



Arden and Parkville Community Reference Group

Meeting 22

Friday 11 February 2022



Agenda

Friday 11 February 2022



Item	Topic	Presenter
1	Introductions and welcome <ul style="list-style-type: none">Outstanding Actions and Issues RegisterZoom meeting housekeeping	Chris Lovell
2	Project-wide construction update	CYP
3	Parkville construction update <ul style="list-style-type: none">2022 lookaheadCurrent and upcoming works	CYP
4	Arden construction update <ul style="list-style-type: none">2022 lookaheadCurrent and upcoming works	CYP
5	Overview of cross passage construction	CYP
6	Creative program update	CYP
7	Stakeholder and communications update	CYP
8	General feedback and items for future discussion	All
9	Meeting close <ul style="list-style-type: none">Next meeting: Friday 8 April 2022	Chris Lovell

Presenter: Chris Lovell

Construction update: Project wide

State Library Station



- The central cavern lining is complete
- Works to construct an adit underneath Little La Trobe Street are continuing
- Excavation is taking place at the B4 (final) level within the Little La Trobe Street shaft
- The B4 slab is complete at Franklin St
- Mechanical and electrical works have commenced for substations and overhead wiring for trains.



- Works are now underway to excavate basement 4 and 5 at the Flinders Quarter OSD
- Tower crane footings are now in place on Swanston Street outside the City Square shed in preparation for tower crane installation to commence in March
- Structures and lining works are progressing within the central cavern and rail tunnels now that excavation is complete.



Anzac Station



- The base slab has been completed
- Work continues on lining walls, column construction and firewalls
- The acoustic shed that sits above the station box is currently being dismantled and removed from site.



Construction update – Parkville

Grattan Street east

March: Goods lift
service relocation

February:
Capping
beam removal

March:
Station box
backfill

March: Royal
Parade entrance
escalator footing

February:
Gantry crane
removal

February: Completion of
excavation for the Royal
Parade underpass

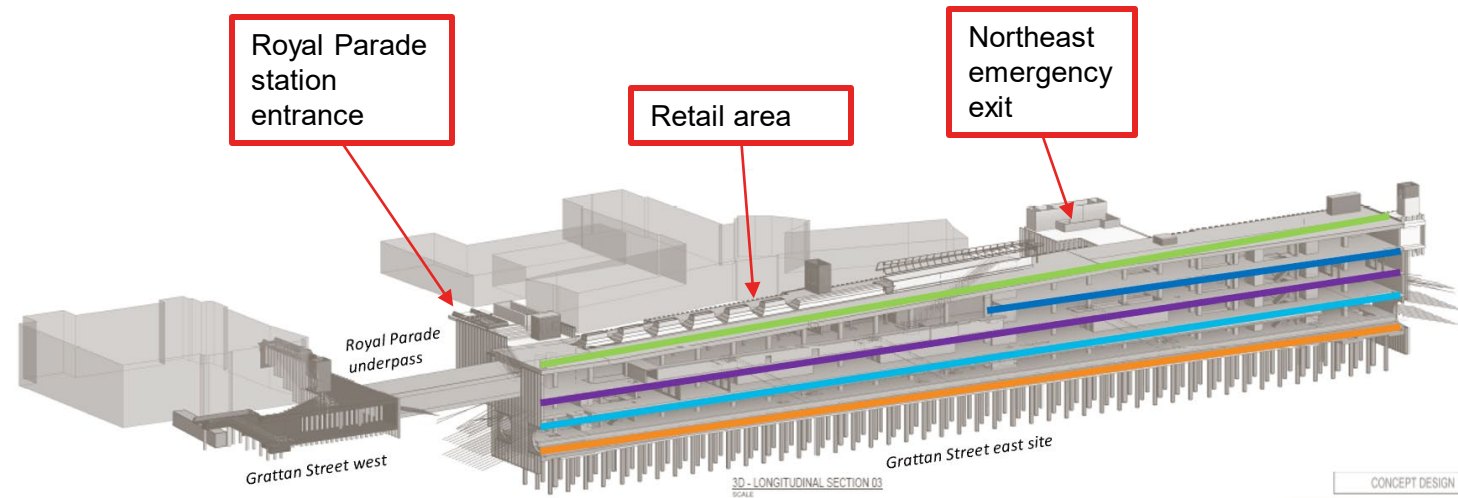


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Permanent structure works



- The station box roof slab was completed in late December
- Royal Parade entrance: Lining walls are complete, lower level roof slab formwork has commenced
- Retail area: Lining walls have been completed. Formwork and reinforcement installation for the final finger joint (roof) have commenced
- Northeast emergency exit: The final lining wall has been completed. There is one load bearing internal wall which is currently being worked on. Following this, the roof slab will commence.



