



Location

CREATE Centre, Smeaton Road, Bristol, BS1 6XN

Description

The permeable paving area at the CREATE Centre was installed in 2001 as a demonstration site.

Suds Used

Permeable paving – the SuDS used was a ‘standard’ Formpave design, with Aquaflow paving laid on layers of graded aggregate and geotextile.

How it works

Concrete block ‘aquaflow’ paving has been integrated within the CREATE car park. The permeable surface covers approx. 20% of the total car park area, and receives run-off from most of the impermeable tarmac area. The surface water runs through the permeable paving, which then enters a gravel bed and piped into the River Avon. The system improves the discharge’s water quality. There is an overflow to prevent flooding in extreme conditions.

Specific details

● Maintenance

Requires periodic mechanical brushing or pressure washing, ideally annually. Maintenance costs no more than £100 pa.

● Costing

The cost to the client was more than standard tarmac surfacing, due to extra labour costs. The extra materials cost was sponsored by Formpave, Tarmac and Burdens.

Design and Construction

Aquaflow paving was laid on layers of graded aggregate and geotextile, as is ‘standard’ Formpave design. Construction coincided with the overall refit of the car park.

Benefits and Achievements

The centre acts as a public demonstration of SuDS. In heavy rainfall conditions there is a decrease in surface water ponding in areas where SuDS have been incorporated into the drainage. The water quality of the runoff is also improved before it is discharged into the River Avon.

Challenges

The permeable paving is in close proximity to a number of trees and other foliage. When left for over 12 months, there is build-up of silt, moss and organic matter in the channels between the paviors - reducing the effectiveness of percolation. Despite sub-optimum maintenance arrangements, the permeable paving is functioning effectively with no ponding reported.

Lesson learnt

Although requirements are minimal, a more detailed operational manual (covering timing of mechanical cleaning or pressure washing) would have helped the facility manager.



Team and Details

Designer -

Contractor -

Completion 2001

Supplier - Formpave

Size - 80m²