

Gatwick Airport Multi-Storey Car Park 6 (MSPC6) Rehabilitation Works

Client

Freyssinet/Kier

Works Commenced

February 2016

Works Completed

November 2016

Cubic Metre Removed

300m³

Gatwick Airport's Multi-Storey Car Park 6 is a six storey car park providing approximately 1300 short term car parking spaces for vehicles, located adjacent to the North Terminal.

The car park was constructed in 2010 - 2011. Since its completion, several faults had developed, with significant primary elements of the structure showing signs of cracking/distress.

An element of the rehabilitation works required the removal of more than 2000 areas of concrete deck planks to enable the installation of additional steel reinforcement.

Aquaforce undertook the removal of concrete sections using both robotic and hand lance hydrodemolition operations, working at pressures up to 1150 bar. The hydrodem team worked to an extremely tight programme to ensure the lower floors of the car park could be handed back to the ultimate client, in order for it to be utilised for paying customers during the peak summer months.

Aquaforce utilised plant from its expanding fleet including the Aquajet PP700 pump to work alongside the Aqua spine robot and multiple Calder Multijet 120 HP trailer mounted pumps.

The hydrodem operatives worked in custom-made enclosures, complete with acoustic sound barriers to minimise the effects of noise to the surrounding environment and worked closely with other subcontractors and the main contractor to ensure the critical programme was maintained.

In addition to the hydrodemolition works, Aquaforce provided additional support to the client with the supply, maintenance and monitoring of water treatment units to pH rectify and remove suspended solids from the waste waters to an acceptable level prior to discharge.

The works were completed on programme, on budget to the satisfaction of the client with zero accidents occurring.

