SEWAGE TREATMENT SYSTEM DESIGN FOR:
Angelos Property
428 Eight Mile Rd
Cincinnati, OH 45255
Parcel: 500-0101-0001-00
2.081 Acres

Site Review: 5/11/2024
Designed: June 2024

Design Details:

*HydroAction AP600/85+85 plus UV Disinfector ultraviolet disinfection with re-aeration plus pump lockout for use in NPDES discharging systems, or equivalent.
*HydroAction control panel model #122145-202FSUV-AL in riser of ATU (ODH Approved)
*HydroAction PP-850 gallon pump basin
*1.5" Schedule 40 force main to 20" 7 hole Polylok distribution box used as sample well. Use water tight grommet.
*4" Schedule 40 gravity discharge line from 20" 7 hole Polylok distribution box (sample well) to Eight Mile Creek west of the home. Use water tight grommet.

Soils:

No suitable location for an onsite septic system. Due to poor shallow soils. Home owner has obtained a NPDES permit through Ohio EPA.

System installation, operation and maintenance

All system devices and components must be operated and maintained in accordance with the Ohio Department of Health (ODH) product approval, and Hamilton County Health District Operation Permit Terms and Conditions. System devices and components must be installed per ODH product approval, Hamilton County Installation Manual, and this design. If conflicts occur, consult designer for guidance before proceeding. Means for operation and maintenance is a driveway that is within standard distance and elevations that allow for ease of service (pump truck). Please refer to https://odh.ohio.gov/know-our-programs/sewage-treatment-systems/information-for-homeowners/npdes for more information on this specific system type.

Changes and use of this design

This plan is owned by the designer and may not be altered, changed, used, or manipulated without prior approval from the designer. It is the responsibility of the contractor to verify that the system can be installed as it was designed based on the initial layout of the job. It is the responsibility of the installer and property owner to inform designer of any changes to the site that may affect the operation of a soil absorption component. If any design changes are necessary, redesign fees may apply.

System protection

The proposed location of the discharging system is to remain undisturbed and no permanent structures or hard scapes are to be built in this area. It is the owner and installers responsibility to locate underground utilities. If utilities interfere with the designed system, approval is needed from designer and HCPH to proceed. No clear water connections (downspouts, pools, footer tiles, cisterns, etc.) shall be connected to the STS. All system components must meet the horizontal isolation distances specified in OAC 3701-29-06(G)(3).

System cost information

Property owner has been informed on system options and briefed on cost factors, in compliance with OAC 3701-29-10 designers of STS systems must include approximate installation costs and operation costs of STS options. Star Septics estimates costs as follows: $25,000- $35,000 Installation cost
*$600 annual operation cost
*This is a general estimation of cost for the system. It is not a bid to install or service the system. Contact a licensed installer for bids.

Disclaimer

This plan set is not a site plan to be used for constructing anything other than the STS. If an accurate legal site plan is required, contact a professional surveyor. This plan offers no guarantee as to the accuracy of information provided.This plan offers no guarantees for site stability. If site stability may be an issue, a geo-technical engineer should be consulted. Plan is only as accurate as info provided to the designer. Easements, right-of-ways or info not communicated to the designer invalidates the design. It is the property owner's responsibility to review plan and its correctness. If conflicts are found or additional information is needed, owner must contact designer and installation shall not proceed until approval is granted. This design shall in no way be taken as guarantee that a system will function in a satisfactory manner for any given period of time.

Operation and Maintenance Resources:

https://hydro-action.com/manuals/
https://www.hamiltoncountyhealth.org/
https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/discharging-household-sewage-treatment-systems-general-permits
https://www.polylok.com/mwdownloads/download/link/id/221/

The home is currently a 4 bedroom home, but homeowner has discussed wanting to add an additional bedroom in the future. This design is for a 600 GPD NPDES discharging system. Designed to treat a peak flow of 600 gallons per day and a typical residential wastewater strength of 140 mg/l BOD.

Must Obtain IBI electrical permit and approval.

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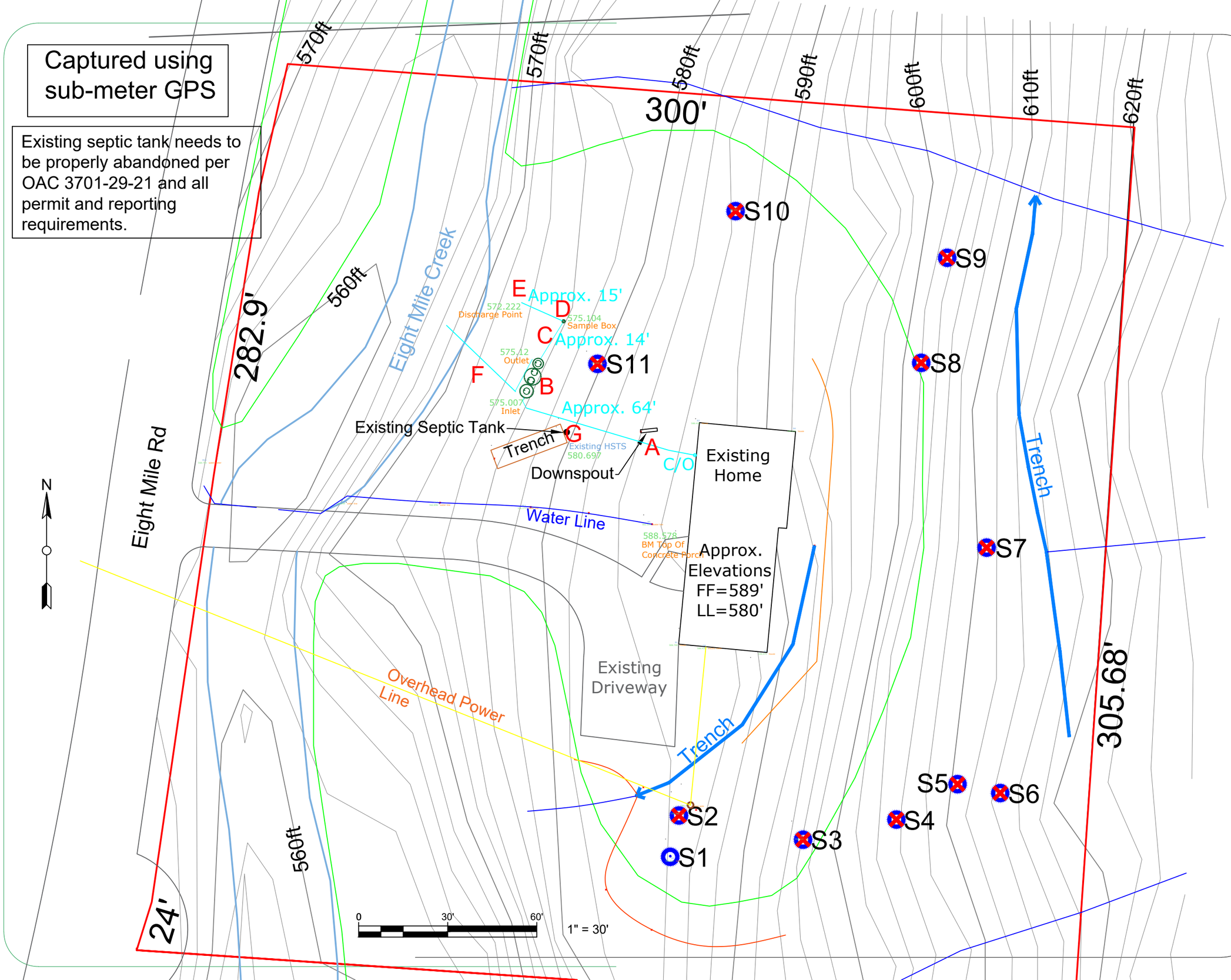
Project:
Angelos Property
428 Eight Mile Rd
Cincinnati, OH 45255

