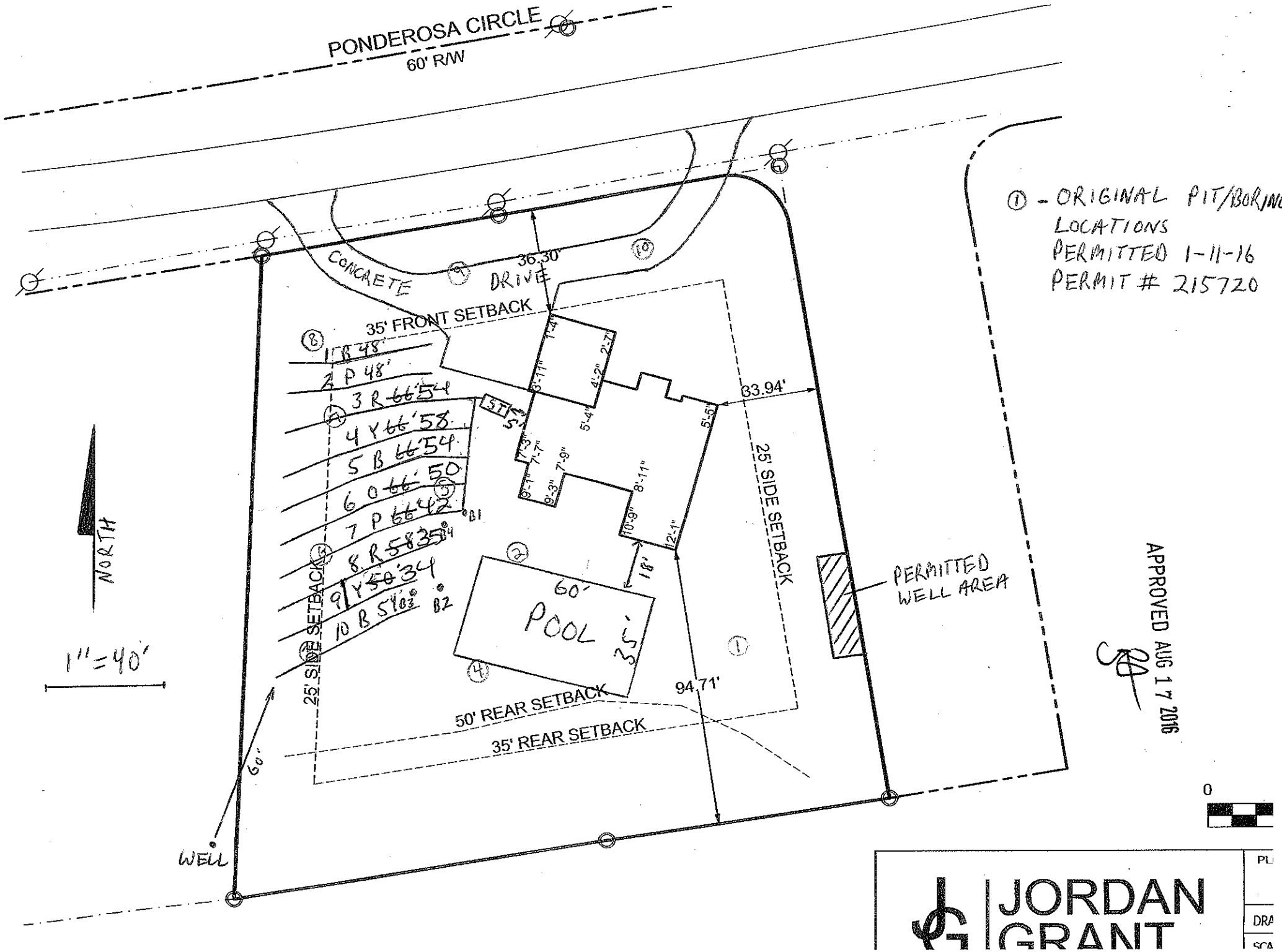

PONDEROSA CIRCLE
60' R/W
CONCRETE
36.30'
DRIVE
35' FRONT SETBACK
1 B 48'
2 P 48'
3 R 66'54
4 Y 66'58
5 B 66'54
6 O 66'50
7 P 66'42
8 R 58'35
9 Y 50'34
10 B 54'03
B1
B2
33.94'
25' SIDE SETBACK
25' SIDE SETBACK
PERMITTED WELL AREA
60'
POOL
35'
18'
94.71'
50' REAR SETBACK
35' REAR SETBACK
60'
WELL
NORTH
1" = 40'
① - ORIGINAL PIT/BORING LOCATIONS
PERMITTED 1-11-16
PERMIT # 215720
APPROVED AUG 17 2016
0
JORDAN GRANT

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

PROPERTY ID #: 4646323846/4646324829
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

APPROVED JAN 11 2016

OWNER: Joseph Ikall/Amy Ikall
ADDRESS: 660 Glen Iris Dr NE Apt 403Atlanta, GA30308/ 9969 HWY 194N, Todd NC 28684
PROPOSED FACILITY: 4 bdrm PROPOSED DESIGN FLOW (.1949): 480 GPD
LOCATION OF SITE: Lake Norman Bonanza Dev., Lots 41/42
APPLICATION DATE
DATE EVALUATED:
PROPERTY SIZE: 0.51/0.48 AC
PROPERTY RECORDED: 8/16/1962
WATER SUPPLY: Ξ Private ☐ Public Ξ Well ☐ Spring ☐ Other
EVALUATION METHOD: Ξ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: Ξ 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	LS 8%	15"	CHR2		CHR 2 @ 15"	15"	N/A	N/A	US
2	LS 8%	0-20	FILL		CHR 2 @ 30"	30"	N/A	N/A	US
		20-30	R C SBK	FR SS SP					
3	LS 8%	0-8	FILL		CHR 2 @ 40"	40"	F-C SAP	N/A	PS 0.3
		8-36	R C SBK	FR SS SP					
		36-40	R CL WSBK	FR SS SP					
