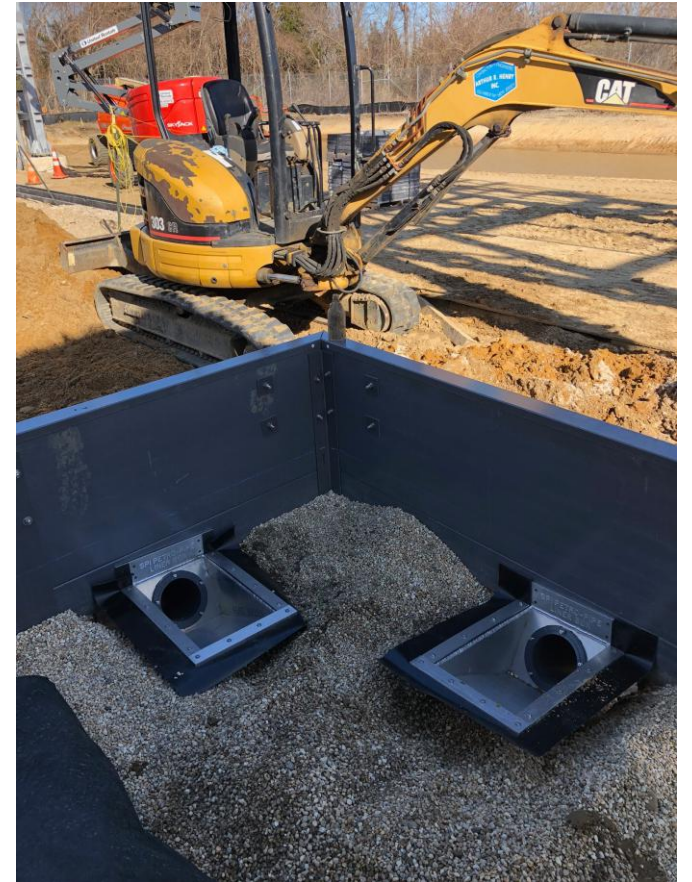
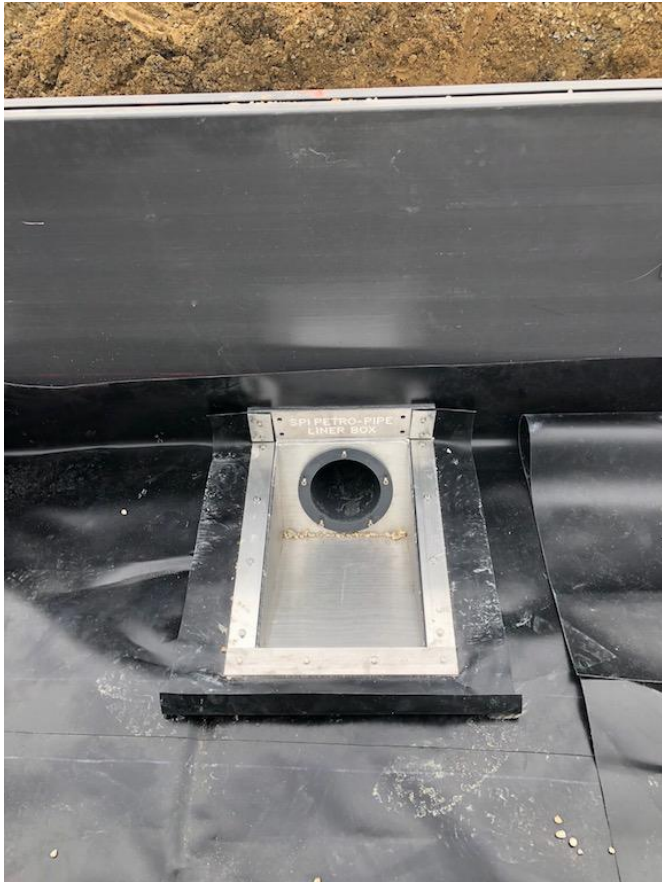




Solidification Products International, Inc.

