

SuDS Permeable Paving

Porous Car Park, Truckcell, Porsche Merton Grounds, Bicester, UK



CASE STUDY



Project Description

The Merton Grounds premises in Bicester is a leading Porsche servicing, events and hospitality centre.

The Challenge

The business owners Boxengasse required a hard-wearing paving solution for the centre's main external forecourt parking and HGV delivery area and one that provided SuDS surface water attenuation.

The Solution

ABG's technical team recommended **Truckcell 80** to Banks Design Architects as part of a heavy-duty permeable paving solution to help control and eliminate surface water flooding from the car park in the high-water table area. The final system build-up features a layer of porous sub-base stone (DTP3), installed over a 7mm thick **Pozidrain** geocomposite drainage layer which incorporates an integral geotextile filter to prevent fines from entering and blocking the drainage flow path. The discharge rate of water from the tanked SuDS installation is further controlled via an ABG Flow Restrictor Chamber that limits the outflow of rainwater during storm events of up to the required 1:30 years, before it drains to the local water course. The 590m² attenuation solution also includes capacity for the drainage of roof water into the pavement from the adjacent showroom and garage buildings, resulting in a combined total catchment area of 2,400m².

The ABG Service

The attenuation build-up and installation of the recycled (and fully recyclable) porous pavers was designed by ABG's in-house civil engineering design team to provide a tanked SuDS system that allows rainfall and stormwater to infiltrate through to the sub-base.

Project Information

Client	Boxengasse
Contractor	Stephen Russell Construction Ltd
Product	ABG Truckcell 80
Quantity	590m ²
Benefits	<ul style="list-style-type: none">• Hard-wearing solution• Attenuation for total catchment area of 2,400m²• Recycled and fully recyclable



ABG Truckcell 80 build-up

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