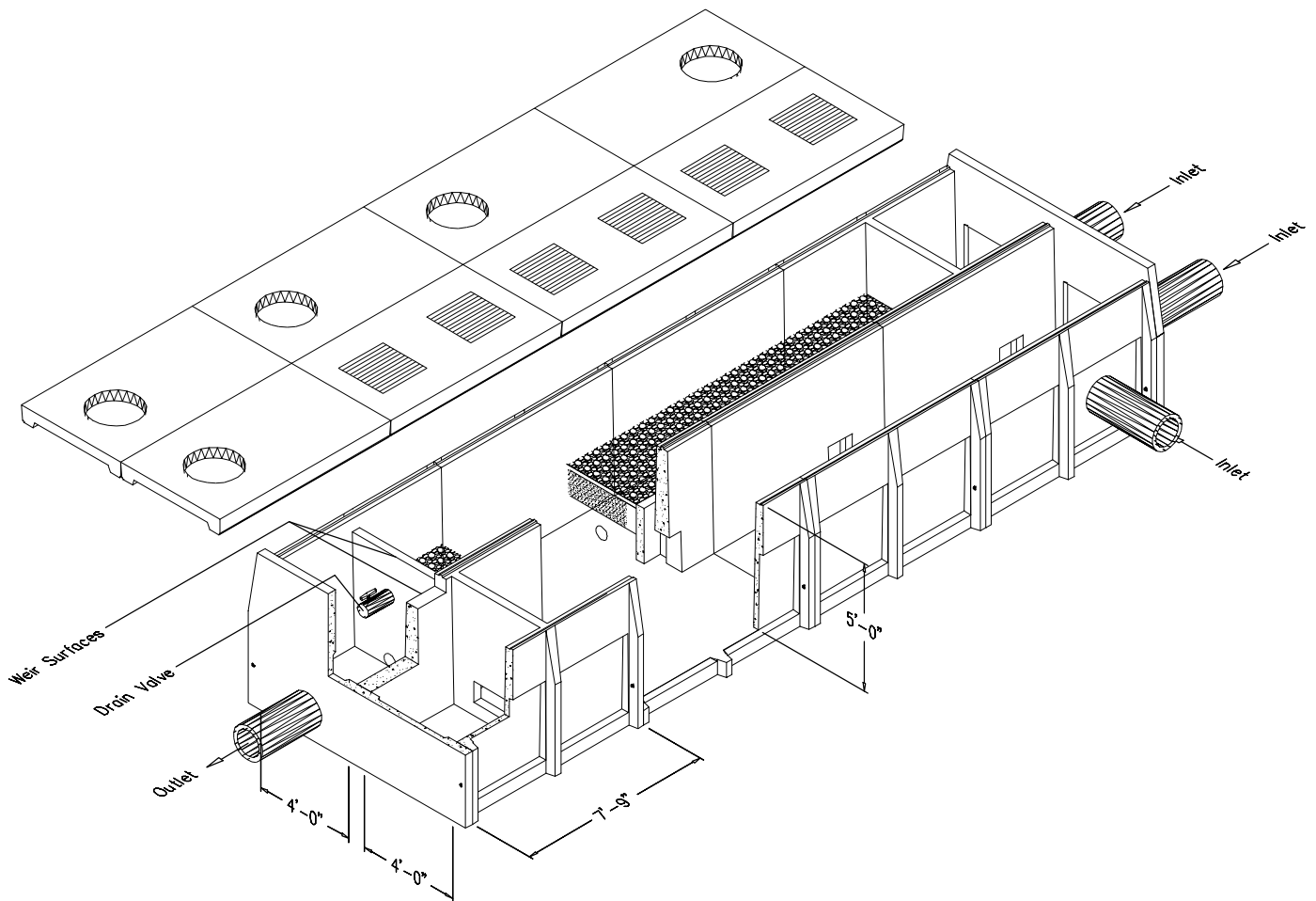
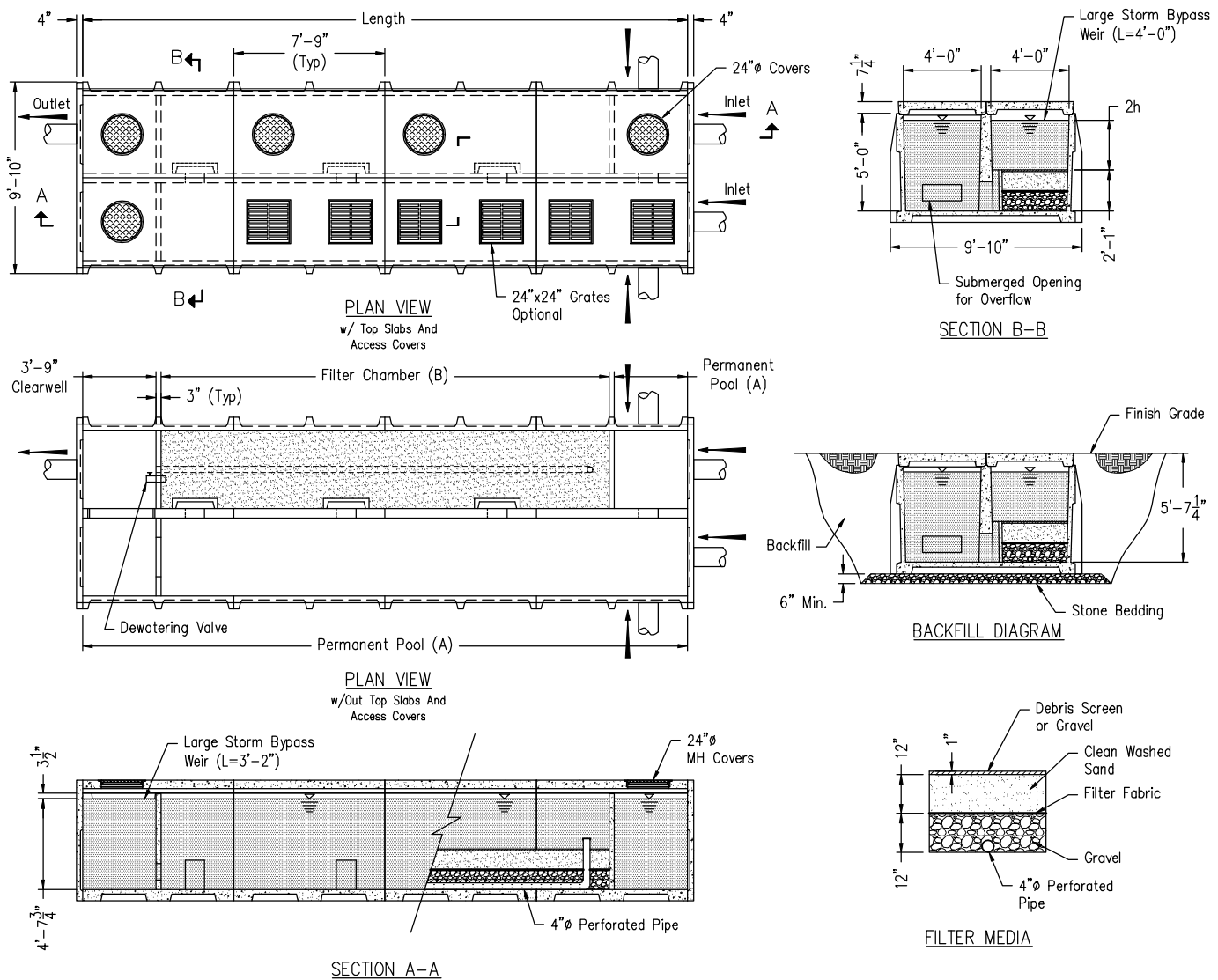