SPI PETRO-PIPE[®] SUMP BOX

Patent Pending



LINER OR CONCRETE APPLICATIONS

SPI Petro-Pipe®

Solidification Products International Petro-Pipe®, Patent # 6,841,077 allows water and oil sheen to filter through the media filtering out any oil sheen and shutting off all flow in the event of a full oil overload. Water filters through the media filter cake absorbing any trace of oil, in a full oil overload the oil is absorbed and dissolves into the SPI media and tackifies forming a solid seal shutting down all flow containing any spilled oil and backing up on the floor or containment basin. Petro-Pipes® are used at up to a 25-degree slope either through a wall from a containment area or on a discharge point outside the oil containment area. Petro-Pipes® have a removable dirt filter and are typically between 10 – 20” long with a diameter from 2” to 12”.

Maintenance and Installation

6” X 20” Long Flanged with 7” Flanged Housing Pipe



The PIFH-616 Petro-Pipe® is used for rainwater discharge from oil containment areas. The 7” housing pipe is flanged and is mounted through the liner or containment wall. The housing pipe is best when installed on a 15 - 25 degree slope allowing water to build up on the face of the Petro-Pipe® providing positive head pressure for optimum flow of 3 to 3.5 gpm.



The Petro-Pipe® is installed into the housing and is attached with 5 stainless steel screws. There is an o-ring between the flanges that is compressed when the screws are tightened creating a water/oil tight seal. In a liner application, there is an additional flange that is attached to the liner prior to installing the housing pipe. This flange provides complete sealing of the liner to the Petro-Pipe®.



Petro-Pipes® have a retaining ring on the inside that is removable and a dirt filter is accessible. The dirt and debris filter keeps the Petro-Pipe® free of dirt and requires checking usually once per year. Petro-Pipes® allow for point discharge so they can be changed out and filters cleaned.

Petro-Pipe® TM Maintenance & Replacement Information

1.0 PURPOSE

This standard practice provides the basic guidelines for safe maintenance and replacement of Petro-Pipe® filters installed in a “Storm Water Conveyance System.”

2.0 APPLICABILITY

This standard applies to all qualified personnel maintaining and/or replacing Petro-Pipe® filter cartridges.

3.0 DEFINITIONS

3.01 SPI: Solidification Products International

3.02 Storm Water Conveyance System: The bermed area surrounding oil filled equipment located in a sub-station or maintenance yard.

3.03 Swale: A low-lying or depressed paved stretch of land.

3.04 Visual Inspection: A visual inspection for an oil sheen, unusual color, mud or sediment on the water within the containment structure.

3.05 Petro-Pipe® Complete Unit: Including sleeve and filter cartridges.

3.06 Petro-Pipe® Sleeve: Plastic 20” long pipe with flange and cover.

4.0 PROCEDURE

4.01 An annual inspect of all oil containment Petro-Pipe® filters is recommended prior to the rainy season.

4.2 If a “Storm Water Conveyance System” is backed up with rain water and a “Visual Inspection” has been conducted; remove the Petro-Pipe's® cover (See Figure A) to quickly discharge the run off.

STANDARD OPERATING PRACTICE

Disassemble Petro-Pipe® Unit:

4.01.2 Pinch retaining ring's tabs with fingers and remove.

4.01.3 Remove Plastic Grate

4.01.4 Remove Flow Free Mesh and wash, (should not deteriorate).

4.01.5 Remove Filter Floss Material and replace if excessively dirty.

4.01.6 Remove and replace Micro-Mesh last cover in dirt filter

4.01.7 Remove five flathead screws and replace filter cartridge if contaminated with oil.

4.01.8 Reassemble Petro-Pipe® Unit in reverse order

Note: If it is the rainy season, and the Petro-Pipe® cartridge appears to be clogged do the above steps. If not successful in unclogging, follow-up as a possible complete Petro-Pipe® cartridge replacement may be necessary.

- .3 Remove all trash and debris from the “Storm Water Conveyance System” and swales.
- .4 Install the pipe sleeve in the “Storm Water Conveyance System” with the Petro-Pipe® flange facing out on the curb side, (the pipe flange’s bolt pattern is random).

