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October 21, 2025 Project Number: 1474(03)

David Schaeffer Engineering Ltd.
120 Iber Road, Suite 103
Stittsville, ON
K2S 1E9

Attention: **Adam Fobert, P.Eng**

Subject: **Barrhaven Conservancy East Site Plan (Conservancy Stacked Towns)- Stormwater Analysis**

1.1.1 Introduction

The purpose of this Stormwater Management analysis is to outline the proposed stormwater management strategy for the development of the Barrhaven Conservancy East Site Plan located north of Conservancy Drive, east of Les Emerson Drive and west of Mineral Street, in Barrhaven, Ontario. The following memo addresses the stormwater management requirements associated with the proposed development in accordance with the guidelines and regulations set forth by the City of Ottawa and the Ministry of the Environment, Conservation and Parks (MECP). This is an update of the August 27, 2025 memo to clarify, in the quality control section, that the isolator row system provides filtration as a pre-treatment step prior to infiltration. Please note that no changes have been made to the previously submitted PCSWMM model (BCDC-P3_v10.2), which remains based on the design provided by DSEL as of August 2025.

The proposed development will consist primarily of stacked town homes, roads, parking and parkette amenities. The total site area is approximately **1.76 ha** at an average imperviousness of **81%**. Due to grading constraints, **0.53 ha** of the site plan will drain directly to nearby roads or rear yard swales within the greater subdivision. **Figure 1** provides an overview of the subcatchments within the site plan study area. All stormwater runoff from the subject property will be conveyed to the Jock River via storm sewer network within the greater Barrhaven Conservancy East Subdivision.

1.1.2 Stormwater Management Design Criteria

The stormwater management design for this site have been designed in accordance with the following regulatory guidelines:

- Ottawa Sewer Design Guidelines, City of Ottawa, SDG002, October 2012. (City Standards)
- City of Ottawa Technical Bulletin ISDTB-2014-01, Revisions to Ottawa Design Guidelines – Sewer, City of Ottawa, February 2014.
- City of Ottawa Technical Bulletin PIEDTB-2016-01, City of Ottawa, September 2016.
- City of Ottawa Technical Bulletin ISTB-2018-04, City of Ottawa, June 2018.
- Stormwater Planning and Design Manual, Ministry of the Environment, March 2003. (SWMP Design Manual)

1.1.3 Quality Control

The site will provide a minimum 80% TSS removal with the use of **two** (**2**) StormTech Isolator Row Plus chambers, which are ETV rated. These underground storage chambers will be integrated within the site to retain runoff from **1.23 ha** of drainage area. Each chamber includes an isolator row that provides filtration of stormwater by capturing sediment and other pollutants at the point of entry. The drainage area to each underground chamber is shown in **Figure 2**. As per the tables provided in **Attachment A**, both StormTech Isolator Row Plus chambers have been designed to provide 81% TSS removal.

Runoff from within the development will be captured by the catch basins and storm sewer network, then conveyed to the underground storage chambers for quality treatment. The chambers will be equipped with isolator rows, which are designed to filter out sediment and pollutants. Filtration occurs first within the isolator row, removing sediment and pollutants, followed by infiltration into the subgrade for further quality treatment. These isolator rows also include detailed inspection and cleaning processes to ensure long-term functionality.

Once the storage chambers reach capacity, excess runoff will overflow to the main storm sewer. All chambers have been sized by DSEL / ADS (the supplier) and will provide a total storage volume of approximately **122 m^3**, or approximately **99.2 m^3/ha**. Pre-treatment prior to filtration and infiltration will be provided by deep sumps and CB Shields, which will be installed at all catch basins within the site plan. These deep sump catch basins and CB Shields will also minimize the frequency of StormTech system maintenance. Note that the TSS removal provided by both the deep sump catch basins and CB Shields has not been considered in the total TSS removal rate for the site.

Runoff from 0.53 ha of uncontrolled drainage areas that drain to nearby roads within the greater subdivision will be treated by the subdivision's treatment train system, which is tributary to the downstream OGS units.

Refer to **Attachment A** for full details of the underground storage infiltration chambers and its TSS removal calculations. Note that to ensure a conservative design, the volume provided by the underground chambers has not been considered in the stormwater management modelling.

1.1.4 Quantity Control

The site does not have any specific quantity control requirements, as the site will outlet to the lower reaches of the Jock River and quantity control is not required. Although runoff from the site must be controlled to ensure that it does not adversely impact the operations of the storm sewer network within the greater Conservancy East Subdivision. To ensure that this is the case, the detailed site plan modelling has been incorporated into the greater subdivision modelling. This approach allows for the runoff and the HGLs from both the site plan and subdivision to be dynamically assessed in a single unified model.

1.1.5 Model Representation

The major system storage volume available on the site is represented by storage nodes in the model, derived from the detailed grading surface produced by DSEL, a copy of this detailed grading surface has been provided in **Figure 3**. Runoff from the site is directed to these storage nodes, which are connected to orifices that simulate the flow restriction of the CB grate. From there, the runoff is conveyed to the storm sewer network within the site. During extreme events, the CB grate may act as a constriction to flow, causing ponding at the CB. In these scenarios, the entire major system conveyance network has been modelled using a series of short (5m) open rectangular links. This allows major system flows to cascade from one low point to another during extreme events if the ponding elevation exceeds the localized high point between the two respective low points. **Figure 4** outlines the minor system connectivity within the site and **Figure 5** outlines the major system network.

1.1.6 Results

As part of the detailed modelling, the major system ponding and storm sewer HGL have been assessed in detail. **Table 1** below outlines the peak flows leaving the site for the 2, 5, and 100-year events under free outlet conditions.

Table 1: Minor and Major System Outflows (m^3/s) – Free Outlet (see Figure 5)

System	Location	002yrChicago3hr	005yrChicago3hr	100yrChicago3hr
Minor System	West	0.111	0.149	0.222
	East	0.112	0.147	0.268
Major System	Northwest	0.000	0.000	0.000
	Southwest	0.000	0.000	0.000
	Northeast	0.000	0.000	0.000
	Southeast	0.001	0.002	0.004

Table 2 outlines the maximum ponding elevations during both the 100-year SCS 24Hr and 100-year CHI 3Hr event, as well as the stress test event (100yr CHI 3Hr+20%). Note that this analysis assumes a fixed 5-year water level on the Jock River in accordance with the analysis completed for the greater Conservancy East Subdivision SWM analysis. Based on this analysis, the maximum ponding depth on site is **21 cm** for the 100-year event and **25 cm** for the stress test event.

Table 3 outlines the maximum HGL within the storm sewer network for the site. This analysis was also completed for the design storms specified above, with the same outlet condition. Based on this analysis, the minimum freeboard from the top of MH is **5 cm** at **MH-620** for the 100-year events and **0 cm** (HGL at the top of MH elevation) at **MH-620** for the stress test event. It is important to highlight that, like the greater subdivision, all units within the site plan will have sump pumps in place; thus, the HGL criterion for this site is to maintain the 100-year HGL within the minor system below the surface at maintenance holes. Based on this detailed analysis, it is shown that this criterion has been met.

1.1.7 Conclusions

This Stormwater Management Memo has presented the proposed stormwater management strategy for the development of the Barrhaven Conservancy East Site Plan located north of Conservancy Drive, east of Les Emerson Drive and west of Mineral Street, in Barrhaven Ontario. The proposed design meets the regulatory requirements set forth by the City of Ottawa and the Ministry of the Environment, Conservation and Parks (MECP) and addresses the stormwater management objectives of quantity control, quality control, and erosion and sediment control. The implementation of the proposed measures will help to mitigate the impacts of development on the receiving water body and surrounding environment.

Yours truly,
JFSA Canada Inc.