Roof slab
B1 slab
B2 slab
B3 slab
B4 slab

**Please note – wall linings and columns are completed in advance of suspended slab works across all levels*

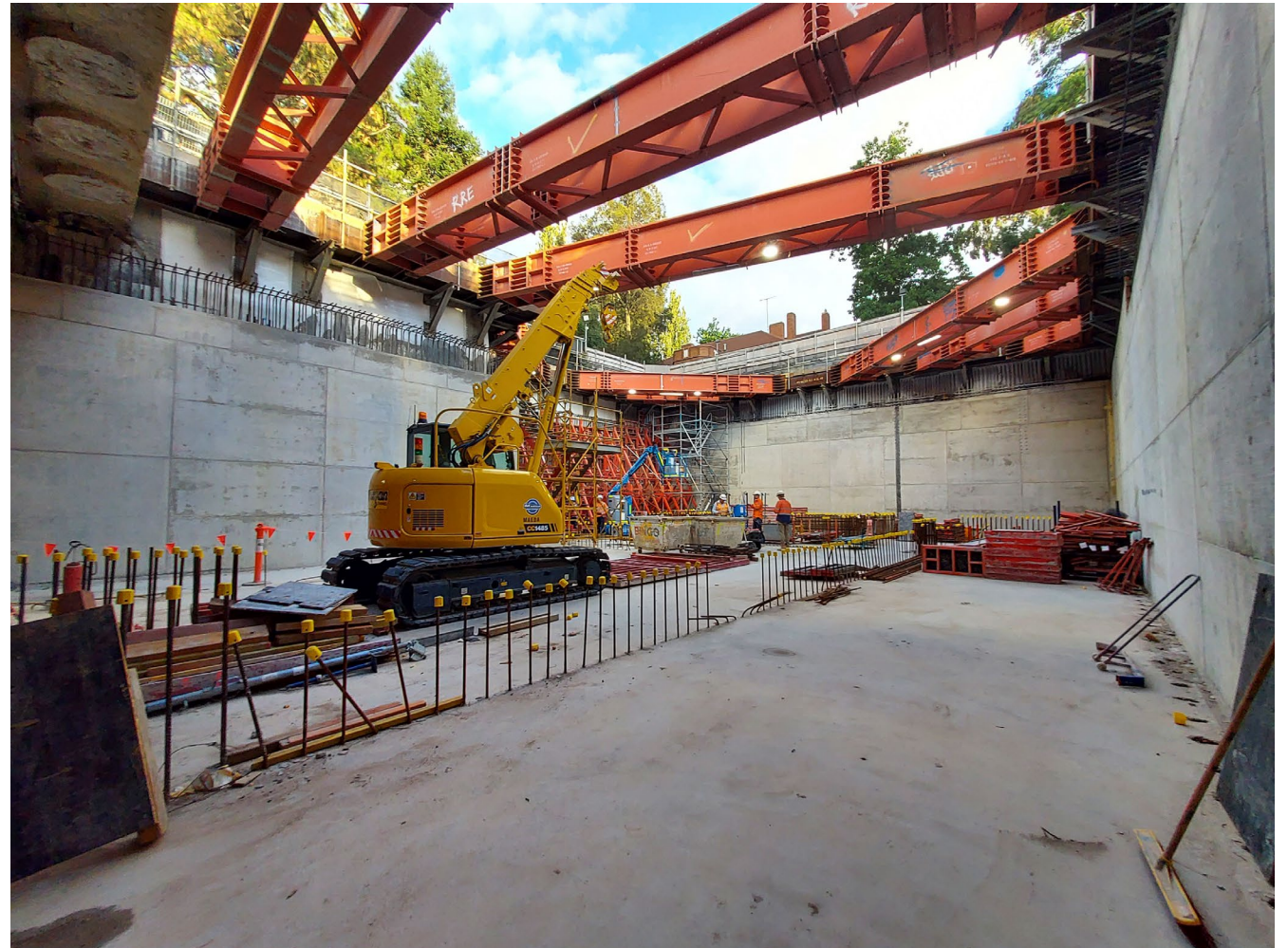
- Installation of blockwork is ongoing on B3, B2 and B1
- Mechanical, electrical and plumbing (MEP) / service installation is ongoing on B4, B3, B2 and B1
- Platform construction is ongoing on B4
- Focus on B4 MEP and services to handover areas to the rail tunnel fit out team.



Northeast emergency exit



- The final lining wall has been completed
- There is one load bearing internal wall which is currently being worked on
- Following this, the roof slab will commence.



Royal Parade entrance

Escalator works



- Site boundary change required to facilitate works for the escalator at the Royal Parade entrance
- Pedestrian arrangements are subject to ongoing consultation with the University of Melbourne
- Following escalator footing construction, works in this area include steel installation, escalator installation, legacy utilities and landscaping
- Works are expected to commence from mid to late March.



University Square Car Park works:

- Works to modify part of the University Square Car Park structure on levels B1, B5, and the plaza are complete.

Grattan Street east site:

- Waterproofing and lining wall works are ongoing.



