



TDRSTORMBREAKER

RETENTION SYSTEMS



TDRPIPE

TDR™ STORMBREAKER is a strong and reliable underground retention system, specifically designed to prevent unusual and hazardous stormwater runoff. The engineering of this system allows for rainwater storage, catering to various non-potable uses, such as irrigation, cleaning, or equipment cooling in the industry. A system that every project must consider for the care and intelligent use of water.

SCOPE

This specification describes retention and detention systems for storm water collection. These systems attenuate the water runoff flow in severe storm situations. It's so versatile and adaptable for any terrain and space. Available perforated or solid.

PIPE REQUIREMENTS

TDR's retention and detention systems utilize HDPE Corrugated Pipe with the following characteristics:

TDR™ ULTRA WT pipe shall have a dual-wall structure - with a corrugated exterior featuring reinforced double-arch corrugations and a smooth black liner for the interior. Additionally, it will include a dual-layer co-extruded integrated bell. The Manning's "n" value for use in design shall be 0.010.

- 4- through 10- inch meet AASHTO M252, ASTM F2648 and ASTM F667
- 12- through 60- inch meet AASHTO M294, ASTM F2306, ASTM F2648 and ASTM F667.



JOINTS

For closed watertight systems:

TDR™ ULTRA pipe shall be joined using a watertight dual wall integrated bell and spigot joint meeting the requirements of AASHTO M252, AASHTO M294, ASTM F2306 and ASTM F2648. The joint shall be watertight according to ASTM 3212. Pre-installed gaskets shall meet the requirements of ASTM F477. A joint lubricant provided by TDR™ or any other water-based lubricant shall be used during the joint assembly. Please refer to TDR™ Installation Guideline for more details.

For perforated and plain end systems:

TDR™ ULTRA pipe shall be joined using HDPE split couplers or any other manufacturers recommended accessory.

FITTINGS AND ACCESSORIES

All fittings, parts and accessories should be supplied or recommended by the manufacturer according to pipe standards.

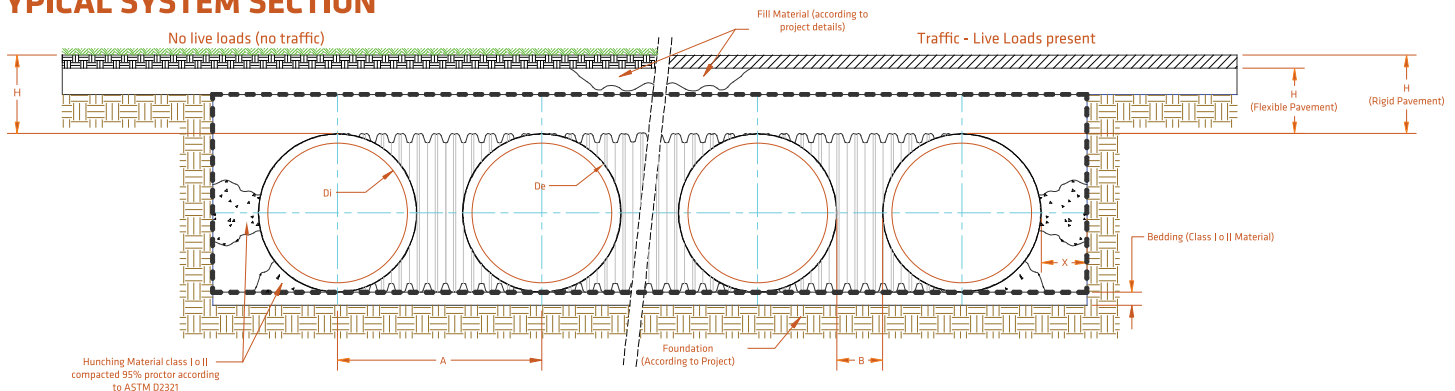
MINIMUM COVER

12" (300mm) - 60"(1500mm) - non trafficked 12" (0.3 m)
12" (300mm) - 36"(900mm) - trafficked 12" (0.3 m)
42" (1050mm) - 60"(1500mm) - trafficked 24" (0.6 m)

INSTALLATION

Pipe and fittings should be installed in accordance with ASTM D 2321 and TDR's published Installations Guideline. Minimum cover for trafficked areas should be 12" (0.3m). Maximum cover height depends on materials used for embedment and haunching. Please refer to TDR's Technical Service for more detail. Contact your TDR's representative for the latest installation's guideline and recommendations.

TYPICAL SYSTEM SECTION



DIMENSIONS

Nominal ID in /mm	4" (100)	6" (150)	8" (200)	10" (250)	12" (300)	15" (375)	18" (450)	24" (600)	30" (750)	36" (900)	42" (1050)	48" (1200)	60" (1500)
OD ± 1% in /mm	4.7" (120)	6.9" (176)	9.1" (232)	11.4" (290)	14.1" (359)	17.5" (445)	21.1" (536)	27.9" (709)	34.6" (879)	41.4" (1052)	47.5" (1208)	55.7" (1415)	68.1" (1729)

PERFORATION

When requested, the water inlet minimum area shall be 1 in²/ft (20 cm²/m) for 3" through 10" pipe; 1.5 in²/ft (30 cm²/m) for 12" through 18" pipe; and 1 in²/ft (40 cm²/m) of pipe larger than 18-inch. Please refer to your TDR's representative for more detail on the perforation