

# ADELAIDE ICON

The \$39M 255m long & 8m wide Riverbank Precinct Bridge features a waterfall at the southern & northern ends and encompasses a new bistro area on the riverbank as well as a revamp of the Adelaide Festival Centre offices.

**CONTRACTOR :** McConnell Dowell Constructors  
**CLIENT :** Department of Planning, Transport and Infrastructure, SA  
**CONSTRUCTION VALUE :** \$39 million  
**COMPLETION DATE :** March 2014  
**DESIGN :** Aurecon  
**SURVEYOR :** SKS



**The construction of the Riverbank Precinct Pedestrian Bridge (Riverbank Bridge) is a key phase in the delivery of the South Australian Government's Master Plan to transform the iconic public spaces of the Torrens River into a revitalised destination.**

The Riverbank Bridge continues McConnell Dowell's successful relationship with the Department of Planning, Transport and Infrastructure (DPTI), and draws on the experience gained on other high profile DPTI projects including the Glenelg Tram Overpass, the Bakewell Bridge Underpass, and the award winning Onkaparinga Valley Bridge (part of the Seaford Rail Extension).

This project is being delivered under an Early Contractor Involvement (ECI) model, which follows from the Early Tender Involvement (ETI). These models mean that the contractor works collaboratively with the client and designer from the beginning to ensure the best solution for both design and constructability.

The Riverbank Bridge is being delivered by a team, lead by Mario Russo, which is highly experienced in delivering innovative and iconic projects. "We were awarded the contract on the basis of our collaborative approach and our commitment to the success of the project at all stages; from the ECI Phase through to completion," says Russo.

Delivery of a high profile project in the middle of the CBD was always going to be challenging. This unique structure is curved, sloping, asymmetrical, post tensioned concrete bridge clad in sleek white glass. Located in the heart of Adelaide's arts precinct, this elegant structure will compliment its surrounds.

At 255 metres long, and 8 metres wide, the bridge also features a pixilated granite paver surface and waterfalls at the southern and northern ends. The balustrades are glass, with built-in strip lights running through the upper rail.

The bridge arcs across the lake from two landing points. On the southern side it will draw spectators to the Oval from the Adelaide Railway Station through the Adelaide Festival Centre plaza.

The northern landing point is designed to be a destination in its own right, with a plaza linked on event days to the Oval's southern entrance via the closure of War Memorial Drive.

The northern end of the footbridge terminates in a viewing platform for 'postcard' views of the lake and city, while a lake-level splash-play area for children will be fed by a waterfall feature at the southern end of the bridge.

Such a design could not be delivered through the conventional design/shop draw/fabricate/construct process. Complex geometry, tight construction tolerances and thermal effects on different materials meant that distinct consideration was given to fabrication and construction methods.

To assist in McConnell Dowell's understanding of how the bridge was best constructed, and to allow for the fabrication of almost 3,000 glass panels within only a few millimetres tolerance, each element of the main bridge structure was modelled in 3D, ensuring that every corner, level change and interface was drawn, understood and error-checked so that construction proceeded seamlessly.