Paulo Pickart, B. Eng., P.Eng.
Senior Water Resources Engineer

Reviewed by:

Jonathon Burnett, B.Eng., P.Eng.
Senior Water Resources Engineer

cc: J.F Sabourin, M.Eng, P.Eng
Director of Water Resources Projects

Figures

Tables

Attachments

Table 2: Maximum Ponding Depths / Elevations for the 100-Year SCS Storm, 100-Year Chicago Storm & 100-Year Chicago Storm +20%

Catch Basin ID	Total Depth			Water Surface Elevation		
	100 Year 24Hr SCS (cm)	100 Year 3Hr CHI (cm)	100 Year 3Hr CHI+20% (cm)	100 Year 24Hr SCS (m)	100 Year 3Hr CHI (m)	100 Year 3Hr CHI+20% (m)
CB_362	5	8	12	93.17	93.21	93.24
CB_363	3	4	7	93.15	93.16	93.19
CB_364	7	13	17	93.04	93.10	93.14
CB_365	12	15	17	93.09	93.12	93.14
CB_366	15	18	22	93.01	93.05	93.08
CB_369	10	16	22	93.10	93.16	93.21
CB_370	3	11	14	93.07	93.14	93.18
CB_371	9	12	14	93.12	93.15	93.18
CB_372	6	11	15	93.16	93.22	93.25
CB_373	3	4	9	93.13	93.14	93.19
CB_374	13	17	20	93.01	93.05	93.08
CB_375	7	10	12	93.04	93.07	93.09
CB_376	2	3	4	93.12	93.12	93.13
CB_377	3	3	4	93.12	93.12	93.13
CB_378	2	10	15	93.05	93.12	93.17
CB_379	3	10	15	93.05	93.12	93.17
CB_381	18	21	25	93.01	93.05	93.08
CB_384	7	11	17	93.11	93.15	93.21
CB_385	2	3	10	93.09	93.11	93.18
CB_386	1	2	2	93.10	93.11	93.11
CB_387	2	3	5	93.01	93.02	93.04
CBMH-537	14	18	22	93.01	93.05	93.08
CBMH-619	11	16	22	93.10	93.16	93.21
CICB_380	10	12	15	93.17	93.19	93.22
CICB_383	3	9	14	93.10	93.16	93.21
Max	**18**	**21**	**25**	**93.17**	**93.22**	**93.25**

Table 3: Freeboard Results - 100-Year Events & Stress Test Event with 5 Year Jock River Water Level

MH-ID	Invert Elevation (m)	Top of MH (m)	Max HGL			Freeboard		
			100 Year 24 Hr SCS (m)	100 Year 3 Hr CHI (m)	100 Year 3 Hr CHI+20% (m)	100 Year 24Hr SCS (m)	100 Year 3Hr CHI (m)	100 Year 3Hr CHI+20% (m)
MH-530	90.81	93.36	92.95	93.03	93.09	0.41	0.33	0.27
MH-531	90.58	93.08	92.85	92.93	93.00	0.23	0.15	0.08
MH-532	90.33	93.12	92.81	92.90	92.97	0.31	0.22	0.15
MH-533	90.71	93.35	92.91	92.99	93.05	0.44	0.36	0.30
MH-534	90.70	93.38	92.90	92.98	93.04	0.48	0.40	0.34
MH-535	90.67	93.41	92.90	92.97	93.03	0.51	0.44	0.38
MH-536	90.65	93.18	92.89	92.97	93.03	0.29	0.21	0.15
MH-538	90.86	93.36	92.92	92.99	93.05	0.44	0.37	0.31
MH-613	91.29	93.45	93.02	93.09	93.14	0.43	0.36	0.31
MH-614	91.10	93.14	92.96	93.06	93.12	0.18	0.08	0.02
MH-615	90.66	93.26	92.91	93.01	93.08	0.35	0.25	0.18
MH-616	90.99	93.18	92.93	93.04	93.10	0.25	0.14	0.08
MH-617	90.96	93.21	92.93	93.03	93.10	0.28	0.18	0.11
MH-618	90.73	93.31	92.93	93.03	93.10	0.38	0.28	0.21
MH-620	91.16	93.15	93.03	93.10	93.15	0.12	0.05	0.00
MH-621	90.99	93.26	92.96	93.06	93.12	0.30	0.20	0.14
					Min	**0.12**	**0.05**	**0.00**
					Max	**0.51**	**0.44**	**0.38**
					Average	**0.34**	**0.25**	**0.19**

Legend

- Site Plan
- Site Plan Boundary
- Subcatchments
  - <ID>
  - <AREA>
  - <IMP>

SCALE: 1:750

0 20 40 m

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Barrhaven Conservancy East Site Plan
(Conservancy Stacked Towns)

Figure 1: Subcatchments Overview

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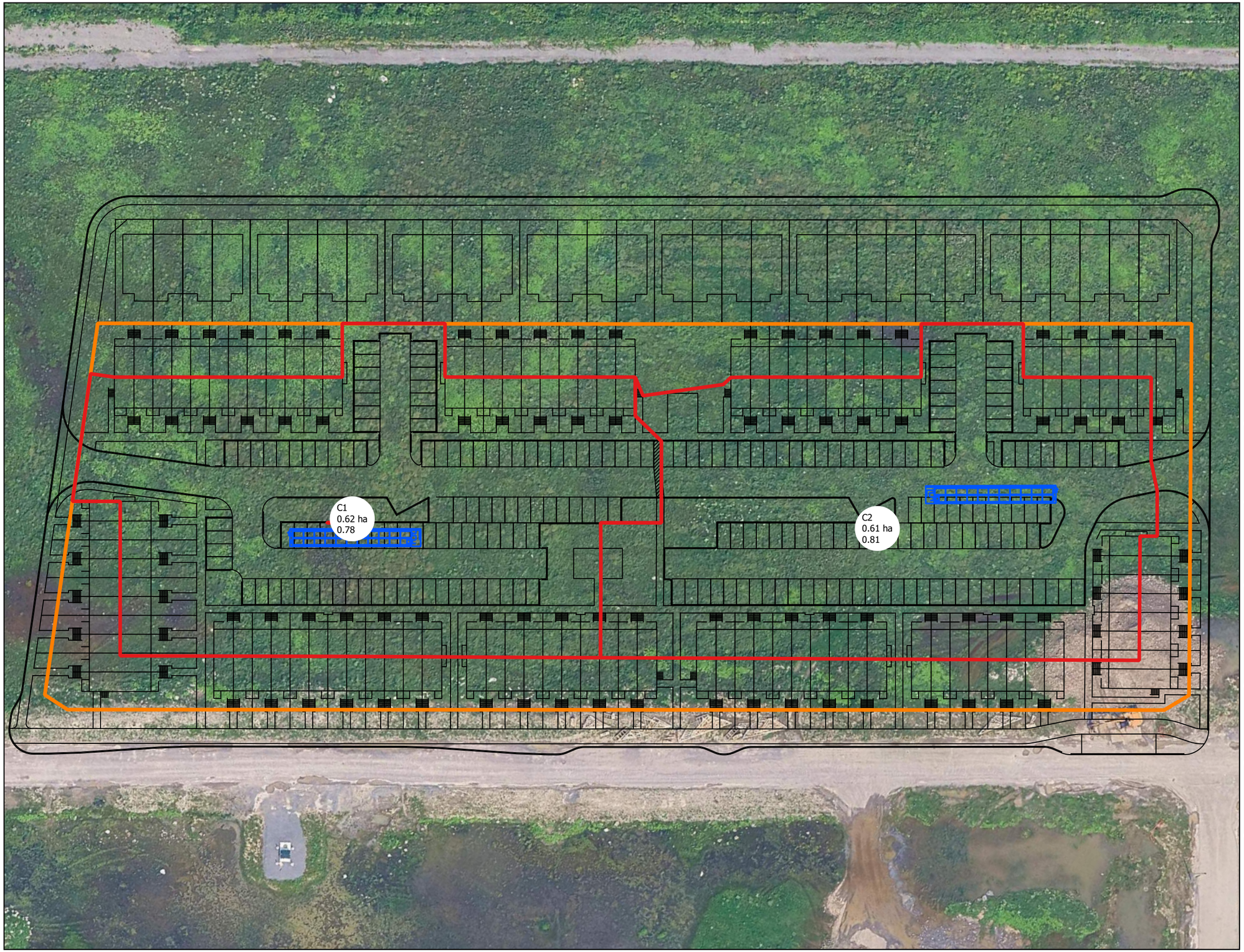

