Design Specifications for Lot 32 Rock Ridge Point, Iredell, North Carolina

Daily Design Flow	480	gals
Number of Bedrooms	4	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)	0.30	gpd/ft^2 LTAR including Soils Evaluations were determined by Iredell County on January 15, 2005. Soils Evaluations and LTAR were not Conducted by Septic Environmental Solutions, Inc.
Number of Lines	4	Total LP PPBPS, See Scaled Dwg.
Primary System	296	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	25	2" SCH 40 PVC 1 1/4" SCH 40 PVC
Number of T&J Panels	68	Total panels for primary system
Flow Rate through System	34	gpm– use 5/32" holes with 3ft head
Elevation Head	5	ft.
Pressure Head	3	ft.
Friction Head	1.97	ft.
20% Contingency	2	ft.
Total Head	12	ft.
Pump Requirements	34	gpm. with 12-ft of Head; Use Goulds WE03L Pump or Equivelent with Compatible Electrical
Dosing Volume	245	gallon 2.0 does/day@design flow*
Pump run time per dose, approximate	7.2	min
Check Valve	Yes	
Siphon Break Hole	No	
Repair System Loading Rate	0.30	gpd/ft2
Repair System	Yes	LP PPBPS, See attached dwg.
Total foot of Repair	296	ft

OK IcHD

APPROVED MAR 20 2015

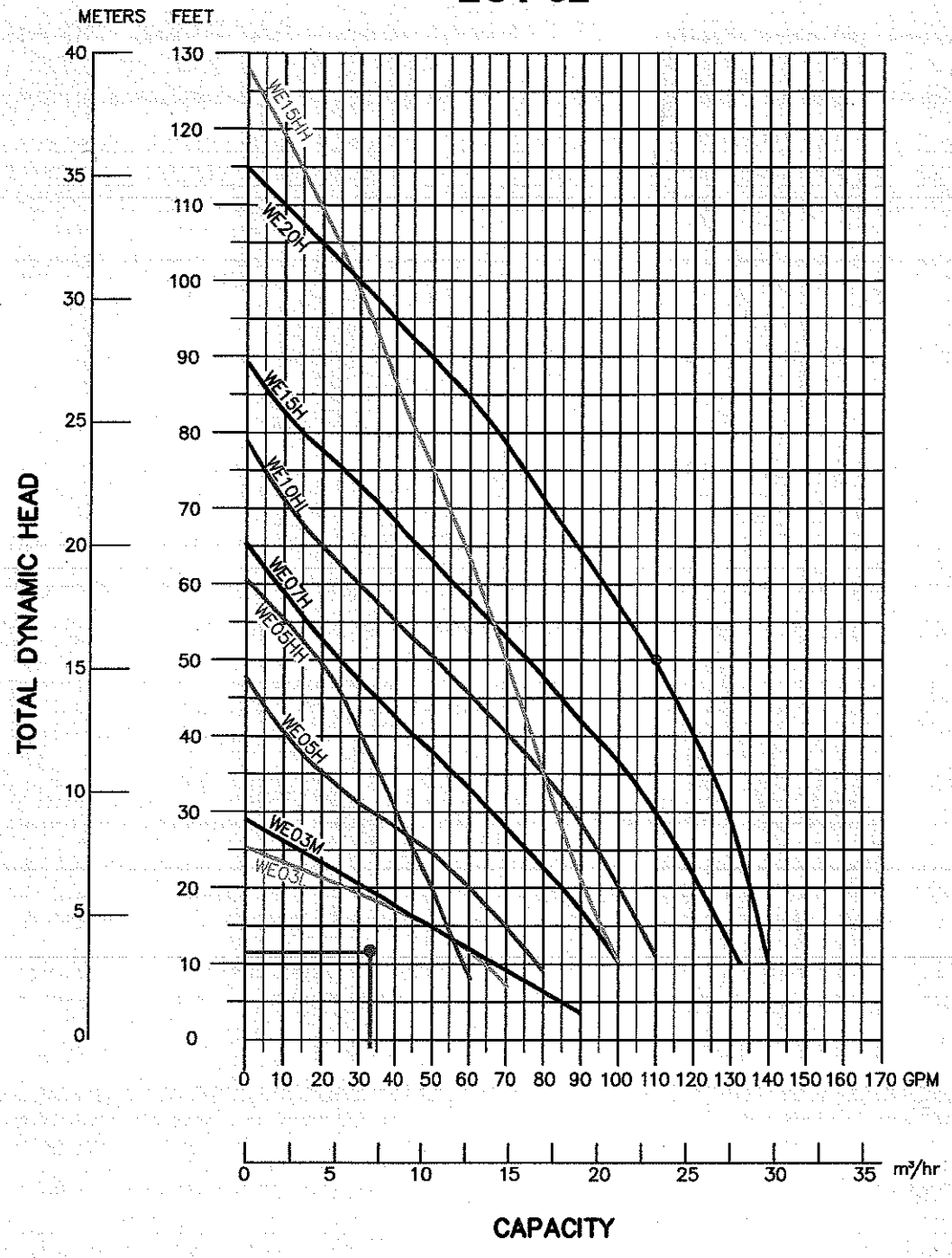
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Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occures, reduce floats by 25 gallons and reset until no overflow is observed.

