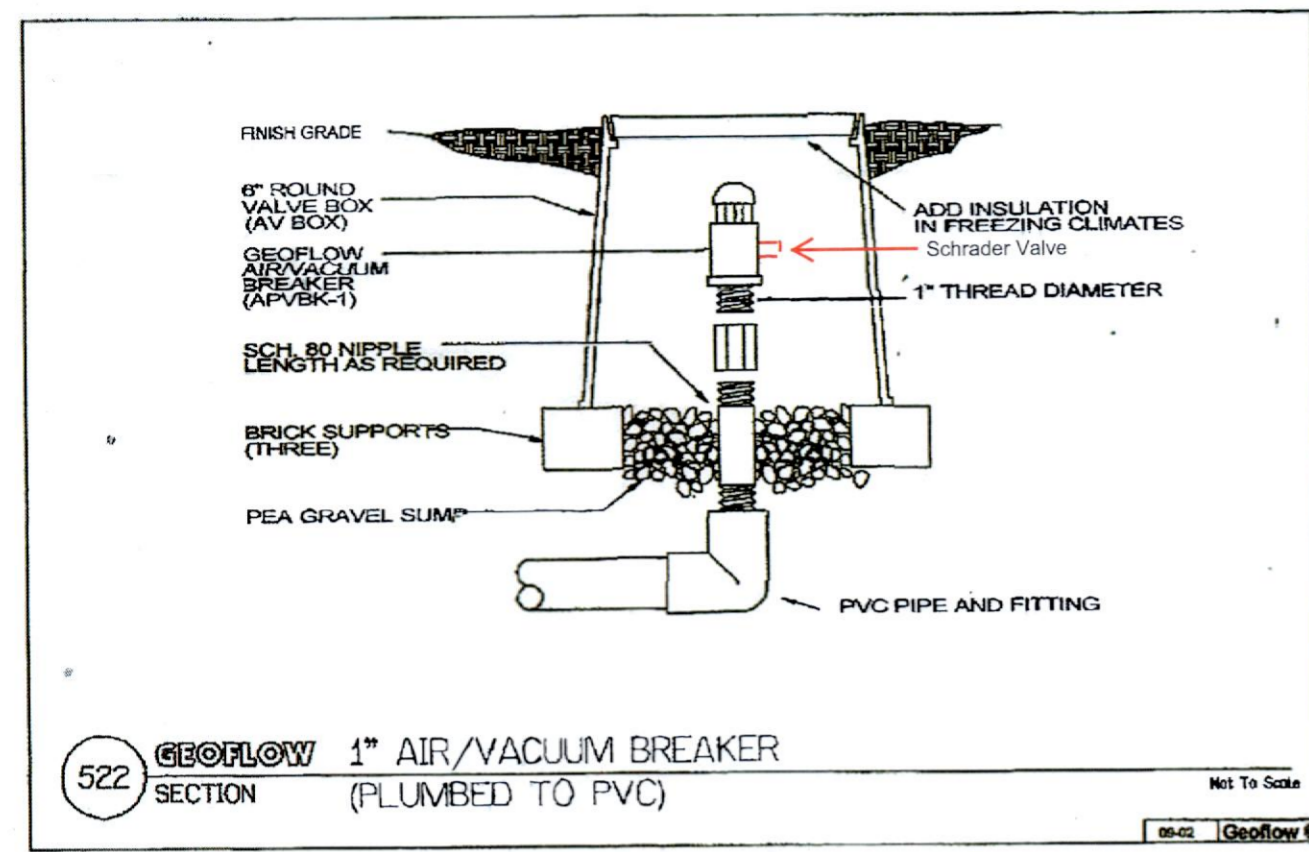
