

GENERAL

2. THE SEPARATOR ROW PERFORMANCE SHALL BE TESTED AND VERIFIED TO THE PROTOCOLS AND PROCEDURES AS DEFINED BY ENVIRONMENTAL TECHNOLOGY VERIFICATION (ETV) CANADA TO ACHIEVE 80% TSS REMOVAL.

A SEPARATOR ROW IS INSTALLED ON A 1-2 INCH [25-51 mm] WASHED, CRUSHED STONE BASE. TYPICALLY, THE CULTEC CHAMBER MODEL USED FOR THE SEPARATOR ROW IS THE SAME CHAMBER USED THROUGHOUT THE ENTIRE CHAMBER BED.

STORMWATER IS DISTRIBUTED TO THE SEPARATOR ROW BY A PRIMARY FEED SYSTEM THAT DIVERTS FLOW TO THE SEPARATOR ROW AND A SECONDARY BYPASS FEED SYSTEM THAT DIVERTS THE FLOW OF CLEAN WATER TO THE OTHER PARTS OF THE UNDERGROUND DRAINAGE SYSTEM. THE SEPARATOR ROW IS LOCATED AT A LOW ELEVATION SET AT A LOWER ELEVATION THAT PERMIT THE FIRST FLUSH TO THE SEPARATOR ROW VERSUS OTHER PARTS OF THE UNDERGROUND STORMWATER SYSTEM. THIS INITIAL FLOW MAY BE MANAGED BY A BAFLE OR WEIR. THE SIZING OF THE PIPE(S) THAT PROVIDE STORM WATER TO THE SEPARATOR ROW IS TO BE DETERMINED BY THE DESIGN ENGINEER AND IS BASED UPON THE REQUIREMENT TO ACCOMMODATE THE DESIGN FLOW AND SERVICE CONVENIENCE.

THE CHAMBERS UTILIZED IN THE SEPARATOR ROW ARE TO BE COMPLETELY WRAPPED WITH CULTEC NON-WOVEN GEOTEXTILE. THIS CREATES A PASS-THROUGH FILTER ARRANGEMENT TO SEPARATE TOTAL SUSPENDED SOLIDS IN THE TRANSFER OF STORM WATER TO OTHER CHAMBERS THROUGHOUT THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM.

ONCE WRAPPED, THE SEPARATOR ROW IS TO THEN BE PLACED ENTIRELY OVER 1 LAYER OF CULTEC AFAB-HPF WOVEN GEOTEXTILE. THIS CULTEC AFAB-HPF WOVEN GEOTEXTILE PROVIDES A DURABLE SURFACE WITHIN THE ROW FOR MAINTENANCE PROCEDURES AS WELL AS TO PREVENT ANY SCOURING OF THE STONE BASE DURING HIGH PRESSURE JETTING.

THE RECOMMENDED INSTALLATION OF SEPARATOR ROW CHAMBERS, IN REGARD TO STONE SEPARATION AND STONE ABOVE THE UNIT, ALONG WITH OTHER MINIMUM COVER, MATERIALS AND METHOD SPECIFICATIONS DETAILED FOR THE PROPER INSTALLATION, IS THE SAME AS CULTEC'S REQUIREMENT DETAILED IN THE COMPANY'S INSTALLATION GUIDELINES WITH THE EXCEPTION OF THE PLACEMENT OF THE REQUIRED FILTERING FABRICS. PLEASE REFER TO CULTEC'S CURRENT INSTALLATION INSTRUCTIONS FOR STORMWATER CHAMBERS AS A GUIDE.

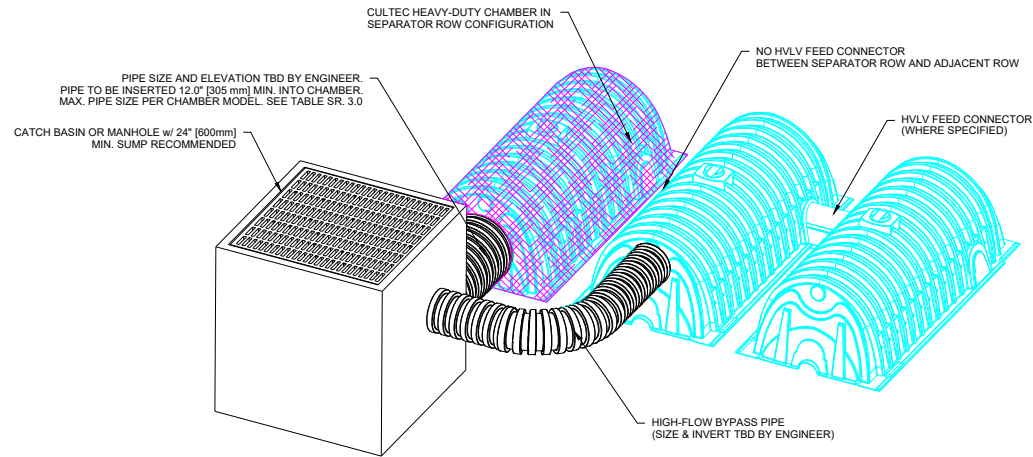
CULTEC RECOMMENDS INSPECTIONS OF THE SEPARATOR ROW TO BE PERFORMED EVERY SIX MONTHS FOR THE FIRST YEAR. THE FREQUENCY OF INSPECTION CAN THEN BE ADJUSTED BASED UPON PREVIOUS OBSERVATION OF SEDIMENT DEPOSITION.

