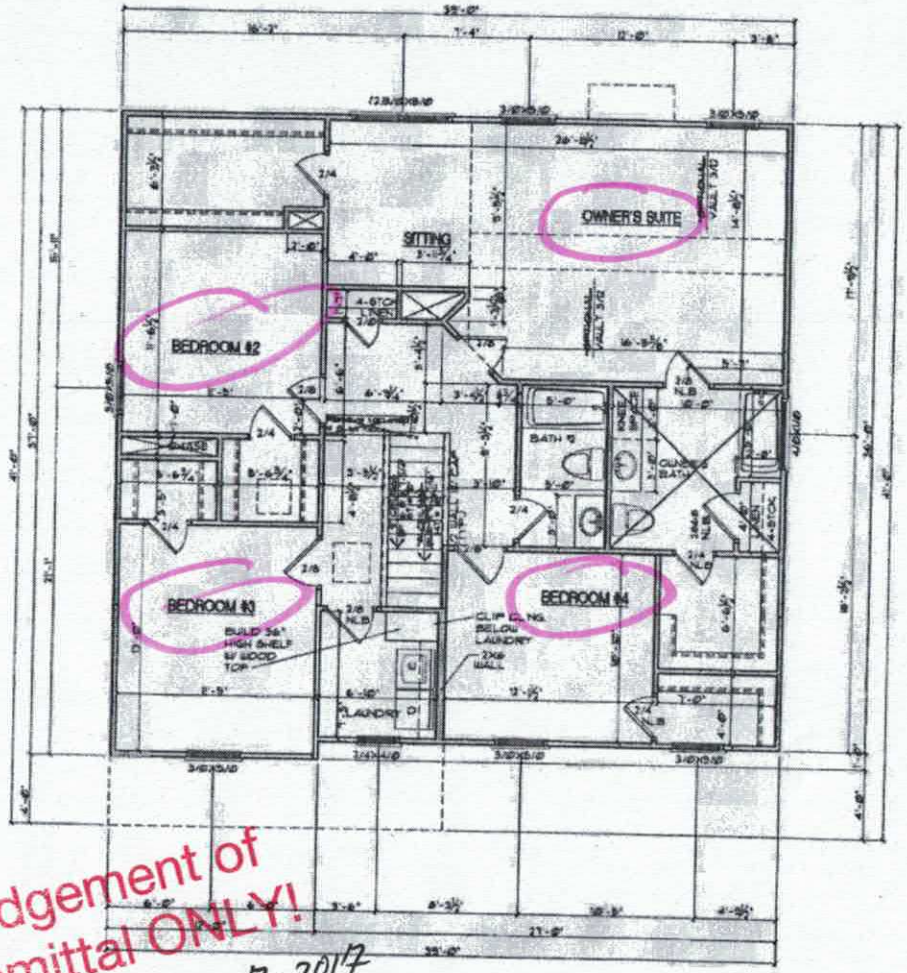
Date

REVERSED

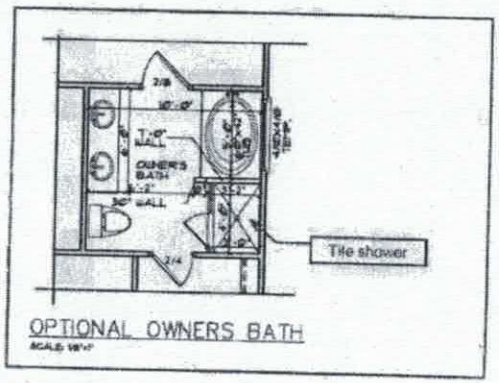
Lot 11 Autumn Gro
CJA 1-9-17

Steve Prosser 11/30/17

150 Clear Springs Rd 1st floor



SECOND FLOOR–"C & E"



Acknowledgement of Plans Submittal ONLY!