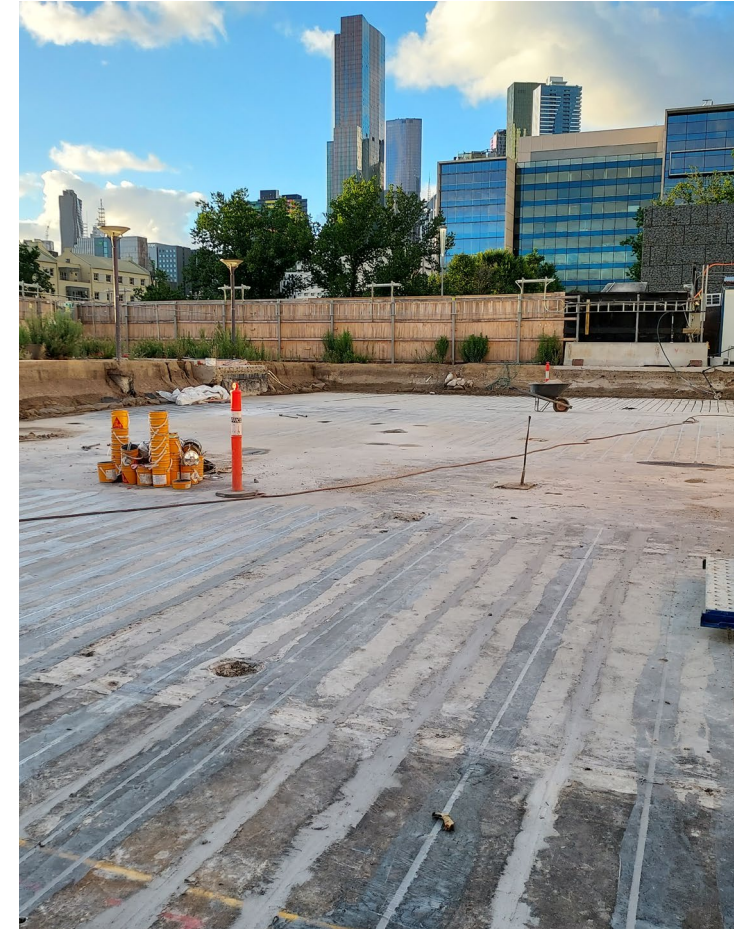
West TVS

- Waterproofing and lining wall works are ongoing.



Chiller plant

- Strengthening works at surface level are complete
- Strengthening works to the underside of the car park have commenced.



Gantry crane removal



- Gantry crane removal will commence from late February
- For each crane this involves:
 - Disconnecting motors and electrics
 - Attaching temporary braces to the gantry crane legs
 - Using a large mobile crane to lower pieces of the crane to ground level
 - Removing gantry crane legs and temporary braces (mobile crane)
 - Additional dismantling at ground level
 - Removal from site (some oversized loads required at night).





 Doherty
Institute

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Presenter: Danielle Smits

Permanent structure works

B1 level



Presenter: Danielle Smits

Permanent structure works

B4 topping slab



Permanent structure works

B2 level – west mezzanine facing east

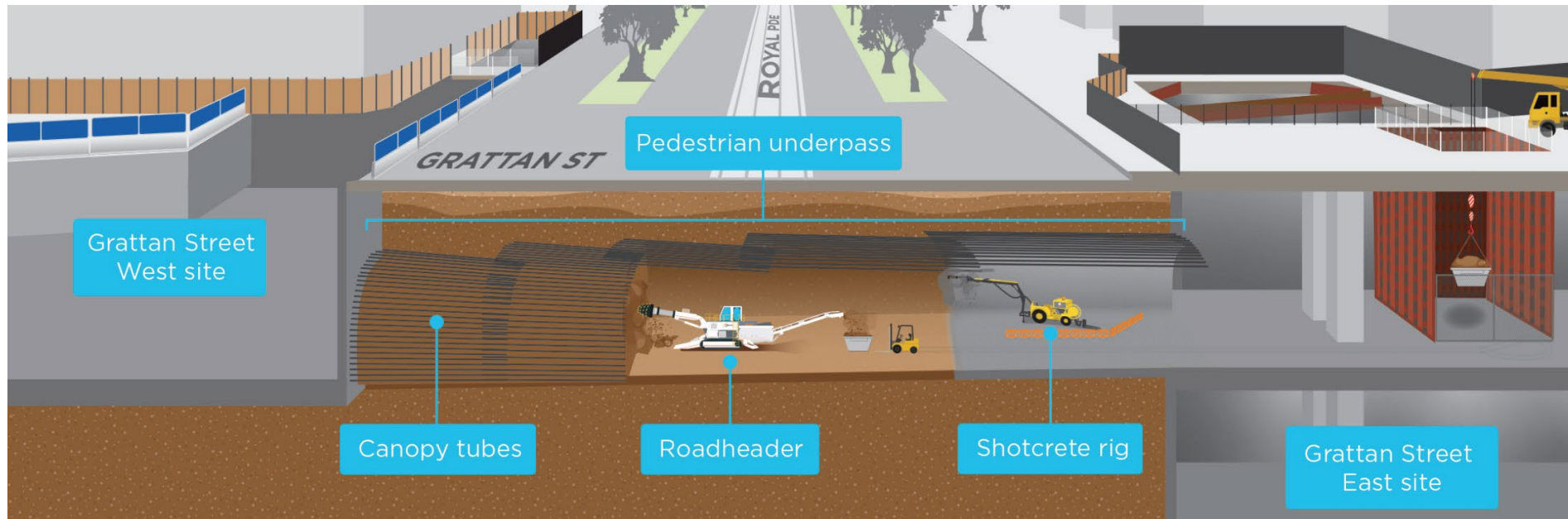


Presenter: Danielle Smits

Royal Parade underpass



- All five arrays of canopy tubes have been installed
- The final stage of excavation using a roadheader is currently underway
- Pile removal to connect the underpass to the Grattan Street west site will commence in late February.



Artist's impression. Not to scale.

