

	CHAMBER WIDTH	CHAMBER SPACING	CENTER TO CENTER	CHAMBER HEIGHT	MAX END CAP CONNECTION
S29	59" (1499mm)	6.0" (150mm) * 7.5" (190mm)	65.0" (1651mm) * 66.5" (1690mm)	36" (914mm)	32" (813mm)
S22	55" (1397mm)	6.0" (150mm)	61.0" (1549mm)	35" (889mm)	30" (762mm)
C10	39.7" (1008mm)	6.0" (150mm)	45.7" (1161mm)	25" (635mm)	20" (508mm)
M6	33.6" (853mm)	6.0" (150mm)	39.6" (1006mm)	17.5" (445mm)	14" (356mm)

* 7.5" (190mm) SPACING OF DISTRIBUTION ROWS IS REQUIRED ONLY WHEN A PERPENDICULAR MAIN HEADER ROW IS USED. IF AN INLINE MAIN HEADER ROW IS USED, THEN MIN SPACING CAN BE 6" (150mm)

** THE DESIGN ENGINEER IS SOLELY RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND DETERMINING THE DEPTH OF FOUNDATION STONE. SUBGRADE BEARING RESISTANCE SHOULD BE ASSESSED WITH CONSIDERATION FOR THE RANGE OF SOIL MOISTURE CONDITIONS EXPECTED UNDER A STORMWATER SYSTEM.

CONCEPTUAL PLAN DISCLAIMER
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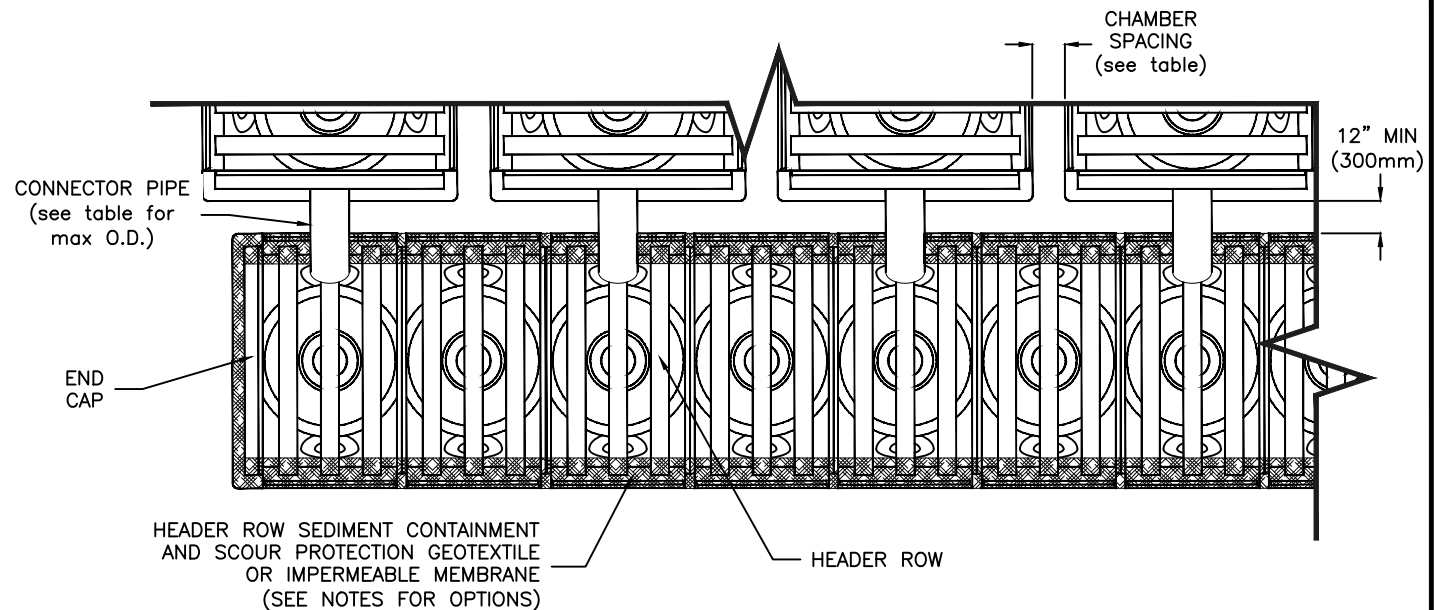
CHAMBER CROSS SECTION INFILTRATION

