



A bird's eye view of The Bays Station site.

Construction continues at The Bays Station

The NSW Government is delivering Sydney Metro West – a new underground metro railway which will double rail capacity between Parramatta and the Sydney CBD, link new communities to rail services and support employment growth and housing supply.

Sydney Metro West stations have been confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street in the Sydney CBD.

Two potential station locations are being investigated west of Sydney Olympic Park, including one at Rosehill Gardens which could support a significant increase in housing.

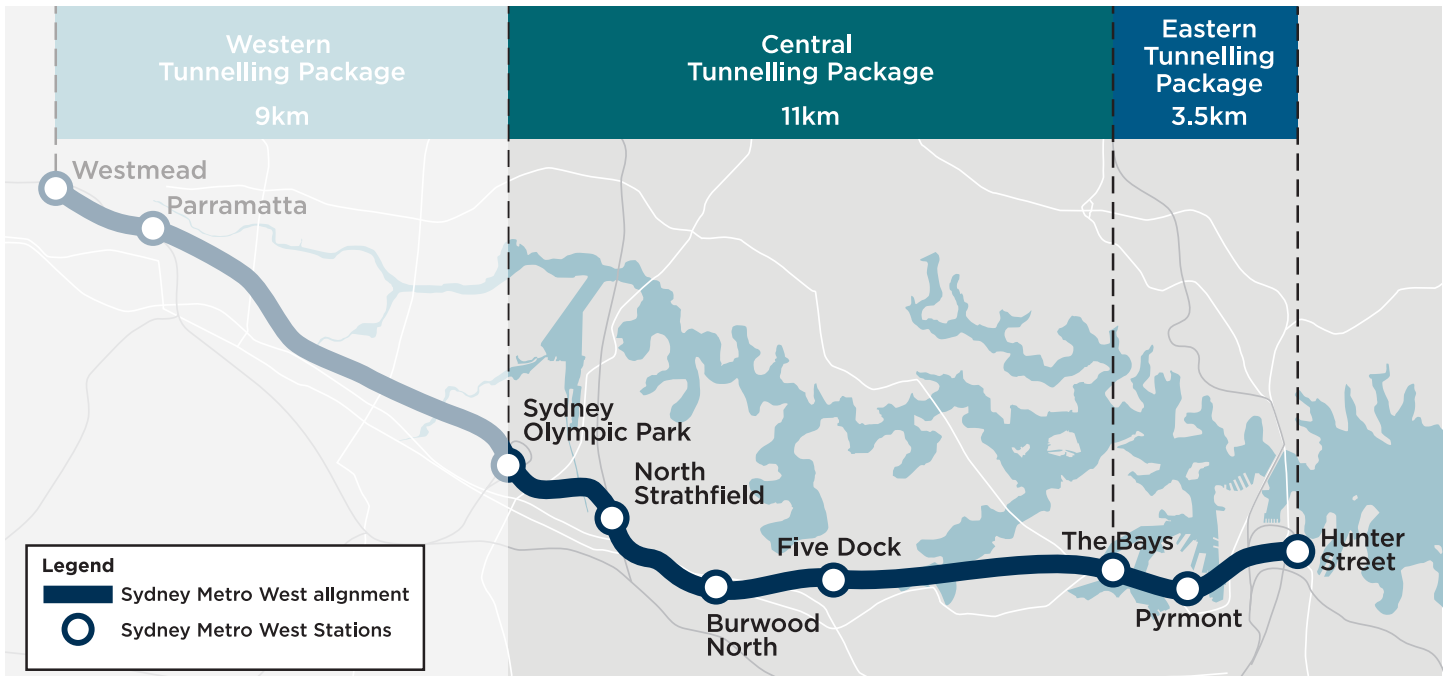
John Holland CPB Contractors Ghella Joint Venture (JCG) has been awarded the contract to deliver 3.5 kilometres of twin metro rail tunnels between The Bays and Hunter Street and excavate the Pyrmont and Hunter Street metro stations.

Acciona Ferroviaria Joint Venture (AFJV) has been awarded the contract to deliver 11 kilometres of twin metro rail tunnels between The Bays and Sydney Olympic Park and excavate five new metro stations, including a station at The Bays. Both projects have established separate construction sites at The Bays.

The Bays construction activities

The Bays Station site was the launch point for the two tunnel boring machines (TBMs) currently travelling west as part of the Central Tunnelling Package, the middle stage of tunnelling for Sydney Metro West. The TBMs are almost halfway through their journey and are expected to arrive at the station site in Sydney Olympic Park by late 2024.

