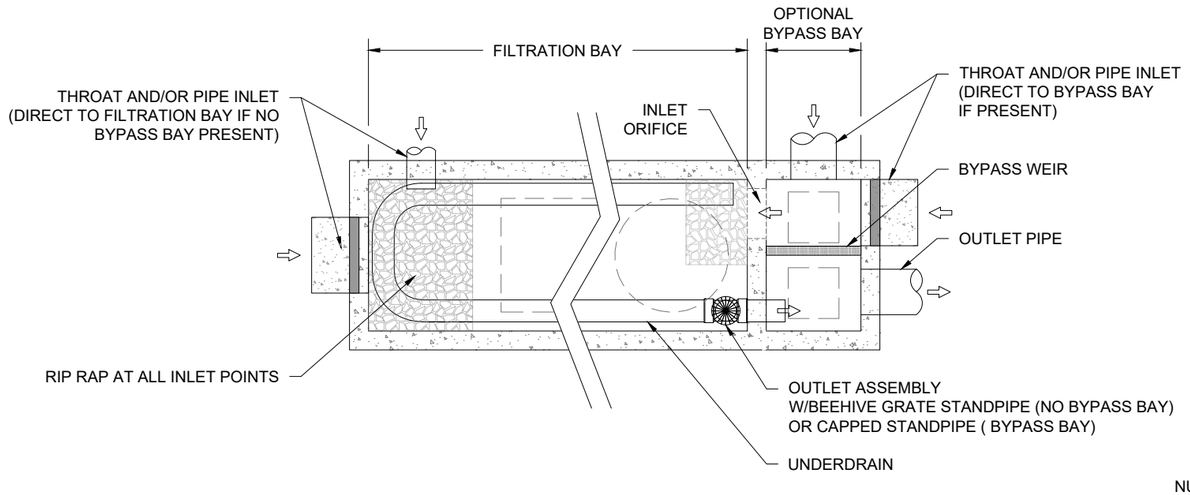
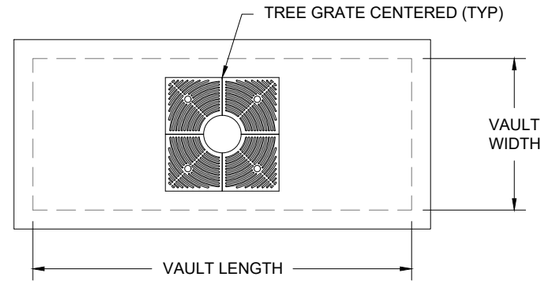
THE ECOSTREAM BIOFILTER™ IS A BIOFILTRATION STORMWATER TREATMENT TECHONOLOGY THAT RELIES ON PHYSICAL, CHEMICAL AND BIOLOGICAL MECHANISMS TO REMOVE TOTAL SUSPENDED SOLIDS, TOTAL PHOSPHORUS, TOTAL NITROGEN, HEAVY METALS, OIL and GREASE, TRASH AND BACTERIA.

Vault Size	Min Inlet to Outlet Depth[1] (in)	Media Filtration Area (sf)	Overflow to Outlet Depth (in)	Design Treatment Rate (cfs)	Bypass Standpipe (in)	Total Hydraulic Capacity[2] (cfs)	Bypass Bay Weir Flow[3] (cfs) Weir Lengths			Tree Grate Size (ft) and Number
							2.5′	3′	3.5′	
4 x 4	32	16	32	0.147	6	1.42	2.9	3.5	4.1	3 ft (1x)
4 x 6	32	24	32	0.221	6	1.42	2.9	3.5	4.1	3 ft (1x)
4 x 8	32	32	32	0.294	6	1.42	2.9	3.5	4.1	3 ft (1x)
4 x 10	32	40	32	0.368	6	1.42	2.9	3.5	4.1	3 ft (2x)
4 x 12	32	48	32	0.441	6	1.42	2.9	3.5	4.1	3 ft (2x)
6 x 8	32	48	32	0.441	6	1.42	2.9	3.5	4.1	4 ft (1x)
6 x 10	32	60	32	0.551	8	1.89	2.9	3.5	4.1	4 ft (1x)
6 x 12	32	72	32	0.662	8	1.89	2.9	3.5	4.1	4 ft (2x)
8 x 10	32	80	32	0.735	8	1.89	2.9	3.5	4.1	4 ft (1x)
8 x 12	32	96	32	0.882	10	2.47	2.9	3.5	4.1	4 ft (2x)
8 x 14	32	112	32	1.029	10	2.47	2.9	3.5	4.1	4 ft (2x)
8 x 16	32	128	32	1.176	10	2.47	2.9	3.5	4.1	4 ft (2x)

