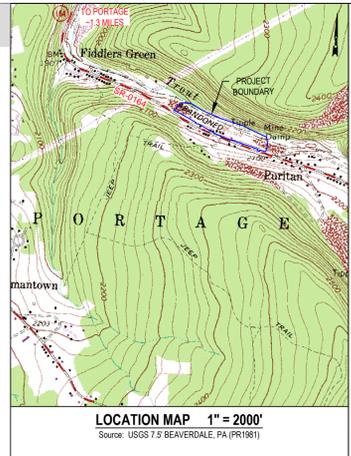
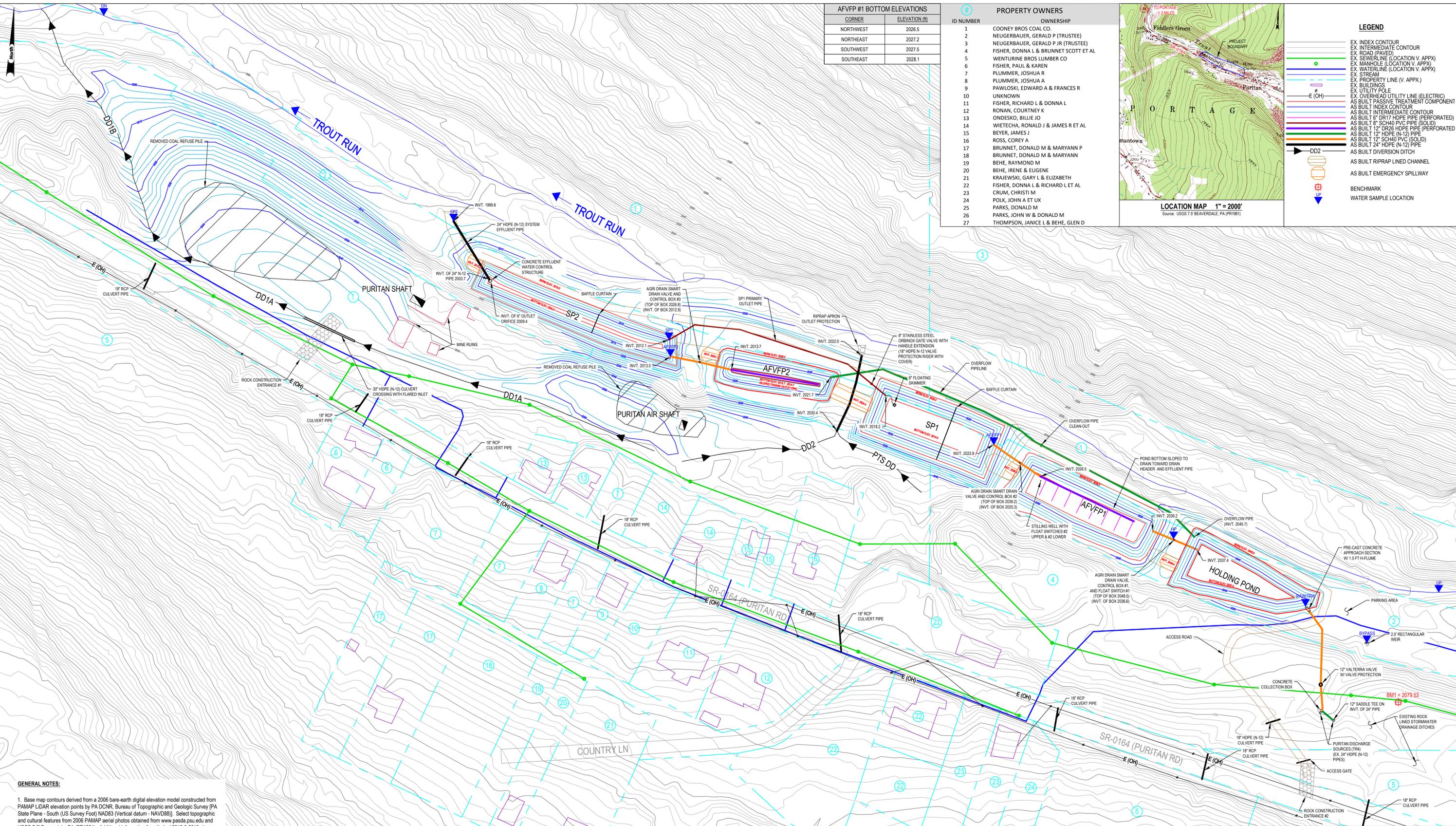


