

BLACK POINT DRIVE TM#154.04-1-7.000 JWN OF CANANDAIGUA N N D L 5285

ONTARIO COUNTY, NY 1, 2023 (REV. 2/28/23)SHEET FEBRUARY

B677 STATE ROUTE 53 NAPLES, NEW YORK 14512 585-797-3989 PHONE grove.engineering@ydhoo.com

Ø

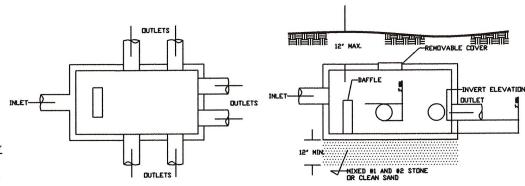
P

GENERAL NOTES:

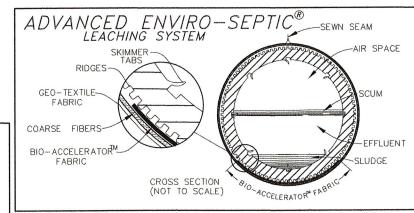
- SITE INVESTIGATION CONSISTING OF ONE (1) DEEP TEST PIT AND TWO PERCOLATION (PERC) TESTS, WAS PERFORMED ON JANUARY 11, 2023 BY WILLIAM J. GROVE, P.E. SEE "SOILS INFORMATION" FOR SUMMARIZED SITE INVESTIGATION RESULTS. BASED ON THE RESULTS OF THE SITE INVESTIGATION, A PRESBY ENVIRO-SEPTIC REPLACEMENT SEPTIC SYSTEM IS PROPOSED.
- LOCATIONS OF THE SYSTEM COMPONENTS ARE SHOWN IN THE PLAN VIEW AND COMPONENT DETAILS ARE SHOWN SEPARATELY.
- THE SEPTIC SYSTEM IS DESIGNED TO TREAT AND DISPERSE 750 GALLONS PER DAY BASED ON THE REPLACEMENT 4 BEDROOM COTTAGE PLUS THE EXISTING 1 BEDROOM ABOVE THE GARAGE, THEIR PROPOSED USE AND THE DOH REGULATION.
- OF 750 GALLONS PER DAY. HIGH FLOW FIXTURES (SHOWER HEADS, FAUCETS, TOILETS, ETC.) ARE NOT TO BE INSTALLED OR USED IN THE HOUSE. USE OF HIGH FLOW FIXTURES AND/OR MULTIPLE SHOWER HEADS IN THE HOME COULD CAUSE HYDRAULIC OVERLOADING OF THE SYSTEM AND LEAD TO PREMATURE FAILURE OF THE SEPTIC SYSTEM.
- WATER SUPPLY IS SERVICED BY A WELL LOCATED NORTH OF THE COTTAGE, WITH SERVICE AS SHOWN ON THE PLAN.
- THE BACKFILL IS TO BE GRADED TO ROUTE SURFACE WATER AWAY FROM THE ABSORPTION FIELD
- WATER TREATMENT SYSTEM WASTES (SUCH AS FROM A WATER SOFTENER) ARE TO BE EXCLUDED FROM THE SYSTEM.
- IF THE HOUSE USES A WATER SOFTENER, THE WATER SOFTENER DISCHARGE SHALL NOT BE ROUTED TO THE WASTEWATER SYSTEM. THE WATER SOFTENER DISCHARGE SHOULD BE DIRECTED TO ITS OWN SUBSURFACE DISPOSAL SYSTEM LOCATED AWAY FROM THE PROPOSED LEACH AREA.
- NO "CLEAN" WATER IS TO ENTER THE SYSTEM VIA ROOF DRAINS, SUMP PUMPS, FOOTING DRAINS, ETC. THE SYSTEM IS A DISPOSAL UNIT FOR COMMON BATHROOM, LAUNDRY AND KITCHEN WASTES ONLY. GARBAGE GRINDERS ARE NOT TO BE USED ON
- THE CONTRACTOR IS TO CONTACT DIG SAFELY NEW YORK AT 800-962-7962 TO VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO DOING ANY EXCAVATION WORK.
- NO PART OF THE SYSTEM IS TO BE LOCATED UNDER DRIVEWAYS, BUILDINGS, SWIMMING POOLS OR OTHER AREAS SUBJECT TO HEAVY LOADING UNLESS DESIGNED FOR SUCH.
- HEAVY CONSTRUCTION EQUIPMENT MUST NOT BE ALLOWED WITHIN THE AREA OF THE SYSTEM PRIOR TO CONSTRUCTION 13.
- ALL VEGETATION SHALL BE CUT AS CLOSE TO GRADE AS POSSIBLE AND THE SOD SHALL BE REMOVED. 14.
- AFTER REMOVING VEGETATION AND EXCAVATING TO DESIGN DEPTH, PLACE 6" OF SYSTEM SAND ON REQUIRED AREA AND RAKE INTO UNDERLYING SOIL USING THE TEETH OF THE BUCKET TO ENSURE A MIXED INTERFACE BETWEEN THE TWO SOILS. SYSTEM SAND MUST MEET THE REQUIREMENTS OF ASTM C-33 AND THE PRESBY ENVIRONMENTAL DESIGN MANUAL. CONCRETE SAND MAY BE ACCEPTABLE FOR USE AS SYSTEM SAND PROVIDING THAT NO MORE THAN 2% CAN PASS A #200 SIEVE.
- INSTALL THE ENVIRO-SEPTIC PIPES ON THE SYSTEM SAND. FILL AROUND THE PIPES AND 6" ON TOP OF PIPES WITH SYSTEM SAND AS SHOWN ON THE CROSS SECTION.
- THE ENVIRO-SEPTIC PIPES SHOULD NEVER BE DOSED WITH A FLOW GREATER THAN 40 GPM.
- THE TOPSOIL SURFACE OF THE FILL SHALL BE GRADED TO ENHANCE RUNOFF OF PRECIPITATION. 18.
- ON SLOPED SITES, A DIVERSION DITCH OR CURTAIN DRAIN SHALL BE CONSTRUCTED UPHILL FROM THE FILL TO PREVENT SURFACE RUNOFF FROM ENTERING THE FILL.
- RAISED SYSTEM SHALL INCORPORATE AN AUTOMATIC DOSING DEVICE OR PRESSURE DISTRIBUTION. GRAVITY DISTRIBUTION MAY BE INSTALLED UNDER THE JURISDICTION OF A LOCAL HEALTH DEPARTMENT WITH A SYSTEM DESIGN AND CONSTRUCTION
- THE CONTRACTOR SHALL PROVIDE AN ACCURATE AS-BUILT MAP TO THE OWNER REFERENCING ALL SYSTEM COMPONENTS TO PERMANENT SITE FEATURES FOR LATER RECOVERY.
- AFTER AN ENVIRONMENTAL ASSESSMENT, THE ENGINEER HAS DETERMINED THAT THE DEVELOPMENT OF THE SITE WITH THE PROPOSED SYSTEM IS CONSISTENT WITH THE OVERALL DEVELOPMENT OF THE AREA AND WILL CAUSE NO ADVERSE ENVIRONMENTAL IMPACTS
- THE PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM MUST BE DESIGNED AND THE INSTALLATION SUPERVISED AND CERTIFIED BY A DESIGN PROFESSIONAL.
- IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO CONTACT THE LOCAL CODE ENFORCEMENT OFFICER ABOUT ANY REQUIRED PERMITS OR FEES BEFORE STARTING WORK ON THE SYSTEM INSTALLATION.

