

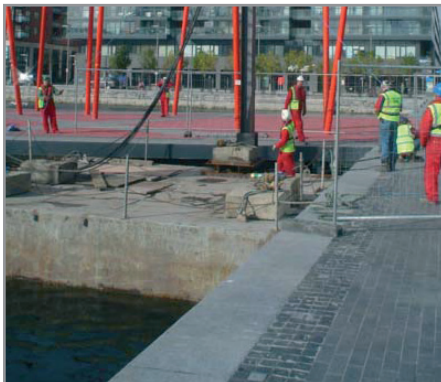
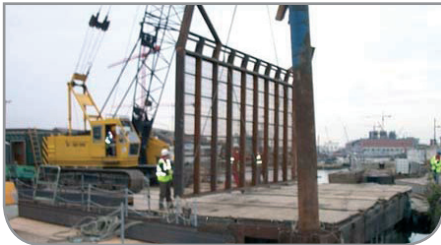
Dock Refurbishment Grand Canal Docks, Dublin



**FREYSSINET
MAKERS**
SUSTAINABLE TECHNOLOGY

Client
Waterways Ireland
Principal Contractor
Freyssinet Makers
Contract Value
2.4M Euro
Contract Duration
30 Weeks
Completion
March 2008

Grand Canal Dock is a 200 year old basin between the Grand Canal and River Liffey in Dublin. It is an area undergoing massive commercial and residential development and it is the intention to use the upgraded docks for leisure activities also.



By using innovative underwater shutters and micro concrete, Freyssinet Makers were able to offer the client considerable savings on their original design. They proposed a sheet pile cofferdam 4 metres from the wall face to allow the area between to be drained and receive sprayed concrete. Our innovative design reduced time, cost and possible risk of collapse of the existing wall by the removal of hydrostatic pressure. The works consisted of dredging 2000m³ of excess material close to the canal wall over a 240m length, shuttering underwater to a depth of 4m and pumping over 200m³ micro concrete to consolidate the structure. 600m² of stonework was also repaired and re-pointed both above and below water.

Some peculiarities on this project were: the age of the existing structure and the requirement to carry out the works from the water side; the 200 year old walls contained little or no mortar and great care was required to maintain its integrity; the shutters used were designed with buoyancy aids that allowed them to be filled with air to float them into place than filled with water to sink them into position; the shutter face was fine plastic gauze that meant that water was dispersed through the face while pumping concrete without causing undue pressure on the wall or the shutter fixings.

The result was a high strength concrete wall with an excellent finish. All completed within a 30-week programme.

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