Sydney Metro – Western Sydney Airport



Australian Government





Four tunnel boring machines will build the Sydney Metro - Western Sydney Airport tunnels.

# **Tunnelling starts early 2023**

Sydney Metro – Western Sydney Airport is the new metro railway line that will service Greater Western Sydney and the new Western Sydney International (Nancy-Bird Walton) Airport.

A city-shaping project, the 23-kilometre new railway with six metro stations will connect the Western Sydney Aerotropolis in the south with St Marys in the north-where customers can connect to the existing Sydney Trains suburban T1 Western Line. The NSW and Australian governments have a shared objective of having Sydney Metro-Western Sydney Airport operational when the airport opens for passenger services.

CPB Contractors Ghella (CPBG) was awarded the Station Boxes and Tunnelling (SBT) Works contract for the project in December 2021. CPBG will design and build the twin 9.8-kilometre tunnels for the north and south sections of the project.

Two tunnel boring machines (TBMs) will launch from the Orchard Hills Station site and carve out the 4.3-kilometre tunnels north via Claremont Meadows to the St Marys metro station site. Another two TBMs will build the 5.5-kilometre tunnels between the Airport Business Park Station, Airport Terminal Station, Bringelly and the Aerotropolis Station sites. The TBMs are due to start work in early 2023. CPBG will also excavate five station boxes at St Marys, Orchard Hills, Airport Business Park, Airport Terminal and Aerotropolis and two service facilities at Claremont Meadows and Bringelly.

# Planning for a metro extension underway

Sydney Metro is progressing a final business case for an extension of the Sydney Metro - Western Sydney Airport from Bradfield to Leppington/Glenfield, connecting the south-west to the new Western Sydney Airport.

The business case is being jointly funded by the Australian and NSW Governments and will take 18 months to two years to complete.

The connection between Bradfield and Glenfield has been identified as a strategic opportunity for investigation for some time. The final business case will consider options and alternatives for the extension, including station locations, and will provide the evidence base to inform an investment decision for the project.

Sydney Metro will engage with a range of stakeholders through the business case process.



Demolition of Station Plaza and bus interchange at St Marys to make way for the new metro station between early June (left) and late August (right).

## Making way for metro

The St Marys metro station will be built alongside the existing St Marys Station. Once complete, the new metro line will connect St Marys and the growing Western Sydney region with the wider metropolitan area, providing numerous economic and social benefits.

The Station Plaza shopping centre and bus interchange have been demolished to make room for the construction site where the new station will be built.

A station box will be excavated throughout 2022 and 2023 ahead of the arrival of the two tunnel boring machines.

Early demolition began in April 2022 while work to remove the plaza building began in mid-July. All demolition was completed in mid-September.

Traffic control is in place to ensure vehicles and pedestrians can move safely around the area. Noise and vibration monitoring is being carried out to ensure our work remains within accepted limits.

CPBG thanks the local community for their continual support and patience while we carry out this work.

## Footbridge at St Marys

The footbridge at St Marys is part of the Sydney Metro - Western Sydney Airport project. This pedestrian footbridge between the new St Marys metro station, Harris Street car park and existing Sydney Trains platforms will include a pedestrian plaza at the northern terminus of the footbridge, associated landscaping, street furniture, wayfinding and bike storage.

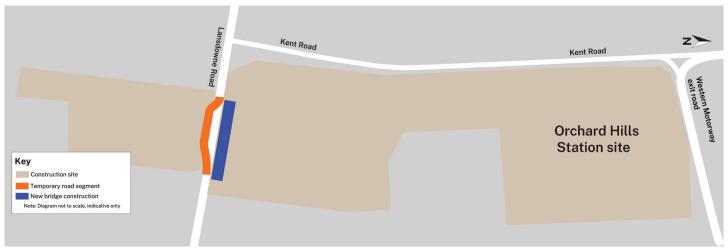
Works on site will be largely undertaken in existing scheduled weekend closures of the Sydney Trains T1 line to minimise impacts on the travelling public. Works are expected to start in 2023 and continue through to late 2025 when the site will be handed over to Sydney Metro operations for system testing before passenger services commence.

## Orchard Hills road and bridge

Kent and Lansdowne Roads, which run along the Orchard Hills site boundary, will be upgraded and widened. This includes new line markings, signage, kerbs and gutters.

A new permanent bridge will be built at Lansdowne Road to allow for excavation of the new station dive underneath. A temporary road will be installed next to Lansdowne Road for up to six months to support work to build the bridge and maintain local access.

Traffic control will be in place to help motorists, pedestrians and cyclists with the changed traffic conditions.



A temporary road will be installed next to Lansdowne Road while the bridge is built.