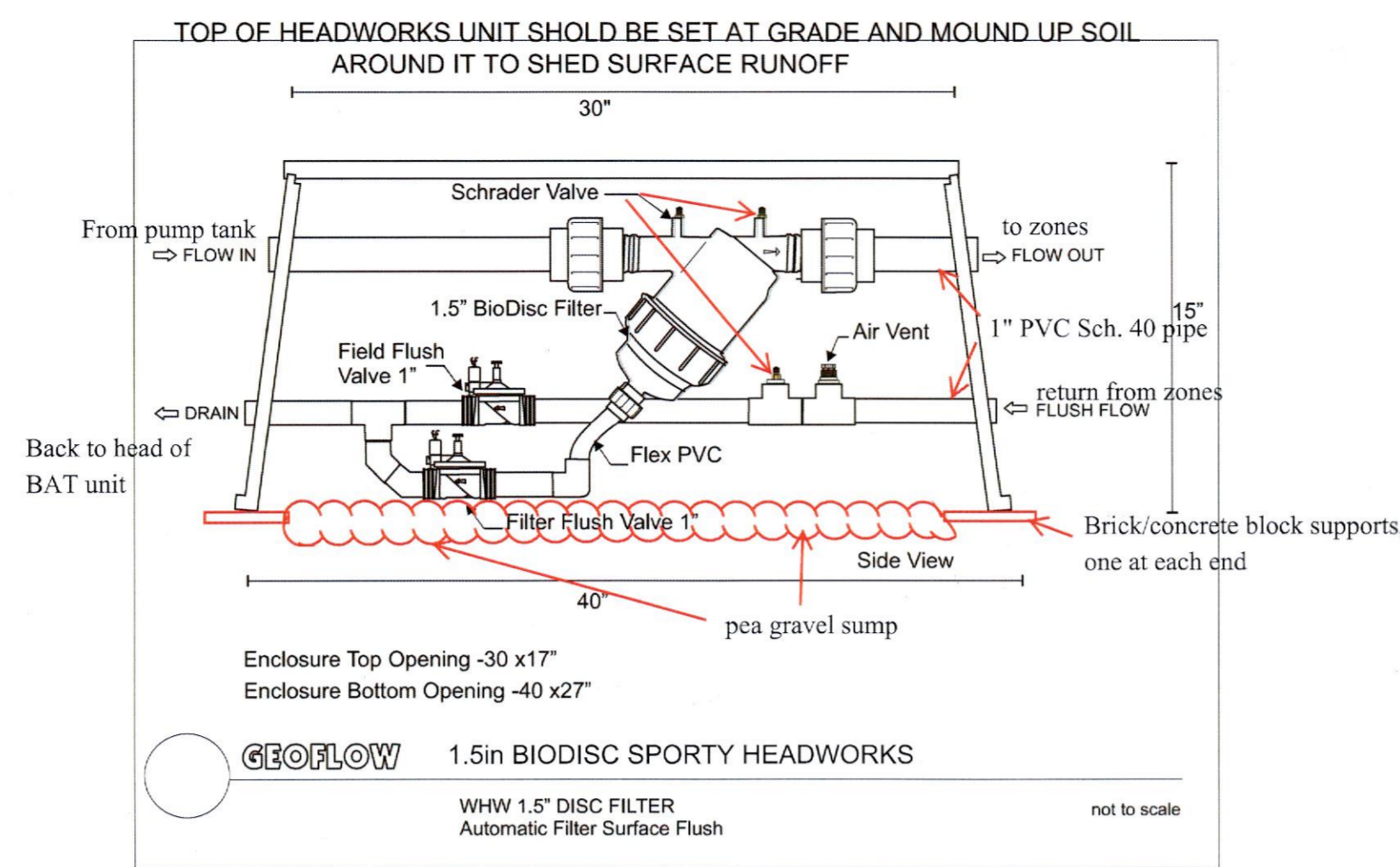