TRITON - STANDARD DETAILS

REVISED:
04-09-20 JWM

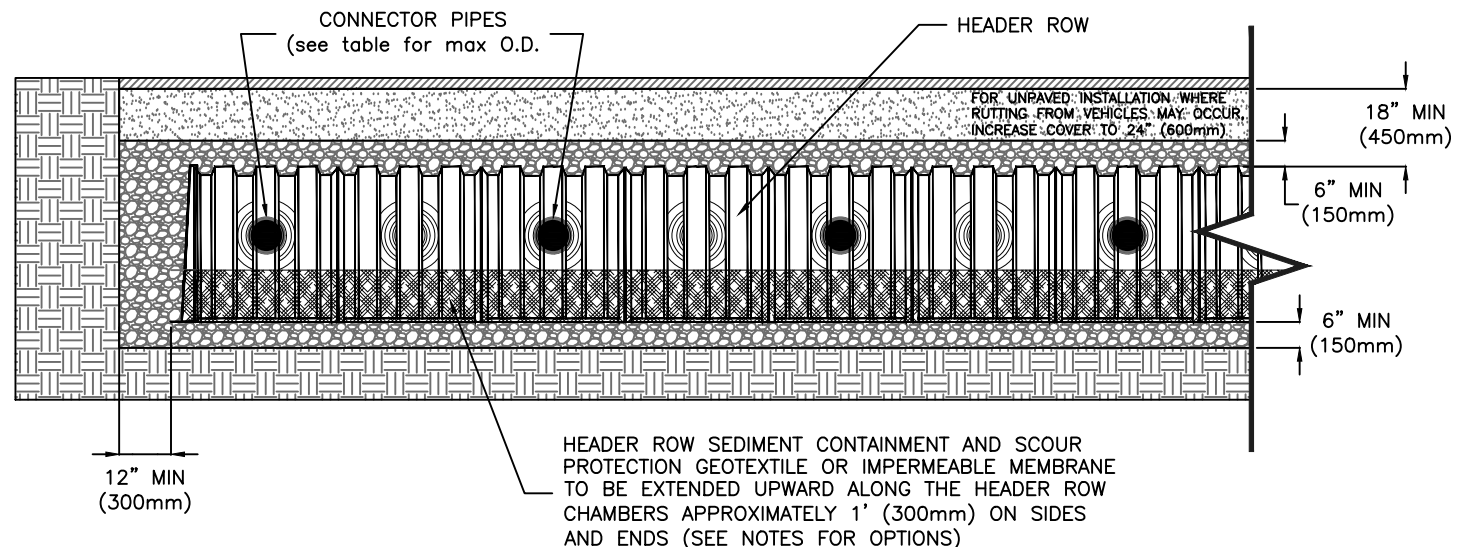
NOTES:

- TRITON HEADER ROW SEDIMENT CONTAINMENT AND SCOUR PROTECTION OPTIONS:
 - SEDIMENT FLOORS PLACED ABOVE ONE LAYER OF AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE OR EQUAL.
 - IMPERMEABLE MEMBRANE.
 - ONE LAYER OF TRITONHHD WOVEN GEOTEXTILE OR TWO LAYERS OF US1540 MONOFILAMENT GEOTEXTILE OR EQUAL
- GEOTEXTILE OR IMPERMEABLE SEDIMENT MEMBRANE TO BE PLACED AS ONE PIECE, LENGTHWISE ABOVE BASE STONE:
 - 6.0' (183 mm) WIDTH FOR S-29 CHAMBERS
 - 6.0' (183 mm) WIDTH FOR S-22 CHAMBERS
 - 6.0' (183 mm) WIDTH FOR C-10 CHAMBERS
 - 6.0' (183 mm) WIDTH FOR M-6 CHAMBERS
- SEE ACCESS DETAIL FOR TRITON HEADER ROW ACCESS



