12100 CREDITVIEW ROAD
CALEDON, ON

DRAWING INDEX

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PROJECT INFORMATION						
PROJECT NO:	25-0777					
CULTEC SALES REP:	DOMINIC TURNER 438-266-4033 DOMINIC.TURNER@CULTEC.COM					
CULTEC TECHNICAL SALES ENGINEER:						
CULTEC PROJECT COORDINATOR:	TYLER BRUSH 475-289-7120 TYLER.BRUSH@CULTEC.COM					
ENGINEER OF RECORD	KWA SITE DEVELOPMENT CONSULTING INC					
REVISIONS:	ITERATION	DATE	BY	COMMENTS	EOR SHEET REFERENCE	DATE
	00	7/21/2025	SRA	INITIAL SUBMITTAL DRAWINGS	SERVICING PLAN	6/13/2025
	01	8/25/2025	SRA	REVISED PER UPDATED SERVICING PLANS	SERVICING PLAN	8/8/2025
	02	9/2/2025	SRA	REVISED PER EOR MARKUPS	SERVICING PLAN	8/8/2025
	03	9/4/2025	SRA	REVISED PER UPDATED SERVICING PLAN	SERVICING PLAN	9/5/2025

CULTEC
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CT-tech@cultec.com

NOTE: THESE SHOP DRAWINGS MAY CONTAIN COMPONENTS INCLUDING BUT NOT LIMITED TO MANHOLES, CATCH BASINS, STORM PIPES AND FITTINGS, MANIFOLDS, CASTINGS AND OTHER NECESSARY APPURTENANCES THAT MAY NOT BE SUPPLIED BY CULTEC, INC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND/OR SUPPLIER TO CONFIRM WITH CULTEC THE MATERIALS PROVIDED.

TOWN OF CALEDON
PLANNING
RECEIVED
September 23, 2025

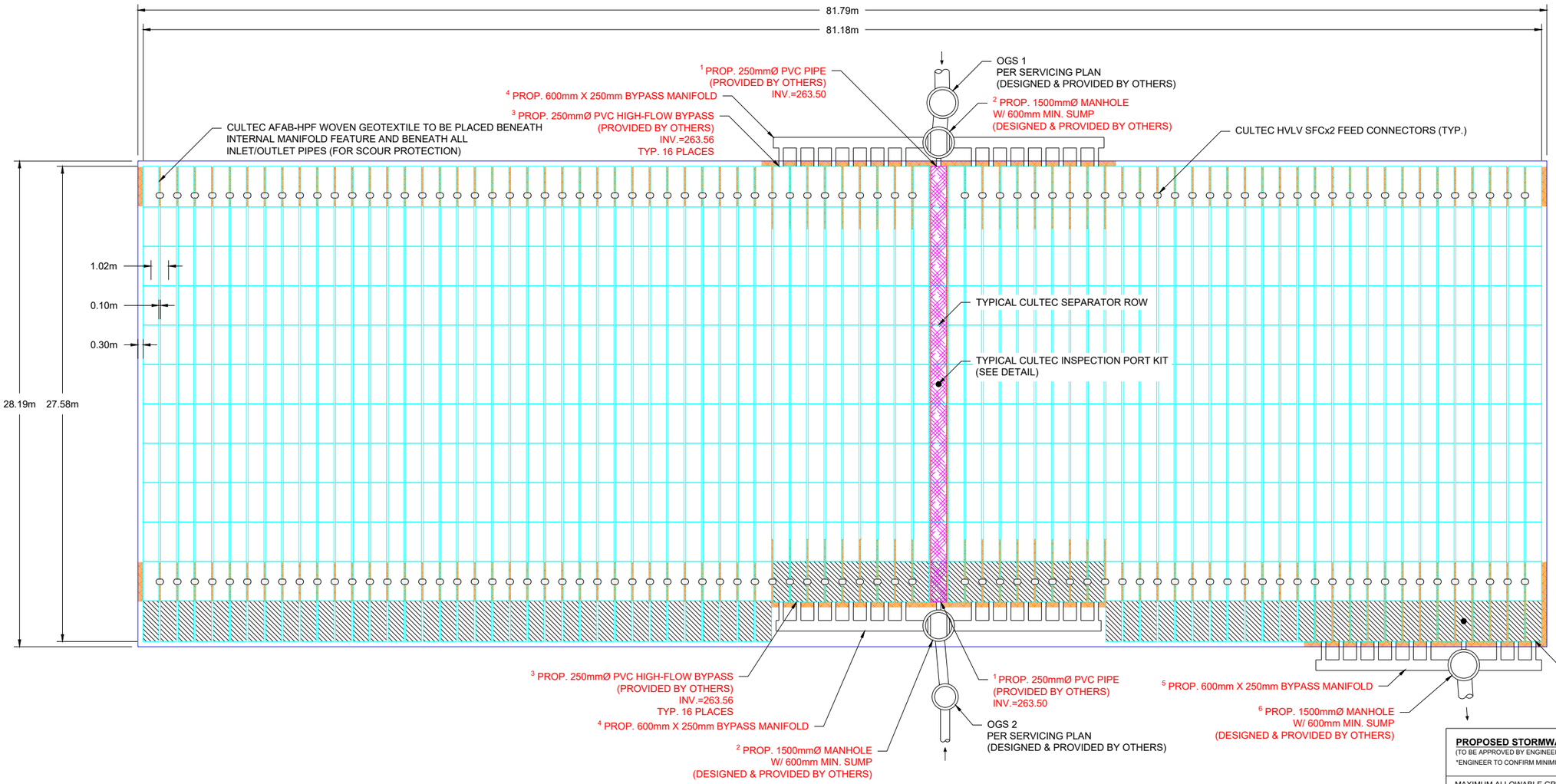
BEFORE YOU BEGIN - REQUIRED MATERIALS AND EQUIPMENT

1. PROPER GEOTECHNICAL SOIL EVALUATION BY A QUALIFIED ENGINEER OR SOIL SCIENTIST TO DETERMINE SUITABILITY OF STRUCTURAL INSTALLATION
2. OSHA COMPLIANCE
3. CULTEC WARNING TAPE, OR EQUIVALENT
4. ASSURANCES FROM LOCAL UTILITIES THAT NO UNDERGROUND GAS, ELECTRICAL OR OTHER POTENTIALLY DANGEROUS PIPELINES OR CONDUITS ARE ALREADY BURIED AT THE SITE
5. ACCEPTABLE 1- 2 INCH (25 - 51 mm) WASHED, CRUSHED STONE AS DETAILED IN CULTEC'S INSTALLATION INSTRUCTIONS. CLEANLINESS OF STONE TO BE VERIFIED BY ENGINEER.
6. ACCEPTABLE FILL MATERIAL AS SHOWN IN CULTEC'S INSTALLATION INSTRUCTIONS.
7. ALL CULTEC CHAMBERS AND ACCESSORIES AS SPECIFIED IN THE ENGINEER'S PLANS INCLUDING CULTEC NO. 410 NON-WOVEN GEOTEXTILE, CULTEC STORMFILTER AND CULTEC NO. 4800 WOVEN GEOTEXTILE, WHERE APPLICABLE.
8. RECIPROCATING SAW OR ROUTER
9. STONE BUCKET
10. STONE CONVEYOR AND/OR TRACKED EXCAVATOR
11. TRANSIT OR LASER LEVEL MEASURING DEVICE
12. COMPACTION EQUIPMENT WITH MAXIMUM GROSS VEHICLE WEIGHT OF 12,000 LBS (5,440 KGS). VIBRATORY ROLLERS MAY ONLY BE USED ON THE STONE BASE PRIOR TO THE INSTALLATION OF CHAMBERS.
13. CHECK CULTEC CHAMBERS FOR DAMAGE PRIOR TO INSTALLATION. DO NOT USE DAMAGED CULTEC CHAMBERS, CONTACT YOUR SUPPLIER IMMEDIATELY TO REPORT DAMAGE OR PACKING-LIST DISCREPANCIES.

REQUIREMENTS FOR CULTEC CHAMBER SYSTEM INSTALLATIONS

1. INSTALLING CONTRACTORS ARE EXPECTED TO COMPREHEND AND USE THE MOST CURRENT INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING A SYSTEM INSTALLATION. IF THERE IS ANY QUESTION AS TO WHETHER YOU POSSESS THE MOST CURRENT INSTRUCTIONS, CONTACT CULTEC AT (203) 775-4416 OR VISIT WWW.CULTEC.COM.
2. CONTACT CULTEC AT LEAST THIRTY DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE FOR A PRE-CONSTRUCTION MEETING.
3. ALL CULTEC SYSTEM DESIGNS MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
4. USE CULTEC INSTALLATION INSTRUCTIONS AS A GUIDELINE ONLY FOR MINIMUM/MAXIMUM REQUIREMENTS. ACTUAL DESIGN MAY VARY. REFER TO APPROVED CONSTRUCTION DRAWINGS FOR JOB-SPECIFIC DETAILS. BE SURE TO FOLLOW THE ENGINEER'S DRAWINGS AS YOUR PRIMARY GUIDE.
5. THE FOUNDATION STONE SHALL BE LEVEL AND COMPACTED PRIOR TO CHAMBER INSTALLATION.
6. OVERLAPPING RIB CONNECTIONS OF CHAMBERS SHALL BE FULLY SHOULDERED PRIOR TO STONE PLACEMENT.
7. CENTER-TO-CENTER SPACING SHALL BE CHECKED AND MAINTAINED THROUGHOUT INSTALLATION PROCESS.
8. ANY DISCREPANCIES WITH THE SYSTEM SUB-GRADE SOIL'S BEARING CAPACITY MUST BE REPORTED TO THE DESIGN ENGINEER.
9. NON-WOVEN GEOTEXTILE MUST BE USED AS SPECIFIED IN THE ENGINEER'S DRAWINGS.
10. CULTEC REQUIRES THE CONTRACTOR TO REFER TO CULTEC'S INSTALLATION INSTRUCTIONS CONCERNING VEHICULAR TRAFFIC. RESPONSIBILITY FOR PREVENTING VEHICLES THAT EXCEED CULTEC'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE CHAMBER SYSTEM LIES SOLELY WITH THE CONTRACTOR THROUGHOUT THE ENTIRE SITE CONSTRUCTION PROCESS. THE PLACEMENT OF WARNING TAPE, TEMPORARY FENCING, AND/OR APPROPRIATELY LOCATED SIGNS IS HIGHLY RECOMMENDED. IMPRINTED WARNING TAPE IS AVAILABLE FROM CULTEC. FOR ACCEPTABLE VEHICLE LOAD INFORMATION, REFER TO CULTEC INSTALLATION INSTRUCTIONS.
11. TRAFFIC OF INSTALLATION EQUIPMENT OR OTHER VEHICULAR TRAFFIC OVER TOP OF THE CULTEC STORMWATER SYSTEM IS STRICTLY RESTRICTED AND PROHIBITED UNTIL SATISFACTORY COVER AND COMPACTION IS ACHIEVED ACCORDING TO CULTEC'S MANUFACTURER INSTALLATION INSTRUCTIONS.
12. EROSION AND SEDIMENT-CONTROL MEASURES MUST MEET LOCAL CODES AND THE DESIGN ENGINEER'S SPECIFICATIONS THROUGHOUT THE ENTIRE SITE CONSTRUCTION PROCESS.
13. CULTEC SYSTEMS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS. FAILURE TO DO SO WILL VOID THE LIMITED WARRANTY.
14. CONTACT CULTEC, INC. AT 203-775-4416 WITH ANY QUESTIONS OR FURTHER CLARIFICATION OF REQUIREMENTS.
15. PLACEMENT OF EMBEDMENT STONE MUST BE IN ACCORDANCE WITH CULTEC'S INSTALLATION INSTRUCTIONS. STONE COLUMN HEIGHT DEFERENTIAL MUST NEVER EXCEED 12" (305 mm) BETWEEN CHAMBER ROWS, ADJACENT CHAMBERS OR STONE PERIMETER. STONE MUST BE PLACED OVER THE CROWN OF THE CHAMBERS TO ANCHOR THE CHAMBERS IN PLACE AND MAINTAIN ROW SPACING.
16. EMBEDMENT STONE MUST ONLY BE PLACED BY EXCAVATOR OR TELESCOPING CONVEYOR BOOM. PLACEMENT OF EMBEDMENT STONE WITH BULLDOZER IS NOT AN ACCEPTABLE METHOD OF INSTALLATION AND MAY CAUSE DAMAGE TO THE CHAMBERS. ANY CHAMBERS DAMAGED USING AN UNACCEPTABLE METHOD OF BACKFILL ARE NOT COVERED UNDER THE CULTEC LIMITED WARRANTY.

