IREDELL COUNTY HEALTH DEPARTMENT

Application For Improvement Permit and/or Authorization To Construct, Existing System Inspection

(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 ___BOTH ___Existing System Inspection

2. Page 2: *Site Plan Worksheet* Form MUST Accompany This Application
   The following optional attachments may also be submitted:
   Place check ( ) beside whichever is submitted if applicable
   ___✓ Survey Plat, Scaled no more than 1 Inch = 60 Feet
   ___✓ Custom Site Plan, Scaled no more than 1 Inch = 60 Feet

3. **Applicant Information:**

Applicant Name	Mailing Address	Home Phone	Work Phone
ORCHARD FARMS LLC			704-201-6465
Owner Name	**Mailing Address**	**Home Phone**	**Work Phone**

4. **Property Information:**

Street Address	Subdivision Name	Section/Phase and Lot Number
	HIGHLAND RIDGE	19

Driving Directions: _____

****

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

Maximum Number of Bedrooms 3
Maximum Number of Occupants 6
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)*

( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other_____ (✓) No Preference

****

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

12/11/07
DATE

IREDELL COUNTY HEATLH DEPARTMENT

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...
- ✓ *SHOW: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site*
- ✓ Front and side setbacks from property line...
- ✓ Preferred driveway location and configuration, preferred 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

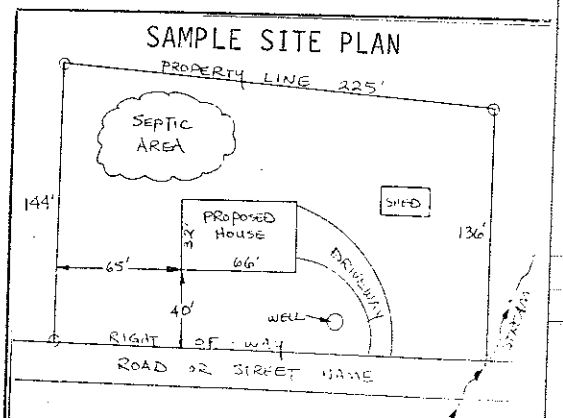
Signature: C. Hyatt

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

12/11/07
DATE

USE THIS SPACE TO DRAW YOUR SITE PLAN

See Site plan



Iredell County
Planning & Enforcement
227 S. Center St. PO Box 788
Statesville, NC 28687
704-878-3113

Zoning Permit

Permit Number: 140732ZO

Printed: 2/13/2007

Master #: 140732

Associated Permits:
140732ZO Zoning

Applicant

Name: Ashley Rollans
Address: 2120 Graham Rd
Mt Ulla, NC 28125

Phone: 704-746-5046

Parcel

Parcel Number: 4639974862.019
Address: 000 Nesting Quail Ln.
MOORESVILLE, NC 28117
Subdivision: Highland Ridge

Zoning: RA
Township: 1500
Area: .72
Lot(s): 19

Directions to Parcel: Perth Rd South, right on Fern Hill Rd, left on Nesting Quail

Owners

Name: Orchard Farms, LLC (Lee Easter)
Address: 227 Hideaway Lane
Mooresvile, NC 28117

Phone: 704-201-6465

Contractors

Contractor Type: Enviromental Services
Name: Ashley Rollans
Address: 2120 Graham Rd
Mt Ulla, NC 28125

Phone: 704-746-5046

Fees and Receipts:

Number	Description	Amount
FEE-145039-07	Zoning - Permit / Inspection	$45.00
FEE-145041-07	Environmental Health - Type I or II Fast Track	$200.00
	Total Fees:	**$245.00**

IREDELL COUNTY HEALTH DEPARTMENT

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3. **Applicant Information:**

Applicant Name	Mailing Address	Home Phone	Work Phone
Orchard Farms, LLC	227 Hideaway Ln Mooresville NC 28117	704 664-2906	704 201-6465
Owner Name	Mailing Address	Home Phone	Work Phone
Orchard Farms, LLC	"	"	"

4. **Property Information:**

Street Address: ___ Subdivision Name: Highland Ridge Section/Phase and Lot Number: 19