	MAX DIAMETER FOR CONNECTOR PIPE	CHAMBER SPACING
S29	18" (450mm)	6.0" (150mm) * 7.5" (190mm)
S22	18" (450mm)	6" (150mm)
C10	12" (300mm)	6" (150mm)
M6	8" (200mm)	6" (150mm)

* 7.5" (190mm) SPACING OF DISTRIBUTION ROWS IS REQUIRED ONLY WHEN A PERPENDICULAR MAIN HEADER ROW IS USED. IF AN INLINE MAIN HEADER ROW IS USED, THEN MIN SPACING CAN BE 6" (150mm)



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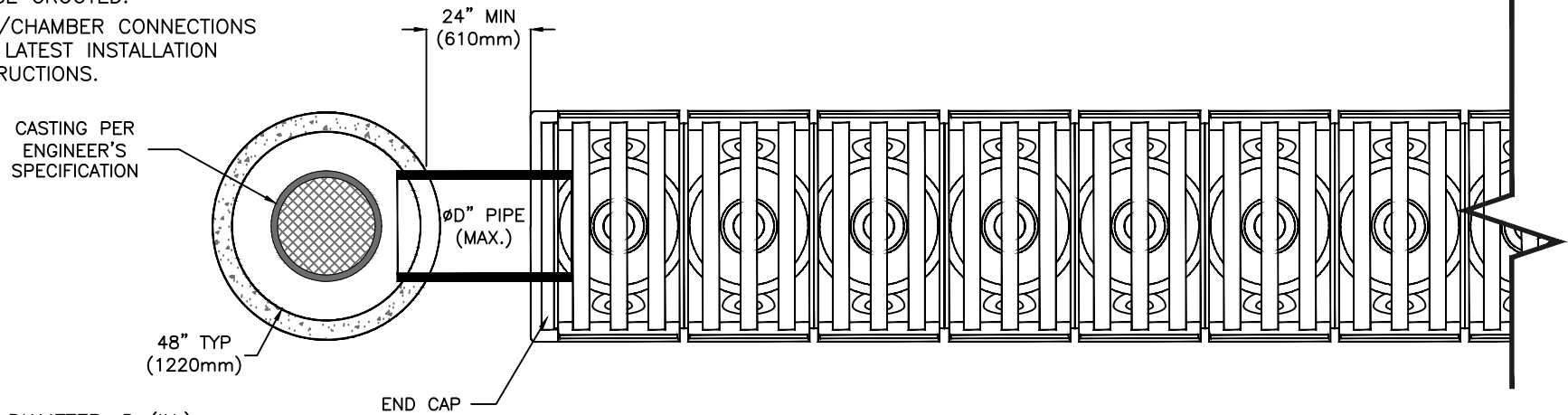
TRITON MAIN HEADER ROW

