

Project Case Study

Elmdon Hotel, Birmingham

Project Summary

The attenuation system for the Elmdon Hotel in Birmingham was the first project in the UK to utilise the new StormTech MC3500 chamber.

With tight site constraints, the engineering team at Scott Wilson were looking for a 400m³ system to fit the space, but also have the structural strength provided by a true elliptical arch design.

At 1.14m tall and 1.96m wide, the MC3500 provides additional volume per square meter thus allowing the chamber system to fit in a smaller footprint at a competitive cost. The MC3500 incorporates the time tested features of the SC310 and SC740 chambers including the patented true elliptical arch design which is the core of the proven structural success.

THE MC3500 PROVIDES

- Large capacity that fits in very tight footprints providing developers with more useable land for development.
- A proven attenuation alternative to cumbersome large diameter metal pipe or unproven plastic crates.
- Injection moulded for uniform wall thickness and repeatable quality
- Incorporates the tested and patented Isolator Row for maintenance and long-term performance.
- Large void ratios to ensure a lower stone requirement.
- Polypropylene resins tested using BBA guidelines and ASTM/EN standards to ensure long and short term structural properties.

Civil Engineer: Scott Wilson Consultant Engineers
Contractor: Fitzgerald Civil Engineering Contractors



StormTech
Detention • Retention • Recharge
Subsurface Stormwater Management™

Project Case Study

MC3500 - Detail

StormTech MC-3500 Chamber (not to scale)

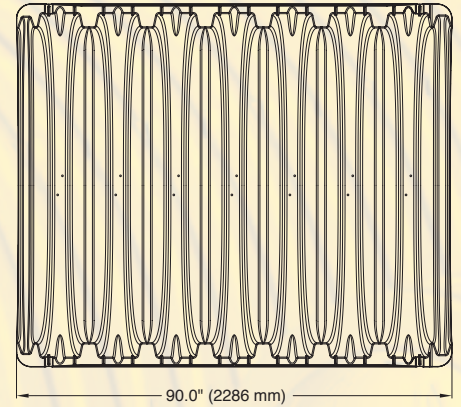
Nominal Chamber Specifications

Size (L x W x H) 90" (2286 mm) x 77" (1956 mm) x 45" (1143 mm)

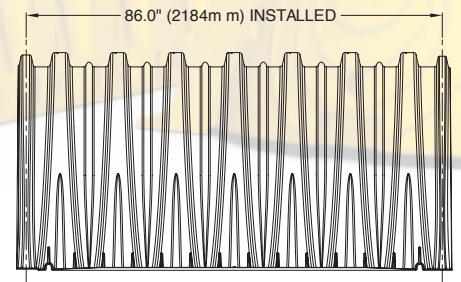
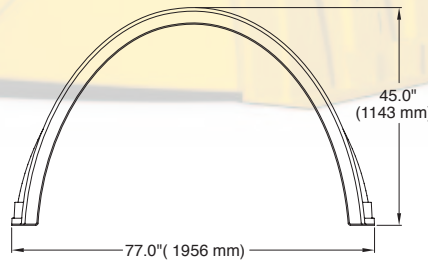
Chamber Storage 113.0 ft³ (3.20 m³)

Min. Installed Storage* 176.8 ft³ (5.01 m³)

Weight 124 lbs (56.2 kg)



Chamber Joint Overlap



StormTech MC-3500 End Cap (not to scale)

Nominal End Cap Specifications

Size (L x W x H) 26.5" (673 mm) x 71" (1803 mm) x 45.1" (1145 mm)

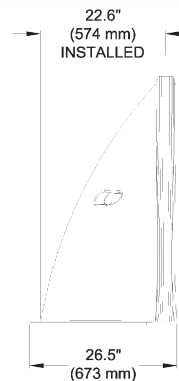
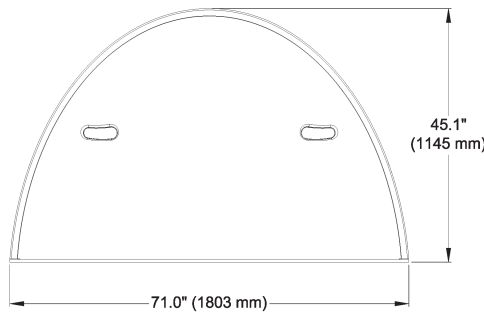
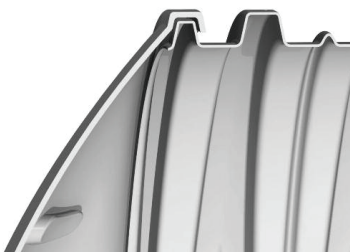
End Cap Storage 15.6 ft³ (0.44 m³)

Min. Installed Storage* 45.6 ft³ (1.29 m³)

Weight 43 lbs (19.5 kg)



End Cap Joint Overlap



* This assumes a minimum of 12" (305 mm) of stone above, 9" (229 mm) of stone below and 6" (152 mm) of stone between the chambers/end caps and 40% stone porosity. The end cap minimum installed storage also includes the stone storage located in the 6" (152 mm) stone perimeter.