AFVFP #1 BOTTOM ELEVATIONS	
CORNER	ELEVATION (ft)
NORTHWEST	2026.5
NORTHEAST	2027.2
SOUTHWEST	2027.5
SOUTHEAST	2028.1

#	PROPERTY OWNERS
1	COONEY BROS COAL CO.
2	NEUGERBAUER, GERALD P (TRUSTEE)
3	NEUGERBAUER, GERALD P JR (TRUSTEE)
4	FISHER, DONNA L & BRUNETT SCOTT ET AL
5	VENTURINE BROS LUMBER CO
6	FISHER, PAUL & KAREN
7	PLUMMER, JOSHUA R
8	PLUMMER, JOSHUA A
9	PAWLOSKI, EDWARD A & FRANCES R
10	UNKNOWN
11	FISHER, RICHARD L & DONNA L
12	RONAN, COURTNEY K
13	ONDESKO, BILLIE JO
14	WIETECHA, RONALD J & JAMES R ET AL
15	BEYER, JAMES J
16	ROSS, COREY A
17	BRUNETT, DONALD M & MARYANN P
18	BRUNETT, DONALD M & MARYANN
19	BEHE, RAYMOND M
20	BEHE, IRENE & EUGENE
21	KRAJEWSKI, GARY L & ELIZABETH
22	FISHER, DONNA L & RICHARD L ET AL
23	CRUM, CHRISTI M
24	POLK, JOHN A ET UX
25	PARKS, DONALD M
26	PARKS, JOHN W & DONALD M
27	THOMPSON, JANICE L & BEHE, GLEN D



LEGEND	
[Symbol]	EX. INDEX CONTOUR
[Symbol]	EX. INTERMEDIATE CONTOUR
[Symbol]	EX. ROAD (PAVED)
[Symbol]	EX. SEWERLINE (LOCATION V. APPX)
[Symbol]	EX. MANHOLE (LOCATION V. APPX)
[Symbol]	EX. WATERLINE (LOCATION V. APPX)
[Symbol]	EX. STREAM
[Symbol]	EX. PROPERTY LINE (V. APPX)
[Symbol]	EX. BUILDINGS
[Symbol]	EX. UTILITY POLE
[Symbol]	EX. OVERHEAD UTILITY LINE (ELECTRIC)
[Symbol]	AS BUILT PASSIVE TREATMENT COMPONENT
[Symbol]	AS BUILT INDEX CONTOUR
[Symbol]	AS BUILT INTERMEDIATE CONTOUR
[Symbol]	AS BUILT 6\"/>



**GENERAL NOTES:**

- Base map contours derived from a 2006 bare-earth digital elevation model constructed from PAMAP LIDAR elevation points by PA DCONR, Bureau of Topographic and Geologic Survey (PA State Plane - South [US Survey Foot] NAD83 [Vertical datum - NAVD83]). Selected topographic and cultural features from 2006 PAMAP aerial photos obtained from www.pasda.psu.edu and USGS 7.5' Beaverdale, PA (PR1981). Additional information from limited 2015 & 2019 site investigations by BioMost. Supplemental base map information was obtained from PASDA, PA Mine Map Atlas website, and 2011 Design Drawings by Penn Terra Engineering Inc.
- The bench mark elevation provided was established by setting primary control benchmark (BM1) located on the eastern side of the project area and recording that location using a Sub-Centimeter Grade JAVAD GPS unit.
- Stream presence/extent determined from "blue lines" of USGS 7.5' topographic map - locations revised based on LIDAR contours and site investigations.
- All dimensions are in feet unless otherwise noted. All slope designations are H:V.
- Property line locations are very approximate. Locations based on Cambria County on-line property maps (<http://gis.cambriacountypa.gov/publicgis1/>) for Portage Township accessed 4/2019. **This is not a property survey.**
- As-built features from design information, field observations during construction, and 2020 post-construction measurements with a JAVAD Triumph 4.5 sub-centimeter GPS. As-built features are a reasonable representation of actual conditions as of September 2020 and are subject to change based on variable mine drainage flow and precipitation, future maintenance, and other factors. The bottom dimensions/elevations of SP1 are approximate.