Major site preparation work is also underway ahead of the arrival of two TBMs for the Eastern Tunnelling Package, the final stage of tunnelling for Sydney Metro West. Also launching from The Bays, these TBMs will excavate twin tunnels to Pyrmont and then Hunter Street.

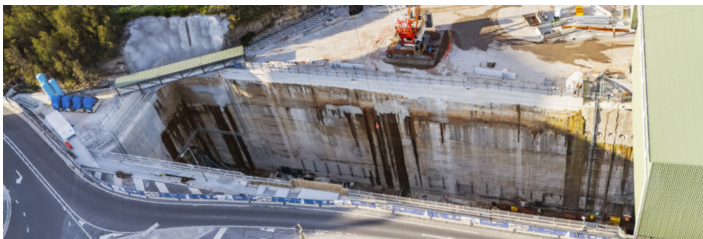


The Sydney Metro West alignment.

What's happening at The Bays?

Tunnelling for the Central Tunnelling Package began from The Bays Station site in 2023, with two TBMs—Beatrice and Daphne—excavating up to 200 metres each week as they work to carve out the 11-kilometre twin tunnels.

Tunnelling is currently being carried out 24 hours a day, seven days a week. All material excavated by the westbound TBMs is transferred via conveyor belts through the tunnel to a storage shed at The Bays Station site and then removed by trucks for reuse at various other sites across greater Sydney.



The station box at The Bays is where the final two TBMs will start their journey towards the CBD.

Ahead of the arrival of the TBMs for the Eastern Tunnelling Package this month, site establishment work has been underway, including the construction of tunnelling support facilities such as water treatment, slurry treatment and grout plants. Two more acoustic sheds have been built on site to enclose eastern tunnelling activities and minimise impacts to neighbouring residents and businesses.

The larger of the two new acoustic sheds, which is located on the western side of the site, is where excavated material from the tunnels will be stored, before being loaded into trucks and taken off site. The second acoustic shed has been built over the station box to hold the concrete segments which will line the tunnels. A gantry crane will be installed to move concrete segments between the segment shed and station box.

Station box preparation is underway for the TBM arrival, including construction of TBM launch cradles. A 75-metre tall tower crane is also being erected temporarily on site to assist with lifting and assembling the TBMs into the station box, from where they will be launched later this year. The crane being installed for this work is the largest capacity tower crane in the world and can lift up to 330 tonnes.

How does a tunnel boring machine work?

