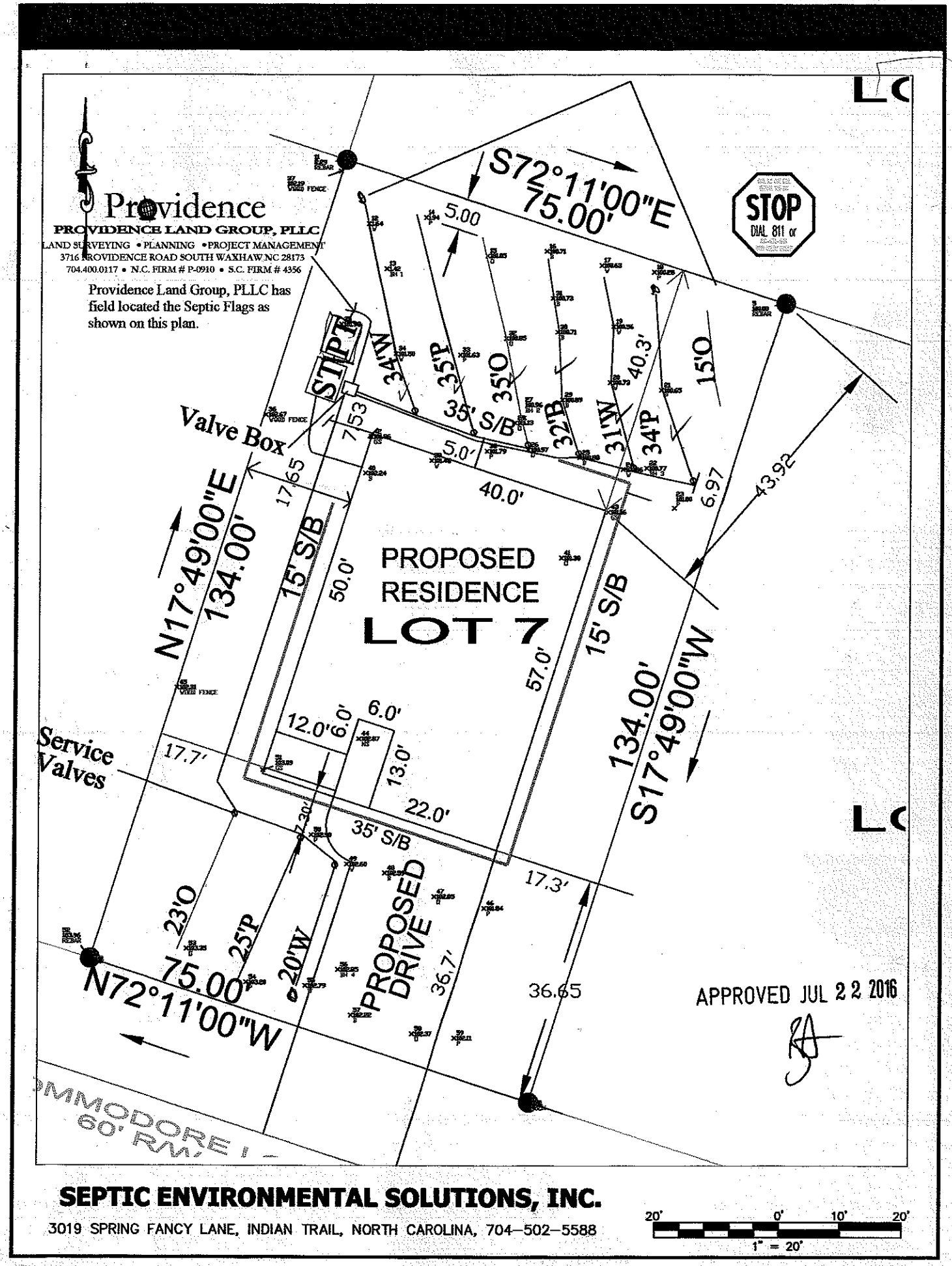


SEPTIC ENVIRONMENTAL SOLUTIONS, INC.

3019 SPRING FANCY LANE, INDIAN TRAIL, NORTH CAROLINA, 704–502–5588

20' 0' 10' 20'

1" = 20'