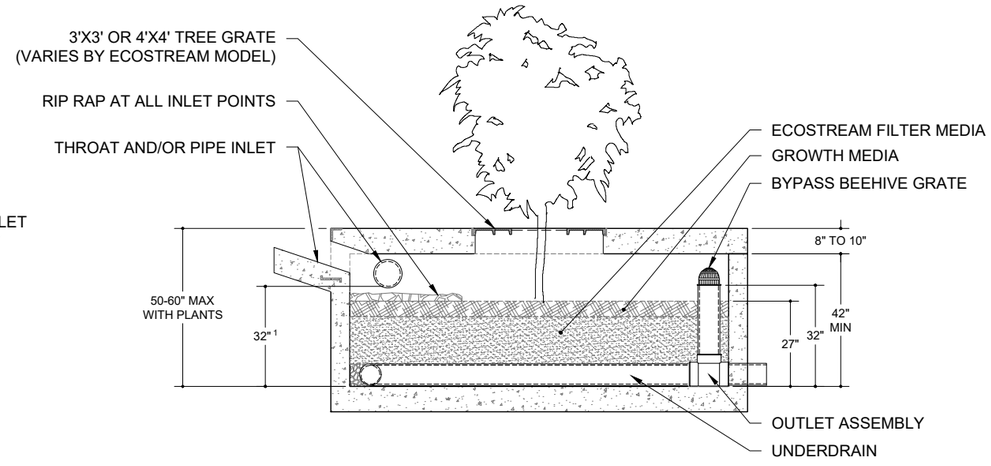
[1] A min drop of 29" can be used however the design engineer must review the 3" tailwater (up to the beehive bypass) on the inlet pipe to ensure it does not affect the projects overall design.
[2] Combined treatment flow rate and standpipe bypass flow rate up to the limit of the unit's outlet pipe capacity.
[3] Assumes a 42" inside vault height and a minimum head of 6" cresting the weir, deeper vaults may allow for additional head over the weir increasing the bypass capacity.





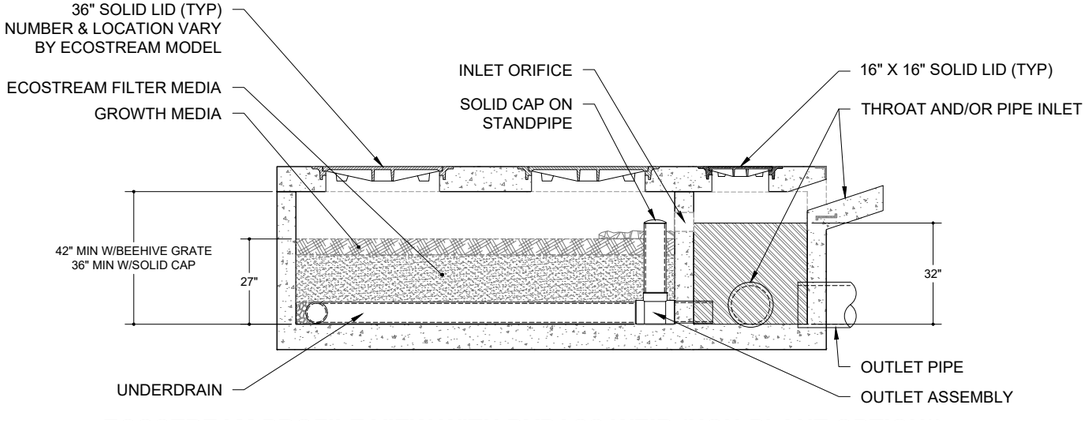
TREE GRATE PLACEMENT

SIZE AND NUMBER OF TREE GRATES VARY BY ECOSTREAM MODEL
(*FOR NON-PLANT OPTION WHERE APPLICABLE, SIZE AND NUMBER OF SOLID ACCESS LIDS VARY BY ECOSTREAM MODEL)



ECOSTREAM PROFILE VIEW WITH STANDPIPE BYPASS (PLANT OPTION)

NOT TO SCALE



ECOSTREAM PROFILE VIEW WITH BYPASS WEIR (NON-PLANT OPTION*)

NOT TO SCALE

ADS ECOSTREAM SPECIFICATIONS

PRODUCTS

A. INTERNAL COMPONENTS: SHALL BE SUBSTANTIALLY CONSTRUCTED OF RECYCLED POLYETHYLENE OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER

B. FILTER MEDIA/VEGETATION: FILTER MEDIA SHALL BE BY ADS AND SHALL CONSIST OF A PROPRIETARY BLEND OF FILTER MEDIA. VEGETATION IS VARIABLE DEPENDENT ON REGION. ITEMS CHOSEN SHOULD ALIGN WITH CONTROLLING MUNICIPAL, COUNTY, OR STATE REQUIREMENTS.

C. PRECAST CONCRETE VAULT: DESIGNED FOR H-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C478, ASTM C857 AND ASTM C858.

PERFORMANCE

A. THE STORMWATER FILTER SYSTEM SHALL BE AN ONLINE OR OFFLINE DESIGN CAPABLE OF TREATING 100% OF THE REQUIRED TREATMENT FLOW AT FULL SEDIMENT LOAD CONDITIONS.
B. THE STORMWATER FILTER SYSTEM SHALL HAVE NO MOVING PARTS.
C. THE STORMWATER TREATMENT UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 85% OF TOTAL SUSPENDED SOLIDS PER NJDEP CERTIFICATION.

ECOSTREAM BIOFILTER
STANDARD DETAIL
DATE: 09/20/23 DRAWN: JLM
PROJECT #: CHECKED: KMS

DATE	DESCRIPTION	DRWN	CHKD

EcoStream™ Biofilter
Stormwater Media Filters

4640 TRUEMAN BLVD
HILLIARD, OH 43026

NOT TO SCALE