Driving Directions: Hwy 150 to Perth Road SW Corner Perth Road & Fern Hill Road

****

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

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Maximum Number of Bedrooms 4 3 CAF
Maximum Number of Occupants 6
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( ) Concrete Slab Foundation?
(✓) Basement w/Plumbing?
(✓) Basement w/out Plumbing? CBP

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Square Footage of Building ___
Maximum Number of Employees ___
Maximum Number of Seats ___

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8. **Please Answer The Following To The Best of Your Ability:**

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9. Signature: ___ 2-1-07
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY HEATLH DEPARTMENT

PAGE 2: *SITE PLAN WORKSHEET*

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- Location of any designated wetlands on the property... N/A

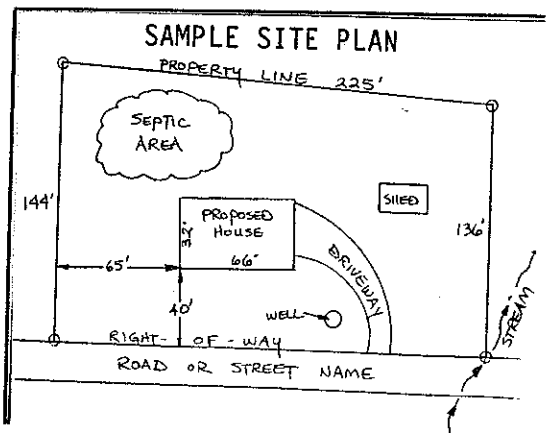
Signature: _____
Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