Older Petro-Pipes® will get new filters when replacement dirt filters are ordered



Current Petro-Pipe® Internal Filters



Petro-Pipe® and Filter Cage

6.0 Life span of Petro-Pipe®

- 6.1 In wetter climates where rain fall is > 20 " per year Petro-Pipes® should be replaced every three years.
- .2 In more arid climates with rainfall of < 20 " per year the Petro-Pipes® should be replaced every 5 years.
- .3 The date sticker on the Petro-Pipe® is to reflect the month and year the Petro-Pipe® was installed, so this used properly is an easy reference of when replacement of the Petro-Pipe® is needed.

5.0 Filtration Cage Maintenance:

The filter cage is used on the inside on the containment area to prevent dirt and debris from entering the Petro-Pipe® and should be visually inspected on a monthly schedule.

- 5.1 If leaves or debris is accumulated around the filter cage they should be removed. The filter cage itself should also be checked by lifting the cover and looking at the dirt content in the filter floss batting. If the Filter Floss Batting is dirty it should be replaced.



PFB-1012 Filter basket with Floss Batting can be easily removed and replaced



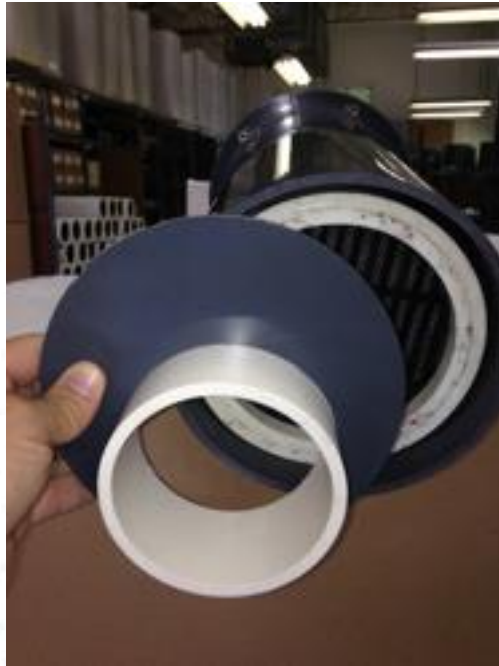
Dirt Filter batting that needs replacement.



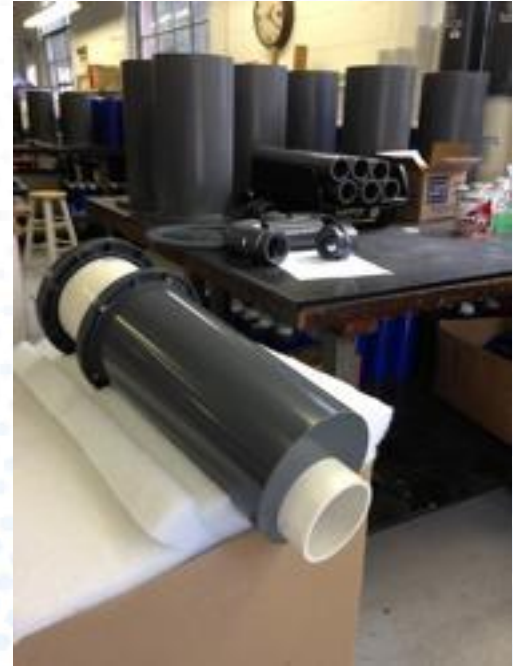
SPI PIFH-620 Petro-Pipe® With Custom Flange



Back end of the PIFH-620 without a custom made discharge flange.