THIS DRAWING HAS BEEN PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO CULTEC UNDER THE DIRECTION OF THE PROJECT ENGINEER OF RECORD OR OTHER PROJECT REPRESENTATIVE. IT IS ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEM'S DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS, REGULATIONS AND MANUFACTURER REQUIREMENTS.



1 INFILTRATION CHAMBER 1 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC

PRODUCT DESCRIPTION	SKU	QUANTITY	UNIT OF MEASURE
CULTEC CONTACTOR 100HD STARTER/STAND ALONE	100RHD	80	PIECES
CULTEC CONTACTOR 100HD END	100EHD	861	PIECES
CULTEC HVLV FEED CONNECTORS	SFCx2	154	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	6,729	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	338	METERS
CULTEC INSPECTION PORT KIT	1299CGC	2	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	1,057	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	N/A	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	N/A	SQ. METERS

CULTEC CONTACTOR® 100HD LEGEND

- CONTACTOR 100RHD STARTER
- CONTACTOR 100EHD END
- CONTACTOR STAND ALONE
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

PROPOSED SYSTEM ALTERATION TABLE

1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 600mm x 250mm INLET MANIFOLD
5	PROPOSED 600mm x 250mm OUTLET MANIFOLD
6	PROPOSED OUTLET MANHOLE
7	PROPOSED PIPE MATERIAL CHANGE. MAXIMUM PIPE CONNECTION TO CHAMBER END CAP = 250mm PVC

PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS

(TO BE APPROVED BY ENGINEER)
*ENGINEER TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	267.48
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	264.22
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	264.17
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	264.17
TOP OF STONE ELEVATION	263.97
TOP OF CHAMBER ELEVATION	263.82
(32) 250mm HIGH-FLOW BYPASS PIPE INVERT	263.56
(11) 250mm OUTLET PIPE INVERT	263.50
(2) 250mm INLET PIPE INVERT	263.50
BOTTOM OF CHAMBER ELEVATION	263.50
BOTTOM OF STONE ELEVATION	263.35

CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY

TOTAL STORAGE REQUIRED (m^3)	792.00
TOTAL STORAGE PROVIDED (m^3)	801.16
% STONE POROSITY	40
SYSTEM AREA (m^2)	2,305.86
DEPTH OF EMBEDMENT STONE (mm)	152
DEPTH OF BEDDING STONE (mm)	152
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	102

CULTEC STORMWATER CHAMBER

PROJECT NO:	25-0777.03	DATE:	9/4/2025
DESIGNED BY:	SRA	CHECKED BY:	TNB
SCALE:	N.T.S	SHEET NO:	2 OF 14

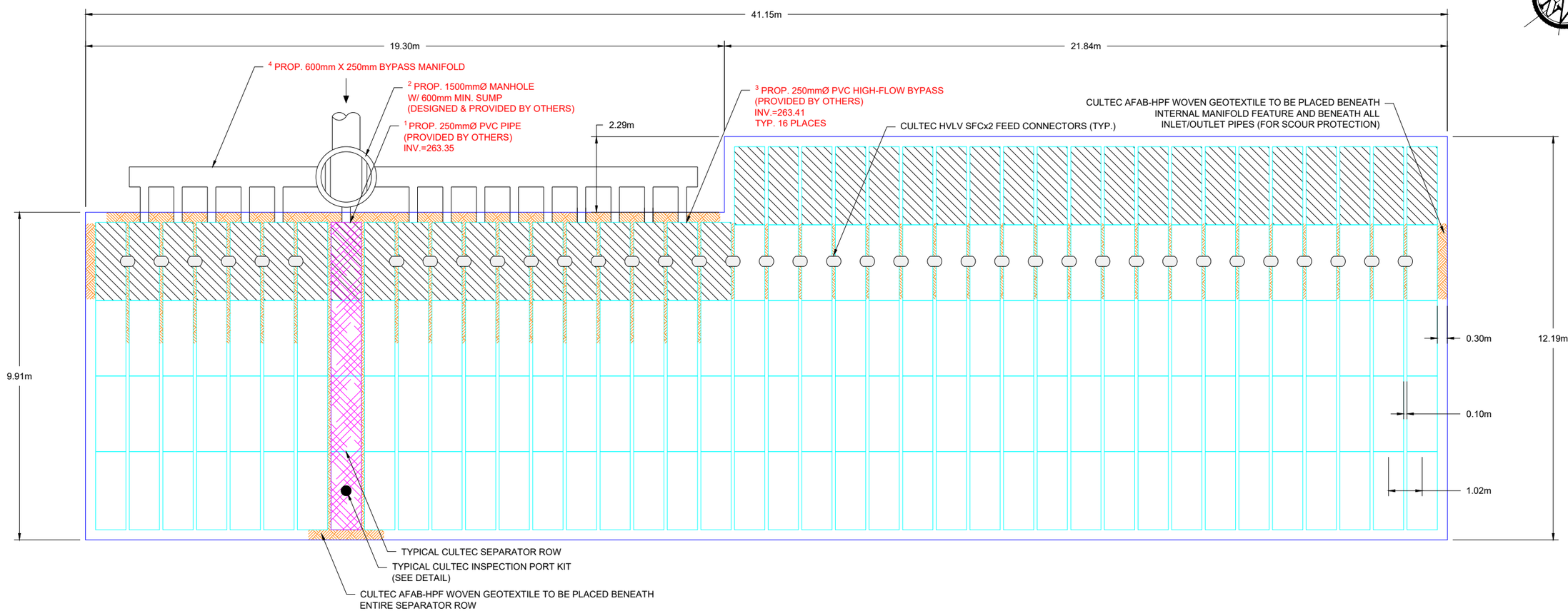
12100 CREDITVIEW ROAD
CALEDON, ON

SYSTEM LAYOUT SHEET

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1/02



1 INFILTRATION CHAMBER 2 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC			
PRODUCT DESCRIPTION	**SKU**	**QUANTITY**	**UNIT OF MEASURE**
CULTEC CONTACTOR 100HD STARTER/STAND ALONE	100RHD	40	PIECES
CULTEC CONTACTOR 100HD END	100EHD	141	PIECES
CULTEC HVLV FEED CONNECTORS	SFCx2	37	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	1,404	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	100	METERS
CULTEC INSPECTION PORT KIT	1299CGC	1	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	211	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	N/A	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	N/A	SQ. METERS

CULTEC CONTACTOR®
100HD LEGEND

- CONTACTOR 100RHD STARTER
- CONTACTOR 100EHD END
- CONTACTOR STAND ALONE
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

PROPOSED SYSTEM ALTERATION TABLE	
1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 600mm x 250mm INLET MANIFOLD

PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS
(TO BE APPROVED BY ENGINEER)
*ENGINEER TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	267.33
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	264.07
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	264.02
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	264.02
TOP OF STONE ELEVATION	263.82
TOP OF CHAMBER ELEVATION	263.67
(16) 250mm HIGH-FLOW BYPASS PIPE INVERT	263.41
250mm INLET PIPE INVERT	263.35
BOTTOM OF CHAMBER ELEVATION	263.35
BOTTOM OF STONE ELEVATION	263.20
CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY	
TOTAL STORAGE REQUIRED (m^3)	157.00
TOTAL STORAGE PROVIDED (m^3)	157.99
% STONE POROSITY	40
SYSTEM AREA (m^2)	457.53
DEPTH OF EMBEDMENT STONE (mm)	152
DEPTH OF BEDDING STONE (mm)	152
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	102

CULTEC STORMWATER CHAMBER

PROJECT NO:	25-0777.03	**DATE:**	9/4/2025
DESIGNED BY:	SRA	**CHECKED BY:**	TNB
SCALE:	N.T.S	**SHEET NO:**	3 OF 14

12100 CREDITVIEW ROAD
CALEDON, ON
SYSTEM LAYOUT SHEET

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1.02

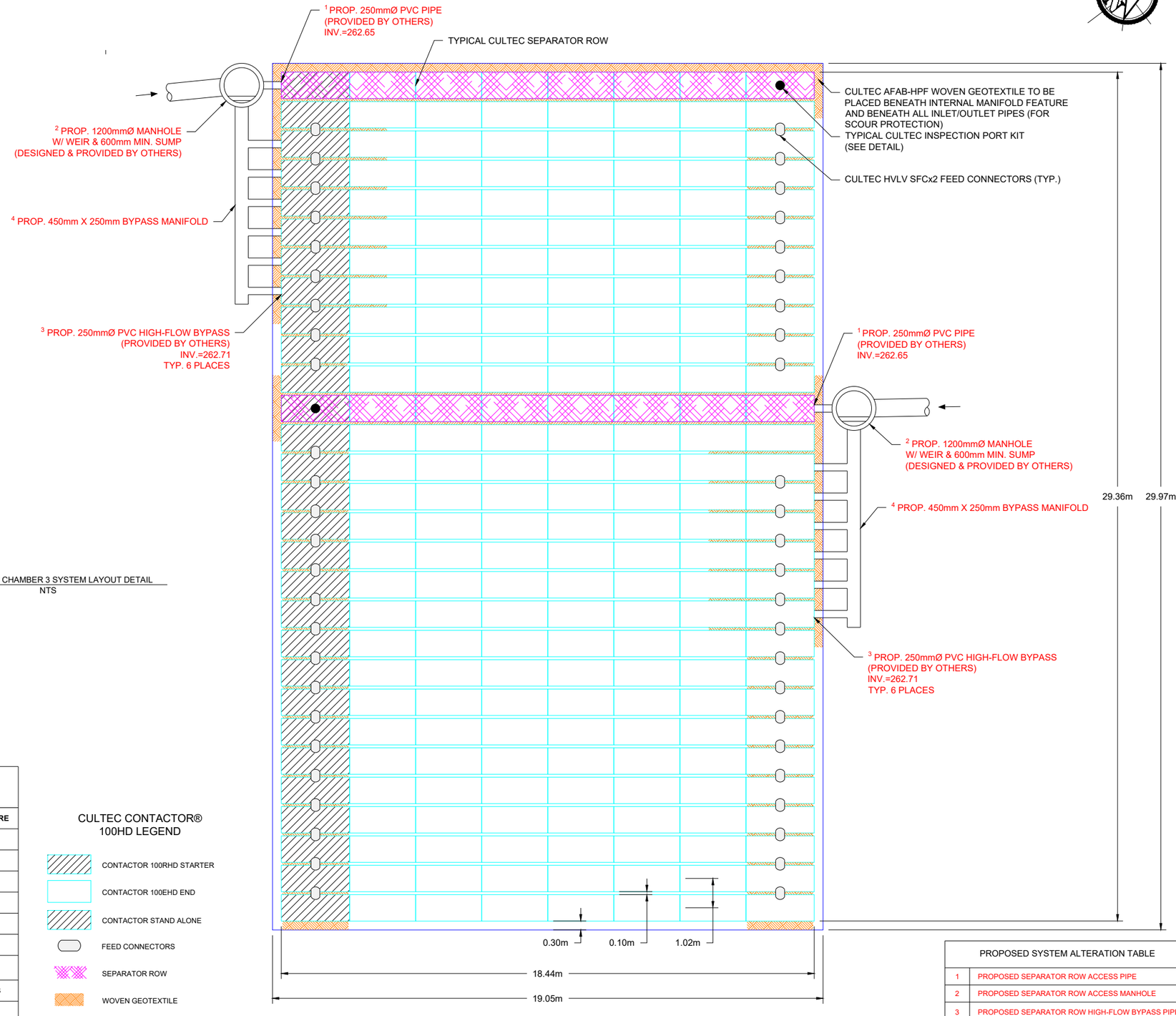
PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS

(TO BE APPROVED BY ENGINEER)
*ENGINEER TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	266.63
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	263.37
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	263.32
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	263.32
TOP OF STONE ELEVATION	263.12
TOP OF CHAMBER ELEVATION	262.97
(12) 250mm HIGH-FLOW BYPASS PIPE INVERT	262.71
(2) 250mm INLET PIPE INVERT	262.65
BOTTOM OF CHAMBER ELEVATION	262.65
BOTTOM OF STONE ELEVATION	262.50

CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY

TOTAL STORAGE REQUIRED (m^3)	192.80
TOTAL STORAGE PROVIDED (m^3)	198.30
% STONE POROSITY	40
SYSTEM AREA (m^2)	570.95
DEPTH OF EMBEDMENT STONE (mm)	152
DEPTH OF BEDDING STONE (mm)	152
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	102



1 INFILTRATION CHAMBER 3 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC

PRODUCT DESCRIPTION	SKU	QUANTITY	UNIT OF MEASURE
CULTEC CONTACTOR 100HD STARTER/STAND ALONE	100RHD	29	PIECES
CULTEC CONTACTOR 100HD END	100EHD	203	PIECES
CULTEC HVLV FEED CONNECTORS	SFCx2	49	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	1,802	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	131	METERS
CULTEC INSPECTION PORT KIT	1299CGC	2	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	262	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	N/A	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	N/A	SQ. METERS

CULTEC CONTACTOR® 100HD LEGEND

- CONTACTOR 100RHD STARTER
- CONTACTOR 100EHD END
- CONTACTOR STAND ALONE
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

PROPOSED SYSTEM ALTERATION TABLE

1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 450mm x 250mm INLET MANIFOLD

CULTEC STORMWATER CHAMBER

DATE: 9/4/2025
CHECKED BY: TNB
SHEET NO: 4 OF 14
PROJECT NO: 25-0777.03
DESIGNED BY: SRA
SCALE: N.T.S

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1 of 2

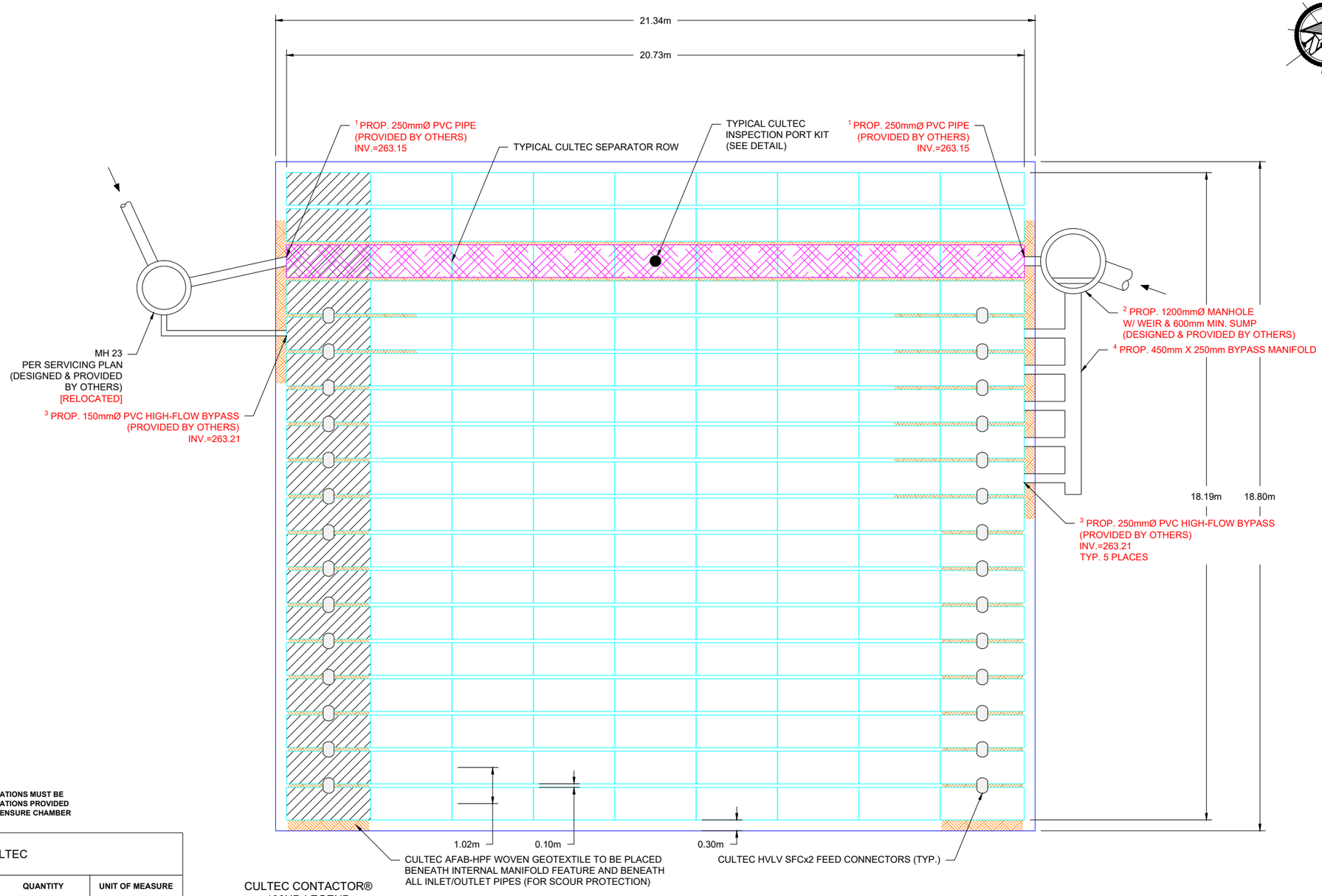
PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS

(TO BE APPROVED BY ENGINEER)
*ENGINEER TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	267.13
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	263.87
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	263.82
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	263.82
TOP OF STONE ELEVATION	263.62
TOP OF CHAMBER ELEVATION	263.47
150mm HIGH-FLOW BYPASS PIPE INVERT	263.27
(5) 250mm HIGH-FLOW BYPASS PIPE INVERT	263.21
(2) 250mm INLET PIPE INVERT	263.15
BOTTOM OF CHAMBER ELEVATION	263.15
BOTTOM OF STONE ELEVATION	263.00

CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY

TOTAL STORAGE REQUIRED (m^3)	131.70
TOTAL STORAGE PROVIDED (m^3)	139.00
% STONE POROSITY	40
SYSTEM AREA (m^2)	401.02
DEPTH OF EMBEDMENT STONE (mm)	152
DEPTH OF BEDDING STONE (mm)	152
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	102



NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC

PRODUCT DESCRIPTION	SKU	QUANTITY	UNIT OF MEASURE
CULTEC CONTACTOR 100HD STARTER/STAND ALONE	100RHD	18	PIECES
CULTEC CONTACTOR 100HD END	100EHD	144	PIECES
CULTEC HVLV FEED CONNECTORS	SFCx2	28	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	1,259	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	71	METERS
CULTEC INSPECTION PORT KIT	1299CGC	1	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	184	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	N/A	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	N/A	SQ. METERS

CULTEC CONTACTOR® 100HD LEGEND

- CONTACTOR 100RHD STARTER
- CONTACTOR 100EHD END
- CONTACTOR STAND ALONE
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

(1) INFILTRATION CHAMBER 4 SYSTEM LAYOUT DETAIL
NTS

PROPOSED SYSTEM ALTERATION TABLE

1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 450mm x 250mm INLET MANIFOLD

CULTEC STORMWATER CHAMBER

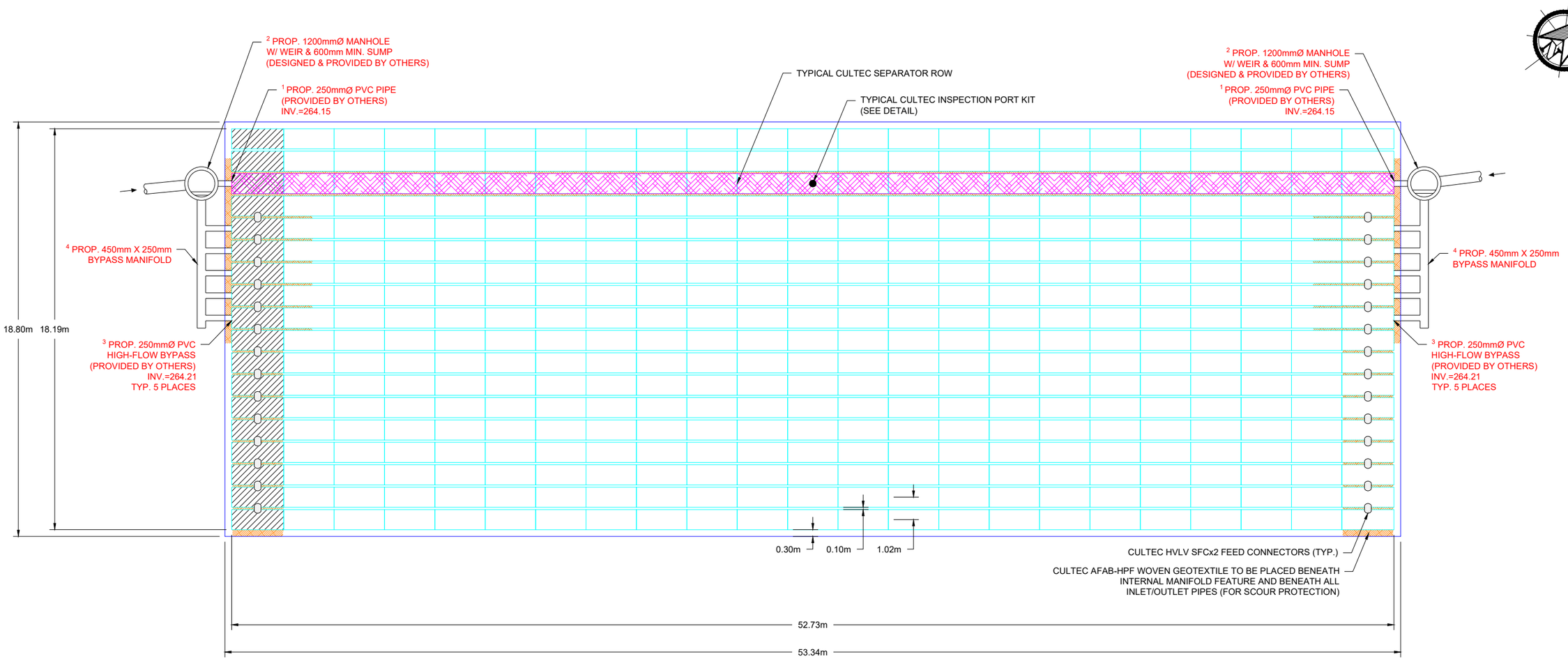
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SYSTEM LAYOUT SHEET

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1 INFILTRATION CHAMBER 5 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC

PRODUCT DESCRIPTION	SKU	QUANTITY	UNIT OF MEASURE
CULTEC CONTACTOR 100HD STARTER/STAND ALONE	100RHD	18	PIECES
CULTEC CONTACTOR 100HD END	100EHD	396	PIECES
CULTEC HVLV FEED CONNECTORS	SFCx2	28	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	3,102	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	118	METERS
CULTEC INSPECTION PORT KIT	1299CGC	1	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	458	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	N/A	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	N/A	SQ. METERS

CULTEC CONTACTOR®
100HD LEGEND

- CONTACTOR 100RHD STARTER
- CONTACTOR 100EHD END
- CONTACTOR STAND ALONE
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

PROPOSED SYSTEM ALTERATION TABLE	
1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 450mm x 250mm INLET MANIFOLD

PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS
(TO BE APPROVED BY ENGINEER)
*ENGINEER TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	268.13
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	264.87
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	264.82
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	264.82
TOP OF STONE ELEVATION	264.62
TOP OF CHAMBER ELEVATION	264.47
(10) 250mm HIGH-FLOW BYPASS PIPE INVERT	264.21
(2) 250mm INLET PIPE INVERT	264.15
BOTTOM OF CHAMBER ELEVATION	264.15
BOTTOM OF STONE ELEVATION	264.00

CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY

TOTAL STORAGE REQUIRED (m^3)	348.00
TOTAL STORAGE PROVIDED (m^3)	349.17
% STONE POROSITY	40
SYSTEM AREA (m^2)	1,002.55
DEPTH OF EMBEDMENT STONE (mm)	152
DEPTH OF BEDDING STONE (mm)	152
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	102