Royal Parade underpass



Six month program

Grattan Street east



Activity	Feb	Mar	Apr	May	Jun	Jul
Station box permanent structure works						
Station box fit out						
Royal Parade entrance						
Retail area						
Northeast emergency exit						
Staged pile removal (intermittent)						
East TVS						
West TVS						
Chiller plant						
Goods lift						
Royal Parade underpass						
Gantry crane removal						
Staged capping beam removal						

Grattan Street west

Station entrance construction



- Permanent structure works are ongoing. These works involve waterproofing, steel fixing, installation of formwork, concrete pours and associated works
- From late February, minor excavation will commence for the escalator footings
- In March, removal of the temporary king posts will commence
- Following permanent structure works, services installation will commence and involves mechanical, electrical and plumbing and fit out works
- Future works at surface level will include pile top removal, structure works and backfilling activities.



Grattan Street west

Permanent structure works – January 2022



Program

Grattan Street west

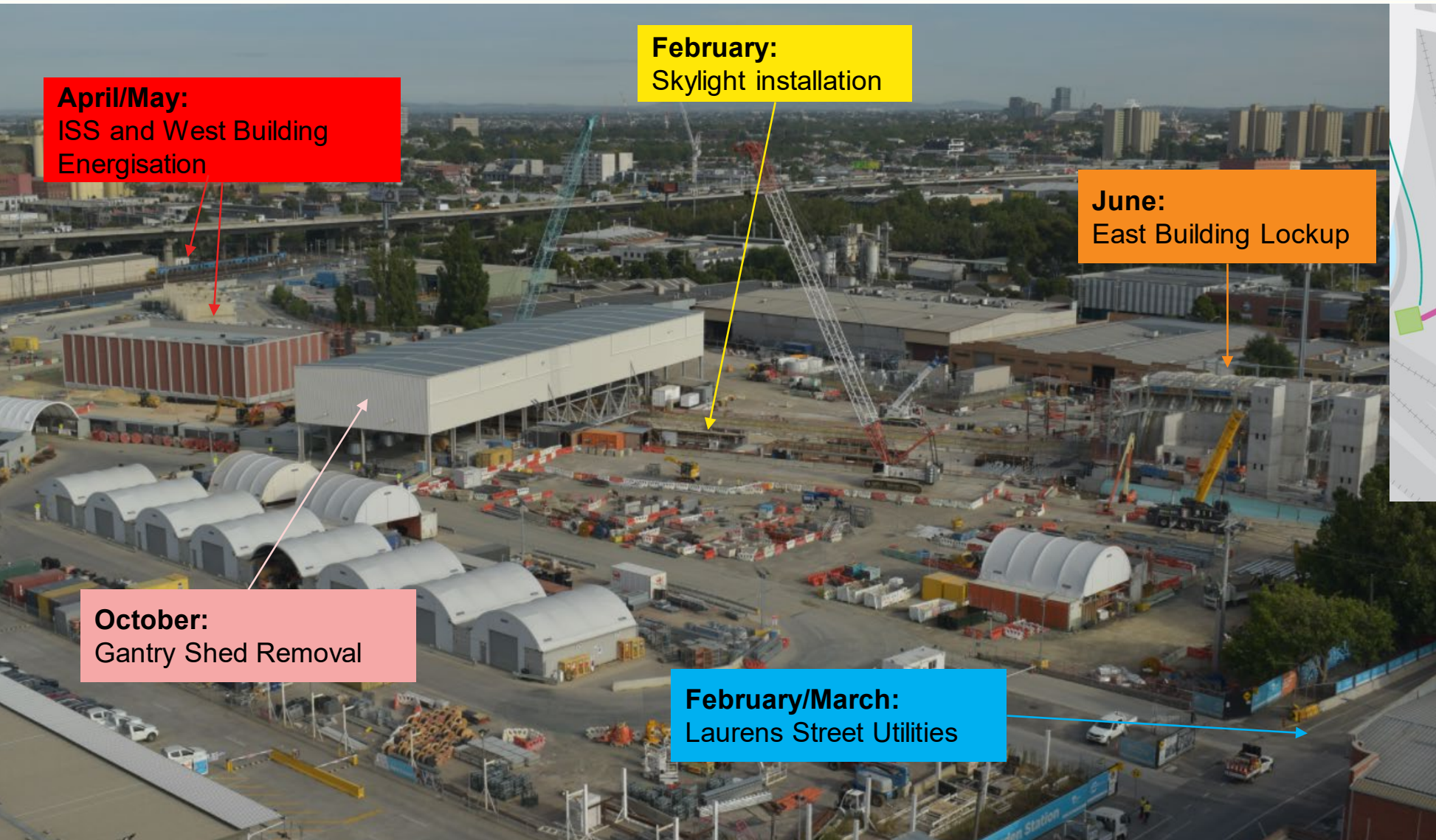


Six month program

Activity	Feb	Mar	Apr	May	Jun	Jul
Permanent structure works						
Escalator works						
King post removal						
Service installation and fit out works						
Pile top removal						
Backfill						

