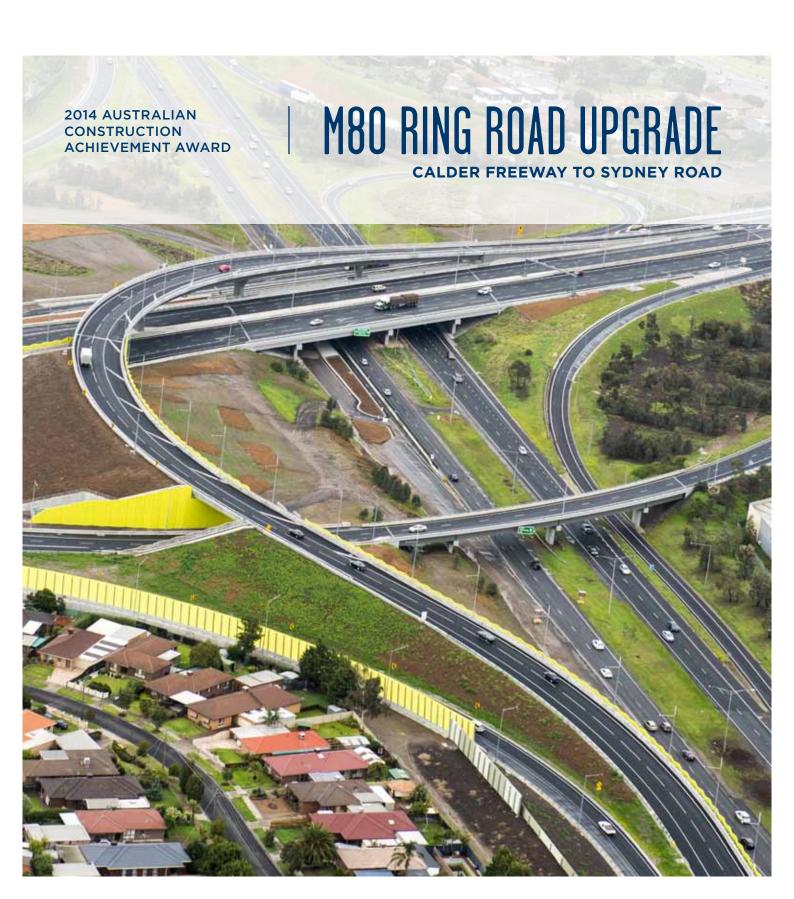


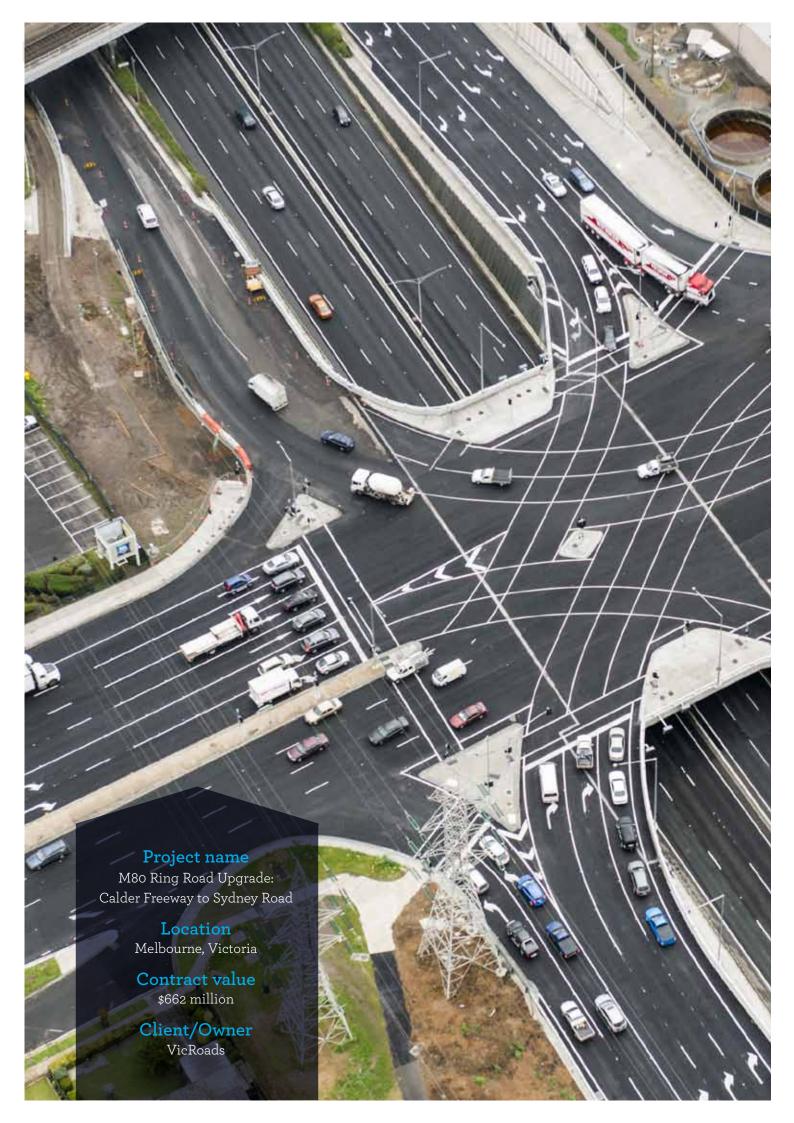


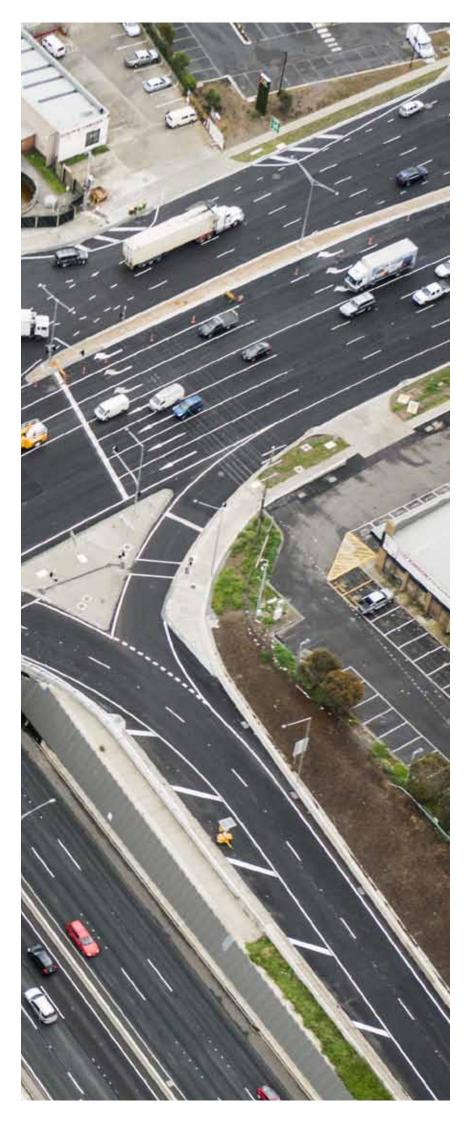
THIESS











Introduction

The M80 Ring Road links Melbourne's northern and western suburbs, providing critical access to Melbourne International Airport, the ports of Melbourne and Geelong, and rail freight terminals.

Funded by the Federal and Victorian Governments, the \$2.25 billion M80 Ring Road Upgrade project is designed to deliver a safe and reliable road infrastructure system for motorists and surrounding communities.

Under the largest single contract ever let by VicRoads, the 9.7km Calder Freeway to Sydney Road section was delivered by the Tulla Sydney Alliance (the Alliance) – a partnership between VicRoads, Thiess, Parsons Brinckerhoff and Hyder.

Constructved in a 'live' traffic environment, with more than 142,000 vehicles continuing to use the road each day, the project has set new standards for major road projects in Victoria.

Outcomes achieved against planned targets for key project parameters



The Alliance achieved all project objectives as defined by its key result areas (KRAs).

Time and cost

Despite weather delays and the significant risks associated with working in a live traffic environment, the Alliance delivered the project safely, on budget and on time.

Safety

The Alliance achieved more than 3.5 million man-hours LTI-free, setting a new safety benchmark for major road projects in Victoria. With more than 3,670 people inducted, safety initiatives such as the Fitness for Work policy, which included drug and alcohol testing, helped set new industry standards in Victoria.

