

Monthly update

Hunter Street (Sydney CBD)

December 2023

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.

Demolition work at Hunter Street East and West will continue in December.

You may notice scaffolding work at both sites on the high-rise buildings in preparation for structural demolition.

Below ground excavation of the Hunter Street station cavern and turnback tunnels will continue in December with a map showing current tunnelling progress provided over the page.

We've also begun basement retention works at both Hunter Street East and West to prepare for shaft excavation next year.

What work are we doing in December

- Excavation of the Hunter Street Station cavern and turnback tunnels using a roadheader or rock hammer
- Delivery and removal of materials, plant and equipment to Hunter Street East and West
- Structural demolition and site enabling works using an excavator with hammer, as well as soft stripping and removal of material from both sites.
- Installation of scaffold and hoist construction

- Ground, basement and building support and retention work around site parameters including drilling, installing steel, pouring concrete and excavation at both sites.
- Temporary storing of plant and equipment along site perimeters
- Temporary road, lane, and footpath closures to accommodate works around both sites and along tunnel alignment
- Use of tower crane and hoist installation and enabling works
- Utility investigations, relocations, and disconnections
- Geotechnical instrumentation and monitoring work, including borehole drilling
- Low impact site surveys and monitoring.

When and where we'll be working

We'll be working at our Hunter Street East and West sites, and across the CBD.

Above ground standard working hours are between **7am to 6pm, Monday to Friday and 8am to 6pm, Saturday.**

Underground tunnelling activities are undertaken 24 hours per day, seven days a week.

Above ground out of hours work

Some above ground work is required outside standard construction hours to minimise impacts on traffic and to ensure the safety of pedestrians, motorists and workers. If required, out-of-hours work will occur in the CBD between **6pm and 7am Monday to Saturday**.

Noisy activities are scheduled to happen earlier in the night and we aim to be completed by **12am**.

Out-of-hours work includes:

- Installation of building, instrumentation and monitoring equipment and low impact site surveys and monitoring
- Utilities identification, relocations and disconnections and geotechnical investigations, including borehole drilling.
- Delivery and removal of materials, plant and equipment to Hunter Street East and West

Managing our impacts

We aim to manage our work to avoid impacts to the community and the environment. Both our Hunter Street sites are designed to minimise impact.

This includes:

- Site planning and layout to reduce impacts
- Using quieter and less noise and vibration emitting construction methods where feasible and reasonable such as pulveriser attachments
- Installation of noise blankets where demolition is taking place.
- Dust suppression measures such as water mister attachments, water cannons, wheel washing and scaffold mesh.
- Adhering to agreed respite breaks

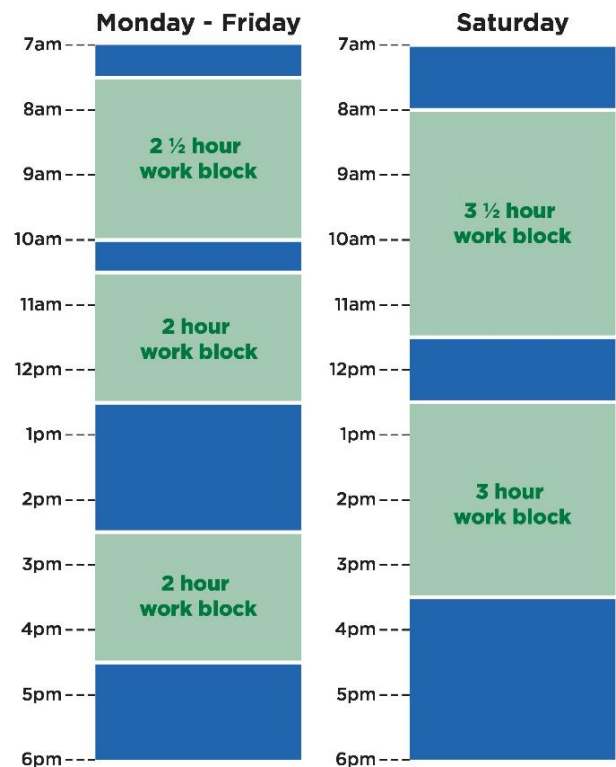
Agreed Respite Hours

As part of the Project's Conditions of Approval, JCG has sought the feedback from residents and businesses regarding their preferred respite breaks during high noise activities such as rock hammering.

Following feedback, JCG will endeavour to tailor its approach to respite hours across our sites and modify the start time depending on the location of work.

For the initial demolition at Hunter Street West, JCG will undertake high noise activities during shown in the figure below.

Any adjustment in respite hours, will be communicated to stakeholders, prior to works commencing.