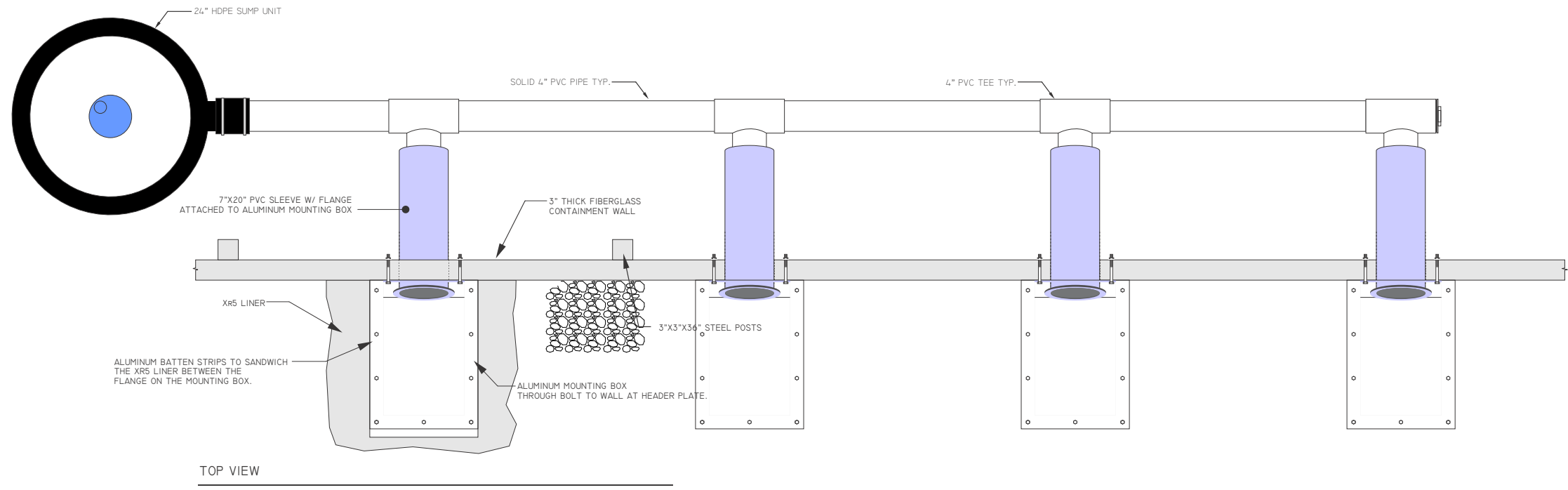
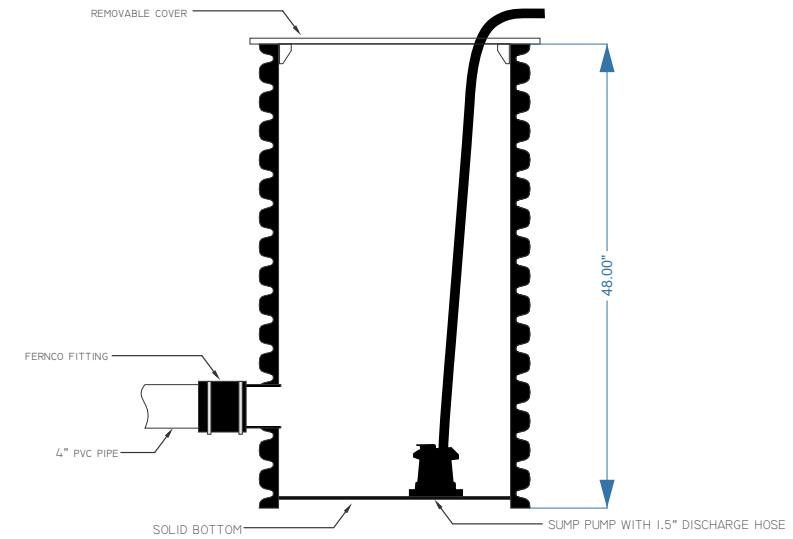
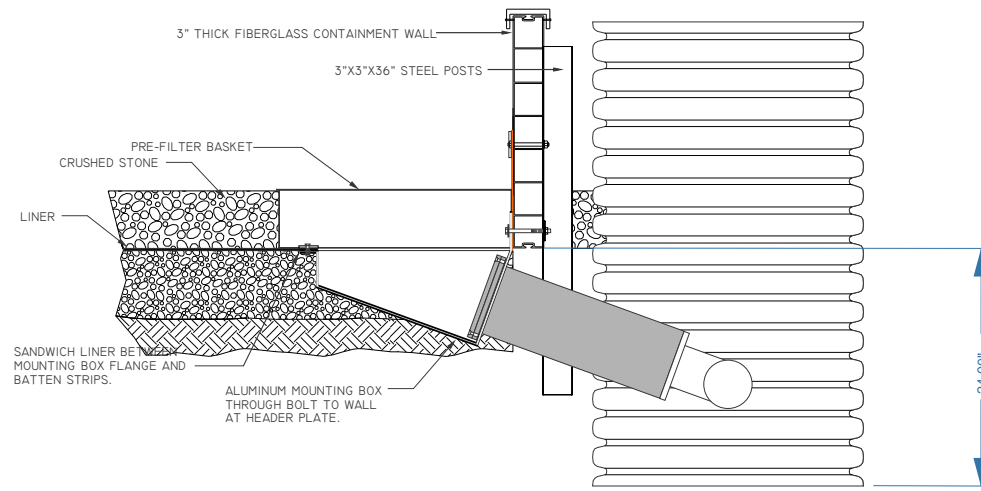
Flange made to chemically weld to the 7" housing pipe