Environment and Heritage

The environment team forged strong relationships with design and construction teams, driving a cultural shift that ensured environmental performance was everybody's business. Close consultation with local Wurundjeri Elders resulted in more than 300 Aboriginal artefacts salvaged and a reburial event held, incorporating an official smoking ceremony.



Sustainability

The project has improved road safety and reliability, eased congestion, and resulted in a 32% increase in traffic flow efficiency. A truck will save one litre of fuel per trip and each car 0.5 litres, saving the community 21.6 million litres of fuel per year or \$32.4 million.

A reduction of 2,183 tonnes of $\rm CO_2$ was delivered through innovative design and construction, while 95.6 per cent of construction waste was re-used or recycled. Nintety per cent of water used during construction was from non-potable sources.

Legacy

The Alliance delivered a project which has increased safety and eased traffic congestion on one of Australia's major arterial roads. A dedicated legacy project also delivered lasting benefits for children with disabilities through improvements to playground equipment at Jack Roper Reserve.

Stakeholder relations

In many cases, construction was carried out within metres of residential homes and local businesses. Stakeholder management involved complex negotiations and a daily focus on minimising construction impacts while maintaining normal operations, particularly on one of the busiest sites at Sydney Road. Strong, cooperative working relationships with local councils, Melbourne Airport and community groups delivered a range of legacy outcomes for local residents, such as creating landscaped earth mounds for visual and acoustic screening.

Traffic operations

The Alliance developed a staggering 5,000 traffic management drawings and implemented approximately 300 lane closures per month, enabling construction works to continue in a live operating environment. A CCTV feed installed in the Alliance office allowed proactive monitoring and management of incidents.



Functionality & network integration

The Alliance worked collaboratively with VicRoads to 'design' out maintenance issues. Asset handover information was provided in a timeframe surpassing other projects and was presented via an online portal – a format VicRoads has now adopted for future projects.

Value for Money

VicRoads' Independent Estimator confirmed the Alliance TOC represented outstanding value for money.

People

A focus on direct employment, culture, and performance management fostered accountability and helped attract quality, experienced employees.

Quality

The Alliance achieved benchmark low levels of re-work by adopting a proactive approach to educating the workforce at all levels. This, coupled with a strategy to engage the client in all aspects of quality, resulted in positive feedback from VicRoads.



Complexity, difficulty and optimisation of the construction task



The Alliance completed all works in a live traffic environment to minimise impacts on road users. The same number of lanes were kept open during peak traffic hours to accommodate more than 142,000 vehicles that continued to use the road daily.

Congested work zones

The Alliance managed complex safety risks associated with construction in extremely congested work zones, with crews working alongside live traffic, heavy plant and construction vehicles. In other locations, construction teams contended with 500kV and 200kV overhead power lines, as well as a high transmission gas line.

Sensitive environments

Careful environment, safety and construction planning and management was required to overcome geology challenges which included varying rock material, expansive clay soils, and steep terrain. More than 140,000 cubic metres of uncontrolled fill from the initial construction of the M80 in the Moonee Ponds Creek valley was removed, stockpiled, and replaced as engineered fill.

To avoid environmental risks associated with working near the old Broadmeadows tip, the Alliance used an EPA-approved method for reinstating a landfill cap over the disturbed area. They also designed-out works on the northern side of the M80, avoiding excavation of the landfill.



Focused on 'doing things better', the team designed an eightspan bridge over Moonee Ponds Creek to minimise impacts on an existing wetland and special measures were implemented to maintain the habitats of a number of endangered species living in and around the project site.

Community in close-proximity

With residents and businesses nearby, shipping containers were used for temporary noise attenuation while permanent noise walls were removed and replaced. The Alliance adopted work methods to minimise the amount of freeway closures and night works, and alternative design solutions were implemented to mitigate issues that may have caused major community impacts.

The complex relocation of power, water, gas and communications services potentially risked injury to the community and workforce, and the possible disruption of essential services to local homes and businesses. The Alliance completed the task seamlessly and incident free, following extensive stakeholder engagement and safety planning, enabling adjacent businesses to maintain normal operations.

Complex operations

Demolition of an existing superstructure required a 24-hour freeway closure to ensure safety of the workforce and the public. Substantial communications and excellent traffic management reduced expected delays and delivered an incident free outcome.