Cover Page
Sheet 1 of 4

Designed by:
Star Septics
18251 Gauche Rd
Fayetteville, Ohio 45118
starseptics@gmail.com
513-334-9632

Captured using sub-meter GPS

Existing septic tank needs to be properly abandoned per OAC 3701-29-21 and all permit and reporting requirements.



All components of the septic system must maintain a 10' isolation distance from all property lines, hardscapes, and utility lines. For a full listing of all necessary seperation distances, see 3701-29-06 (G) (3)

No Geothermal

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Ohio Utilities Protection Service
Call 811 before you dig

○ --> soil test location

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Site Plan and Layout
Sheet 2 of 4

Designed by:
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A- New standard cleanout at building exit and at 75', with 4” Schedule 40 PVC pipe with minimum 1% grade. Approximately 64' long.

B- Install HydroAction AP600/85+85 plus UV Disinfector ultraviolet disinfection with re-aeration plus pump lockout. Electrical: Designated 30 Amp 120 volt circuit. Install #12 stranded THHN wire in 0.75” PVC conduit to ATU. Hydro-Action control panel model # 122145-202FSUV-AL, inside riser of ATU (ODH approved) set for demand dosing and equipped with audible and visual high water alarm. System has pump lock out upon component malfunction.

C- 1.5” Schedule 40 PVC force main into sample well. Force main needs to be buried at minimum of 24” for freeze protection. Drill $\frac{1}{8}$" weephole for drain back where 24" of soil cover is lost. Cover weephole with orifice shield. Pipe needs to be well supported. Have the force main enter the sample well below grade and discharge 2" minimum above the outlet pipe. The invert of the inlet shall be installed at least eight inches above the bottom of the sample port. Use a water tight grommets. Using the gate valve in the dose tank, decrease the flow rate to prevent overflowing and limit splashing in sample well for ease of sampling. Approximately 14' of schedule 40 1.5" force main.

D- Sample well is a 20" 7 hole polylok distribution box. Ensure box is bedded firmly, compact onsite soil around box. Sample well is being put in place for ease of sampling. Sample Well must meet 3701-29-13 (F)(1).

E- 4” Schedule 40 PVC effluent line with minimum 1% fall. Discharge point is Eight Mile Creek west of home. Have 6’’ of freeboard and equip end of effluent line with animal guard. Place splash block at the end of discharge point. Effluent pipe is approximately 15' long.

F- Anti-buoyancy drain installed at top of tank bedding for Hydro-action AP-600/85+85. The drain is 3 hole 4" diameter SDR 35 that runs the length of the tank excavation. Cap end of 3 hole 4" SDR 35 and cover with 2 layers of geotextile fabric. Can use duck tape or zip ties to fasten geotextile to pipe. Install 4" solid SDR 35 from tank excavation to daylight, sloped a minimum of 1% to the outlet. The last 10' of pipe at daylight must be 4" sch 40 PVC and where soil cover is less than 12", 4" sch 40 PVC must be used. Use a minimum 10' of 4" sch 40 PVC at outlet with non corrosive animal guard. Pipe shall have 6" of freeboard at outlet. Pipe must stop minimum of 10' from property lines. Approximately 32' in length. See drawing on sheet 4.

G- Existing septic tank to be properly abandoned per OAC 3701-29-21 and all permit and reporting requirements.

Buoyancy Calculation For PP850 Pump Tank

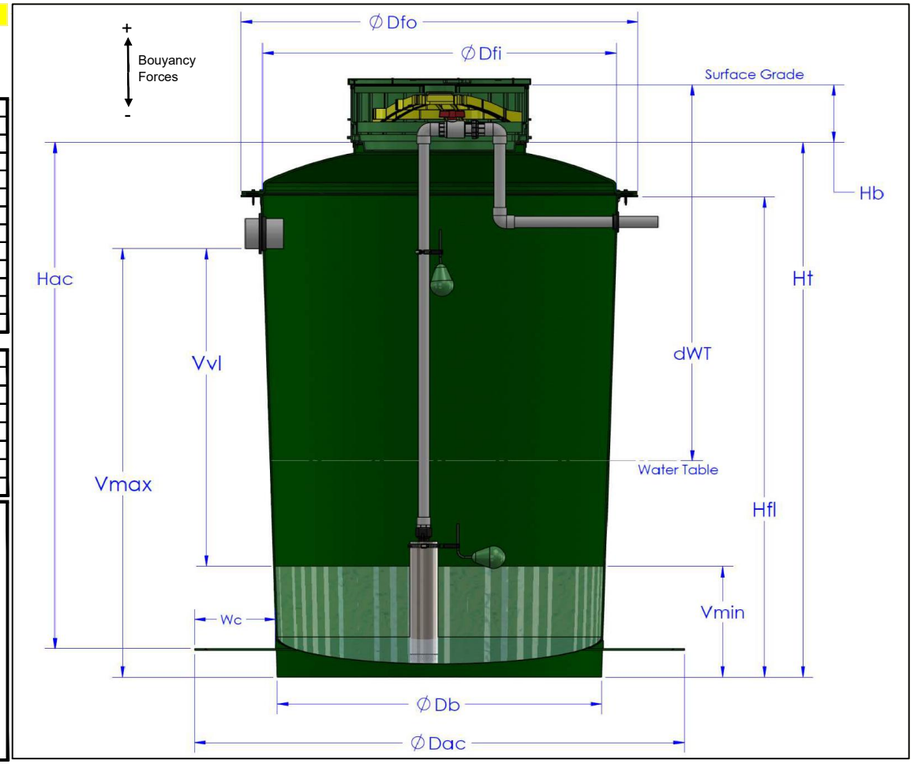
With buoyancy drain set at base of tank. Anti float collars not required.