Perimeter Sandfilter w/ Grates



DESIGN SPECIFICATIONS:

- Concrete Min (28-Day) Compressive Strength 5,000 psi.
- Reinforcing Deformed Bars: ASTM A-615 (Fy=60 ksi)
- Reinforcing Deformed Wire: ASTM A-185 or A-497 (Fy=65 ksi).
- Design Live Load: AASHTO HS-20.
- Earth Cover: 0'-0" (Top Slab Flush w/ Finish Grade)
- Soil Unit Weight: 120 pcf.
- Design Specifications: AASHTO, 16th Edition & ASTM C 890



Sandfilter Chamber Lengths

Drainage Area (Acres)	.125	.25	.375	.5	.625	.75	.875	1.0	1.125	1.25	1.375	1.5	1.625	1.75	1.875	2.0
Permanent Pool (A)	15'-3"	27'-3"	50'-0"	57'-9"	65'-6"	73'-3"	96'-6"	104'-3"	112'-0"	119'-9"	143'-0"	150'-9"	158'-6"	166'-3"	174'-0"	197'-3"
Filter Chamber (B)	11'-6"	15'-3"	23'-0"	30'-9"	38'-6"	46'-3"	54'-0"	61'-9"	69'-6"	77'-3"	85'-0"	92'-9"	100'-6"	108'-3"	116'-0"	123'-9"
Clearwell	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"
Length	15'-6"	23'-3"	38'-9"	46'-6"	54'-3"	62'-0"	77'-6"	85'-3"	93'-0"	100'-9"	116'-3"	124'-0"	131'-9"	139'-6"	147'-3"	162'-9"

Sandfilter Sizing Notes:

- Sizes Figured Using "Unified Stormwater Sizing Method" Per The State Of Maryland.
- Areas Are "Total Drainage Areas" Draining To Sandfilter.
- Impervious Cover = 90%
- Rainfall Depth = 1.0"
- Height Of Water Above Filter (2h) = 2'-6 3/4"

Overflow Weir Notes:

- Weir Length = 7'-2"
- Discharge Coefficient (c) = 2.53
- Head Above Crest (H) = 3 1/2"
- Allowable Overflow Rate (Q) = 3.0 cfs

Perimeter Sandfilter w/ Grates

* Patent Pending

Filter Media Quantities & Specifications			
Material	Qty/lf of Filter (B)	Specification	Notes
Sand	4.0 cf/lf	Clean AASHTO-M-6 or ASTM C-33 Concrete Sand	Size = .02" to .04"
Underdrain Gravel	3.9 cf/lf	AASHTO-M-43	Size = .375" to .75"
Filter Fabric	5.0 sf/lf	ASTM-D-4833 (PS = 125 lbs.) & ASTM-D-4632 (TS = 300 lbs.)	Must Maintain 125 gpm per sq. ft. Flow Rate
Underdrain Piping	1.0 ft/lf	F 758, Type PS 28 or AASHTO-M-278	4" Dia., .375" perf. @ 6" cc, 4 Holes Per Row



ROTONDO

Environmental Solutions LLC

4950 EISENHOWER AVE., UNIT C
ALEXANDRIA, VA 22304
PHONE: 703-212-4830
FAX: 703-212-4832
WEB: www.rotondo-es.com