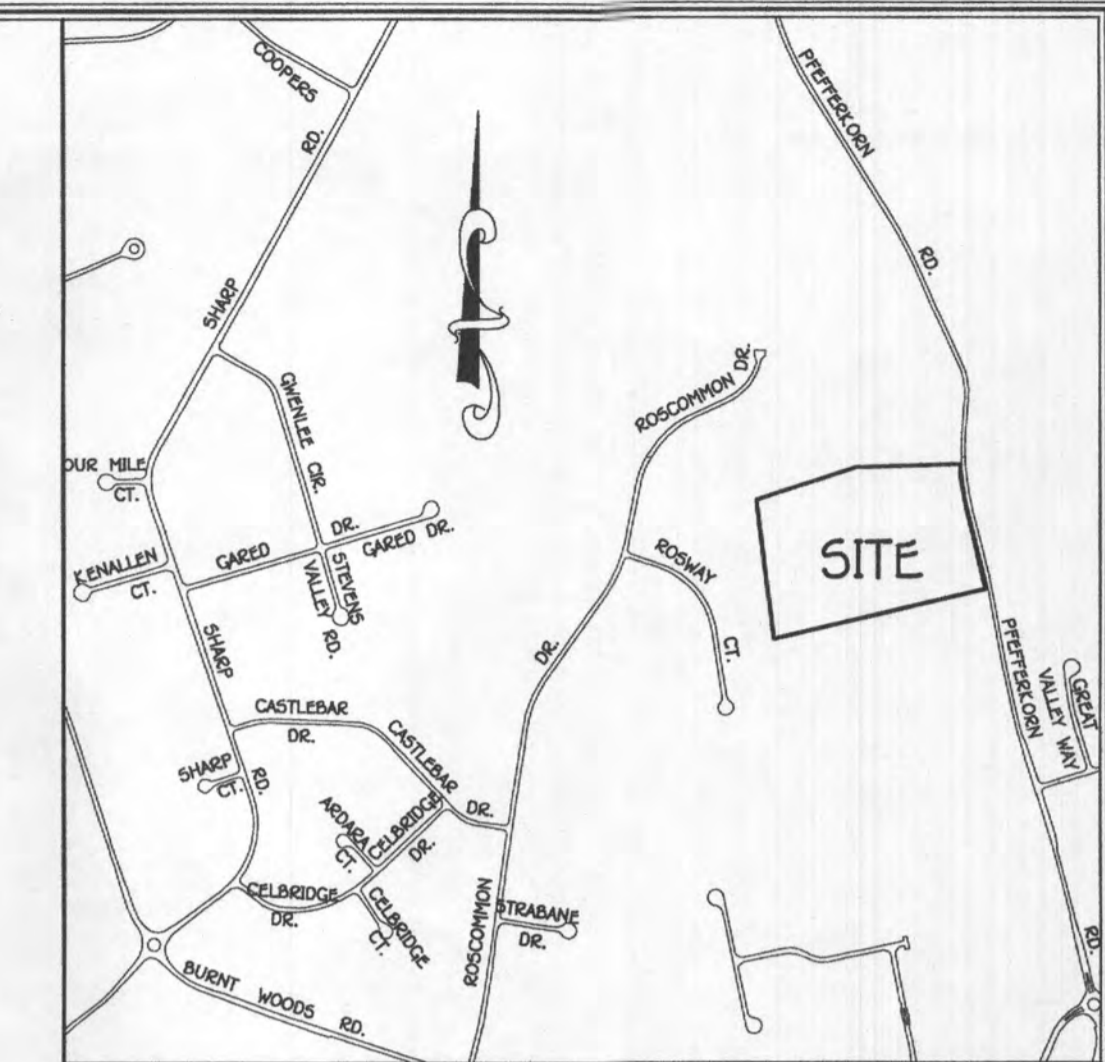


1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL HO-73-0978 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
5. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH COUNTY AND STATE AGENCIES REGARDING THE ENVIRONMENTAL CROSSINGS.



VICINITY MAP
SCALE: 1" = 1200'



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/2024.
 Signature: [Signature] DATE: 9/11/23

Approved Septic System Plan
 Howard County Health Department
 Signature: [Signature] Date: 9/11/23

**SEPTIC SYSTEM
 INSTALLATION SITE PLAN
 ASHER PROPERTY - APARTMENT**
 3200 PFEFFERKORN ROAD
 L16699 F.0170
 TAX MAP NO.: 22 GRID NO.: 01 PARCEL NO.:177
 ZONED R-20
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: SEPTEMBER, 2023
 SHEET 1 OF 5

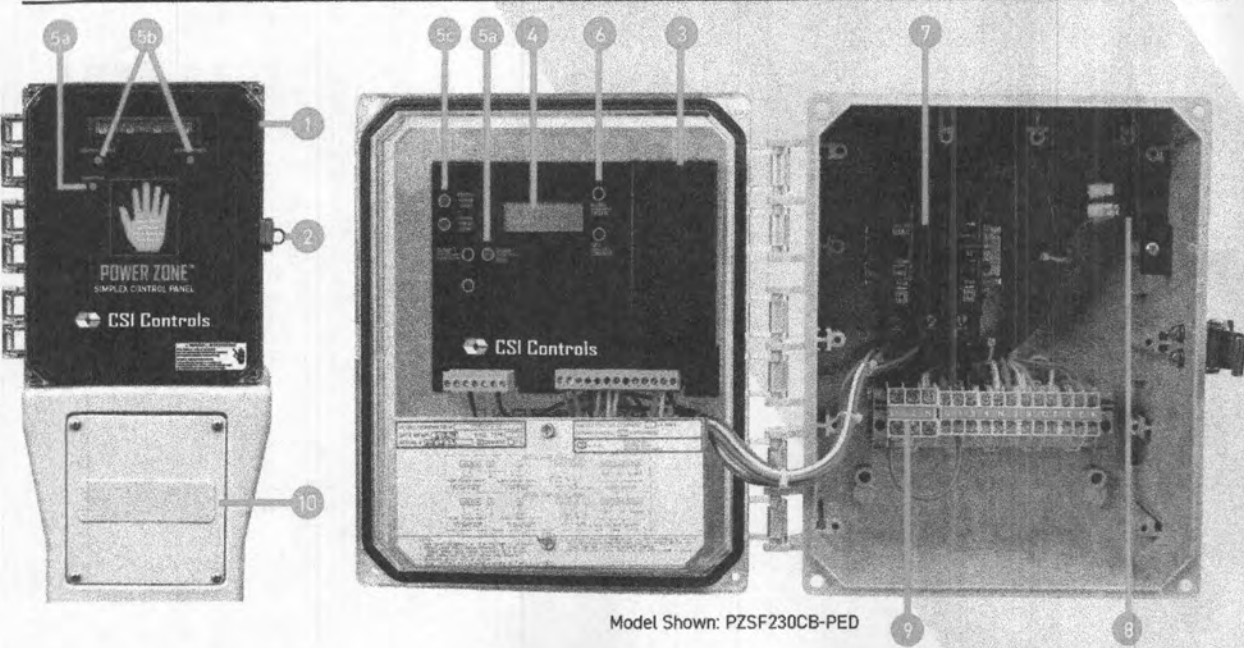
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10710 BALTIMORE NATIONAL PIKE
 ELLSWORTH CITY, MARYLAND 21144
 (410) 461-2295

PLAN
 SCALE: 1" = 50'

OWNER/DEVELOPER
 JAMES ASHER
 3217 ROSCOMMON DRIVE
 GLENELG, MD 21737
 443-677-6196

Power Zone™ Single Phase Simplex

Single Phase Simplex Demand or Timed Dose Controlled System for Pump Control and System Monitoring



The Power Zone™ Single Phase Simplex panel is designed to control one 115/230V single phase pump in water and sewage installations. The easy to read LCD display provides for simple menu navigation, site setup, and access to critical alarm events, pump run times, and pump cycle counts.

FEATURES

- Float or 4-20mA continuous level sensing models
- 4-20mA model provides inputs for two float backup
- Digital backlit LCD for easy setup and system monitoring
- Field configurable for Demand or Timed Dose control
- Zero cross over sensing for extended motor relay life
- Exterior touch sensor for alarm silence and test
- Five-year limited warranty on panel
- Two-year limited warranty on 4-20mA transmitters

US Patent No. 7,075,443; 7,151,459; 7,224,283 and 7,551,722

OPTIONS

- Auxiliary alarm and redundant off circuitry
- Heavy duty option increases circuit breaker and wire gauge to allow 16-20 amps
- Poly pedestal with access cover
- Float configurations

COMPONENTS

1. NEMA 4X enclosure rated for indoor or outdoor use
2. Locking latch for added safety
3. Controller touch safe housing
4. Digital backlit LCD display; 2 lines, 16 characters per line
5. (a) Pump Run LEDs, (b) Control Power and Alarm Power LEDs, and (c) Control and Alarm Power Short LEDs
6. Menu/Enter / Set/Change buttons for programming and viewing control panel
7. Two circuit breakers: one for pump power; another for control and alarm power
8. Pump run relay controls pump by switching electrical lines
9. Terminal strip for field wiring of incoming power, floats and pump
10. Pedestal (optional) with easy access cover

Toll Free: 888-342-5753
customer.service@csicontrols.com
www.csicontrols.com



A-37

Model	Max FLA	Description	Enclosure Type	Input Power Voltage Phase	Circuit Breakers
PZSF115CB	16	Power Zone Simplex Floats	NEMA 4x	115-1	Motor & Control
PZSF115ACB	16	Power Zone Simplex Floats	NEMA 4x	115-1	Motor, Control, & Alarm
PZSF230CB	16	Power Zone Simplex Floats	NEMA 4x	230-1	Motor & Control
PZSF230ACB	16	Power Zone Simplex Floats	NEMA 4x	230-1	Motor, Control & Alarm
Power Zone™ Simplex Transmitter 4-20mA					
PZST115CB	16	Power Zone Simplex Transmitter	NEMA 4x	115-1	Motor & Control
PZST115ACB	16	Power Zone Simplex Transmitter	NEMA 4x	115-1	Motor, Control & Alarm
PZST230CB	16	Power Zone Simplex Transmitter	NEMA 4x	230-1	Motor & Control
PZST230ACB	16	Power Zone Simplex Transmitter	NEMA 4x	230-1	Motor, Control & Alarm
Options					
FC20	(3)	PZSF or (2) PZST 20 foot (6.1m) mechanical control switches / pipe clamp			
FC20CW	(3)	PZSF or (2) PZST 20 foot (6.1m) mechanical control switches / cable weight			
FR20	(3)	PZSF or (2) PZST 20 foot (6.1m) mercury control switches / pipe clamp			
FR20CW	(3)	PZSF or (2) PZST 20 foot (6.1m) mercury control switches / cable weight			
FC30	(3)	PZSF or (2) PZST 30 foot (9.1m) mechanical control switches / pipe clamp			
FC30CW	(3)	PZSF or (2) PZST 30 foot (9.1m) mechanical control switches / cable weight			
FR30	(3)	PZSF or (2) PZST 30 foot (9.1m) mercury control switches / pipe clamp			
FR30CW	(3)	PZSF or (2) PZST 30 foot (9.1m) mercury control switches / cable weight			
FC50	(3)	PZSF or (2) PZST 50 foot (15.2m) mechanical control switches / pipe clamp			
FC50CW	(3)	PZSF or (2) PZST 50 foot (15.2m) mechanical control switches / cable weight			
FR50	(3)	PZSF or (2) PZST 50 foot (15.2m) mercury control switches / pipe clamp			
FR50CW	(3)	PZSF or (2) PZST 50 foot (15.2m) mercury control switches / cable weight			
HD		Heavy Duty - increases breakers and wire gauge to allow 16-20 Amps			
PED		Poly Pedestal with access door			
TC25	(1)	CS4-20 transmitter 100 inWC with 25 foot cable (backup floats recommended, add float code option)*			
TC50	(1)	CS4-20 transmitter 100 inWC with 50 foot cable (backup floats recommended, add float code option)*			
TS25	(1)	SLX transmitter 16.7 inWC with 25 foot cable (backup floats recommended, add float code option)*			
TS50	(1)	SLX transmitter 16.7 inWC with 50 foot cable (backup floats recommended, add float code option)*			
X		Auxiliary Alarm & Redundant Off Circuitry (control float not included)			

*Only available for PZST panel models.
SEE PRICE BOOK FOR LIST PRICE.