TRITON - STANDARD DETAILS

REVISED:
01-28-16 JWM

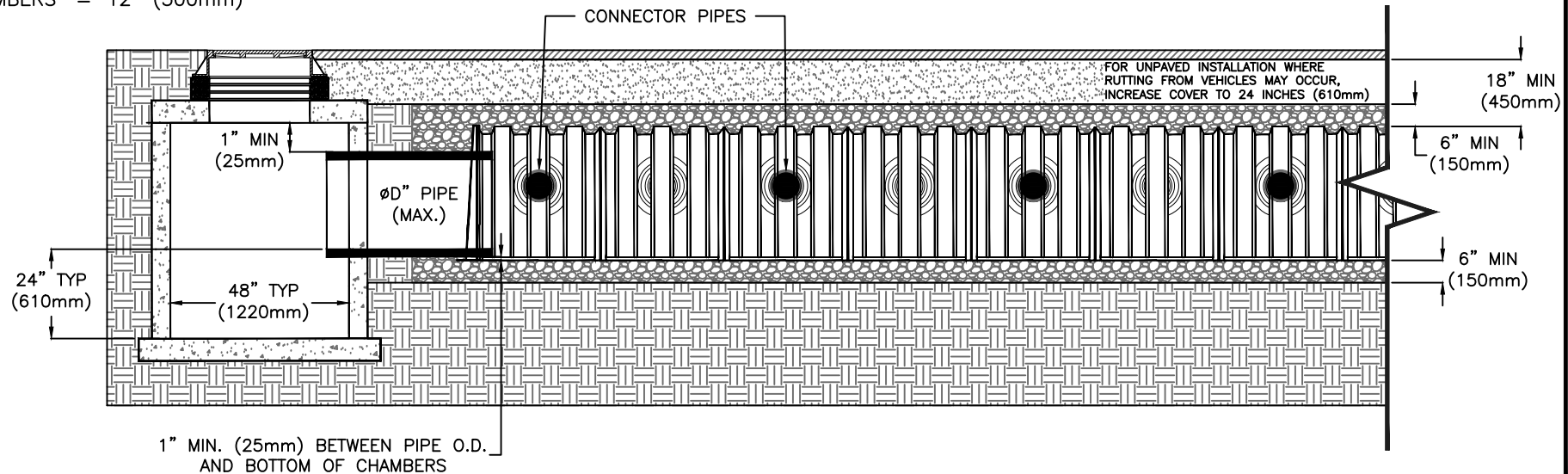
NOTES:

1. PIPE/MANHOLE CONNECTIONS TO BE GROUTED.
2. PIPE/CHAMBER CONNECTIONS PER LATEST INSTALLATION INSTRUCTIONS.



MAX PIPE DIAMETER, D (IN.):

- S-29 CHAMBERS = 24" (610mm)
- S-22 CHAMBERS = 24" (610mm)
- C-10 CHAMBERS = 18" (450mm)
- M-6 CHAMBERS = 12" (300mm)



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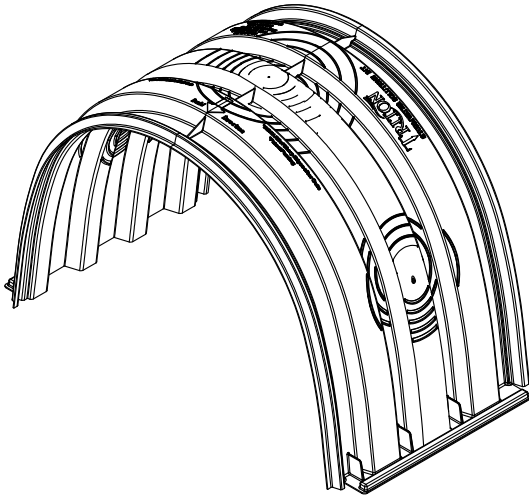


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HEADER ROW ACCESS STANDARD MH CONNECTION