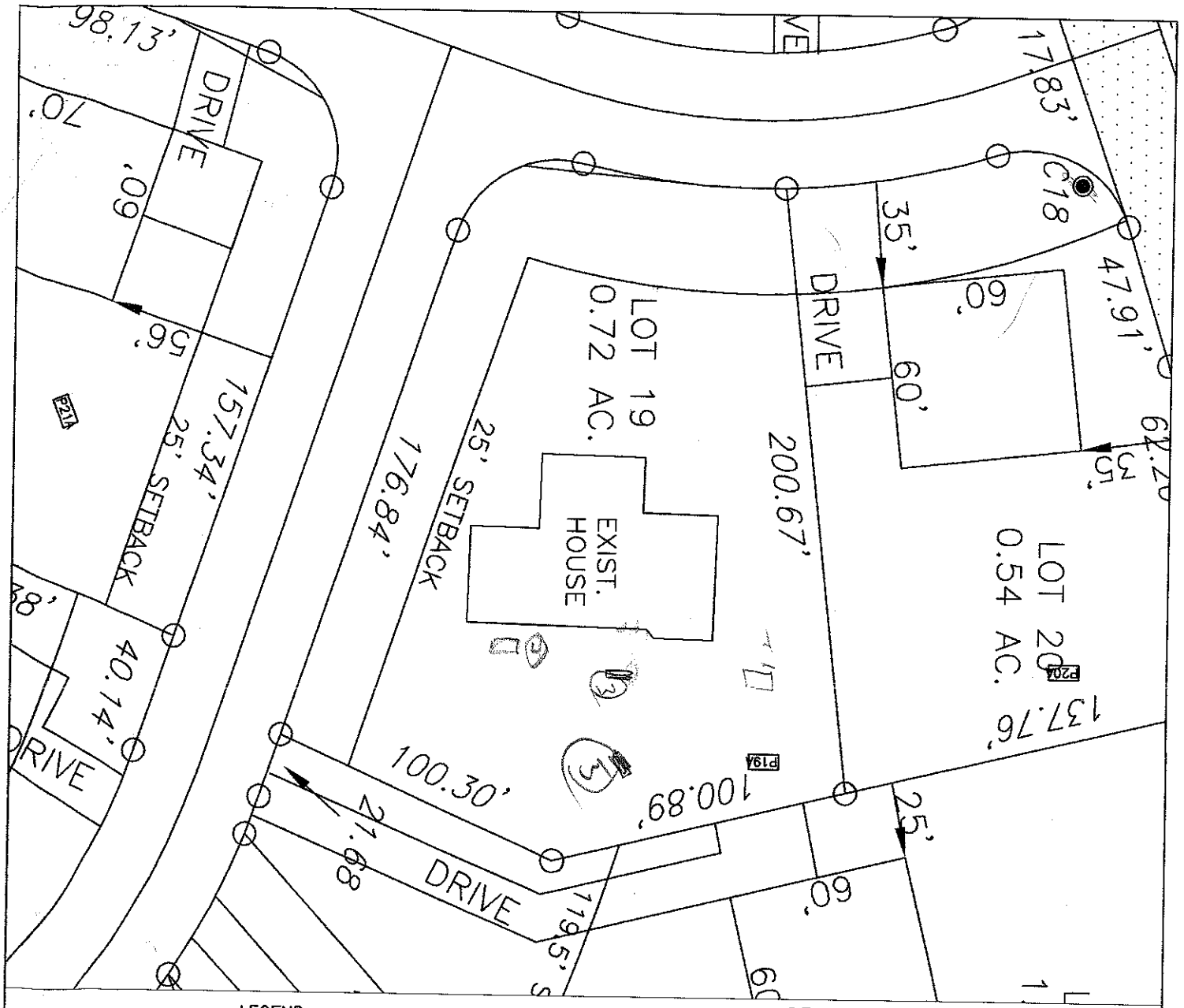
8/21/07
DATE

USE THIS SPACE TO DRAW YOUR SITE PLAN

See attached site plan

lot 19





LEGEND

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

GRAPHIC SCALE
1" = 50'

50 0 50 100

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

MAP TITLE: SITE PLAN & DRAINFIELD AREAS

PROJECT NAME: BD OF NC / HIGHLAND RIDGE

LOCATION/DATE: PERTH ROAD IREDELL COUNTY, NORTH CAROLINA FEBRUARY 2007

JOB # :	01-1329
FILE:	C:\JOBS\01-1329
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

lot 19 Highland Ridge

PROPERTY ID #: _____
DATE OF EVALUATION: 1/07
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
1A	LSS	0-6	BSCL WSAK	fr: SSSP SOP					
		6-32	RCL SAK	fr. SSSP SOP					
A	0-5%	32-68	RCL mtwSAK	fr. SSSP SOP					MS
					-	60	-	-	13
				common SAP					
P2		0-8	gr BSCL	fr SS SP					
		8-28	mtf SBK/SRC	fr SS SP					
		28-60	wf SBK CL	fr SS SP	common SAP				.3
									>27"
									.275
P3		0-5	g BSCL	fr SSSP					
		5-28	mtf SBK/SBK C	fr SS SP					
		28-58	w SBK CL	fr SS SP	many SAP				.275
P4		0-6	g BSCL	fr SS SP					
		6-26	mtf SBK/SRC	fr SS SP	few yel br				
		26-56	w SBK RCL	fr SS SP					
									.275
P5		0-4	BSCL fr	fr: SSSP SOT					
		4-16	MSBK/ABK C	fr: SSSP SOP					
		16-26	ABK C	fr: SSSP SOT	common SAP ?YB's				.275
		26-60	WSBK CL	fr SSSP SOP					
					many SAP				