Legend

- Site Plan Boundary
- Site Plan
- Underground Chamber Drainage Areas
  - <Chamber ID>
  - <Drainage Area>
  - <Runoff Coefficient>
- Underground Chamber Locations

SCALE: 1:750

0 20 40 m

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Figure 2: Underground Chamber Drainage Areas

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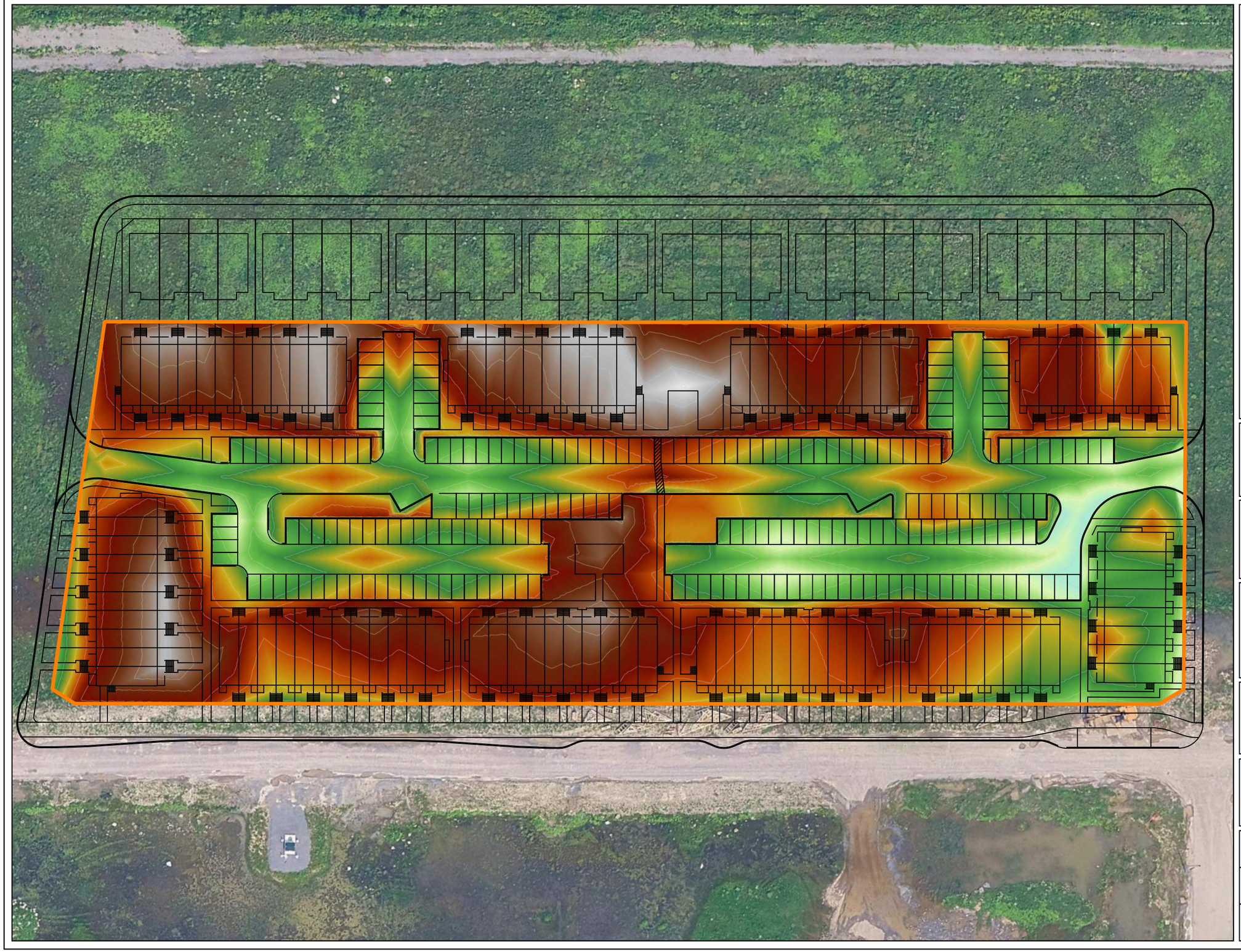

Legend

- Site Plan Boundary
- Site Plan
- Contours (0.1m)

Detailed Grading Surface (m)

- 92.90
- 93.00
- 93.10
- 93.20
- 93.30
- 93.40
- 93.50
- 93.60
- 93.70
- 93.80
- 93.90

SCALE: 1:750

0 20 40 m

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Figure 3: Detailed Grading Surface

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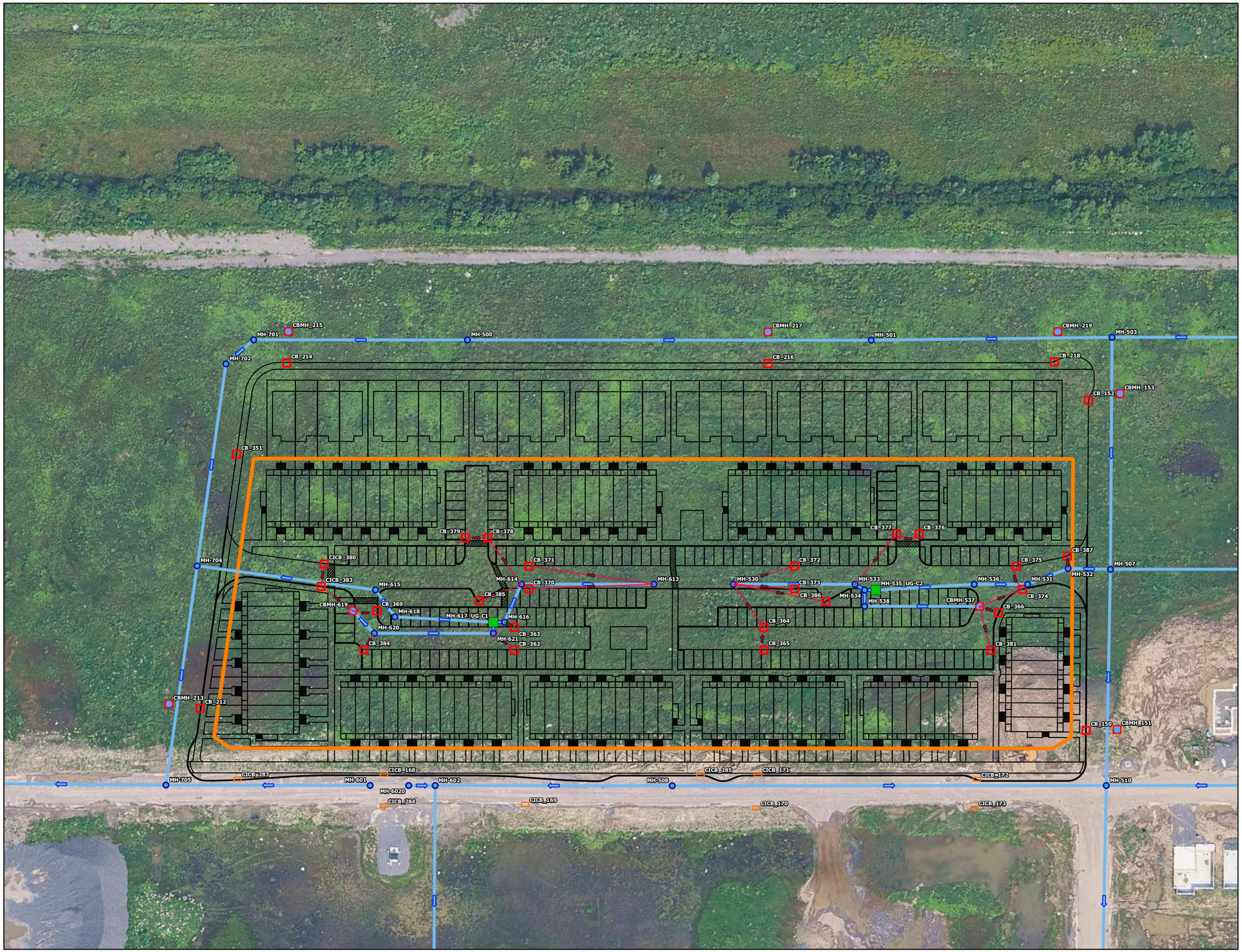