Construction update – North Melbourne

2022 Look-ahead



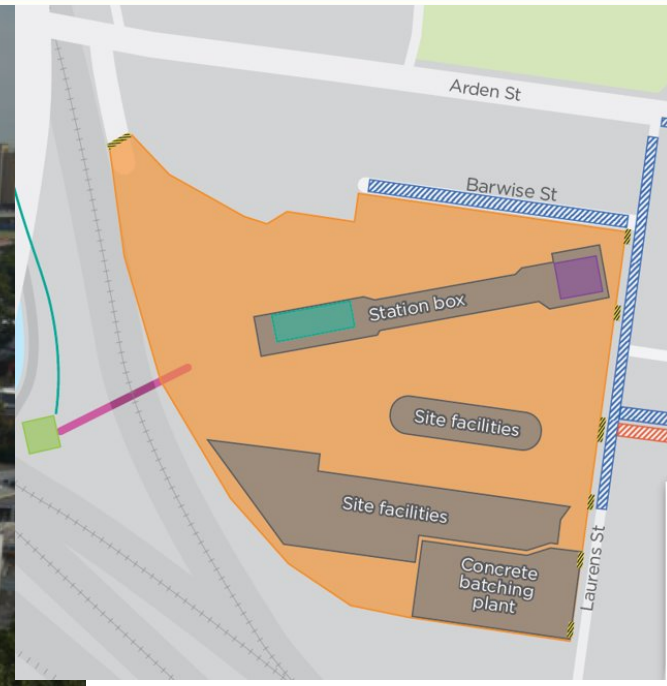
April/May:
ISS and West Building
Energisation

February:
Skylight installation

June:
East Building Lockup

October:
Gantry Shed Removal

February/March:
Laurens Street Utilities



Station entrance construction



- Last week the final falsework was removed from beneath the station arches
- The arches are now fully visible from beneath
- Outside the arches, structural steelwork around the east building continues
- In the coming weeks the entrance level concrete slab will be poured.



Arden Station entrance arches

- Platform construction is now complete, with the last topping slab poured in late January
- Work on the platform is continuing now with construction of the screen door structures
- Over track exhaust structural steel installation is ongoing, as well as ducting and ventilation testing
- Back of house, wall lining and painting is continuing
- At concourse level, mechanical, electrical and plumbing rough-in continues.



Platform construction progress – prior to completion

- Backfilling around the service building is continuing, bringing the area back to ground level
- Once the backfill is complete the area will be compacted and asphalted
- Inside the service building, internal wall linings are being installed, as well as rough-in for mechanical, electrical and plumbing work continuing
- Internal painting is ongoing
- Back of house fit-out works are also ongoing.



Waterproofing slab around the service building

Lift installation



- Two front of house lift shafts have been installed
- This month they will be clad with glazed glass. These will be lifts eventually used by commuters
- In total there will be four lifts for commuters at Arden Station.



Lift shaft installation

- Sprinkler and hydrant bracket and pipework installation
- Gaseous suppression system pipework installation
- Mechanical pipework and ductwork installation
- Electrical cable tray and cable installation
- Hydraulic pipework installation
- Installation of large Tunnel Ventilation Fans, dampers and associated steelwork
- Ongoing installation of fire detection systems.



Mechanical, electrical and plumbing rough-in – service building

Rail tunnel fit out works



- Rail tunnel fitout is continuing along the entire length of the Metro Tunnel
- High level cables and linear pipework being installed
- Cross passage detailing and fitout ongoing
- Walkway installation continuing
- First rail deliveries to Kensington to occur next week



Rail tunnel fitout progress – Arden to Parkville

Utility works – Arden Station



- Between 14 February and 14 March, Queensberry Street westbound between Munster Terrace and Laurens Street will be closed
- This will allow works to upgrade a watermain in the area
- During the works, some properties will be switched to a temporary water supply
- In March, some short-term closures of Barwise Street, and partial closures of Laurens Street will be required to completed HV connection works.



- Substation fit out and testing ongoing
- Fire water service connection works are ongoing, to be finished in next few weeks
- Continuing with defect rectification works internally
- Team working towards energising the building by end of May
- Final façade and screening fence design still ongoing



Internal equipment at ISS

Six month program

North Melbourne



Activity	Feb	Mar	Apr	May	Jun	Jul
Utility investigation works						
Utility installation works						
Station entrance construction						
Mechanical, electrical and plumbing installation						
North Melbourne electrical substation construction and landscaping						

Overview of cross passage construction

- A cross passage is a short tunnel that connects 2 parallel tunnels
- The Metro Tunnel will have 26 cross passages located approximately 230m apart along its tunnel alignment
- These passages are an important safety feature that allow people (including emergency services) to move from one tunnel to the other in the event of an emergency.

