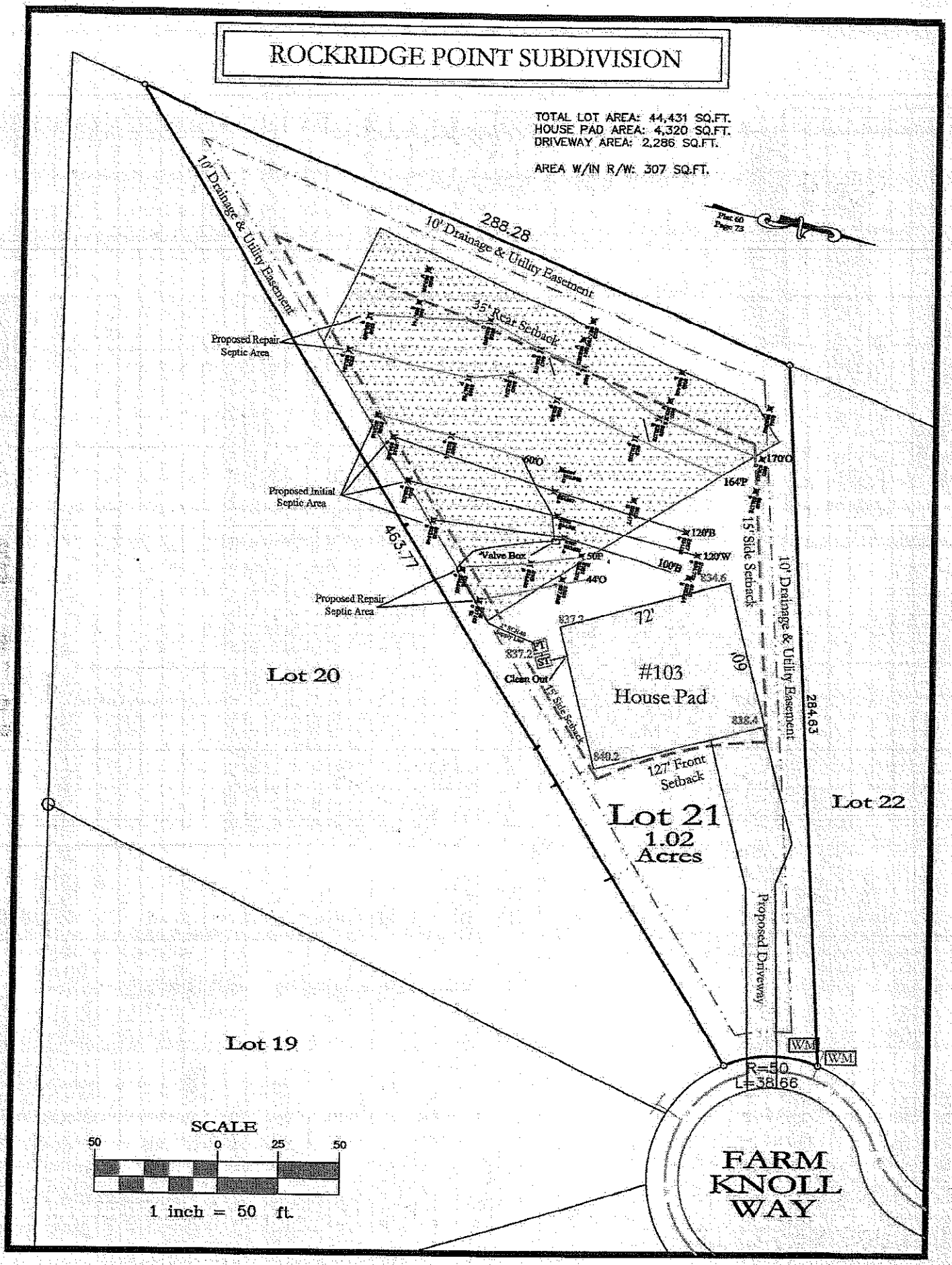
Design Specifications for Lot 21 Rock Ridge Point, Iredell, North Carolina

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	4	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	4.63	ft.
Pressure Head	3	ft.
Friction Head	4.58	ft.
20% Contingency	2.44	ft.
Total Head	14.65	ft.
Pump Requirements	46	gpm. with 15-ft of Head; Use Goulds WE03L Pump or Equivelent with Compatible Electrical
Dosing Volume	328	gallon 1.9 does/day@design flow* Use 2.0 does/day@design flow
Pump run time per dose, approximate	7.1	min
Check Valve	Yes	
Siphon Break Hole	Yes	
Repair System Loading Rate	0.25	gpd/ft2
Repair System	Yes	LP PPBPS, See attached dwg.
Total foot of Repair	400	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.