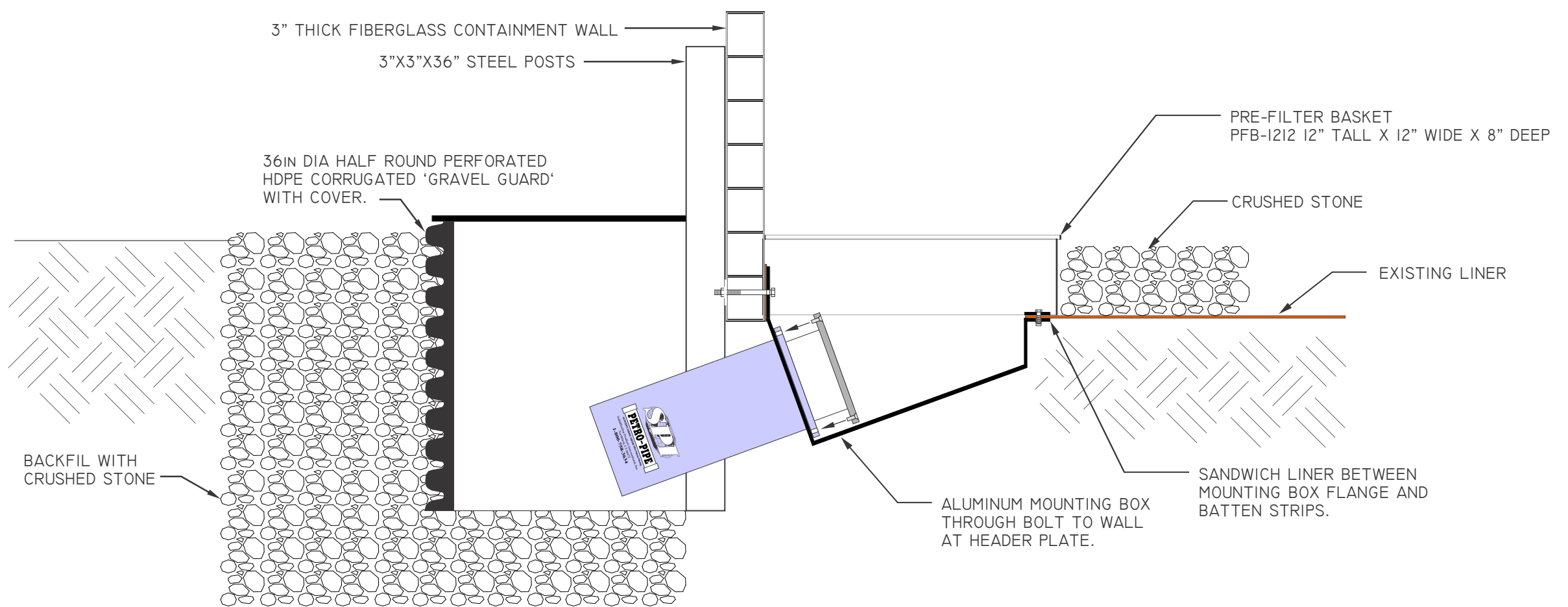


PIFH 620 Petro-Pipe® with a 4" male fitting off set to the bottom of the pipe ready for fitting attachment.