Hydro-Action Tank	PP850
AN Pretreat Application	AN800
AN Aerobic Application	AN400
AP Aerobic Application	AP500

Tank Diameter (ID at Base)	Db	59.75inch
Tank Flange Diameter	Dfo	70.0inch
Tank Height Overall	Ht	80.25inch
Tank Height to Flange	Hfl	70inch
Density of soil	ρ_{soil}	100lb/ft3
Burial Depth (surface grade to top of Tank)	Hb	20inch
Depth to Water Table (surface grade to table)	dWT	89inch
Minimum Static Volume	Vmin	0inch
Include weight of soil above Tank in anti-buoyancy		Yes
Anti-Float Collar Included		No
Anti-Float Collar Elevation (distance below top of tank)	Hac	64.0inch
Anti-Float Collar Outside Diameter	Dac	71.8inch
Anti-Float Collar Width	Wc	6inch

OUTPUTS		
Buoyant Force	F_B	1031lbs
Anti-Bouyant Force From Weight of Tank	$F_{tank\ weight}$	-389
Anti-Buoyant Force from Soil above Tank	F_{soil}	-3931lbs
Anti-Buoyant Force from Soil above Anti-Float collar	F_{collar}	0lbs
Anti-Buoyant Force from water in Tank	F_{water}	0lbs
Anti-Buoyant Force Total	F_{total}	-4320lbs
Anti-Buoyancy Safety Factor		4.19

hydro-action®
green from the ground up



OTHER NOTES-
***Remove all construction debris and surplus materials from property and leave the property in a neat condition upon completion of work. Grade, seed, and straw areas disturbed by construction.

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Project:
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STS Components & Devices
Sheet 3 of 4

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Fayetteville, Ohio 45118
starseptics@gmail.com
513-334-9632

588'
586'
584'
582'
580'
578'
576'
574'
572'
570'
568'
566'

C/O

House

Hydro-Action tank must be installed level with no variation to operate properly. Bottom of tank excavation needs to be tamped tightly and level.

Service Provider Approved By Distributor:
CLEAN WATER SEPTIC SOLUTIONS LLC
3426 Patterson Rd, Bethel, Oh 45106
Business Phone: 513-225-9546

Equip with 1.5" gate valve to slow the flow of effluent to lessen splashing in sample box during sampling. Gate valve and union all to within 10" of lid.

Hyrdro-Action
AP-600 / 85+85

Hydroaction Control Panel Model #122145-202FSUV-AL

UV connections must be hard wired in a J Box per HCPH Install Manual

Hydro-Action Aerator Hi-Blow HP100

Re-aeration

Atlantic Ultraviolet UV disinfector model #TMHO2425-8524A6

Gravity Discharge Line

Alarm

Union

Sample Tap

J-Box

Sample well is 20" 7 Hole Polylok Distribution Box

Drill $\frac{1}{8}$" weephole for drain back where 24" of soil cover is lost. Cover weephole with orifice shield.

1.5" Schedule 40 PVC force main.

Use watertight rubber grommet at sample well penetrations.

Set Demand Dose For Approximately 91 Gallon Dose

Risers shall be a minimum of 2" above grade and the grade will be sloped away from the tank to prevent standing water around tanks.

Float tree with high water alarm float and demand dose float.

Weephole above check valve.

Check Valve

Anti buoyancy drain installed at top of tank bedding. Discharge point approximately 566'. See page 3 for more details

To creek in front of home. Discharge point approximately 572.222'

Hyrdro-Action PP-850 Pretreatment Tank

Hyrdro-Action AP-600 Aeration Tank

Hyrdro-Action PP-850 Pump Tank

Must be bedded with Hydro-Action approved aggregate. Use #8 or #57 gravel, limestone or natural. Backfill all Hydro-Action tanks according to their written installation guidance.

Ashland EPF 30 3/10 HP High Flow Effluent Pump 31 GPM @ 25 TDH

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Local Hydro-Action Distributor
Bob Green
Phone #: 513-284-2862

NO VEHICLE TRAFFIC NEAR OR OVER TANK
Grade around tank so that water is unable to stand.

Hydro-Action NPDES system is equipped with pump lock-out.

NOTE: This side view drawing shows elevations of major components in this design. It does not represent the location of the septic components. The site plan shows a close to accurate horizontal location of the septic system components in this design. **If unsure, contact designer.

50-20 Series OPS®
Wastewater Plant / Pump Tank Control
This OPS® provides total control of the aerobic unit and pump tank including air pump, water pump and alarms. Other features include two-branch circuit breakers, separate disconnect switch (which cuts off power to all electrical components) with a lockout feature. Dose pump, aerator, and UV requires 120 volt / 30 amp feed (ODH Approved). Alarms and controls shall be on a commonly used household circuit. Not arc fault or GFCI.

Per OAC 3701-29-12(M)(3) Alarms and controls shall be on a commonly used household circuit. All other electrical components shall be on a different dedicated circuit than the alarms and controls.

Follow all NEC requirements. IBI Inc electrical permit & inspection required

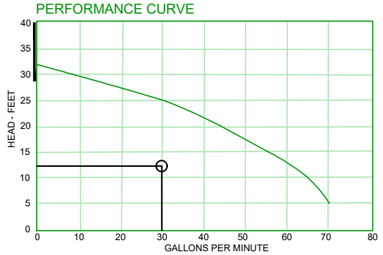
No cell core pipe used anywhere in this system All Schedule 40 PVC pipe ASTM D1785.

All tanks must pass a watertightness test in presence of Hamilton County Public Health Inspector.

HydroAction requires bi-annual maintenance. Pump tank as needed.

EPF30 Performance Data
RPM: 3450 Discharge: 2" Solids: 3/4"