Comprising 19 curved steel open trough girders, installation of the flyover bridge connecting the Tullamarine Freeway and the M80 was a complex operation. With outer beams cantilevered off the central beam and the connections made mid span, difficult manoeuvres over the Tullamarine Freeway and the M80 occurred at night, with 3D modelling employed to optimise crane lifts.

Leadership and management of the project delivery



Collaborative approach

The Alliance initiated a Design Review and Acceptance Workshop (DRAW) process involving various stakeholders from VicRoads. This collaborative approach engendered a willingness to achieve best-for-project outcomes, minimised rectification works, encouraged innovative solutions and minimised whole-of-life costs.

Design solutions eliminated key congestion and safety issues on the M80 while adding construction complexity. Through DRAW, the client endorsed the revised designs as 'best for project' solutions.

The involvement of various VicRoads departments in the transition / handover process has helped build strong relationships, enabled open dialogue when issues arose and ensured no surprises at handover. Ultimately, this led to the successful integration of the asset back to the owner/operator.

A legacy of innovation

Several innovations were developed to overcome the challenges of constructing on one of Victoria's busiest freeways, including:

- A new gawk screen designed to withstand the impact of a truck tyre at 80kph ensuring workforce safety - the design won the 2013 WorkSafe Award for the Best Solution to a Specific Workplace Health and Safety Issue and was made standard issue on M80 Ring Road Upgrade
- A prototype for an automated traffic cone placement and removal machine eliminated workers' exposure to live traffic
- >> Tripod mounted speed cameras ensured greater compliance with roadwork speed limits, delivering a first for Victoria
- Suidelines for use of Truck Mounted Attenuators to improve safety and achieve consistency were developed, and adopted by VicRoads
- Yellow line marking, mandated for construction sites on the M80 Upgrade, and now under consideration by VicRoads for all construction works throughout Victoria.



Training

Senior management was present during induction training, which focused on the site's unique risks.

The project implemented a three-stage behavioural training program for all personnel to take safety performance to the next level. As a result, the project achieved 3.5 million manhours LTI free.

Occupational health and safety

The introduction of tripod mounted speed cameras within the construction site achieved greater compliance to roadwork speed limits and improved truck behaviour throughout congested work sites. Vending machines and an on-site store ensured PPE was always available and reinforced compliance.

The Alliance implemented a mandatory "Verification of Competency" procedure to confirm the ability of operators to perform their required tasks safely.

The safety test 'One Test' was implemented as part of the pre-employment process to ensure employees demonstrated the required safety attitudes and behaviours prior to being engaged.

Industrial Relations

A focus on direct employment, culture and performance management fostered accountability and helped attract quality, experienced employees.

In a first for Victoria, a 'Fitness for Work' policy was implemented, including drug and alcohol testing and fatigue management strategies. Working with construction unions, the Alliance completed the project with no time lost due to industrial disputation.

Project partners (the Alliance).....

VicRoads	Client
Thiess	Construction partner
Parsons Brinckerhoff & Hyder Consulting	Design partners

Alliance leadership team

Stephen Cornish, Anthony Moran	Alliance Project Manager	
John Mowat, Mark Latham, Steve Villella	Delivery Manager	
Phil Kajewski, Lachlan Rothnie, Kate Borg	Design Manager	
Shane D'Rozario	Quality Manager	
Paul Sparks, Chris Sprott	Environmental Manager	
Megan Cusack, Lisa Rae	Community and Stakeholder Relations Manager	
Yvonne Odea, Don Trewin	Human Resources Manager	
Dean Bingham	Safety Manager	
Warren Bradshaw	Traffic and Engineering Manager	
Peter Kelly	Traffic Integration and Modelling	
Michael Ryan	General Superintendent	

Key consultants

Peter Elliot Architecture + Urban Design	Urban design
Douglas Partners	Geotechnical





Full logo (preferred)

Tulla Sydney **Alliance**









Partnership logo







Colours

'TULLA SYDNEY' BLUE

C100 M65 Y2 K0 | R0 G88 B161

'ALLIANCE' ORANGE

CO M50 Y100 KO | R242 G148 B0

Asset supplied

Tulla Sydney Alliance Logo.eps

Entry form

We submit the following entry for consideration for the 2014 Australian Construction Achievement Award.

