

## A new life for heritage tram bridge in Adelaide

Built in 1908 and formerly known as the Hindmarsh - Thebarton Tramway Bridge or Holland Street Bridge, the Sir William Goodman Bridge spans Adelaide's River Torrens and is the second oldest reinforced concrete girder

bridge in SA. It is a tribute to its original designer, Sir John Monash, who was one of the early pioneers of reinforced concrete in Australia.

Having performed remarkably well for over 100 years, the bridge has in that time had no maintenance despite being used for initially for trams, then for motor vehicles, and most recently for pedestrians and cyclists.

In 2010 an audit of the bridge by its then joint owners, the City of Charles Sturt and the City of West Torrens, found the bridge to be in a poor state, identifying severe corrosion and cracking which required the bridge to be immediately closed.

Since 2010, the two councils worked to determine the best way to provide pedestrian and cycling access across the River Torrens.

Precast manufacturer SA Precast

Client City of Charles Sturt

Project Managers J Woodside Consulting

Contractor Synergy Remedial

Architect Flightpath Architects

Structural Engineer LN Engineering

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Several consultant studies considered options and three years of negotiations culminated in West Torrens offloading its share to Charles Sturt and the decision was made to restore and upgrade the existing bridge, rather than building a new one.

Construction commenced in early 2014 and involved the replacement of all damaged concrete with additional steel and carbon fibre reinforcement. Other new work included new handrails, scour control under the bridge and new lighting and urban works at the ends of the bridge which included a stunning polished precast concrete seat manufactured by National Precast member, S.A. Precast. The project was delivered under budget, on time and was cheaper than a new bridge.

Construction of the bridge was completed in September 2014 and since, it has won a number of excellence awards from the RAIA, the CIA and the CCF earth Award and the IPWEA. It has also been shortlisted by the Institution of Structural Engineers in the UK in their 2015 structural awards.

The final restored and repaired bridge is a brilliant sustainable result for an important heritage bridge. It is an outstanding example of perseverance by those involved to question the original advice, to understand the problems and make the correct decision to restore and repair the bridge. It is a fantastic result, which the owner, public, users, the design team and contractor and subcontractors are rightly proud off.