PERFORMANCE CURVE

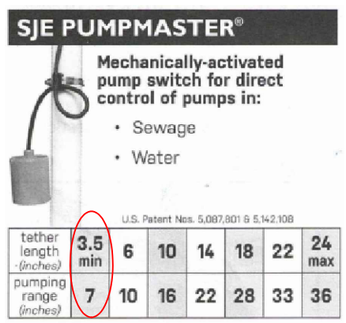


PERFORMANCE CURVE

Total Lift(feet)	0	5	10	15	20	25	30	32
GPM	75	70	63	56	44	31	9	0

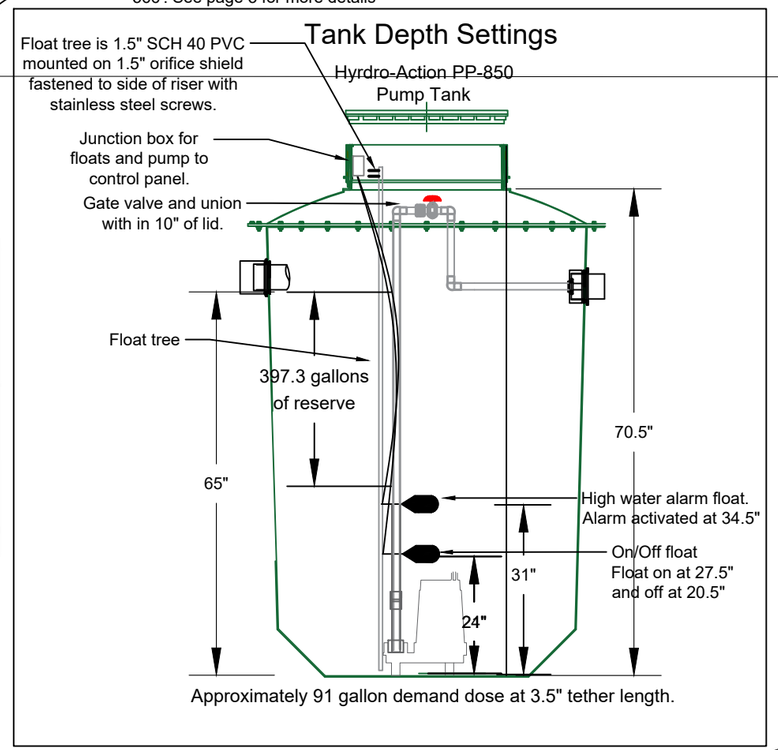
Conditions of Service:

GPM: 30 TDH: 12.5



tether length (inches)	3.5 min	6	10	14	18	22	24 max
pumping range (inches)	7	10	16	22	28	33	36

Tank Depth Settings



Approximately 91 gallon demand dose at 3.5" tether length.

Project:
Angelos Property
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Side View
Sheet 4 of 4

Designed by:
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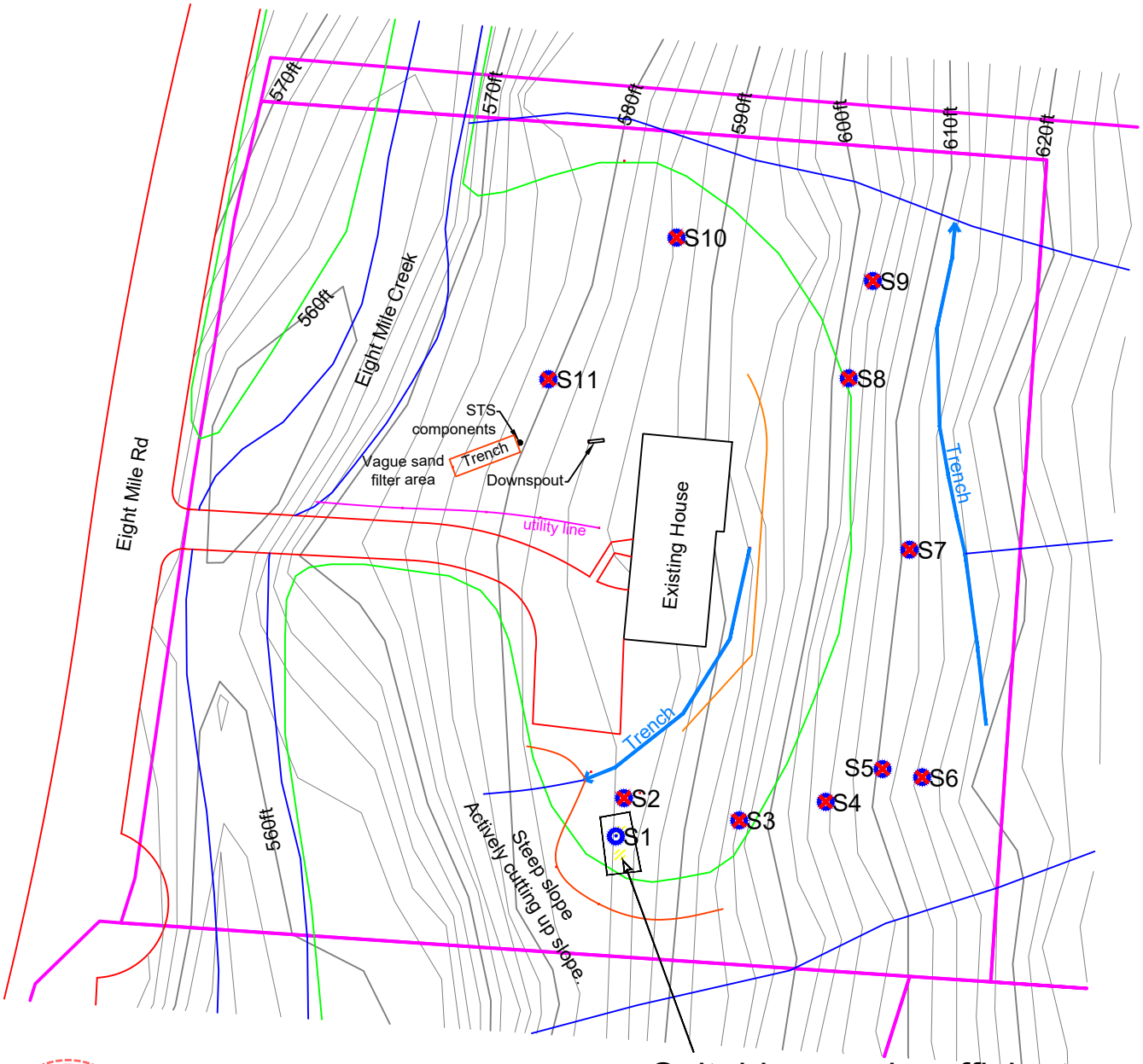
513-334-9632

Angelos Property
428 Eight Mile Rd
Cincinnati, OH 45255
2.081 Acres

Suggested System:
-Direct discharge

The entire lot is unsuitable for dispersal.



Suitable area insufficient fo even 1 bedroom

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Scale
0 60 120
1" = 60'

N W E S

This is not a site plan. For a site plan with accurate feature locations, contact a professional surveyor.

2ft county GIS contours shown. No actual measurements taken. Other features are from GIS. For more accurate locations, contact a professional surveyor.

Contour interval 2ft
Date: 4/11/2024
-Soil Sample Locations
-Unacceptable Soil

Soil and Site Evaluation for Sewage Treatment and Dispersal

County:Hamilton
Township/Sec.:Anderson
Property Address/Location:428 Eight Mile Rd
Cincinnati,OH 45255
Parcel # / Subdiv. Lot #:#500-01010001-00
Applicant Name:Steven Angelos
Address:428 Eight Mile Rd
Cincinnati,OH 45255
Phone #:(859) 322-2369
Lot #:
Test Hole #:S2-S11
Latitude/Longitude:N39.04781 W-84.33016
Method:_____Pit _____Auger __X__ Probe

Land Use/Vegetation:Heavy brush
Landform:upland
Position on Landform:side slope
Percent Slope:15-55%
Shape of Slope:linear
Coord. Method/Accuracy:GPS - 2ft.