LPPPPBPS Design Worksheet (Primary System)					File #/Name:	Rock Ridge		
System Requirements					Tax #:	4636233131.032		
Number of bedrooms	4				Lot	32		
Craw Space/Basement	Craw Space							
Daily Design Flow	480	gpd			Address:	Iredell County		
LTAR	0.30	gpd/ft.^2			Consultant:	Septic Environmental Solutions Inc.		
Linear footage	533.33	ft. (Conventional)			Phone:	704-502-5588, Fax 704-684-1469		
Linear footage	266.67	ft. (50% Reduction)						
Trench Maximum Depth	36	inches						
Laterals	Length (ft)	# Panels	Calculated					
Line # 1	60	14	14					
Line # 2	60	14	14					
Line # 3	96	22	22					
Line # 4	80	18	18					
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	296	68	68					
	*Lines longer than 70 ft. must be center-fed to comply with sewage rules.							
Absorption Area								
Length (ft)	Width (ft)	Spacing	Area (ft^2)					
296	2	8	3000.00					
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	34	gpm	Total number of panels required multiplied by the orifice flow rate					
System Dose Volume	245	gal.	Total number of panels required multiplied by 3.6 gal./panel					
Doses Per Day	2.0	cycles	Number of dose cycles per day based on daily design flow. Daily design flow divided by system dose volume.					
Pump Run Time	7.21	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	8.45	in.	System Dose Volume divided by gallons per inch for the designed tank size.					
Supply Line Length	25.00	ft						
Elevation head+pump height	5.00	ft.						
Friction Head	1.97	ft.						
20% Contingency	1.99	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		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