DISTRIBUTION & DROP BOX NOTES:

- DISTRIBUTION BOX OR DROP BOXES USED MUST BE ACCEPTABLE TO THE WATERSHED INSPECTOR, (SEE 'SYSTEM PLAN SKETCH' ON SHEET 1 OF 2 FOR LOCATION AND NUMBER OF LINES; DISTRIBUTION BOX OR DROP BOX TO HAVE AT LEAST ONE EXTRA PLUGGED DUTLET).
- 2. PIPE JOINTS TO BE WATERTIGHT
- INVERT ELEVATIONS OF ALL OUTLET PIPES FROM THE DISTRIBUTION BOX MUST BE EQUAL USE OF FLOW ADJUSTABLE LEVELING DEVICES IS REQUIRED ON EACH OUTLET.
- INVERT ELEVATIONS OF ALL OUTLET TRENCHLINE PIPES FROM DROP BOXES MUST BE EQUAL. USE OF FLOW ADJUSTABLE LEVELING DEVICES IS REQUIRED ON EACH TRENCHLINE OUTLET.
- THE SLOPE OF OUTLET PIPES BETWEEN THE DISTRIBUTION BOX OR DROP BOX AND DISTRIBUTOR LATERALS TO BE AT LEAST & PER FOOT.
- 6. BAFFLES ARE REQUIRED. INLET PIPE SLOPE SHALL BE AT LEAST &
- A MINIMUM OF 2 FEET OF SOLID PIPE SHALL EXTEND LEVEL OUT OF DISTRIBUTION BOX OR DROP BOX FROM ALL OUTLETS.



