



Take control of rainwater management with **TarmacDry**.

TarmacDry - University of Reading car park

Client:	University of Reading
Contractor:	Mansell PLC
Location:	Whiteknights Campus Reading, Berkshire
Completion:	April 2010
Car Park Area:	1,600m ² equating to an 82 space car park

Project brief

The University of Reading wanted a product that could tackle storm water management at its campus. This resulted in the first SUDS system to combine porous asphalt with an open drainage basin system by Tarmac.

With a tight construction schedule and the need to specify a proven Sustainable Drainage system, the University's estates team elected to specify TarmacDry.



The contract

When the University of Reading was assessing storm water management options for a new campus car park, it needed a cost-effective alternative to permeable block paving that could deal with the drainage challenges of the site.

Tarmac's solution

The main challenge and the reason to combine the TarmacDry system with an open drainage basin was the low infiltration rates and falls across the site. The final design works with the natural topography of the site to channel the rainwater down through the porous asphalt surface and into the granular reservoir layer. Once within this stone layer water flows to the lowest point in the system to discharge into the open drainage basin. During a peak storm event the basin is designed to overflow into one of the existing drainage runs on campus. This approach was more cost-effective because the alternative would have been to re-engineer the system to have a deeper storage layer.

System performance

Designed and installed by Tarmac, the system not only attenuates rainwater volumes up to a 1 in 100 year storm event, plus 20% for climatic change, but its natural treatment capabilities effectively reduce pressure on the existing storm water system.

Testing undertaken by Coventry University have demonstrated that any surface water pollutants are effectively retained by the system layers, thereby discharging cleaner water into the environment. As rainwater passes through the TarmacDry system, pollutants are effectively trapped at source to prevent solid particulates, heavy metals and organics from entering either ground water or the existing drainage network.

The system is also classed as a shallow construction technique reducing the volumes of materials excavated and removed from site.

The use of TarmacDry is also recognised by BREEAM as a sustainable drainage system worth one credit in a schemes assessment for pollution and an extra 3 points in a scheme built on a flood prone area. Almost 99% of its materials can also be fully recycled at the end of its life.

Customer comment

According to Peter Ayers, project manager, University of Reading, TarmacDry was chosen because it is also a viable alternative to other materials. "We were originally going to use block paving for this job, but this would have meant a lengthy construction project and I also felt that this material would break up and not offer the long-term durability that we need. With TarmacDry, the construction was much quicker and the whole project was completed in eight weeks because there is no need for deep excavation. Another added benefit was that because TarmacDry looks like conventional asphalt it was easy to demarcate the spaces.

"Critically, the TarmacDry system deals with surface water runoff as close to its origins as possible, before it enters the water course and therefore significantly reduces the risk of localised flooding. It effectively acts as if the car park doesn't exist by allowing natural drainage to take place as it always did," says Ayers.

Contact details

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