Legend

- Site Plan
- Site Plan Boundary

Conduits & Lead Pipes

- STM
- CB Lead

Junctions

- CB
- CBMH
- CICB
- EX._CICB
- MH
- Underground Storage

SCALE: 1:1000

0 20 40 m

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Barrhaven Conservancy East Site Plan
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Figure 4: Minor System

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Legend

- Site Plan
- Site Plan Boundary

Conduits

- Major

Junctions

- Maj
- Maj (Low Point)
- Maj (High Point)

SCALE: 1:800

0 20 40 m

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Barrhaven Conservancy East Site Plan
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Figure 5: Major System

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Attachment A

StormTech Underground Storage Chambers Details

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	HAIDER NASRULLAH 647-850-9417 HAIDER.NASRULLAH@ADSPIPE.COM
ADS SALES REP	BRAD DUNLOP 613-893-7336 BRAD.DUNLOP@ADSPIPE.COM
PROJECT NO.	S430138
ONTARIO SITE COORDINATOR:	RYAN RUBENSTEIN 519-710-3687 RYAN.RUBENSTEIN@ADSPIPE.COM

Advanced Drainage Systems, Inc.

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OTTAWA, ON, CANADA

SC-800 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-800.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL BE CERTIFIED TO CSA B184, "POLYMERIC SUB-SURFACE STORMWATER MANAGEMENT STRUCTURES", AND MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE CSA S6 CL-625 TRUCK AND THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 50 mm (2").
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 750 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 23° C / 73° F), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-800 SYSTEM

1. STORMTECH SC-800 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-800 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 75 mm (3") SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 #3, 357, 4, 467, 5, 56, OR 57.
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-800 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-800 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. FULL 900 mm (36") OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT: C1

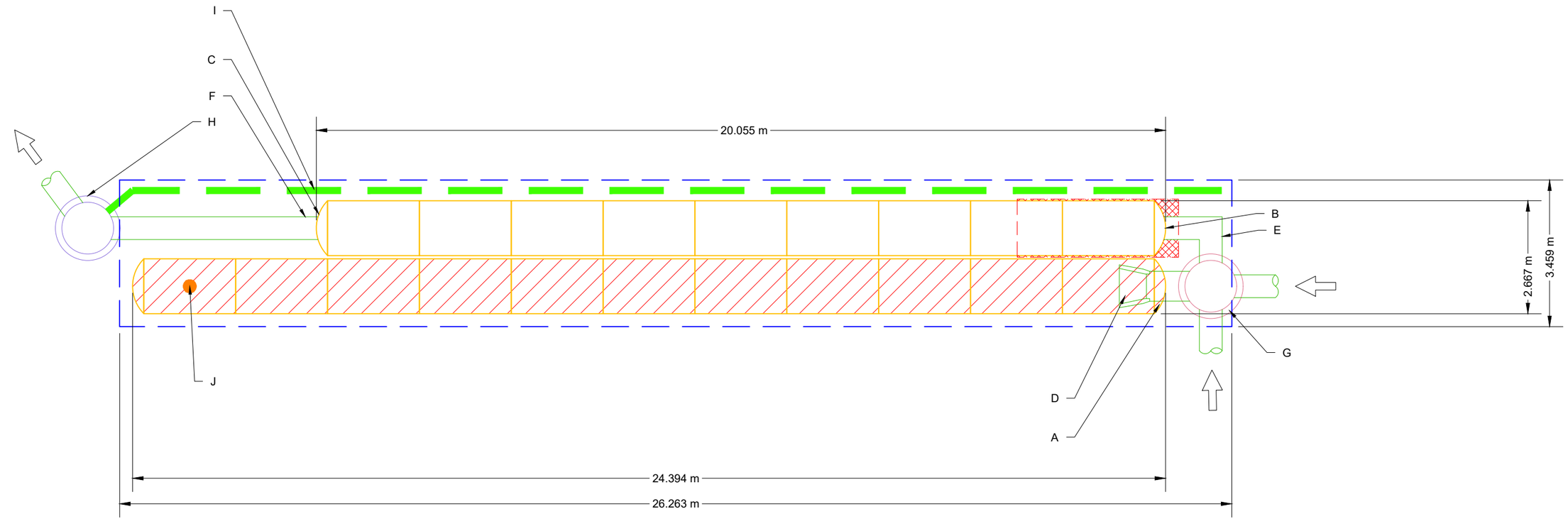
20	STORMTECH SC-800 CHAMBERS
4	STORMTECH SC-800 END CAPS
152	STONE ABOVE (mm)
152	STONE BELOW (mm)
40	% STONE VOID
59.0	**INSTALLED SYSTEM VOLUME (m³) (PERIMETER STONE INCLUDED)**
90.9	SYSTEM AREA (m²)
60.7	SYSTEM PERIMETER (m)

PROPOSED ELEVATIONS: C1

94.178	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):
92.273	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):
92.121	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):
92.121	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):
92.121	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT):
91.892	TOP OF STONE:
91.740	TOP OF SC-800 CHAMBER:
91.105	450 mm TOP MANIFOLD INVERT:
90.960	600 mm ISOLATOR ROW PLUS CONNECTION INVERT:
90.953	450 mm BOTTOM CONNECTION INVERT:
90.902	BOTTOM OF SC-800 CHAMBER:
90.750	UNDERDRAIN INVERT:
90.750	BOTTOM OF STONE:

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED EZ END CAP	A	600 mm BOTTOM PREFABRICATED EZ END CAP, PART#: SC800ECEZ / TYP OF ALL 600 mm BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	58 mm	
PRE-CORED END CAP	B	450 mm TOP PRE-CORED END CAP, PART#: SC800EPE18TPC / TYP OF ALL 450 mm TOP CONNECTIONS	203 mm	
PRE-CORED END CAP	C	450 mm BOTTOM PRE-CORED END CAP, PART#: SC800EPE18BPC / TYP OF ALL 450 mm BOTTOM CONNECTIONS	51 mm	
FLAMP	D	INSTALL FLAMP ON 600 mm ACCESS PIPE / PART#: SC80024RAMP		
MANIFOLD	E	450 mm x 450 mm TOP MANIFOLD, ADS N-12	203 mm	
PIPE CONNECTION	F	450 mm BOTTOM CONNECTION	51 mm	
CONCRETE STRUCTURE	G	MH 617(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		79 L/s IN
CONCRETE STRUCTURE	H	OCS MH 618 (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		113 L/s OUT
UNDERDRAIN	I	150 mm ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		
INSPECTION PORT	J	150 mm SEE DETAIL		



ISOLATOR ROW PLUS
(SEE DETAIL)

PLACE MINIMUM 3.810 m OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

1398 BCDC
OTTAWA, ON, CANADA
DATE: 01/14/2025
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PROJECT #: S430138
CHECKED: RCT

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8/18/2025	AP	HAK
8/22/2025	AP	JPR