Date:4/11/2024
Evaluator:Dan Michael
903 North Broadway
Lebanon, OH 45036

Certification Stamp or Certification#: #30586
Signature:
Phone # : 513-934-1040

Soil Profile		Estimating Soil Saturation Munsell Color (hue, value, chroma)			Estimating Soil Permeability							
			Redoximorphic Features		Texture			Structure				
Horizon	Depth (inches)	Matrix color	Concentrations	Depletions	Class	Approx. % clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	Other Soil Features
Ap	0 - 4	10YR 4/2 dark grayish brown			clay loam	30%	1%	2- moderate	f	gr	friable	
Bt1	4 - 8	10YR 4/4 dark yellowish brown			clay	50%	2%	1- weak	co	SBK	firm	very high in clay
Bt2	8 - +	10YR 4/4 dark yellowish brown			clay	55%	5%	1- weak	co	SBK	very firm	very high in clay

Limiting Conditions	Depth to (in.)	Descriptive notes	Remarks/Risk Factors:
Perched Seasonal Water Table	>50 in.		The soil is too shallow to very high clay.
Ground Water/Aquifer	>50 in.		
Highly Permeable Material (range)	>50 in.		
Bedrock	24 in.+	Fractured - Karst (circle one) Unfractured	
Highly Weathered Soil	N/A		
Flow Restrictive Layer	4-8 in.	high clay	
Fractured Glacial Till	N/A		
Other High Risk Limiting Conditions	>50 in.		

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Note: The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08

Table 3. Soil Infiltration Loading Rates. *7875 Finley Ln Lot# Soil#-S1-S9*

Soil Characteristics			Soil Infiltration Loading RRate (gpd/ft2)		
Texture	Structure		CBOD5		
	Shape	Grade	>25mg/L (septic tank effluent)	<=25mg/L (pretreated effluent)	Row
COS, S, LCOS,LS	--	0SG	0.8	1.6	1
FS, VFS, LFS, LVFS	--	0SG	0.4	1	2
CSL, SL	--	0M	0.2	0.6	3
	PL	1	0.2	0.5	4
		2, 3	0	0	5
	PR/BK/GR	1	0.4	0.7	6
		2, 3	0.6	1	7
FSL, VFSL	--	0M	0.2	0.5	8
	PL	1,2,3	0	0	9
	PR/BK/GR	1	0.2	0.6	10
		2,3	0.4	0.8	11
L	--	0M	0.2	0.5	12
	PL	1,2,3	0	0	13
	PR/BK/GR	1	0.4	0.6	14
		2,3	0.6	0.8	15
SIL	--	0M	0	0	16
	PL	1,2,3	0	0	17
	PR/BK/GR	1	0.4	0.6	18
		2,3	0.6	0.8	19
SCL, CL, SICL	--	0M	0	0	20
	PL	1,2,3	0	0	21
	PR/BK/GR	1	0.2	0.3	22
		2,3	0.4	0.6	23
SC, C, SIC	--	0M	0	0	24
	PL	1,2,3	0	0	25
	PR/BK/G	1	0	0	26
		2,3	0.2	0.3	27

Soil Characteristics			Hydraulic Linear Loading Rate (gpd/ft)									
			Slope 0-4%			Slope 5-9%			Slope >10%			
Texture	Structure		Infiltrative Distance, (Inches)			Infiltrative Distance, (Inches)			Infiltrative Distance, (Inches)			
	Shape	Grade	8 - 12	12-24	24-48	8 - 12	12-24	24-48	8 - 12	12-24	24-48	Row
COS, S, LCOS,LS	--	0SG	4.0	5.0	6.0	5.0	6.0	7.0	6.0	7.0	8.0	1
FS, VFS, LFS, LVFS	--	0SG	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	2
CSL, SL	--	0M	3.0	3.5	4.0	3.6	4.1	4.6	5.0	6.0	7.0	3
	PL	1	3.0	3.5	4.0	3.6	4.1	4.6	4.0	5.0	6.0	4
		2, 3										5
	PR/BK/	1	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	6
	GR	2, 3	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	7
FSL, VFSL	--	0M	2.0	2.3	2.6	2.4	2.7	3.0	2.7	3.2	3.7	8
	PL	1,2,3										9
	PR/BK	1	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	10
	GR	2,3	3.3	3.8	4.3	3.6	4.1	4.6	3.9	4.4	4.9	11
L	--	0M	2.0	2.3	2.6	2.4	2.7	3.0	3.2	3.2	3.7	12
	PL	1,2,3	-	-	-	-	-	-	-	-	-	13
	PR/BK	1	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	14
	GR	2,3	3.3	3.8	4.3	3.6	4.1	4.6	3.9	4.4	4.9	15
SIL	--	0M	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	16
	PL	1,2,3										17
	PR/BK	1	2.4	2.7	3.0	2.7	3.0	3.3	3.0	3.5	4.0	18
	GR	2,3	2.7	3.0	3.3	3.0	3.5	4.0	3.3	3.8	4.3	19
SCL, CL, SICL	--	0M										20
	PL	1,2,3										21
	PR/BK	1	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	22
	GR	2,3	2.4	2.9	3.4	2.7	3.0	3.3	3.0	3.5	4.0	23
SC, C, SIC	--	0M										24
	PL	1,2,3										25
	PR/BK	1										26
	GR	2,3	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	27

Zoeller Company

System Head Curve and Pump Selection Tool

Static Head Information

Static Head - elevation difference from low water to outfall	8.0 feet
System high point above outfall?	No

Friction Head Information

Pipe

How many different pipes in the system (not counting laterals)?	1	
Pipe 1 Length	14 feet	
Pipe 1 Size	1 1/2 inches	
Pipe 1 Class	SCH 40	
Pipe 2 Length		
Pipe 2 Size		
Pipe 2 Class		
Pipe 3 Length		
Pipe 3 Size		
Pipe 3 Class		

Pressurized Laterals?	No	
How many are dosed at once?		
Length of one lateral		
Size of lateral		
Class of lateral		

Fittings & Discharge Assemblies

Type	Size	Quantity	Flow
90 Elbow	1 1/2 inches	6	100 %
Check Valve	1 1/2 inches	1	100 %
45 Elbow	1 1/2 inches	2	100 %
Gate Valve (full open)	1 1/2 inches	1	100 %

Special Friction Considerations

Weep Hole	Yes	1/8"
Add-In Friction	15 % of Pipe Loss	
Automatic Multizone Valve?	No	
Pressure Filter?	No	