SPECIFICATIONS

VOLTAGE SUPPLY: Pump: 115 VAC or 230 VAC 50/60 Hz 1Ø
Control/Alarm: 115 VAC 60 Hz 1Ø
ENCLOSURE: 10 x 8 x 6 inch (25.4 x 20.3 x 15.2 cm)
NEMA 4X ultraviolet stabilized thermoplastic rated for indoor/outdoor use
INNER DOOR: molded thermoplastic
LOCKING LATCH: stainless steel, padlockable
FLOAT CONTROL VOLTAGE: 115 VAC
MOTOR STARTER: solid state power relay
PUMP AMPS: 0-16 Amps, 16-20 Amps
ALARM HORN: 85-85 decibel rating
FLASHING RED LED ALARM LIGHT



Toll Free: 888-342-5753
customer.service@csicontrols.com
www.csicontrols.com

California Prop 65 requires the following WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

A-38

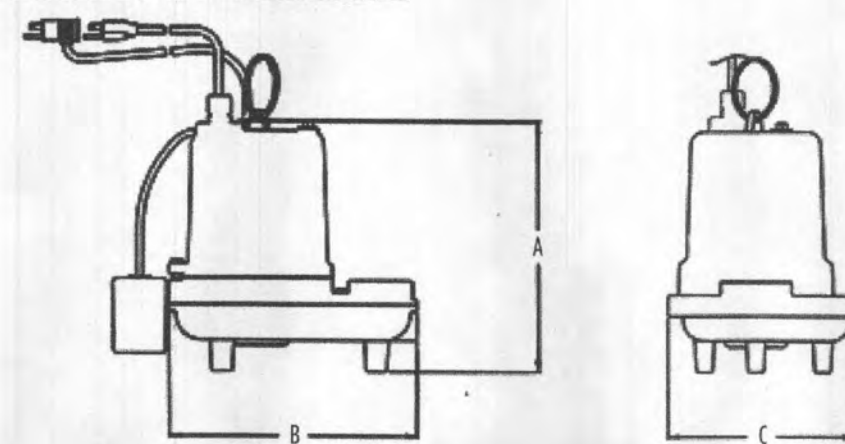
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SQUARE OFFICE BUILDING - 1872 BALDWIN NATIONAL PARK
ELICOTT CITY, MARYLAND 21042
(410) 461-2895

OWNER/DEVELOPER
JAMES ASHER
3217 ROSCOMMON DRIVE
GREENGLADE, MD 21737
410-677-6196

EFFLUENT PUMPS

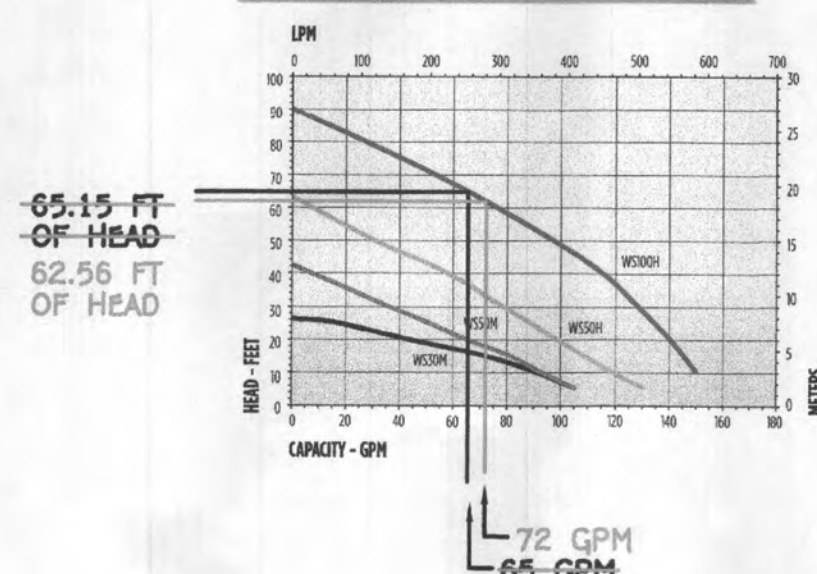
WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

ENGINEERING DATA



Model	1/3 HP	1/2 HP	1 HP
WS100	11.2" / 28.5cm	12.2" / 31cm	13.2" / 33.5cm
WS150	14.9" / 37.8cm	15.9" / 40.3cm	16.9" / 42.8cm
WS200	18.7" / 47.5cm	19.7" / 50cm	20.7" / 52.5cm
WS300	22.5" / 57.1cm	23.5" / 59.6cm	24.5" / 62.1cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Cast iron
Impeller Material	Cast iron
Impeller Type	Non-clog
Volute	Cast iron
Motor Shaft	Stainless steel
Shaft Seal	Carbon/graphite
Fasteners	Stainless steel
Bearings	Upper and lower ball bearings
Power Cord	SIOW

Franklin Electric | 800.426.3388 | www.franklin-electric.com

EFFLUENT PUMPS

Little GIANT

WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Spill-phase, oil-filled motor
- Designed for high torque
- Piggyback mechanical float option available for automatic operation
- 2" NPT (51 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- 120 °F (49 °C) liquid temperature rating
- cSAS listed



SERIES SPECIFICATIONS

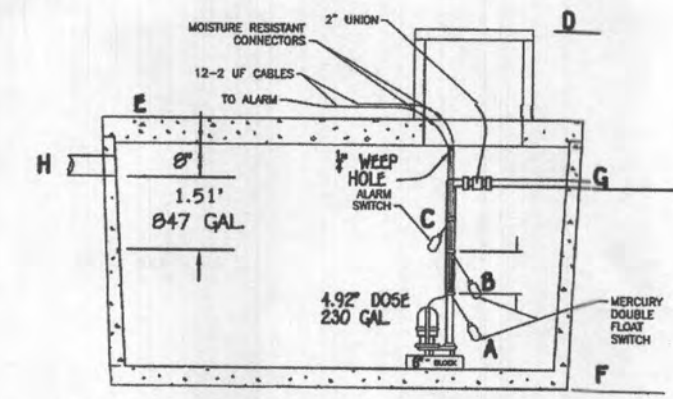
Model	1/3 HP	1/2 HP	1 HP	1.5 HP	2 HP	3 HP	4 HP	5 HP	6 HP	8 HP	10 HP	15 HP	20 HP	25 HP	30 HP	
620000	WS100M	1/2	15	1	60	80.4	50.4	1000	90	70	45	15	-	-	-	20
620001	WS150M	1/2	15	1	60	116	26.9	950	80	64	50	-	-	-	-	20
620002	WS200M	1/2	15	1	60	152	26.9	1000	80	64	50	-	-	-	-	20
620003	WS300M	1/2	15	1	60	188	26.9	1000	80	64	50	-	-	-	-	20
620004	WS100M	1/2	15	1	60	116	26.9	1000	80	64	50	-	-	-	-	20
620005	WS150M	1/2	15	1	60	152	26.9	1000	80	64	50	-	-	-	-	20
620006	WS200M	1/2	15	1	60	188	26.9	1000	80	64	50	-	-	-	-	20
620007	WS300M	1/2	15	1	60	224	26.9	1000	80	64	50	-	-	-	-	20
620008	WS100M	1/2	15	1	60	116	26.9	1000	80	64	50	-	-	-	-	20
620009	WS150M	1/2	15	1	60	152	26.9	1000	80	64	50	-	-	-	-	20
620010	WS200M	1/2	15	1	60	188	26.9	1000	80	64	50	-	-	-	-	20
620011	WS300M	1/2	15	1	60	224	26.9	1000	80	64	50	-	-	-	-	20
620012	WS100M	1/2	15	1	60	116	26.9	1000	80	64	50	-	-	-	-	20
620013	WS150M	1/2	15	1	60	152	26.9	1000	80	64	50	-	-	-	-	20
620014	WS200M	1/2	15	1	60	188	26.9	1000	80	64	50	-	-	-	-	20
620015	WS300M	1/2	15	1	60	224	26.9	1000	80	64	50	-	-	-	-	20

Model	1/3 HP	1/2 HP	1 HP	1.5 HP	2 HP	3 HP	4 HP	5 HP	6 HP	8 HP	10 HP	15 HP	20 HP	25 HP	30 HP
620016	WS100M	1/2	15	1	60	116	26.9	1000	80	64	50	-	-	-	20
620017	WS150M	1/2	15	1	60	152	26.9	1000	80	64	50	-	-	-	20
620018	WS200M	1/2	15	1	60	188	26.9	1000	80	64	50	-	-	-	20
620019	WS300M	1/2	15	1	60	224	26.9	1000	80	64	50	-	-	-	20
620020	WS100M	1/2	15	1	60	116	26.9	1000	80	64	50	-	-	-	20
620021	WS150M	1/2	15	1	60	152	26.9	1000	80	64	50	-	-	-	20
620022	WS200M	1/2	15	1	60	188	26.9	1000	80	64	50	-	-	-	20
620023	WS300M	1/2	15	1	60	224	26.9	1000	80	64	50	-	-	-	20
620024	WS100M	1/2	15	1	60	116	26.9	1000	80	64	50	-	-	-	20
620025	WS150M	1/2	15	1	60	152	26.9	1000	80	64	50	-	-	-	20
620026	WS200M	1/2	15	1	60	188	26.9	1000	80	64	50	-	-	-	20
620027	WS300M	1/2	15	1	60	224	26.9	1000	80	64	50	-	-	-	20

*These pumps meet the 3-phase control panel for automatic or manual operation.

PUMP ALARMS / INFORMATION

- A PUMP OFF : 555.58
- B PUMP ON : 555.99
- C HIGH WATER ALARM : 556.49
- D TOP OF ACCESS COVER : 563.1
- E TOP OF TANK : 559.00
- F BOTTOM OF TANK : 553.50
- G DISCHARGE OUT OF TANK : 557.83
- H INVERT INTO TANK : 558.00



Ø47 + 374 = 1,221 GALLONS EMERGENCY STORAGE

NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

1 UNION Ø 2 EQUIVALENT FEET = 647
9 1/8 HB Ø 4 EQUIVALENT FEET = 36 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 750 LF

DYNAMIC HEAD 750 LF X 3.98 FT PER 100 LF OF 2" PIPE = 29.85 FT OF FRICTION HEAD

VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.3 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 14 FT (PUMP OUT IS THE HIGHEST POINT)
HEIGHT FROM LOW POINT AT STREAM CROSSING TO DISTRIBUTION BOX = 33 FT
TOTAL DYNAMIC HEAD = 65.15 FT

1/6 DESIGN FLOW (900/6=150)
USE 230 GALLON DOSE (150 GALLON MINIMUM)
(RUN TIME = 0.5 MIN (65 GPM X 0.5 = 230 GALLON DOSE))
PUMP NEEDS TO HANDLE 65 GPM AT 65.15 FT OF HEAD
USE 1.0 HP (LITTLE GIANT MODEL WS100H PUMP)

FFE 576.00
BSE 566.00
INV. OUT OF HOUSE = 563.04
PROP. GROUND AT CLEANOUT #1 = 574.0
INV. INTO CLEANOUT = 563.40
PROP. GROUND AT CLEANOUT #2 = 562.00
INV. INTO CLEANOUT = 558.49
EX. GROUND AT SEPTIC TANK = 562
PROP. GRADE ABOVE SEPTIC TANK = 562
TOP OF SEPTIC TANK = 559.43
INV. OUT OF SEPTIC TANK = 558.1
EX. GROUND AT PUMP TANK = 562
PROP. GRADE ABOVE PUMP TANK = 562
TOP OF PUMP TANK = 559.00
INV. INTO PUMP TANK = 558.00
EX. GROUND AT DISTRIBUTION BOX = 574.0
INV. INTO DISTRIBUTION BOX = 572.0
INV. OUT OF DISTRIBUTION BOX = 571.9

BAT NOTES

1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 25' FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

