

SPR[®]EX CASE STUDY

ALBERT STREET RELINING:
CROSS RIVER RAIL PROJECT



EXPANDA[®]

SPR[®]EX technology, incorporating
EXPANDA[®] spirally wound system
by RIB LOC[®]



Client:
Cross River Rail

Location:
Brisbane, Australia

Application:
Sewer

Partner:
Interflow Pty Ltd

Year:
2020

Product:
SPR®EX / Expanda®

Length:
1.2 km (3940 ft)

Diameter:
DN 450 mm (18 inch)



Project Description

The Cross River Rail is a 10.2 km (6.3 miles) rail line which includes 5.9 km (3.6 miles) of twin tunnels under the Brisbane River and CBD.

To construct the underground Albert Street station, hard rock located up to 30 m (98 ft) beneath the surface needed to be blasted and excavated to create a cavern to house the station platforms. A series of key DN 450 mm (18 inch) trunk sewer mains run above the zone of influence created by the blasting works. These mains were to be relined prior to the blasting works to strengthen and protect them from the impact.

The Opportunity

A 10 hour night working window along with strict traffic control and noise pollution limitations were set due to the close proximity of the sewer trunk mains to Brisbane's densely populated high-rise buildings and popular shopping district.

With these restrictions ruling out the use of bypass pumping, a solution able to perform these critical works in live mains during limited shift hours was needed.

The Solution

To overcome these significant project challenges, Interflow Pty Ltd, SEKISUI Rib Loc Australia's installation partner, proposed the use of SPR®EX technology, incorporating the Expanda® spirally wound system by RIB LOC®, a structural lining system strong enough to protect wastewater flows during the scheduled blasting works.

Having a small site footprint, fast mobilization and demobilization times, and ability to stop the installation process at any time, stakeholders were comforted to know the crew could quickly clear the site and allow traffic to reopen should it ever be required.

The Outcome

Overcoming many constraints, relining works were completed on time, allowing the blasting works to commence on schedule and this game changing infrastructure project to continue.



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