4	LS 6%	0-3	Br SCL WSBK	FR SS SP	Few Mn/YB CHR 2@ 26"	26"	N/A	N/A	PS 0.25
		3-26"	R C SBK	FR SS SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	580 FT2	LIMITED
System Type(s)	PPBPS	PPBPS
Site LTAR	0.275	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: MA&A
OTHER(S) PRESENT:

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 4646323846/4646324829
DATE OF EVALUATION: _____
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	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
5	LS10%	0-3	Br CL WSBK	FR SS SP	N/A	48"	F-C SAP	N/A	PS 0.35
		3-28	R C SBK	FR SS SP					
		28-28	R CL WSBK	FR SS SP					
6	LS 10%	0-28	R C SBK	FR SS SP	N/A	48"	F-C SAP	N/A	PS 0.35
		28-48	R CL WSBK	FR SS SP					
7	LS 10%	0-6	Br CL WSBK	FR SS SP	Few Mn	48"	N/A	N/A	PS 0.275
		6-48	R C SBK	FR SS SP					
8	LS 5%	0-18	RBr SCL WSBK	FR SS SP	N/A	48"	N/A	N/A	PS 0.3
		18-44	R C SBK	FR SS SP					
		44-48	R CL WSBK	FR SS SP					
9	LS 5%	0-3	Br SCL WSBK	FR SS SP	N/A	48"	F-C SAP	N/A	PS 0.3
		3-36	R C SBK	FR SS SP					
		36-48	R CL WSBK	FR SS SP					

COMMENTS: _____

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 4646323846/4646324829
DATE OF EVALUATION:
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	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
10	LS 5%	0-3	Br CL WSBK	FR SS SP	N/A	48"		N/A	PS 0.3
		3-33	R C SBK	FR SS SP					
		33-48	R CL WSBK	FR SS SP			F-C SAP		

INFORMATION FOR INSTALLER:

- The permit should be read very carefully prior to submitting bid. 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.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- The installer is responsible for final grades and returning that grade to original, with exception of added structural features.
- The supply trench shall be compacted to eliminate any 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 has no more than 1/4"fall in 10 feet with no high or low areas within. If high or low areas do exist after trench excavation, high areas should be removed rather than filling in low areas. Do not over excavate trenches! Any fine grading should be completed by hand with a rake and shovel, leaving no loose material.
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral to prevent unwanted lateral water movement.
- 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 pin flag locations should be checked by the installer prior to beginning trenches to insure accuracy.
- If septic tank risers are used they should be a minimum of 6" above finished grade or within 6" of final grade if buried.
- Design precludes use of foundation drains on the residence.
- System is specified as an Accepted 25% Reduction Gravity installation.
- Repair is specified as PPBPS Low Pressure installation.
- Trench width is specified as 36" wide, rake and lime all trench sidewalls
- **If grading for slab foundation is utilized do not grade/create greater than 2 ft of elevation difference within 15 ft of any component of the septic or repair. If back filling do not backfill over any initial or repair septic line.**

APPROVED AUG 17 2016

OWNER INFORMATION

Owner: Jason Lindsay

Address: 201 McCullough Dr. Ste 160
Charlotte, NC 28262
Phone: 805-886-1402
County: Iredell
Location: LAKE NORMAN BONANZA, 396 PONDEROSA CIR.

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

25% GRAVITY DESIGN INFORMATION

Drainfield Design Flow (gpd): 330
Loading/Soil Application Rate (gpd/ft.^{2}): 0.275
Depth of Gravel in Trench: NA (25% reduction)
Gravel Size: NA (25% reduction)
Total Lateral Length From Layout: 330
Total Lateral Length Required: 327.27
Trench Depth: **31 in.** **Lowside**
Trench Width: 36 in.
TOTAL AREA TRENCH BOTTOM: 990

Trench Spacing on Center: 9 ft.

Septic Tank Size: 1000 gal.

Estimated Supply Line Length: 2.5
Supply Line Diameter: 3 in. SCH 40 PVC
Supply Line Volume: 0.90
Dosing Volume: NA
Supply Manifold: SERIAL DISTRIBUTION

Additional Comments: Soil suitability was performed by Adrian L. Pruett LSS

APPROVED AUG 17 2016

LAKE NORMAN BONANZA, 396 PONDEROSA CIR.
FIELD LAYOUT SPECIFICATIONS

LAYOUT FOR 3 BEDROOM RESIDENCE — August 4, 2016

LINE #	FLAG COLOR	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM			NA		
HOUSE CRN		NA	NA		
P. TANK		NA	NA		
1	BLUE	NA	NA	48	48
2	PINK	NA	NA	48	48
3	***RED***	***NA***	***NA***	***70***	***66***
4	***YELLOW***	***NA***	***NA***	***69***	***66***
5	***BLUE***	***NA***	***NA***	***69***	***66***
6	***ORANGE***	***NA***	***NA***	***69***	***66***
7	***PINK***	***NA***	***NA***	***70***	***66***
8	RED	NA	NA	58	58
9	YELLOW	NA	NA	50	50
10	BLUE	NA	NA	54	54
			Total	**605**	**588**

	LINE LENGTH	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
System	***330***	***ACCEPT.***	***0.275***	***25% RED.***	***GRAVITY***
Repair	258	*ACCEPT.*	0.300	25% RED.	PRESSURE MANIFOLD

Notes: ** TBM Is Not Required.
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags

Comments: **This design is for the Intermediate Relayout of the system orginally permitted 1/11/16**
Do not backfill over top of septic lines close to house while backfilling against house.
Pool is staked using red pin flags
Iredell County has CS&SC's permission to change septic tank location and distribution type

APPROVED AUG 17 2016

DOSING CALCULATIONS

Location LAKE NORMAN BONANZA
Lot No: 41
Address: 396 PONDEROSA CIR.

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.275	$^{gal}/_{ft^2 day}$
25% RED. Expansion? (YES OR NO)	YES	
Supply Line Length	2.5	ft.
Supply Line Volume	0.9	gal.
Required Feet of 25% RED. Line	327.27273	ft.
Amount of Line from Layout	330	ft.
Gallons per Minute	NA	$^{gal}/_{min}$
Septic Tank Capacity	1000	gal.
Minimum Septic Tank Capacity	1000	gal.
Lateral Line Volume	215.49	gal.