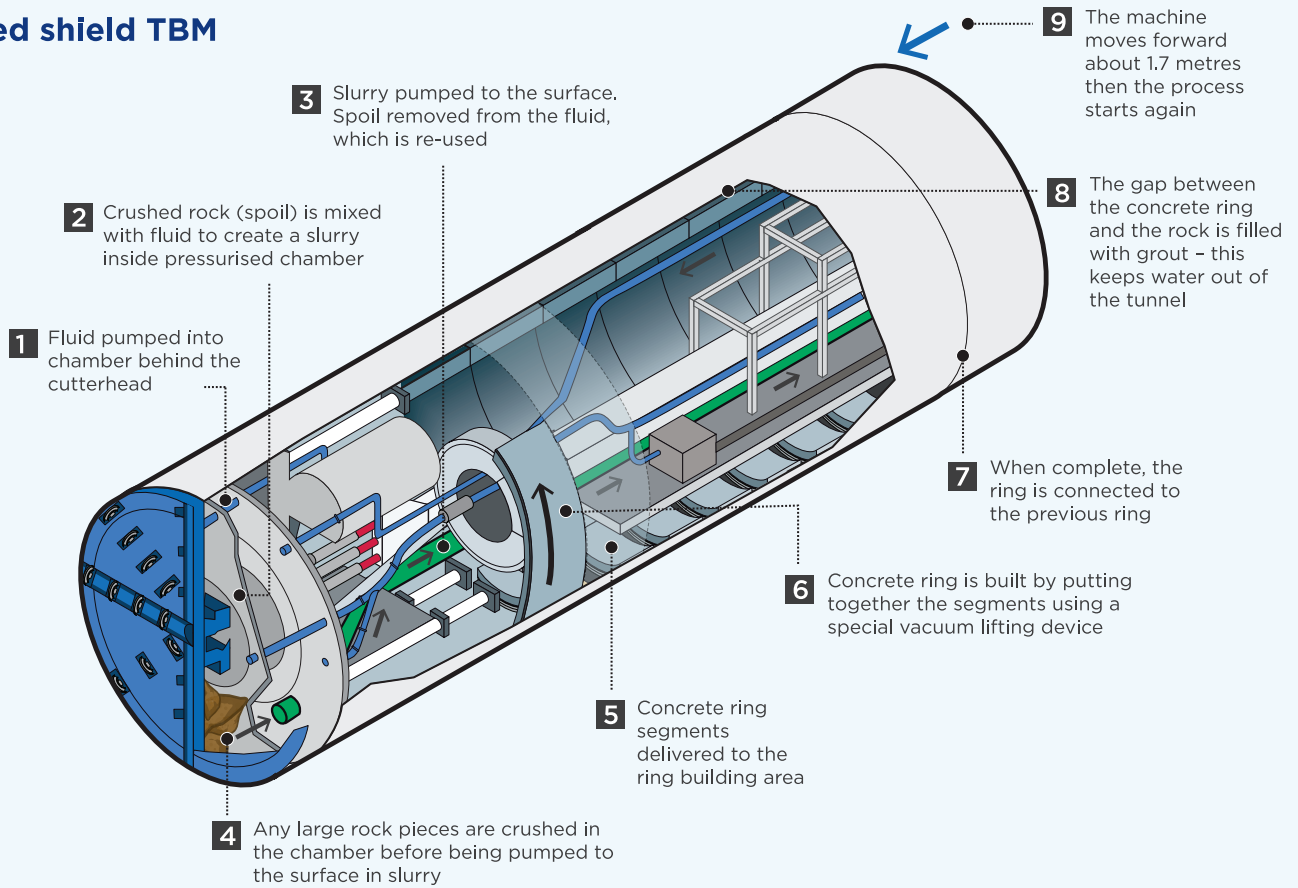
The first two TBMs launched from The Bays were double-shield, hard rock TBMs that were specially built for Sydney's geology to cut through the hard sandstone. The machines arriving this month are mixed shield TBMs, which are designed to excavate through sandstone and under Darling Harbour, where high water pressures create a unique working environment.

Each machine will arrive in 12 sections and be assembled on site. The TBM assembly is a complex process involving extensive planning and site preparation.



Testing the TBM – you can see one of the concrete segments that will be used to line the tunnels.

Mixed shield TBM



The tunnelling process of a TBM.

The TBMs will operate 24 hours a day, seven days a week, excavating at an average rate of 90 metres per week. The TBMs will excavate around seven-metre diameter tunnels at an average depth of 37 metres and remove about 530,000 tonnes of material over the course of their tunnelling journey.

The front of the TBM includes sharp cutter teeth that rotate to progressively excavate round tunnels. The machine pumps fluid called slurry, which is a mixture of a fine clay-like substance, into a pressurised chamber behind the TBM's cutterhead. The slurry is then mixed with crushed rock and pumped back to the surface to the slurry treatment plant on site, as the tunnel is built.