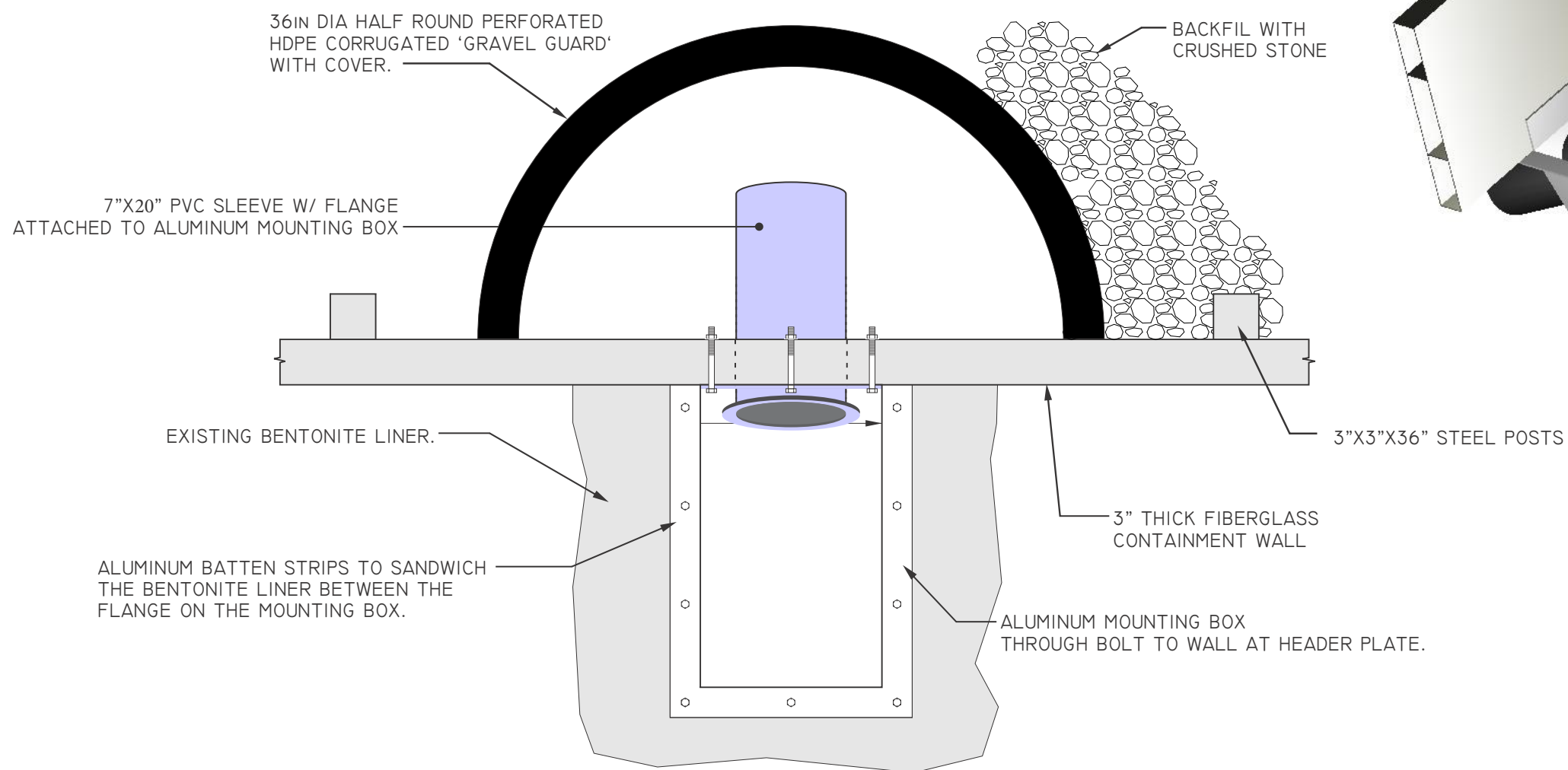


A 4" sch 40 fitting attached to the Petro-Pipe® for drainage. Side view of the Petro-Pipe® with a fitting attached for drainage purposes.

