

AUSTRALIA

ACTIVITY REPORT 2012

Australasian Tunnelling Society (ATS)
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The ATS has over 800 individual members, over 30 company Gold Members and six Platinum company sponsors

The Australasian Tunnelling Society is a Technical Society of Engineers Australia (EA) and affiliated with the Australasian Institute of Mining and Metallurgy (AusIMM) and in New Zealand with the Institution of Professional Engineers New Zealand (IPENZ)

Members of the ATS belong to the ITA working groups and contribute to varying degrees. The David Sugden Young Engineers Writing Award 2012 was awarded to Jurij Karlovsek PhD student at the University of Queensland.



Legacy Way

Annabell and Joyce,, the Legacy Way's two tunnel boring machines, have reached the one-kilometre mark on the 4.6-kilometre tunnel, which will connect the Western Freeway at Toowong with the Inner City Bypass at Kelvin Grove. Both TBMs have set record advance rates for machines larger than 12 m in diameter. Best day of 48.9 m and average daily production of 23 m since the start of tunnelling.



Narrows Crossing

Thiess has been awarded a contract to construct a 4.3 kilometre tunnel under a body of water known as "The Narrows" to connect the mainland near Gladstone to Curtis Island where Santos' Gladstone liquid natural gas plant is located. The tunnel, to be 3.4 metres in diameter, will serve as the conduit of the Santos GLNG gas transmission line.

Perth City Link

Sinking the Fremantle Line from William Street to Lake/King Street is one of the first stages of the Perth City Link. The Fremantle line tunnel will cross over the existing Joondalup Line tunnel, leaving just a 1.5m gap between the two tunnels. The construction is over 45 per cent of the way through and has already achieved some major milestones, such as completing the

diaphragm walls for the main tunnel. This puts the project in a good position to finish on time in mid-2014.

Melbourne Metro

The Melbourne Metro project involves building a nine-kilometre tunnel across the inner city, with five new underground stations between South Kensington and South Yarra: Arden, Parkville, CBD North, CBD South and Domain. The tunnel will in turn link the Sunbury rail line, in Melbourne's north-west, to the Dandenong rail corridor in the outer south-east, allowing an extra 24,000 passengers an hour across the train network. The project has been deemed "ready to proceed" and is in the planning approvals stage.

EastWest Link

The East West Link is a freeway standard road linking the Eastern Freeway at Hoddle Street with the Western Ring Road in Sunshine West. It extends over 18 kilometres and would be constructed using a combination of methods, including tunnels, bridging and surface road sections. Site investigation works have commenced for the Eastern section between the Eastern Freeway and the Tullamarine Freeway which includes twin 3 lane road tunnels, 5 km in length.

North West Rail Link

Three organisations have been shortlisted for the North West Rail Link's multi-billion-dollar tunnelling contract. The groups still in the running are Baulderstone Bouygues North West Rail Joint Venture, Rapidlink Joint Venture and Thiess John Holland Dragados Joint Venture. The organisations, selected from six business conglomerates including more than 60 companies who expressed interest, and

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will submit tenders on 12 February 2012. Transport Minister Gladys Berejiklian said contracts to build the rail tunnels, the deepest and longest tunnels ever built in Australia, were expected to be awarded in 2013.

WestConnex

WestConnex is a 33 kilometre motorway proposal which would link Sydney's west with the airport and the Port Botany precinct. It is a NSW Government commitment to deliver a motorway scheme for Sydney in response to the recommendations from Infrastructure NSW in its State Infrastructure Strategy released in October 2012. The WestConnex proposal includes a tunnel from Taverners Hill to St Peters and duplication of the existing M5 East tunnel.

F3-M2 Link

Transurban has delivered an unsolicited proposal to design, construction, operate and maintain a motorway link between the F3 and M2 Motorways, the majority of which would be in tunnel.

NEW ZEALAND

Waterview Connection

Excavation work for the first of the Waterview Connection's two 2.4 kilometre-long motorway tunnels beneath suburban Auckland is on-track to begin next year, a ceremonial ground-breaking for a 30 metre deep trench needed for the construction of the project's twin tunnels was carried out in August 2012. The trench, which will be excavated to a depth of 30 metres, will be where the 85 metre-long tunnel boring machine will be assembled before beginning work excavation of the tunnels in 2013. The five kilometre Waterview Connection, including two 2.4km tunnels between Owairaka and Waterview, will provide a new six-lane motorway link between the Southwestern Motorway the Northwestern Motorway to complete Auckland's Western Ring Route.

Central Interceptor Tunnel

The council-controlled organisation Watercare plans to build an underground tunnel to carry sewage and stormwater from central Auckland to the Mangere water treatment station. It would then be treated and released into the Manukau Harbour.