



N-12



Jake Brunoehler, P.E. – Regional Engineer

AGENDA

- Purpose
- Product Overview
- Project Development
- Ideal Treatment Train
- Questions?

Hydro
International 

FLEXSTORM
INLET FILTERS


StormTech[®]





- Stormwater Management in Wisconsin
 - *Brief* StormTech/ADS Overview
 - Treatment Train
 - Summary



StormTech[®]

Hydro
International 

The logo for Hydro International, featuring the word 'Hydro' in a large, bold, blue sans-serif font, with 'International' in a smaller, blue sans-serif font below it. To the right of the text is a stylized graphic of a blue wave or spring.



Hydro
International 



StormTech[®]

Subsurface Stormwater Management[™]

ISOLATOR ROW[™]



CONCEPTUAL/FEASIBILITY

- Property Values and Taxes
 - Regional Environmental (Airports, etc)
 - Permit Requirements & Owner Desires
 - Costs! Up-front and Overall Ownership
- 
- A faint, stylized illustration in the background shows a hand holding a magnifying glass over a document. The word 'PAINTING' is written in a large, semi-transparent font across the top left of the image.

DESIGN

- # Modules (SLAMM)
- Configuration (Geometry)
- Peak Event Bypass (TR-55)
- Time Table



Drainage System Control Practice

Device Properties

Area Fraction Served by Up-Flo Filters (0-1)	1.000
A - Height from Outlet Invert to Structure Top (ft)	5.30
B - Sump Depth (ft)	3.00

Area Served by Upflow Filter (ac): 4.830

Filter Media: CPZ

Have Model Determine Cleaning/Replacement Frequency

Solve for Given Conditions

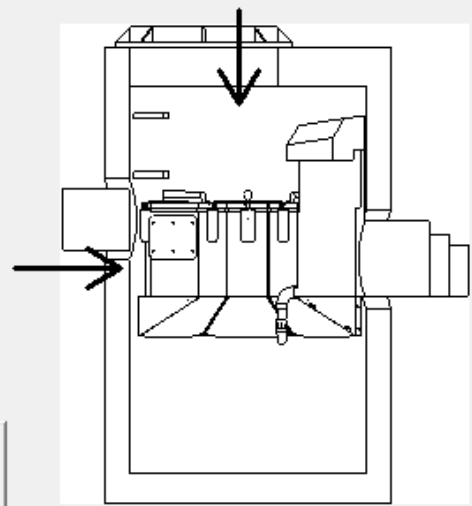
Number of Filter Modules

OR

Solve Iteratively for Desired Percent Reduction or Effluent Concentration

- Treatment Goal - Percent TSS (0.45-75 um) Removed: 60
- Treatment Goal - Percent SSC (>0.45 um) Removed
- Treatment Goal - Effluent TSS Concentration (mg/L)
- Treatment Goal - Effluent SSC Concentration (mg/L)

Contact Hydro International Web Site



A 5.30'

B 3.00'