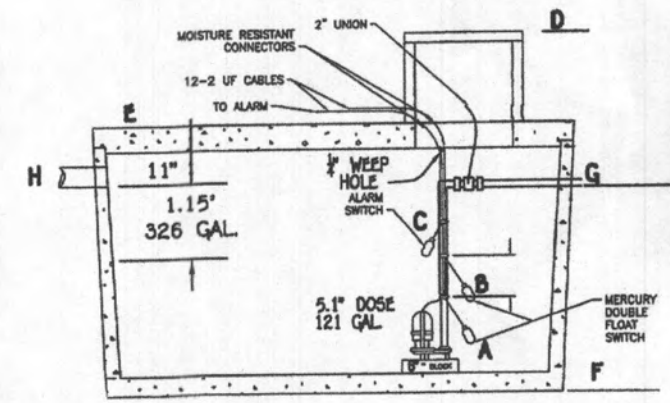
INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 2 FEET
TRENCH DEPTH (W) = 3 FEET
TRENCH WIDTH (W) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+2(2))=0.625
TRENCH LENGTH = 375 SF X 0.625 = 234.38 FEET
(USE 4 TRENCHES AT 79 LF.) - 3 @ 78 FEET
TRENCH SPACING = 2D+W = ((2*2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 2 FEET
TRENCH DEPTH (W) = 4 FEET
TRENCH WIDTH (W) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (4+2)/(3+1+2(2))=0.625
TRENCH LENGTH = 375 SF X 0.625 = 234.38 FEET
(USE 3 TRENCHES AT 79 LF.)
TRENCH SPACING = 2D+W = ((2*2) + 3) = 7' USE 10'

PUMP ALARMS / INFORMATION
 A PUMP OFF : 537.26
 B PUMP ON : 537.69
 C HIGH WATER ALARM : 538.19
 D TOP OF ACCESS COVER : 542
 E TOP OF TANK : 540.5
 F BOTTOM OF TANK : 535.09
 G DISCHARGE OUT OF TANK : 538.75
 H INVERT INTO TANK : 539.34



326 + 259.8 = 586 GALLONS EMERGENCY STORAGE

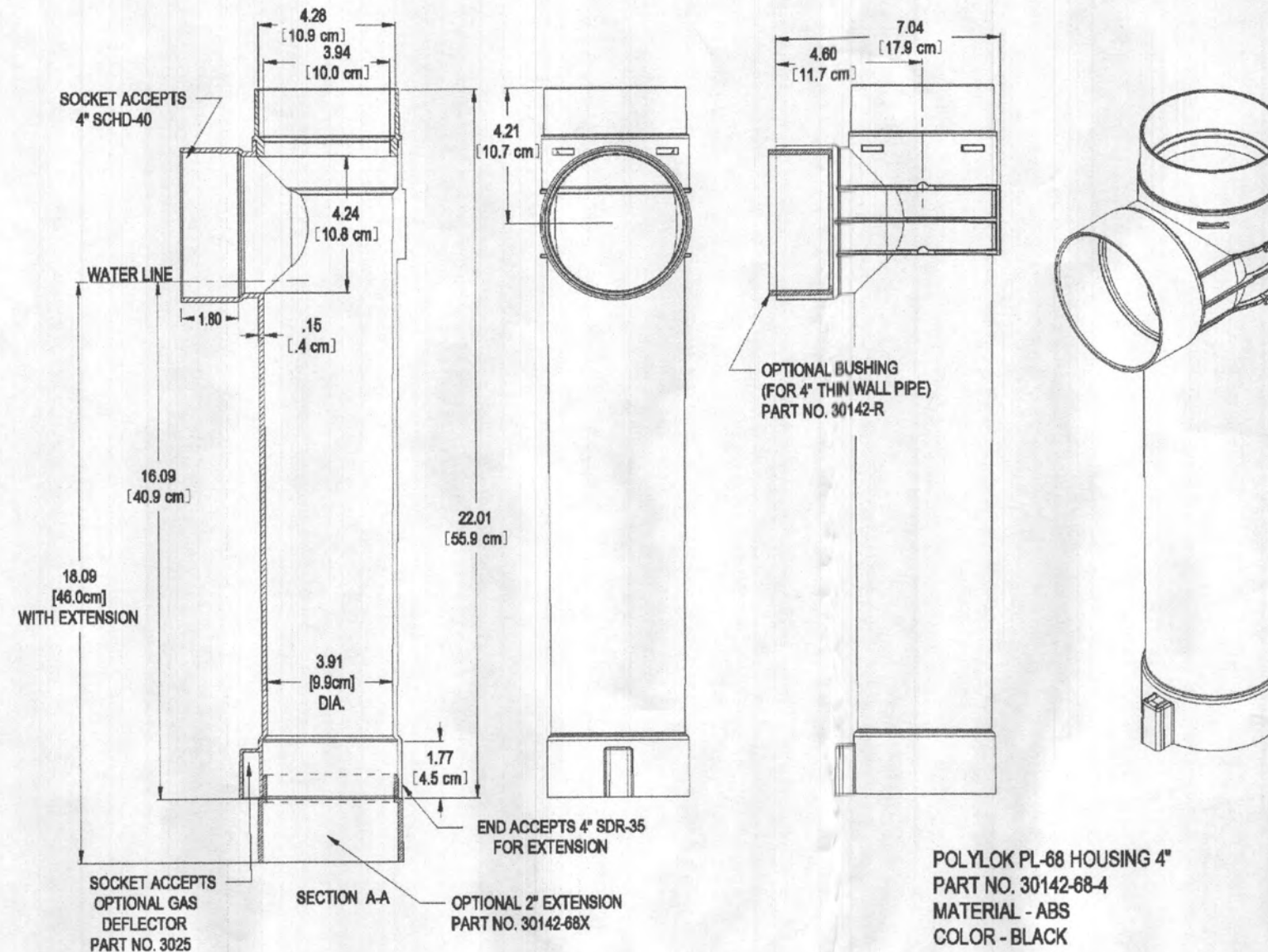
NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

2" SCH. 40 PVC = 899 LF
 1 UNION @ 2 EQUIVALENT FEET = 2 LF
 12 1/8 HB @ 5 EQUIVALENT FEET = 60 LF
 TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 961 LF

DYNAMIC HEAD
 961 LF X 3.98 FT PER 100 LF OF 2" PIPE = 38.24 FT OF FRICTION HEAD
 VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.3 FT OF FRICTION HEAD
 HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 30 FT (PUMP OUT IS THE HIGHEST POINT)
 HEIGHT FROM LOW POINT AT STREAM CROSSING TO DISTRIBUTION BOX = 27 FT
 TOTAL DYNAMIC HEAD = 71 FT

1/8" DESIGN FLOW (300/6=50)
 USE 121 GALLON DOSE (50 GALLON MINIMUM)
 (RUN TIME = 3.78 MIN (32 GPM X 3.78 = 121 GALLON DOSE))

PUMP NEEDS TO HANDLE 32 GPM AT 71 FT OF HEAD
 USE 1.5 HP (GOULDS MODEL WE15H PUMP)



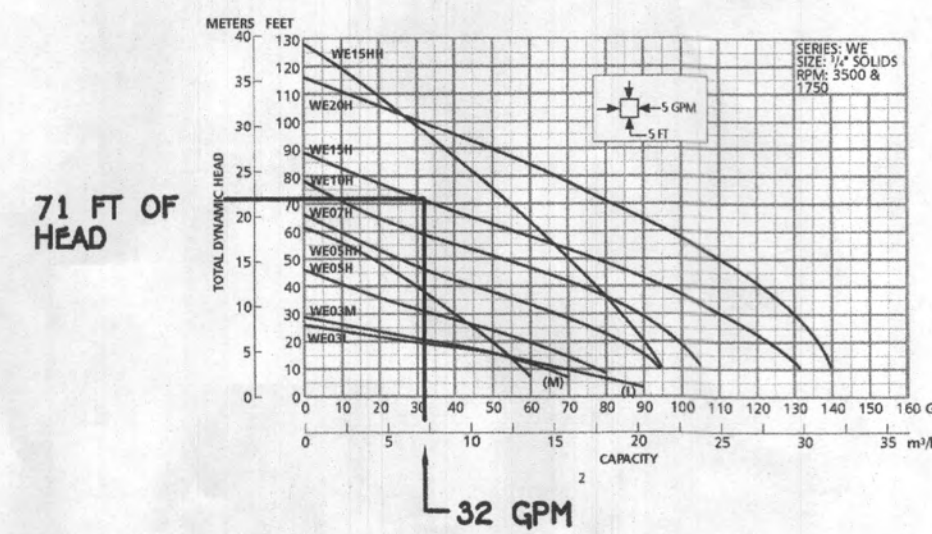
GOULDS PUMPS
Wastewater

APPLICATIONS
 Specifically designed for the following uses:
 • Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Efficient Systems

SPECIFICATIONS
 Pump
 • Solid handling capabilities: 1" maximum.
 • Discharge size: 2" NPT.
 • Capacity: up to 145 GPM.
 • Total head: 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 available.

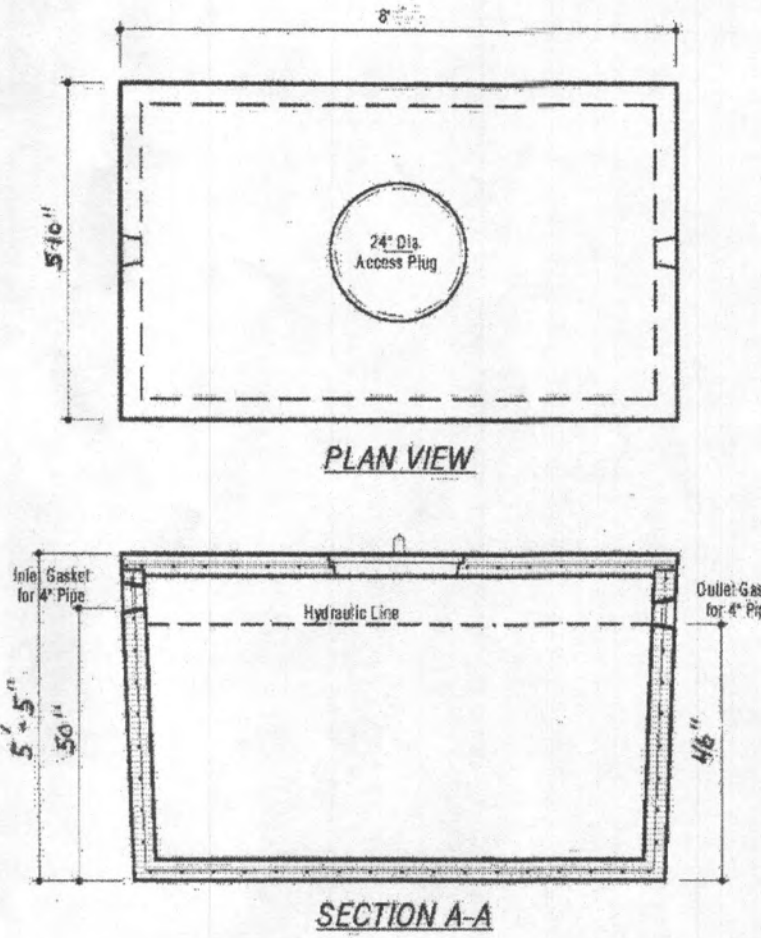
MOTORS
 • Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
 • Class 3 insulation on 1/2 - 1.0 HP models.
 • Class F insulation on 2 HP models.
 • Single phase (60 HZ).
 • Capacitor start motors for maximum starting torque.
 • Built-in overload with automatic reset.
 • STON or STONH severe duty oil and water resistant power cords.

AGENCY LISTINGS
 See the ITT website for a complete list of agency listings. By the way, ITT is a registered trademark of ITT Corporation.