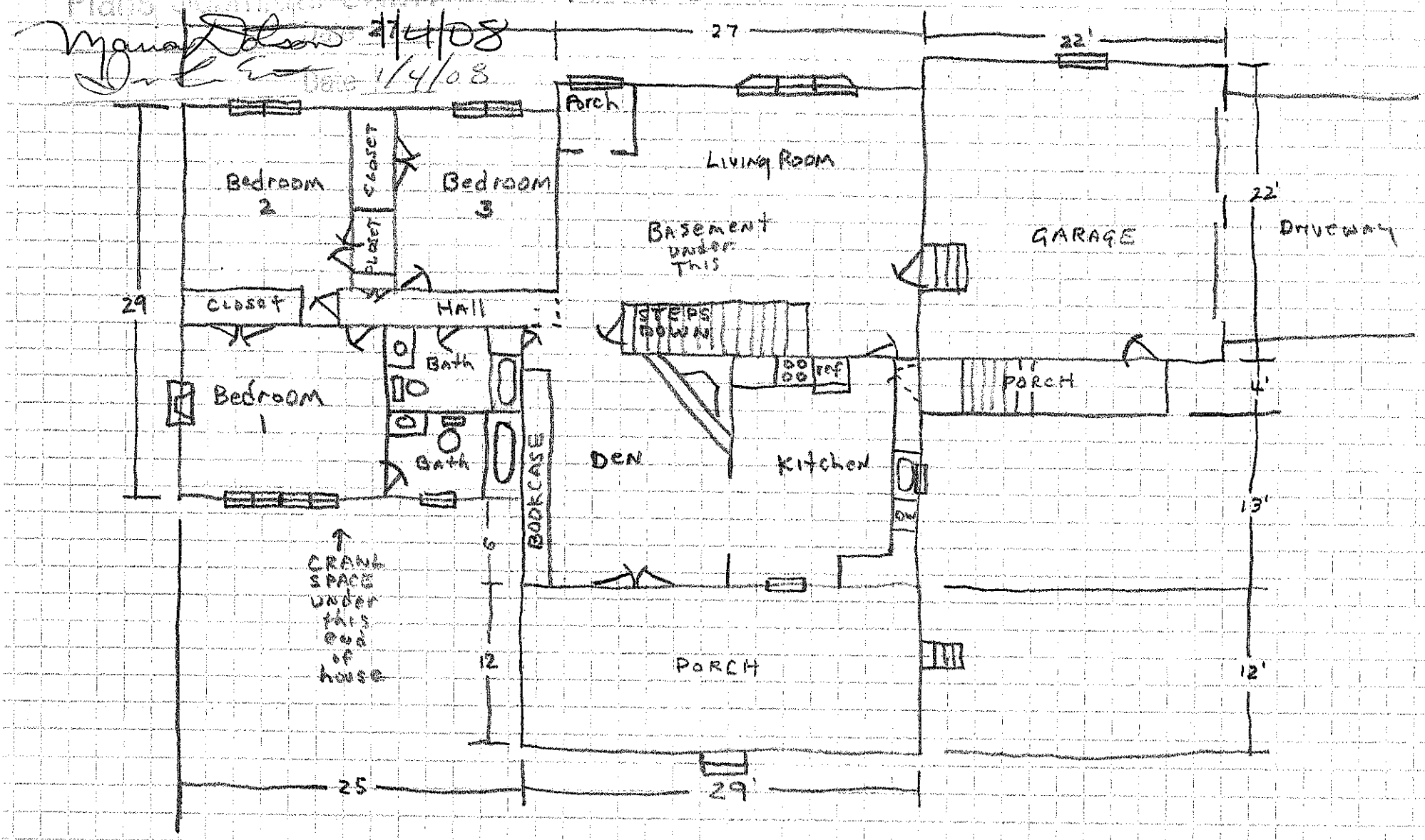
COMMENTS: _____

Highland Ridge
Lot 19
Existing Home
¼" = 2'-0"