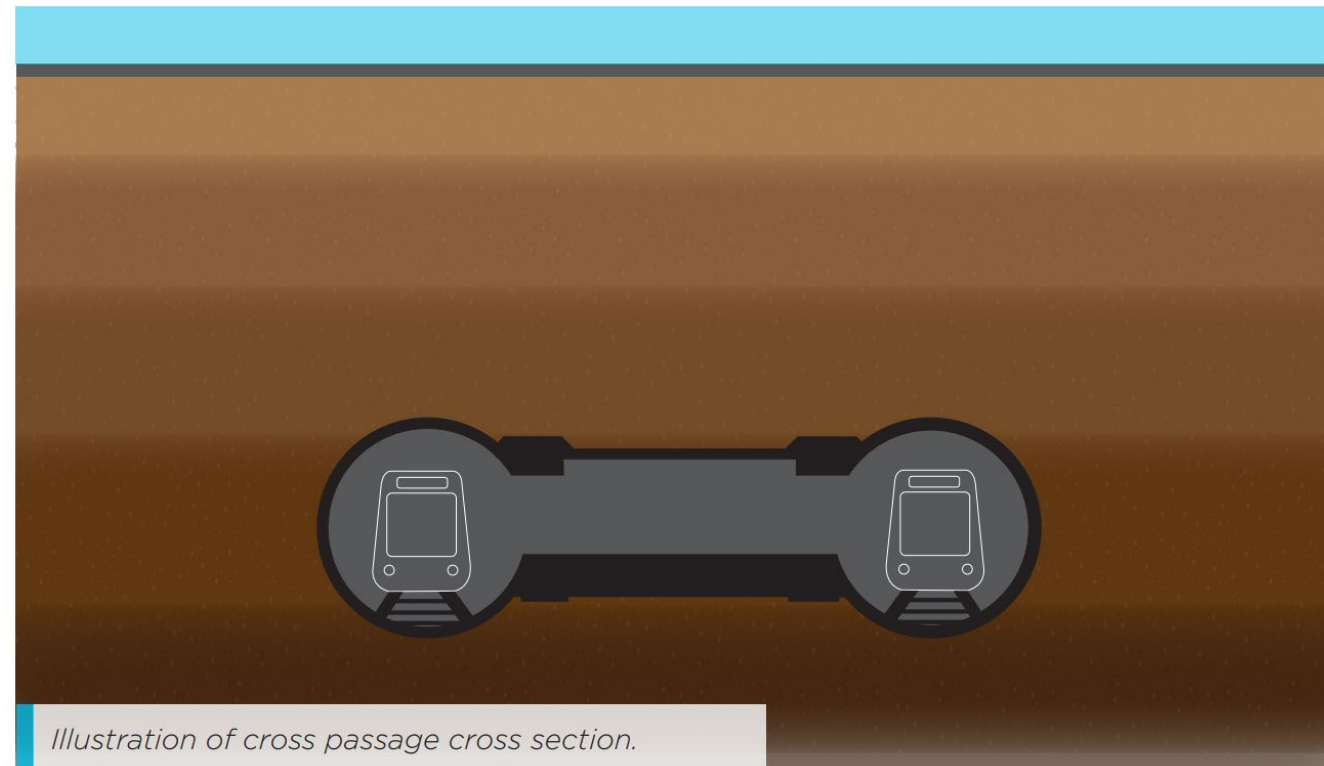


Illustration of cross passage cross section.

Status of the cross passages



- All 26 cross passages between Western Portal and Eastern Portal have been constructed
- Each was constructed by excavating between the twin tunnels, bracing the ground, and then shotcreting, installing steel and permanent concrete
- They will be completed as part of the rail tunnel fitout works.



Cross passage ground improvement works



- Five out of the 26 cross passages required ground improvement works to strengthen the ground and reduce groundwater permeability ahead of construction.



Cross passage construction



Presenter: Danielle Smits



Creative program update

1850s–1860s

From Wetland to Wasteland



Thomas Red (engraver), Benevolent Asylum, Melbourne, the Illustrated Australian Register, July 1852. Source: Public Domain.



With the discovery of gold in Victoria in 1851, news of spectacular finds reverberated across the globe, gold fever gripping Britain and Europe. By 1852, the enormous flood of immigrants to the colony had placed immense pressures on limited accommodation facilities. The newly completed Benevolent Asylum, straddling North and West Melbourne and established to house 'the aged, infirm, disabled and destitute', provided temporary lodging for immigrants.

North Melbourne was well positioned to become a supply and staging post en route to the goldfields. Local businesses were established, and land auctions took place to accommodate the influx of gold seekers. Following the opening of North Melbourne Railway Station in 1859 the number of residents living close to Blue Lake increased dramatically.

Melbourne's burgeoning community spoilt this important wetland, transforming it into a dumping ground for industrial and household waste, including sewage. Within 20 years of European settlement, the once picturesque undulating countryside and pristine Blue Lake had become a wasteland known as West Melbourne Swamp.



Wesley Manning (draftsman), David Jackson (engraver), Atlas of Victoria (engraver), Atlas of Victoria Melbourne and its Environs, 1856. Source: State Library Victoria.

1870s–1880s

Draining and Reclaiming



Melbourne Harbour Trust (photographer), Steam-Powered Pumping Station, 1877. Source: State Library Victoria.

Noxious trades established themselves along the edges of West Melbourne Swamp and lined the banks of the Yarra River and Moonee Ponds Creek. Effluent from abattoirs, fellmongers, meat byproduct works, tanneries, bone mills and council rubbish depots flowed into the waterways and, eventually, the swamp, resulting in a putrid stench and the spread of disease. Melbourne became known as 'Marvellous Smelbourne' and West Melbourne as 'Worst Smelbourne' and 'Worst Smeldom'.

Although proposals had been made to drain the swamp and reclaim the land as early as 1849, work did not commence until 1877. A steam-operated pump was set up near Brown's Hill, South Kensington, and drains were dug along Dynon Road, connecting to West Melbourne.

Coode Canal was excavated in 1886 to reduce flooding of the Yarra River, to improve cargo ship access to Melbourne's main river docks and to reduce travel time up the river. In 1889–90, excavations of Railway Canal (also known as Coal Canal) linked the Yarra River and the North Melbourne railway yards, allowing ships carrying coal easy access to North Melbourne Locomotive Depot.