71 FT OF HEAD

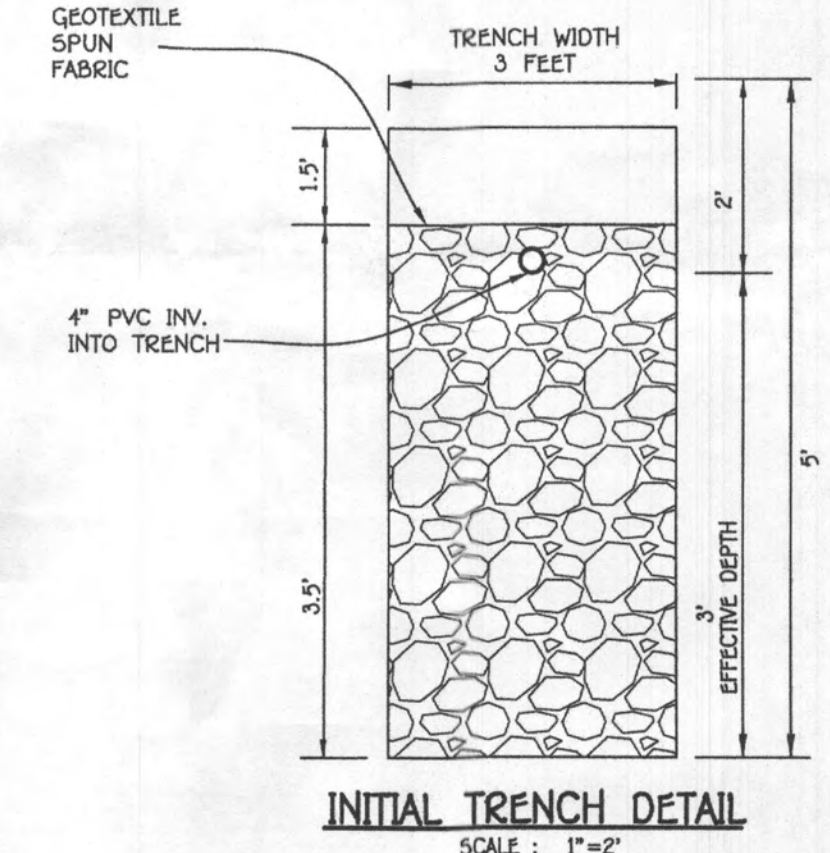
EXISTING PUMP SHALL BE VERIFIED AS A ONE HORSEPOWER PUMP. THE PUMP SHALL BE UPGRADED AND FLOATS ADJUSTED AS NECESSARY.



DESIGN DATA & GENERAL NOTES
 (1) Concrete strength = 4,000 p.s.i. @ 28 days. Density = 150 pcf.
 (2) Cement: Portland Type I or II per ASTM C 150.
 (3) Aggregate: 5/8\"/>

ADT 6044 Kane Road Landon, Maryland 21075	1,000 GALLON PUMP TANK 1-Compartment Stock Item Reg. No. 1998-P No Scale Jan 1, 2000
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PUMP TANK DETAIL
NOT TO SCALE



INV. OUT OF HOUSE = 540.46
 PROP. GROUND AT CLEANOUT #1 = 546.0
 INV. INTO CLEANOUT = 540.41
 INV. OUT OF CLEANOUT = 540.31
 EX. GROUND AT SEPTIC TANK = 543.81
 PROP. GRADE ABOVE SEPTIC TANK = 543.21
 TOP OF SEPTIC TANK = 540.81
 INV. INTO SEPTIC TANK = 539.81
 INV. OUT OF SEPTIC TANK = 539.56
 EX. GROUND AT PUMP TANK = 543.5
 PROP. GRADE ABOVE PUMP TANK = 543.5
 TOP OF PUMP TANK = 540.5
 INV. INTO PUMP TANK = 539.34
 INV. OUT OF PUMP TANK = 539.31
 EX. GROUND AT DISTRIBUTION BOX = 571.3
 INV. INTO DISTRIBUTION BOX = 569.4
 INV. OUT OF DISTRIBUTION BOX = 569.3

INITIAL SYSTEM
 SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 1 BEDROOMS
 LOADING RATE = 2 BEDROOMS X 150 GPD/BEDROOM = 300 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 2 FEET
 TRENCH DEPTH = 5 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3 FEET
 SF OF DRAINFIELD = 300 GPD / 0.8 = 375 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
 TRENCH LENGTH = 125.00 SF X 0.5 = 62.50 FEET (2 TRENCHES AT 32')
 TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

1ST REPLACEMENT SYSTEM
 SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 1 BEDROOMS
 LOADING RATE = 2 BEDROOMS X 150 GPD/BEDROOM = 300 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 2 FEET
 TRENCH DEPTH = 5 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3 FEET
 SF OF DRAINFIELD = 300 GPD / 0.8 = 375 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
 TRENCH LENGTH = 125.00 SF X 0.5 = 62.50 FEET (2 TRENCHES AT 32')
 TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

2ND REPLACEMENT SYSTEM
 SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR 1 BEDROOMS
 LOADING RATE = 2 BEDROOMS X 150 GPD/BEDROOM = 300 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 2 FEET
 TRENCH DEPTH = 5 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3 FEET
 SF OF DRAINFIELD = 300 GPD / 0.8 = 375 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
 TRENCH LENGTH = 125.00 SF X 0.5 = 62.50 FEET (2 TRENCHES AT 32')
 TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

TRENCH DATA:
 TRENCH 1:
 EX. GROUND ABOVE = 570.2
 INV. IN = 568.2
 BOTTOM TRENCH = 565.2
 TRENCH 2:
 EX. GROUND ABOVE = 568.6
 INV. IN = 566.6
 BOTTOM TRENCH = 563.6



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/2024.
 Paul G. Calamanna
 Signature of Professional Engineer DATE: Sep 5, 2023

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2899

OWNER/DEVELOPER
 JAMES ASHER
 3217 BOSSCORNOM DRIVE
 GLENELG MD 21737
 443-677-6186

SEPTIC SYSTEM
INSTALLATION SITE PLAN
ASHER PROPERTY - APARTMENT
 3200 PFEFFERKORN ROAD
 L16699 F.0170
 TAX MAP NO.: 22 GRID NO.: 01 PARCEL NO.:177
 ZONED R-20
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: SEPTEMBER, 2023
 SHEET 2 OF 5



0+00	INV. OUT OF HOUSE = 542.46
0+03	CLEAROUT #1 INV. IN = 540.31
0+03	INV. OUT = 540.31
0+28	INV. INTO SEPTIC TANK = 539.81
0+41	INV. OUT SEPTIC TANK = 539.56
0+44	INV. INTO PUMP TANK = 539.34
0+55	INV. OUT PUMP TANK = 539.01

3+83.80 END OF EXISTING 2" PRESSURE LINE

9+53.87 INV. INTO DISTRIBUTION BOX = 549.40



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/2024.
Paul G. Conaway
 Signature of Professional Engineer Sept. 5, 2023
 DATE

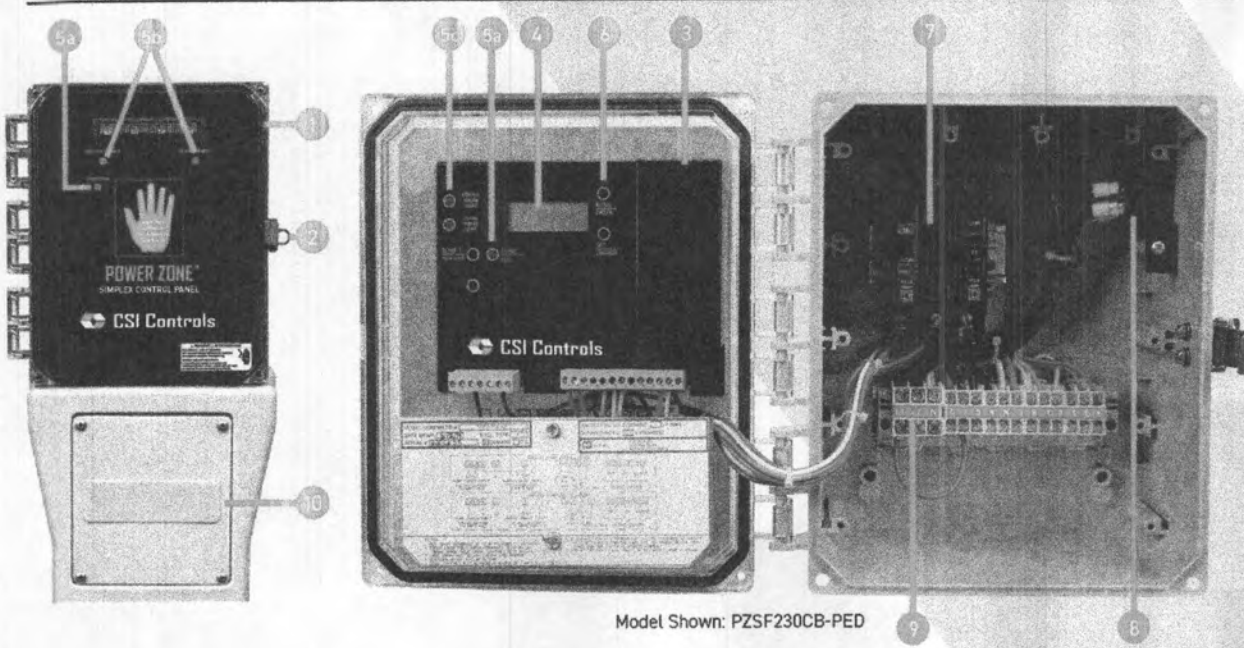
OWNER/DEVELOPER
 JAMES ASHER
 3217 ROSCOMMON DRIVE
 GLENELG MD 21737
 443-877-6186

**SEPTIC SYSTEM
 INSTALLATION SITE PLAN
 ASHER PROPERTY - APARTMENT**
 3200 PFEFFERKORN ROAD
 L16699 F.0170
 TAX MAP NO.: 22 GRID NO.: 01 PARCEL NO.:177
 ZONED R-20
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: SEPTEMBER, 2023
 SHEET 3 OF 5

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 SALTPORE NATIONAL PIKE
 ELKLOTT CITY, MARYLAND 21042
 (410) 461-1285

Power Zone™ Single Phase Simplex

Single Phase Simplex Demand or Timed Dose Controlled System for Pump Control and System Monitoring



Model Shown: PZSF230CB-FED

The Power Zone™ Single Phase Simplex panel is designed to control one 115/230V single phase pump in water and sewage installations. The easy to read LCD display provides for simple menu navigation, site setup, and access to critical alarm events, pump run times, and pump cycle counts.

FEATURES

- Float or 4-20mA continuous level sensing models
- 4-20mA model provides inputs for two float backup
- Digital backlit LCD for easy setup and system monitoring
- Field configurable for Demand or Timed Dose control
- Zero cross over sensing for extended motor relay life
- Exterior touch sensor for alarm silence and test
- Five-year limited warranty on panel
- Two-year limited warranty on 4-20mA transmitters

OPTIONS

- Auxiliary alarm and redundant off circuitry
- Heavy duty option increases circuit breaker and wire gauge to allow 16-20 amps
- Poly pedestal with access cover
- Float configurations

COMPONENTS

1. NEMA 4X enclosure rated for indoor or outdoor use
2. Locking latch for added safety
3. Controller touch safe housing
4. Digital backlit LCD display, 2 lines, 16 characters per line
5. (a) Pump Run LEDs, (b) Control Power and Alarm Power LEDs, and (c) Control and Alarm Power Short LEDs
6. Menu/Enter & Set/Change buttons for programming and viewing control panel
7. Two circuit breakers: one for pump power; another for control and alarm power
8. Pump run relay controls pump by switching electrical lines
9. Terminal strip for field wiring of incoming power, floats and pump
10. Pedestal (optional) with easy access cover