Design Specifications for Lot 7 Commodore Loop, Iredell, North Carolina

APPROVED JUL 22 2016

Daily Design Flow	360	gals
Number of Bedrooms	3	bedrooms
Basement or Crawspace	Craw Space	
Parcel ID/Address		
Dellinger Septic Tank Size	1000	gals, Effluent Poly Lock PL68 Filter or equal.
Dellinger Pump Tank Size	1000	gals, Sim/Tech Effluent Filter on Pump Tank
Sim/Tech Effluent Filter on Pump Tank	Yes	Connection inside pump tank vault and on supply line.
Primary System Loading Rate (LTAR)	0.30	gpd/ft^2 LTAR including Soils Evaluations were determined by Iredell County. Soils Evaluations and LTAR were not Conducted by Septic Environmental Solutions, Inc.
Number of Lines	9	Total LP PPBPS, See Scaled Dwg.
Primary System	269	ft.
Trench Width	3	ft
Trench Spacing	9	ft
Trench Maximum Depth	36	inches
Pump required	Yes	
Distribution Device	Yes	Gate Valve Box with LPP Panel Distribution
Maintenance Agreement Required	Yes	Contracted by Septic Environmental Solutions, Inc.
Length and Diameter of Supply Line	15	2" SCH 40 PVC 1 1/4" SCH 40 PVC
Lateral Diameter	Yes	1 1/4 inch SCH 40 PVC
Barrel Diameter	[redacted]	
Number of T&J Panels	Yes	Total panels for primary system
Flow Rate through System	3\~~4~~	gpm– use 5/32" holes with 3ft head
Elevation Head	6	ft.
Pressure Head	3	ft.
Friction Head	1	ft.
20% Contingency	2	ft.
Total Head	12	ft.
Pump Requirements	3\~~4~~	gpm. with 12-ft of Head; Use Goulds WE03M Pump or Equivelent with Compatible Electrical
Dosing Volume	224	gallon
Pump run time per dose, approximate	1\~~2~~	min
Check Valve	Yes	
Maintanance Valves	Yes	
Siphon Break Hole	Yes	
Repair System Loading Rate	NA	gpd/ft2
Repair System	NA	Deed before 1962
Total foot of Repair	NA	ft

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

APPROVED JUL 22 2016

LPPPPBPS Design Worksheet (Primary System)					File #/Name:	Commodore Loop
System Requirements					Tax #:	4636600510.000
Number of bedrooms	3				Lot	7
Craw Space/Basement	Craw Space					
Daily Design Flow	360	gpd			Address:	Iredell County
LTAR	0.300	gpd/ft.^2			Consultant:	Septic Environmental Solutions Inc.
Linear footage	400.00	ft. (Conventional)			Phone:	704-502-5588, Fax 704-684-1469
Linear footage	200.00	ft. (50% Reduction)				
Trench Maximum Depth	36	inches				

Laterals	Length (ft)	# Panels	Calculated
Line # 1	34	8	8
Line # 2	35	8	8
Line # 3	35	8	8
Line # 4	32	7	7
Line # 5	31	7	7
Line # 6	34	8	8
Line # 7	23	5	5
Line # 8	25	6	6
Line # 9	20	5	5
Line # 10		0	0
Line # 11		0	0
Line # 12		0	0
Totals	269	62	62

*Lines longer than 70 ft. must be center-fed to comply with sewage rules.

T&J Panel Summary Table	
Linear Feet	# Panels
20	5
30	7
40	9
50	11
60	14
70	16
80	18
90	21
100	23
110	25
120	17
130	30
140	32
150	34
160	37
170	39
180	41
190	43
200	46

Absorption Area			
Length (ft)	Width (ft)	Spacing	Area (ft^2)
269	3	9	3000+

System Pressure Head	3	ft.	Value selected by system designer (must be between 2-5 ft.)
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)
Flow Rate per Orifice/Panel	0.5	gpm	Determined from orifice flow design table (use table from Flow Rate tab)
Total System Flow Rate	32	gpm	Total number of panels required multiplied by the orifice flow rate
System Dose Volume	224	gal.	Total number of panels required multiplied by 3.6 gal./panel
Doses Per Day	1.7	cycles	Number of dose cycles per day based on daily design flow. Daily design flow divided by system dose volume.
Pump Run Time	7.00	min.	System dose volume divided by the total system flow rate
Pump Tank Volume / Inch	21	gal./in.	1,000 gal. Pump tank, volume is approximately 21 gallons per inch. 1,500 gal. pump tank, volume is approximately
			29 gallons per inch. Contractor is responsible in verifying tank gallons per inch.
Pump Tank Drawdown	10.67	in.	System Dose Volume divided by gallons per inch for the designed tank size.
Supply Line Length	15.00	ft	
Elevation head+pump height	6.00	ft.	
Friction Head	1.00	ft.	
20% Contingency	2.00	ft.	
Total Head	12.0		

Comments:

1. Install system using 2 ft. wide trenches.
2. Install drainlines on 8 ft. centers (to be specified by the designer) and must be level and on contour.
3. System design requires effluent pump for distribution. — Yes
4. Requires repair septic system. — Yes
5. Maintanance Agreement Required — Yes

Cells with blue shading require user input.

Cells with yellow shading are automatically calculated.