## What's the plan?

### Aerotropolis Precinct Plan

In March 2022, the Transport Minister approved the Aerotropolis Precinct Plan which includes new planning and precinct outcomes for 11,200 hectares of land and creating 10 precincts from an initial five. The plan supports the vision to deliver the third largest economy by 2036 supporting 100,000 jobs and 11,400 new homes.

The precinct plan aligns with the Aerotropolis Statement Environmental Planning Policy (Aerotropolis SEPP) and the Western Sydney Aerotropolis Plan (WSAP). Find out more at: http://planning.nsw.gov.au <u>Western Sydney</u> <u>Aerotropolis Precinct Plan-March 2022</u>.

## Master plans in Western Sydney

The Western Parkland City Authority (WPCA) and Inghams Property Group have submitted a request to the Department of Planning and Environment to start a master-planning process for the Aerotropolis Precinct. This will include a co-designed masterplan and development outcomes with the nominated Technical Assurance Panel.

Find out about the Aerotropolis Masterplan Guidelines at <u>https://www.planning.nsw.gov.au/-/media/Files/DPE/</u> <u>Guidelines/Aerotropolis-Master-Plan-Guidelines-2021-12.</u> <u>pdf?la=en</u>

## St Marys Structure Plan

The Structure Plan details a 20-year vision for future growth and development outcomes for St Marys. It provides an environmental, social and economic understanding of the existing town centre, and develops a vision statement, local character statement and strategic and spatial planning directions.

The plan is on exhibition until 26 September 2022 at: https://yoursaypenrith.com.au/stmarys2041

## **Cumberland Plain Conservation Plan**

The Cumberland Plain Conservation Plan (CPCP) facilitates growth in Western Sydney to 2056 and beyond. It will contribute to the Western Parkland City by supporting the delivery of housing, jobs and infrastructure while protecting important biodiversity including threatened plants and animals. For more information, visit https://www.planning.nsw.gov.au/ Policy-and-Legislation/Strategic-conservation-planning/ Cumberland-Plain-Conservation-Plan. For enquiries email CPCP@planning.nsw.gov.au or call 02 9585 6060.



The Aerotropolis station will be built at this greenfield site – the commercial heart of the future town centre.

# Out and about



Project staff handed out information and answered questions.

Sydney Metro, SBT and SCAW staff have attended numerous events and venues in recent months to provide information to the community about the Sydney Metro– Western Sydney Airport project. The events included:

- Western Sydney Airport Community Open Day
- Western Parklands City Authority Cross Agency
  Community Day
- Penrith Show
- Luddenham Market
- St Marys Spring Festival
- Pop-ups at local shopping centres.

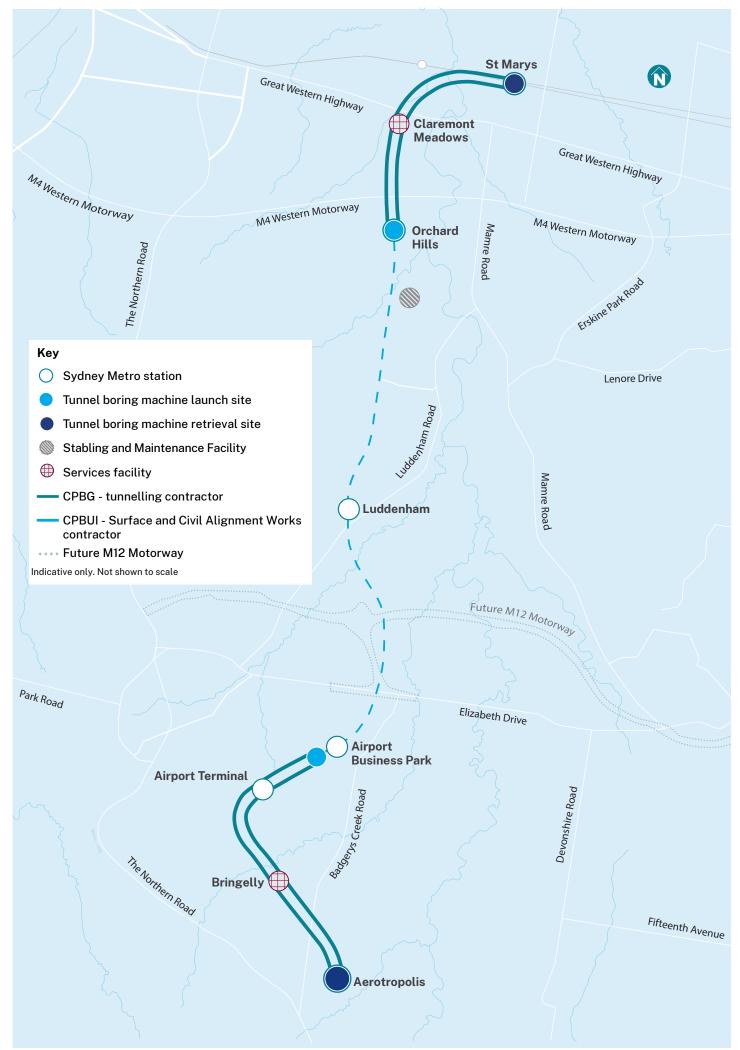
It was a great opportunity for people to have their questions answered and learn about how Sydney Metro will benefit communities along the alignment. You will see more of the team out and about as the project progresses.

