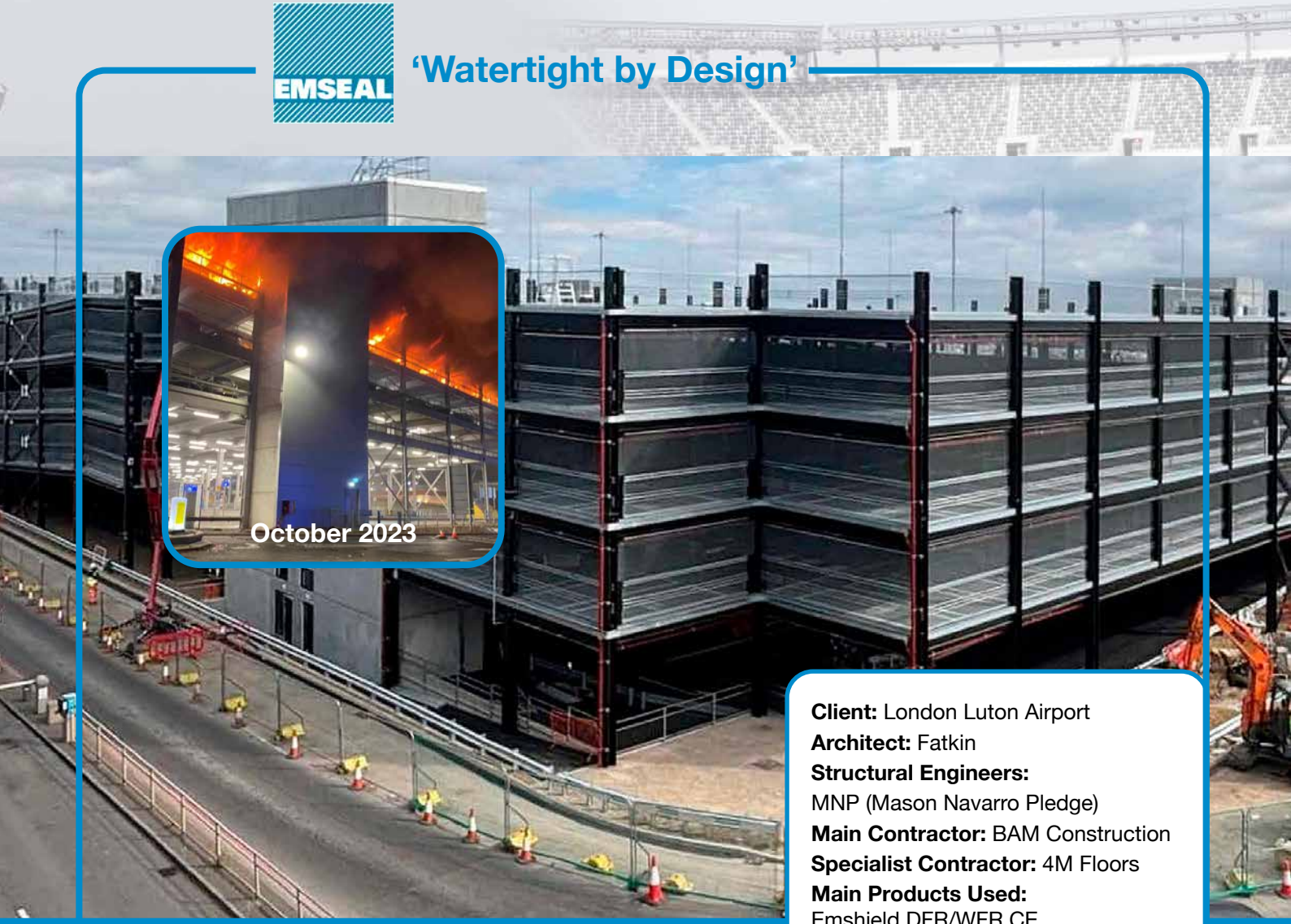
EMSEAL

‘Watertight by Design’



Client: London Luton Airport
Architect: Fatkin
Structural Engineers:
MNP (Mason Navarro Pledge)
Main Contractor: BAM Construction
Specialist Contractor: 4M Floors
Main Products Used:
Emshield DFR/WFR CE

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www.Emseal.com

Multi-storey Car Park
London Luton Airport - T2

Case Study

In October 2023, a devastating fire destroyed the Terminal 2 Multi-Storey Car Park at London Luton Airport (LLA), the UK’s fifth busiest. The fire started in just one car, but unfortunately spread, destroying the Car Park, as well as nearly all the 1,500 cars that were parked inside. Fire safety was therefore central for the new replacement multi-storey car park, which was designed and built featuring advanced passive and fire-suppressant systems throughout. The new facility is a ground plus 4-storey building, with a structural steel frame and composite decks, providing spaces for more than 1,900 cars.

NCC Movement Joints (NCC-MJ) were bought in to help BAM provide the essential passive fire protection through the wide, high movement capability, structural expansion movement joints in the car park decks. This is to ensure continuity of the project’s fire compartmentalisation strategy, which is to secure routes of egress and ensure that the occupants and infrastructure are protected for as long as possible, by effectively stopping or slowing the spread of fire and smoke between different parts of a structure.

NCC-MJ proposed Emshield DFR/WFR CE as the most suitable, most effective movement joint system for the car park deck joints. It is fast and cost-effective to install, watertight by design and provides excellent thermal and acoustic insulation, with the major site advantage of being installed from one side only, and as it is fully structurally bonded, requires no potentially damaging mechanical fixings into the structure. The complete sealing system was quickly and easily installed and completed well ahead of the on-schedule opening in September 2025.

NCC Movement Joint Systems