StormTech®
Chamber System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

SCALE = 1 : 100

PROPOSED LAYOUT: C2

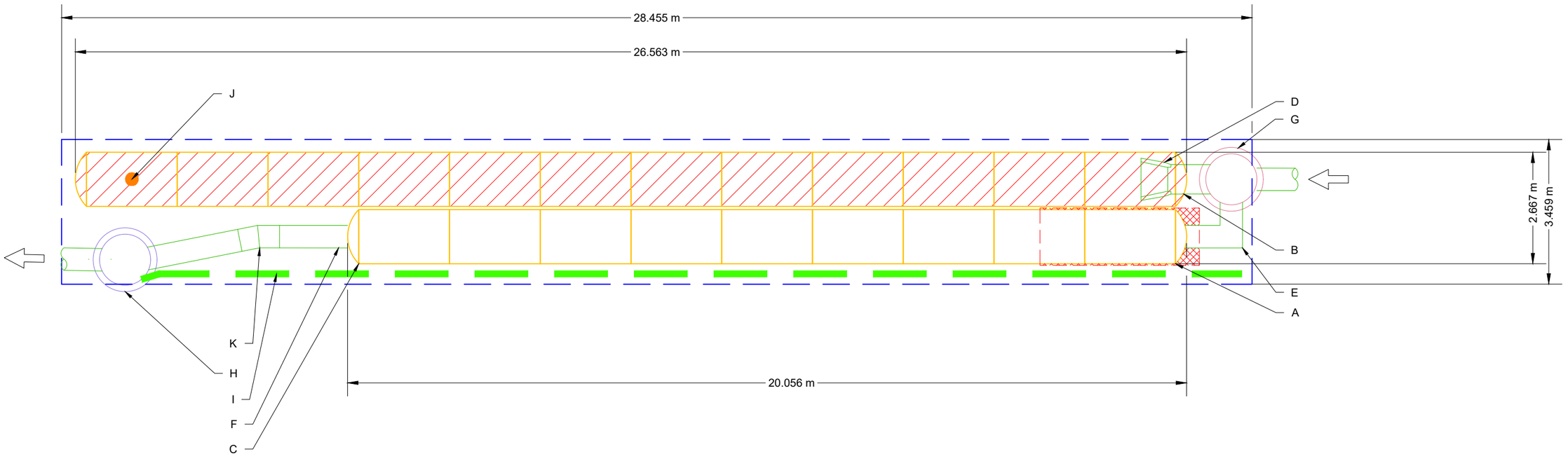
21	STORMTECH SC-800 CHAMBERS
4	STORMTECH SC-800 END CAPS
152	STONE ABOVE (mm)
152	STONE BELOW (mm)
40	% STONE VOID
63.3	**INSTALLED SYSTEM VOLUME (m³) (PERIMETER STONE INCLUDED)**
98.4	SYSTEM AREA (m²)
63.8	SYSTEM PERIMETER (m)

PROPOSED ELEVATIONS: C2

93.884	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):
91.979	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):
91.827	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):
91.827	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):
91.827	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT):
91.598	TOP OF STONE:
91.446	TOP OF SC-800 CHAMBER:
90.811	450 mm TOP MANIFOLD INVERT:
90.666	600 mm ISOLATOR ROW PLUS CONNECTION INVERT:
90.659	450 mm BOTTOM CONNECTION INVERT:
90.608	BOTTOM OF SC-800 CHAMBER:
90.456	UNDERDRAIN INVERT:
90.456	BOTTOM OF STONE:

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PRE-CORED END CAP	A	450 mm TOP PRE-CORED END CAP, PART#: SC800EPE18TPC / TYP OF ALL 450 mm TOP CONNECTIONS	203 mm	
PREFABRICATED EZ END CAP	B	600 mm BOTTOM PREFABRICATED EZ END CAP, PART#: SC800ECEZ / TYP OF ALL 600 mm BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	58 mm	
PRE-CORED END CAP	C	450 mm BOTTOM PRE-CORED END CAP, PART#: SC800EPE18BPC / TYP OF ALL 450 mm BOTTOM CONNECTIONS	51 mm	
FLAMP	D	INSTALL FLAMP ON 600 mm ACCESS PIPE / PART#: SC80024RAMP		
MANIFOLD	E	450 mm x 450 mm TOP MANIFOLD, ADS N-12	203 mm	
PIPE CONNECTION	F	450 mm BOTTOM CONNECTION	51 mm	
CONCRETE STRUCTURE	G	MH 535 (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		79 L/s IN
CONCRETE STRUCTURE	H	OCS MH 536 (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		113 L/s OUT
UNDERDRAIN	I	150 mm ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		
INSPECTION PORT	J	150 mm SEE DETAIL		
PIPE BEND	K	450 mm X 11.25° ADS N-12 BEND		



ISOLATOR ROW PLUS
(SEE DETAIL)

PLACE MINIMUM 3.810 m OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

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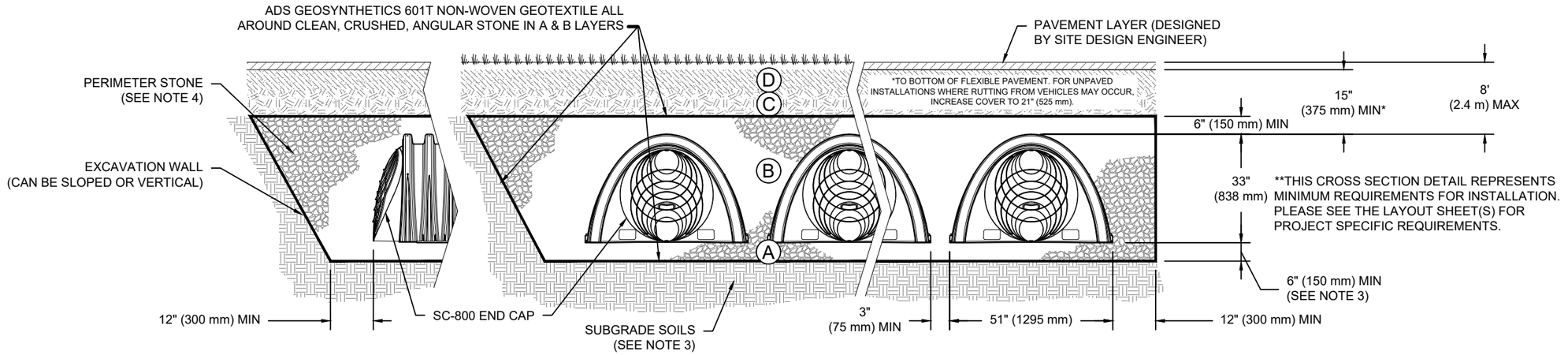
ACCEPTABLE FILL MATERIALS: STORMTECH SC-800 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 15" (375 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-800 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 750 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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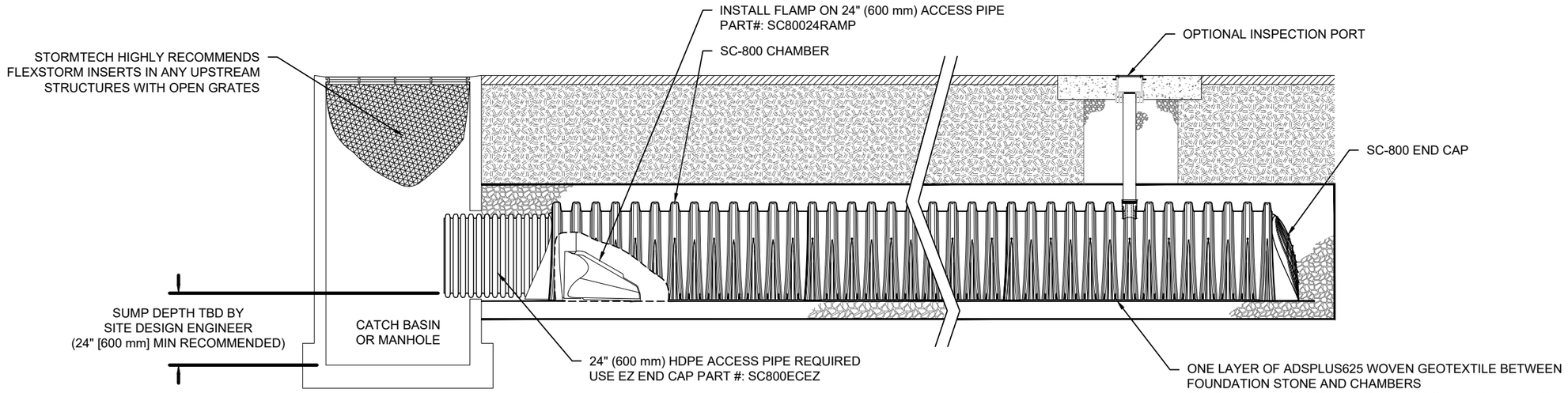