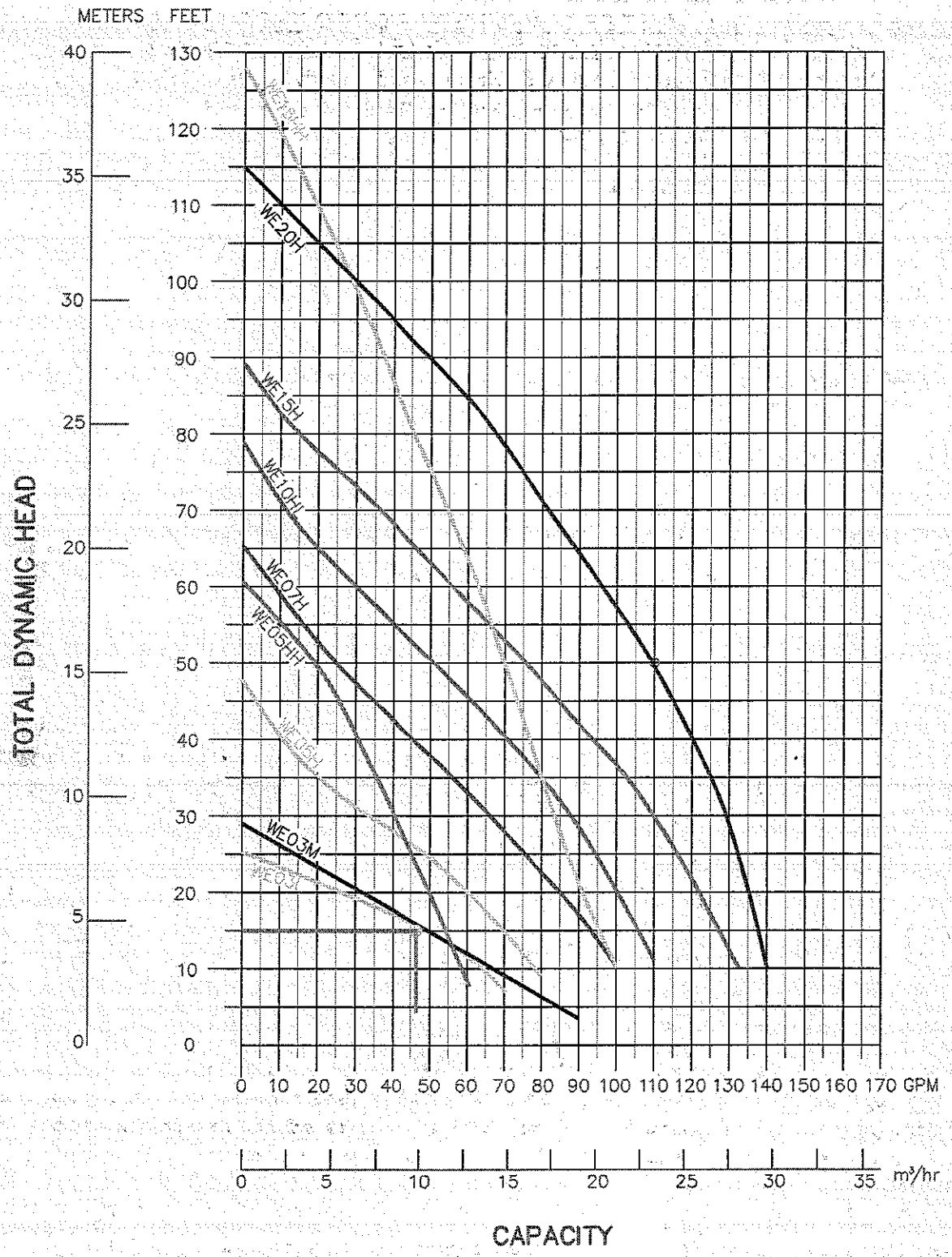
ROCKRIDGE POINT SUBDIVISION



LPPPPBPS Design Worksheet (Primary System)						File #/Name:	Rock Ridge		
System Requirements						Tax #:	4636124545.00		
Number of bedrooms	5					Lot	21		
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	100	23	23						
Line # 2	120	27	27						
Line # 3	120	27	27						
Line # 4	60	14	14						
Line # 5		0	0						
Line # 6		0	0						
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.								
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	4.63	ft.							
Friction Head	4.58	ft.							
20% Contingency	2.44	ft.							
Total Head	14.7								
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			Cells with blue shading require user input.					
5. Maintanance Agreement Required	Yes			Cells with yellow shading are automatically calculated.					

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

PUMP CURVE
LOT 21



GOULDS PUMP PERFORANCE CURVES

Submersible Effluent Pump WE Series