Reclaiming West Melbourne Swamp and cutting Coode and Railway Canals allowed the railway system to expand its facilities, deliver goods more efficiently and support new railway yards and lines connecting with northern Victoria.

'True north' timeline



1870s–1890s Living and Working Near the Railways

Development and expansion of the North Melbourne railway yards enabled supply and distribution of primary products. The yards' proximity to the north and west of the state made this the preferred location for sawn timber and firewood yards, as well as meat industries, with the cattle yards and markets located nearby.

Flour millers and biscuit manufacturers developed along Laurens Street in North and West Melbourne, and became major industries with a direct rail connection.

In 1874, Smith & Sons established a biscuit factory on the corner of Miller and Anderson Streets, backing onto Laurens Street; it was bought out by A.J. Brockhoff and Co. in 1882. Thomas Brunton and Co. Australian Roller Flour Mills and Grain Stores joined them in 1888 and T.B. Guest and Co. In 1896, these landmark buildings still exist today. Thomas Brunton and Co. is now Weston Milling, and the Brockhoff and T.B. Guest buildings were converted into apartments in the early 2000s.

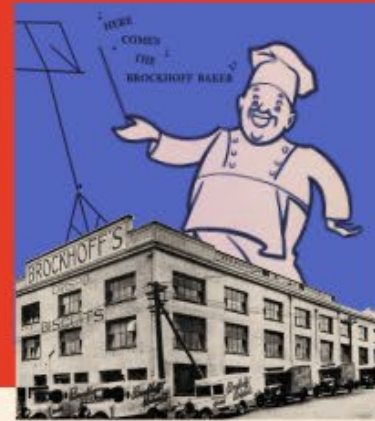
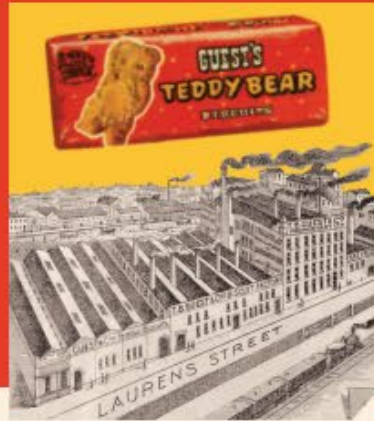
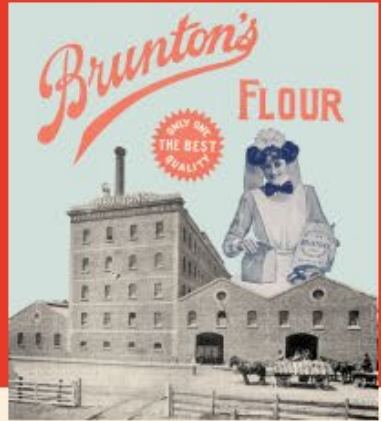
Victorian Railways, various goods yards, flour mills and biscuit manufacturers became major employers of the local community in North and West Melbourne. The workers occupied simple cottages that sprang up around the factories, reflecting the characteristically close relationship between workplace and dwellings in working-class suburbs up to the Second World War.



Thomas Brunton and Co. Australian Roller Flour Mills and Grain Stores, The Melbourne Australian Museum, 2 Brunton Street, North Melbourne and Launceston, North Melbourne, Victoria, Australia, 1888-1896

Thomas Brunton (left) and A.J. Brockhoff and Co. (right) buildings, The Public Record Office, 100 Launceston Street, North Melbourne, Victoria, Australia, 1882-1888

A.J. Brockhoff and Co. factory, from the Melbourne and Eastern Districts Railway, 1882-1888, Thomas Brunton and Co. factory, from the Melbourne and Eastern Districts Railway, 1888-1896, Brockhoff and T.B. Guest buildings, from the Melbourne and Eastern Districts Railway, 1882-1888



1880s–1940s Railway Workshops

The gradual reclamation of West Melbourne Swamp yielded more land for the railways. During the 1880s, Railways Reserve, running along Moonee Ponds Creek, expanded incrementally. Affectionately known by 'steam men' as 'the big smoke' and 'the hub of the locomotive universe', North Melbourne Locomotive Depot was built on reclaimed land in 1888. It became the largest depot in Victoria, housing and maintaining the growing number of Victorian Railways steam locomotives.

During this time, new wood yards and sidings were built on Arden and Laurens Streets, boosting the transport-dependent flour milling and biscuit-making industries. Located on the corner of Laurens and Barwise Streets, the Victorian Railways Carpenters Shop was constructed around 1913 to support the increasing amount of timber works required to provide for the expanding railways. By 1927, it became the Victorian Railways Printing Works. In 1947, a ticket-printing machine was set up on this site. Railway tickets and timetables were printed here until the early 1970s.