REPRESENTATIVE AMD CHARACTERISTICS								
Point	FLOW	pH	Acid	T Fe	T Mn	T Al	Sulfates	
Puritan Discharge (TR4)	AVG/DESIGN	300/400	3	114	6	1	12.4	653

Flow in gpm; concentrations in mg/L.  
 Design: Max measured flow rate is 1599 gpm used for hydraulic capacity design for treatment purposes a design flow rate of 600 gpm was selected. The passive treatment system is designed to operate in "batch treatment" mode utilizing a solar powered smart drainage system. All other Design parameters are "average values" from Saint Francis / BioMost 2017-2018 monitoring.

SHEET 1 of 2

As-Built Plan View

LOCATION MAP, LEGEND, & NOTES

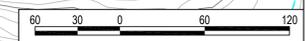
**PURITAN AMD FULL TREATMENT PASSIVE TREATMENT SYSTEM**

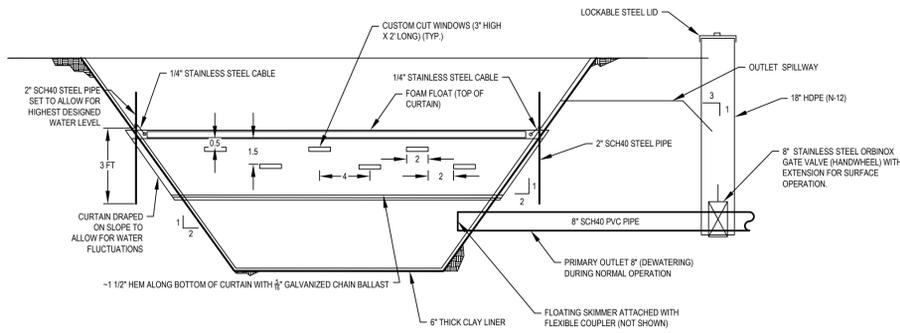
for  
**TROUT RUN WATERSHED ASSOCIATION**  
**CAMBRIA COUNTY CONSERVATION DISTRICT**  
 &  
**STREAM RESTORATION INCORPORATED**

Trout Run Watershed  
 Portage Township, Cambria County, PA  
 Scale: 1" = 60'  
 October 2020

**BioMost, Inc. Mining and Reclamation Services**  
 Mars, PA [www.biomost.com](http://www.biomost.com)

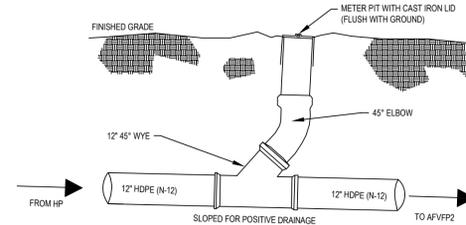
PROJECT CENTER  
 LAT: 40.367210  
 LONG: -78.646598