SC-800 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

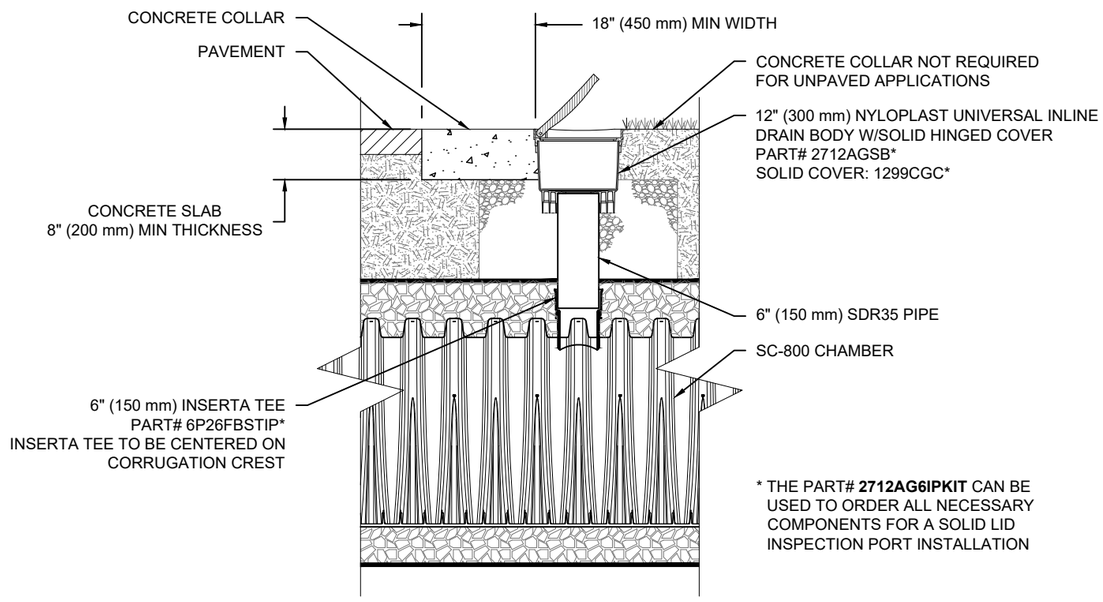
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



SC-800 6" (150 mm) INSPECTION PORT DETAIL
NTS

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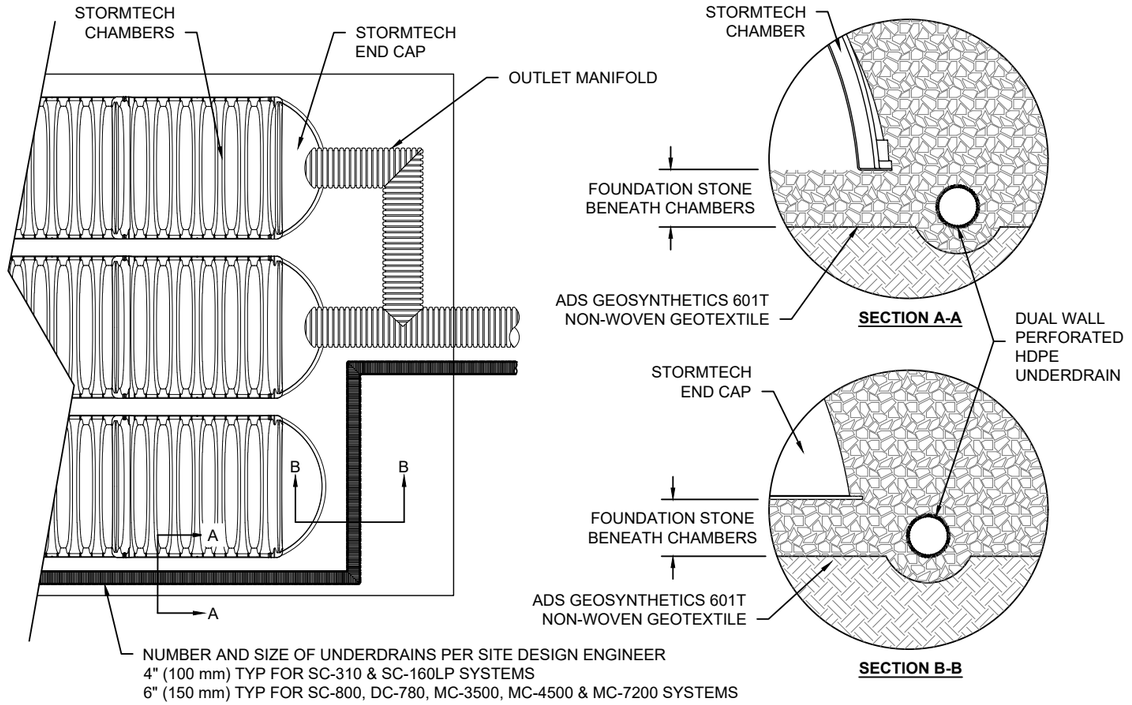
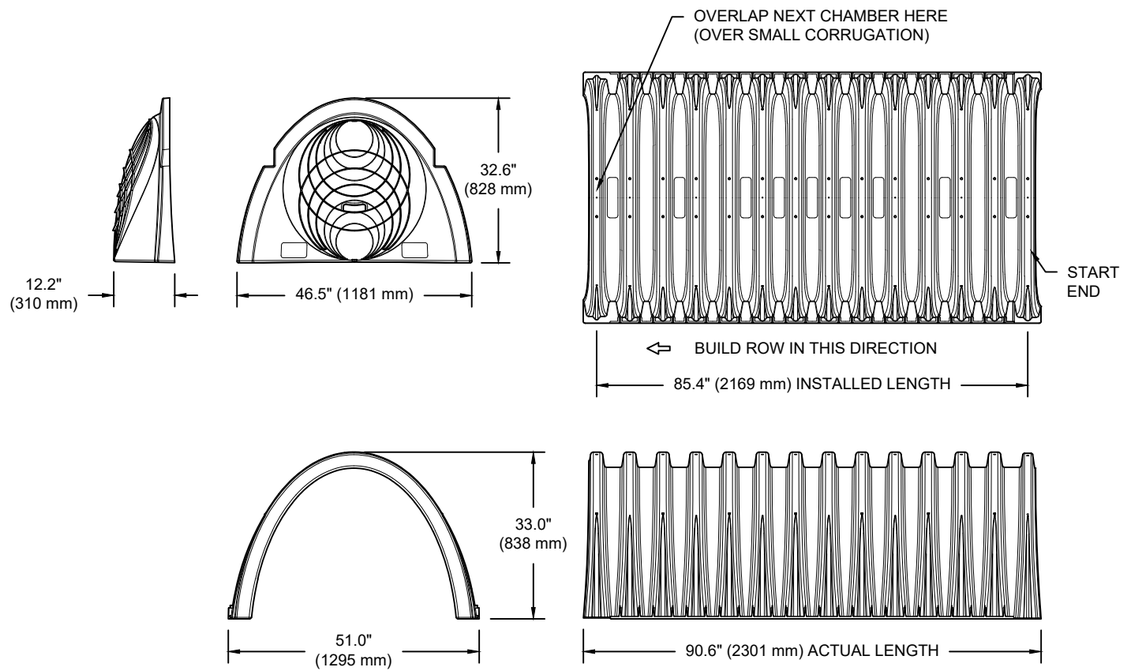
UNDERDRAIN DETAIL