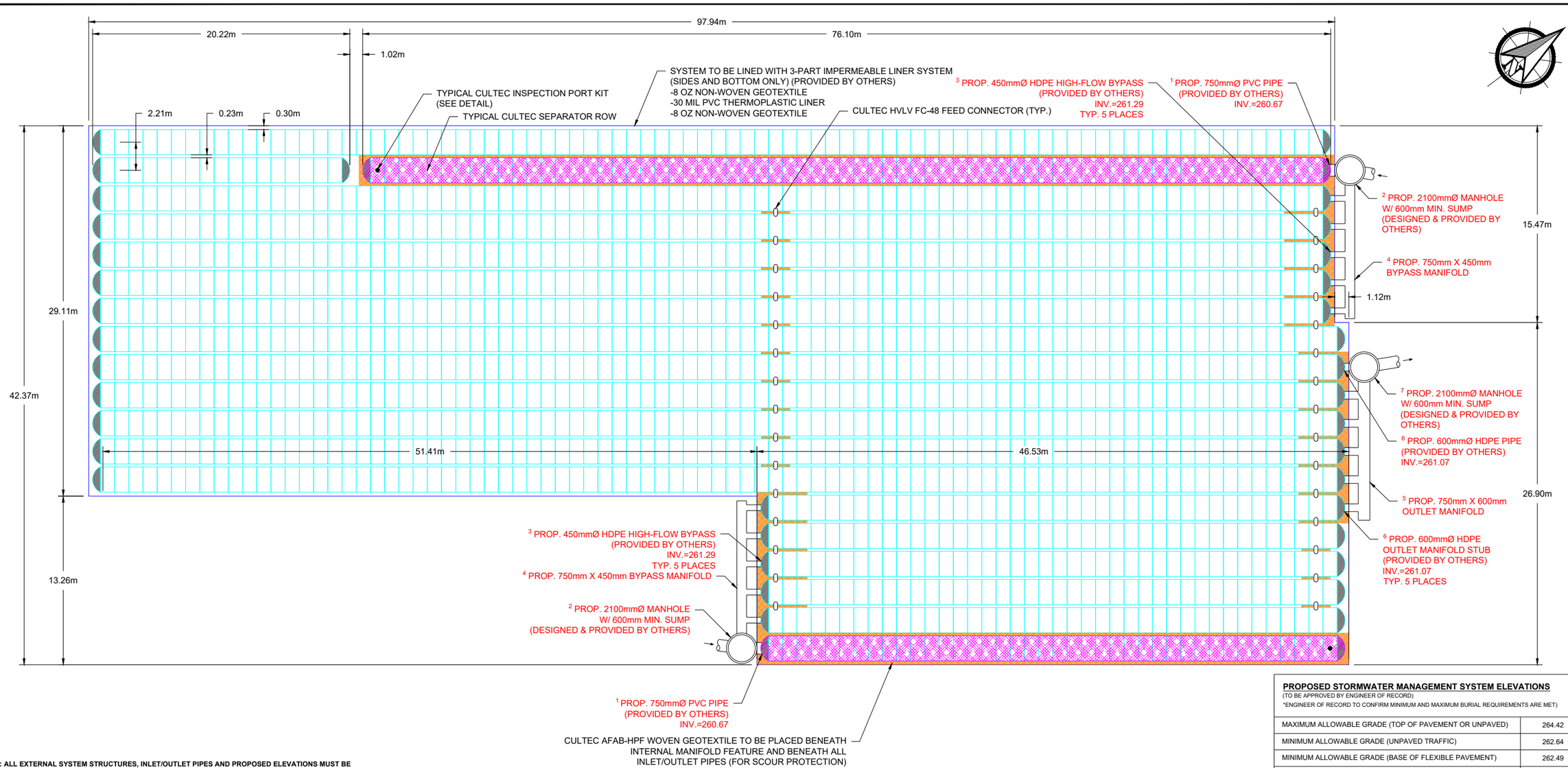
CULTEC STORMWATER CHAMBER

DATE:	9/4/2025
CHECKED BY:	TNB
SHEET NO:	6 OF 14
PROJECT NO:	25-0777.03
DESIGNED BY:	SRA
SCALE:	N.T.S

12100 CREDITVIEW ROAD
CALEDON, ON
SYSTEM LAYOUT SHEET

CULTEC
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1 CHAMBER 1 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC			
PRODUCT DESCRIPTION	**SKU**	**QUANTITY**	**UNIT OF MEASURE**
CULTEC RECHARGER 902HD CHAMBER	902HD	1,362	PIECES
CULTEC RECHARGER 902HD END CAP	902HD EC IJ	40	PIECES
CULTEC HVLV FEED CONNECTORS	FC-48	30	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	5,528	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	237	METERS
CULTEC INSPECTION PORT KIT	1299CGC	2	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	3,636	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	9,549	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	4,775	SQ. METERS

CULTEC RECHARGER®
902HD LEGEND

- RECHARGER 902HD CHAMBER
- RECHARGER 902HD END CAP
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

PROPOSED SYSTEM ALTERATION TABLE	
1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 750mm x 450mm BYPASS MANIFOLD
5	PROPOSED 750mm x 600mm OUTLET MANIFOLD
6	PROPOSED OUTLET PIPE
7	PROPOSED OUTLET MANHOLE

PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS
(TO BE APPROVED BY ENGINEER OF RECORD)
*ENGINEER OF RECORD TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	264.42
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	262.64
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	262.49
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	262.49
TOP OF STONE ELEVATION	262.20
TOP OF CHAMBER ELEVATION	261.89
(10) 450mm HIGH-FLOW BYPASS INVERT	261.29
(6) 600mm OUTLET PIPE INVERT	261.07
(2) 750mm INLET PIPE INVERT	260.67
BOTTOM OF CHAMBER ELEVATION	260.67
BOTTOM OF STONE ELEVATION	260.44

CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY	
TOTAL STORAGE REQUIRED (m^3)	2,393
TOTAL STORAGE PROVIDED (m^3) ABOVE ELEV. 261.07	2,405
% STONE POROSITY	40
SYSTEM AREA (m^2)	3,483.05
DEPTH OF EMBEDMENT STONE (mm)	305
DEPTH OF BEDDING STONE (mm)	229
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	229

CULTEC STORMWATER CHAMBER

PROJECT NO:	25-0777.03	DATE:	9/4/2025
DESIGNED BY:	SRA	CHECKED BY:	TNB
SCALE:	N.T.S	SHEET NO:	7 OF 14

12100 CREDITVIEW ROAD
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SYSTEM LAYOUT SHEET

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1.02

PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS

(TO BE APPROVED BY ENGINEER OF RECORD)
*ENGINEER OF RECORD TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

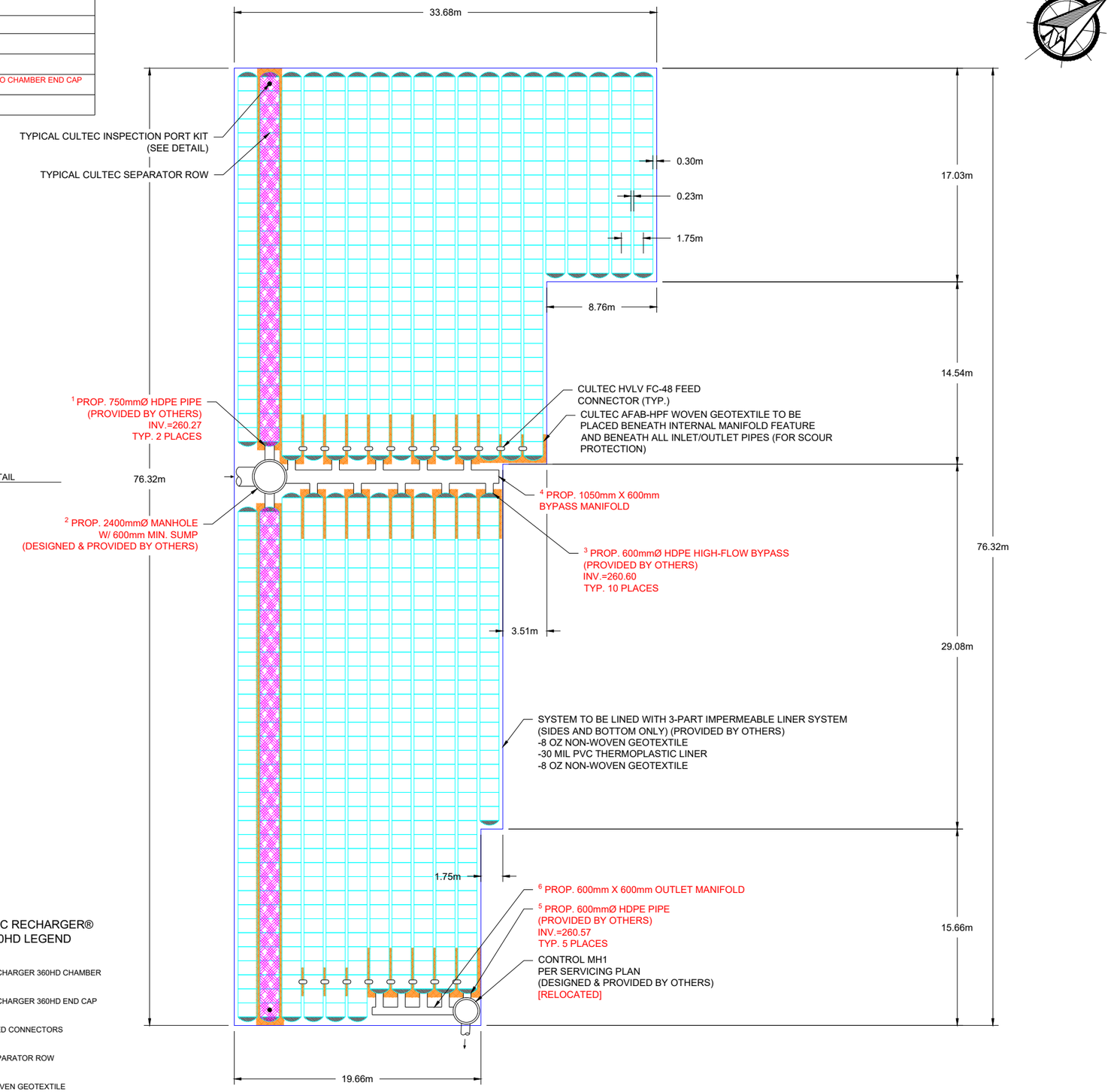
MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	264.84
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	261.78
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	261.63
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	261.63
TOP OF STONE ELEVATION	261.34
TOP OF CHAMBER ELEVATION	261.18
(10) 600mm HIGH-FLOW BYPASS PIPE INVERT	260.60
(5) 600mm OUTLET PIPE INVERT	260.57
(2) 750mm INLET PIPE INVERT	260.27
BOTTOM OF CHAMBER ELEVATION	260.27
BOTTOM OF STONE ELEVATION	260.12

CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY

TOTAL STORAGE REQUIRED (m^3)	868.00
TOTAL STORAGE PROVIDED (m^3) ABOVE ELEV. 260.57	874.49
% STONE POROSITY	40
SYSTEM AREA (m^2)	1,866.57
DEPTH OF EMBEDMENT STONE (mm)	152
DEPTH OF BEDDING STONE (mm)	152
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	229

PROPOSED SYSTEM ALTERATION TABLE

1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 1050mm x 600mm INLET MANIFOLD
5	PROPOSED PIPE MATERIAL CHANGE. MAXIMUM PIPE CONNECTION TO CHAMBER END CAP = 600mm HDPE OR 750mm PVC
6	PROPOSED 600mm x 600mm OUTLET MANIFOLD



1 CHAMBER 2 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC

PRODUCT DESCRIPTION	SKU	QUANTITY	UNIT OF MEASURE
CULTEC RECHARGER 360HD CHAMBER	360HD	864	PIECES
CULTEC RECHARGER 360HD END CAP	360HD EC	62	PIECES
CULTEC HVLV FEED CONNECTORS	FC-48	19	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	2,633	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	164	METERS
CULTEC INSPECTION PORT KIT	1299CGC	2	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	1,367	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	5,124	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	2,562	SQ. METERS

CULTEC RECHARGER® 360HD LEGEND

- RECHARGER 360HD CHAMBER
- RECHARGER 360HD END CAP
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