## Setting up the tunnelling sites

Work is underway to set up the construction sites to build five metro stations and support tunnelling operations. Aerotropolis, Airport Terminal, Airport Business Park, Bringelly, Orchard Hills, Claremont Meadows and St Marys are being transformed into operational worksites.

Activities involved in setting up the sites include:

- carrying out site, geological and contamination investigations to understand ground conditions
- installing hoardings and fencing
- setting up site offices, worker amenities and sheds
- connecting utility services such as power and water
- pouring concrete areas, known as hard stands, to support heavy plant like cranes and trucks
- building haul roads so trucks can move safely as they transport materials.



## What is piling?

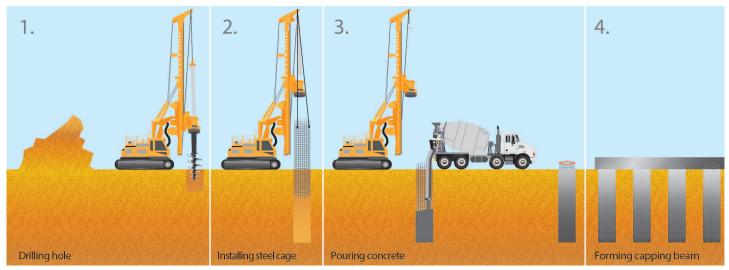
Piling works will be carried out across most of the CPBG sites in the coming months before the project can start digging out the station boxes and services facility shafts.

Piling is a process that creates a supporting foundation for deep excavations and tunnelling works. The process involves installing concrete columns into the ground to form a retaining wall. Piling construction involves:

- drilling holes into the ground using a bored piling machine
- using a crane to install a steel cage to reinforce each hole
- pouring concrete into each hole
- forming a concrete capping beam across the top of the piles to link them together and hold them in place.

In total, 31,550 metres of piles will be built across our sites. This will be done using a bored piling technique to reduce noise and vibration impacts on the local community.

Excavation of the station boxes is due to start in late 2022 and continue until mid-2023. The community will be informed of these works before they begin.



Steps in the piling process.

## Minimising community impacts

Major infrastructure projects like Sydney Metro-Western Sydney Airport have the potential to impact on our neighbours. A range of measures are used on the construction sites to minimise noise, vibration and dust. These include:

- noise walls and noise blankets (made specifically for construction sites) to reduce noise
- wheel washes to stop trucks tracking mud onto roads
- barriers to prevent dust leaving site and covers on all loaded trucks leaving sites
- sprinkler systems and hoses to control dust and stop particles from becoming airborne
- monitors to ensure the project stays within noise and vibration guidelines.



Sprinkler systems were used extensively during demolition work at St Marys to supress dust.

#### Fossils at Aerotropolis

Geological investigations are carried out before major construction works start to better understand the ground. Drill rigs are used to take samples up to 40 metres deep to help assess the ground conditions.

Often during this process, fossils are dug up which show the preserved remains of living things and objects from millions of years ago.

Recently, a fossil of plant material remnants from the middle Triassic Period was found on the Aerotropolis site. Although the fossil isn't particularly valuable, it's interesting nonetheless to get a glimpse of life from so long ago!



Plant fossils found during geological investigations at the Aerotropolis site.

#### **Truck movements**

Construction works will soon start to ramp up along the project alignment so the community can expect to see more heavy vehicles on local roads.

All truck drivers will follow traffic control guidelines and only use approved routes as they move to and from the site.



Trucks working on the Sydney Metro - Western Sydney Airport, SBT project will display the sticker above.

The trucks will also have stickers applied that display the project's name and State Significant Infrastructure project (SSI) number, and the 24 hour community information line phone number. This means if you have any questions or concerns about a truck, you can take a photo or write down the SSI number and give us a call.

### Nest boxes for wildlife

A number of trees at the Bringelly site need to be cleared ahead of construction activities. Some of the trees have hollows where wildlife may be living.