NTS



SC-800 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 33.0" X 85.4"	(1295 mm X 838 mm X 2169 mm)
CHAMBER STORAGE	50.6 CUBIC FEET	(1.43 m³)
MINIMUM INSTALLED STORAGE*	78.4 CUBIC FEET	(2.22 m³)
WEIGHT	81.8 lbs.	(37.1 kg)

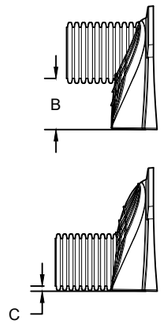
NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	46.5" X 32.6" X 10.5"	(1181 mm X 828 mm X 267 mm)
END CAP STORAGE	3.4 CUBIC FEET	(0.09 m³)
MINIMUM INSTALLED STORAGE**	14.7 CUBIC FEET	(0.42 m³)
WEIGHT	15.7 lbs.	(7.1 kg)

* ASSUMES 6" (150 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS, 3" (75 mm) BETWEEN CHAMBERS
**ASSUMES 6" (150 mm) STONE ABOVE AND BELOW END CAPS, 3" (150 mm) BETWEEN ROWS, 12" (300 mm) BEYOND END CAPS

PRE-CORED HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "BPC"
PRE-CORED HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "TPC"

PART #	STUB	B	C
SC800EPE06TPC	6" (150 mm)	21.4" (544 mm)	---
SC800EPE06BPC		---	0.9" (23 mm)
SC800EPE08TPC	8" (200 mm)	19.2" (488 mm)	---
SC800EPE08BPC		---	1.0" (25 mm)
SC800EPE10TPC	10" (250 mm)	17.0" (432 mm)	---
SC800EPE10BPC		---	1.2" (30 mm)
SC800EPE12TPC	12" (300 mm)	14.4" (366 mm)	---
SC800EPE12BPC		---	1.6" (41 mm)
SC800EPE15TPC	15" (375 mm)	11.3" (287 mm)	---
SC800EPE15BPC		---	1.7" (43 mm)
SC800EPE18TPC	18" (450 mm)	8.0" (203 mm)	---
SC800EPE18BPC		---	2.0" (51 mm)
SC800EPE24BPC	24" (600 mm)	---	2.3" (58 mm)
SC800EPE	NONE	SOLID END CAP	



NOTE: ALL DIMENSIONS ARE NOMINAL

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PHASE 3

PHASE 4

PRIVATE STREET 3

BLOCK 6
(STACKED TOWNHOUSE)

BLOCK 5
(STACKED TOWNHOUSE)

PRIVATE STREET 5

LANE 1

LANE 1

C1

C2

PRIVATE STREET 4

PRIVATE STREET 6

BLOCK 10
(STACKED TOWNHOUSE)

BLOCK 7
(STACKED TOWNHOUSE)

BLOCK 4
(STACKED TOWNHOUSE)

BLOCK 3
(STACKED TOWNHOUSE)

PHASE 3

CONSERVANCY DRIVE

3.0m MULTI-USE PATHWAY

3.0m MULTI-USE PATHWAY

Version 1.1

Project: C1

Chamber Model -	SC-800	
Units -	**Metric**	
Number of Chambers -	20	
Number of End Caps -	4	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	90.75	m
Amount of Stone Above Chambers -	152	mm
Amount of Stone Below Chambers -	152	mm

Area of System- 90.8549 sq.meters Min. Area - 62.65 sq.meters

☑ Include Perimeter Stone in Calculations

☐ Click for Stage Area Data

☐ Click to Invert Stage Area Data

Click Here for Imperial

Interpolation Tools

☐ Click to Define Top and/or Bottom of storage

☐ Click to Define Target Volume & Reference Elevation

StormTech SC-800 Cumulative Storage Volumes

Height of System (mm)	Incremental Single Chamber (cubic meters)	Incremental Single End Cap (cubic meters)	Incremental Chambers (cubic meters)	Incremental End Cap (cubic meters)	Incremental Stone (cubic meters)	Incremental Ch, EC and Stone (cubic meters)	Cumulative System (cubic	Elevation (meters)
1143	0.000	0.000	0.00	0.00	0.92	0.92	58.97	91.89
1118	0.000	0.000	0.00	0.00	0.92	0.92	58.05	91.87
1092	0.000	0.000	0.00	0.00	0.92	0.92	57.13	91.84
1067	0.000	0.000	0.00	0.00	0.92	0.92	56.20	91.82
1041	0.000	0.000	0.00	0.00	0.92	0.92	55.28	91.79
1016	0.000	0.000	0.00	0.00	0.92	0.92	54.36	91.77
991	0.002	0.000	0.04	0.00	0.91	0.95	53.43	91.74
965	0.006	0.000	0.11	0.00	0.88	0.99	52.49	91.72
940	0.008	0.000	0.16	0.00	0.86	1.02	51.50	91.69
914	0.014	0.000	0.29	0.00	0.81	1.10	50.48	91.66
889	0.021	0.000	0.42	0.00	0.75	1.18	49.38	91.64
864	0.025	0.001	0.51	0.00	0.72	1.23	48.20	91.61
838	0.029	0.001	0.57	0.00	0.69	1.27	46.98	91.59
813	0.032	0.001	0.63	0.00	0.67	1.31	45.71	91.56
787	0.034	0.001	0.69	0.01	0.65	1.34	44.40	91.54
762	0.037	0.002	0.73	0.01	0.63	1.37	43.06	91.51
737	0.039	0.002	0.78	0.01	0.61	1.39	41.69	91.49
711	0.041	0.002	0.82	0.01	0.59	1.42	40.30	91.46
686	0.043	0.002	0.85	0.01	0.58	1.44	38.88	91.44
660	0.044	0.003	0.89	0.01	0.56	1.46	37.44	91.41
635	0.046	0.003	0.92	0.01	0.55	1.48	35.98	91.39
610	0.047	0.003	0.95	0.01	0.54	1.50	34.50	91.36
584	0.049	0.003	0.98	0.01	0.53	1.52	33.00	91.33
559	0.050	0.004	1.00	0.01	0.52	1.53	31.48	91.31
533	0.051	0.004	1.03	0.01	0.51	1.55	29.95	91.28
508	0.052	0.004	1.05	0.02	0.50	1.56	28.40	91.26
483	0.054	0.004	1.07	0.02	0.49	1.58	26.84	91.23
457	0.055	0.004	1.09	0.02	0.48	1.59	25.26	91.21
432	0.056	0.004	1.11	0.02	0.47	1.60	23.68	91.18
406	0.057	0.004	1.13	0.02	0.46	1.61	22.08	91.16
381	0.057	0.005	1.15	0.02	0.46	1.62	20.46	91.13
356	0.058	0.005	1.16	0.02	0.45	1.63	18.84	91.11
330	0.059	0.005	1.18	0.02	0.44	1.64	17.21	91.08
305	0.060	0.005	1.19	0.02	0.44	1.65	15.57	91.05
279	0.060	0.005	1.21	0.02	0.43	1.66	13.91	91.03
254	0.061	0.005	1.22	0.02	0.43	1.67	12.25	91.00
229	0.062	0.005	1.23	0.02	0.42	1.68	10.59	90.98
203	0.062	0.005	1.25	0.02	0.42	1.68	8.91	90.95
178	0.063	0.004	1.26	0.01	0.41	1.69	7.23	90.93
152	0.000	0.000	0.00	0.00	0.92	0.92	5.54	90.90
127	0.000	0.000	0.00	0.00	0.92	0.92	4.62	90.88
102	0.000	0.000	0.00	0.00	0.92	0.92	3.69	90.85
76	0.000	0.000	0.00	0.00	0.92	0.92	2.77	90.83
51	0.000	0.000	0.00	0.00	0.92	0.92	1.85	90.80
25	0.000	0.000	0.00	0.00	0.92	0.92	0.92	90.78