Toll Free: 888-342-5753
customer.service@csicontrols.com
www.csicontrols.com

A.37

Model	Max FLA	Description	Enclosure Type	Input Power Voltage Phase	Circuit Breakers
PZSF115CB	16	Power Zone Simplex Floats	NEMA 4x	115-1	Motor & Control
PZSF115ACB	16	Power Zone Simplex Floats	NEMA 4x	115-1	Motor, Control & Alarm
PZSF230CB	16	Power Zone Simplex Floats	NEMA 4x	230-1	Motor & Control
PZSF230ACB	16	Power Zone Simplex Floats	NEMA 4x	230-1	Motor, Control & Alarm
Power Zone™ Simplex Transmitter 4-20mA					
PZST115CB	16	Power Zone Simplex Transmitter	NEMA 4x	115-1	Motor & Control
PZST115ACB	16	Power Zone Simplex Transmitter	NEMA 4x	115-1	Motor, Control & Alarm
PZST230CB	16	Power Zone Simplex Transmitter	NEMA 4x	230-1	Motor & Control
PZST230ACB	16	Power Zone Simplex Transmitter	NEMA 4x	230-1	Motor, Control & Alarm
Options	Description				
FC20	(3) PZSF or (2) PZST 20 foot (6.1m) mechanical control switches / pipe clamp				
FC20CW	(3) PZSF or (2) PZST 20 foot (6.1m) mechanical control switches / cable weight				
FR20	(3) PZSF or (2) PZST 20 foot (6.1m) mercury control switches / pipe clamp				
FR20CW	(3) PZSF or (2) PZST 20 foot (6.1m) mercury control switches / cable weight				
FC30	(3) PZSF or (2) PZST 30 foot (9.1m) mechanical control switches / pipe clamp				
FC30CW	(3) PZSF or (2) PZST 30 foot (9.1m) mechanical control switches / cable weight				
FR30	(3) PZSF or (2) PZST 30 foot (9.1m) mercury control switches / pipe clamp				
FR30CW	(3) PZSF or (2) PZST 30 foot (9.1m) mercury control switches / cable weight				
FC50	(3) PZSF or (2) PZST 50 foot (15.2m) mechanical control switches / pipe clamp				
FC50CW	(3) PZSF or (2) PZST 50 foot (15.2m) mechanical control switches / cable weight				
FR50	(3) PZSF or (2) PZST 50 foot (15.2m) mercury control switches / pipe clamp				
FR50CW	(3) PZSF or (2) PZST 50 foot (15.2m) mercury control switches / cable weight				
HD	Heavy Duty - Increases breakers and wire gauge to allow 16-20 Amps				
PCD	Poly Pedestal with access door				
TC25	(1) CS4-20 transmitter 100 INWC with 25 foot cable (backup floats recommended, add float code option)*				
TC50	(1) CS4-20 transmitter 100 INWC with 50 foot cable (backup floats recommended, add float code option)*				
TS25	(1) SLX transmitter 16.7 RWC with 25 foot cable (backup floats recommended, add float code option)*				
TS50	(1) SLX transmitter 16.7 RWC with 50 foot cable (backup floats recommended, add float code option)*				
X	Auxiliary Alarm & Redundant Off Circuitry (control float not included)				

*Only available for PZST panel models.

SEE PRICE BOOK FOR LIST PRICE.

SPECIFICATIONS

VOLTAGE SUPPLY: Pump: 115 VAC or 230 VAC 50/60 Hz 1Ø
Control/Alarm: 115 VAC 60 Hz 1Ø

ENCLOSURE: 10 x 8 x 6 inch (25.4 x 20.3 x 15.2 cm)
NEMA 4X ultraviolet stabilized thermoplastic rated for indoor/outdoor use

INNER DOOR: molded thermoplastic

LOCKING LATCH: stainless steel, padlockable

FLOAT CONTROL VOLTAGE: 115 VAC

MOTOR STARTER: solid state power relay

PUMP AMPS: 0-16 Amps, 16-20 Amps

ALARM HORN: 83-85 decibel rating

FLASHING RED LED ALARM LIGHT



Toll Free: 888-342-5753
customer.service@csicontrols.com
www.csicontrols.com

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Certain Prop 65 requires the following: **WARNING** Cancer and Reproductive Harm - www.P65Warnings.com

A.38

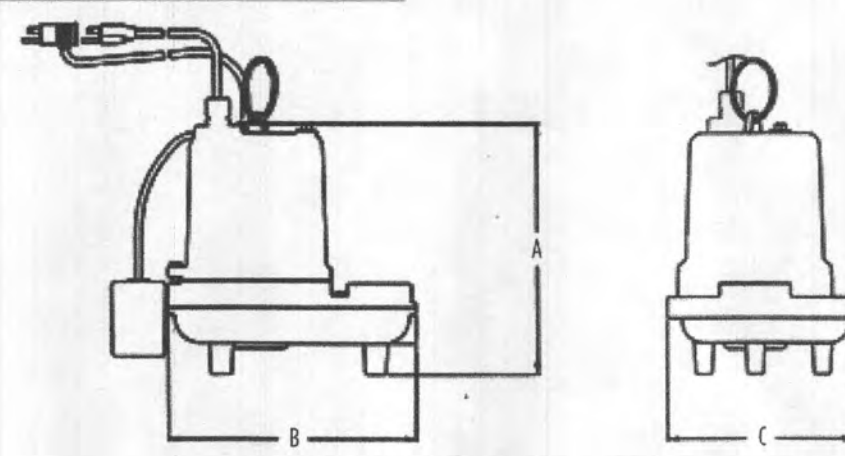
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
ELLSWORTH CITY, MARYLAND 21114
(410) 461-2225

OWNER/DEVELOPER
JAMES ASHER
3217 ROSSCOMMON DRIVE
GLENELG MD 21737
443-677-6186

EFFLUENT PUMPS

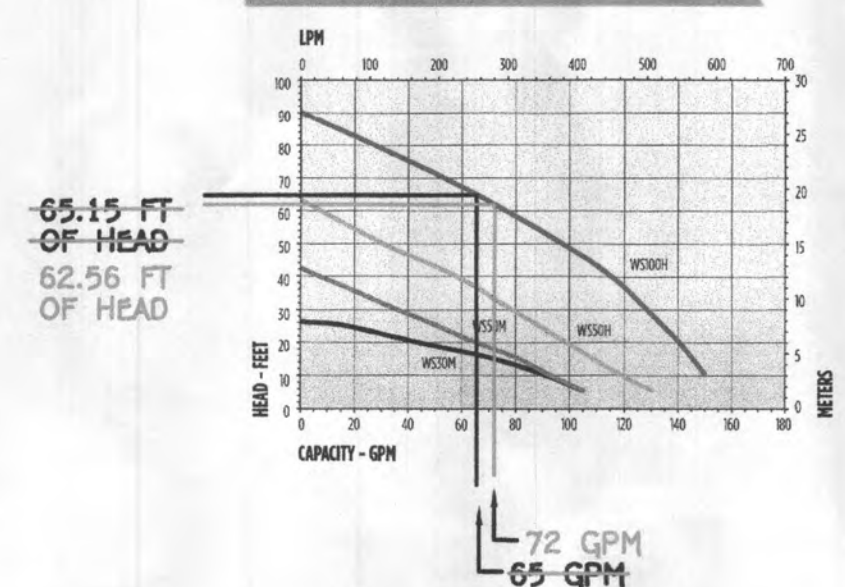
WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

ENGINEERING DATA



Model	1 1/2"	2 1/2"	3 1/2"
WS10	11.27" 28.59 cm	12.25" 31.13 cm	13.37" 33.96 cm
WS20	11.70" 29.71 cm	12.75" 32.40 cm	13.90" 35.30 cm
WS30	12.25" 31.13 cm	13.37" 33.96 cm	14.50" 36.83 cm
WS40	12.87" 32.69 cm	14.00" 35.41 cm	15.13" 38.80 cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Cast iron
Impeller Material	Cast iron
Impeller Type	Non-clog
Volts	Cast iron
Motor Shaft	Stainless steel
Shaft Seal	Carbon/Vitric
Fasteners	Stainless steel
Bearings	Upper and lower ball bearings
Power Cord	SAW

Franklin Electric
Model: WS10, WS20, WS30, WS40

EFFLUENT PUMPS

Little GIANT

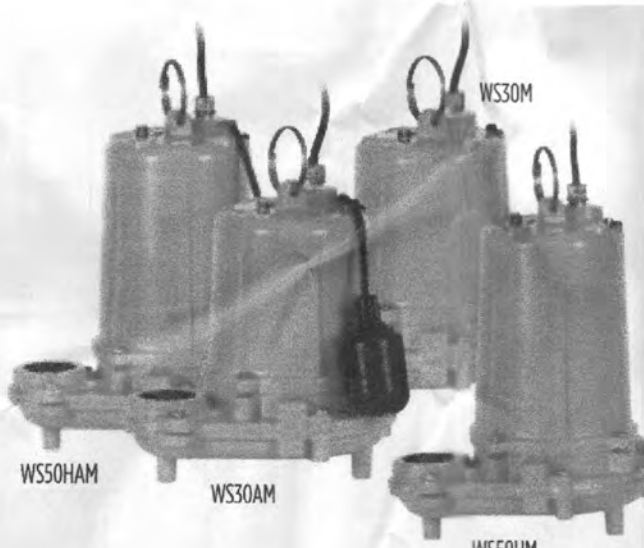
WS EFFLUENT SERIES - 1/3 HP, 1/2 HP, 1 HP

APPLICATIONS

Effluent wastewater removal, dewatering, water transfer

FEATURES

- Split-phase, oil-filled motor
- Designed for high torque
- Piggyback mechanical float option available for automatic operation
- 2" NPT (51 mm) discharge
- Handles solids up to 3/4" (19 mm) diameter
- 100°F (40°C) liquid temperature rating
- cULAS listed



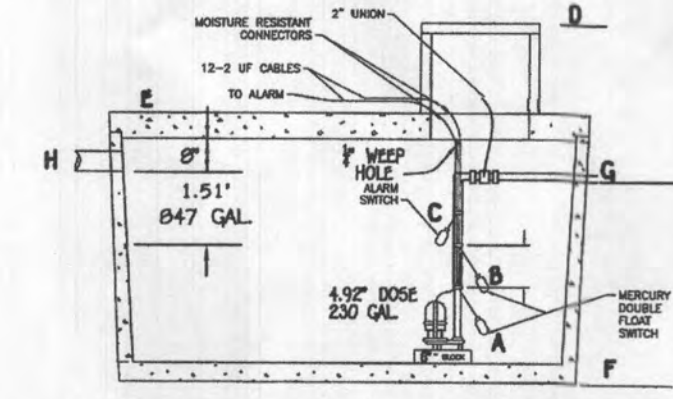
SERIES SPECIFICATIONS

Model	1/3 HP	1/2 HP	1 HP
WS10	11.27"	12.25"	13.37"
WS20	11.70"	12.75"	13.90"
WS30	12.25"	13.37"	14.50"
WS40	12.87"	14.00"	15.13"

Model	Max. FLA	Weight (lb.)	Weight (kg.)
WS10AH	15	20	9.1
WS20AH	15	27	12.2
WS30AH	15	35	15.9
WS40AH	15	43	19.5

PUMP ALARMS / INFORMATION

- A PUMP OFF : 555.50
- B PUMP ON : 555.99
- C HIGH WATER ALARM : 556.49
- D TOP OF ACCESS COVER : 563.1
- E TOP OF TANK : 559.00
- F BOTTOM OF TANK : 553.50
- G DISCHARGE OUT OF TANK : 557.83
- H INVERT INTO TANK : 558.00



847 + 374 = 1,221 GALLONS EMERGENCY STORAGE
NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

1 UNION @ 2 EQUIVALENT FEET = 2 LF
9 1/8 HB @ 4 EQUIVALENT FEET = 36 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 685 LF

DYNAMIC HEAD @ 65 GPM = 27.56
750 LF X 3.98 FT PER 100 LF OF 2" PIPE = 29.85 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.3 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 14 FT (PUMP OUT IS THE HIGHEST POINT)
HEIGHT FROM LOW POINT AT STREAM CROSSING TO DISTRIBUTION BOX = 33 FT
TOTAL DYNAMIC HEAD = 65.15 FT

1/8 DESIGN FLOW (900/6=150)
USE 230 GALLON DOSE (150 GALLON MINIMUM)
(RUN TIME = 3.5 MIN @ 65 GPM X 3.5 = 230 GALLON DOSE)
PUMP NEEDS TO HANDLE 65 GPM AT 65.15 FT OF HEAD
USE 1.0 HP (LITTLE GIANT MODEL WS100H PUMP)