WHILE CLEANING IS POSSIBLE FROM A SINGLE MANHOLE IN SHORTER LINES, A CLEAN-OUT OPTION FROM EITHER END OF A LINE IS PREFERABLE, PARTICULARLY FOR LONGER RUNS. CLEANING INVOLVES FLUSHING SEDIMENT FROM THE BASE FABRIC OF THE SEPARATOR ROW.

ACCESS WILL BE PROVIDED VIA A MANHOLE(S) LOCATED AT THE END(S) OF THE ROW FOR CLEAN OUT.

MAINTENANCE OF THE SEPARATOR ROW IS TO BE ACCOMPLISHED WITH A JETVAC PROCESS

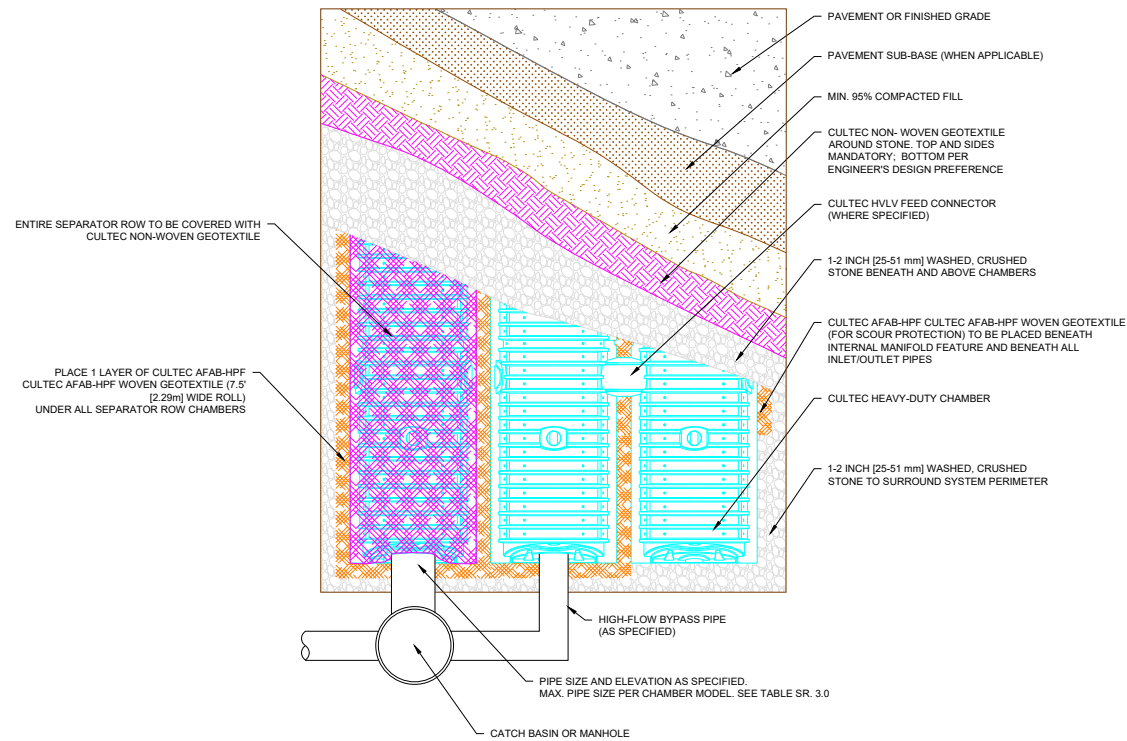
THE JETVAC IS TO BE SENT DOWN THE ENTIRE LENGTH OF THE SEPARATOR ROW. AS THE HIGH PRESSURE WATER NOZZLE IS RETRIEVED, THE CAPTURED SEDIMENTS ARE PUSHED BACK INTO THE MANHOLE FOR VACUUMING.



