



'Watertight by Design'



## University of Brighton - Preston Barracks Site, Brighton

# Case Study

This new multi-storey car park for the University of Brighton is part of a major redevelopment of the former Preston Barracks site in the City. There are 550 parking spaces on 7 floors, including 55 EV charging bays, plus there is a PV array on the roof with the power stored in batteries on the ground floor, which also includes 330 cycle parking spaces.

The car park design uses a Vertical Circulation Module (VCM) that provides a more efficient solution for confined sites, as this contains no external ramps and traffic circulation is via slopes within the floors themselves. This creates more parking spaces in the steel framed structure in the centre, with two lift and stair cores positioned at each end. This design also made it possible to locate the necessary structural expansion joints transversely between these 3 parts of the structure and away from major traffic impact areas.

The engineers specified these joints to be a nominal 40mm wide to accommodate a high movement capability of up to +/- 50% (i.e. total 100%), as they knew these could be quickly, securely, and durably sealed using the Emseal DSM System. This also saves time on site as it is installed from above, allowing other trades to continue working below, plus as it is bonded into position, there is no potentially damaging drilling for mechanical fixings.

**Client:**  
University of Brighton

**Consultant:**  
Stripe

**Main Contractor:**  
Keir Construction

**Specialist Contractor**  
Thelwell Flooring

**Main Products Used:**  
Emseal DSM System

**For More Information:**  
NCC Movement Joints Ltd

**01257 266696**

[technical@nccinaction.co.uk](mailto:technical@nccinaction.co.uk)

[www.EmsealServices.co.uk](http://www.EmsealServices.co.uk)

[www.Emseal.com](http://www.Emseal.com)



**NCC** Movement Joint Systems