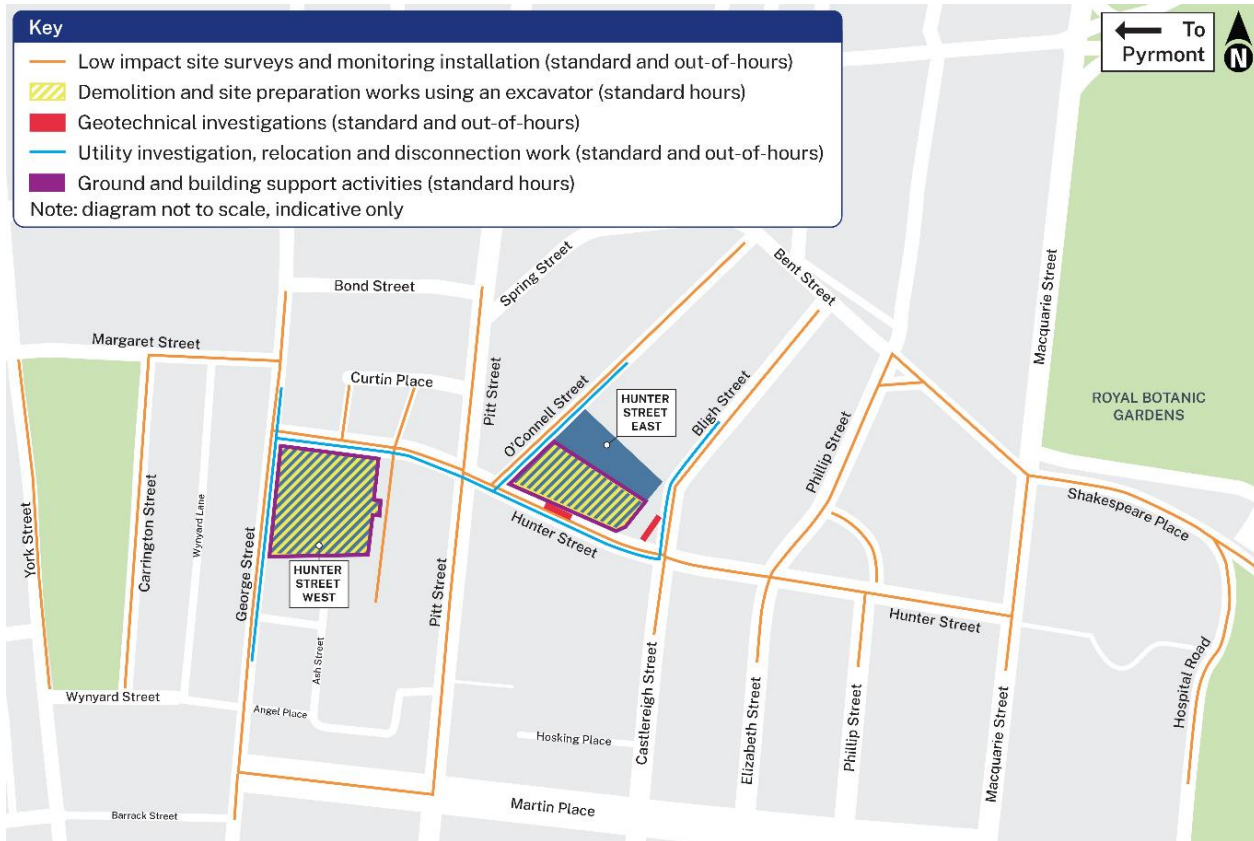


Equipment used

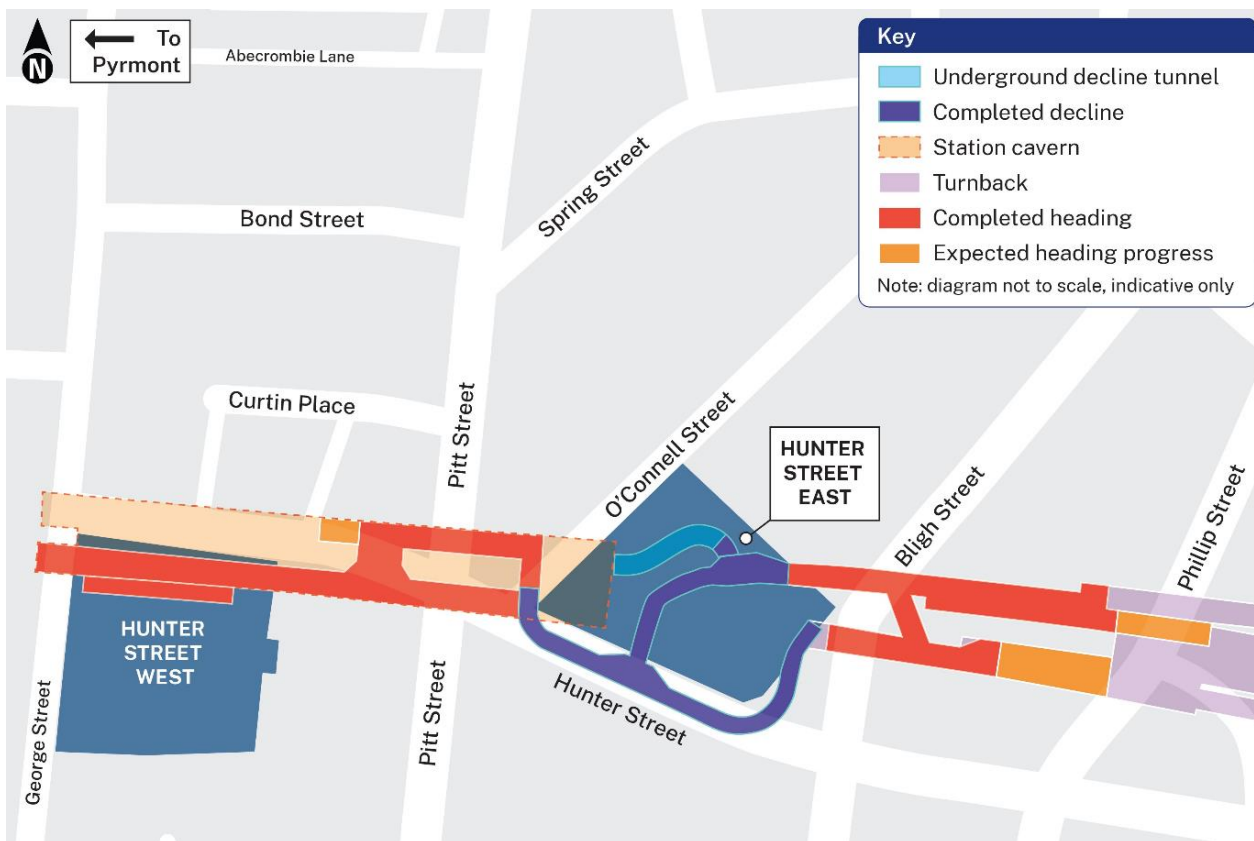
Equipment used for underground work includes but is not limited to roadheaders, rockbolt rigs, shotcrete rigs, excavators with rock breaker, concrete trucks, dump trucks, cranes, light vehicles and traffic control vehicles.

