

Greenford Park, Middlesex

Industrial Stormwater Installation Meets Discharge Constraints

Project Profile

Objective

To control and store surface water discharge from the large impermeable areas of car park and roadway.

Solution

Two Stormcell® storage tanks were installed. One with 1200 m³ of storage under a car park and the second with c. 640 m³ under an access roadway.

Product Profile

Stormcell®

- Modular and flexible.
- Lightweight.
- High structural integrity - suitable for installation below roads, car parks and amenity areas.
- Underpipe silt prevention system.
- Woven geotextile on the top of each block prevents intrusion.
- Simple and quick to install.
- Shallow 120 mm deep blocks available.

On a redeveloped industrial park in Greenford, Middlesex, rainwater discharge constraints by Thames Water raised potential problems due to the runoff from the large paved areas of car park and roadway. By utilising Hydro International's Stormcell® system, engineering consultants Waterman Partnership were able to locate the required storage tanks without taking up valuable site space.

Stormcell® is a matrix system of polypropylene, hexagonal vertically aligned tubes, which can withstand vertical loadings of up to 40 tonnes/m² (transient). Its modular design and standard block and panel sizes allow it to be installed where conventional tank is not feasible. Its inherent structural strength also reduces sub-base preparation requirements.

Thus on the Greenford Park site, two tanks have been installed, one of c. 1200 m³ under a car park and another of c. 640 m³ under an access roadway. The car park is essentially flat, and drained by surface channel drainage, while the roadway has a fall of 1 in 100 and is drained by gullies. A petrol interceptor is sited between the tanks and the outlet to the watercourse.

In each tank, the Stormcell® blocks have been installed over a bed of gravel and the distribution pipework. The plastic matrix of vertically aligned hexagonal polypropylene tubes has a void ratio of 95% (3-4 times that of granular materials).

Developers of the Greenford Park site were Harvester Properties Limited, consultant engineers on the stormwater control were Waterman Partnership. The main contractor was John Mowlem and Co. pls and groundworks sub-contractor was Hiretest Ltd.

Should there be a requirement for any stormwater treatment on any scheme, Hydro International can, as part of a complete Stormwater Package supply grit / silt separators which will operate in conjunction with Hydro-Brake® Flow Controls and Stormcell®, or separately.



Liner preparation prior to installing Stormcell® blocks



During installation of Stormcell® system

Stormwater Hotline: 01275 337977