CULTEC STORMWATER CHAMBER

DATE: 9/4/2025
CHECKED BY: TNB
SHEET NO: 8 OF 14
PROJECT NO: 25-0777.03
DESIGNED BY: SRA
SCALE: N.T.S

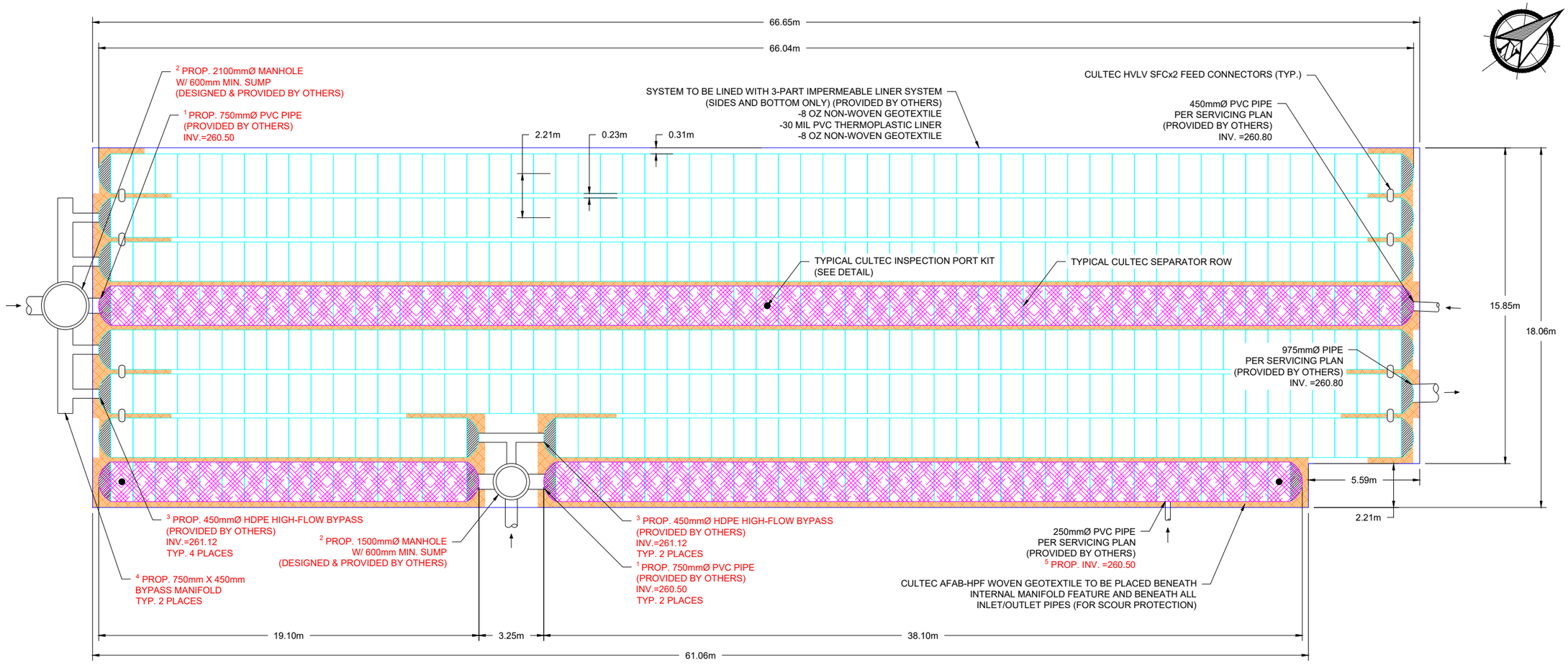
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SYSTEM LAYOUT SHEET

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1 /2



1 CHAMBER 3 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC

PRODUCT DESCRIPTION	SKU	QUANTITY	UNIT OF MEASURE
CULTEC RECHARGER 902HD CHAMBER	902HD	451	PIECES
CULTEC RECHARGER 902HD END CAP	902HD EC IJ	20	PIECES
CULTEC HVLV FEED CONNECTORS	FC-48	8	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	2,325	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	182	METERS
CULTEC INSPECTION PORT KIT	1299CGC	3	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	1,267	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	3,572	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	1,786	SQ. METERS

CULTEC RECHARGER®
902HD LEGEND

- RECHARGER 902HD CHAMBER
- RECHARGER 902HD END CAP
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

PROPOSED SYSTEM ALTERATION TABLE

1	PROPOSED SEPARATOR ROW ACCESS PIPE
2	PROPOSED SEPARATOR ROW ACCESS MANHOLE
3	PROPOSED SEPARATOR ROW HIGH-FLOW BYPASS PIPE
4	PROPOSED 750mm x 450mm BYPASS MANIFOLD
5	PROPOSED PIPE INVERT. MAXIMUM PIPE INVERT FOR PROPER CONNECTION TO CHAMBER

PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS
(TO BE APPROVED BY ENGINEER OF RECORD)
*ENGINEER OF RECORD TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	264.25
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	262.47
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	262.32
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	262.32
TOP OF STONE ELEVATION	262.03
TOP OF CHAMBER ELEVATION	261.72
(6) 450mm HIGH-FLOW BYPASS PIPE INVERT	261.12
975mm OUTLET PIPE INVERT	260.80
450mm INLET PIPE INVERT	260.80
(3) 750mm INLET PIPE INVERT	260.50
BOTTOM OF CHAMBER ELEVATION	260.50
BOTTOM OF STONE ELEVATION	260.27
CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY	
TOTAL STORAGE REQUIRED (m^3)	907.60
TOTAL STORAGE PROVIDED (m^3) ABOVE ELEV. 260.80	913.61
% STONE POROSITY	40
SYSTEM AREA (m^2)	1,191.26
DEPTH OF EMBEDMENT STONE (mm)	305
DEPTH OF BEDDING STONE (mm)	229
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	229

CULTEC STORMWATER CHAMBER

PROJECT NO:	25-0777.03	DATE:	9/4/2025
DESIGNED BY:	SRA	CHECKED BY:	TNB
SCALE:	N.T.S	SHEET NO:	9 OF 14

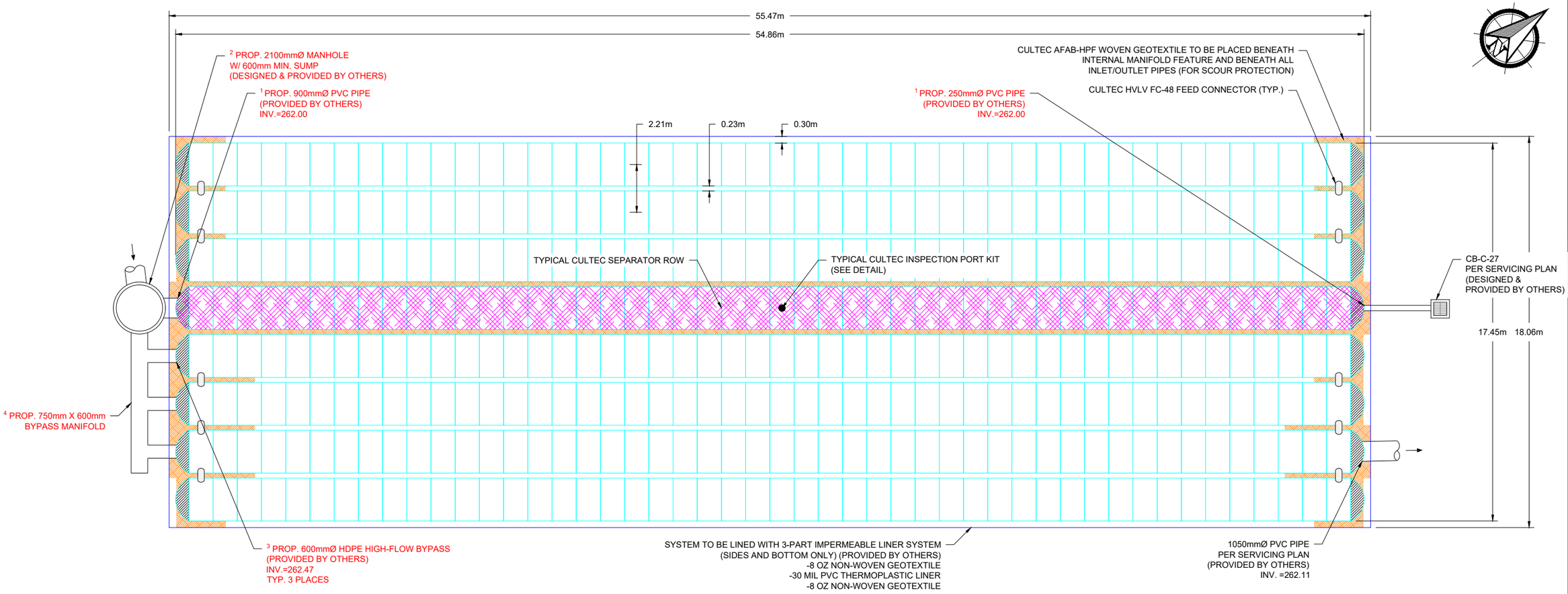
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SYSTEM LAYOUT SHEET

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1/02



1 CHAMBER 4 SYSTEM LAYOUT DETAIL
NTS

NOTE: ALL EXTERNAL SYSTEM STRUCTURES, INLET/OUTLET PIPES AND PROPOSED ELEVATIONS MUST BE DESIGNED AND APPROVED BY THE ENGINEER OF RECORD. ALL PROPOSED SYSTEM ELEVATIONS PROVIDED MUST BE VERIFIED BY THE ENGINEER OF RECORD AND THE ENGINEER OF RECORD MUST ENSURE CHAMBER BURIAL REQUIREMENTS ARE MET

MATERIALS LIST SUPPLIED BY CULTEC

PRODUCT DESCRIPTION	SKU	QUANTITY	UNIT OF MEASURE
CULTEC RECHARGER 902HD CHAMBER	902HD	384	PIECES
CULTEC RECHARGER 902HD END CAP	902HD EC IJ	16	PIECES
CULTEC HVLV FEED CONNECTORS	FC-48	10	PIECES
CULTEC NO. 410 NON-WOVEN GEOTEXTILE	75NWG410	1,695	SQ. METERS
CULTEC AFAB-HPF WOVEN GEOTEXTILE	75WGHPF	97	METERS
CULTEC INSPECTION PORT KIT	1299CGC	1	PIECES
MATERIALS LIST NOT SUPPLIED BY CULTEC			
1-2 INCH WASHED, CRUSHED STONE	---	1,057	CUBIC METERS
8 OZ. NON-WOVEN GEOTEXTILE	---	3,023	SQ. METERS
30 MIL. PVC THERMOPLASTIC LINER	---	1,511	SQ. METERS

CULTEC RECHARGER®
902HD LEGEND

- RECHARGER 902HD CHAMBER
- RECHARGER 902HD END CAP
- FEED CONNECTORS
- SEPARATOR ROW
- WOVEN GEOTEXTILE
- STONE BORDER

PROPOSED STORMWATER MANAGEMENT SYSTEM ELEVATIONS
(TO BE APPROVED BY ENGINEER OF RECORD)
*ENGINEER OF RECORD TO CONFIRM MINIMUM AND MAXIMUM BURIAL REQUIREMENTS ARE MET)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT OR UNPAVED)	265.75
MINIMUM ALLOWABLE GRADE (UNPAVED TRAFFIC)	263.97
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	263.82
MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	263.82
TOP OF STONE ELEVATION	263.53
TOP OF CHAMBER ELEVATION	263.22
(3) 600mm HIGH-FLOW BYPASS PIPE INVERT	262.47
1050mm OUTLET PIPE INVERT	262.11
900mm INLET PIPE INVERT	262.00
BOTTOM OF CHAMBER ELEVATION	262.00
BOTTOM OF STONE ELEVATION	261.77

CULTEC STORMWATER MANAGEMENT SYSTEM SUMMARY

TOTAL STORAGE REQUIRED (m^3)	929.00
TOTAL STORAGE PROVIDED (m^3) ABOVE ELEV. 262.11	942.38
% STONE POROSITY	40
SYSTEM AREA (m^2)	1,001.79
DEPTH OF EMBEDMENT STONE (mm)	305
DEPTH OF BEDDING STONE (mm)	229
STONE PERIMETER (mm)	305
SPACING BETWEEN CHAMBER ROWS (mm)	229

CULTEC STORMWATER CHAMBER

PROJECT NO:	25-0777.03	DATE:	9/4/2025
DESIGNED BY:	SRA	CHECKED BY:	TNB
SCALE:	N.T.S	SHEET NO:	10 OF14

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SYSTEM LAYOUT SHEET

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1/02

VIL INFRASTRUCTURE, HOWEVER THE ACCURACY OF THE EXISTING

(NOT PART OF THIS APPLICATION)

EDGE OF ASPHALT

TOP OF DITCH

PROPOSED RETAINING WALL (MAX 2.0m)

RETAIL C1
FFE=285.90

RETAIL C2
FFE=285.90

STREET A (SERVICING BY OTHERS)

RETAIL B1
FFE=285.90

RETAIL C6
FFE=284.50

RETAIL B2
FFE=284.60

RETAIL A
FFE=285.00

GARAGE

RETAIL B4
FFE=284.00

WATERMAIN TO MAINTAIN MINIMUM 0.5m SEPARATION FROM SANITARY OR STORM SEWERS. WATERMAIN TO BE DEFLECTED BELOW SEWER WHERE NECESSARY/APPLICABLE.