TRITON - STANDARD DETAILS

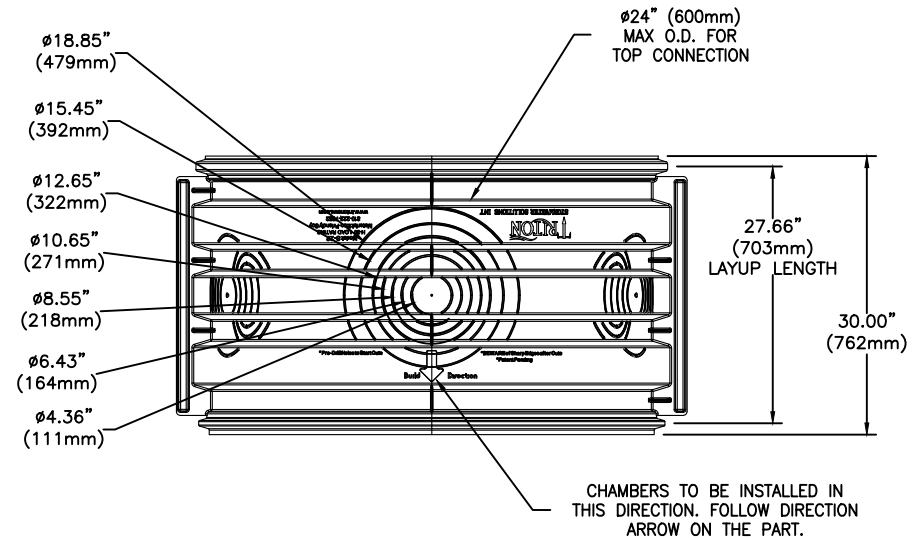
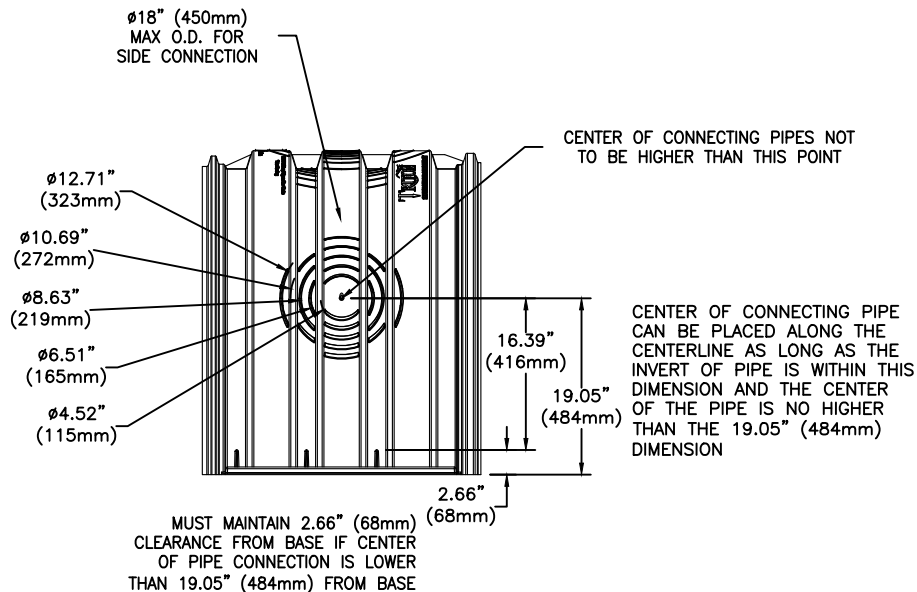
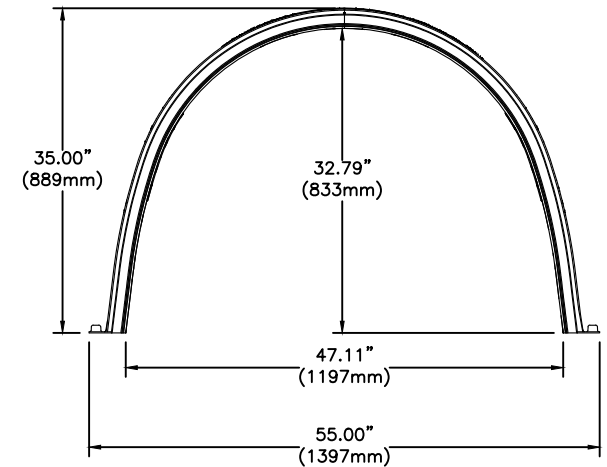
REVISED:
01-28-16 JWW



S-22 CHAMBER SPECS	
NOMINAL DIMENSIONS (LAYUP LENGTH X WIDTH X HEIGHT)	27.66" X 55.00" X 35.00" (703mm X 1397mm X 889mm)
BARE CHAMBER STORAGE	21.57 CUBIC FEET (0.611 CUBIC METERS)
*MIN INSTALLED STORAGE	31.30 CUBIC FEET (0.886 CUBIC METERS)
CHAMBER WEIGHT	28 lbs (12.701 kg)
STORAGE PER LINEAR UNIT WITHOUT STONE	9.36 FT ³ /FT (0.869 M ³ /M)
STORAGE PER LINEAR UNIT WITH STONE	13.58 FT ³ /FT (1.261 M ³ /M)

*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 6" (152mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)

NOTE: S-22 CHAMBER DETAILS TESTED AND RATED TO EXCEED HS-25 LOAD CONDITIONS WITH 18" (457mm) OF COVER AND NO PAVEMENT.



