

Start of tunnelling in Pyrmont

June 2024

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.

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 to excavate the Pyrmont and Hunter Street metro stations.

Cavern excavation - tunnelling

Site establishment at our Pyrmont East site is nearing completion with the steel platform and acoustic shed nearing completion, tunnelling facilities and equipment commissioned.

In July, we will start tunnel excavation of the Pyrmont underground cavern. Starting from our Pyrmont East site, we'll work underground travelling west toward Anzac Bridge. Excavation of the cavern is expected to continue until early 2025.

Tunnel excavation and supporting activities will be scheduled **24 hours, seven days a week**.

At the start of tunnelling, we'll be in the final stages of acoustic shed construction, where there will be work undertaken out of hours. During this time, you may notice some noise generated from tunnelling support activities such as use of ventilation fans, water treatment facility and supporting machinery.



Tunnelling approach

Excavation of the Pymont Station underground cavern will be completed in three stages:

Heading

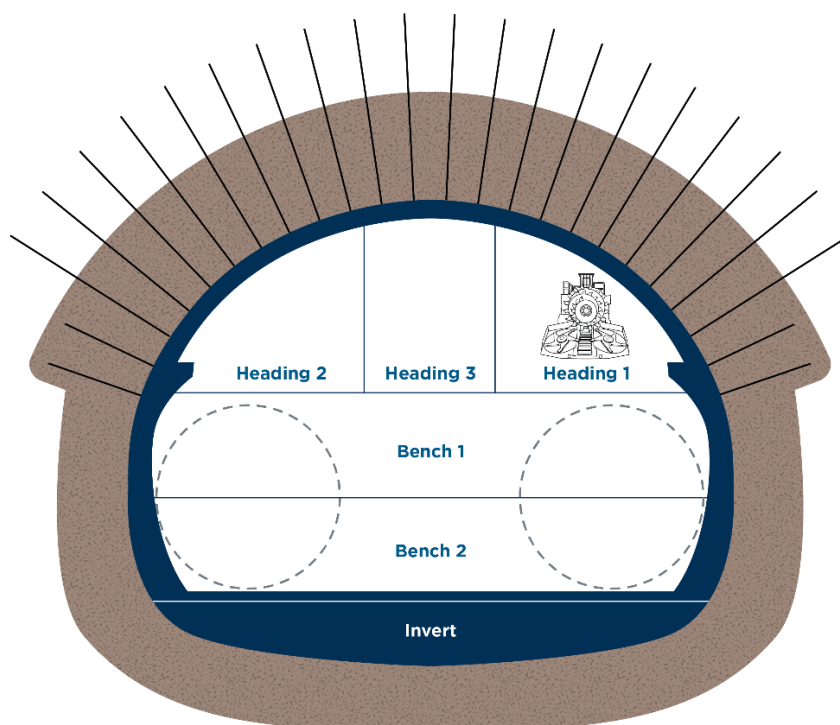
The first stage is the heading, which will involve cutting the cavern roof using a roadheader. The machine advances in stages, excavating rock and progressively installing ground support which includes rock bolts (metal rods), and shotcrete (sprayed concrete). Due to the size of the cavern, the heading is split into three smaller sections which will be advanced separately. This allows support to be installed progressively and the width of the tunnel is supported before the cavern is fully widened.

Benching

The second stage is called benching and involves removing the rock below the heading using a roadheader and rock hammer. For the station cavern, two bench levels are required. This stage is generally quicker than the heading and is completed to the full width of the cavern.

Invert

The final stage is the Invert, which involves cutting the floor of the cavern. This stage involves careful trimming of the curved tunnel floor with a roadheader. This stage also progresses quickly to the full width of cavern.



Contact us



24-hour Project Infoline **1800 612 173**



MetroTunnelsJCGJV@transport.nsw.gov.au



Sydney Metro West, PO Box K659, Haymarket, NSW 1240

Download Sydney Metro Connect from the App store or get it on Google Play.

Equipment and machinery used

May include but is not limited to; roadheaders, rock bolters, ventilation fans, water treatment facility, shotcrete rig, dump trucks, telehandlers, haulage trucks, gantry crane.

What will this mean for you?

You may notice some ground borne noise and vibration during tunnelling, which is expected to be most noticeable during excavation of each heading. Ground borne noise is generated by vibration transmitted through the ground into a structure. Each roadheader will excavate approximately 20 – 30 metres per week, pending ground conditions.

During excavation, you may notice:

- Periods of ground borne noise and vibration
- Tunnelling and support activities
- Spoil haulage using trucks
- Presence of construction workers and vehicles, traffic controllers and traffic management.

Managing our impacts

Measures will be used on site to minimise impacts from tunnelling and support activities such as construction of the acoustic sheds.

Regular monitoring will continue throughout the excavation process to ensure noise and vibration is within expected levels. Regular updates will be provided to inform residents of roadheader location and expected impacts.

Contact us

Please contact JCG Community team on **1800 612 173** if you have any questions or would like to provide feedback about the work.

We'll continue to keep you updated on the progress of excavation in your area. If you'd like to receive weekly email updates about excavation, please send a request to

MetroTunnelsJCGJV@transport.nsw.gov.au and we'll add you to the distribution list.

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