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

Sheet 1 of 1
PROPERTY ID #: 4646323881
COUNTY: Iredell

APPROVED AUG 17 2016 BA

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

OWNER: Jason Lindsay — APPLICATION DATE 8-4-16
ADDRESS: 201 McCullough Dr. Ste 160 Charlotte NC 28262 — DATE EVALUATED: 8-2-16
PROPOSED FACILITY: 3 BRM — PROPOSED DESIGN FLOW (.1949): 360 gpd — PROPERTY SIZE: 0.988ac
LOCATION OF SITE: 396 Ponderosa Cir, Mooresville, LKN Bonanza Lot 41 — 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) STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 1	LSS 13%	0-8	RC Compacted		N/A	48"	N/A	N/A	PS 0.35 gpd/sqft
		8-14	RCWFSBk	Fi, S, PSExP					
		14-48	YRCLWFSBk	FrSSSPSExP	com/many sap				
B 2	LSS 12%	0-12	Fill		N/A	40"	PS	N/A	PS 0.35 gpd/sqft >12"
		12-15	RCWFSBk	FiSPSExP					
		15-40	YRCLWFSBk	FrSSSPSExP	many sap				
		40-48	VarLSapM	FrSSSPSExP	com RCL incl.				
B 3	LSS 12%	0-6	BCLWFSBk	FrSSSPSExP	N/A	42"	PS	N/A	PS 0.35 gpd/sqft
		6-15	RCLWFSBk	FiSPSExP	few sap				
		15-30	RCLWFSBk	FrSSSPSExP	com sap				
		30-42	YRCLWFSBk	FrSSSPSExP	many sap				
		42-48	VarLSapM	FrSSSPSExP	com RCL incl.				
B 4	LSS 13%	0-12	Fill		N/A	41"	PS	N/A	PS 0.35 gpd/sqft
		12-24	RCLWFSBk	FrSSSPSExP	com sap				
		24-41	RCLWFSBk	FrSSSPSExP	com/many sap				
		41-48	VarLSapM	FrSSSPSExP	com RCL incl.				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS/Limited
System Type(s)	GRAVITY 25%	PM 25%
Site LTAR	0.275	0.3

OTHER FACTORS (.1946): None
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Adrian L. Pruett
OTHER(S) PRESENT: NONE

COMMENTS:

ON-SITE WASTEWATER SECTION

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

APPLICATION DATE 12-30-15

OWNER: Amy Ikell
DATE EVALUATED: 1-6-2016
ADDRESS: 3
PROPERTY SIZE: 0.
PROPOSED FACILITY: 3 BR House PROPOSED DESIGN FLOW (.1949): 360 gal/day PROPERTY RECORDED: Needs Consolidation
LOCATION OF SITE: 296 Ponderosa Circle
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
AH 1	Side Slope Primary mid-orange lateral	0-34	clay medium ABK/SBK	slightly Friable, slightly Sticky Sp Soap	—	48	—	—	0.275 PS
		34-48	Clay Loam weak SBK	Friable, SS, Sp, Soap					
			w/ Common to many SAP inclusions from 40" → 48"						
AH 2	Shoulder Slope Pink Repair Field adjacent house	0-4	Clay Loam weak SBK	slightly Friable, SS, Sp, Soap	—	48	—	—	0.3 PS
		4-29	clay medium ABK	slightly Friable, SS, Sp, Soap					
		29-48	Clay Loam medium SBK	Friable SS, Sl, Soap					
			Few → Common → Many Saprolite inclusions	38" → 48"					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	Yes 357 lf.	Yes 172 lf.
System Type(s)	25% Reduction	50% Reduction
Site LTAR	0.275	0.3

OTHER FACTORS (.1946): —
SITE CLASSIFICATION (.1948): P.S.
EVALUATED BY: Tom Shuck
OTHER(S) PRESENT:

COMMENTS: Before AC is issued 2 separate parcels must be combined or Easement

Ponderosa Circle