Copy Media Filter Data

Paste Media Filter Data

Delete

Cancel

Continue

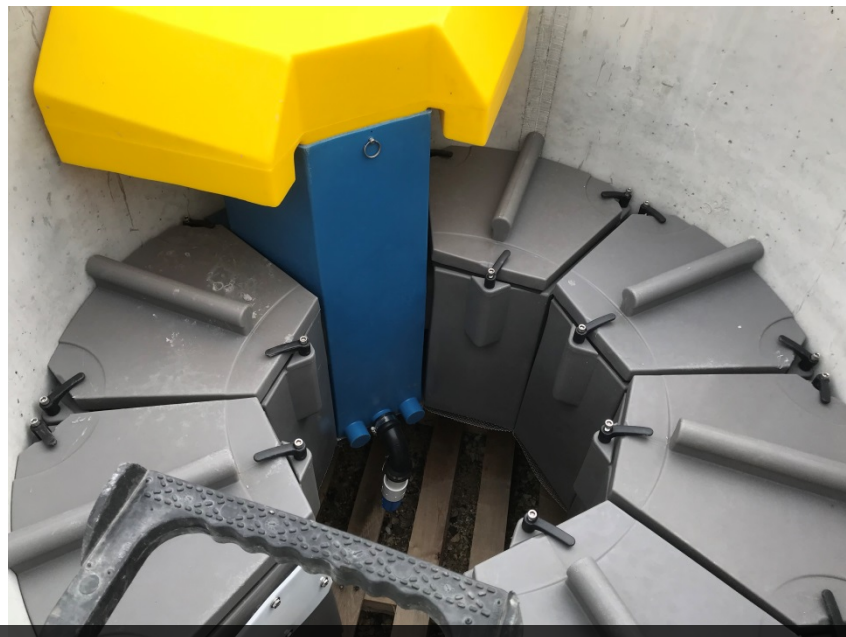
UPFLO FILTER IN WINSLAMM

Control Practice #: 2

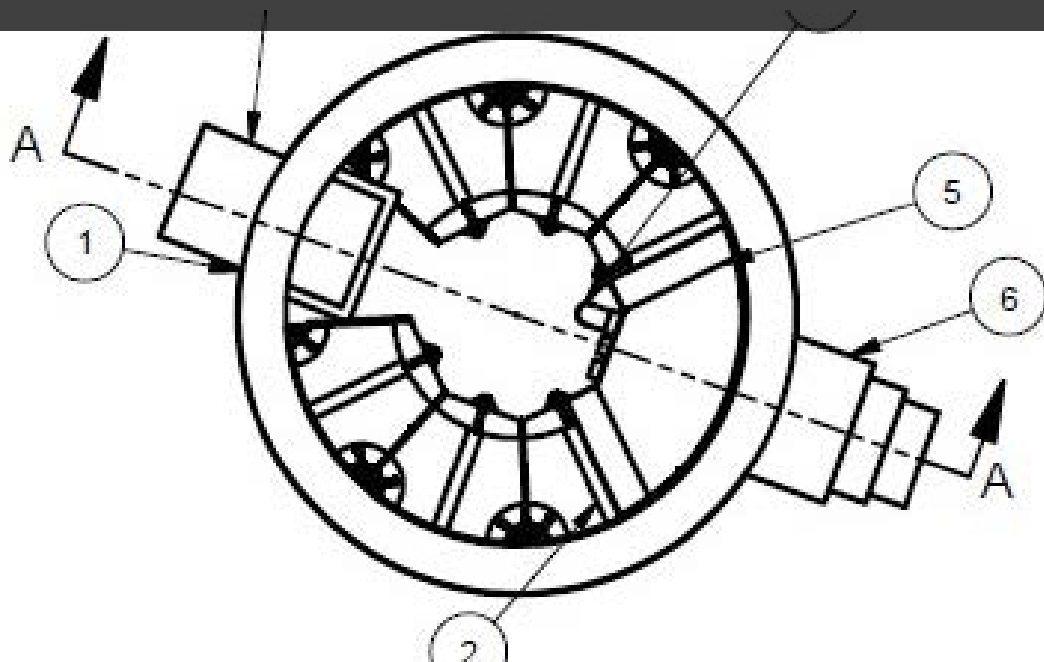
CP Index #: 2

Upstream Drainage Area = 4.830 acres

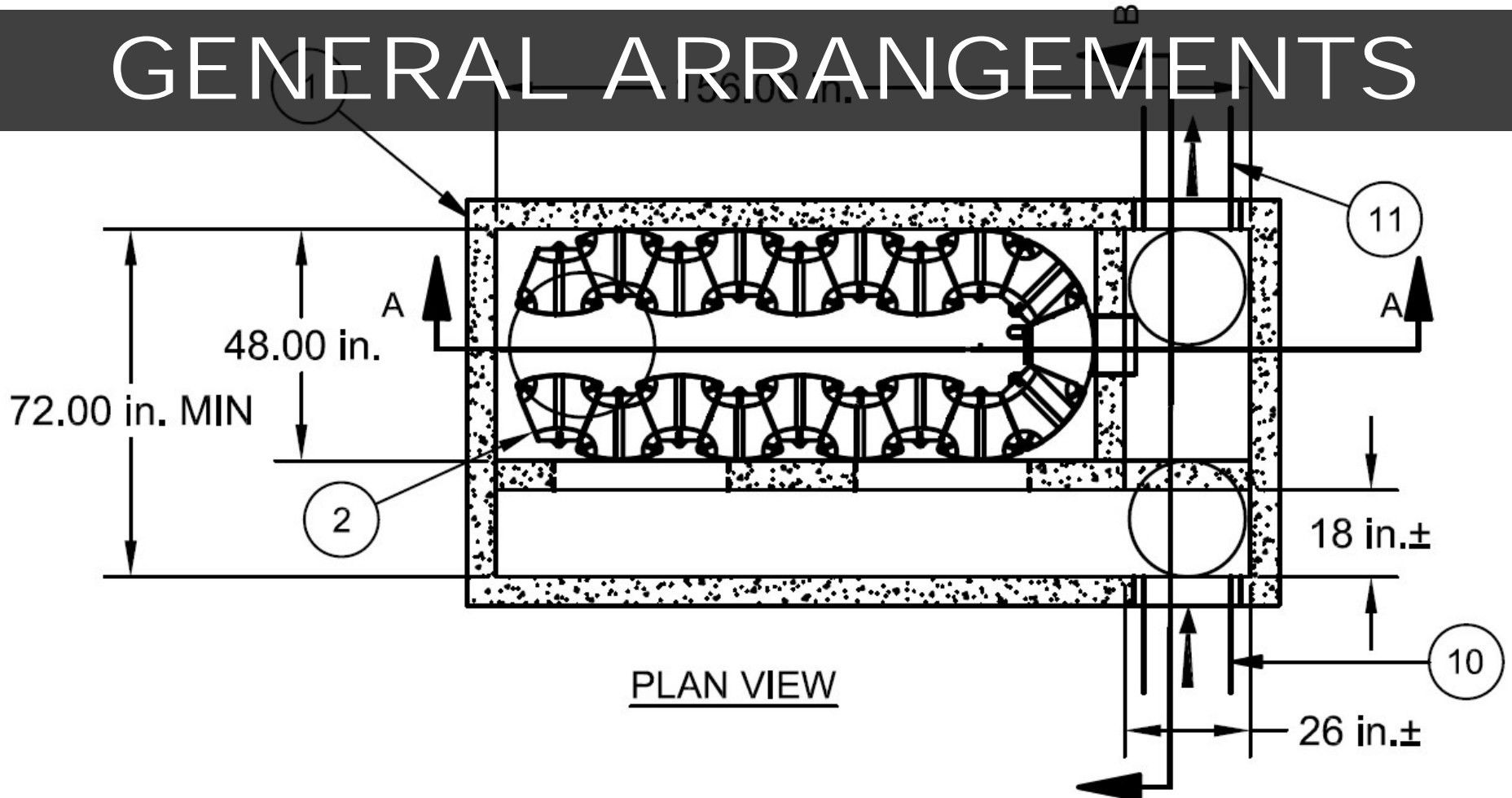




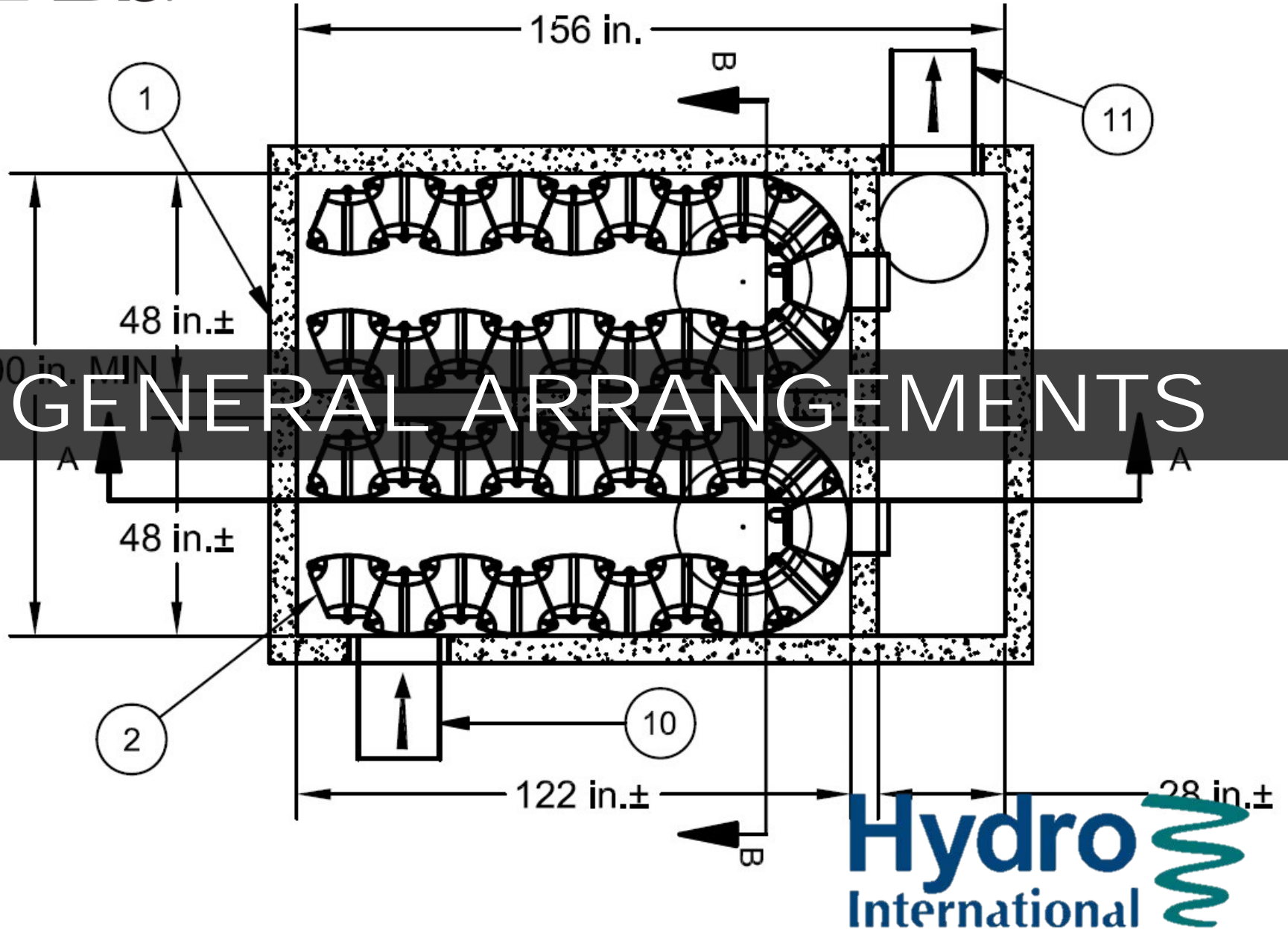
GENERAL ARRANGEMENTS



GENERAL ARRANGEMENTS



PLAN VIEW



Isolator Row Number

Source Area Name

Land Use Name

Source Area Name

Total Available System Length (ft)

Available Height from Chamber Base to Surface (ft)

Number of Isolator Rows

Total Available System Width (ft)

Pavement and Pavement Base Thickness (in)

Native Soil Infiltration Rate (in/hr)

Stone Porosity

Select Either of These Sizing Options

- Use All Available Area
- Enter Required Storage Volume