FFE 576.00
BSE 566.00
INV. OUT OF HOUSE = 563.84
PROP. GROUND AT CLEANOUT #1 = 574.8
INV. INTO CLEANOUT = 563.40
INV. OUT OF CLEANOUT = 563.30
PROP. GROUND AT CLEANOUT #2 = 562.00
INV. INTO CLEANOUT = 558.49
INV. OUT OF CLEANOUT = 558.39
EX. GROUND AT SEPTIC TANK = 562
PROP. GRADE ABOVE SEPTIC TANK = 562
TOP OF SEPTIC TANK = 559.43
INV. INTO SEPTIC TANK = 558.43
INV. OUT OF SEPTIC TANK = 558.1
EX. GROUND AT PUMP TANK = 562
PROP. GRADE ABOVE PUMP TANK = 562
TOP OF PUMP TANK = 559.00
INV. INTO PUMP TANK = 558.00
EX. GROUND AT DISTRIBUTION BOX = 574.0
INV. INTO DISTRIBUTION BOX = 572.0
INV. OUT OF DISTRIBUTION BOX = 571.9

BAT NOTES

1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 25' FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 2 FEET
TRENCH DEPTH = 6 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
5' OF DRAINFIELD = 900 GPD / 0.8 = 1125 5'
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 375 5' x 0.625 = 234.38 FEET
(USE 4 TRENCHES AT 59 LF.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

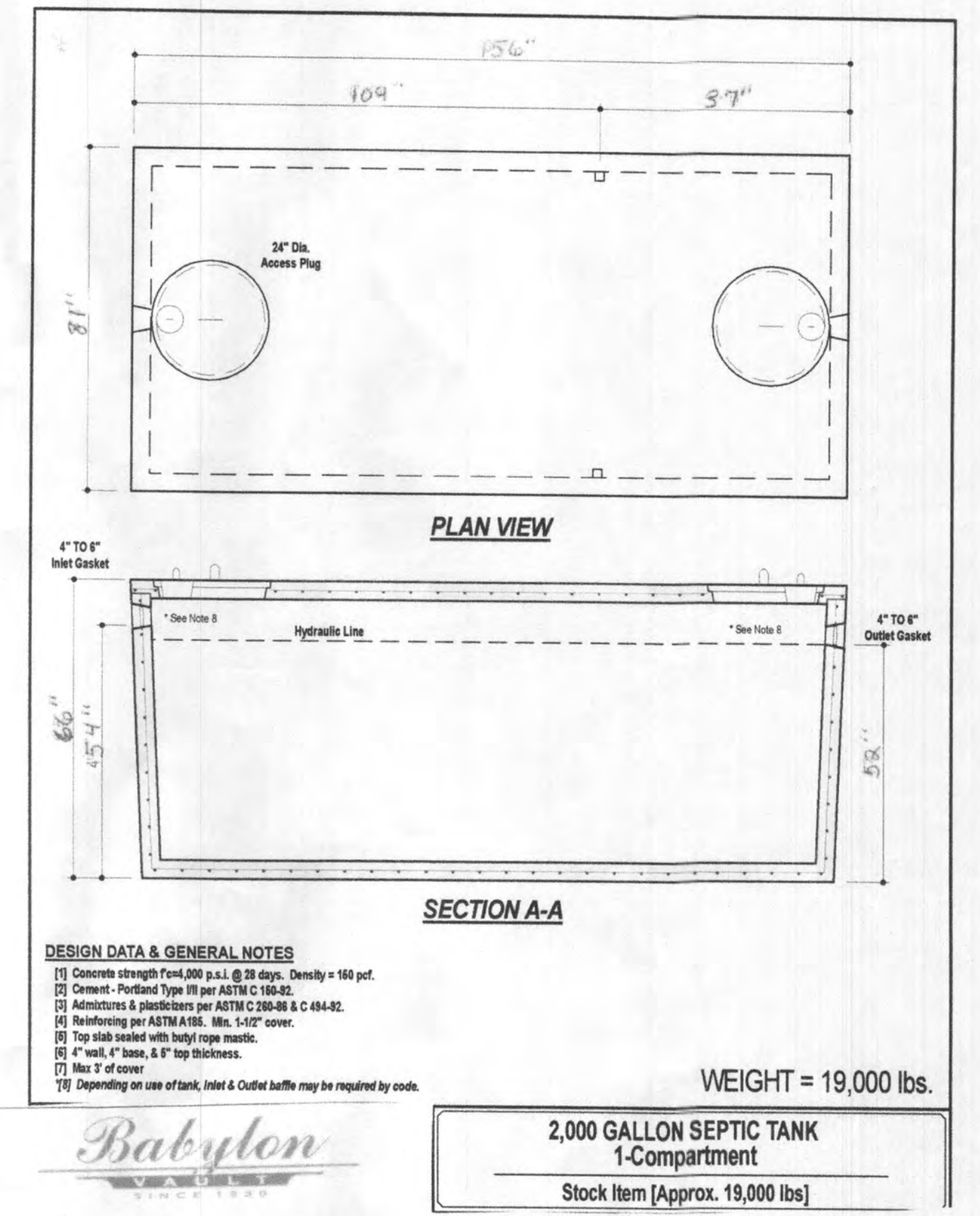
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 2 FEET
TRENCH DEPTH = 6 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
5' OF DRAINFIELD = 900 GPD / 0.8 = 1125 5'
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 375 5' x 0.625 = 234.38 FEET
(USE 3 TRENCHES AT 79 LF.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 2 FEET
TRENCH DEPTH = 6 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
5' OF DRAINFIELD = 900 GPD / 0.8 = 1125 5'
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 375 5' x 0.625 = 234.38 FEET
(USE 3 TRENCHES AT 79 LF.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

TRENCH DATA:

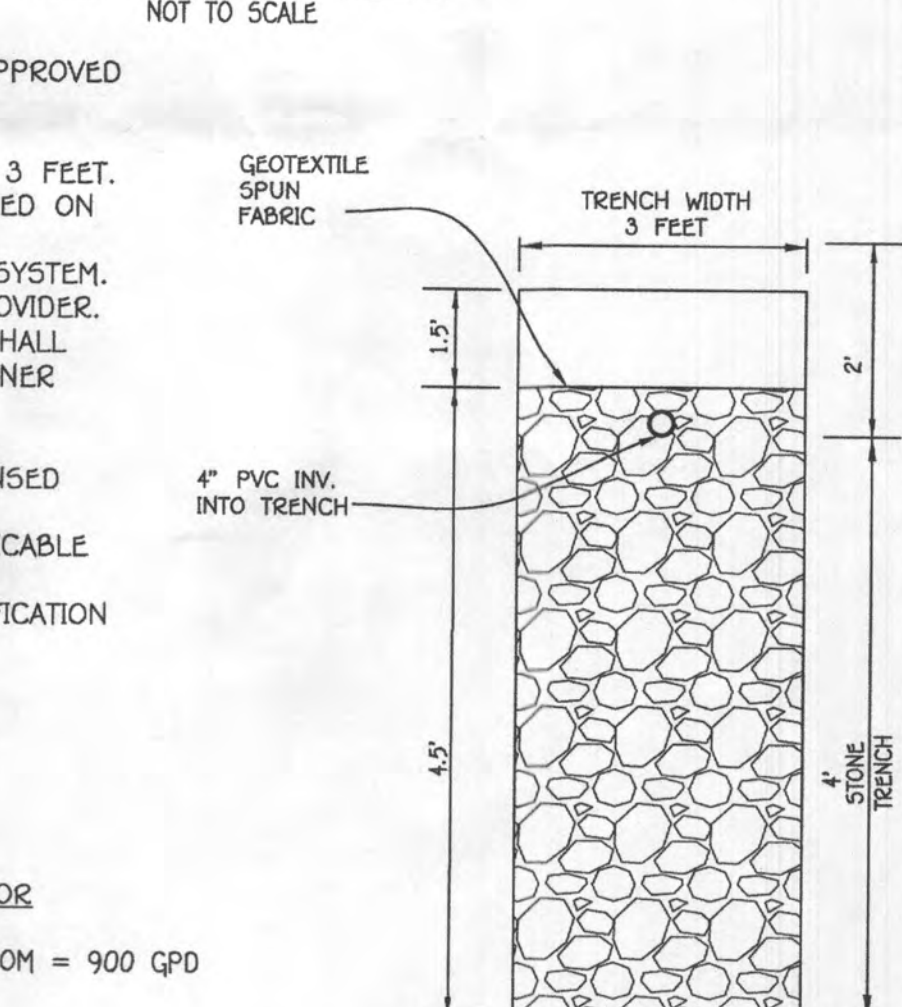
- TRENCH 1:
EX. GROUND ABOVE = 573.2
INV. IN = 571.2
BOTTOM TRENCH = 567.2
TRENCH 2:
EX. GROUND ABOVE = 571.9
INV. IN = 569.9
BOTTOM TRENCH = 565.9
TRENCH 3:
EX. GROUND ABOVE = 570.8
INV. IN = 568.8
BOTTOM TRENCH = 564.8



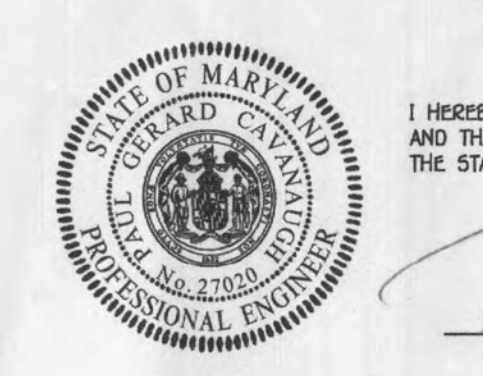
DESIGN DATA & GENERAL NOTES
[1] Concrete strength Fc=4,000 p.s.i. @ 28 days. Density = 150 pcf.
[2] Cement - Portland Type III per ASTM C 150-82.
[3] Admixtures & plasticizers per ASTM C 260-88 & C 494-82.
[4] Reinforcing per ASTM A 618. Min. 5/8\"/>

2,000 GALLON SEPTIC TANK
1-Compartment
Stock Item [Approx. 19,000 lbs]

PUMP TANK DETAIL



INITIAL TRENCH DETAIL
SCALE: 1\"/>



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 2102, EXPIRATION DATE: 01/25/2024.