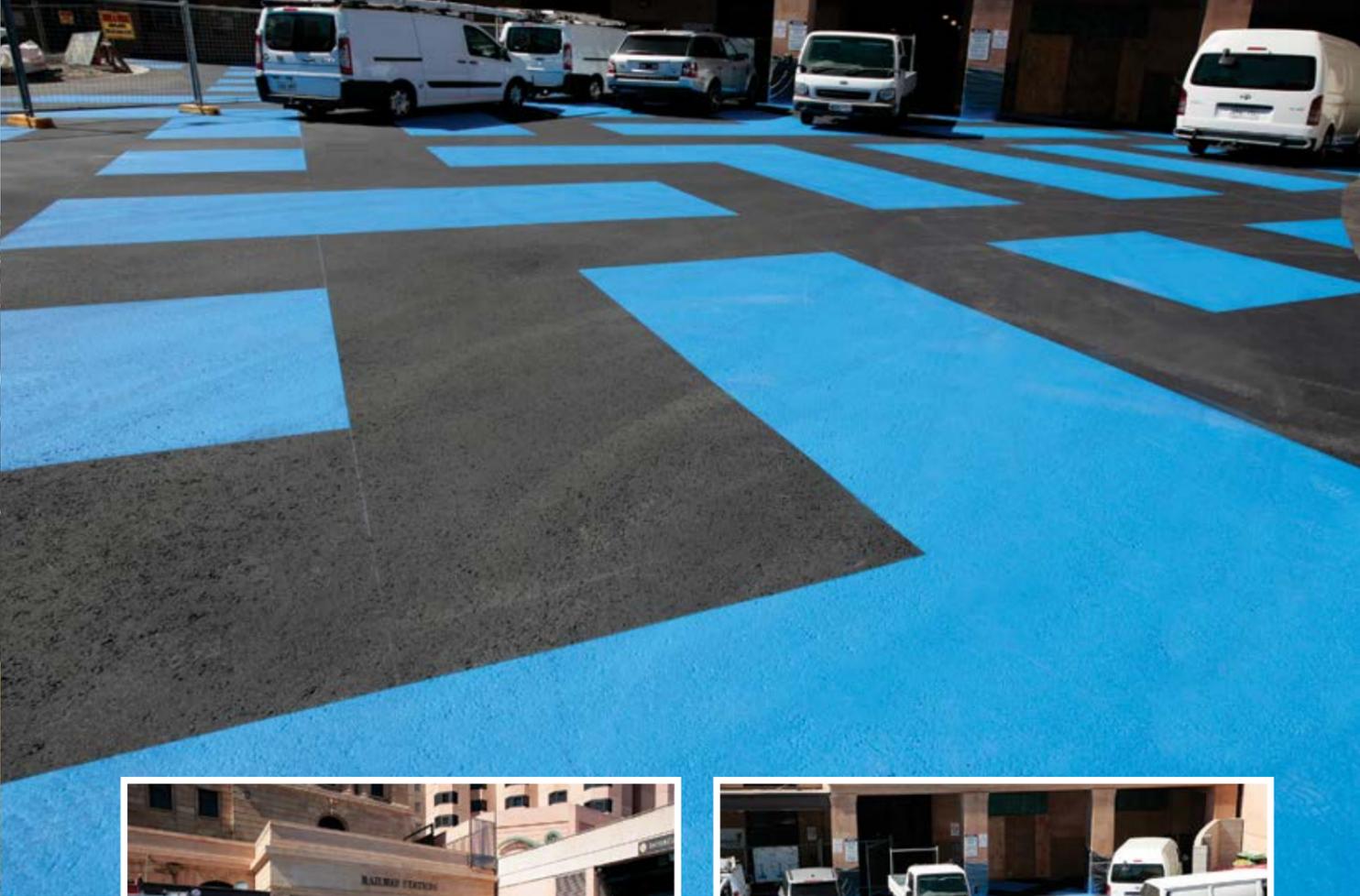
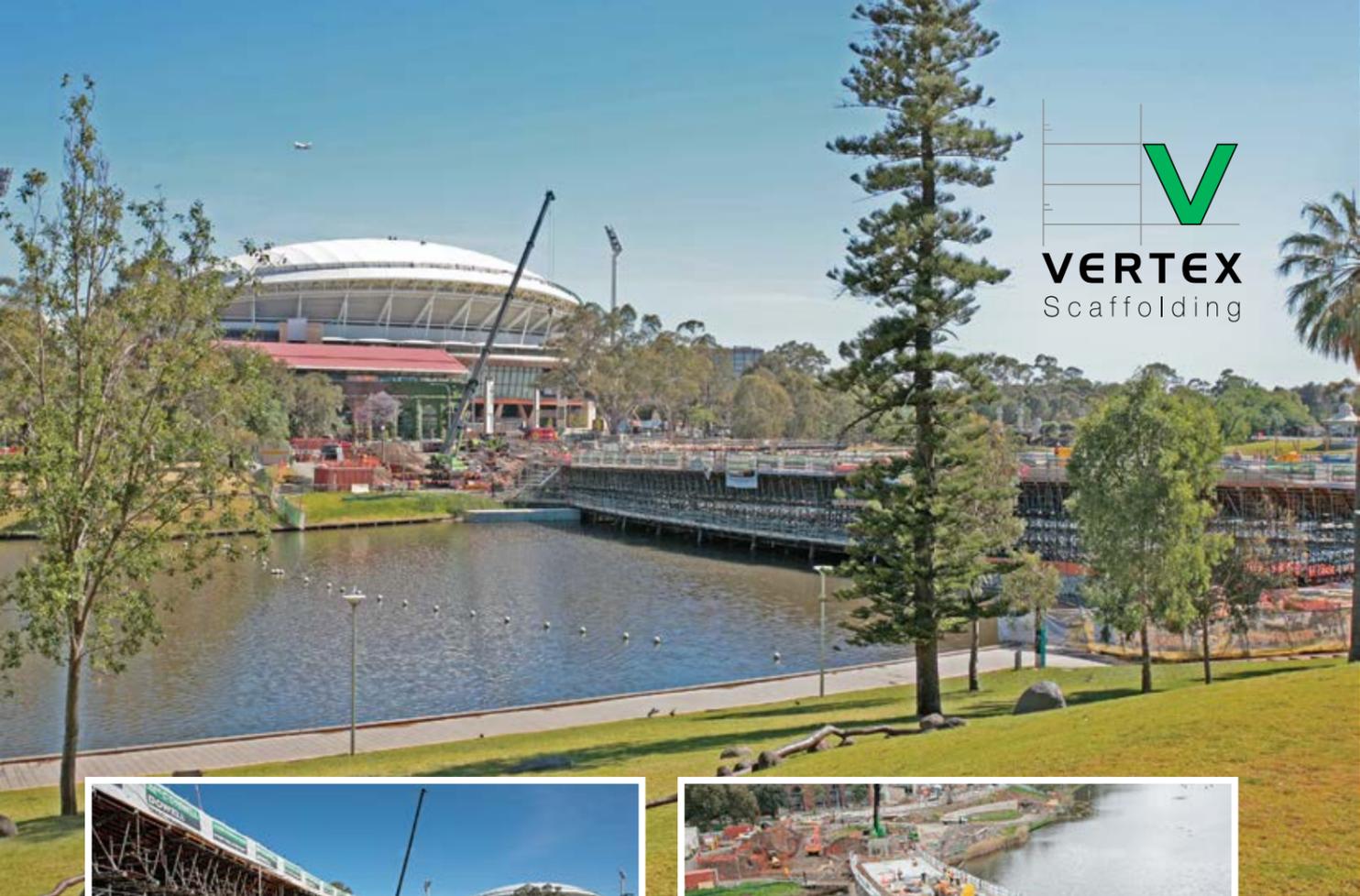
Among the other challenges was a fast-tracked construction period, the complexities of working over water and working within a highly trafficked and high profile area with complex stakeholder requirements.