Equipment used for above ground work includes but is not limited to drill rigs, concrete trucks, excavators with rock hammer and pulveriser attachments, saw cutters, specialised ground penetrating equipment, vacuum trucks, elevated work platforms, fork lifts, hand tools including jack hammers, roadsaws and rattle guns, temporary fencing, lighting towers, excavators, trucks, light vehicles, traffic control equipment and generators.

Above ground work locations



Below ground work locations



Excavation and Tunnelling Approach

Excavation of the Hunter Street Station underground cavern and turnback tunnels are being done in three stages.

First stage - Heading

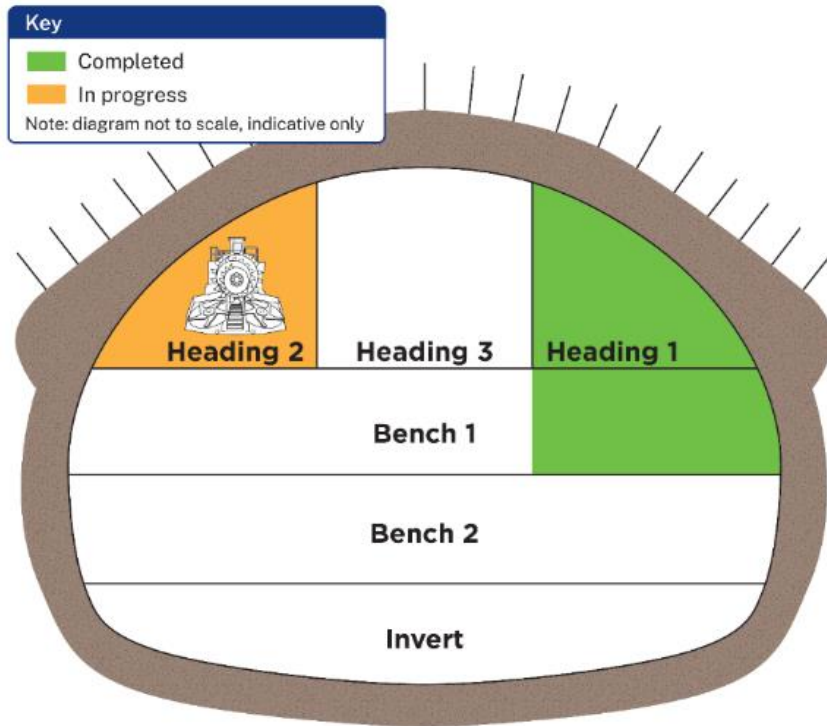
The first stage is called the heading, which involves cutting the cavern roof using a roadheader. The machine cuts out up to 3.5 metres of rock before installing ground support, which includes rock bolts (metal rods) and shotcrete (sprayed concrete). Due to the size of the station cavern, the heading is split into three smaller sections which are being excavated separately. This allows each section of the tunnel to be supported before the cavern is fully widened.

Second stage - Benching

The second stage is called benching and involves removing rock below the heading using a roadheader and rock hammer. For the Hunter Street Station cavern, two bench levels are required. This stage is generally completed more quickly than the heading and the benches are excavated to the full width of the cavern.

Third stage - Invert

The final stage is the invert, which involves cutting the floor of the cavern. This requires careful trimming of the curved tunnel floor with a roadheader to the full width of the cavern. The invert will be completed in late 2024.



The stages of underground cavern excavation at the Hunter Street Station site

Contact us



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