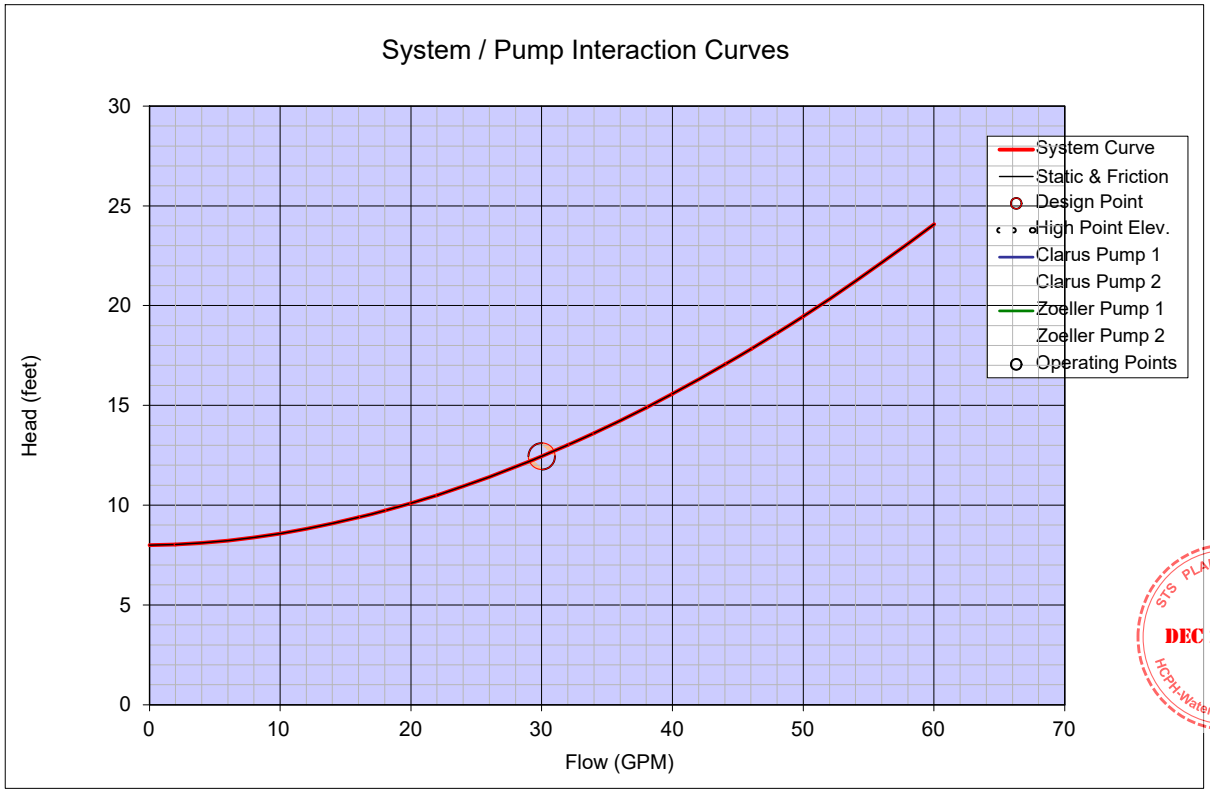
Operating Head Information

System Type	Non-Pressurized	Specify Flow Requirement?
Required Pressure		Yes
Number of Orifices		
Size of Orifices		
Spider Valve Orifice Sizes (Data originates from Spider Valve Sizing Tab)		

Flow Requirement: 30. GPM

Factors and Coefficients

Hazen-Williams C Factor	130
Discharge Coefficient (Cd)	0.61
Lateral Design Mode	Off



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NOTE: THE DISPLAYED PUMP CURVES HAVE BEEN ADJUSTED TO ACCOUNT FOR THE EFFECT OF THE WEEP HOLE

Pump Selection

60 Hz Frequency

Clarus Environmental Pumps

Clarus Pump 1		
Flow Control Orifice?		
Clarus Pump 2		
Flow Control Orifice?		

Zoeller Pump Company Pumps

Zoeller Pump 1	
Zoeller Pump 2	

Design Point
30.0 GPM
@ 12.5 ' TDH

Curve Zoom Range: 60 GPM

Project Data		Notes:
Project Name:		
Project Address	428 Eight Mile Road	
Contact Info:		

