



## **World first in tunnel lining on Airport Link Project**

Premier Anna Bligh joined workers on Australia's largest infrastructure project, Airport Link, today to inspect the world first tunnel lining machines now operating under Brisbane's northern suburbs.

At Bowen Hills the tunnels are up to four lanes wide in some places and more than seven kilometres of tunnel has now been excavated by road headers between Bowen Hills and Kedron.

Four 'variable arch-form' machines are now lining the tunnels with a series of concrete arch segments, ensuring a top quality finish and 100-year design life.

The machines have been specially designed by the Airport Link team to line tunnels with multiple lane configurations - for example at Bowen Hills the tunnel moves from four lanes to three.

Premier Anna Bligh praised the tunnelling team for their ingenuity in coming up with the machine design and progressing so rapidly with construction.

"This is the first time an arch-form has been designed to line tunnels with multiple lane configurations," she said.

"Through the use of hydraulics and a series of concrete segments, the arch forms can be used to line both a three lane, 17 metre diameter tunnel, as well as a massive cavern inside the tunnel, which is up to 30 metres in diameter."

Infrastructure and Planning Minister Stirling Hinchliffe said the team has already lined over nearly 1.5 kilometres of the Airport Link tunnels – with over 11,000 cubic metres of concrete poured.

"Two of the variable arch-form machines are being used at the Windsor site, with another one recently up and running in the Northern Busway tunnel," he said.

"Two machines are also hard at work in the Bowen Hills tunnels where they need to complete close to 30,000 cubic metres worth of lining."

Thiess John Holland Project Director Gordon Ralph said the relative speed of the variable arch-form is significant on this project as it is being completed within such tight timeframes.

"The machines have to be assembled underground which takes about two months. If they weren't variable we would have to disassemble the machines and assemble different sizes whenever we reached a cavern or new lane configuration," Mr Ralph said.

“The variable arch-form can line around 60 lineal metres a week and with several kilometres of total tunnel to line, the sooner we move from one area to the next, the better.

‘We’ve been really happy with the speed and accuracy of the machines since we commissioned the first in June and I’m confident they will help us deliver a world class tunnelling network,’ he said.

The Airport Link project is being constructed together with the Northern Busway (Windsor to Kedron), and the Airport Roundabout Upgrade Project. The combined Airport Link projects are the largest road infrastructure projects currently under construction in Australia.

When it opens in mid 2012, Airport Link will be the first major motorway connecting Brisbane city with the airport and northern suburbs, avoiding up to 18 sets of traffic lights.

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