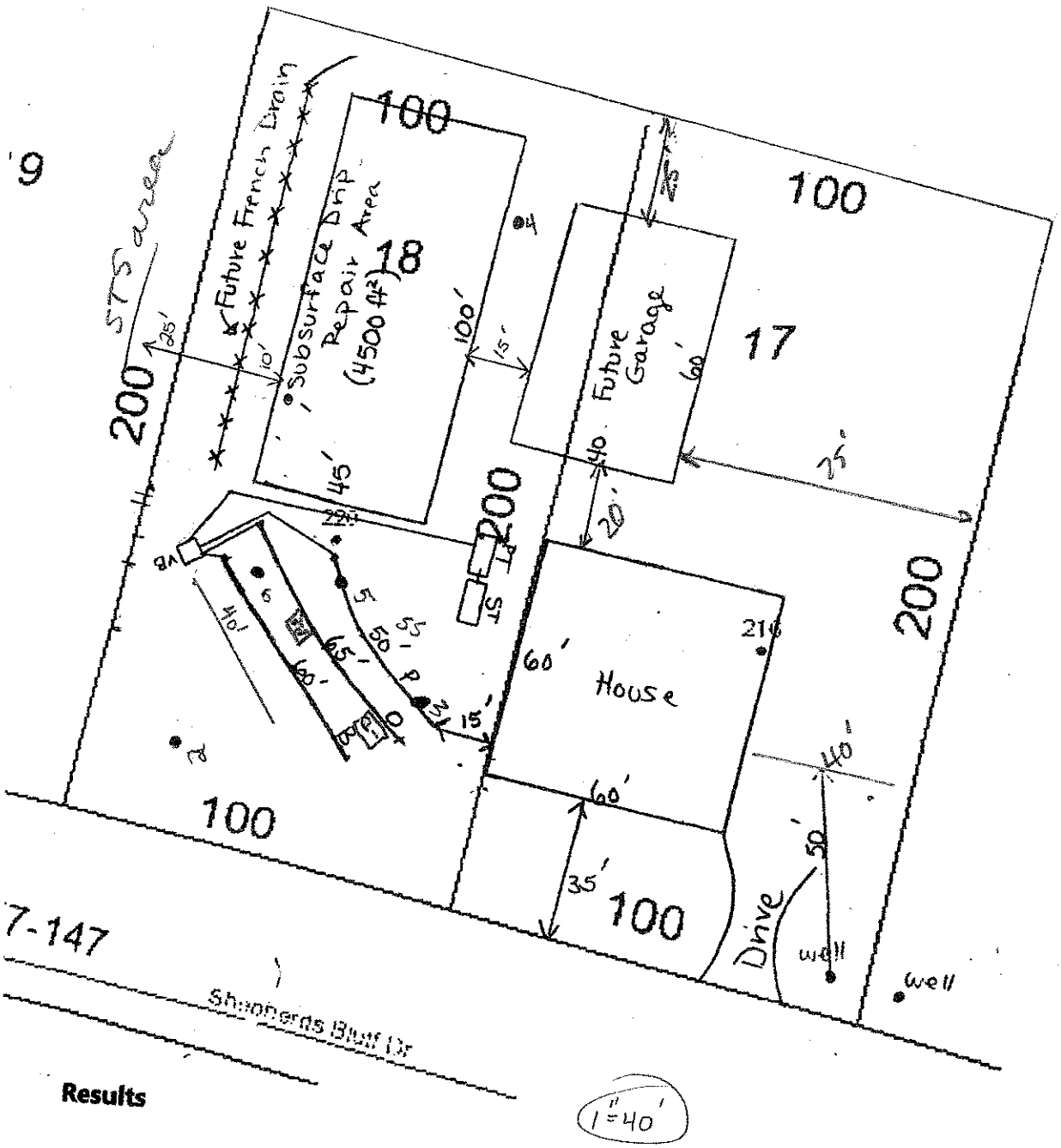
1:50 Fe



©2009-2014 Mobile311 LLC

3 BDR LP PPBPS @ [redacted] GTAR
0.275
220' w/42" TBD
KCMS

DEPARTMENT OF ENVIRONMENT, HEALTH, 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: LESLIE REID APPLICANT: ____
ADDRESS: ____ APPLICATION DATE: ____ DATE EVALUATED: 9-15-14
PROPOSED FACILITY: ____ PROPOSED DESIGN FLOW (.1949): ____ PROPERTY SIZE: ____
LOCATION OF SITE: SHEPPARDS BLUFF LOT 18 PROPERTY RECORDED: ____
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
1	CC / 3	0-8	SCL - GR	FR SP SE		26" useable to PLATY			
		8-26	C ABK	FI P SE					
		26-48	C PL/ABK	FI P SE					
2	CC / 4	0-7	SCL GR	FR-SP-SE		30 to PLATY			
		7-30	C ABK	FI-P-SE					
		30-48	C PL/ABK	FI-P-SE					
3	CC / 3	0-10	SCL GR	FR-SP-SE		18" to PLATY			
		10-18	C ABK	FI-P-SE					
		18-44	C PL/ABK	FI-P-SE					
4	CC / 4	0-8	SCL GR	FR-SP-SE		29 to PLATY			
		8-29	C ABK	FI-P-SE					
		29-48	C PL/ABK	FI-P-SE					

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

OTHER FACTORS (.1946): ____
SITE CLASSIFICATION (.1948): ____
EVALUATED BY: [signature] (Gene Young)
OTHER(S) PRESENT: ____

On-site Wastewater Section

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Lot #: 18
File #:
AppID: 4659672057

Owner: Mike Cook
Address: 220 Shepherds Bluff Dr
Proposed Facility: SFR Design Flow (.1949) 360
Location of Site: Lot 18 Shepherds Bluff

Applicant:
Date Evaluated: 9/19/14
Property Size: 0.46