McConnell Dowell already had a solid understanding of stakeholder requirements from previous projects in the precinct such as the Adelaide Oval Redevelopment and working with the client and designer during the ECI Phase.

McConnell Dowell is a major engineering, construction, building and maintenance contractor. With the ability to deliver end-to-end projects, they pride themselves on their engineering excellence in three key industry sectors:

- Building: Commercial and Industrial, Social and Public, Defence.
- Infrastructure: Power, Transport, Water.
- Resources: Mining, Oil and Gas, Petrochemical.

**For more information contact McConnell Dowell,** 100 Hutt Street Adelaide, SA 5000, phone 08 8100 8088, fax 08 8232 1883



## STABLE SOLUTIONS

Based in South Australia, Vertex Scaffolding is an Australian owned family business with more than 25 years industry experience. The team strives to create a safer, diverse and customer focused scaffolding service, which is constantly growing and providing innovative solutions.

Vertex Scaffolding provide their services across all industries including:

- Residential
- Industrial
- Civil
- Construction and
- Mining

As a preferred contractor for the new Adelaide Riverbank Pedestrian Bridge, Vertex Scaffolding designed, installed, modified and removed all falsework and scaffold required to support the bridge whilst under construction.

The team worked closely with McConnell Dowell to manage site logistics, access and planning, which was challenging given the small development site. The Vertex Scaffolding team enjoyed working with

McConnell Dowell to produce such an iconic structure in the heart of Adelaide.

Utilising their experience Vertex Scaffolding were able to construct the slimlite truss sections beneath the bridge in order to suspend the V shape formwork on the underside. They were also able to solve the North to South bank access issue by constructing a cantilevered walkway over the river to gain access.

