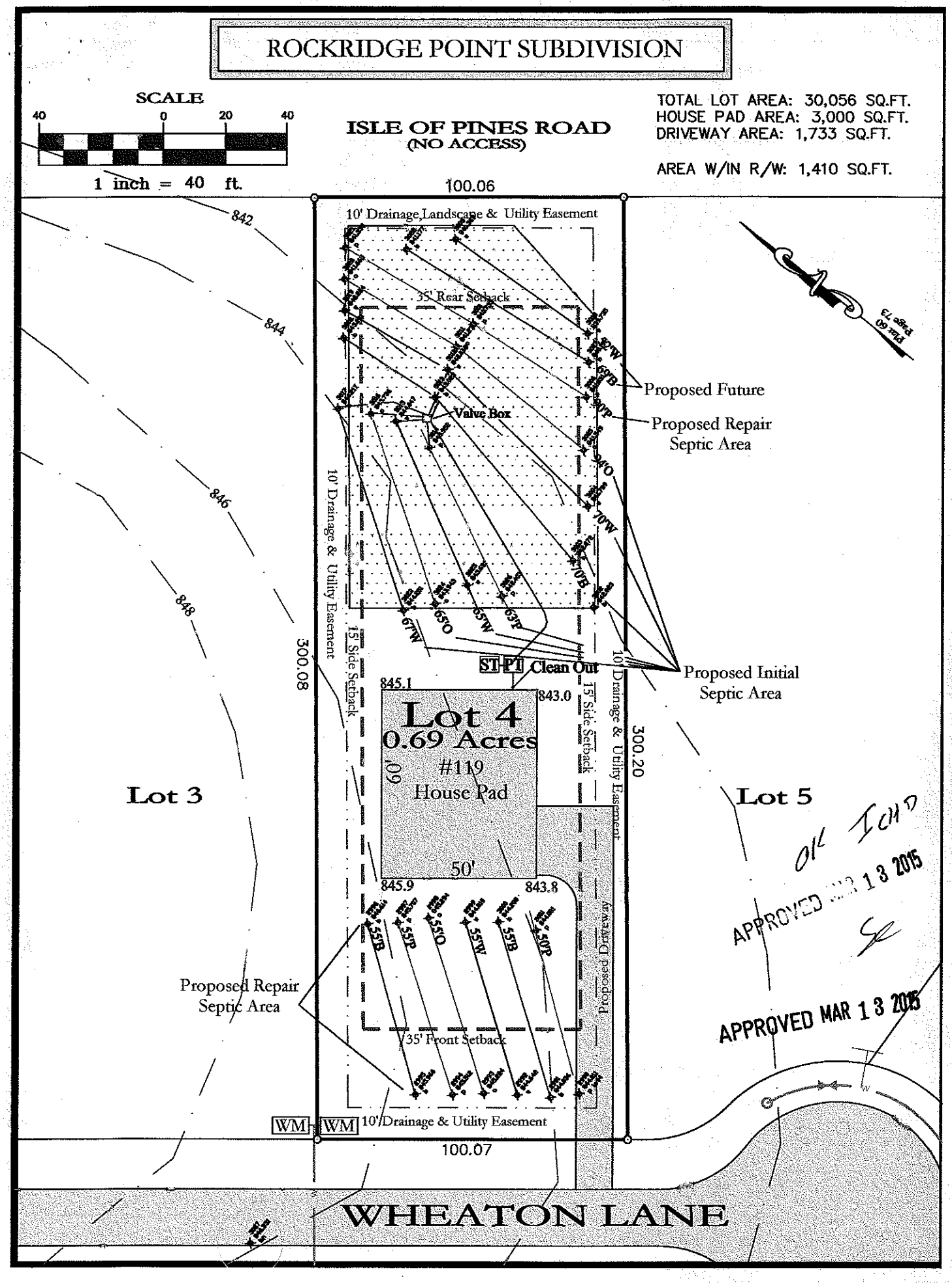
ROCKRIDGE POINT SUBDIVISION



LPPPPBPS Design Worksheet (Primary System)				File #/Name:	Rock Ridge
System Requirements				Tax #:	4636233131.04
Number of bedrooms	5			Lot	4
Craw Space/Basement	Craw Space				
Daily Design Flow	600	gpd		Address:	Iredell County
LTAR	0.25	gpd/ft.^2		Consultant:	Septic Environmental Solutions Inc.
Linear footage	800.00	ft. (Conventional)		Phone:	704-502-5588, Fax 704-684-1469
Linear footage	400.00	ft. (50% Reduction)			
Trench Maximum Depth	36	inches			