PROPOSED RETAINING WALL (0.6-1.4M)

PROPOSED RETAINING WALL (1.3-1.4M)

PART 4 43R-41107

PART 2 43R-41107

EXPROPRIATION PLAN 30500

IN INSTRUMENT No. CH27917

MUNICIPAL SANITARY SEWER AND WATERMAIN WITHIN FUTURE PUBLIC RIGHT-OF-WAY ARE NOT PART OF THIS APPLICATION

REFER TO DRAWING S3 FOR CONTINUATION

CULTEC STORMWATER CHAMBER

PROJECT NO:	25-0777.03	DATE:	9/4/2025
DESIGNED BY:	SRA	CHECKED BY:	TNB
SCALE:	N.T.S	SHEET NO:	11 OF14

SYSTEM OVERLAY SHEET

12100 CREDITVIEW ROAD

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1.02

CULTEC CONTACTOR® 100HD CHAMBER PRODUCT SPECIFICATIONS

GENERAL
CULTEC CONTACTOR 100HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

1. THE CHAMBERS SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER SHALL BE ARCHED IN SHAPE.
4. THE CHAMBER SHALL BE OPEN-BOTTOMED.
5. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS.
6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC CONTACTOR 100HD SHALL BE 12.5 INCHES (318 mm) TALL, 36 INCHES (914 mm) WIDE AND 8 FEET (2.44 m) LONG. THE INSTALLED LENGTH OF A JOINED CONTACTOR 100HD SHALL BE 7.5 FEET (2.29 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER ENDWALL IS 10 INCHES (250 mm).
8. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV® SFCx2 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. THE NOMINAL INSIDE DIMENSIONS OF EACH SIDE PORTAL SHALL BE 5.75 INCHES (146 mm) HIGH BY 7.5 INCHES (191 mm) WIDE. MAXIMUM ALLOWABLE OUTER DIAMETER (O.D.) PIPE SIZE IN THE SIDE PORTAL IS 6.9 INCHES (175 mm).
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV SFCx2 FEED CONNECTOR SHALL BE 7.6 INCHES (194 mm) TALL, 12 INCHES (305 mm) WIDE AND 19.7 INCHES (500 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE CONTACTOR 100HD CHAMBER SHALL BE 1.866 FT³ / FT (0.173 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED CONTACTOR 100HD SHALL BE 13.995 FT³ / UNIT (0.396 m³ / UNIT) - WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV SFCx2 FEED CONNECTOR SHALL BE 0.294 FT³ / FT (0.027 m³ / m) - WITHOUT STONE.
12. THE CONTACTOR 100HD CHAMBER SHALL HAVE FORTY-FOUR DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE CONTACTOR 100HD CHAMBER SHALL HAVE 16 CORRUGATIONS.
14. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, SHALL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PLATES CANNOT BE USED WITH THIS UNIT.
15. THE CONTACTOR 100RHD STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS.
16. THE CONTACTOR 100EHD MIDDLE/END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
17. THE HVLV SFCx2 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CONTACTOR 100HD AND ACT AS CROSS FEED CONNECTIONS.
18. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
19. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
20. HEAVY DUTY UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
21. THE CHAMBER SHALL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT.
22. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
23. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILITY.
24. THE CHAMBER SHALL BE DESIGNED AND MANUFACTURED TO MEET THE MATERIAL AND STRUCTURAL REQUIREMENTS OF IAPMO PS 63-2019, INCLUDING RESISTANCE TO AASHTO H-10 AND H-20 HIGHWAY LIVE LOADS, WHEN INSTALLED IN ACCORDANCE WITH CULTEC'S INSTALLATION INSTRUCTIONS.
25. MAXIMUM ALLOWED COVER ON TOP OF UNIT SHALL BE 12.0 FEET [3.66 m]

CULTEC HVLV® SFCx2 FEED CONNECTOR

GENERAL
CULTEC HVLV SFCx2 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC CONTACTOR 100HD STORMWATER CHAMBERS.

CHAMBER PARAMETERS

1. THE CHAMBERS SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER SHALL BE ARCHED IN SHAPE.
4. THE CHAMBER SHALL BE OPEN-BOTTOMED.
5. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV SFCx2 FEED CONNECTOR SHALL BE 7.6 INCHES (194 mm) TALL, 12 INCHES (305 mm) WIDE AND 19.7 INCHES (500 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV SFCx2 FEED CONNECTOR SHALL BE 0.294 FT3 / FT (0.027 m3 / m) - WITHOUT STONE.
7. THE HVLV SFCx2 FEED CONNECTOR CHAMBER SHALL HAVE 3 CORRUGATIONS.
8. THE HVLV SFCx2 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CONTACTOR 100HD STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE
CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS

1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK AND WHITE IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

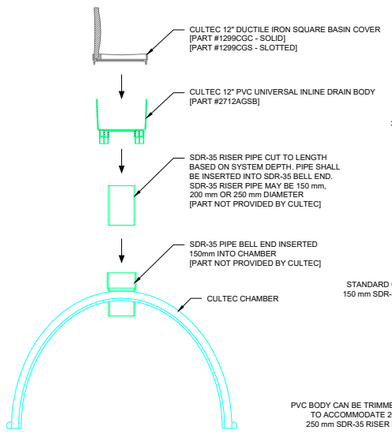
CULTEC AFAB-HPF™ WOVEN GEOTEXTILE
CULTEC AFAB-HPF WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

GEOTEXTILE PARAMETERS

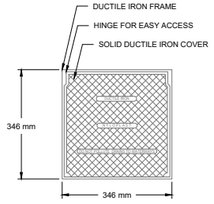
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

100HD 1.0 **GENERAL NOTES**

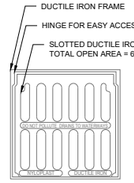
FINAL ASSEMBLY



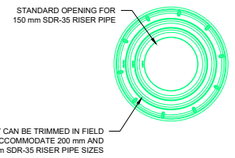
SOLID COVER OPTION



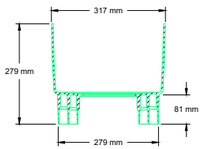
SLOTTED COVER OPTION



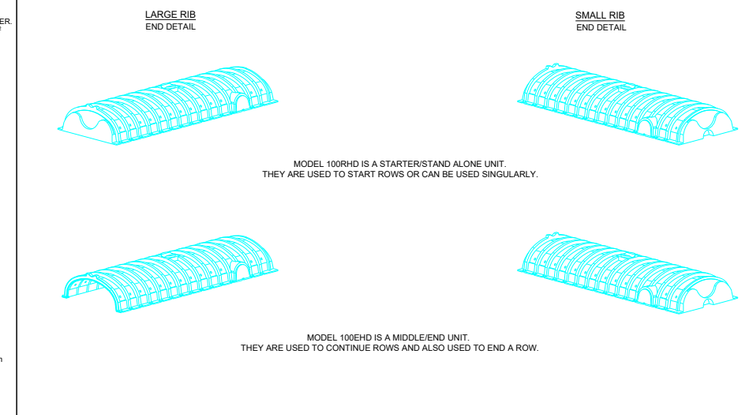
PVC BODY PLAN VIEW



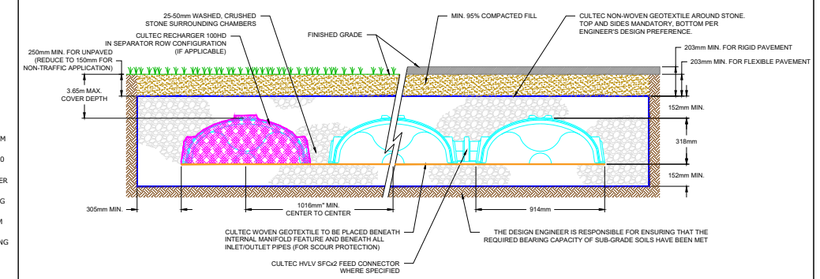
PVC BODY ELEVATION VIEW



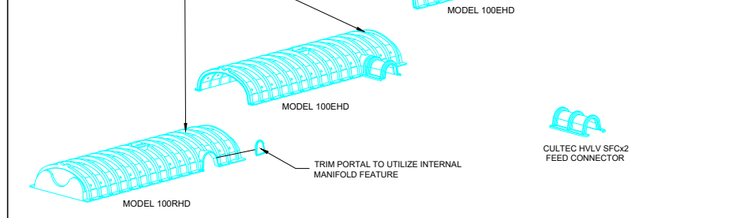
100HD 2.0 **CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL**



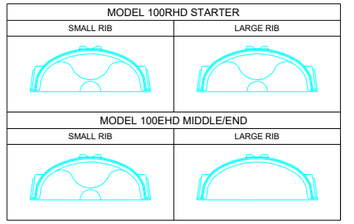
100HD 3.0 **CULTEC RECHARGER 100HD HEAVY DUTY END DETAIL INFORMATION**

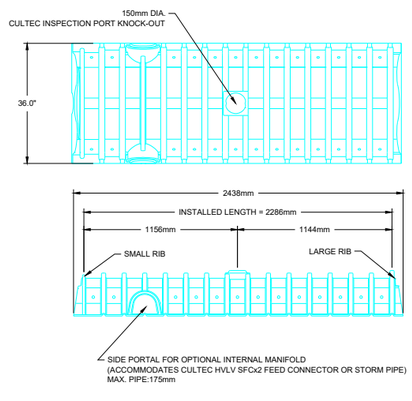


100HD 4.0 **CULTEC RECHARGER 100HD HEAVY DUTY CROSS SECTION**



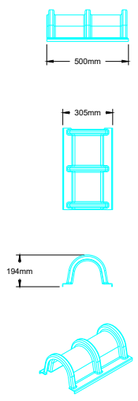
100HD 5.0 **CULTEC RECHARGER 100HD HEAVY DUTY TYPICAL INTERLOCK**



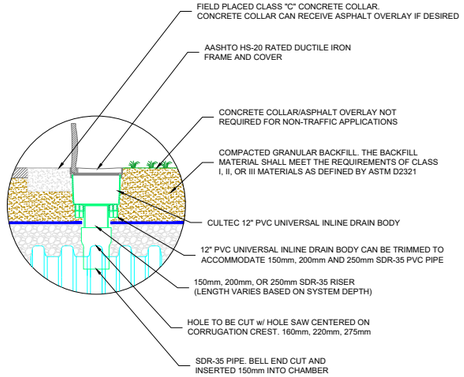


CULTEC CONTACTOR 100HD CHAMBER STORAGE = 0.173 m^3/m
INSTALLED LENGTH ADJUSTMENT = 0.15m

100HD 6.0 **CULTEC RECHARGER 100HD HEAVY DUTY THREE VIEW**



100HD 7.0 **CULTEC HVLV SFCx2 FEED CONNECTOR THREE VIEW**



100HD 8.0 **CULTEC INSPECTION PORT - ZOOM DETAIL**

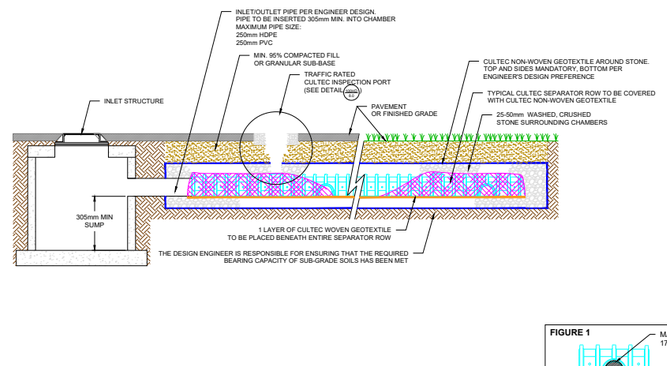


FIGURE 1

ZOOM OF SIDE PORTAL SHOWING MAX. PIPE O.D.