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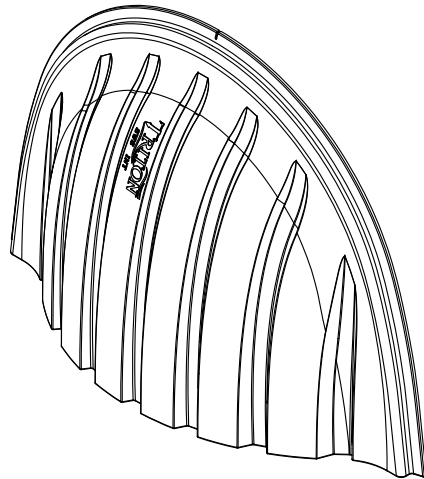


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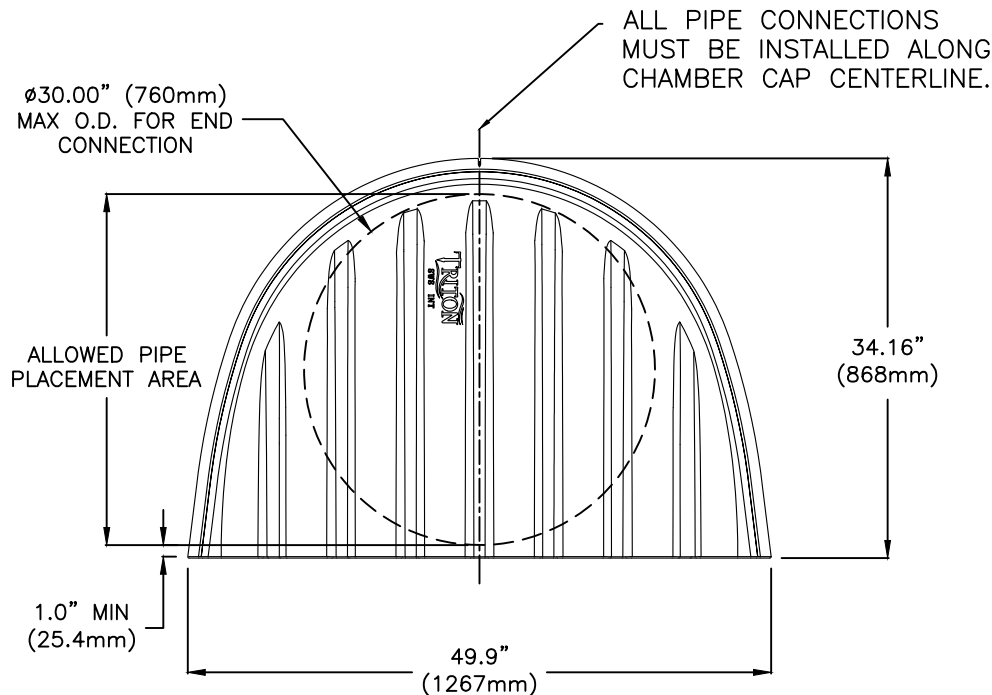
S-22 CHAMBER DETAIL

TRITON - STANDARD DETAILS

REVISED:
03-24-20 JWM



S-22 END CAP SPECS	
NOMINAL DIMENSIONS (LAYUP LENGTH X WIDTH X HEIGHT)	10.8" X 49.9" X 34.16" (274mm X 1267mm X 868mm)
BARE END CAP STORAGE	3.98 CUBIC FEET (0.113 CUBIC METERS)
*MIN INSTALLED STORAGE	9.56 CUBIC FEET (0.271 CUBIC METERS)
*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 6" (152mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)	



THE END CAP FITS UP INSIDE THE LAST
CONNECTING RIBS OF THE S-22 CHAMBER

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S-22 CHAMBER END CAP DETAIL

TRITON - STANDARD DETAILS

REVISED:
02-26-16 JWM

TRITON S-22 PRODUCT SPECIFICATIONS

1.0 General

- 1.1 Triton chambers are designed to control stormwater runoff. As a subsurface retention or detention system, Triton chambers retain and allow effective infiltration of water into the soil. As a subsurface detention system, Triton chambers detain and allow for the metered flow of water to an outfall.