Laterals	Length (ft)	# Panels	Calculated
Line # 1	67	15	15
Line # 2	65	15	15
Line # 3	65	15	15
Line # 4	63	14	14
Line # 5	70	16	16
Line # 6	70	16	16
Line # 7		0	0
Line # 8		0	0
Line # 9		0	0
Line # 10		0	0
Line # 11		0	0
Line # 12		0	0
Totals	400	91	91

*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)
400	2	8	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	46	gpm	Total number of panels required multiplied by the orifice flow rate
System Dose Volume	328	gal.	Total number of panels required multiplied by 3.6 gal./panel
Doses Per Day	1.9	cycles	Number of dose cycles per day based on daily design flow. Daily design flow divided by system dose volume.
Pump Run Time	7.13	min.	System dose volume divided by the total system flow rate
Pump Tank Volume / Inch	29	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	11.31	in.	System Dose Volume divided by gallons per inch for the designed tank size.
Supply Line Length	90.00	ft	
Elevation head+pump height	9.00	ft.	
Friction Head	3.085	ft.	
20% Contingency	3.02	ft.	
Total Head	18.1		

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.

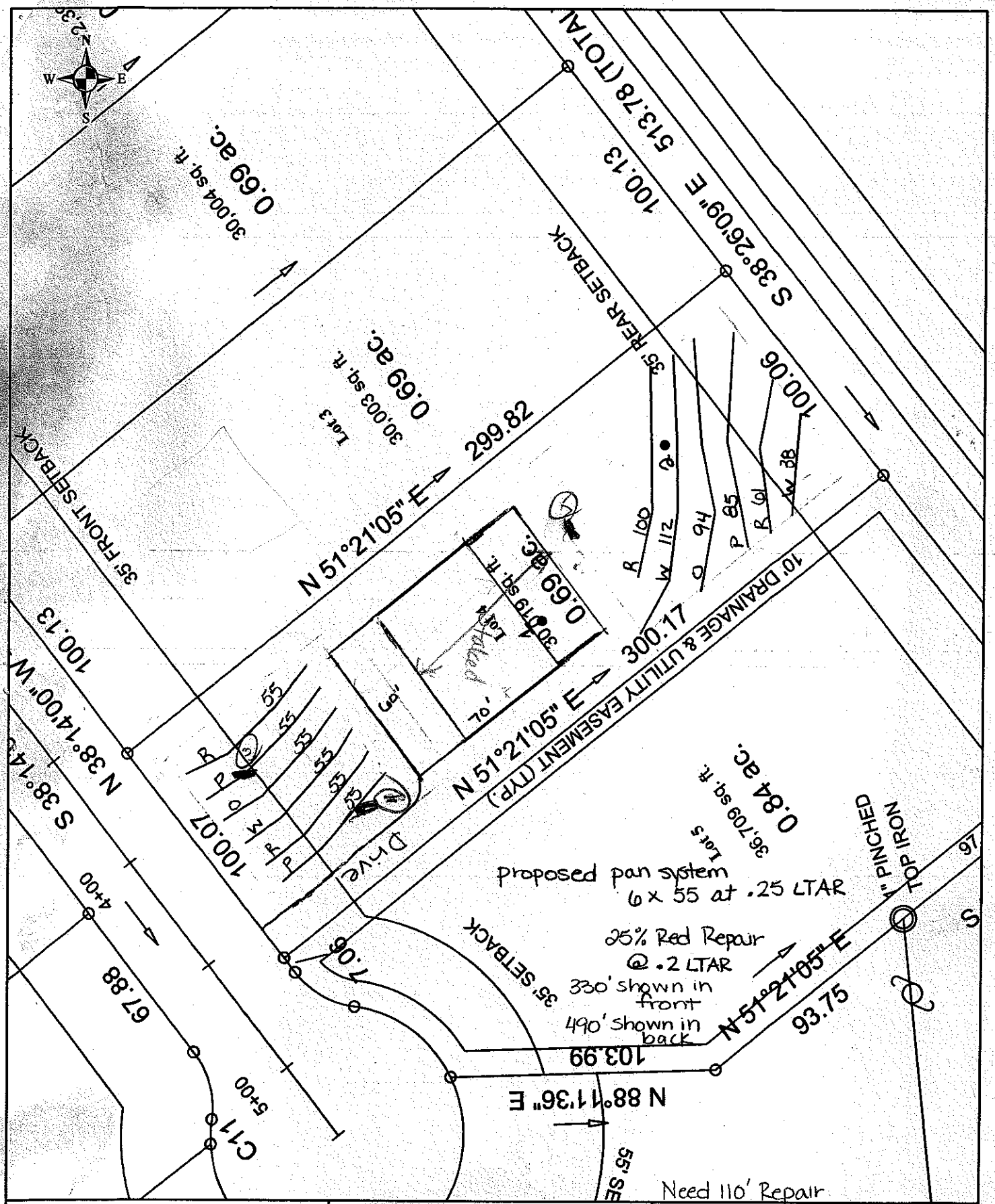
Cells with yellow shading are automatically calculated.