Lee Easter
Orchard Farms
704-201-6465

Acknowledgment of Plans Sent via CMYK

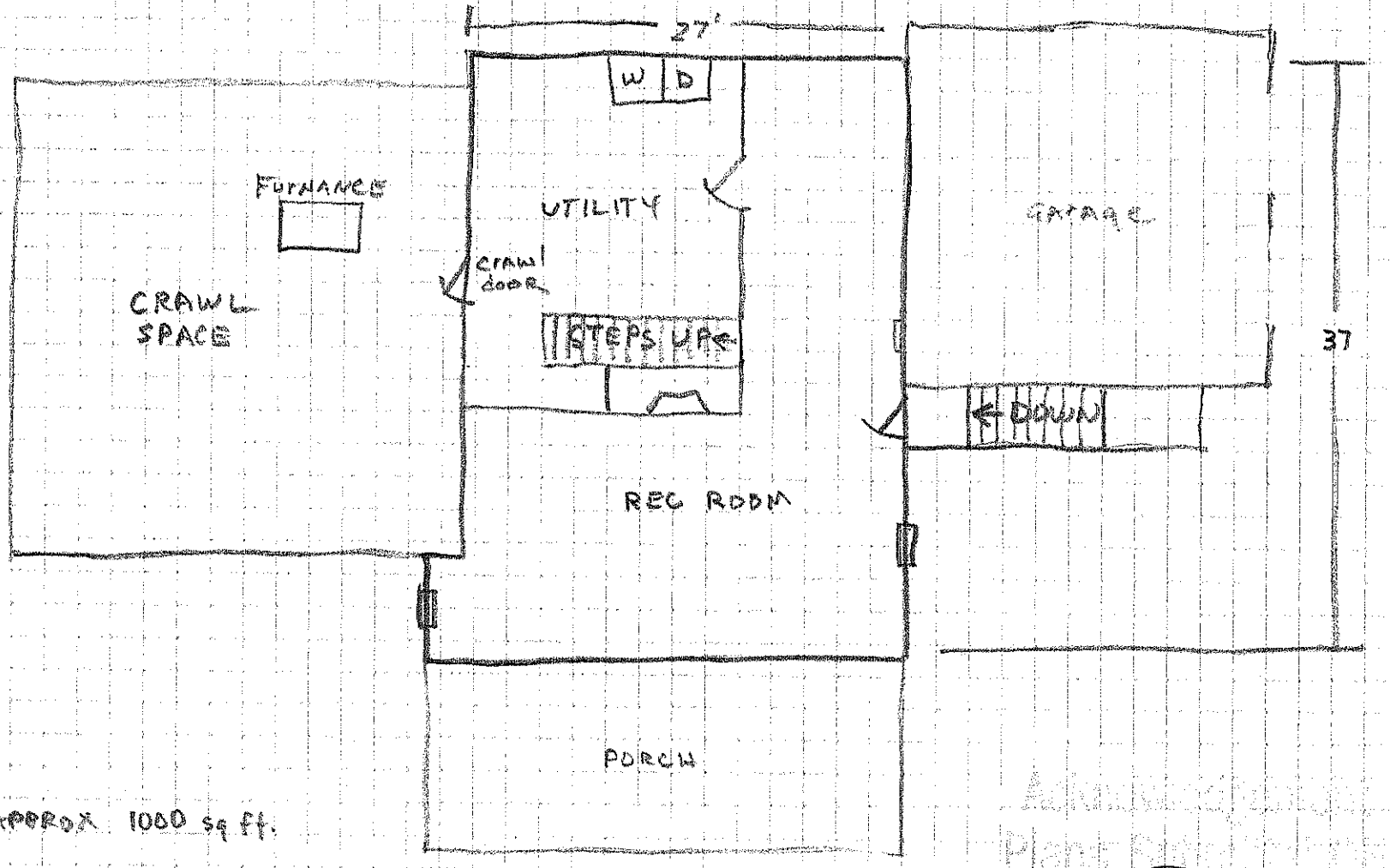
Maria Edson 1/4/08
Date 1/4/08



1st Floor
Approx 1783 sq ft

Highland Ridge
LOT 19
EXISTING HOME
BASEMENT
1/4" = 2'-0"

Lee Easter
Orchard Farms
704-201-6465



APPROX 1000 sq ft.

Marc Dilson 1/4/08

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant: Orchard Farms LLC

Address: 227 Hideaway Lane
Mooresville, NC 28117
Phone: 704-201-6465
County: Iredell
Location: HIGHLAND RIDGE LOT#19

Source of Wastewater Flow: 3 Bedroom Single Family Residence
Estimated Gallons Per Day Flow: 360
System Flow: N/A

Design Specifications

Drainfield Size: 250
Loading Rate (gpd/ft.^{2}): 0.25
Depth of Gravel in Trench: NA (PPBPS)
Gravel Size: NA (PPBPS)
Trench Depth: 36 in.
Trench Width: 36 in.
Septic Tank Size: 1000
Pump Tank Size: NA