Tom Shuck Date 2-7-2017

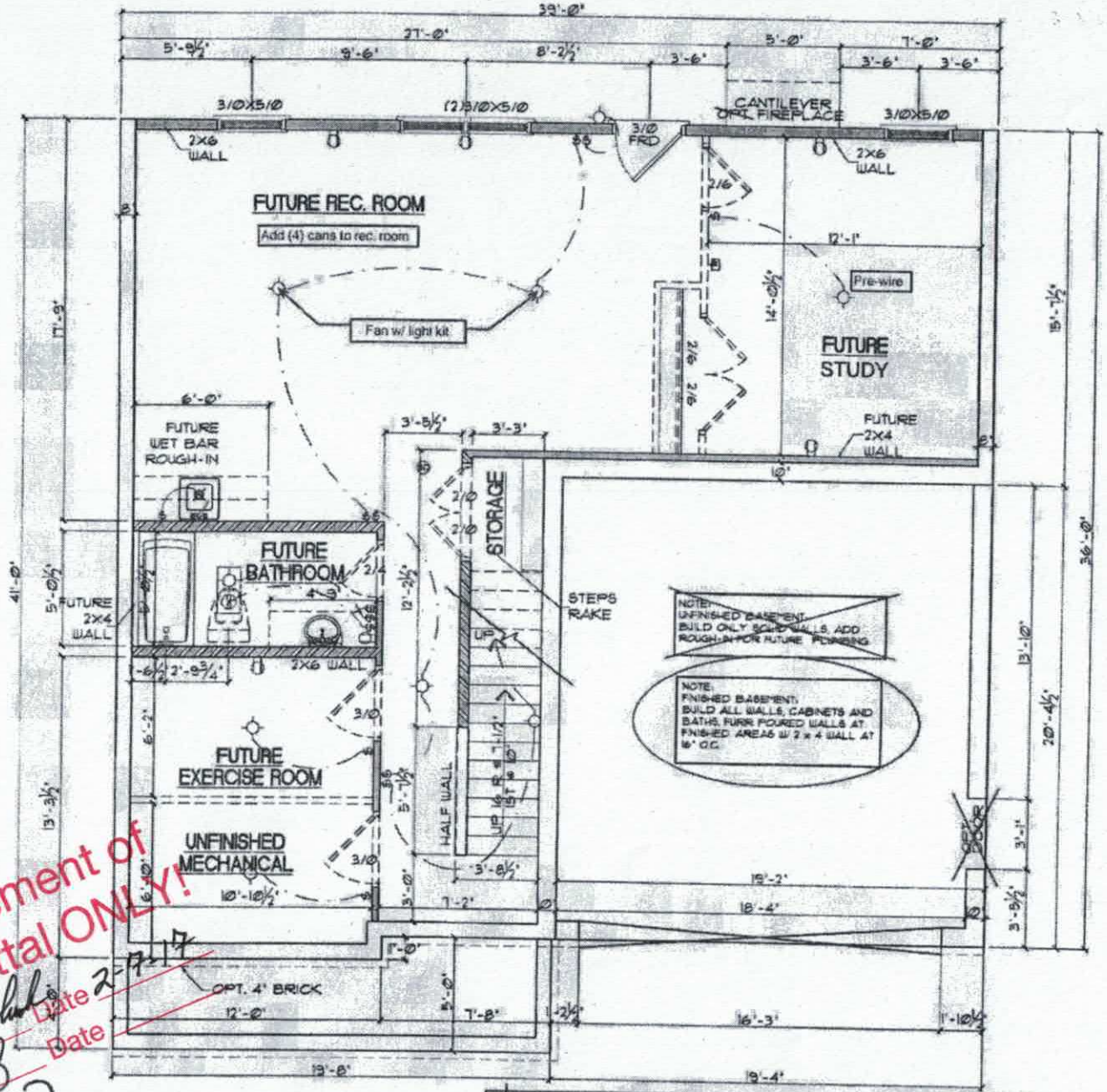
Date

1/30/17

150 Clear Springs Rd 2nd floor

REVERSED

Lot 11 Autumn Gro
CJA 1-9-17



BASEMENT FRAMING "C, E, F"

SCALE: 3/16"=1'

REVERSED

Lot 11 Autumn Grove
CJA 1-9-17

Acknowledgement of Plans Submittal ONLY!

Date 2-9-17

Date

1/30/17

150 Clear Springs Rd

Basement

IREDELL COUNTY

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

APPLICATION NUMBER
224094
Issue Date: 01/03/2017

ZONING PERMIT

Open Space

Parcel Number	Street Address	Jurisdiction
4659160383.000	150 CLEAR SPRINGS ROAD, MOORESVILLE, NC	IREDELL COUNTY

Owner Information	Applicant Information
Owner: ESSEX HOMES SOUTHEAST INC	Applicant: ROLLANS SOIL & ENVIRON
Address: 120 CROMER RD LEXINGTON, SC 29073	Address: 470 NORTH BROAD STREET SUITE D MOORESVILLE, NC 28115
Phone:	Phone: 704-658-1723

Use Requested	Zone Code
SFD	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
.520	35.00	35.00	15.00	15.00	PACL	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	89519	TOTAL FEES:	$ 77.25