Design Specifications for Lot 4 Rock Ridge Point, Iredell, North Carolina

Daily Design Flow	600	gals
Number of Bedrooms	5	bedrooms
Basement or Crawspace	Craw Space	
Dellinger Septic Tank Size	1500	gals, Effluent Poly Lock PL68 Filter or equal.
Dellinger Pump Tank Size	1500	gals
Sim/Tech Effluent Filter on Pump Tank	Yes	Connection inside pump tank vault and on supply line.
Primary System Loading Rate (LTAR)	0.25	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	6	Total LP PPBPS, See Scaled Dwg.
Primary System	400	ft.
Trench Width	2	ft
Trench Spacing	8	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	90	2" SCH 40 PVC 1 1/4" SCH 40 PVC
Number of T&J Panels	91	Total panels for primary system
Flow Rate through System	46	gpm– use 5/32" holes with 3ft head
Elevation Head	9	ft.
Pressure Head	3	ft.
Friction Head	3.09	ft.
20% Contingency	3	ft.
Total Head	18.1	ft.
Pump Requirements	46	gpm. with 19-ft of Head; Use Goulds WE05H Pump or Equivelent with Compatible Electrical
Dosing Volume	328	gallon 1.9 does/day@design flow*
Pump run time per dose, approximate	7.1	min
Check Valve	Yes	
Siphon Break Hole	No	
Repair System Loading Rate	0.25	gpd/ft2
Repair System	Yes	25% reduction
Total foot of Repair	415	ft

OK ICHD
APPROVED MAR 13 2015
SC

*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.



Scale: 1 inch equals 50 feet	S&ME	Rocky Ridge - Lot 4	FIGURE
Drawn by: JBP		Scaled, Detailed Site Plan	1
Reviewed by: PGP		Iredell County, NC	
Date: January, 2006	ENVIRONMENTAL SERVICES • ENGINEERING • TESTING	S&ME Project #1588-05-081	

...NT OF ENVIRONMENT AND NATURAL RESOURCES
... OF ENVIRONMENTAL HEALTH
... WASTEWATER SECTION

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

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Rocky Ridge _____ APPLICATION DATE _____
ADDRESS: _____ DATE EVALUATED: _____
PROPOSED FACILITY: Lot 4 PROPOSED DESIGN FLOW (.1949): 480 PROPERTY SIZE: _____
LOCATION OF SITE: _____ 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) 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
1	1-3%	0-10	wsbk scl	SS SP Fr	Lt Br				.3
		10-35	msbk c	SS SP Fr	R				
		35-48	wsbk scl	SS SP Fr	R				
2	4-6%	0-29	wsbk scl	SS SP Fr	Br				.25
		29-35	msbk c	SS SP Fr	R	F YB mottles (drain)			
		35-50	msbk c	SS SP Fr	R	F 2 chroma			
3	2-10%	0-8	wfsbk bsl scl	fr ss sp					.3
		8-28	mfsbk red c	fr ss sp SE SP					
		28-51	wfsbk red cl	fr ss sp	few red mottles				
4		0-7	wfsbk R bsl scl	fr ss sp					.3
		7-25	mfsbk red c	fr ss sp SE SP					
		25-48	wfsbk red cl	fr ss sp	few red mottles				

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

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

COMMENTS: _____

(OVER)

(3) 0-14 gr-wk SBK brwn scl frssy

14-38 ABK Rck c fr sp-sssp3exp common y brn mottles .2

38-53 SBK/ABK Rock cl fr-sssp common y brn mottles