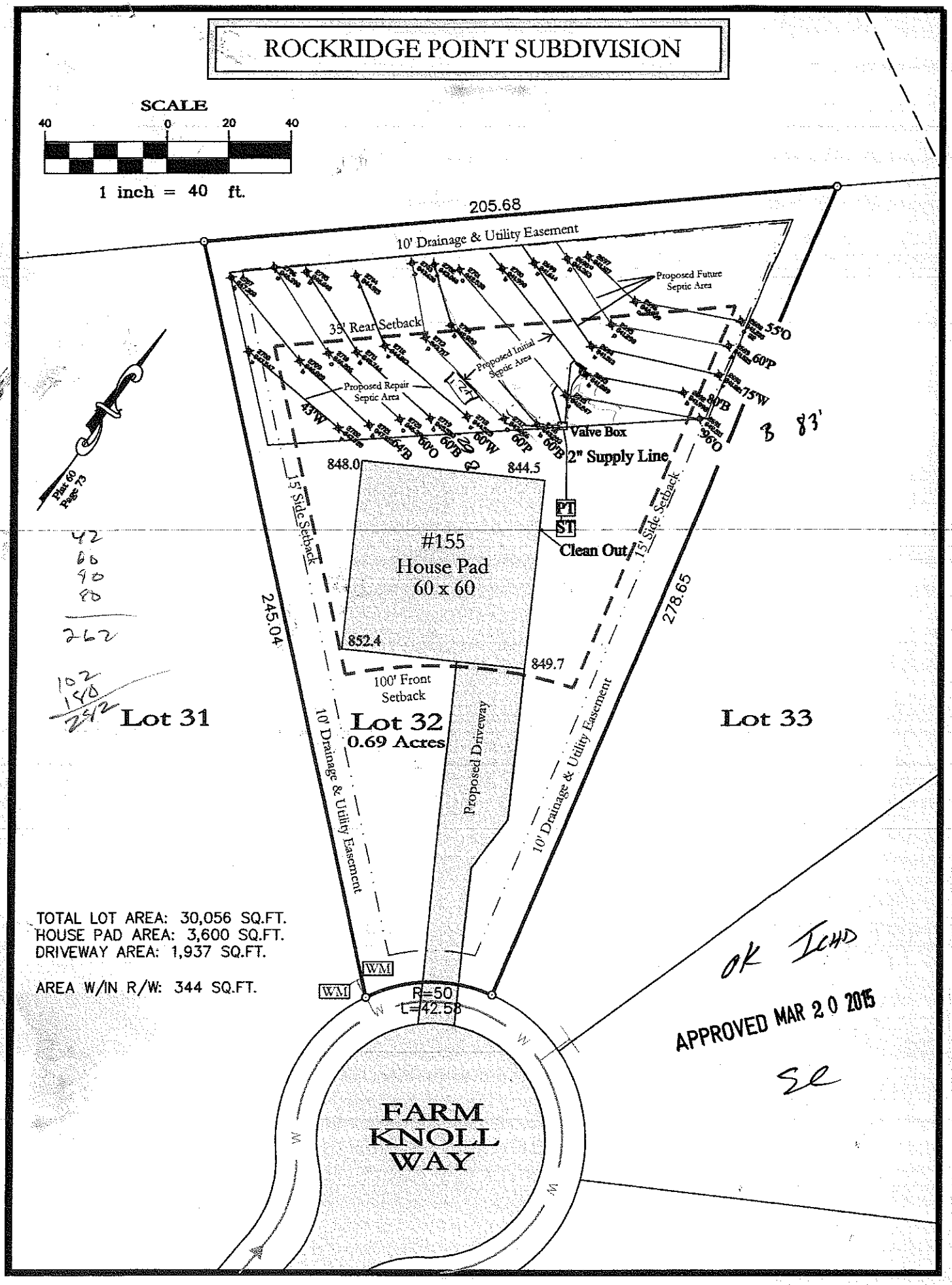
PUMP CURVE
LOT 32



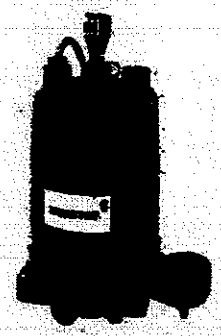
GOULDS PUMP PERFORANCE CURVES

Submersible Effluent Pump WE Series

ROCKRIDGE POINT SUBDIVISION



GOULDS PUMPS



Submersible Effluent Pump

MODEL 3885

WE Series

PROSURANCE AVAILABLE FOR RESIDENTIAL APPLICATIONS.

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

SPECIFICATIONS

Pump

- Solids handling capabilities: ½" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

FEATURES

■ **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

■ **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge.

■ **Mechanical Seal:** SILICON CARBIDE VS. SILICON CARBIDE sealing faces. Stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion-resistant, stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.

■ **Fasteners:** 300 series stainless steel.

■ Capable of running dry without damage to components.

■ Designed for continuous operation when fully submerged.

MOTORS

■ Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

■ Class B insulation on ½-1½ HP models.

■ Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- ½ and ¾ HP models have NEMA three prong grounding plugs.
- 1 HP and larger units have bare lead cord ends.

Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

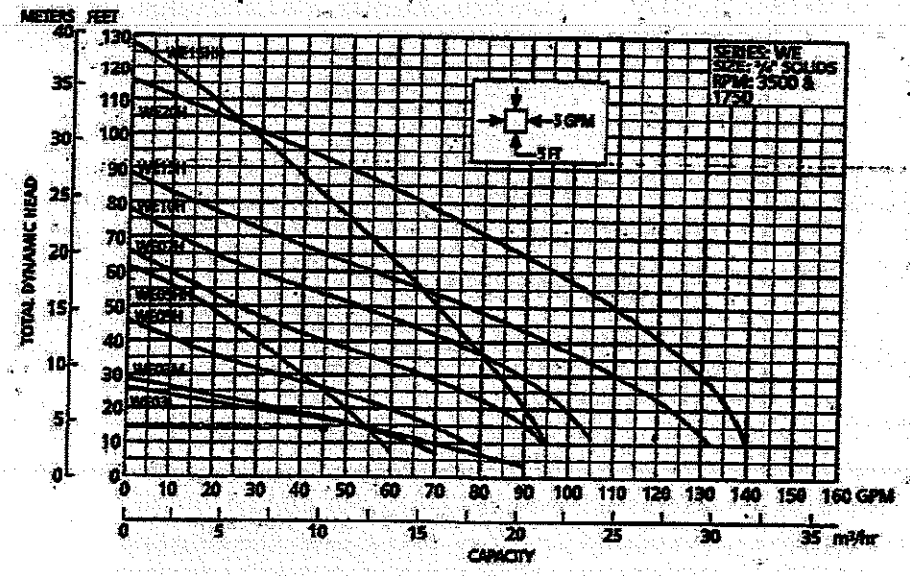
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #LR38549

Goulds Pumps is ISO 9001 Registered.



Goulds Pumps

ITT Industries

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