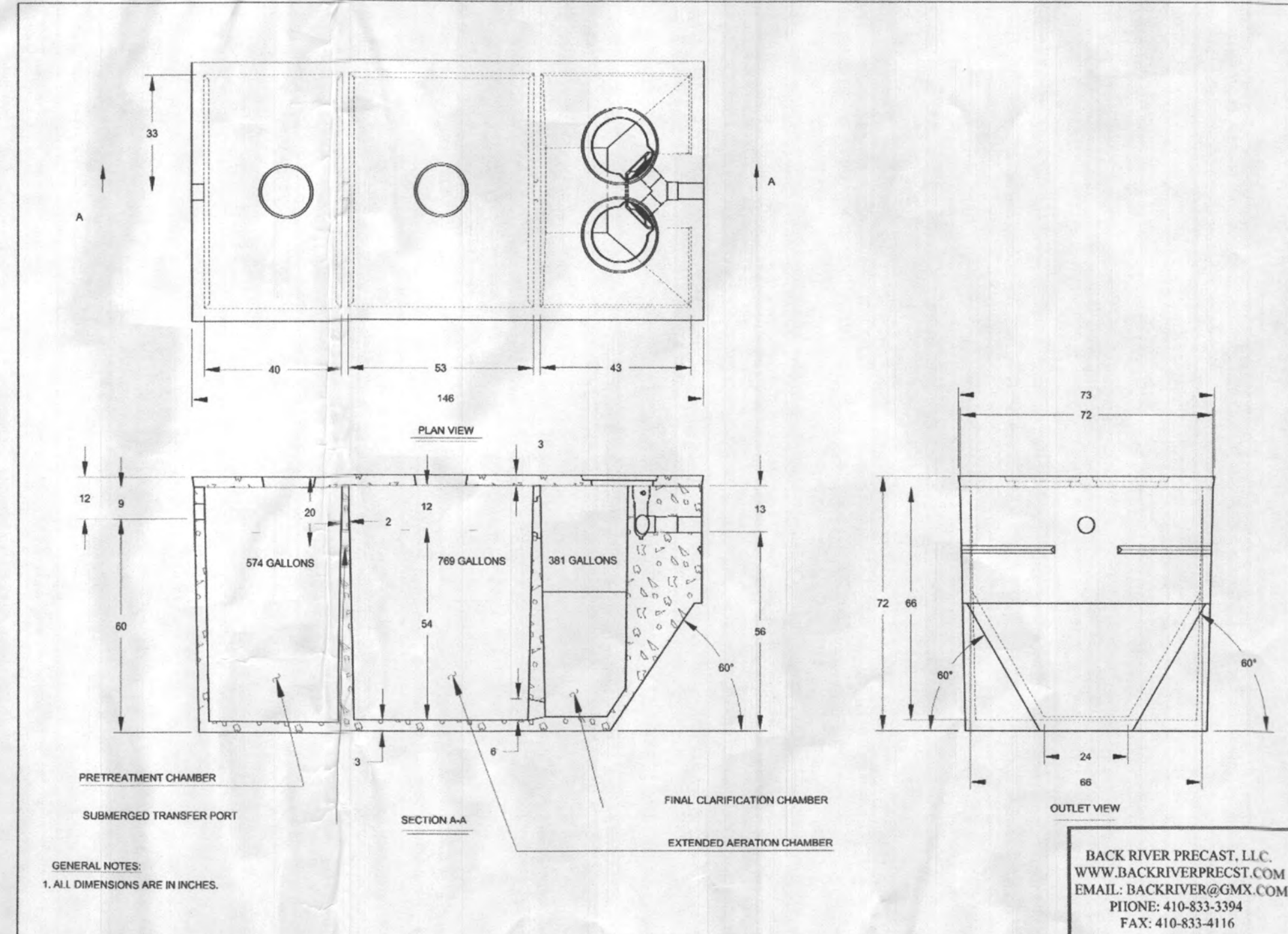
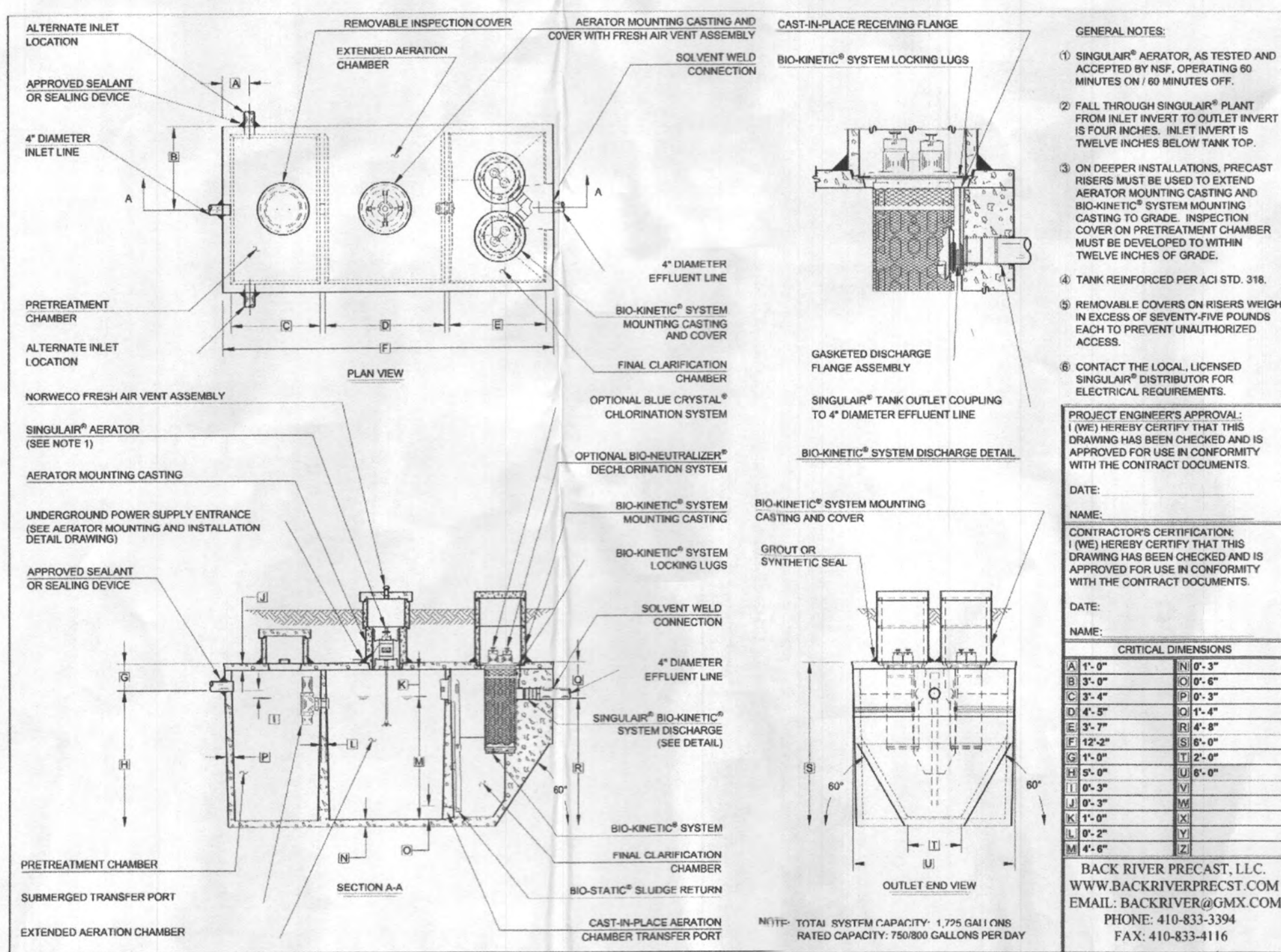
Signature of Professional Engineer
DATE: Sep 5 2023

SEPTIC SYSTEM INSTALLATION SITE PLAN

ASHER PROPERTY
3200 PFEFFERKORN ROAD
L16699 F.0170
TAX MAP NO.: 22 GRID NO.: 01 PARCEL NO.:177
ZONED R-20
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2023
SHEET 4 OF 5



SEPTIC PROFILE
SCALE: 1"=30'



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALDWIN ROAD, SUITE 100
ELICOTT CITY, MARYLAND 21042
(410) 461-1289



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/2024.
James Asher
Signature Of Professional Engineer DATE: *Sept 5 2023*

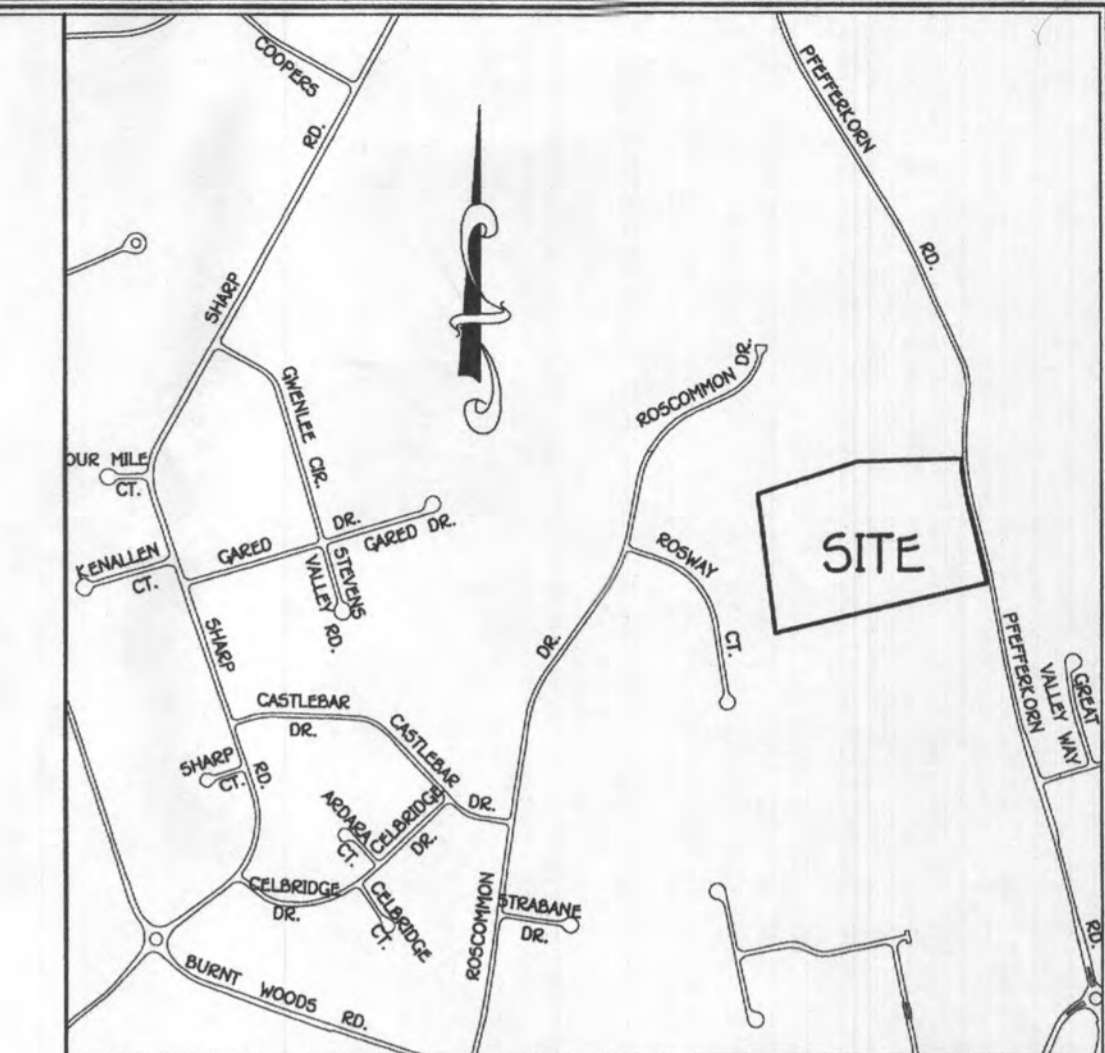
**SEPTIC SYSTEM
INSTALLATION SITE PLAN
ASHER PROPERTY**

3200 PFEFFERKORN ROAD
L16699 F.0170
TAX MAP NO.: 22 GRID NO.: 01 PARCEL NO.:177
ZONED R-20
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2023
SHEET 5 OF 5

OWNER/DEVELOPER
JAMES ASHER
3217 SCS COMMON DRIVE
GLENLEIGH, MD 21737
443-677-6186

BACK RIVER PRECAST, LLC
WWW.BACKRIVERPRECAST.COM
EMAIL: BACKRIVER@GMAIL.COM
PHONE: 410-833-3394
FAX: 410-833-4116

1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL HO-73-0978 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
5. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH COUNTY AND STATE AGENCIES REGARDING THE ENVIRONMENTAL CROSSINGS.



VICINITY MAP
SCALE: 1" = 1200'



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/2024.

