

Laberge Property Charlotte, Vermont

Pump Station Basis of Design

Design Flow	560 GPD	
Infiltration	0 GPD	
20% Municipal Credit	<u>0</u>	
Total Design Flow	560 GPD	
Average Daily Flow	0.58 GPM	
Peaking Factor	5.00	
Peak Flow	2.92 GPM	
Required Storage	560 gallons	
Storage Provided	600 gallons	
Primary Force Main Dia.	1.50 Inches	
Min. Cleansing Velocity	2.00 FPS	
Min. Pumping Rate	11.01 GPM	
Chosen Pumping rate	29.00 GPM	
Length of 1.5" FM to Mound	60.00 feet	
Length of 2" FM to Mound	0.00 feet	
1.5" Friction Losses to Mound	4.19 feet	
2" Friction Losses to Mound	0.00 feet	
High Point of FM in Mound	201.75 feet	
Low Elevation in PS	198.00 feet	
Elevation Change	3.75 feet	
Minor headlosses	3.00 feet	
Residual	<u>3.00</u> feet	
TDH	13.94 feet	47.74
Pump Cycle Storage	75 Gallons	
Run Cycle	3.86 Minutes	
Wet Well Detention Time	128.57 Minutes	
System Curve	GPM	TDH
	15	11.00
	20	11.90
	25	12.90
	30	14.20
	35	15.70
	40	17.40
Pump Selection	Hydromatic SHEF30 , 1 Ph, 115 v, 60 Hz, 3/10 HP	