VACUUM BREAKER AND SCHRADER VALVE DETAIL

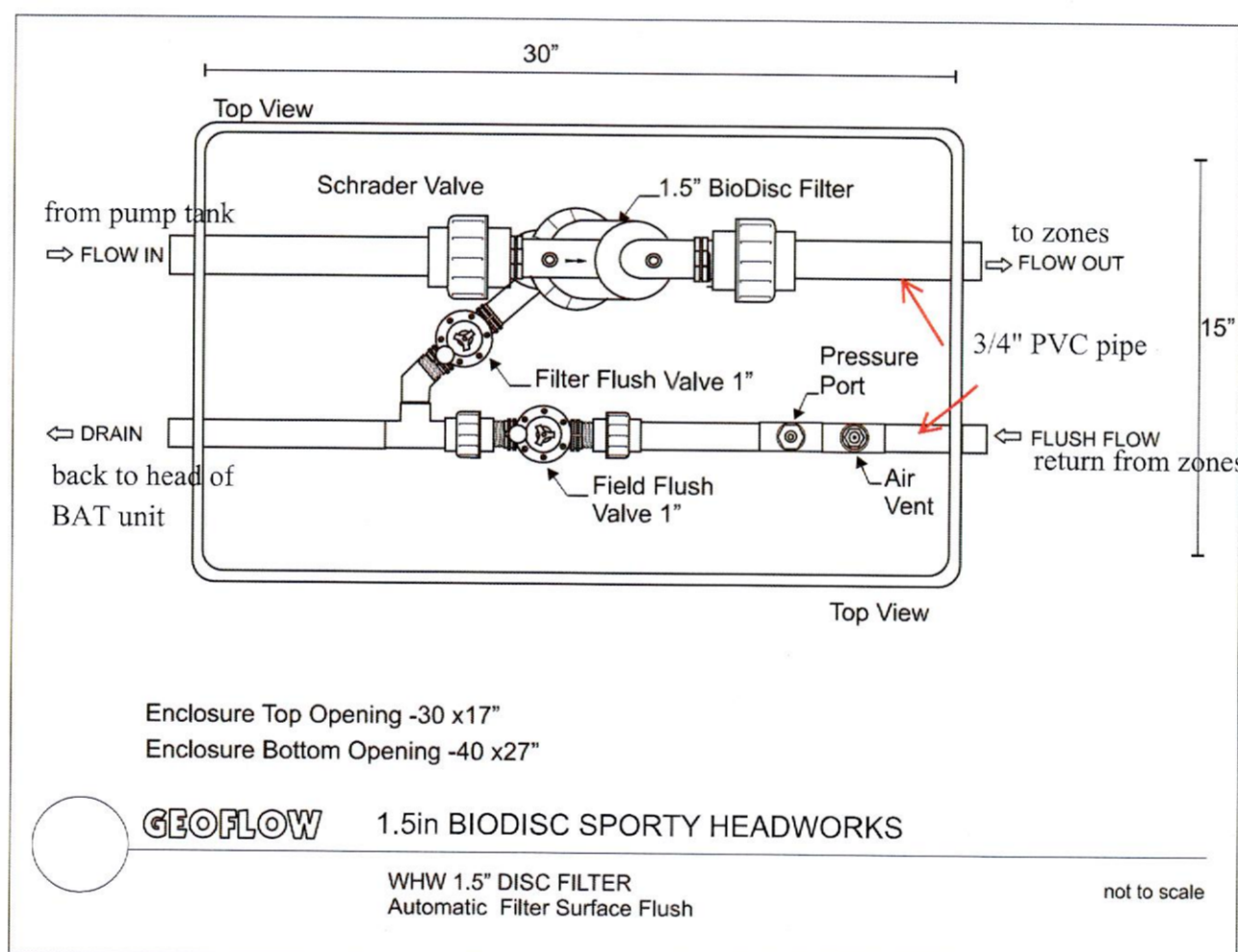


INSTALL SCHRADER VALVE FOR PRESSURE MONITORING

GEOFLOW SPORTY HEADWORKS BOX WHWS BOX L Two Zones, auto field flush, auto filter flush, 1.5" BioDisc filter



GEOFLOW 1.5in BIODISC SPORTY HEADWORKS
WHW 1.5" DISC FILTER Automatic Filter Surface Flush



GEOFLOW 1.5in BIODISC SPORTY HEADWORKS
WHW 1.5" DISC FILTER Automatic Filter Surface Flush

Pump Size	
Job Description:	6829 SUNSHINE AVENUE
Contact:	0
Prepared by:	ROB POWELL
Date:	Revised September 23, 2019

Pressure losses may be grossly overstated, particularly if designing with WASTEFLOW Classic. The letters on the diagram(right) match the letters in section 2 below.

Worksheet - Pump Sizing

Section 1 - Summary from Worksheet 1

Flow required to dose field	1.84	gpm
Flow required to flush field	2.96	gpm
Flow required to dose & flush field	4.80	gpm
Filter	BioDisc-150	
No. of Zones	2	zones
Zone valve	SVLVB-100	
Dripline	Wasteflow PC - 1/2gph	
Dripline longest lateral	209.00	ft

Section 2

	Ft of head	Pressure
A. Flush line - Losses through return line		
Size of flush line in inches	1 inch	
Length of return line	78 ft.	
Equivalent length of fittings	5 ft.	
Elevation change. (if downhill enter 0)	0 ft.	
Pressure loss in 100 ft of pipe	0.83 ft.	0.36 psi
Total pressure loss from end of dripline to return tank	0.7 ft.	0.30 psi

B. Dripline - Losses through Wasteflow dripline		
Length of longest dripline lateral	209 ft.	
Minimum dosing pressure required at end of dripline	23.10 ft.	10.00 psi
Loss through dripline during flushing	50.33 ft.	21.79 psi
Total minimum required dripline pressure	73.43 ft.	21.79 psi

A+B. Minimum Pressure required at beginning of dripfield		
CALCULATED pressure required at beginning of dripfield	74.13 ft.	32.09 psi
SPECIFIED pressure at beginning of dripfield (from worksheet 1)	80.9 ft.	35.00 psi
Great! SPECIFIED Pressure is greater than CALCULATED Pressure requirement. Go to next step		

