



Location

Sanders Garden World Brent Knoll, Somerset

SuDs Used

Permeable paving and water tanks were installed at the Sanders Garden World in Brent Knoll in 2001.

How it works

Permeable paving is installed over the greater part of the new site, which covers 8,000m² of car-park and sales areas. Water is collected into a tanked system and re-used for watering the plants. The Formpave system (Aquaflow) has been used. This cleans and filters water from the sub-base which is then collected and stored for watering the plants.

Design and Construction

The centre already had 14,000m² of hard surfacing and expansion risked overloading the sewer system or causing localised flooding. The SuDS satisfied the Environment Agency's criteria and was also a more sustainable approach to water management.

Maintenance

Monthly washing with a high pressures washer.

Benefits and Achievements

The SuDS allowed the centre to meet the Environment Agency's water management requirements enabling the development to proceed. The permeable paving has been environmentally friendly and cost effective. By re-using the run-off water from the car park and the sales area there was less reliance on the mains water supply. The centre does not have to pay any levies for the disposal of roof and car park run off. The recycled water is more 'plant friendly' than the tap water used previously. There have been no reported maintenance issues.



Challenges

During particularly heavy downpours (as in the summer of 2007) surface water has ponded for around an hour. This has happened 2 or 3 times since the paving was put down in 2001 and did not occur during the recent heavy rain of January 2014.

Site Constraints

The Centre on the Somerset levels is built on difficult ground and sub-grade is mainly peat with a high water table.

Lessons Learnt

The permeable paving saved a large amount of money when compared with traditional drainage.



Team and Details

Designer - David Edwards and Associates

Contractor -

Completion 2001

Supplier - Formpave

Size - 8,000m²