DISTRIBUTION BOX DETAILS



Warning and Disclaimer of Liability.

This Onsite Wastewater Treatment System design has been performed in compliance with all Town and State design requirements. A prudent design, however, does not necessarily imply that the system will be free from malfunction. The required soil percolation and soil depth tests may not reveal all the soil characteristics affecting operation. Further, unusual precipitation, disposal of some household and other chemicals and failure to pump out septic tanks as often as required are beyond the control and the responsibility of the designer. Therefore, in no event will this design create liability for the designer or design company.

It is a violation of the NYS Education Law for any person, unless he is acting under the direction of a licensed professional engineer or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer or and surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration



8677 STATE ROUTE 53 NAPLES, NEW YORK 14512 585-797-3989 PHONE grove.engineering@yahoo.com

REPLACEMENT SEPTIC SYSTEM

> WHITBECK RESIDENCE

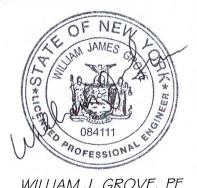
5285 BLACK POINT DR

TM#154.04-1-7.000

TOWN OF CANANDAIGUA ONTARIO COUNTY, NY

FEBRUARY 1, 2023 REV. 2/28/23

SHEET 2 OF 6



WILLIAM J. GROVE, PE NYS LICENSE #08411

DESIGN CALCULATIONS:

DESIGN FLO

SEPTIC TANK

4 BEDROOM COTTAGE PLUS 1 BEDROOM ABOVE GARAGE = 5 BR TOTAL © 150 GALLONS PER DAY (GPD)/BEDROOM =

PROPOSED 2000 GALLON DUAL COMPARTMENT SEPTIC TANK

350 FEET (70 LF PER BEDROOM) 350 FEET PROPOSED

1 TO 5 MINUTES/INCH

DESIGN PERC. RATE:

REQUIRED BASAL AREA:

REQUIRED ENVIRO SEPTIC TRENCH LENGTHS

625 SQ. FEET (1.2 GPD/SF) 858 SQ. FEET PROPOSED (52' x 16.5')

SEVEN (7) 50 FOOT LONG PRESBY AES LINES ARE PROPOSED (TOTAL 350 FEET). PIPES TO BE SPACED AT 1.5 FT ON CENTER CALCULATION REFERENCE BASED ON N.Y.S.D.O.H., "INDIVIDUAL RESIDENTIAL WASTEWATER TREATMENT SYSTEMS — DESIGN HANDBOOK", 2012 AND PRESBY ENVIRONMENTAL INC. DESIGN AND INSTALLATION MANUAL

PERCOLATION TEST RESULTS:

TESTS PERFORMED ON JANUARY 11, 2023 TEST NUMBER DEPTH PERC RATES (MIN/INCH) PT -1 PT -2

STABILIZED PERC RATE 3 MIN/INCH 3 MIN/INCH

SOILS INFORMATION:

DARK BROWN LOAMY TOPSOIL 0" - 8"

LEACHING SAND FILL 38" - 48"