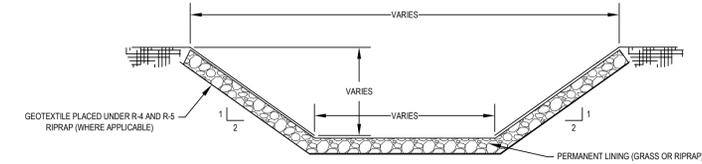
**SETTLING POND #1 WITH WINDOWED BAFFLE CURTAIN**

Horizontal Scale: None Vertical Scale: None



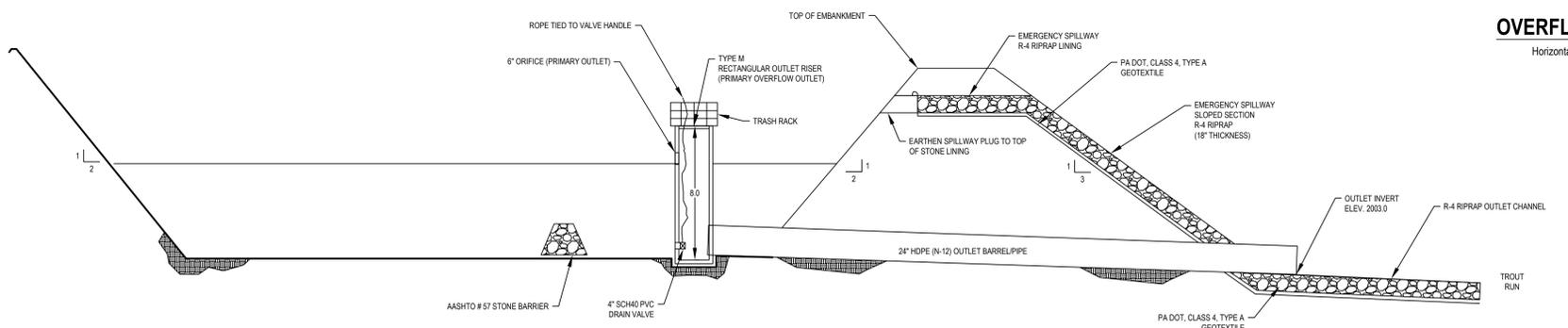
**PROFILE VIEW**

NOTE: CLEAN-OUT IS INTENDED TO BE USED WITH JETTER STYLE SYSTEM



**CHANNELS / DITCHES / SPILLWAYS (TYPICAL)**

Horizontal Scale: None Vertical Scale: None

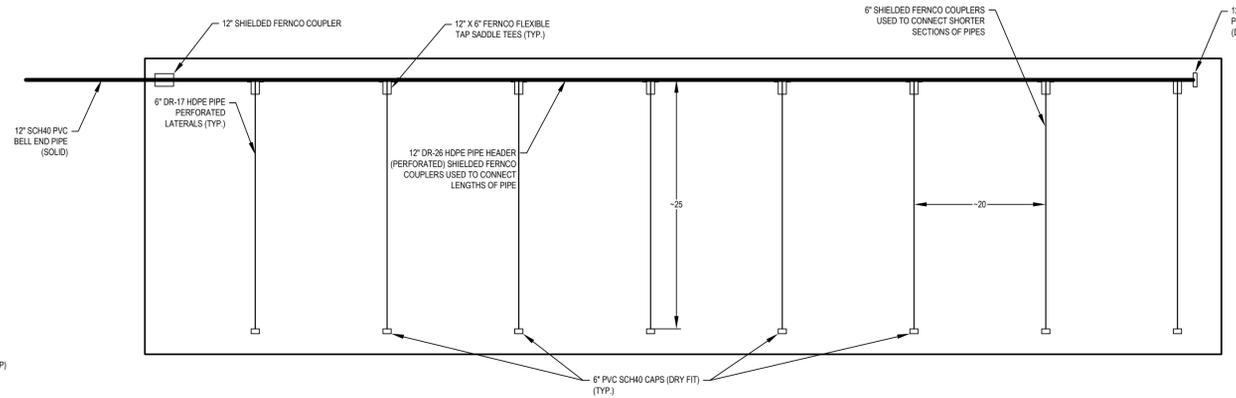


**SETTLING POND #2 & OUTLET STRUCTURE**

Horizontal Scale: None Vertical Scale: None

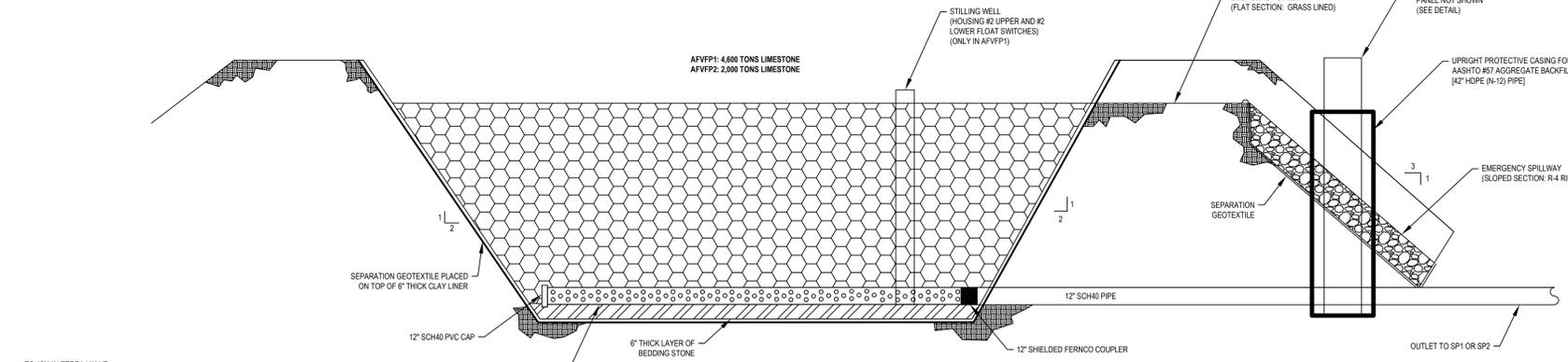
