

Jordan River Bridge Brighton Bypass JV



CLIENT: DEPARTMENT OF STATE GROWTH
COMPLETED: 2011-2012

A JOINT VENTURE PROJECT IN TASMANIA HAS UNDERTAKEN WHAT IS BELIEVED TO BE AUSTRALIA'S LONGEST EVER SIMPLY SUPPORTED SINGLE SPAN BRIDGE LAUNCH. VEC CIVIL ENGINEERING, WITH JOINT VENTURE PARTNER THIESS (VTJV), LAUNCHED THE 70 METRE LONG SINGLE SPAN OVER THE JORDAN RIVER LEVEE ON THE FEDERALLY FUNDED BRIGHTON BYPASS PROJECT IN SOUTHERN TASMANIA.

THE PROJECT

Development of the Jordan River Bridge was delayed when Aboriginal artifacts were discovered on a natural levee near the Jordan River in late 2008. Following negotiations and the most extensive archaeological investigation ever completed in Tasmania, the levee was confirmed in early 2010 to contain well preserved and ancient stone artifacts that made it a significant heritage site.

The VTJV, designer GHD, and the Department of State Growth (DSG) worked closely together to modify the bridge design accordingly. The new design was subjected to the most rigorous heritage approval process ever applied in Tasmania.

An extensive consultation process also occurred and DSG sought to assure the Aboriginal community that the site's unique values would remain undisturbed by construction of the modified bridge.

JORDAN RIVER BRIDGE

There are twin 166 metre-long bridges over the Jordan River, and the unique span design construction allowed the structure to be completed without disturbing the levee or its artifacts. The critical section was be launched 11 metres above the levee and over the significant site.

The Jordan River Bridge comprises four spans - three of which require ten 32 metre long x 1.5m deep super T beams each. The fourth span is four 70 metre long x 3.2m deep

steel box girders, fabricated and assembled under subcontract by Haywards in Tasmania.

The first girder was launched until its attached 50m launching nose landed on the pier on the opposite side of the levee. It was then lowered into position with two cranes mobilised at either side of the levee.

SUCCESSFUL LAUNCH

This method of construction required extensive temporary works, which were fabricated by VEC and other Tasmanian subcontractors.

The first beam was used as a platform to install the remaining three girders, which were lowered into position.

The deck for the steel span comprises 58 ten metre wide precast Transfloor panels manufactured off-site in Tasmania with an in-situ concrete deck.

The three remaining super T spans have traditional in-situ poured concrete decks.



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