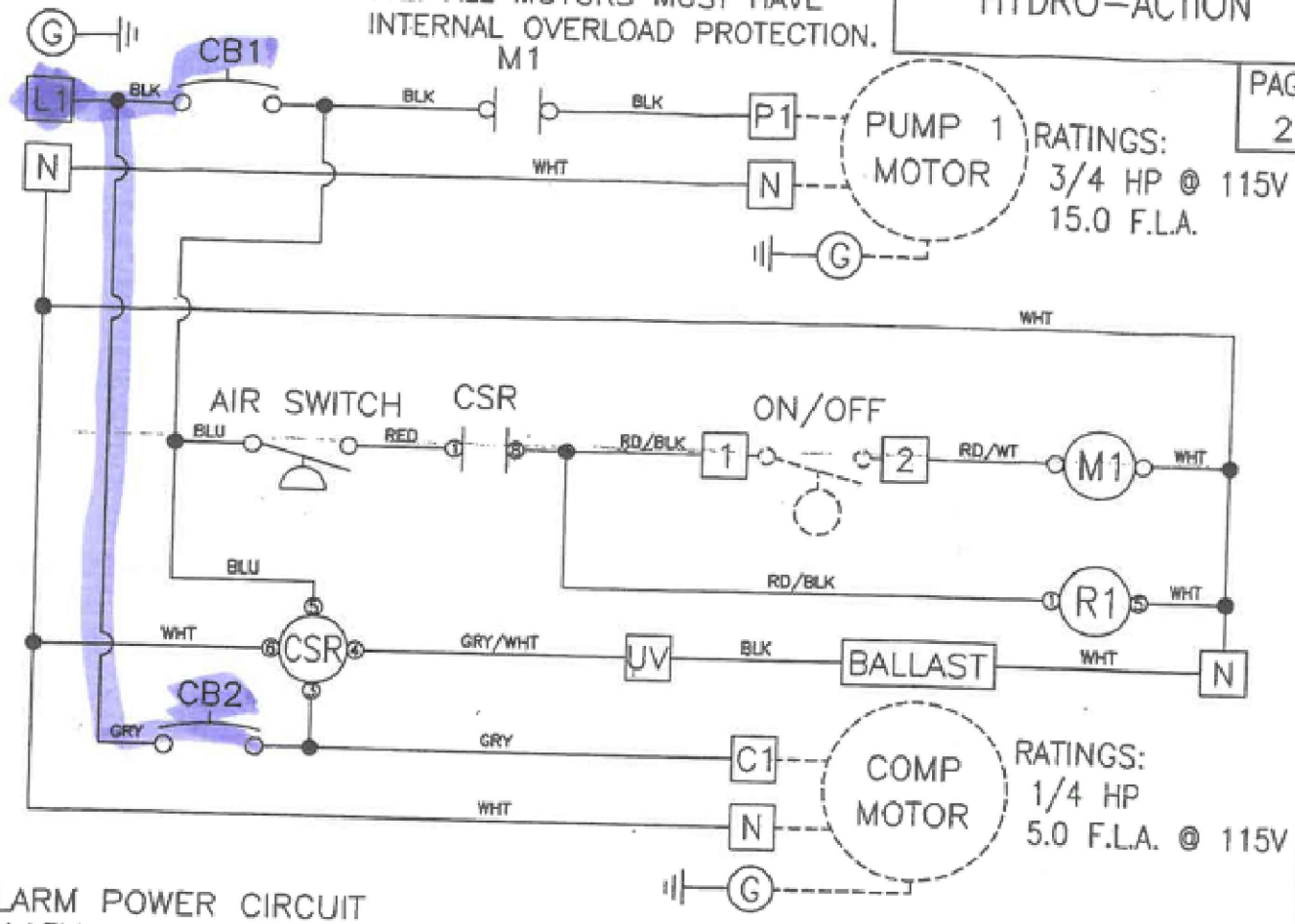
Version 4.51

HYDRO-ACTION

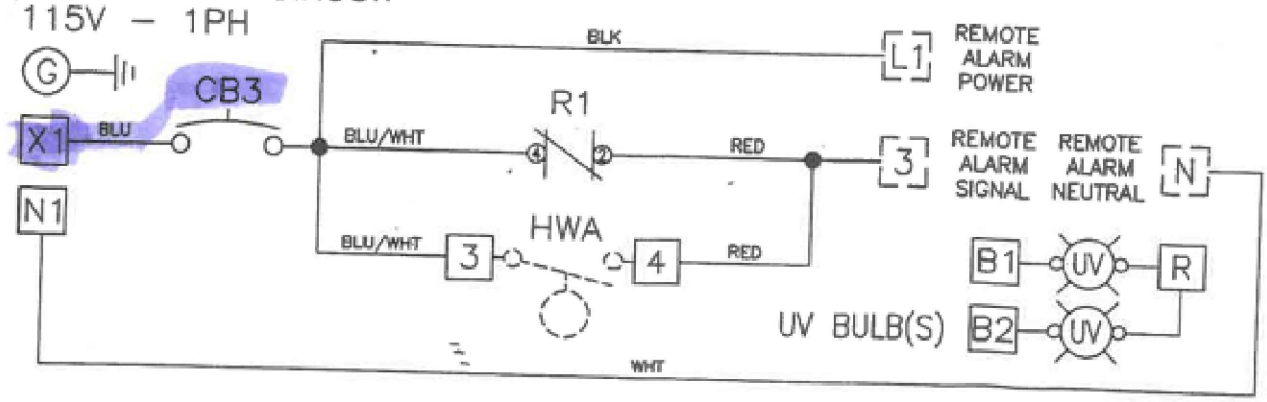
PAGE 2

PUMP POWER CIRCUIT
115V – 1PH

NOTE: ALL MOTORS MUST HAVE INTERNAL OVERLOAD PROTECTION.



ALARM POWER CIRCUIT
115V – 1PH



NOTES: MAIN PANEL DISCONNECT MUST BE PROVIDED BY INSTALLER.
DASHED LINES INDICATE ITEMS NOT CONTAINED IN THE PANEL.
FIELD WIRING MUST BE A MINIMUM OF 60°C COPPER WIRE.

SEPTIC PRODUCTS INC

STS PLANS APPROVED
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HCPH-Water Quality Division

CHANGES	TOLERANCES	DRAWN BY	DATE
F	DECIMALS	C. BARRICK	03/14/17
E	.XXX = ±.005		
D	.XX = ±.010	MATERIAL SPECIFICATION:	
C	FRACTIONAL	AS NOTED	
B	X/X = ±.1/64		
A	ANGLES		
	X° = ±1/2°		

SCHEMATIC, ELECTRICAL

SCALE:	PART NO.
FULL	122141-202FSUV-AL

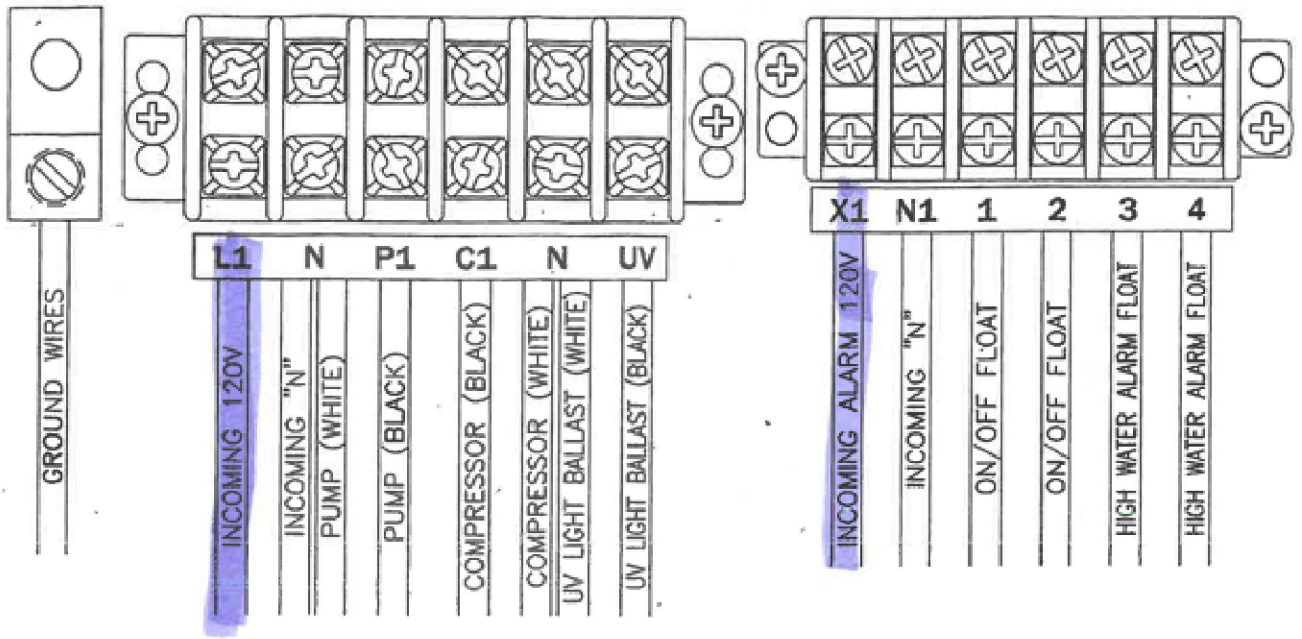
NPDES

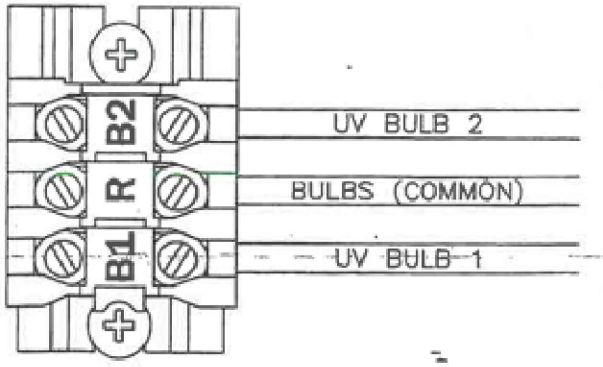
TIGHTENING TORQUE FOR TERMINAL BLOCK IS 9 in-lbs.