CERTIFICATION

I, MATTHEW J. STIKELEATHER, CERTIFY THAT THIS PLOT PLAN WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE. THIS IS NOT A BOUNDARY SURVEY AND IS ONLY TO BE USED FOR PERMITTING AND PLANNING PURPOSES.

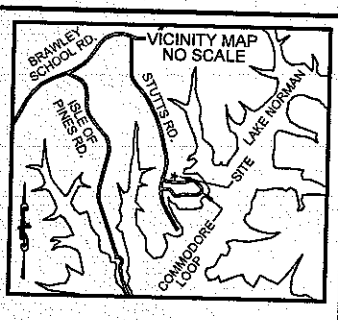
PRELIMINARY

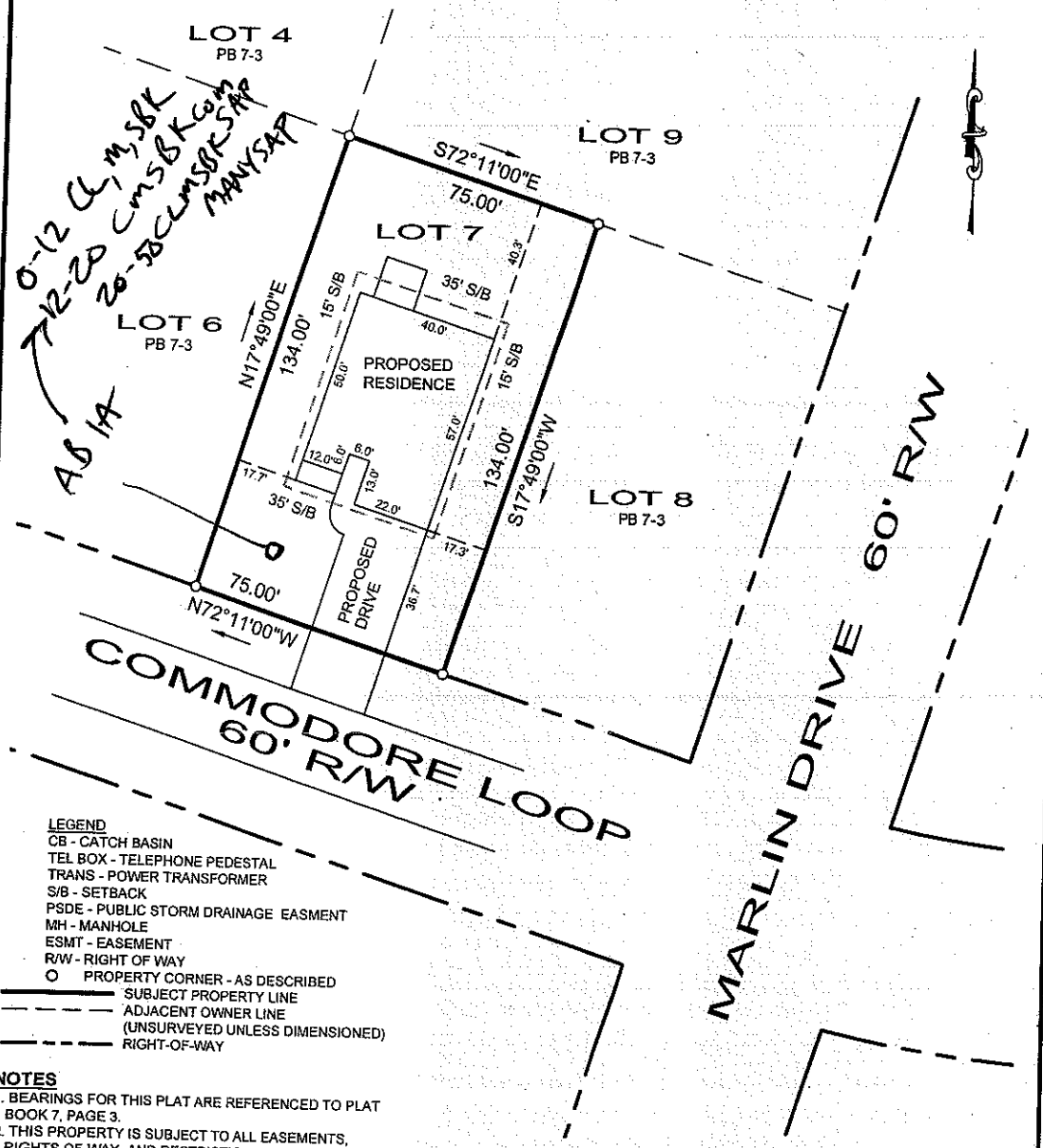
MATTHEW J. STIKELEATHER, NC PLS L-4243

NORTH CAROLINA PROFESSIONAL SEAL L-4243 LAND SURVEYOR MATTHEW J. STIKELEATHER 4-26-16

40' 0' 20' 40'