Property Recorded:

Water Supply: [ ] Public [ ] Individual [X] Well [ ] Spring [ ] Other
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY 1941 Structure/ Texture	SOIL MORPHOLOGY 1941 Consistence Mineralogy	PROFILE FACTORS 1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr. Horiz	Profile Class & LTAR
1	LCC	0-5	MoGRSCL	FR SS/SP	R Br				0.2 to 29"
		5-24	Mo SBK C	Fi S/P	R				
		24-29	Mo SBK C	Fi S/P	R; C yel Br				
		29"	2 Chroma						
2	L	0-36	WK SBK CL	FR SS/SP	R yel; C Sap multi				0.225 KMS
		36-70	MA L Sap	FR SS/SP					
3	L	0-24	Mo SBK C	FR SS/SP	R; F Sap R; C Sap yel R				0.275 KMS
		24-44	WK SBK CL	↓					
		44-60	MA L Sap	↓					
4	L CC	0-10	MoGRSCL	FR SS/SP	Br R R; C yel Br				0.2 to 27"
		10-24	Mo SBK C	Fi S/P					
		24-27	WK SBK C	↓					
		27"	2 Chroma						

Description	Initial System	Repair System
Available Space (.1945)		
System Type(s)	LP PPBPS	Sub. Drip
Site LTAR	~~0.275~~	0.1

0.275 KMS

Other Factors (.1946):
Soil Evaluation By: KMS
Others Present:
Site Classification (.1948): PS
Site Evaluation By: KMS
Others Present:

The Oaks Group
Kathleen Saunders (704) 578-4951

42" TBD max depth

On-site Wastewater Section

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Lot #: 18
File #:
AppID: 4659672057

Owner: Mike Cook
Address:
Applicant:
Proposed Facility: SFR Design Flow (.1949) 360
Date Evaluated: 10-28-14
Location of Site: Lot 18 Shepherds Bluff
Property Size: 0.46
Property Recorded:

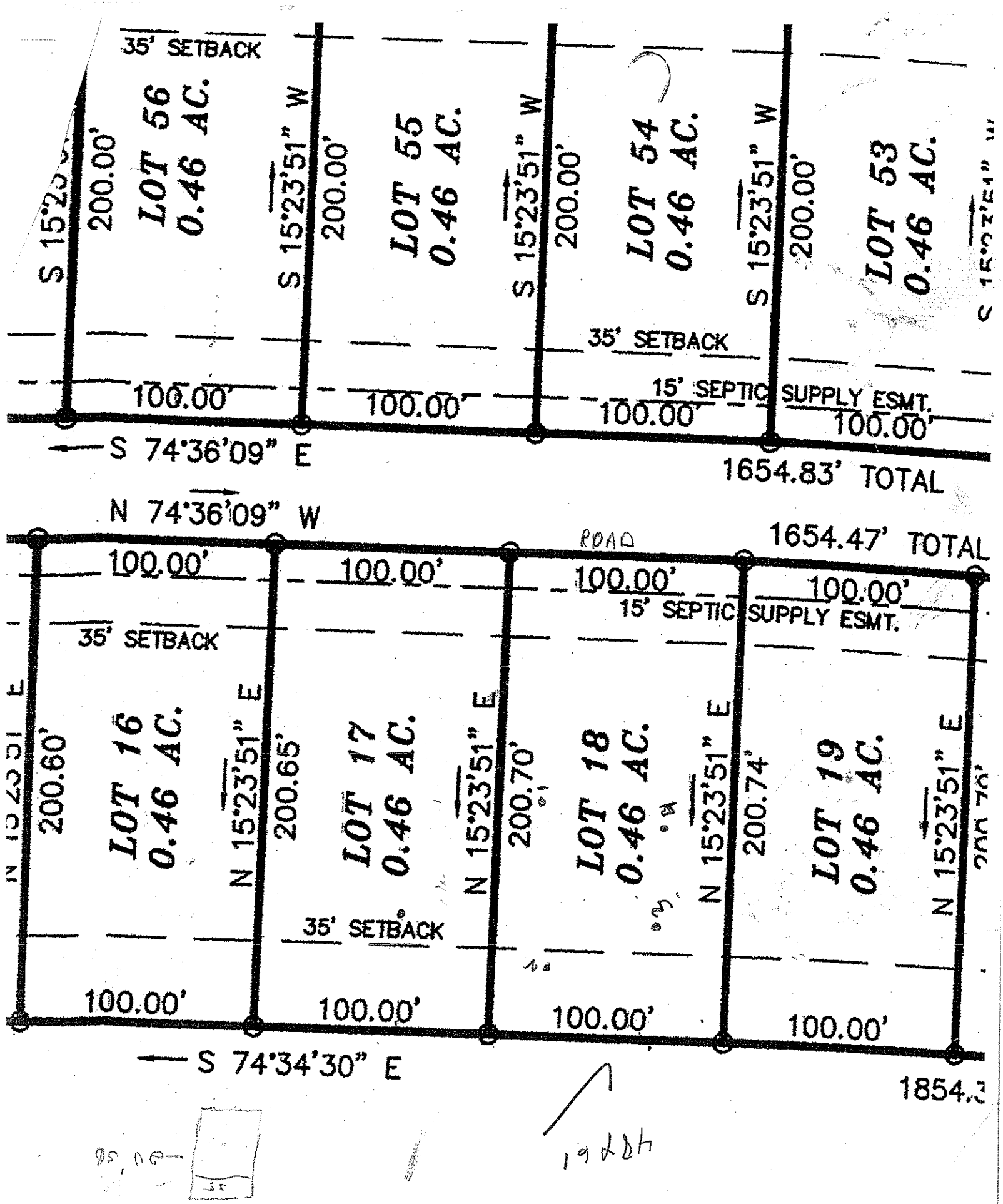
Water Supply: [ ] Public [ ] Individual [X] Well [ ] Spring [ ] Other
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY (1941) 1941 Structure/ Texture	1941 Consistence Mineralogy	PROFILE FACTORS b 1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr. Horiz	Profile Class & LTAR
5	L	0-4	Mo GR SL	FR NS/NP	Br				0.275 kms
		4-22	Mo SBK C	FR SS/SP	R				
		22-42	WK SBK CL	FR SS/SP	R; C sap				
		42-48	MASL sap	FR NS/NP	R Br				
6	L	0-5	Mo GR SCL	FR SS/SP	Br				0.275 kms
		5-27	Mo SBK C	↓	R				
		27-42	WK SBK CL		R; f/c sap				
		42-48	MA L Sap	↓	R yel				

Description	Initial System	Repair System
Available Space (.1945)		
System Type(s)	LPP RRES	Sub Drip
Site LTAR	0.275	0.1

Other Factors (.1946):
Soil Evaluation By:
Others Present:
Site Classification (.1948):
Site Evaluation By:
Others Present:

Use 42" TBD



FRANCES SHINN WHITE
1181/695

called Leslie Reid 10/8/14 9 AM but voice mail full, could not leave message

① 0-12 L fr wBK SE
12-30 C+SAP fr wBK SE
30-48 SAP(L) fr m acid

② 0-8 SL fr gr SE
8-22 C fr SB SE
22-45 C+SAP fr wBK SE
45+ SAP(CL) fr m acid

③ 0-15 C+SAP fr BK SE
15-48 SAP(CL) fr m acid

④ 0-15 L fr gr SE
15-18 C fr SB SE
18-36 C+SAP fi fr wAB SE
36-48 SAP(L, fr) m acid

⑤ 0-8 L fr gr SE
8-20 C fr SB SE
20-36 C+SAP fr SB SE
36-48 SAP(CL) fr m acid

Pit 1

0-5 CL fr w SB SE
5-9 C fr wSB SE
9-16/24 C+SAP fr wAB SE
16/24-60+ SAP SCL+L fr m acid

0-7 L fr gr wSB SE
7-13 SCL fr w SB SE
13-22 C+SAP fi PL-AB
22-36+ SAP(L)+C m acid
36-60 SAP(L) fr m acid

GRAVITY 25% REDUCTION
FOR WASTEWATER TREATMENT

Owner:	Shepherds Bluff, LLC
Address:	111-B Raceway Dr Mooresville, NC 28117
Phone:	704-664-7029
County:	Iredell
Location:	Shepherds Bluff Subdivision Lot # 17
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	360 gpd
System Flow:	N/A

Design Specifications

Drainfield Size:	360
Loading Rate:	0.25
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
Trench Depth:	36 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	N/A
Estimated Supply Line Length:	21
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	3.65
Dosing Volume:	NA
Supply Manifold:	DROP-BOX
Supply Manifold Length:	N/A
Supply Manifold Volume:	N/A
Recommended Float Controls:	NA
Recommended Control Panel:	NA
Pressure Head:	NA
Friction Head:	NA
Elevation Head:	NA
Total Dynamic Head:	NA
Threaded Union:	NA
Gate Valves:	NA NA
Check Valves:	NA
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Rollans Soil & Environmental Services.

Shepherds Bluff Subdivision Lot # 17

DESIGN FLOW:	360
SOIL APPLICATION RATE:	0.25
TOTAL AREA TRENCH BOTTOM:	1080
TOTAL LATERAL LENGTH:	360
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	360
SUPPLY LINE LENGTH:	21
TOTAL DYNAMIC HEAD:	NA
MANIFOLD SIZE:	NA
DOSING VOLUME:	NA
PUMP TANK DRAW DOWN*:	NA
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	NA

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

Shepherds Bluff Lot 17

Project #: 01-1064

LAYOUT FOR 3 BEDROOM HOME

September 17, 2007

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM					99.00		
INSTR. 1					100.00		
HOUSE CNR					103.12		
S. TANK					102.32		
1	ORANGE			NA	103.0	28	28
2	PINK			NA	102.1	48	48
3	BLUE			NA	103.1	93	93
4	ORANGE			NA	101.4	93	93
5	***PINK***			***NA***	***100.6***	***40***	***40***
6	***BLUE***			***NA***	***100.3***	***93***	***90***
7	***ORANGE***			***NA***	***99.3***	***105***	***105***
8	***PINK***			***NA***	***98.7***	***83***	***80***
9	***BLUE***			***NA***	***97.9***	***45***	***45***
					Total	**628**	**622**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
** System*	*360*	*0.25*	*ACCEPT.*	*0.25*	*25% RED.*	**GRAVITY**
Repair	262	***0.250***	*MOD.*	0.250	PPBPS	**DISTRIBUTION** LOW PRESSURE

Notes:

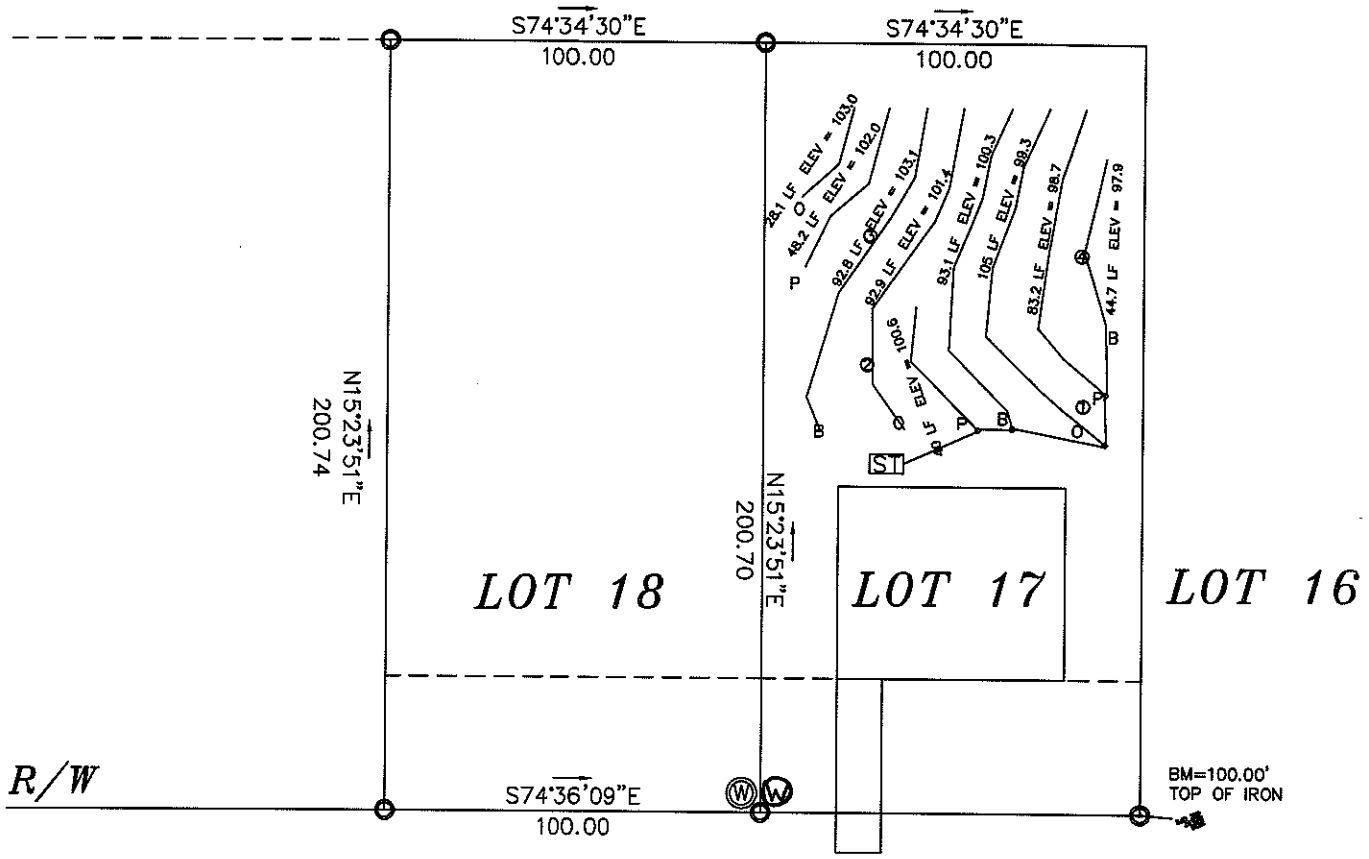
** Elevations obtained by Don Allen & Associates Surveying.

**All measures in feet

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

**BS, HI, and FS indicate rod readings

****No Foundation Drain**



0' 25' 50' 100'

SCALE IN FEET

LEGEND

O = TEST HOLE
(W) = WELL
P = PINK
B = BLUE FLAG
O = ORANGE
R/W = RIGHT-OF-WAY

SCALE 1" = 50'

ACQUIRED BY: SHEPHERD'S BLUFF LLC

SEPTIC PLAN SURVEY

OF

LOT 17, SHEPHERD'S BLUFF

NOTES

1) THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHTS OF WAY OF RECORD.
2) ACREAGE COMPUTED BY THE COORDINATE METHOD.
3) UNDERGROUND POWER
4) NO GRID MONUMENT FOUND WITHIN 2000 FEET.

FIELD BOOK:
FILE:
DC FILE:
TAX MAP NO:

CALCULATIONS

Location Shepherds Bluff Subdivision

Project Number 01-1064

Lot No: Lot 17

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.25	$^{gal}/_{ft^2\ day}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	21	ft.
Supply Line Volume	3.654	gal.
Required Feet of Line	360	ft.
Amount of Line from Layout	360	ft.
Gallons per Minute	NA	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Lateral Line Volume	235.08	gal.
Dosing Volume	NA	gal.

Note: Dosing Volume based on70% of lateral line volume

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