- Enter Number of Rows and Row Length

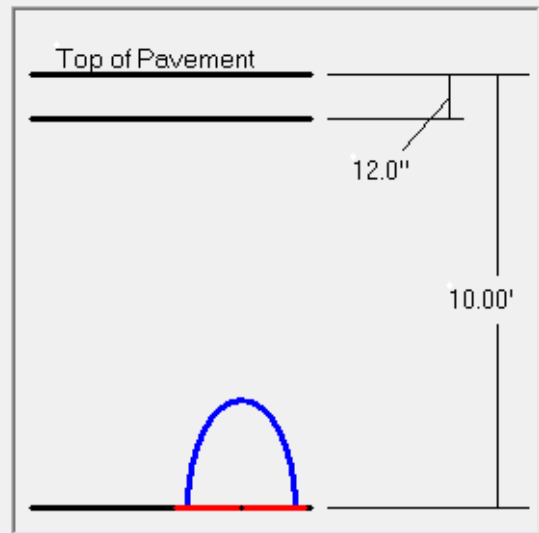
Select Product

Chamber Segment Dimensions				Calculated System Size						Cross Section		
Product	Height (in)	Width (in)	Length (in)	Final Storage Volume (cf)	Number of Rows	Row Length (ft)	Total System Length (ft)	Total System Width (ft)	Number of Chambers	Outlet	Elevation (ft)	Orifice Diameter (ft)
<input type="radio"/> SC-160LP	12	25	85.4							Overflow Weir		N/A
<input type="radio"/> SC-310	16	34	85.4							Orifice 1		
<input checked="" type="radio"/> SC-740	30	51	85.4	8089	9	85.4	768.6	42.8	108	Orifice 2		
<input type="radio"/> DC-780	30	51	85.4									
<input type="radio"/> MC-3500	45	77	86									
<input type="radio"/> MC-4500	60	100	48.3									

STORMTECH IN WINSLAMM (V 10.4)



Press 'F1' for Help



CHAMBER MODELS





StormTech[™]
Subsurface Stormwater Management[™]

CONSTRUCTION



CONSTRUCTION

- Lead Time
- Pre-Installation Meeting
- Pre-Assembled
- Take Out Media During Construction

A collection of cleaning supplies is shown against a blurred background of a person in a white shirt and blue apron. On the left, a hand in a yellow nitrile glove points upwards. In the center, there is a purple-handled brush with black bristles, a white-handled brush with green bristles, and a light blue sponge. On the right, there is a clear plastic spray bottle with a blue trigger and a blue cap, and a stack of yellow nitrile gloves with a pink cloth draped over them.

OPERATION & MAINTENANCE



ISOLATOR ROW™



Before



After

THE UNDERGROUND TREATMENT TRAIN





StormTech®

Subsurface Stormwater Management™

ADS®

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