100HD 9.0 **CULTEC SEPARATOR ROW - CULTEC INSPECTION PORT DETAIL (IF APPLICABLE)**

CULTEC STORMWATER CHAMBER

DATE: 9/4/2025
CHECKED BY: TNB
SHEET NO: 12 OF 14
PROJECT NO: 25-0777.03
DESIGNED BY: SRA
SCALE: N.T.S

12100 CREDITVIEW ROAD
CALEDON, ON

SYSTEM DETAIL SHEET

CULTEC
Subsurface Stormwater Management Systems
878 Federal Road
Brookfield, CT 06804
www.cultec.com
PH: 1(203) 775-4416
PH: 1(800) 4-CULTEC
CT-tech@cultec.com

THIS DRAWING HAS BEEN PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. THIS DRAWING MAY BE INCORPORATED INTO THE PROJECT ENGINEER OF RECORD'S CONSTRUCTION DOCUMENTS, BUT IT IS NOT A CONTRACT DOCUMENT OR OTHER PROJECT REPRESENTATIVE. IT IS ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEM IS DESIGNED & INSTALLED COMPLYING WITH ALL APPLICABLE LAWS, REGULATIONS AND MANUFACTURERS' REQUIREMENTS.

CULTEC RECHARGER® 360HD PRODUCT SPECIFICATIONS

GENERAL

CULTEC RECHARGER® 360HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.
3. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND THE AASHTO DESIGN TRUCK LOAD AND LIVE AND DEAD LOAD FACTORS AS DEFINED BY AASHTO LRFD SECTION 12.12 WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
4. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
5. THE CHAMBER SHALL BE ARCHED IN SHAPE.
6. THE CHAMBER SHALL BE OPEN-BOTTOMED.
7. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
8. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 360HD SHALL BE 36 INCHES (915 mm) TALL, 60 INCHES (1525 mm) WIDE AND 50 INCHES (1275 mm) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 360HD SHALL BE 3.67 FEET (1.12 m).
9. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 360HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
10. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCH (250mm) HDPE OR 12 INCH (300mm) PVC.
11. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
12. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 360HD CHAMBER SHALL BE 10.0 FT³ / FT (.928 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 360HD SHALL BE 36.66 FT³ / UNIT (1.038 m³ / UNIT) - WITHOUT STONE.
13. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
14. THE RECHARGER® 360HD CHAMBER SHALL HAVE 7 CORRUGATIONS.
15. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
16. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66 m).

END CAP PARAMETERS

1. THE CULTEC RECHARGER® 360HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
4. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
5. THE END CAP SHALL BE ARCHED IN SHAPE.
6. THE END CAP SHALL BE OPEN-BOTTOMED.
7. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
8. THE END CAP SHALL HAVE 5 CORRUGATIONS.
9. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 36.5 INCHES (927 mm) TALL, 60 INCHES (1525 mm) WIDE AND 18 INCHES (458 mm) LONG. WHEN JOINED WITH A RECHARGER 360HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 15 INCHES (381 mm).
10. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.17 FT³ / FT (0.48 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 6.46 FT³ / UNIT (0.183 m³ / UNIT) - WITHOUT STONE.
11. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750 mm) SMOOTH-WALL PVC.
12. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES
13. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL

CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 360HD STORMWATER CHAMBERS.

FEED CONNECTOR PARAMETERS

1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS

1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK AND WHITE IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC AFAB-HPF™ WOVEN GEOTEXTILE

CULTEC AFAB-HPF WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

GEOTEXTILE PARAMETERS

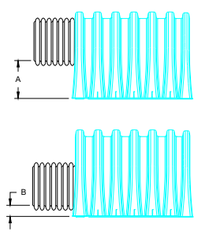
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

360HD 1.0

GENERAL NOTES

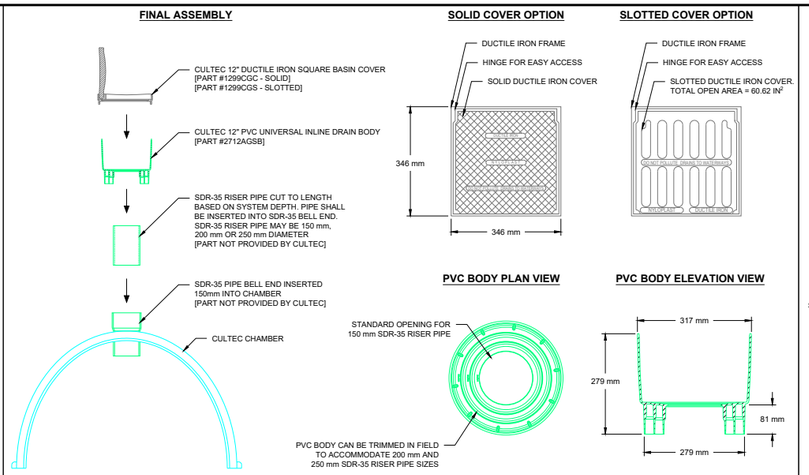
PIPE	A	B
6" [150 mm]	26.50" [674 mm]	1.00" [26 mm]
8" [200 mm]	24.50" [623 mm]	1.00" [26 mm]
10" [250 mm]	22.25" [566 mm]	1.25" [32 mm]
12" [300 mm]	19.75" [502 mm]	1.75" [45 mm]
15" [375 mm]	16.50" [420 mm]	2.00" [51 mm]
18" [450 mm]	13.00" [331 mm]	2.50" [64 mm]
24" [600 mm]	7.00" [178 mm]	2.50" [64 mm]

*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12" (300mm), 15" (375mm), 18" (450mm) AND 24" (600mm). PIPES OF ANY SIZE AND MATERIAL UP TO 24" (600mm) MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. 30" (750 mm) SMOOTH-WALL SDR-35 PVC PIPE MAY BE USED AT THE BOTTOM OF THE END CAP. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 3" (75mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.



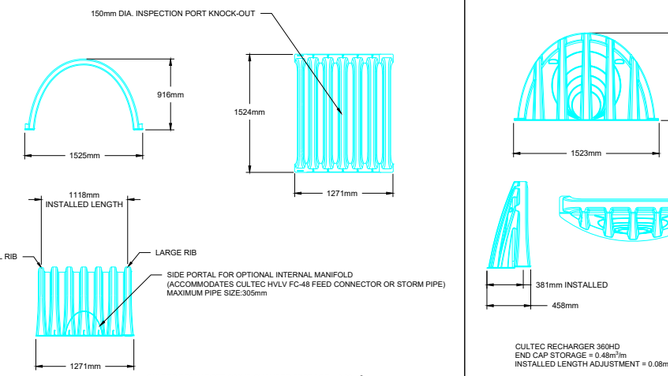
360HD 7.0

CULTEC RECHARGER 360HD TYPICAL PIPE INVERTS



360HD 2.0

CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL

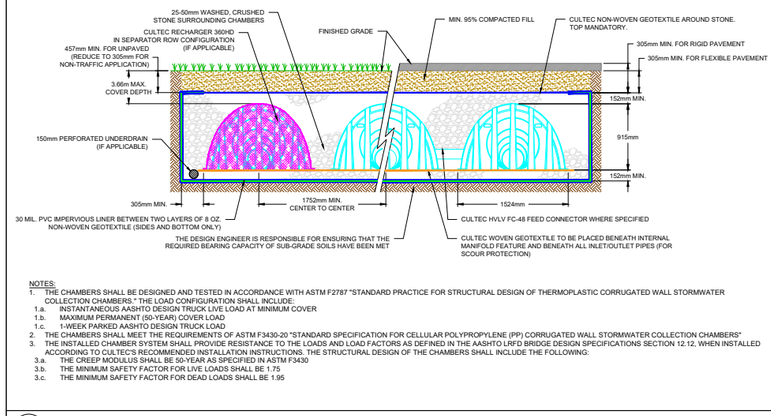


360HD 3.0

CULTEC RECHARGER 360HD HEAVY DUTY THREE VIEW

360HD 4.0

CULTEC RECHARGER 360HD HEAVY DUTY END CAP THREE VIEW



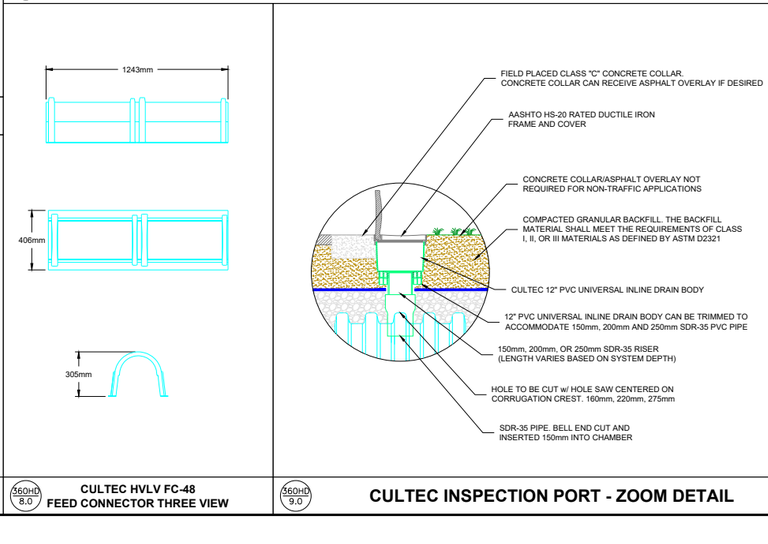
NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

360HD 5.0

CULTEC RECHARGER 360HD HEAVY DUTY CROSS SECTION

360HD 6.0

CULTEC RECHARGER 360HD HEAVY DUTY TYPICAL INTERLOCK

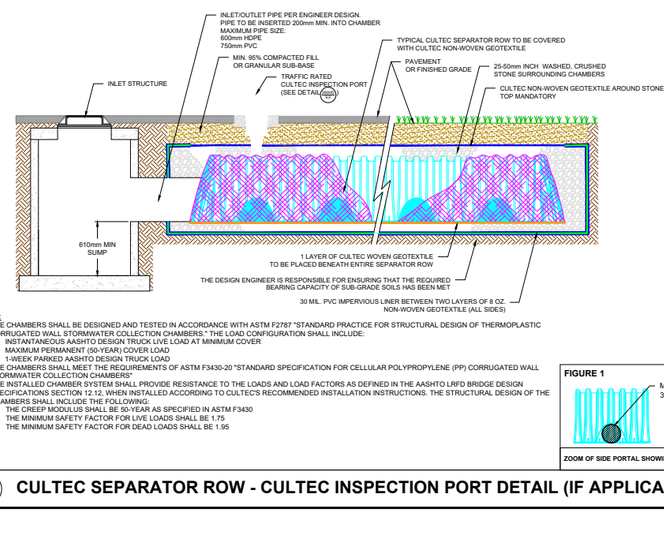


360HD 8.0

CULTEC HVLV FC-48 FEED CONNECTOR THREE VIEW

360HD 9.0

CULTEC INSPECTION PORT - ZOOM DETAIL



NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

FIGURE 1

ZOOM OF SIDE PORTAL SHOWING MAX. PIPE O.D.

360HD 10.0

CULTEC SEPARATOR ROW - CULTEC INSPECTION PORT DETAIL (IF APPLICABLE)

CULTEC STORMWATER CHAMBER

DATE: 9/4/2025
CHECKED BY: TNB
SHEET NO: 13 OF14
PROJECT NO: 25-0777.03
DESIGNED BY: SRA
SCALE: N.T.S

12100 CREDITVIEW ROAD
CALEDON, ON

SYSTEM DETAIL SHEET

CULTEC
Subsurface Stormwater Management Systems
878 Federal Road
Brookfield, CT 06804
www.cultec.com
PH: 1(203) 775-4416
PH: 1(800) 4-CULTEC
CT-tech@cultec.com

THIS DRAWING HAS BEEN PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. THIS DRAWING MAY BE INCORPORATED INTO THE PROJECT ENGINEER OF RECORD'S CONSTRUCTION DOCUMENTS, BUT IT IS NOT A CONTRACT DOCUMENT OR OTHER PROJECT REPRESENTATIVE. IT IS ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEM DESIGN AS SHOWN COMPLIES WITH ALL APPLICABLE LAWS, REGULATIONS AND MANUFACTURER RECOMMENDATIONS.