[Signature] 9/11/23
Signature Of Professional Engineer DATE

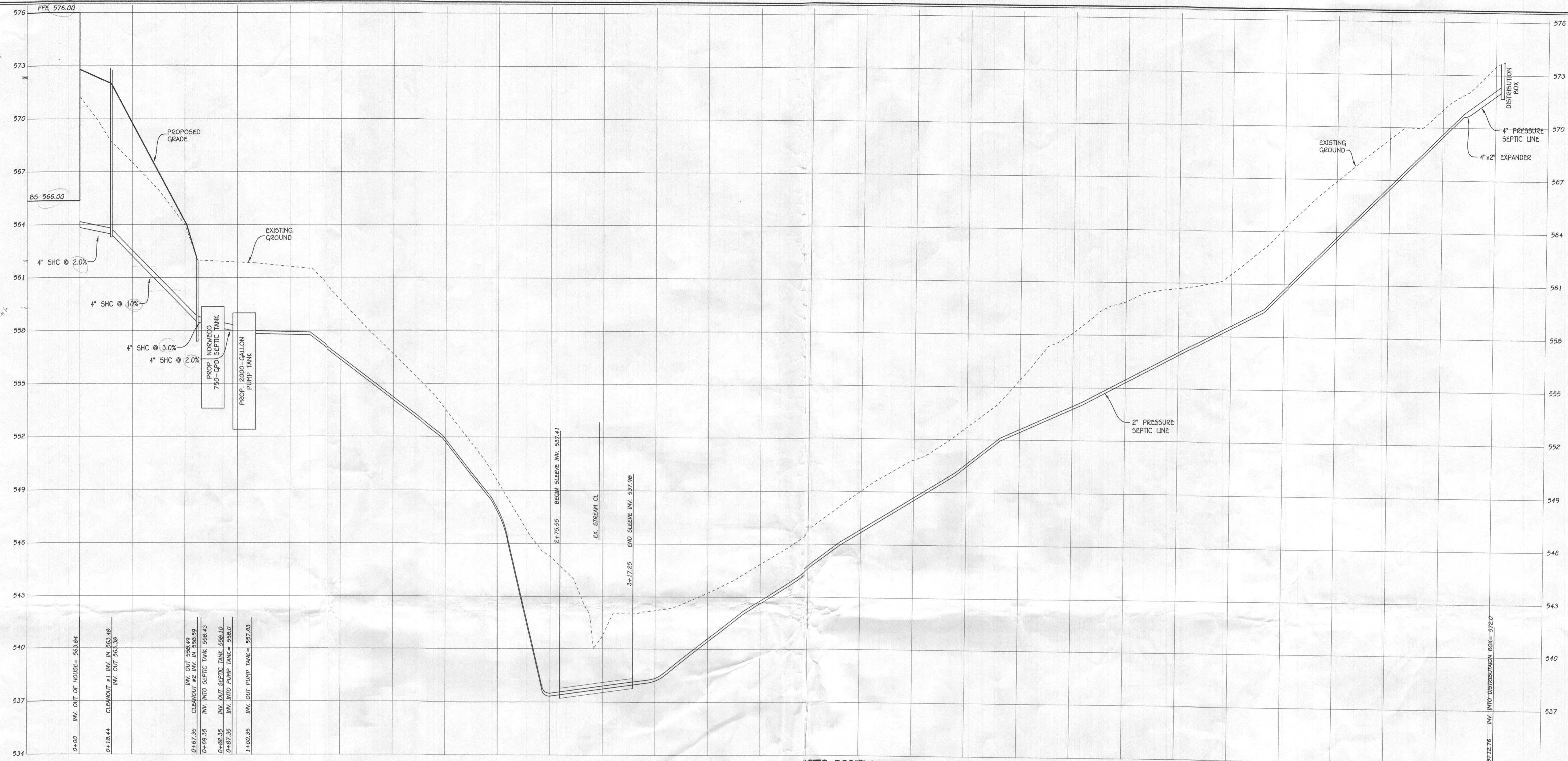
Approved Septic System Plan
Howard County Health Department
[Signature] 9/11/23
Signature DATE

**SEPTIC SYSTEM
INSTALLATION SITE PLAN
ASHER PROPERTY - APARTMENT**
3200 PFEFFERKORN ROAD
L16699 F.0170
TAX MAP NO.: 22 GRID NO.: 01 PARCEL NO.:177
ZONED R-20
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2023
SHEET 1 OF 5

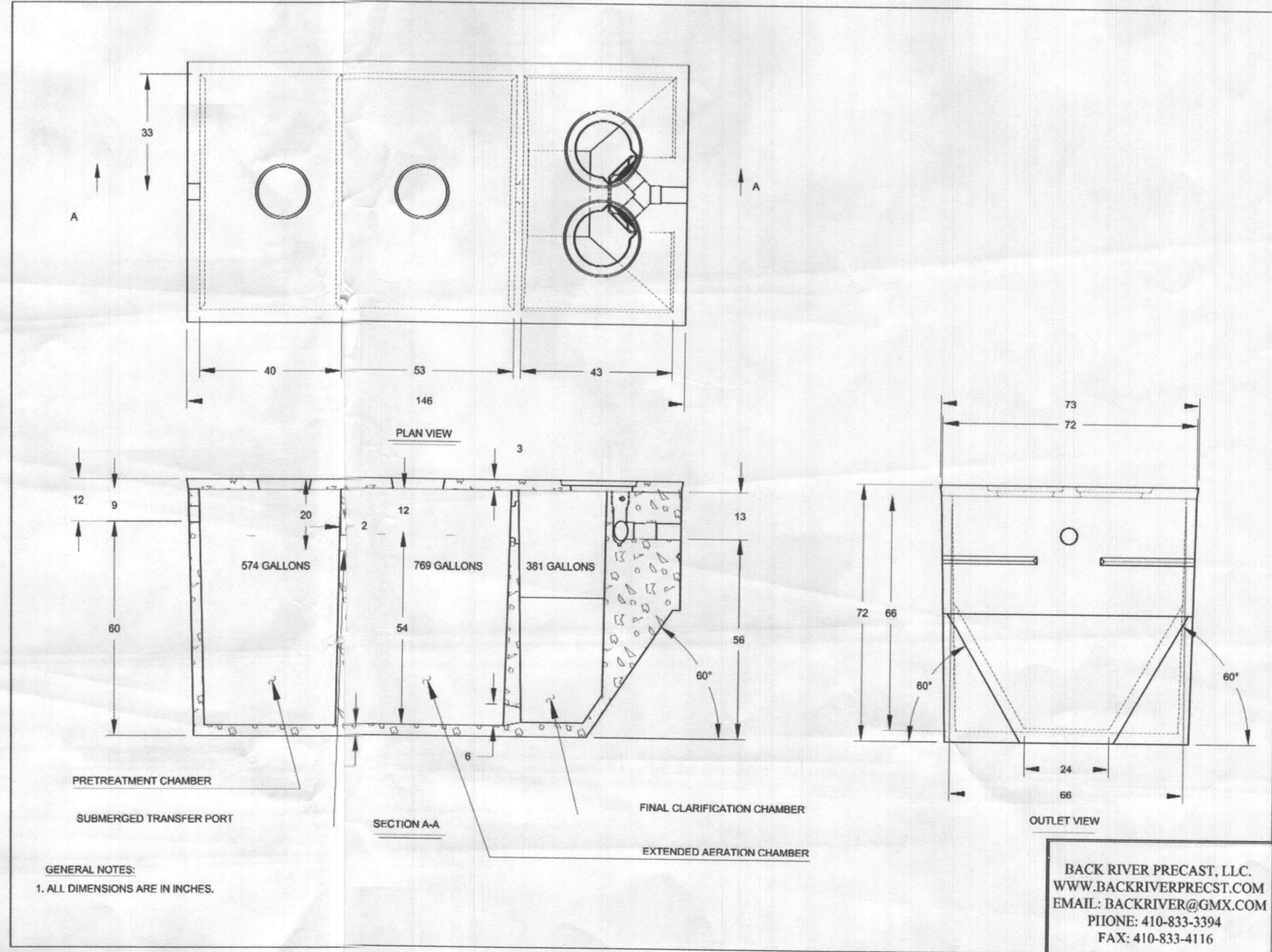
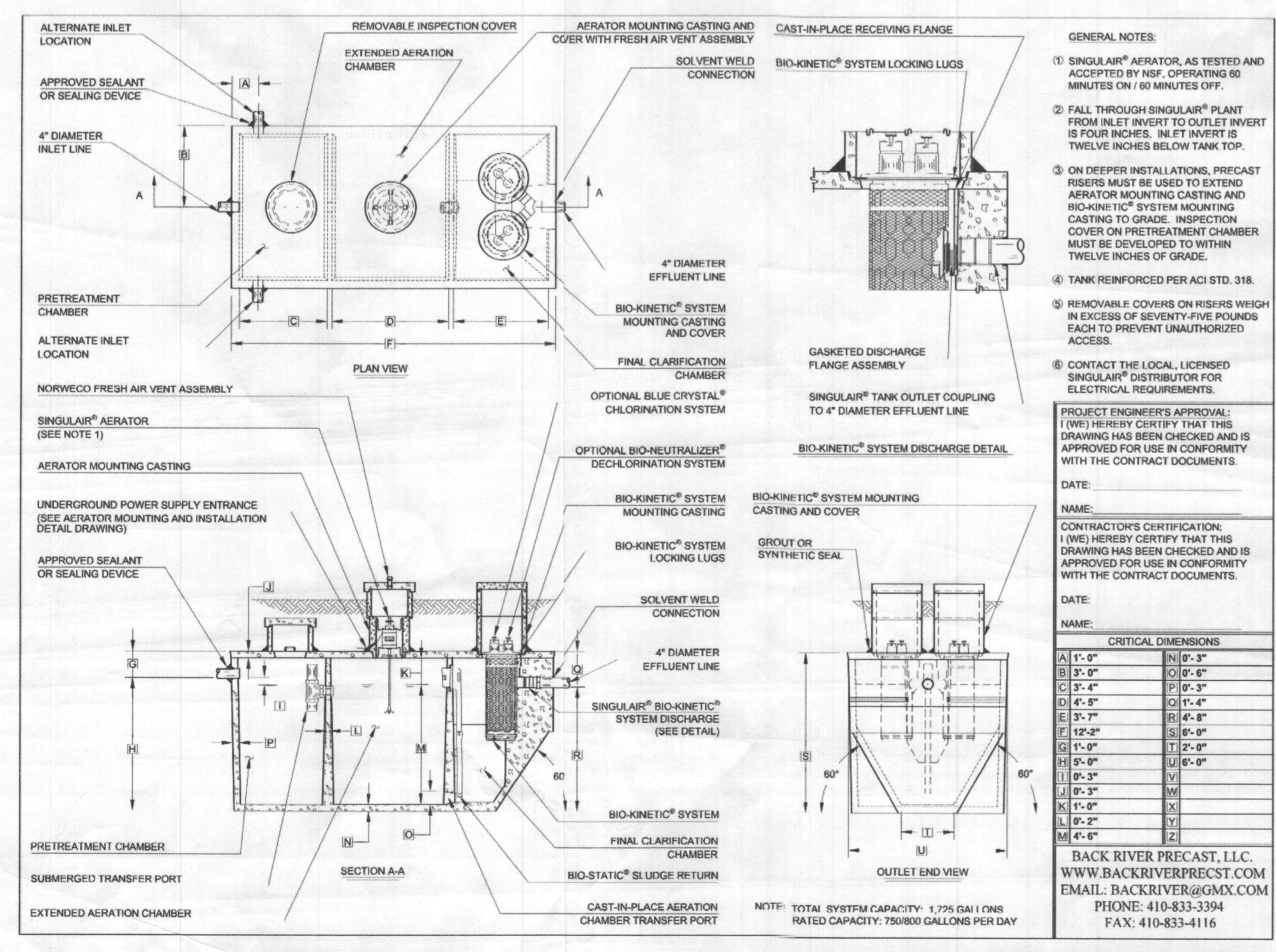
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10277 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-1899

PLAN
SCALE: 1" = 50'

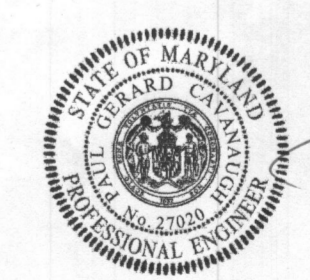
OWNER/DEVELOPER
JAMES ASHER
3217 ROSCOMMON DRIVE
GLENELE, MD 21737
443-677-6186



PROFILE
SCALE: 1" = 30'



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21771, EXPIRATION DATE: 01/25/2024.
James Asher
Signature of Professional Engineer
7-26-2023
DATE



**SEPTIC SYSTEM
INSTALLATION SITE PLAN
ASHER PROPERTY**
3200 PFEFFERKORN ROAD
L16699 F.0170
TAX MAP NO.: 22 GRID NO.: 01 PARCEL NO.:177
ZONED R-20
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 26, 2023
SHEET 5 OF 5

OWNER/DEVELOPER
JAMES ASHER
3217 KOSCIUSKO DRIVE
GLENELG MD 21737
443-677-6186

BACK RIVER PRECAST, L.L.C.
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FISHER, COLLINS & CARTER, INC.
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