Project title: M80 Ring Road Upgrade (Tulla Sydney Alliance)			Location: Northern and western suburbs of Melbourne, Victoria		
Design and construction live traffic environment in a flyover bridge including	ork (maximum of 50 words pleas of the 9.7km Calder Freeway to S cluding: careful environment, safe 19 curved steel open trough gird r, gas and communications service	Sydney Roadety and considers; 5,000 to	struction planning and	management; installation of	
Contract value: \$662 million		Contract type: Alliance			
Contract period: July 2009 – May 2013		Date of Substantial Completion: 13 May 2013			
Purpose of project: To increase capacity and deliver a safe and reliable road infrastructure system for motorists and surrounding communities.		Name of client/principal: VicRoads			
Address: 3 Bristol Street	t, Essendon Fields VIC				
Postcode: 3042	Contact name: Warren Brad	dshaw		Title: Manager Project Delivery	
Telephone: 0417 382 63	9		Facsimile:		
Description:	Data required	Data required Re		Response	
Contract	Contract tendered value or e (e.g. TOC)	Contract tendered value or equivalent (e.g. TOC)		\$623 million (original) \$662.5 million (revised)	
	Contract final value or actual outturn cost (AOC)		\$657 million		
	Principal reasons for variances		Project contingencies allowed for in the TOC		
	Any unresolved disputes? Status of those disputes?		Nil		
Contract period	Commencement date		22 July 2009		
	Original completion date		Notionally 21 December 2012, however given further sections were to be upgraded, the end date wasn't fixed.		
	Actual completion date		13 May 2013		
	Principal reasons for variances		 Weather delays, particularly around earthworks, OCA, thermo line marking, etc. Restaging works around the Tullamarine Interchange Avoiding environment risks associated with old rubbish tip site. 		
Safety	Total hours worked	Total hours worked		Almost 3.5 million	
	Total Recordable Incident Ra	Total Recordable Incident Rate		9.92	
	Details of any fatalities on the project		Nil		

Details of Entrant					
Name and position (Managing Director or equivalent): Bruce Munro					
Address: 179 Grey	Street, South Bank, Qld		Postcode: 4101		
Contact name: Serena Middleton		Title: Communica	Title: Communications and Community Relations Manager		
Telephone: 03 9864 8868	Facsimile: 03 9864 8811	Email: smiddletor	Email: smiddleton@thiess.com.au		
Contact for logo approval: Serena Middleton		Name of organis	Name of organisation: Thiess		
Address: Level 9, 417 St Kilda Road, Melbourne		Postcode: 3004	Postcode: 3004		
Contact name: Serena Middleton		Title: Communica	Title: Communications and Community Relations Manager		
Telephone: 03 9864 8868	Facsimile: 03 9864 8811	Email: smiddletor	Email: smiddleton@thiess.com.au		
Contact for PR information: Serena Middleton		Name of organis	Name of organisation: Thiess		
Address: Level 9, 417 St Kilda Road, Melbourne		Postcode: 3004	Postcode: 3004		
Contact name: Serena Middleton		Title: Communica	Title: Communications and Community Relations Manager		
Telephone: 03 9864 8868	Facsimile: 03 9864 8811	Email: smiddletor	Email: smiddleton@thiess.com.au		
Contact for video content: Serena Middleton		Name of organis	Name of organisation: Thiess		
Address: Level 9, 417 St Kilda Road, Melbourne		Postcode: 3004	Postcode: 3004		
Contact name: Serena Middleton		Title: Communica	Title: Communications and Community Relations Manager		
Telephone: 03 9864 8868	Facsimile: 03 9864 8811	Email: smiddletor	Email: smiddleton@thiess.com.au		

Declaration

WE ARE DULY AUTHORISED TO SUBMIT THIS ENTRY ON BEHALF OF THE ENTRANT NAMED ON THIS FORM AND:

- » Agree to abide by the rules and conditions governing the Australian Construction Achievement Award as set out in this document, including payment of final entry fees if selected as a finalist.
- » Declare that substantial completion of the project has been achieved in the 12 months prior to 30 September 2013.

BRUCE MUNRO

MANAGING DIRECTOR, THIESS