An important first step before clearing these trees is to install nest boxes onto nearby trees for a minimum of 30 days. This gives wildlife time to migrate to their new nest box homes before the trees are removed.



Sixteen nest boxes have been installed in trees at the Bringelly site.

## Surface and Civil Alignment Works project

#### **Project overview**

CPB contractors and United Infrastructure Joint Venture (CPBUI JV) is the contractor for the Sydney Metro – Western Sydney Airport, Surface and Civil Alignment Works (SCAW) project, from Orchard Hills to the Airport Business Park. The major work of the project consists of:

- about 10.4 kilometers of embankments, cuttings, viaducts and bridges for the above ground section of the project
- 6.9 kilometres of earthworks to prepare the base for track formation
- 3.5 kilometres of elevated viaduct between Orchard Hills and Luddenham
- 205 metres of bridges, including a bridge over the new M12 Motorway
- Earthworks for the Stabling and Maintenance Facility at Orchard Hills.

#### What's planned next?

The project team is planning to carry out the following activities up to 30 November 2022:

- consulting with the community and agencies
- carrying out site, geological and contamination investigations in Badgerys Creek and Luddenham
- building the site compound access roads for Orchard Hills and Badgerys Creek
- establishing the Orchard Hills, Luddenham and Badgerys Creek compounds
- commencing fencing for the Orchard Hills site compound
- preparing the M12 bridge work site.





Access the virtual room via the QR code.

#### Virtual information room open

Sydney Metro – Western Sydney Airport recently opened a virtual community engagement room to provide the community with information about the Place, Urban Design and Corridor Landscaping Plan as it relates to the Surface and Civil Alignment Works (SCAW).

The community was invited to give feedback on plans for the aboveground section including for the bridges, viaducts, wildlife crossings and preserving the Cumberland Plain Woodland. The period for feedback closed on 9 September 2022, but the room remains open for general information.



SCAW project alignment map.

# Airport Metro third major contract package

The final of the three major packages to deliver the Sydney Metro-Western Sydney Airport project, will be awarded at the end of 2022.

The successful tenderer for the Stations, Systems, Trains, Operations and Maintenance package (SSTOM) will build six new metro stations and elements of the surrounding precincts, along with the Stabling and Maintenance Facility.

They will also provide the rail infrastructure and systems required for the supply, commission and operations of the new trains, and when complete they will operate the Sydney Metro–Western Sydney Airport line when services begin.

## **Construction work hours**

Work at all SBT and SCAW construction sites will generally be carried out during standard construction hours of Monday to Friday 7am to 6pm and Saturday 8am to 1pm.

Night-time works will sometimes be needed for safety reasons, to meet authority requirements or minimise traffic impacts. Residents and businesses will be notified in advance of any out-of-hours work.

Once the TBMs launch they will tunnel 24 hours a day, seven days a week. Measures will be in place at the tunnelling support sites at Orchard Hills and Airport Business Park to reduce impacts on our neighbours.



CPBG team members at the St Marys site.

## Join the tunnelling team

A wide range of job opportunities, both above and under ground, are available on this iconic project. We have salaried positions for people with experience in delivering major infrastructure and tunnelling projects including:

- engineers (senior project, project, site, quality, shift and graduate roles)
- superintendents, foremen, supervisors and shift bosses
- project support in safety, environment, sustainability, HR, community, finance, planning and administration.

The SBT project is also looking for expressions of interest from tunnellers and all tunnelling trades.

### What can the SBT project offer you?

We can offer you:

- an opportunity to deliver a key piece of Sydney's infrastructure
- a career with a Tier 1 construction company
- the chance to work closer to home if you are a Western Sydney local
- long-term employment with companies that have an impressive pipeline of future opportunities
- culture that values diversity, innovation, respect, wellbeing and teamwork.

Email your expression of interest and resume to jobs@cpbg-sbt.com.au.

## Want to stay up to date?

SBT works will include 24-hour tunnelling, excavation and deliveries. If you live or work near SBT sites or along the tunnel alignment, the tunnelling team wants to keep you informed about construction impacts and progress. At times the project would also like to contact you directly, so your feedback can help us decide the best ways to reduce impacts on our neighbours.

You can choose to be added to our email and/or SMS distribution lists or receive updates in your letterbox. Register today at sydneymetrowsa@transport.nsw. gov.au or call the Community Information Line on 1800 717 703.



#### Have your say

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

1800 717 703 Community infoline open 24 hours

sydneymetrowsa@transport.nsw.gov.au

Sydney Metro – Western Sydney Airport PO Box K659, Haymarket NSW 1240



#### Translating and interpreting service

If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on 1800 717 703.