



1 Settlement damage behind the wharf. 2 & 3 Damage to landward row pile. 4 Container vessel berthed at Thorndon Container Wharf. 5 Compression and tension pile installation behind wharf. 6 Completed temporary works and pavements.

## TEMPORARY WORKS FOR THE RECOVERY OF CONTAINER OPERATIONS, THORNDON CONTAINER WHARF

Homes for CentrePort

Project Location: Wellington



CentrePort's Thorndon Container Wharf in Wellington Harbour is a busy and vital part of the city's goods distribution network. The wharf is approximately 600 metres long and 25 metres wide, with two 750 tonne gantry ship-to-shore (STS) cranes for loading and offloading vessels. A large number of businesses rely on the Port's container operations for imports and exports.

Following the Kaikoura Earthquake, the wharf and reclamation was severely damaged and declared a destroyed asset. The wharf structure had little ability to resist further gravity or earthquakes, having moved laterally up to one metre in some places. The two STS cranes could not operate or move along the wharf due to damage, including displacement of rails and damage to the wharf below.

With the ongoing potential for aftershocks, temporary works had to take place to the wharf supporting the cranes and had to happen above or behind the wharf deck in a systematic manner. A decision was made to urgently return the wharf and cranes to temporary service as every day out of operation hugely impacted businesses. A wide range of solutions were considered and applied, with most engineering and re-work happening when issues emerged. Procurement and construction progressed with solutions to operate on a restricted platform becoming evident.

The story of the recovery of the Port's container operations is the response, close teamwork, understanding of economic and business impacts, and innovation. Working as one team to deliver complex solutions in nine months under challenging conditions.

Holmes Consulting, WSP Opus and Tonkin + Taylor contributed to the wharf temporary works design, with HEB Construction carrying out the major temporary construction works. Other key consultants and contractors also contributed specialist services as part of the re-commencing container operations.

### Judging & Copyright Statement

This project is an entrant in the 2018 INNOVATE NZ Awards of Excellence competition. The winners will be celebrated at our Awards Gala Dinner on Friday, 3rd August 2018 in Hamilton.

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