2.0 Chamber Parameters

- 2.1 The chamber shall be injection compression molded of a structural grade 1010 green soy resin composite to be inherently resistant to environmental stress cracking (ESCR), creep, and to maintain proper stiffness through temperature ranges of -40 degrees Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).
- 2.2 The nominal chamber dimensions of the Triton S-22 shall be 35.0 inches tall (889 millimeters), 55.0 inches wide (1397 millimeters) and 30.0 inches long (762 millimeters). Lay-up length is 27.66 inches (703 millimeters).
- 2.3 The chamber shall have an elliptical curved section profile.
- 2.4 The chamber shall be open-bottomed.
- 2.5 The chamber shall incorporate an overlapping corrugation joint system to allow chamber rows to be constructed.
- 2.6 The nominal storage volume of a Triton S-22 chamber shall be 31.30 cubic feet (0.886 cubic meters) per chamber when installed per Triton's typical details. This equates to 2.67 cubic feet (0.076 cubic meters) of storage per square foot of bed. This does not include perimeter stone.
- 2.7 The chamber shall have both of its ends open to allow for unimpeded hydraulic flows and visual inspections down a row's entire length.
- 2.8 The chamber shall have five corrugations to achieve strengths defined above.
- 2.9 The chamber shall have five circular and elliptical, indented and raised, surfaces on the top to the chamber for a maximum of 24 inch (600 millimeter) diameter optional top feed inlets, inspection ports and/or clean-out access ports.
- 2.10 The chamber shall have five elliptical, indented, surfaces on either side of the chamber for optional feed inlets, outlets. Capable of accepting pipe O.D. up to 18 inches (450 millimeters).
- 2.11 The chamber shall be analyzed, designed and field tested using AASHTO LRFD bridge design specifications 1. Design live load shall meet or exceed the AASHTO HS-25 or a rear axle load of 40,000 pounds (18,143 kg). Design shall consider earth and live loads without pavement as appropriate for the minimum 18 inches (457 millimeters) of total cover to a maximum total cover of 50 feet (15.24 meters).

- 2.12 The chamber shall be manufactured in an ISO/TS16949:2002 and ISO 14001:2004 certified facility
- 2.13 The service life of the product is over 60 years under a constant sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition. Under typical loading conditions the Chamber and End Cap has a useful life span of 120 years from date of when manufactured.

3.0 End Cap Parameters

- 3.1 The end cap shall be Injection Compression molded of 1010 green soy resin to be inherently resistant to environmental stress cracking (ESCR), creep and to maintain proper stiffness through temperature ranges of -40 degrees Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).
- 3.2 The end cap shall be designed to fit inside the last corrugation of a chamber, which allows the capping of each end of the chamber row.
- 3.3 The end cap shall have 7 vertical corrugations across the front the face of the bull nosed surface. The maximum diameter that the end cap can accept is 30.0 inch (760mm) PS46, ASTM F679 PVC pipe.
- 3.4 The end cap shall have excess structural adequacies to allow cutting an orifice of any size at any invert elevation.
- 3.5 The primary face of an end cap shall have five corrugations and be angled outward to resist horizontal loads generated near the edges of beds.
- 3.6 The end cap shall be manufactured in an ISO/TS16949:2002 and ISO 14001:2004 certified facility.
- 3.7 The service life of the product to be over 60 years under a sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition.
- 3.8 The nominal storage volume of a Triton S-22 end cap shall be 9.56 cubic feet (0.271 cubic meters) per end cap when installed per triton's typical details. This equates to 2.09 cubic feet (0.059 cubic meters) of storage per square foot of bed.

4.0 Installation

- 4.1 Installation shall be in accordance with the latest Triton Installation manual that can be downloaded from the Triton website: www.tritonsws.com/support/downloads

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S-22 PRODUCT SPECIFICATIONS

TRITON - STANDARD DETAILS

REVISED:
08-18-20 JWM