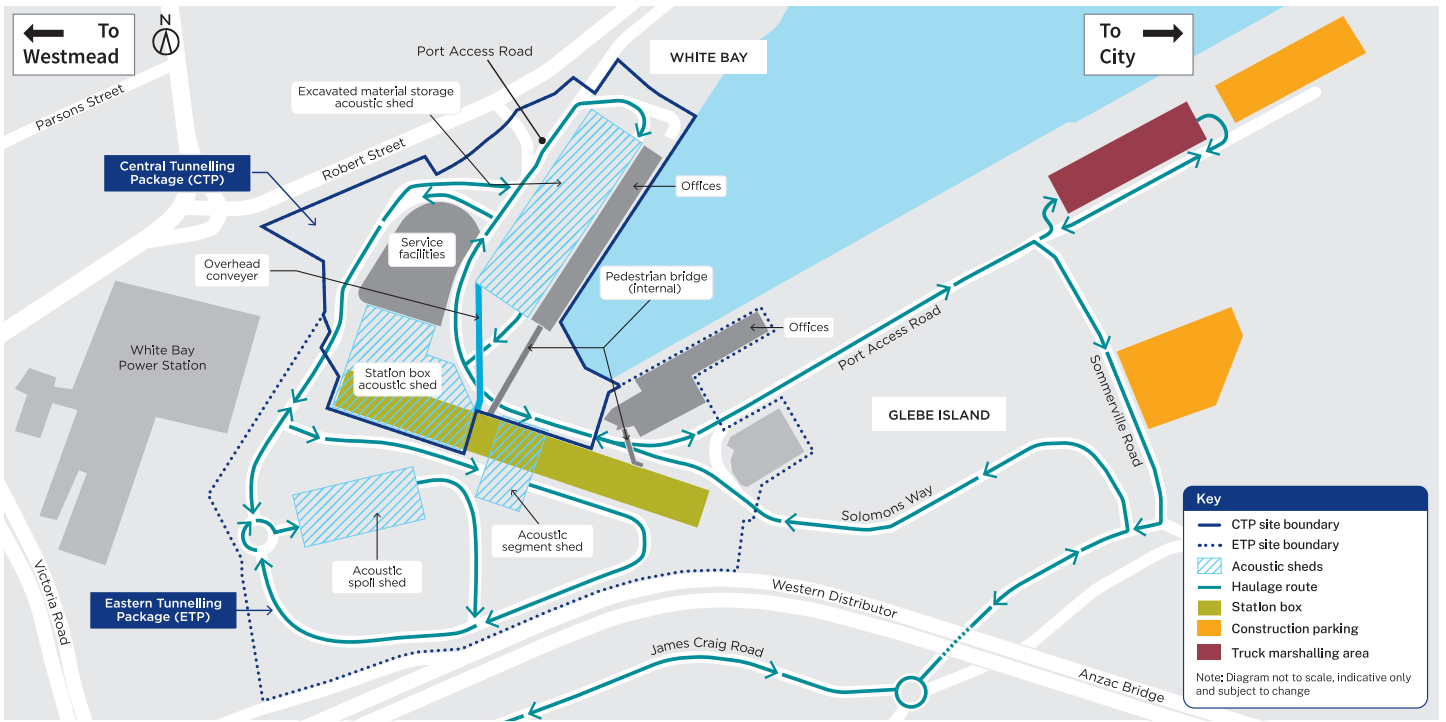
The slurry treatment plant separates the excavated material from the slurry mixture. The excavated material is then transferred via a conveyor belt into the acoustic spoil shed where it is loaded onto trucks for removal from site via James Craig Road.

The TBM has a mechanical system which lifts and installs precast concrete lining segments as the machine moves along the tunnel route.

Each segment weighs 4 tonnes, and is 3.5 metres long and 1.7 metres wide. Over 16,000 precast segments will be produced to line the tunnels between The Bays and Hunter Street.

Six month construction lookahead

Activity (subject to change)	Mar	Apr	May	Jun	Jul	Aug
Site establishment	● ●	● ●	● ●			
Oversized equipment deliveries	● ●	● ●	● ●	● ●	● ●	● ●
Tower crane installation and demobilisation	● ●	● ●	● ●			
TBM assembly and launch	● ●	● ●	● ●	● ●		
TBM tunnelling activities	● ●	● ●	● ●	● ●	● ●	● ●
Construction activity ●						
Some out-of-hours works required ●						



Construction site layout at The Bays.

Heritage highlights

The Bays Station site is adjacent to the NSW state heritage-listed White Bay Power Station, which was constructed between 1912 and 1917. It was initially built to support the local tram system, but later supplied power to the rail network and electricity grid. The Power Station remained in service until 1984, when it was decommissioned.

Remediation and conservation work has recently been completed by the NSW Government as a first step towards transforming White Bay Power Station into an arts, cultural and community space. It has opened its doors to the public for the 2024 Biennale of Sydney from 9 March to 10 July.



An aerial view of White Bay Power Station in 1930.
(Source: City of Sydney Archives – White Bay Power Station – 1930)

Our community team

JCG and AFJV have teams committed to working with the community as they deliver the project.

Please contact our teams on **1800 612 173** if you have any questions or would like to provide feedback about works at The Bays. We will continue to keep you updated on the progress of work in your area. If you would prefer to receive updates by email, please send a request to MetroTunnelsJCGJV@transport.nsw.gov.au and we will add you to the distribution list.

Work hours

Tunnelling work will occur 24 hours per day, seven days a week. Standard construction hours for the site are Monday to Friday from 7am to 6pm and Saturdays from 8am to 6pm, however some work will occur outside these hours. A notification will be provided for any expected out-of-hours work impacts.

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Contact us

If you have any questions or would like more information please contact our project team:

1800 612 173 Community infoline open 24 hours
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