C. Drip components - Losses through headworks		
Filter	4.6 ft.	2.00 psi
Zone valve pressure loss (not in diagram)	0.69 ft.	0.30 psi
Flow meter pressure loss (not in diagram)	4.62 ft.	2.00 psi
Other pressure losses	ft.	psi
Total loss through drip components	9.93 ft.	4.30 psi

D. Supply line - Minimum Pressure head required to get from pump tank to top of dripfield		
Size of supply line in inches	1 inch	
Length of supply line	85 ft.	
Equivalent length of fittings	5 ft.	
Height from pump to tank outlet	5 ft.	
Elevation change. (if downhill enter 0)	5.9 ft.	
Pressure loss/gain in 100 ft. of pipe	2.04 ft.	0.88 psi
Total gain or loss from pump to field	12.7 ft.	5.51 psi
Total dynamic head	103.5 ft.	44.81 psi
Pump capacity *	4.8	gpm
Pump Model Number	8EB Blaster	
Voltz / Hp / phase	115 V, 0.5 Hp, single phase	

* Note: Pump capacity flow assumes flow in dripline does not change during a dose cycle. With Wasteflow For more accurate flows please see GeoFlow's Flushing worksheet. If you need assistance designing for this additional flow, please
a. See GeoFlow flushing worksheet or
b. Contact GeoFlow at 800-828-3388.
GeoFlow, Inc. Pump Selection Worksheet, V.2003H

Field Flow	
Job Description:	6829 SUNSHINE AVENUE
Contact:	
Prepared by:	ROB POWELL
Date:	Revised September 23, 2019

Please fill in the shaded areas and drop down menus. This spreadsheet serves as a guide, and is not a complete hydraulic design.

Worksheet 1 - Field Flow

Total field	
Total Quantity of effluent to be disposed per day	225 gallons / day
Hydraulic loading rate	0.14 gallons / sq. ft. / day
Minimum Dispersal Field Area	1,607 square ft.
Total Dispersal Field Area	1,607 square ft.

Flow per zone	
Number of Zones	2 zone(s)
Dispersal area per zone	804 square ft.
Choose line spacing between WASTEFLOW lines	2 ft.
Choose emitter spacing between WASTEFLOW emitters	2 ft.
Total number of emitters per zone	417 ft. per zone
Total number of emitters per zone	209 emitters per zone
Select Wasteflow dripline (16mm)	Wasteflow PC - 1/2gph dripline
Pressure at the beginning of the dripfield	35 psi
Feet of Head at the beginning of the dripfield	80.85 ft.
What is the flow rate per emitter in gph?	0.53 gph
Dose flow per zone	1.84 gpm

Note: A few States or Counties require additional flow for flushing. Please check your local regulations. Flush velocity calculation below is for PC dripline. Classic dripline requires less flow to flush than PC. Please refer to GeoFlow's spreadsheet "Design Flow and Flush Curves" at www.geoflow.com or call 800.828.

If required, choose flush velocity	2 ft/sec
How many lines of WASTEFLOW per zone?	2 lines
Fill in the actual length of longest dripline lateral	209 ft.
Flush flow required at the end of each dripline	1.48 gpm
Total Flow required to achieve flushing velocity	2.96 gpm
Total Flow per zone-worst case scenario	4.80 gpm

Select Filters and zone valves		
Select Filter Type	BioDisc Filter	
Recommended Filter (item no.)	BioDisc-150	1.5" Disc Filter 0-30gpm
Select Zone Valve Type	Electric Solenoid	
Recommended Zone Valve (item no.)	SVLVB-100	1-in. Solenoid valve

Dosing	
Number of doses per day / zone:	6 doses
Timer ON: Pump run time per dose/zone:	10.11 mins:secs
Timer OFF: Pump off time between doses	3:49 hrs:mins
Per Zone - Pump run time per day/zone:	1:01 hrs:mins
All Zones - Number of doses per day / all zones	12 doses / day
Allow time for field to pressurize	0:00:39 hrs:mins:secs
Filter flush timer	0:00:29 hrs:mins:secs
Drain timer	0:05:00 hrs:mins:secs
Field flush timer	0:01:00 hrs:mins:secs
Field flush counter	3 cycles
Time required to complete all functions per day	3:24 hrs:mins
Dose volume per zone	19 gallons per dose

Allow time in the day for controller to have pressurization and drainage time.

DETAILS, NOTES AND SPECIFICATIONS

#6829 SUNSHINE AVENUE

SHEET 4 OF 5 REV 11-1-2019

J S DALLAS, INC 11-15-19

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Rob Powell