Case Study
Stormwater

Stormbloc® Infiltration System

Unrivalled Accessibility & Maintenance

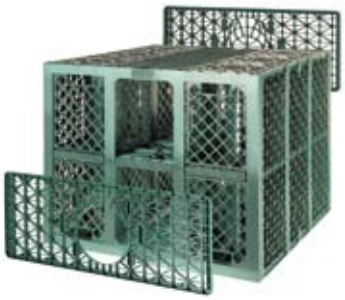
Project Profile

Objective
To restrict stormwater runoff from two new school developments whilst complying with SUDS guidelines.

Solution
The local sub-soil permeability was good so infiltration using Hydro's Stormbloc® modular infiltration system was used.

Using Stormbloc® resulted in a much shallower excavation than conventional soakaways and its patented tunnel also allows for future inspection and cleeaning.

Bradley Rowe Primary School
560 m³ of Stormbloc® in 2 soakaways.
St Luke's Secondary School
1740 m³ of Stormbloc® in 5 soakaways.

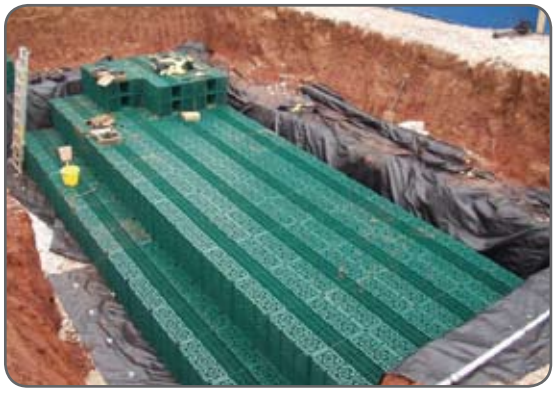


Product Profile

- Infiltration / soakaway applications.
- Fully accessible for inspection and maintenance.
- Very strong (suitable for used under trafficked areas).
- High void ratio (95%).
- Low cost.

New Devon County Council PFI Schools SUDS Friendly with Hydro's Stormbloc®

New primary and secondary schools being built in Exeter as a PFI venture between Mowlem plc and the Devonshire County Council Local Education Authority were subject to a maximum stormwater discharge level, as part of the planning consent, in order to comply with Sustainable Drainage Systems (SUDS) guidelines. Hydro International's Stormbloc® modular blocks were selected to facilitate water infiltration of the soil for their compactness and because they could be inspected and easily cleaned out if required.



Due to the permeability of the local sub-soil, an infiltration method was used for all the water runoff from the school developments. As Stormbloc® is more compact than a conventional manhole with concrete lining and gravel soakaway, it required a much shallower excavation. Its facility for inspection and cleaning of the blocks enabled the installation of an inspection chamber, so CCTV could be used and the Stormbloc® jet washed to remove any silt and maintain its full capacity easily. In addition, as it is load bearing without heavy construction, it is easy to locate without using up valuable site space.

Two schools in the PFI venture use Hydro's Stormbloc® product. Bradley Rowe primary school (c. 400 pupils) - close to the centre of Exeter - is being constructed as a total replacement of an existing school, including the provision of new sports facilities over demolished buildings. Its Stormbloc® installation comprises 560 m³ of blocks in two soakaways, at low points in the site, taking runoff from roofs, access roads, playgrounds and car parks.

On the eastern edge of Exeter, St Luke's secondary school (c. 850 pupils) is being constructed on a totally new site, including fully comprehensive school buildings, sports facilities and sports grounds. With a large pototential catchment area and runoff volume, it has 1740 m³ of Stormbloc® modules in five different locations to spread the infiltration across different portions of the site.

Stormbloc® is available in eco-green polypropylene 800 x 800 x 663 mm blocks providing high volume water storage with a 95% void ratio. The system is designed so that, when installed, a 222 x 570 mm cross-section access tunnel runs through the blocks. This can be accessed easily by CCTV or a high flow jetting hose inserted to shift any accumulated sediment, silt or debris in the system, should the need arise - a feature which sets it apart from its competitors.

Main contractor: Mowlem Building
Groundworks sub-contractor: D 20 Ltd.

turning water around ...®

Hydro International • Stormwater
Shearwater House • Clevedon Hall Estate • Victoria Road
Clevedon • BS21 7RD
Tel: 01275 878371 • Fax: 01275 874979 • www.hydro-international.biz