1" = 40"





LEGEND
- CB - CATCH BASIN
- TEL BOX - TELEPHONE PEDESTAL
- TRANS - POWER TRANSFORMER
- S/B - SETBACK
- PSDE - PUBLIC STORM DRAINAGE EASMENT
- MH - MANHOLE
- ESMT - EASEMENT
- R/W - RIGHT OF WAY
- O PROPERTY CORNER - AS DESCRIBED
- ——— SUBJECT PROPERTY LINE
- — — — ADJACENT OWNER LINE (UNSURVEYED UNLESS DIMENSIONED)
- ——— RIGHT-OF-WAY

NOTES

1. BEARINGS FOR THIS PLAT ARE REFERENCED TO PLAT BOOK 7, PAGE 3.
2. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS, RIGHTS-OF-WAY, AND RESTRICTIONS OF RECORD. THIS SURVEY WAS COMPLETED WITHOUT A FULL TITLE SEARCH. PROPERTY IS SUBJECT TO DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS, RECORDED, OR UNRECORDED.
3. A FULL TITLE SEARCH SHOULD BE COMPLETED BEFORE CONSTRUCTION.
4. ADJOINING OWNER INFORMATION TAKEN FROM IREDELL COUNTY TAX OFFICE AND ARE CONSIDERED NOW OR FORMERLY.
5. PROPERTY IS ZONED R-20. SETBACKS SHOWN HEREON ARE PER ORDINANCE (SECTION 2.8 OF THE IREDELL COUNTY LAND DEVELOPMENT CODE ACCESSED AT TIME OF PLAN) SINCE THERE ARE NO SETBACKS LISTED ON THE RECORD PLAT. RESTRICTIVE COVENANTS WERE NOT RESEARCHED.
6. UNDERGROUND UTILITIES NOT LOCATED AT THE TIME OF THIS PLAN.
7. THIS PARCEL IS NOT IS A SPECIAL FLOOD HAZARD AREA PER FIRM PANEL 3710463600J, EFFECTIVE 3/18/2008.

PLOT PLAN FOR

True Homes

SCALE	TOWNSHIP	COUNTY	STATE	DATE
1" = 40'	DAVIDSON	UNION	N.C.	4-26-16

111 Commodore Loop

Parcel PIN: 4636600510.000

DEED RECORDED	2339-477
MAP RECORDED	7-3
SURVEYED	N/A
DRAWN	JCK

PROVIDENCE LAND GROUP, PLLC
3716 PROVIDENCE ROAD SOUTH
WAXHAW NC 28173
704.400.0117
NC FIRM # P-0910
SC COA # 4356
Providence

DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 4636602378.cw
COUNTY: Wilkes

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

OWNER: True Homes — APPLICATION DATE: 6-3-16
ADDRESS: 2649 Glenn Ridge Rd Boomer NC — DATE EVALUATED: 5-26-16
PROPOSED FACILITY: 3BR — PROPOSED DESIGN FLOW (.1949): 360 — PROPERTY SIZE: 0.23
LOCATION OF SITE: LOT 7 III Commodore Loop Phase — PROPERTY RECORDED: Before 1962
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☒ Other Community Well
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		0-4	sil/FR/SBK	NS/NP/NSP	2.5YR3/4	60	NA	60	0.30
		4-13	cl/FI/WK/SBK	FI/ST/SP/MSP	10R4/6				
		13-26	C/FI/WK/SBK	FI/ST/SP/SSP	2.5YR4/6 Mottles				
		26-60	CL/WK/SBK	FR/NS/NP/NSP					
2		0-8	sil/FR/SBK	NS/NP/NSP		60	NA	60	0.30B
		8-27	C/FI/SBK/WK	FI/SS/SP/NSP					
		27-60	CL/FI/FI/SBK	WK/SS/SP/NSP					
3		0-4	SA/FR/SBK	NS/NP/NSP		60	NA	60	0.30
		4-20	C/FI/SBK/WK	SS/SP/NSP					
		20-60	C/FI/FI/SBK	NS/SP/NSP					
4		0-4	sil/FR/SBK	NS/NP/NSP		60	NA	60	0.30
		4-30	C/FR/SBK/WK	SS/SP/NSP					
		30-60	CL/FI/FR/SBK	NS/NP/NSP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	269	NOT REQUIRED
System Type(s)	2P Pond Bed	NOT REQUIRED
Site LTAR	0.30	—

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

COMMENTS:

LICENSED SOIL SCIENTIST — KENNETH L. OWENS — 1134 — STATE OF NORTH CAROLINA

Updated February 2014