**OVERFLOW PIPE CLEAN-OUT**

Horizontal Scale: None Vertical Scale: None



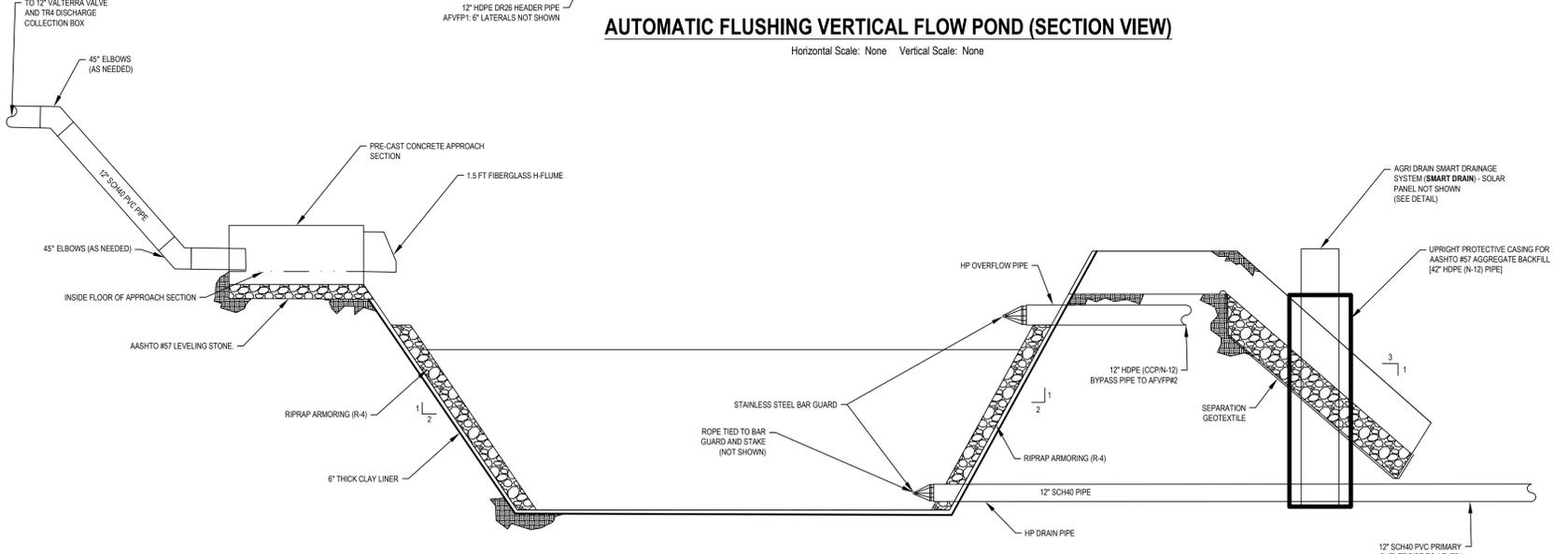
**AFVFP1 UNDERDRAIN PIPING SCHEMATIC**

Horizontal Scale: None Vertical Scale: None



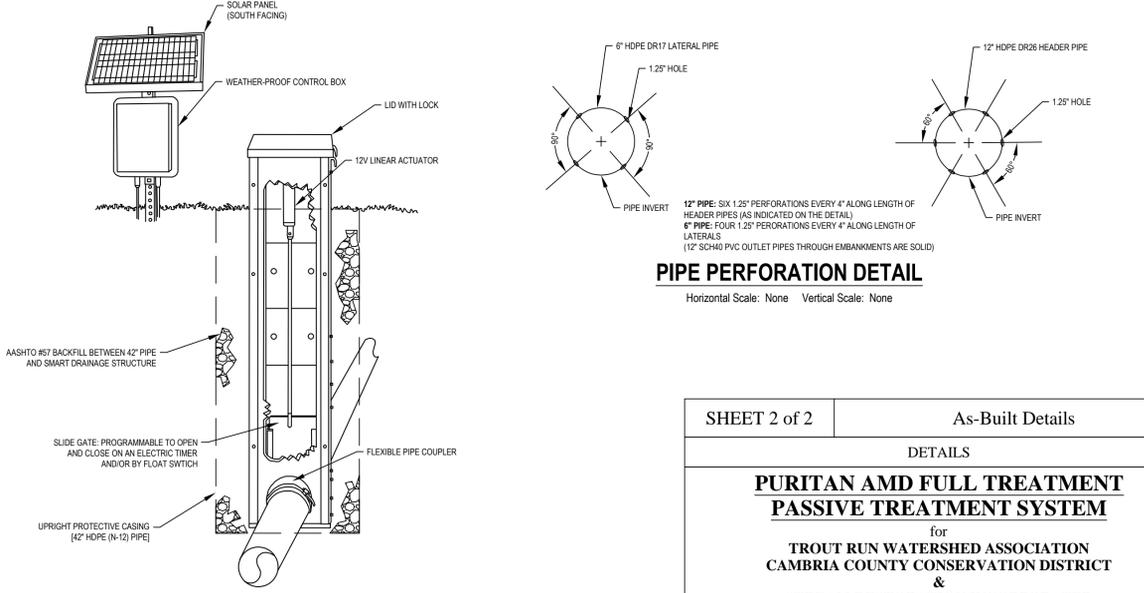
**AUTOMATIC FLUSHING VERTICAL FLOW POND (SECTION VIEW)**

Horizontal Scale: None Vertical Scale: None



**HOLDING POND (HP)**

Horizontal Scale: None Vertical Scale: None



**AGRI DRAIN SMART DRAINAGE SYSTEM (TYP.)**

Horizontal Scale: None Vertical Scale: None



**PIPE PERFORATION DETAIL**

Horizontal Scale: None Vertical Scale: None

SHEET 2 of 2	As-Built Details
DETAILS	
<b>PURITAN AMD FULL TREATMENT PASSIVE TREATMENT SYSTEM</b>	
for <b>TROUT RUN WATERSHED ASSOCIATION CAMBRIA COUNTY CONSERVATION DISTRICT &amp; STREAM RESTORATION INCORPORATED</b>	
Trout Run Watershed Portage Township, Cambria County, PA Scale: As Shown October 2020	
<b>BioMost, Inc. Mining and Reclamation Services</b>	
PROJECT CENTER LAT: 40.857210 LONG: -78.846588	Mars, PA www.biomost.com