CULTEC RECHARGER 180HD SPECIFICATIONS

GENERAL

CULTEC RECHARGER® 180HD 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, 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 RECHARGER® 180HD SHALL BE 20.5" (521 mm) TALL, 36" (914 mm) WIDE AND 7.33' (2.23 m) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 180HD SHALL BE 6.33' (1.93 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER ENDWALL IS 15" (375 mm) HDPE.
8. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV® FC-24 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE O.D. IN THE SIDE PORTAL IS 12.25" (311 mm).
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV® FC-24 FEED CONNECTOR SHALL BE 12" (305 mm) TALL, 16" (406 mm) WIDE AND 24.2" (614 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 180HD CHAMBER SHALL BE 3.445 FT³ / FT (0.32 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A SINGLE RECHARGER 180RHD STAND ALONE UNIT SHALL BE 25.25 FT³ (0.72 m³) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 180EHD AS AN INTERMEDIATE UNIT SHALL BE 21.81 FT³ (0.62 m³) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF THE LENGTH ADJUSTMENT AMOUNT PER RUN SHALL BE 3.445 FT³ (0.32 m³) - WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV® FC-24 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
12. THE RECHARGER® 180HD CHAMBER SHALL HAVE TWENTY-TWO DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE RECHARGER® 180HD CHAMBER SHALL HAVE 14 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 RECHARGER® 180RHD STAND ALONE/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 RECHARGER® 180EHD 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® FC-24 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 RECHARGER® 180HD AND ACT AS CROSS FEED CONNECTIONS.
18. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
19. 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.
20. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION ON THE LARGE RIB END.
21. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILITY.
22. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0' (3.66 m).
23. THE INSTALLED CHAMBER SYSTEM SHALL BE STRUCTURALLY DESIGNED TO PROVIDE RESISTANCE TO LIVE LOADS AS DEFINED BY THE AASHTO H-20/HL-93 SPECIFICATION WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS

CULTEC HVLV FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL

CULTEC HVLV FEED CONNECTOR (WHERE SPECIFIED)S ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER STORMWATER CHAMBERS.

CHAMBER PARAMETERS

1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, 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 WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FEED CONNECTOR (WHERE SPECIFIED) SHALL BE 12" (305 mm) TALL, 16" (406 mm) WIDE AND 24.2" (614 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
7. THE HVLV FC-24 FEED CONNECTOR CHAMBER SHALL HAVE 2 CORRUGATIONS.
8. THE HVLV FC-24 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 WILL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 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

THE GEOTEXTILE SHALL:

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

ADS PLUS-US WOVEN GEOTEXTILE

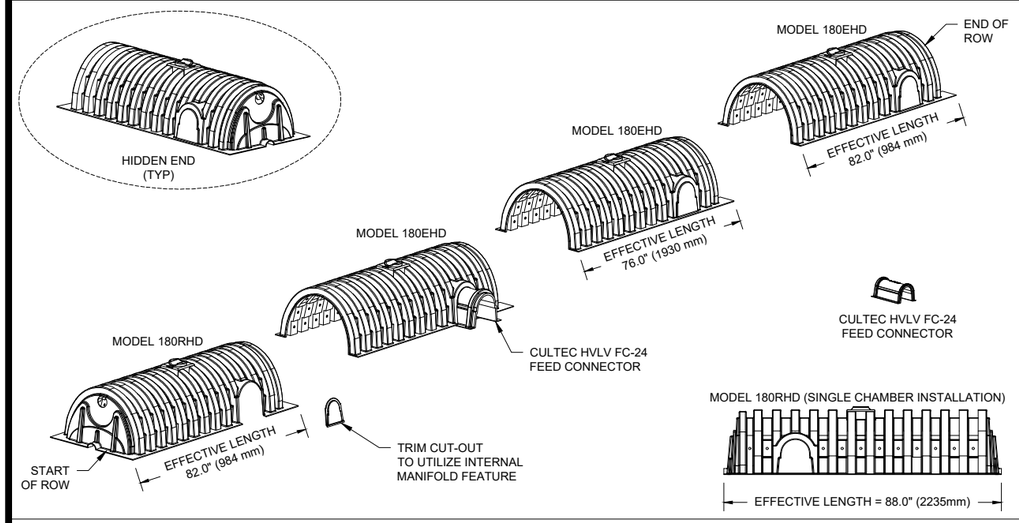
ADS PLUS-US WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW/ADS ISOLATOR ROW PLUS TO ACT AS A BARRIER TO PREVENT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