HYDRO-ACTION

PAGE 1

CONNECTION DIAGRAM





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NOTES: MAIN PANEL DISCONNECT MUST BE PROVIDED BY INSTALLER.
DASHED LINES INDICATE ITEMS NOT CONTAINED IN THE PANEL.
FIELD WIRING MUST BE A MINIMUM OF 60°C COPPER WIRE.
REQUIRED TORQUE FOR TERMINAL BLOCK SCREWS IS 9 in-lbs.

SEPTIC PRODUCTS INC

CHANGES	TOLERANCES	DRAWN BY	DATE
F	DECIMALS .XXX = ±.005 .XX = ±.010 FRACTIONAL X/X = ±1/64 ANGLES X° = ±1/2°	C. BARRICK	03/14/17
E		MATERIAL SPECIFICATION: AS NOTED	
D			
C			
B			
A			

CONNECTION DIAGRAM

SCALE:	PART NO.
FULL	122145-202FSUV-AL

AP-500/850 Gal. Pump Tank Calibration Chart

Height (in.)	Volume (Gal)
70.5	918.35
70.25	915.10
70	911.84
69.75	908.58
69.5	905.33
69.25	902.07
69	898.81
68.75	895.56
68.5	892.30
68.25	889.04
68	885.79
67.75	882.53
67.5	879.27
67.25	876.02
67	872.76
66.75	869.50
66.5	866.25
66.25	862.99
66	859.74
65.75	856.48
65.5	853.22
65.25	849.97
65	846.71
64.75	843.45
64.5	840.20
64.25	836.94
64	833.68
63.75	830.43
63.5	827.17
63.25	823.91
63	820.66
62.75	817.40
62.5	814.14
62.25	810.89
62	807.63
61.75	804.37
61.5	801.12
61.25	797.86
61	794.60
60.75	791.35
60.5	788.09
60.25	784.83
60	781.58
59.75	778.32
59.5	775.06
59.25	771.81
59	768.55
58.75	765.29
58.5	762.04
58.25	758.78
58	755.52
57.75	752.27
57.5	749.01
57.25	745.76
57	742.50
56.75	739.24
56.5	735.99
56.25	732.73
56	729.47
55.75	726.22
55.5	722.96
55.25	719.70
55	716.45
54.75	713.19
54.5	709.93
54.25	706.68
54	703.42
53.75	700.16
53.5	696.91
53.25	693.65
53	690.39
52.75	687.14
52.5	683.88
52.25	680.62
52	677.37
51.75	674.11
51.5	670.85
51.25	667.60
51	664.34
50.75	661.08
50.5	657.83
50.25	654.57
50	651.31
49.75	648.06
49.5	644.80
49.25	641.54
49	638.29
48.75	635.03
48.5	631.78
48.25	628.52
48	625.26
47.75	622.01
47.5	618.75
47.25	615.49
47	612.24
46.75	608.98
46.5	605.72
46.25	602.47
46	599.21
45.75	595.95
45.5	592.70
45.25	589.44
45	586.18
44.75	582.93
44.5	579.67
44.25	576.41
44	573.16
43.75	569.90
43.5	566.64
43.25	563.39
43	560.13
42.75	556.87
42.5	553.62
42.25	550.36
42	547.10
41.75	543.85
41.5	540.59
41.25	537.33
41	534.08
40.75	530.82
40.5	527.56
40.25	524.31
40	521.05
39.75	517.80
39.5	514.54
39.25	511.28
39	508.03
38.75	504.77
38.5	501.51
38.25	498.26
38	495.00
37.75	491.74
37.5	488.49
37.25	485.23
37	481.97
36.75	478.72
36.5	475.46
36.25	472.20
36	468.95
35.75	465.69
35.5	462.43
35.25	459.18
35	455.92
34.75	452.66
34.5	449.41
34.25	446.15
34	442.89
33.75	439.64
33.5	436.38
33.25	433.12
33	429.87
32.75	426.61
32.5	423.35
32.25	420.10
32	416.84
31.75	413.58
31.5	410.33
31.25	407.07
31	403.82
30.75	400.56
30.5	397.30
30.25	394.05
30	390.79
29.75	387.53
29.5	384.28
29.25	381.02
29	377.76
28.75	374.51
28.5	371.25
28.25	367.99
28	364.74
27.75	361.48
27.5	358.22
27.25	354.97
27	351.71
26.75	348.45
26.5	345.20
26.25	341.94
26	338.68

AP-500/850 Gal. Pump Tank Calibration Chart

25.75	335.43
25.5	332.17
25.25	328.91
25	325.66
24.75	322.40
24.5	319.14
24.25	315.89
24	312.63
23.75	309.37
23.5	306.12
23.25	302.86
23	299.60
22.75	296.35
22.5	293.09
22.25	289.83
22	286.58
21.75	283.32
21.5	280.07
21.25	276.81
21	273.55
20.75	270.30
20.5	267.04
20.25	263.78
20	260.53
19.75	257.27
19.5	254.01
19.25	250.76
19	247.50
18.75	244.24
18.5	240.99
18.25	237.73
18	234.47
17.75	231.22
17.5	227.96
17.25	224.70
17	221.45
16.75	218.19
16.5	214.93
16.25	211.68
16	208.42
15.75	205.16
15.5	201.91
15.25	198.65
15	195.39
14.75	192.14
14.5	188.88
14.25	185.62
14	182.37
13.75	179.11
13.5	175.85
13.25	172.60
13	169.34
12.75	166.09
12.5	162.83
12.25	159.57
12	156.32
11.75	153.06
11.5	149.80
11.25	146.55
11	143.29
10.75	140.03
10.5	136.78
10.25	133.52
10	130.26
9.75	127.01
9.5	123.75
9.25	120.49
9	117.24
8.75	113.98
8.5	110.72
8.25	107.47
8	104.21
7.75	100.95
7.5	97.70
7.25	94.44
7	91.18
6.75	87.93
6.5	84.67
6.25	81.41
6	78.16
5.75	74.90
5.5	71.64
5.25	68.39
5	65.13
4.75	61.87
4.5	58.62
4.25	55.36
4	52.11
3.75	48.85
3.5	45.59
3.25	42.34
3	39.08
2.75	35.82
2.5	32.57
2.25	29.31
2	26.05
1.75	22.80
1.5	19.54
1.25	16.28
1	13.03
0.75	9.77
0.5	6.51
0.25	3.26
0	0.00

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DEC 20 2024
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