SR
2.0

CULTEC CHAMBER MODEL							
	DESCRIPTION	CONTACTOR 100HD	RECHARGER 150XLHD	RECHARGER 280HD	RECHARGER 300HD	RECHARGER 360HD	RECHARGER 902HD
A ¹	MIN. DEPTH OF STONE BASE	6" 152 mm	6" 152 mm	6" 152 mm	6" 152 mm	6" 152 mm	9" 229 mm
B	CHAMBER HEIGHT	12.5" 318 mm	18.5" 470 mm	26.5" 673 mm	30.0" 762 mm	36.0" 914 mm	48" 1219 mm
C ¹	MIN. DEPTH OF STONE REQUIRED ABOVE UNITS FOR TRAFFIC APPLICATIONS	6" 152 mm	6" 152 mm	6" 152 mm	6" 152 mm	6" 152 mm	12" 305 mm
D	MIN. DEPTH REQUIRED OF 95% COMPACTED FILL FOR PAVED TRAFFIC	8" 203 mm	8" 203 mm	8" 203 mm	10" 254 mm	10" 254 mm	12" 305 mm
E	MAX. DEPTH OF COVER ALLOWED ABOVE CROWN OF CHAMBER	12" 3.65 m	12" 3.65 m	12" 3.65 m	12" 3.65 m	12" 3.65 m	8.3" 2.13 m
F	MIN. ROW SPACING	4" 102 mm	6" 152 mm	5" 127 mm	6" 152 mm	6" 152 mm	9" 229mm
G	CHAMBER WIDTH	36" 914 mm	33" 838 mm	47" 1194 mm	51" 1295 mm	60" 1525 mm	78" 1981 mm
	MAX. PIPE SIZE TO CHAMBER ENDWALL/ENDCAP (CORRUGATED HDPE)	10" 250 mm	12" 300 mm	18" 450 mm	24" 600 mm	24" 600 mm	30" 750 mm

NOTE¹: STONE ABOVE AND BELOW UNITS MAY VARY PER SYSTEM.
SEE SYSTEM LAYOUT FOR STONE REQUIREMENTS



SR
4.0

INLET STRUCTURE

INLET/OUTLET PIPE PER ENGINEER DESIGN. PIPE TO BE INSERTED 12.0" MIN. INTO CHAMBER. SEE TABLE SR 3.0 FOR SIZING REQUIREMENTS

MIN. 95% COMPACTED FILL OR GRANULAR SUB-BASE

TRAFFIC RATED CULVERT INSPECTION PORT (SEE ZOOM DETAIL)

PAVEMENT OR FINISHED GRADE

TYPICAL CULTEC SEPARATOR ROW TO BE COVERED WITH NON-WOVEN GEOTEXTILE

1-2" [25-50mm] WASHED, CRUSHED STONE SURROUNDING CHAMBERS

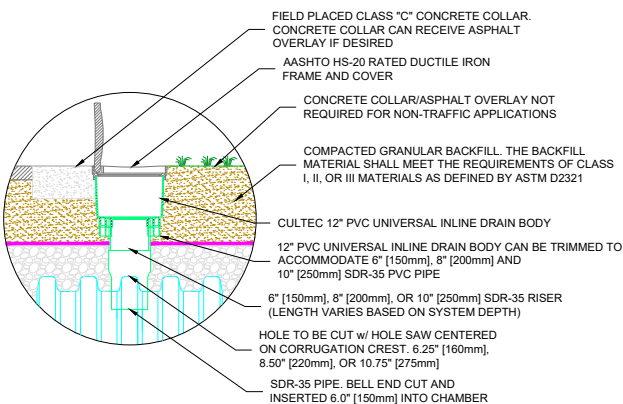
NON-WOVEN GEOTEXTILE AROUND STONE. TOP AND SIDES MANDATORY, BOTTOM PER ENGINEER'S DESIGN PREFERENCE.

24.0" [610mm] MIN. SUMP RECOMMENDED

1 LAYER OF CULTEC AFAB-HPF WOVEN GEOTEXTILE TO BE PLACED BENEATH ENTIRE SEPARATOR ROW

THE DESIGN ENGINEER IS RESPONSIBLE FOR ENSURING THAT THE REQUIRED BEARING CAPACITY OF SUB-GRADE SOILS HAS BEEN MET

* SEE SR 3.0 - CROSS SECTION TABLE REFERENCE



SR
5.0

SR
6.0

[illegible]

* SEE SR 3.0 - CROSS SECTION TABLE REFERENCE

SR
7.0

TYPICAL SEPARATOR ROW CONFIGURATION CROSS SECTION WITH INSPECTION PORT DETAIL

CULTEC STORMWATER CHAMBER

24

iii

DATA

1

1

1

1

1A

1

On

15

WE

PR

CULTEC SEPARATOR ROW DETAILS

CULTEC

CULIC
Subsurface Stormwater Management Systems

PH: 1(203) 775-4416
PH: 1(800) 4 CIII TEC

CT-tech@cultec.com

www.cultec.com

CULTEC www.cultec.com U1-tech@cultec.com