



Precast elements lifted into the box to build the future station platforms

## Station platforms delivered and constructed at Waterloo

July 2021

### Future station platforms take shape

The Waterloo site is beginning to look a lot more like a metro station after the first platforms arrived.

Deliveries of the precast elements that will form the future platforms began arriving in mid-April with the southern tower crane lifting each section, weighing about seven tonnes each, from the truck and into place in the station box.

The precast sections, shaped like culverts, are being placed in two lines along the entire length of the station box. Planks are gradually being placed across the box-like culverts to form the station platform. Altogether, 165 precast elements will be used to form the 170-metre-long platform. The platform precast sections were manufactured locally in Western Sydney.

Directly above, the roof of the station is taking shape with delivery of 214 beams, weighing up to 75 tonnes each, having begun in late April.

These extremely heavy precast concrete structures are being placed onto the top of the 10-metre-high perimeter walls, which are being constructed along the sides of the station box. Once in place, the beams effectively form

the roof of the platform area and the floor of the station concourse. The precast beams were manufactured locally in Newcastle.

### Sydney Metro is Australia's biggest public transport project

Services started in May 2019 in the city's North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations at Martin Place, Pitt Street and Barangaroo and new metro platforms at Central.

In 2024, Sydney will have 31 metro railway stations and a 66 kilometre standalone metro railway system. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre.

The new Waterloo integrated station development includes construction of the new Waterloo metro station by John Holland, while a joint venture between John Holland and Mirvac will deliver the Waterloo Metro Quarter, including buildings above and next to the station.



## Waterloo opens its gates

In April, the Waterloo team opened the doors to the site and welcomed members of the community for an information session about the station and development and to take a look at progress inside the station box.



Community members attend the open day to see site progress

Thank you to the people who turned up to see what's happening behind the hoarding. There was an air of excitement with plenty of questions for our site team about the status of the future station and the over station development.



There was something to see, even for our youngest guests



Families got a first look into the future metro station

## Innovative system ensures Waterloo station walls are stronger than ever

The bright blue layer of waterproofing inside the station box is beginning to disappear behind a wall of concrete as the internal perimeter walls of the station are being built with a series of concrete pours.

The team at Waterloo is using 10-metre-high A-frame shaped formwork, a first in Australia to use an A-frame of this height. The use of the higher A-frame is more innovative than the conventional six-metre-high system because it allows for more concrete to be poured in a single day, resulting in stronger walls.



The A-frame formwork is higher than standard at 10 metres tall



The 10-metre-high A-frame is a first of its kind in Australia





An artist's impression of the Waterloo Metro Quarter

## Waterloo Metro Quarter exhibition

The Waterloo Metro Quarter (WMQ) will become a revitalised precinct for people who live and work in the surrounding area. Featuring open spaces, including a new public plaza on Cope Street and Raglan Walk, which is a covered pedestrian laneway, leading to new community facilities and a range of retail services and cafes.



An artist's impression of the public spaces in the new Waterloo Metro Quarter

Modifications to the development plan for the new Waterloo Metro Quarter have been lodged with the Department of Planning, Industry and Environment (DPIE). Five development applications have been submitted, with the concept design approved by the DPIE in June.

The five development applications for planning approval, include a:

- modification to the concept approved in late 2019 (including a change in use for the Northern Precinct from residential to office.)
- commercial office building
- residential building with affordable housing

- social housing and student accommodation buildings and a plaza along Cope Street
- basement underneath the office and residential buildings.

The John Holland and Mirvac joint venture have submitted a response to the Department of Planning, Industry and Environment (DPIE) to all the public and authority submissions received following the public exhibition period for all five development applications.

With the concept modification being approved by the DPIE in June, approval of the detailed design and construction of the entire precinct is expected later this year. The WMQ design also received formal endorsement from the independent Design Review Panel meaning that the precinct meets the design quality benchmarks set forward in the Concept Approval.



An artists impression showing Sydney Metro's new Waterloo Station and development



## Six-month look ahead

Activity (subject to change)	Jul	Aug	Sep	Oct	Nov	Dec
Utility work on Raglan and Cope streets to supply the site with temporary power	●					
Removal of overhead wires around the site and replacing them with underground services		●			●	●
Handover of platform level to Systems Connect for track construction			●			
Truck deliveries including concrete, equipment and reinforcement	●	●	●	●	●	●
Movement of plant, equipment and materials on site, including crane lifts	●	●	●	●	●	●
Excavation, formwork, reinforcement installation, welding, concrete pouring and hammering	●	●	●	●	●	●
Delivery and installation of precast beams and planks	●	●	●	●	●	●
Service relocations on Botany Road, Cope, Raglan and Wellington streets ahead of overhead wire removals	●	●	●	●	●	●
Installation of Sydney Water services around the site	●	●	●	●	●	●

## Tower cranes arrive at Waterloo

Earlier this year, two tower cranes were installed at the Waterloo Station site. A competition was held to name these cranes, which would be doing the bulk of the heavy lifting within the station box.

An employee from crane company Melrose named the northern tower crane Burrumering, in the Dharug dialect this means eagle. A resident on Raglan Street named the southern crane Bulbuwul Bill on behalf of the community. In the Dharug dialect, Bulbuwul means strong. The winners both received a \$100 gift card.

In February, Bulbuwul Bill was delivered to site in pieces, with each section being lifted into place using the mobile cranes already on site. The base of the towering 45-metre-high structure was cast into a 1.43-metre concrete slab to provide support and stability for lift operation.

Commissioning the crane took about two days, with the crew rigorously checking that each connection was secured correctly. The process also involved multiple test lifts to ensure the crane was in perfect working condition and able to handle the required loads. Overall, it took five days to fully install the tower crane.

The second tower crane, Burrumering, was then erected at the northern end of the site in early March. Its main purpose is to install precast planks, which weigh up to seven tonnes, while the first tower crane will do the heavier lifting to install precast beams weighing up to 75 tonnes each. Both cranes will also lift steel reinforcement and formwork into the station box. The tower cranes will be used at Waterloo until the street level of the station is finished.



The tower cranes have been doing the heavy lifting inside the Waterloo station box

## Contact us



**1800 171 386** Community information line open 24 hours



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