Estimated Supply Line Length: 10
Supply Line Diameter: 2 in. SCH 40 PVC
Supply Line Volume: 1.74
Dosing Volume: N/A
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: N/A
Elevation Head: N/A
Total Dynamic Head: N/A

Threaded Union: N/A
Gate Valves: N/A

Check Valves: N/A
Anti-Siphon Hole: N/A
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

HIGHLAND RIDGE LOT#19
LP PPBPS

DESIGN FLOW (gpd):	360
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.25
TOTAL AREA TRENCH BOTTOM:	750
TOTAL LATERAL LENGTH:	250
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	240
SUPPLY LINE LENGTH:	10
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	ON DEMAND
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	N/A

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

HIGHLAND RIDGE LOT#19

Project #: 01-1329

LAYOUT FOR 3 BEDROOM HOME

December 5, 2007

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		N/A			100.00		
INSTR. 1			N/A				
HOUSE CNR				N/A	N/A		
P. TANK				N/A	N/A		
1	***ORANGE***			***N/A***	***N/A***	***50***	***50***
2	***BLUE***			***N/A***	***N/A***	***50***	***50***
3	***BLUE***			***N/A***	***N/A***	***50***	***50***
4	***PINK***			***N/A***	***N/A***	***50***	***50***
5	***PINK***			***N/A***	***N/A***	***50***	***50***
6	BLUE			N/A	N/A	45	45
7	PINK			N/A	N/A	35	35
8	DARK PINK			N/A	N/A	96	96
9	ORANGE			N/A	N/A	70	70
					Total	**496**	**496**

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
** System*	***250***	***0.25***	***MOD.***	***0.250***	***PPBPS***	***GRAVITY DISTRIBUTION***
Repair	246	0.25	MOD.	0.250	PPBPS	LOW PRESSURE

Notes:

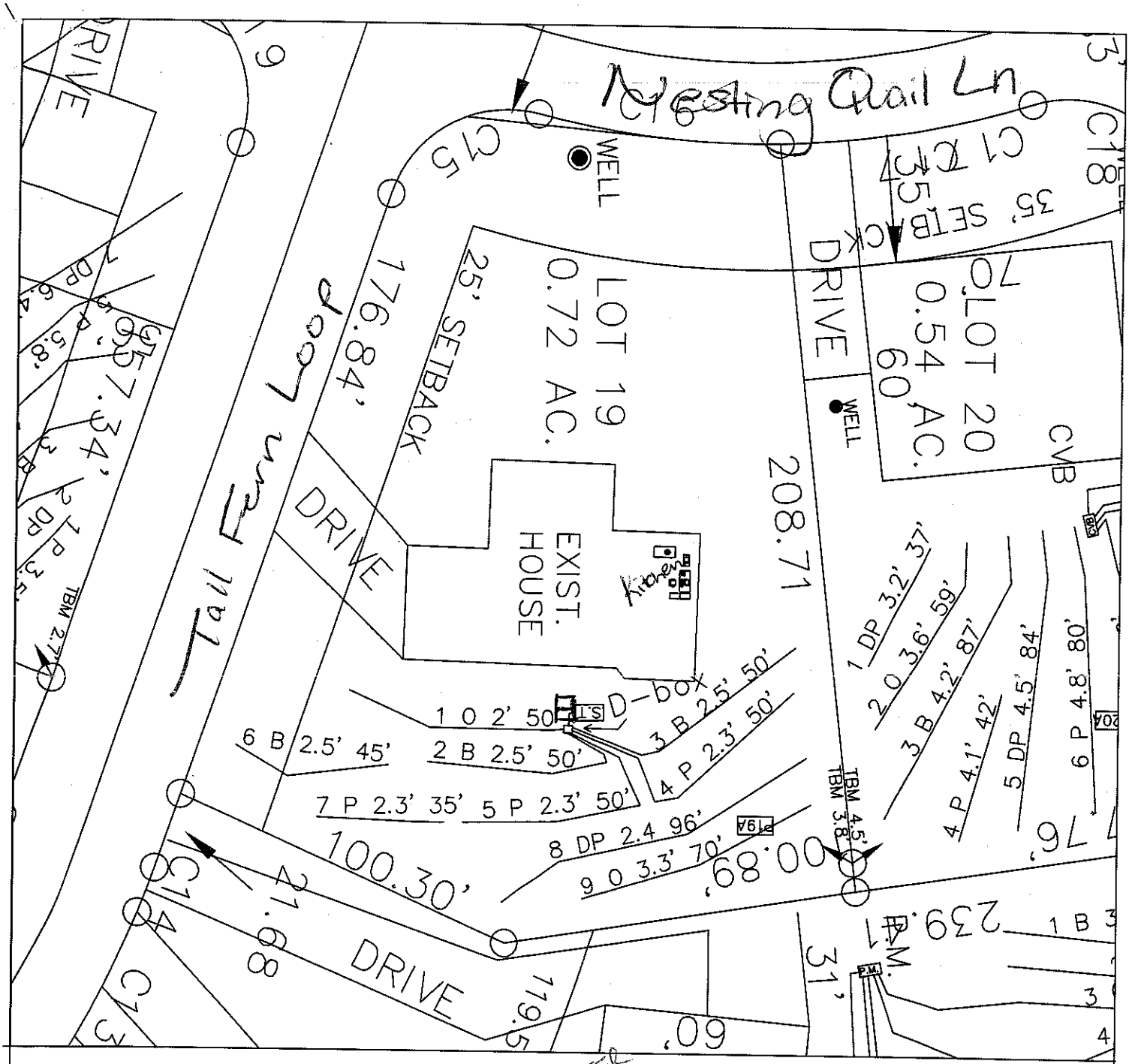
** TBM located top of ground at EIP at corner of lot (see site plan)

