



Description of the work :

This project comprises of 2 Finger Wharves with a podium slab in between. There is a submerged car park underneath, with 5 levels of Apartments above, plus a penthouse with mezzanine and plunge pools. The area of the project is 21,000m². The Structure consists of 2 buildings, Wharf 8 and Wharf 9. Each wharf contains 6 levels, being Level 2 -5 and a Mezzanine using a flat plate design. Each building has 3 zones/pours connected with STAFIX shear connectors. There is a total of 6 cores, 2 per zone for Wharf 9 and 5 cores, 2 per zone except for 1 pour for Wharf 8. Using conventional formwork. There is a non-uniform column layout. Transfer beams on Wharf 9 Level 2 are 500mm deep contained between 4 & 7 tendons. This is a combination of 4/12.7 and 5/12.7 tendons, depending on the band width due to head height constraints. The typical apartment floors have been designed for a superimposed dead load of 2.0 kPa and a live load of 1.5 kPa with a concrete compressive strength of 40 MPa. These flat plates contain 4/12.7mm tendons spaced at 1600mm centres in both directions with a slab depth of 200mm.

Freyssinet mission :

In August 2006, Multiplex Constructions who is the main builder for the project awarded Freyssinet Australia the Design and Construction contract for Levels 2 – 5 and the Mezzanine, and the Construction Only for 70 tonne Level 1 podium slab. These contained 3, 4 and 5 Strand K range slab system, 4 and 5 Strand C range slab system, and 6 and 7 strand C range multistrand systems.

Companie(s) : Multiplex Constructions
Owner : Sydney Wharves
Engineering consultant : Robert Bird & Partners

Subsidiary(ies) : Freyssinet Australia

Beginning of works : 06/2006

End of works : 05/2007