NO MOTTLING

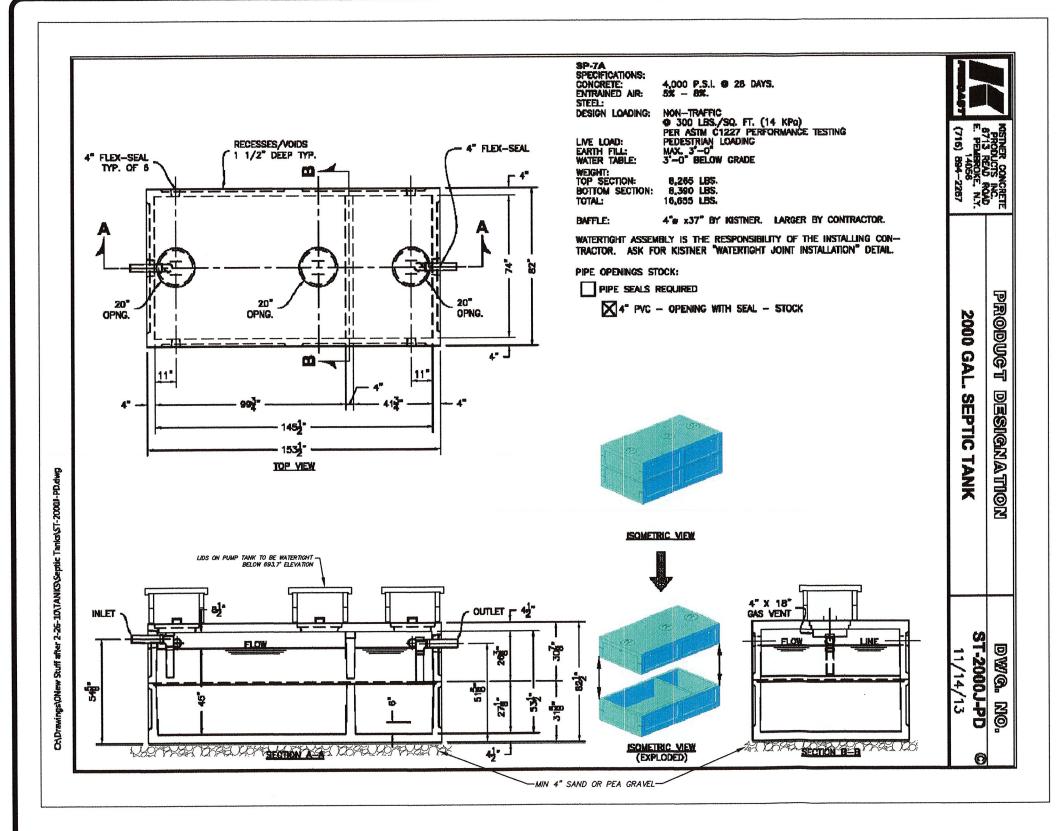
ROOTS TO 40"-

KEY:

PERC TEST LOCATION

TEST PIT LOCATION

SIDE VIEW (NO SCALE) 4"Ø LOW VENT ATTACHED TO END OF LAST ROW ROUTE TO HOUSE AS SHOWN ON SITE PLAN SCREEN-OPENING GRADES. NO DEEP ROOTED PLANT ELBOW LEVEL WITH TOP OF OFFSET ADAPTER MATERIALS ON SYSTEM OR OVERFILL AREAS. 2"-4" LEVEL ובועעע ENVIRO-SEPTIC ASTM C33 CONCRETE SAND



SEPTIC TANK NOTES:

- 1. ALL PIPE CONNECTION SHALL BE WATERTIGHT.
- 2. BAFFLES SHALL BE PROVIDED AT INLET AND OUTLET OF SEPTIC TANK (WITH OUTLET FILTER)
- 3. A 2″ MINIMUM DROP FROM INLET TO OUTLET
- FRECAST CONCRETE WITH WIRE MESH REINFORCING, OR POLYETHYLENE MINIMUM AS SHOWN ON THE SITE PLAN, DUAL-CHAMBER REQUIRED.
- 5. INSPECTION PORTS TO BE OF ADEQUATE DIAMETER, ONE TO BE LOCATED OVER BAFFLE TO ACCESS FILTER/BAFFLE.
- 6. TANK INSTALLATION IN AREA OF HIGH GROUNDWATER SHALL BE INSTALLED WITH ANTI-FLOATING DEVICE AS PER TANK MANUFACTURER.
- 7. TANK SPECIFICATIONS SHALL CONFORM TO NYS APPENDIX 75- A OR CURRENT STANDARDS.