**TBM is assumed to be 100'

**All measures in feet

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

**BS, HI, and FS indicate rod readings



LEGEND

- House Box.
- System lines.
- Repair lines.
- HC 5.3' House Corner Shot.
- T.B.M.

GRAPHIC SCALE
1" = 40'

40 0 40 80

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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		JOB # :	01-1329
PROJECT NAME: ORCHARDS OF LLC / HIGHLAND RIDGE	LOCATION/DATE: PERTH ROAD IREDELL COUNTY, NORTH CAROLINA FEBRUARY 2007	FILE:	C:\JOBS\01-1329
		PROJECT MGR.:	C.B.F.
		FIELD WORK:	C.B.F. & A.L.P.
		DRAWN BY:	C.B.F.

LP PPBPS TAPSHEET -HIGHLAND RIDGE LOT 19

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
1	*ORANGE*	N/A	*50*	N/A	N/A	150	12
2	*BLUE*	N/A	*50*	N/A	N/A	150	12
3	*BLUE*	N/A	*50*	N/A	N/A	150	12
4	*PINK*	N/A	*50*	N/A	N/A	150	12
5	*PINK*	N/A	*50*	N/A	N/A	150	12
							60
	total	**feet =**	**250**	**gal/min =**	N/A		
			Des. Flow	**360**			
			Pump Run=	N/A			
			soil LTAR	**0.25**			
			LTAR +5%	**0.2625**			
			LTAR with mod.	**0.5**			
			LTAR with mod.. + 5%	**0.525**			

CALCULATIONS

Location HIGHLAND RIDGE

Project Number 01-1329

Lot No: Lot 19

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.250	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	10	ft.
Supply Line Volume	1.74	gal.
Required Feet of Line	240	ft.
Amount of Line from Layout	250	ft.
Gallons per Minute	N/A	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	gal.
# of Panels	60	
Dosing Volume	144.72	gal.

Note: Dosing Volume based on 33% of # of panels times 3.6 gal/panel

Tank Draw Down	N/A	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	N/A	minutes
Elevation Head	N/A	ft.
Pressure Head	N/A	ft.
Friction Factor	N/A	ft./100 ft. *(From the interpolater.)*
Friction Head	N/A	ft.
Total Dynamic Head (+15%)	N/A	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