

PYRMONT WATER POLICE PARK

FREYSSIMIX JET GROUT MASS GRAVITY WALL



Sustainable Technology



Client: Sydney City Council



Contractor: Ford Civil Contracting Pty Ltd

Specialist Contractor: Austress Menard Pty Ltd

THE PROJECT

In July 2005 the Sydney City Council purchased the former Water Police site at Pyrmont with plans to transform the area into a new urban parkland and foreshore inlet. This would provide the missing link in the foreshore walk from Glebe to Rushcutters Bay.

The site is located at the end of the Pyrmont peninsula and is bound by Harris Street, Pirrama Road and Sydney Harbour. Once complete, the park will provide a number of recreational opportunities and spaces that responds to its harbour edge location and historic site uses.

AUSTRESS MENARD'S ROLE

Austress Menard was awarded the project as a geotechnical specialist contractor to assist in the design and construction of the works pertaining to the rectification of the existing seawall.

The project works were based on the construction and strengthening of the existing retaining wall through the process of jet grouting.

The design intent was to bind the soil behind the existing sea wall by jet grouting so as to prevent movement and rotation of the existing structure. The process consisted of grouting a series of contiguous columns in three rows (all interlocked) behind the dilapidated structure preventing

areas of the wall being able to move independently from adjacent ones and to force the ground to act as a continuous mass, thus increasing the overall stability and hence safety of the seawall.

The overall project consisted of over 400 jet grouted columns ranging in diameter from 800mm to 1700mm with an extensive trial area in order to determine the most efficient and optimal construction parameters with an overall construction period of 2 months. 1700mm diameter columns are some of the largest columns installed in foreshore fill material to date and are continued evidence of Menard's development in terms of practical and design expertise.

The project was brought in ahead of time and budget and included the addition of various temporary works and extensions to original contract permanent works.

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