8677 STATE ROUTE 53
NAPLES, NEW YORK 14512
585-797-3989 PHONE
grove.engineering@yahoo.com

REPLACEMENT SEPTIC SYSTEM

> WHITBECK RESIDENCE

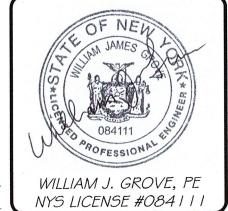
5285 BLACK POINT DR

TM#154.04-1-7.000

TOWN OF CANANDAIGUA ONTARIO COUNTY, NY

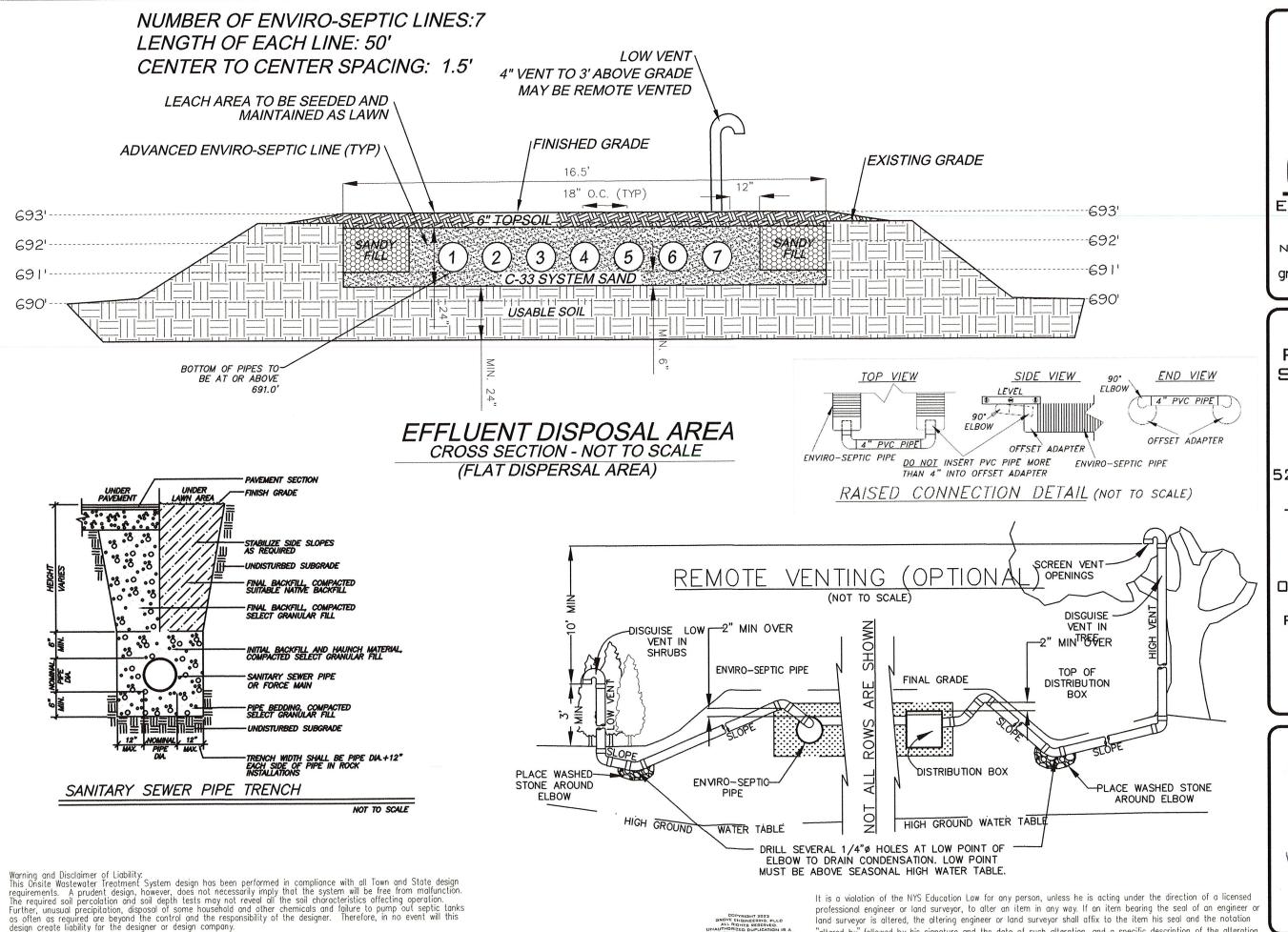
FEBRUARY 1, 2023 REV. 2/28/23

SHEET 3 OF 6



COPYRIGHT 2023 GROVE ENGINEERING. PLLC ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS A VIDLATION OF ALL APPLICABLE LAWS

It is a violation of the NYS Education Law for any person, unless he is acting under the direction of a licensed professional engineer or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration.