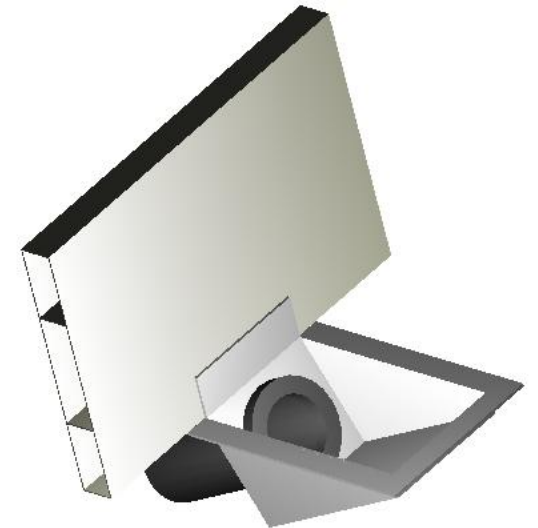




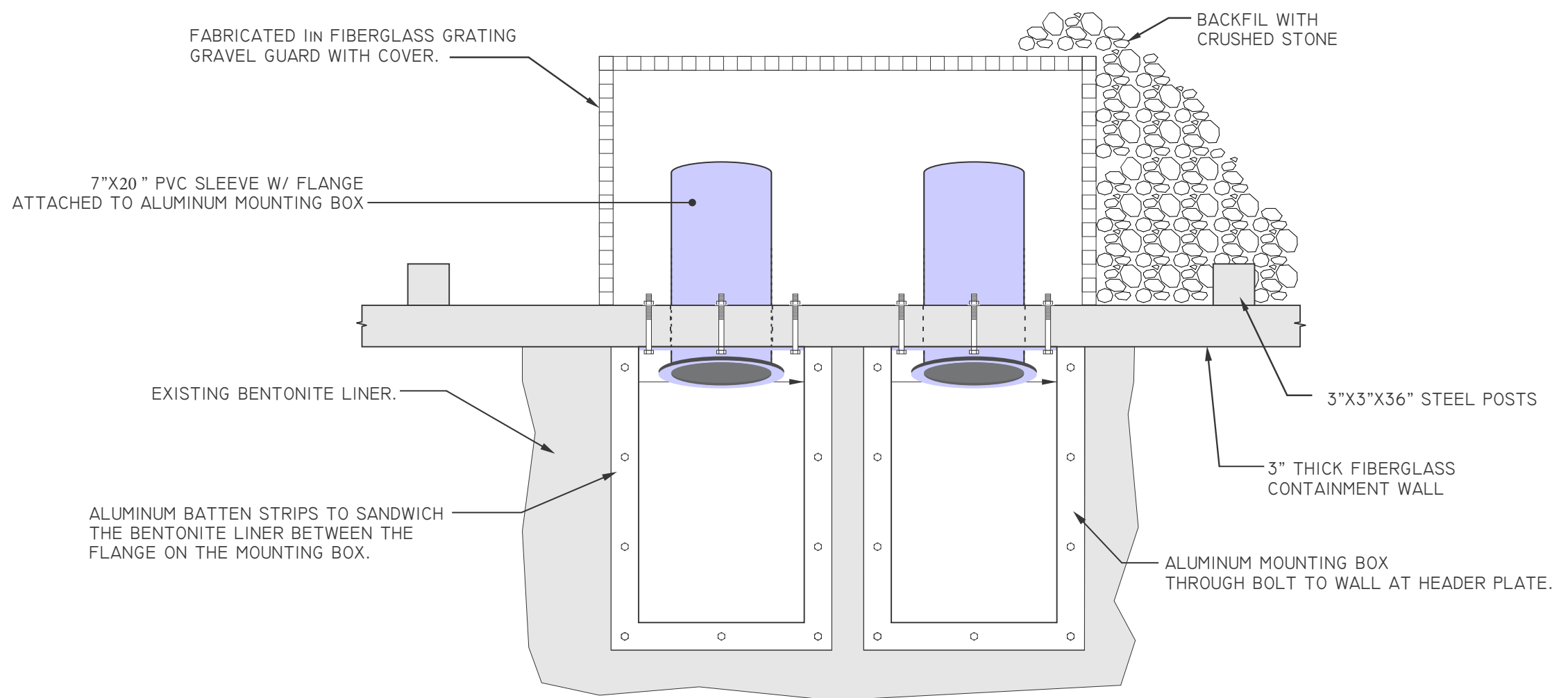
SECTION VIEW



TOP VIEW



® SPI PETRO-PIPE SUMP BOX PIFH-620 25° MOUNTING ASSEMBLY FOR FIBERGLASS WALL AND LINER INSTALLATIONS



TOP VIEW

MULTIPLE PETRO-PIPE GRAVEL GUARD SOLUTION