Version 1.1

Project: C2

Chamber Model -	SC-800	
Units -	**Metric**	
Number of Chambers -	21	
Number of End Caps -	4	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	90.46	m
Amount of Stone Above Chambers -	152	mm
Amount of Stone Below Chambers -	152	mm

Area of System- 98.43969 sq.meters Min. Area - 65.63 sq.meters

☑ Include Perimeter Stone in Calculations

☐ Click for Stage Area Data

☐ Click to Invert Stage Area Data

Click Here for Imperial

Interpolation Tools

☐ Click to Define Top and/or Bottom of storage

☐ Click to Define Target Volume & Reference Elevation

StormTech SC-800 Cumulative Storage Volumes

Height of System (mm)	Incremental Single Chamber (cubic meters)	Incremental Single End Cap (cubic meters)	Incremental Chambers (cubic meters)	Incremental End Cap (cubic meters)	Incremental Stone (cubic meters)	Incremental Ch, EC and Stone (cubic meters)	Cumulative System (cubic	Elevation (meters)
1143	0.000	0.000	0.00	0.00	1.00	1.00	63.30	91.60
1118	0.000	0.000	0.00	0.00	1.00	1.00	62.30	91.57
1092	0.000	0.000	0.00	0.00	1.00	1.00	61.30	91.55
1067	0.000	0.000	0.00	0.00	1.00	1.00	60.30	91.52
1041	0.000	0.000	0.00	0.00	1.00	1.00	59.30	91.50
1016	0.000	0.000	0.00	0.00	1.00	1.00	58.30	91.47
991	0.002	0.000	0.04	0.00	0.98	1.03	57.30	91.45
965	0.006	0.000	0.12	0.00	0.95	1.07	56.27	91.42
940	0.008	0.000	0.17	0.00	0.93	1.10	55.20	91.40
914	0.014	0.000	0.30	0.00	0.88	1.18	54.10	91.37
889	0.021	0.000	0.44	0.00	0.82	1.27	52.92	91.35
864	0.025	0.001	0.53	0.00	0.79	1.32	51.65	91.32
838	0.029	0.001	0.60	0.00	0.76	1.36	50.33	91.29
813	0.032	0.001	0.67	0.00	0.73	1.40	48.97	91.27
787	0.034	0.001	0.72	0.01	0.71	1.44	47.57	91.24
762	0.037	0.002	0.77	0.01	0.69	1.47	46.13	91.22
737	0.039	0.002	0.82	0.01	0.67	1.49	44.66	91.19
711	0.041	0.002	0.86	0.01	0.65	1.52	43.17	91.17
686	0.043	0.002	0.90	0.01	0.64	1.54	41.65	91.14
660	0.044	0.003	0.93	0.01	0.62	1.57	40.11	91.12
635	0.046	0.003	0.96	0.01	0.61	1.59	38.54	91.09
610	0.047	0.003	1.00	0.01	0.60	1.60	36.96	91.07
584	0.049	0.003	1.02	0.01	0.59	1.62	35.35	91.04
559	0.050	0.004	1.05	0.01	0.57	1.64	33.73	91.01
533	0.051	0.004	1.08	0.01	0.56	1.66	32.09	90.99
508	0.052	0.004	1.10	0.02	0.55	1.67	30.43	90.96
483	0.054	0.004	1.12	0.02	0.54	1.68	28.76	90.94
457	0.055	0.004	1.15	0.02	0.53	1.70	27.08	90.91
432	0.056	0.004	1.17	0.02	0.53	1.71	25.38	90.89
406	0.057	0.004	1.19	0.02	0.52	1.72	23.67	90.86
381	0.057	0.005	1.21	0.02	0.51	1.73	21.95	90.84
356	0.058	0.005	1.22	0.02	0.50	1.75	20.21	90.81
330	0.059	0.005	1.24	0.02	0.50	1.76	18.47	90.79
305	0.060	0.005	1.25	0.02	0.49	1.76	16.71	90.76
279	0.060	0.005	1.27	0.02	0.48	1.77	14.95	90.74
254	0.061	0.005	1.28	0.02	0.48	1.78	13.17	90.71
229	0.062	0.005	1.30	0.02	0.47	1.79	11.39	90.68
203	0.062	0.005	1.31	0.02	0.47	1.80	9.60	90.66
178	0.063	0.004	1.32	0.01	0.47	1.80	7.80	90.63
152	0.000	0.000	0.00	0.00	1.00	1.00	6.00	90.61
127	0.000	0.000	0.00	0.00	1.00	1.00	5.00	90.58
102	0.000	0.000	0.00	0.00	1.00	1.00	4.00	90.56
76	0.000	0.000	0.00	0.00	1.00	1.00	3.00	90.53
51	0.000	0.000	0.00	0.00	1.00	1.00	2.00	90.51
25	0.000	0.000	0.00	0.00	1.00	1.00	1.00	90.48

August 20, 2025

ADS Isolator Row PLUS Sizing

Project Name:	1398 BCDC - System C1		
Consulting Engineer:	DSEL		
Location:	Ottawa, Ontario		
Sizing Completed By:	Haider Nasrullah	**Email:**	haider.nasrullah@ads-pipe.com

Stormtech Details	
Chamber Model	SC-800
No. Chamber in Isolator Row PLUS:	11

Notes: Refer to Stormtech drawings for full IR+ configuration.

Treatment Details	
Water Quality Flow Rate Required	78 L/s
Water Quality Flow Rate Provided	78.1 L/s
TSS Removal Achieved	>81%

StormTech Isolator Row Sizing Chart

StormTech Isolator Row Plus - Water Quality Flowrate for >81% TSS Removal								
	SC-160	**SC-310**	**SC-740**	**DC-780**	**SC-800**	**MC-3500**	**MC-4500**	**MC-7200**
Chamber Bottom Area (m^2)	1.06	1.64	2.58	2.58	2.54	3.99	2.8	4.65
Treated Flowrate/Chamber (L/s)	3.11	4.53	7.36	7.36	7.1	11.32	7.93	12.74

Isolator Row PLUS removal efficiency based on verified ETV test report. For dimensions and configuration of Isolator Row PLUS, please see Stormtech drawing package.

August 20, 2025

ADS Isolator Row PLUS Sizing

Project Name:	1398 BCDC - System C2		
Consulting Engineer:	DSEL		
Location:	Ottawa, Ontario		
Sizing Completed By:	Haider Nasrullah	**Email:**	haider.nasrullah@ads-pipe.com

Stormtech Details	
Chamber Model	SC-800
No. Chamber in Isolator Row PLUS:	12

Notes: Refer to Stormtech drawings for full IR+ configuration.

Treatment Details	
Water Quality Flow Rate Required	82 L/s
Water Quality Flow Rate Provided	85.2 L/s
TSS Removal Achieved	>81%

StormTech Isolator Row Sizing Chart

StormTech Isolator Row Plus - Water Quality Flowrate for >81% TSS Removal								
	SC-160	**SC-310**	**SC-740**	**DC-780**	**SC-800**	**MC-3500**	**MC-4500**	**MC-7200**
Chamber Bottom Area (m^2)	1.06	1.64	2.58	2.58	2.54	3.99	2.8	4.65
Treated Flowrate/Chamber (L/s)	3.11	4.53	7.36	7.36	7.1	11.32	7.93	12.74

Isolator Row PLUS removal efficiency based on verified ETV test report. For dimensions and configuration of Isolator Row PLUS, please see Stormtech drawing package.