ENGINEERING, PLLC

8677 STATE ROUTE 53 NAPLES, NEW YORK 14512 585-797-3989 PHONE grove.engineering@yahoo.com

REPLACEMENT SEPTIC SYSTEM

> WHITBECK RESIDENCE

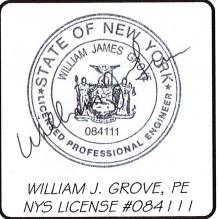
5285 BLACK POINT DR

TM#154.04-1-7.000

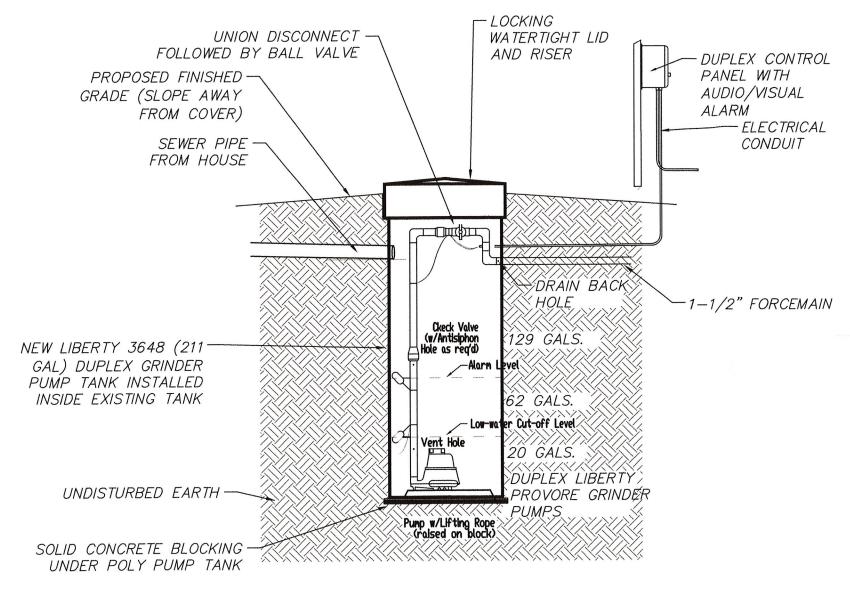
TOWN OF CANANDAIGUA ONTARIO COUNTY, NY

FEBRUARY 1, 2023 REV. 2/28/23

SHEET 4 OF 6



land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration



GRINDER	PUMP	TANK	DETAIL

NOT TO SCALE

GRINDER PUMP DES	IGN CALCULATIONS			
PUMP ELEVATION	688.5			
OUTLET ELEVATION	692.1			
STATIC HEAD	3.6			
FORCE MAIN LENGTH	201			
FORCE MAIN DIAMETER	1.25*			
FORCE MAIN VOLUME/LF	0.0638			
TOTAL FORCE MAIN VOLUME	12.8			
ANTICIPATED FLOW RATE	30 GPM			
FRICTION HEAD AT FLOW RATE	22			
TOTAL DYNAMIC HEAD	25.60			
DOSE VOLUME	62 GAL			



8677 STATE ROUTE 53
NAPLES, NEW YORK 14512
585-797-3989 PHONE
grove.engineering@yahoo.com

REPLACEMENT SEPTIC SYSTEM

> WHITBECK RESIDENCE

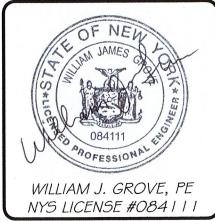
5285 BLACK POINT DR

TM#154.04-1-7.000

TOWN OF
CANANDAIGUA
ONTARIO COUNTY, NY

FEBRUARY 1, 2023 REV. 2/28/23

SHEET 5 OF 6



NOT TO SOME

PRG-SERIES

Grinder Pump



1 hp 2" Discharge

Designed for sewage applications

Higher flow rates allow use with 2" discharge lines

Operates on standard 115V or 230V 20A circuits

Features

- · Heavy cast iron construction
- 115V or 230V 1-phase
- Patented V-Slice[®] Cutter Technology
- · Shreds difficult solids such as feminine products, rags, towels, and wipes that can jam a solids handling style pump
- · Hardened stainless-steel cutter and plate
- · Oil-filled, thermally protected motor
- PRG-Series grinders can be used as a replacement pump in 2" discharge systems using LE40 and LE50-Series solids handling pumps.*

*Consult factory with actual application and head specifications prior to replacing LE40 and LE50-Series pumps.

