

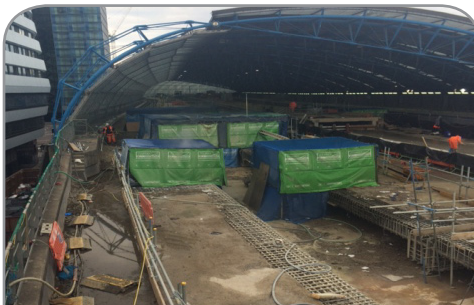
Waterloo International Terminal, London

Client
**Wessex Capacity Alliance
- WCA**

Works Commenced
June 2016

Works Completed
October 2016

Cubic Metre Removed
Approx 151m³



The Wessex Capacity Alliance (WCA) was formed to deliver major improvement works to the Waterloo International Terminal – WIT. The overall requirement of the improvements was to increase train carriage capacity and therefore increase passenger capacity.

Aquaforce Jetting Ltd was appointed in June 2016 by Skanska on behalf of WCA to remove between 700 & 1000mm of the 700mm deep reinforced concrete cantilever deck ends, in order to expose the existing steel reinforcement of the 3no parallel viaducts which currently carries trains onto platforms 21, 22, 23 and 24 at the International Terminal. The works were required to enable the 3no decks to ultimately be 'stitched' together as 1no deck.

As part of the tender process and prior to being awarded the contract, Aquaforce provided a demonstration of its robotic hydro-demolition capabilities for Skanska representatives at its Telford premises. This demonstration ultimately gave Skanska the confidence that Aquaforce possessed the necessary equipment and expertise to carry out the works.

Aquaforce undertook the removal of concrete using both robotic and hand-lancing hydro-demolition operations working at pressures up to 1150 bar. At the height of the works, 2no robotic cutting units alongside 4no hand lance teams were working simultaneously to ensure critical programme dates were achieved.

Aquaforce's experienced operators successfully broke through upwards of 300 liner metres @ 700mm deep and 700mm - 1000m wide, without damage to existing steel reinforcement.

The works took place in a congested city centre environment, to a very tight programme dictated by critical Network Rail deadlines.

Aquaforce prides itself on its health, safety and quality standards and the works on Waterloo Station were no exception. The works were carried out without a single minor accident reported. Aquaforce operators worked in custom-made enclosures, lined with acoustic panels to minimise the effects of noise on members of the public using Waterloo Station and also the surrounding office/residential premises.

In addition to the hydrodemolition works, Aquaforce assisted the client with the supply and monitoring of water treatment units, essential to regulate the pH values and suspended solids levels of the significant quantities of waste water that were produced by the jetting operations.

All works were completed to the client's satisfaction, enabling the overall programme to be maintained by WCA.