Vertex Scaffolding are also involved with many other projects in Adelaide including the Adelaide Oval Redevelopment, Adelaide Convention Centre and the new Royal Adelaide Hospital,

While being Nationally Code Compliant, Vertex Scaffolding have won prestigious safety awards in their chosen profession, thus attributing to the next generation of safety culture within their business.

**For more information contact Vertex Scaffolding,** 52A Gates Road Hackham SA 5163, fax 08 8326 2272, mobile 0424 141 102, email: [mick@vertexscaffolding.com.au](mailto:mick@vertexscaffolding.com.au)

## MINIMISING DISRUPTION

Active Asphalt has achieved rapid growth over recent years due to their ongoing commitment to providing professional and friendly service, along with the best products in their industry.

Recently, Active Asphalt was awarded the high profile Adelaide Riverbank project as a result of accreditation, quality and price.

To ensure exceptional results on every project, Graham Nuske (Company Director) is on the ground with the guys to ensure quality control. Rework was minimal on the Adelaide Riverbank project as most of the work was completed after hours and on weekends. This also ensured minimal disruption to the public. War Memorial Drive was profiled on a Friday and bitumen was laid Friday night and into the early hours in order to meet deadlines for the concreter to follow on at 3am. Adelaide train station side work was carried out on a Sunday, to again minimise public disruption.

Active Asphalt stay at the top of their game by producing a high quality outcome through the use of laser technology. They also understand that competitive pricing is an essential piece of the puzzle for builder's wanting the best price.

Active Asphalt boasts a team that consists of 13 members including 3 office staff. Their portfolio of machinery is modern and well maintained.

Because of Active Asphalt's dedicated service, customers are guaranteed top-of-the-line asphalt-laying services in South Australia. The company works on both commercial and residential projects and their services include:

- driveways
- roadways
- potholes
- car parks
- under croft car parks
- footpaths
- bike paths
- speed humps

If you need any of these services for your next job, you can rest assured that Active Asphalt is the right company for the job.

**For more information contact Active Asphalt,** 2-8 George Street Wingfield SA 5013, mobile 0407 766 537, website [www.activeasphalt.com.au](http://www.activeasphalt.com.au)

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These products have been developed and manufactured in our European labs to the highest international approvals and standards.

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## TURNKEY SOLUTIONS

Bianco Hiring Services is a major hirer to the construction industry in South Australia. Their equipment and services were recently used for the Adelaide Riverbank Pedestrian Bridge project.

Bianco Hire enjoys partnering with well-known and respected builders and developers. They have been involved with McConnell Dowell on a large proportion of their projects in South Australia along with many major projects in the state including:

- CUF Project
- Southern Expressway
- Adelaide Oval Upgrade
- South Road Superway
- Adelaide Rail Electrification

Bianco Hire features a large array of products and they are able to customise solutions to meet individual project needs. Their product lines include:

- Portable Buildings
- Toilet Blocks
- Waste Holding Tanks
- Containers
- Temporary Fencing
- Chemical Toilets - standard & disabled
- Single Sewer Toilets
- Event Toilet Blocks
- Mobile Ensuite Units
- Single Shower Units

Depending on client needs, Bianco Hire is able to fit out portable buildings with office furniture, fridges, microwaves, counter & sink units, boiling water units and more. They also have the capability to manufacture unique portable buildings to meet clients specific needs.

All products available at Bianco Hire have been carefully selected to fit the needs of small contractors through to large construction companies.

The dedicated team also has the capability to provide full turnkey solutions such as power, water, sewer and data connections. In addition they can also provide steps, landings access ramps, decking and roofing.

The business began in 1988 with just a handful of buildings and staff. They have now successfully grown to boast a fleet of over 3000 products ranging from single chemical toilets to large office buildings. Bianco Hire prides themselves on providing economical and safe site accommodation solutions for their customers.

All staff and contractors are well trained in the needs of the construction industry and are constantly kept abreast of the safety needs of the industry.

For more information contact Bianco Hiring Services, 600 Main North Road Gepps Cross, SA 5094, phone 08 8162 6300, website [www.biancohire.com.au](http://www.biancohire.com.au)