POWDER

ProVore

Models

PRG101M 115V, 12A, Manual

PRG101A 115V, 12A, Automatic, wide-angle

PRG101AV 115V, 12A, Automatic, vertical float switch

PRG102M 230V, 6A, Manual PRG102A 230V, 6A, Automatic



Vertical Float Switch Model PRG101AV

odel PRG101A





PRG-Series

Impeller

Cast iron, class 25 vortex style

Paint

Powder coat

Max Fluid Temperature

140°F (60°C) Intermittent 104°F (40°C) Continuous duty

Motor Specifications

1 hp 12A (115V) 6A (230V) CSCR style, class B windings Oil-filled, thermally protected

Power Cord Type

SJTW Quick-connect design 10' Standard length (25' optional)

Motor Housing

Class 30 cast iron

Shaft

303 Series stainless steel

Volute

Class 30 cast iron

V-Slice" Cutter Technology

Shreds difficult solids such as feminine products, wipes, rags, and other debris.



440 Series stainless steel hardened to Rockwell 57c

Patent: See

Hardware

Stainless steel

Mechanical Shaft Seal

Unitized graphite impregnated silicon carbide

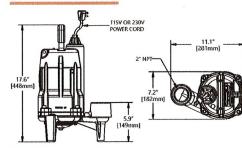
Bearings

Upper and lower ball bearings

Float Switch (automatic models)

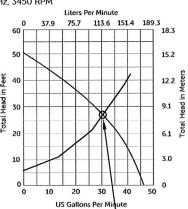
Mechanical wide-angle float switch with series (piggyback) plug

Dimensional Data



Performance Curve

60 Hz. 3450 RPM



Models

MODEL	HP	VOLTS	PHASE	Hz	AMPS	CORD LENGTH	DISCHARGE	AUTOMATIC	WEIGHT
PRG101A	1	115	1	60	12	10'	2"	Wide-Angle	58 lbs
PRG101AV	1	115	1	60	12	10'	2"	Vertical Float Switch	58 lbs
PRG101M	1	115	1	60	12	10'	2"	Nβ	57 lbs
PRG102A	1	230	1	60	6	10'	2*	Wide-Angle	58 lbs
PRG102M	1	230	1	60	6	10'	2"	Nd	57 lbs

Specifications subject to change without notice

Copyright © Liberty Pumps, Inc. 2021 All rights reserved. LLIT006710-R06/21

Liberty Pumps - 7000 Apple Tree Avenue - Bergen, New York 14416 Phone 800-543-2550 - Fax 585-494-1839 - www.LibertyPumps.com

-APPROXIMATE OPERATING POINT 30 GPM, 26.5' TDH

Warning and Disclaimer of Liability.

This Onsite Wastewater Treatment System design has been performed in compliance with all Town and State design requirements. A prudent design, however, does not necessarily imply that the system will be free from malfunction. The required soil percolation and soil depth tests may not reveal all the soil characteristics affecting operation. Further, unusual precipitation, disposal of some household and other chemicals and failure to pump out septic tanks as often as required are beyond the control and the responsibility of the designer. Therefore, in no event will this design create liability for the designer or design company.

It is a violation of the NYS Education Law for any person, unless he is acting under the direction of a licensed professional engineer or land surveyor, to alter on item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration.



8677 STATE ROUTE 53 NAPLES, NEW YORK 14512 585-797-3989 PHONE grove.engineering@yahoo.com

REPLACEMENT SEPTIC SYSTEM

> WHITBECK RESIDENCE

5285 BLACK POINT DR

TM#154.04-1-7.000

TOWN OF CANANDAIGUA ONTARIO COUNTY, NY

FEBRUARY 1, 2023 REV. 2/28/23

SHEET 6 OF 6