GEOTEXTILE PARAMETERS

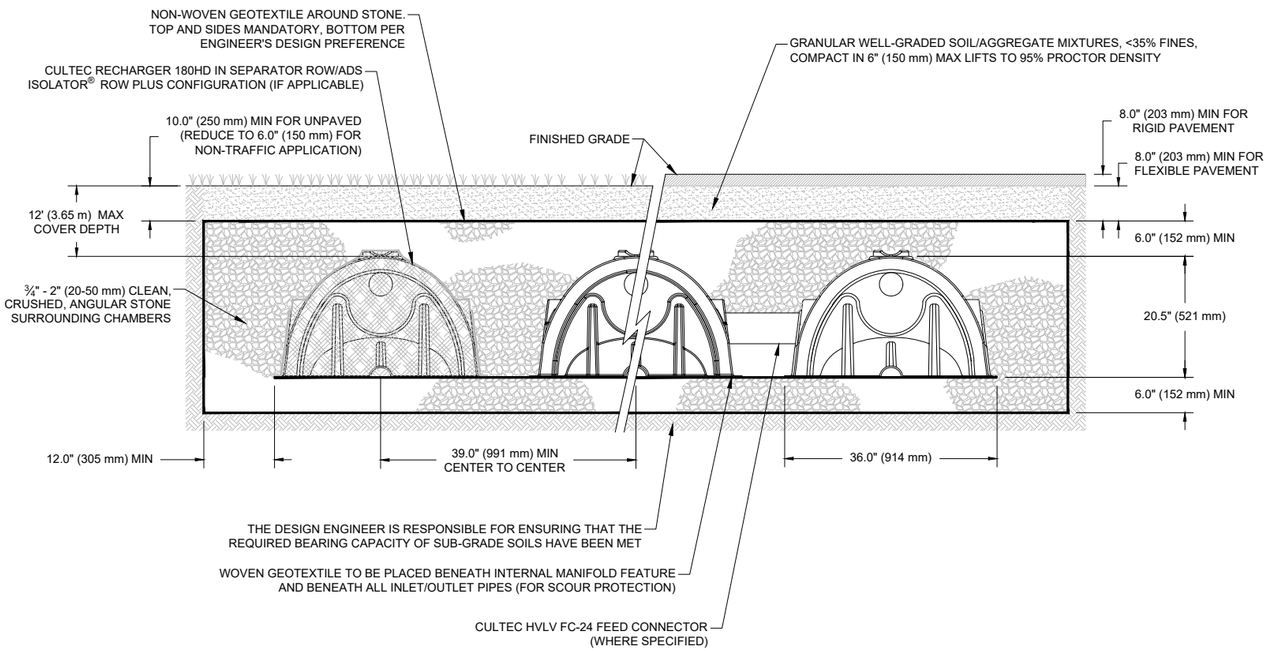
THE GEOTEXTILE SHALL:

1. BE PROVIDED BY CULTEC OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. BE BLACK AND WHITE IN APPEARANCE.
3. HAVE A MARV WEIGHT OF 8.0 OZ/YD^2 PER ASTM D5261.
4. HAVE A GRAB TENSILE STRENGTH OF 325 X 325 LBS (1,445 X 1,445 N) PER ASTM D4632.
5. HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632.
6. HAVE A CBR PUNCTURE RESISTANCE OF 1,124 LBS (5,000 N) PER ASTM D6241.
7. HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 125 X 125 LBS (556 X 556 N) PER ASTM D4533.

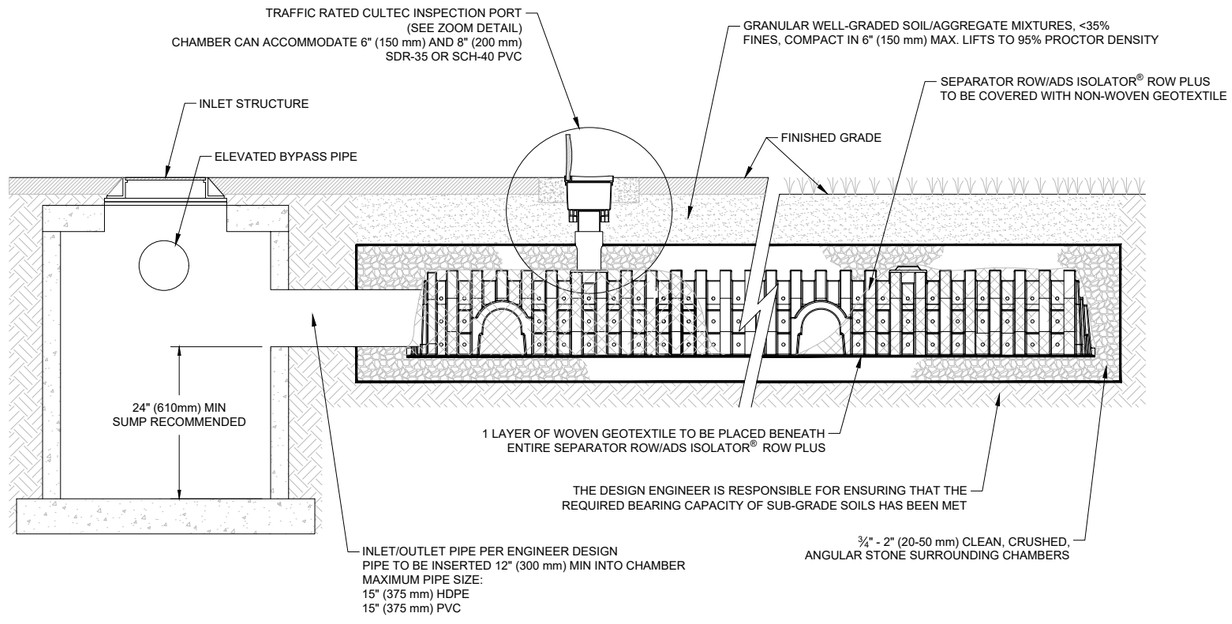
GENERAL NOTES



CULTEC RECHARGER 180HD HEAVY DUTY TYPICAL INTERLOCK



CULTEC RECHARGER 180HD HEAVY DUTY CROSS SECTION



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

STANDARD CHAMBER DETAILS
CULTEC 180HD

DATE: 10/09/2026 | DESIGNED BY: SMW | CHECKED BY: - | DRAWING #: 730-180 | SHEET 1 OF 1

DATE	DWN	CHK

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

THESE DRAWINGS WERE PREPARED TO SUPPORT THE SITE DESIGN ENGINEER'S PROPOSED STORMWATER MANAGEMENT SYSTEM DESIGN. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE SYSTEM IS SUITABLE FOR THE INTENDED USE AT THE SITE AND IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL AND REGULATIONS IT IS THE SITE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE INSTALLATION IS PERFORMED IN ACCORDANCE WITH THE SITE DESIGN REQUIREMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.