CULTEC RECHARGER® 902HD SPECIFICATIONS

GENERAL

CULTEC RECHARGER® 902HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE:
   A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
5. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
6. THE CHAMBER SHALL BE ARCHED IN SHAPE.
7. THE CHAMBER SHALL BE OPEN-BOTTOMED.
8. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER®902HD SHALL BE 48 INCHES (1219 MM) TALL, 78 INCHES (1981 MM) WIDE AND 4.25 FEET (1.30 M) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 902HD SHALL BE 3.67 FEET (1.12 M).
10. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 902HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 MM) HDPE OR 36 INCHES (900 MM) PVC.
11. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCHES (250 MM) HDPE AND 12 INCHES (300 MM) PVC.
12. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 49 INCHES (1245 MM) LONG.
13. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 902HD CHAMBER SHALL BE 17.31 FT^3/ FT (1.61 M^3 / M) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 902HD SHALL BE 63.47 FT^3 / UNIT (1.80 M^2 / UNIT) - WITHOUT STONE.
14. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT^3 / FT (0.085 M^3 / M) - WITHOUT STONE.
15. THE RECHARGER 902HD CHAMBER SHALL HAVE 5 CORRUGATIONS.
16. THE CHAMBER SHALL BE CAPABLE OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE CORRUGATION CREST.
17. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
18. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 8.3 FEET (2.53 M).

END CAP PARAMETERS

1. THE CULTEC RECHARGER® 902HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
3. THE END CAP SHALL BE ARCHED IN SHAPE.
4. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
5. THE END CAP SHALL HAVE 5 CORRUGATIONS.
6. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 48.5 INCHES (1231 mm) TALL, 78 INCHES (1982 mm) WIDE AND 28.0 INCHES (711 mm) LONG. WHEN JOINED WITH A RECHARGER 902HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 24.0 INCHES (610 mm).
7. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 9.01 FT3 / FT (0.83 m3 / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 18.02 FT3 / UNIT (1.67 m3 / UNIT) - WITHOUT STONE.
8. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 mm) HDPE OR 36 INCHES (900 mm) PVC.
9. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL

CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 902HD STORMWATER CHAMBERS.

FEED CONNECTOR PARAMETERS

1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT^3 / FT (0.085 m^3 / m) - WITHOUT STONE.
7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS

1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK AND WHITE IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC AFAB-HPF™ WOVEN GEOTEXTILE

CULTEC AFAB-HPF WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

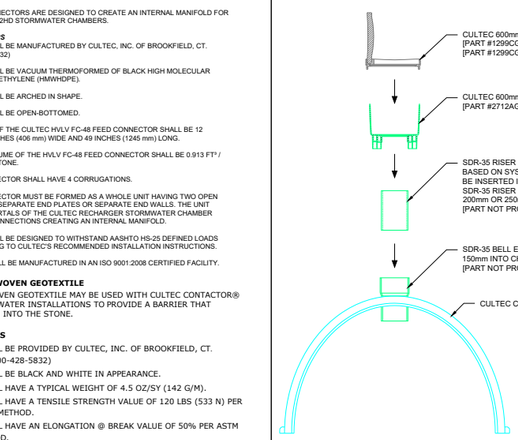
GEOTEXTILE PARAMETERS

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2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

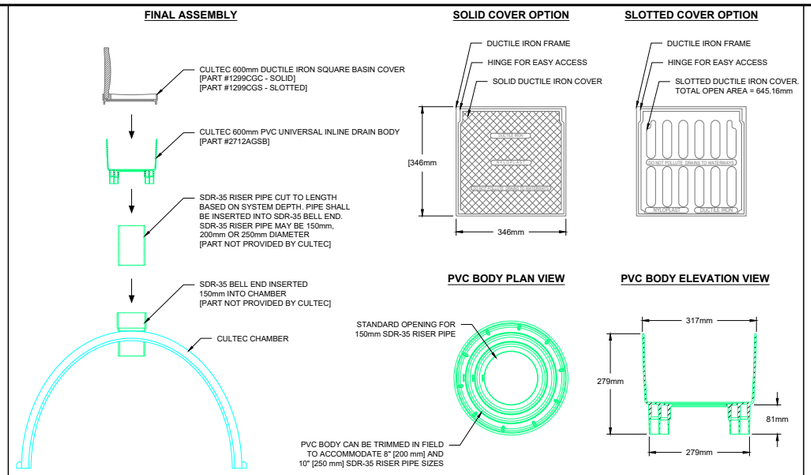
GENERAL NOTES

PIPE	A	B
150 mm	965 mm	25 mm
200 mm	914 mm	25 mm
250 mm	858 mm	32 mm
300 mm	743 mm	44 mm
375 mm	654 mm	50 mm
450 mm	552 mm	64 mm
525 mm	476 mm	64 mm
600 mm	400 mm	64 mm
750 mm	197 mm	89 mm
900 mm	N/A	89 mm

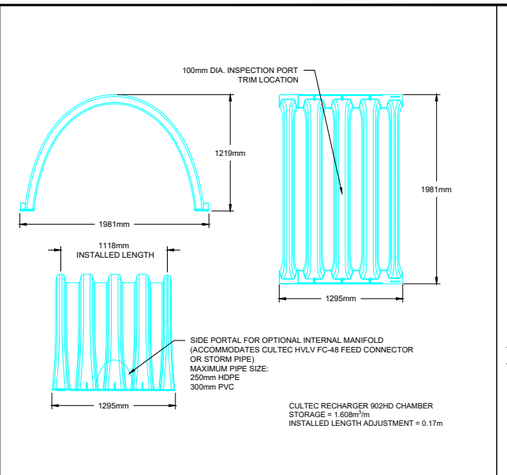
*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 300mm, 375mm, 450mm AND 600mm PIPES OF ANY SIZE AND MATERIAL UP TO 600mm MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 100mm FROM THE EDGE OF THE HEAVY DUTY END CAP.



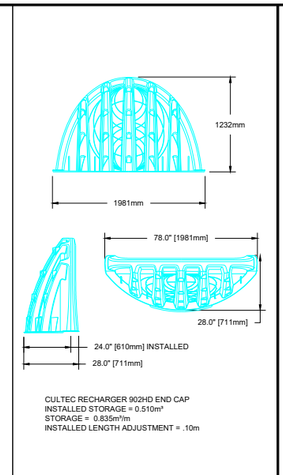
CULTEC RECHARGER 902HD TYPICAL PIPE INVERTS



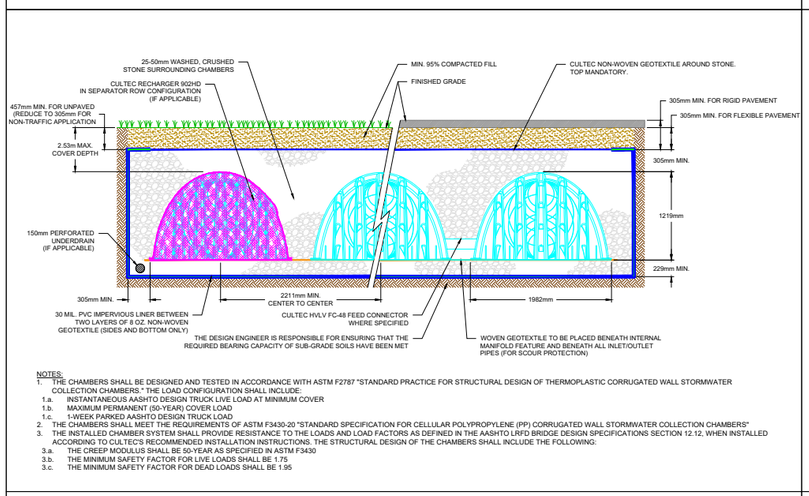
CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL



CULTEC RECHARGER 902HD HEAVY DUTY THREE VIEW

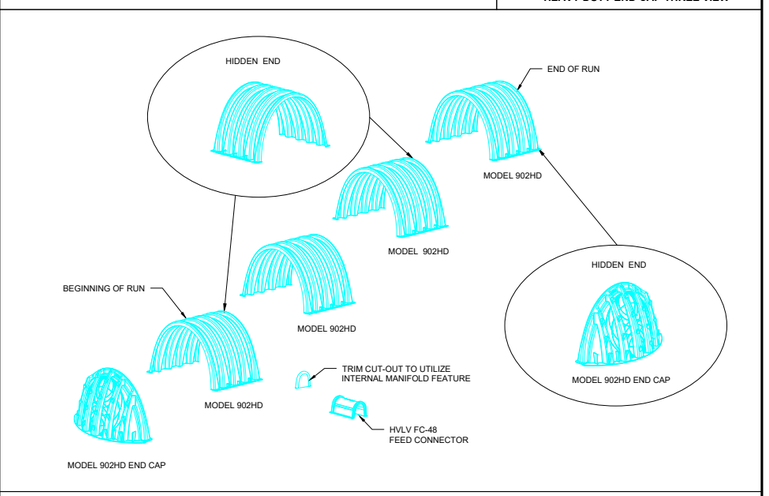


CULTEC RECHARGER 902HD HEAVY DUTY END CAP THREE VIEW

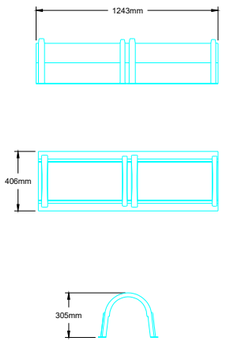


NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

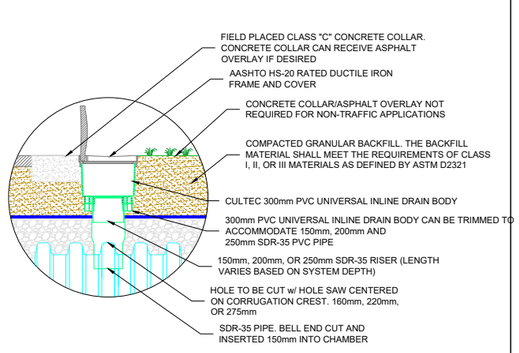
CULTEC RECHARGER 902HD CROSS SECTION



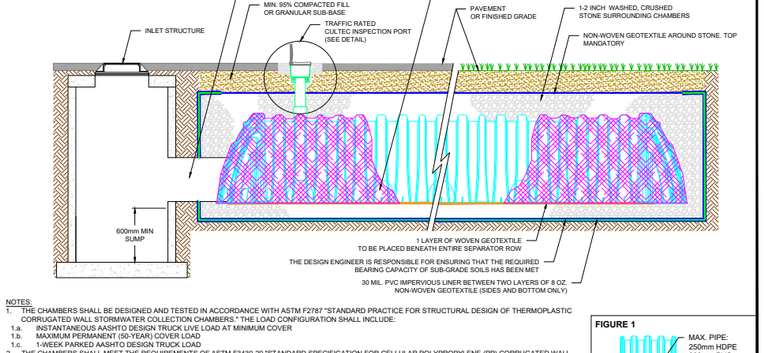
CULTEC RECHARGER 902HD HEAVY DUTY TYPICAL INTERLOCK



CULTEC HVLV FC-48 FEED CONNECTOR THREE VIEW

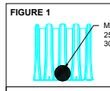


CULTEC INSPECTION PORT - ZOOM DETAIL



NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

FIGURE 1



ZOOM OF SIDE PORTAL SHOWING MAX. PIPE O.D.

CULTEC SEPARATOR ROW - CULTEC INSPECTION PORT DETAIL (IF APPLICABLE)

CULTEC STORMWATER CHAMBER

DATE: 9/4/2025
CHECKED BY: TNB
SHEET NO: 14 OF14
PROJECT NO: 25-0777.03
DESIGNED BY: SRA
SCALE: N.T.S

SYSTEM DETAIL SHEET

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THIS DRAWING HAS BEEN PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. THIS DRAWING MAY BE MODIFIED BY THE PROJECT ENGINEER OF RECORD TO MEET LOCAL REGULATIONS AND REQUIREMENTS. ANY MODIFICATIONS OR OTHER PRODUCT REPRESENTATIVE IT IS ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEM DESIGN AS SHOWN ON THIS DRAWING COMPLIES WITH ALL APPLICABLE LAWS, REGULATIONS AND MANUFACTURER'S RECOMMENDATIONS.

1.02