Victorian Railways Printing Works, 100 Launceston Street, North Melbourne, Victoria, Australia, 1927-1947

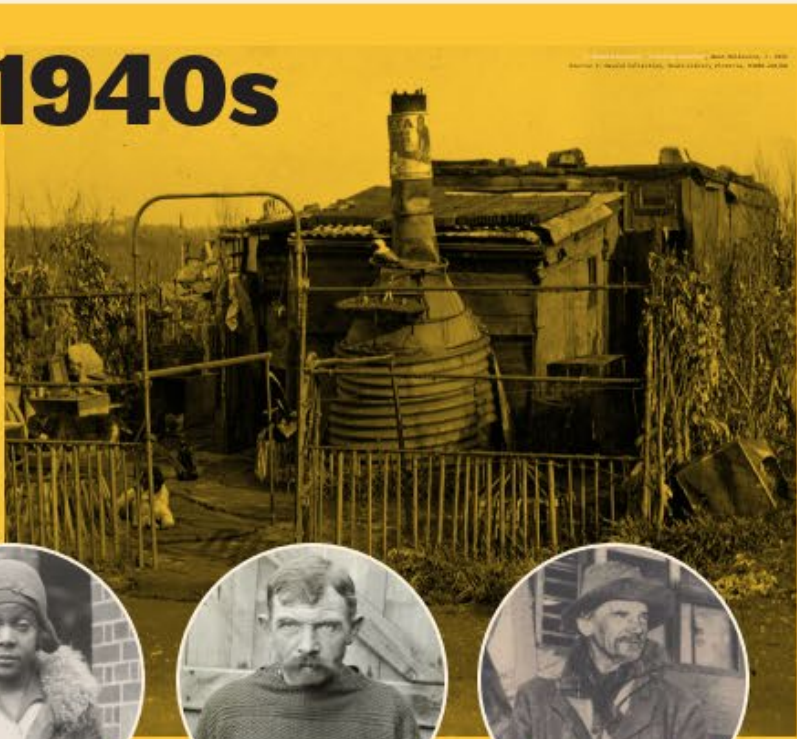
1920s–1940s Dudley Flats

Located at the end of Dudley Street, on the south-eastern shore of West Melbourne Swamp, Dudley Flats was a shanty town that became home to Melbourne's poor at the beginning of the 1930s Great Depression. Its residents constructed tents and shacks from materials found on tips.



Dudley Flats housed many interesting people, such as **Elsie Williams** (née Carr, 1901–42), a Bendigo-born singer of Afro-Caribbean origin; **Lauder Rogge** (1874–1949), a German seaman who lived for decades on a stranded ship, making a living breeding and selling dogs at Melbourne's Eastern Market; and **Jack Peacock** (1886–1958), known as 'The King of Dudley Flats', who worked as a salvage dealer.

The flats gained a reputation for fights, petty crime and drunkenness. In the 1940s, following the government's introduction of waste-recovery schemes to assist the war effort, the area was largely abandoned, as salvage dealers could no longer make a living from the nearby tips.



1950s–2000s Immigration and Gentrification

For many decades, parts of North and West Melbourne were considered 'slum' areas. Following the Second World War properties were subject to rental control in Victoria, and capped rents during a time of rising prices gave landlords an incentive to sell. Without vacant possession, landlords could only sell to the tenant, enabling many long-term residents to finally purchase a home. Immigrants, largely from southern Europe, often bought houses soon after their arrival. Owner-occupants took pride in their homes and made improvements.

In 1950, landlords owned 68% of the housing stock, but by 1969 only 18%. In 1950, 90% of North Melbourne's dwellings were houses. This changed rapidly during the 1960s, with the Housing Commission buying and demolishing swathes of houses deemed 'slums', replacing them with blocks of flats. By 1970, 36% of dwellings were houses and 64% flats.

Attracted by its proximity to the city and universities, and its heritage, a younger demographic moved into the area by the 1980s. The City of Melbourne introduced heritage controls and many 19th-century houses were restored, resulting in gentrification.

During the 1990s, some old factories and warehouses were converted into cafes and loft-style apartments. North and West Melbourne continue to evolve, with new apartment blocks being built on large plots of land previously used for industry. In 2020, North Melbourne's population was 17,534 and West Melbourne's 8,262 – figures expected to rise to 36,683 and 17,156 respectively by 2040.



'True north' timeline



1880s–2020s Fare to Ride

Public transport has always been essential to the development of Melbourne.



Australia's first steam railway was established in 1854, five years before North Melbourne Railway Station opened in West Melbourne. Steam locomotives were replaced with diesel-electric locomotive passenger trains in the early 1950s, revolutionising engine power and reducing running costs. Trains evolved through several electric models, including 'red rattlers', Hitachi and Comeng, and 65 new High Capacity Metro Trains will operate when the Metro Tunnel opens in 2025.

In 1873, Melbourne Omnibus Company built the Hotham stables, near the corner of Macaulay Road and Haines Street, for its city and suburban horse-drawn bus service, which began in 1869. Here, the horses were housed and trained, and the omnibuses garaged. The stables closed in 1890, when the omnibus service was superseded by cable trams. This is the only surviving building associated with the company responsible for Victoria's first large-scale urban-street public transport system.

Melbourne's first cable tram service ran in 1885 along Flinders Street to Richmond. In 1891, lines opened to North and West Melbourne. The North Melbourne Cable Tramway Engine House, on the corner of Abbotsford and Queensberry Streets, housed huge driving wheels that powered the underground cables. This was the most extensive cable tramway in the world operated by a single authority. In 1935, the North Melbourne line was electrified and the West Melbourne line replaced with buses. Since the early 1980s, Z3-class trams have operated on tram route 57 through North and West Melbourne.



Melbourne's Hotham stables and the first cable tram engine. The engine powered the cables that ran underground through the city. The ticket is for a journey from North Melbourne to Richmond.



Melbourne's first cable tram, 1885. Source: Melbourne City Council, State Library Victoria, NSW.

2020s & Beyond Arden Station

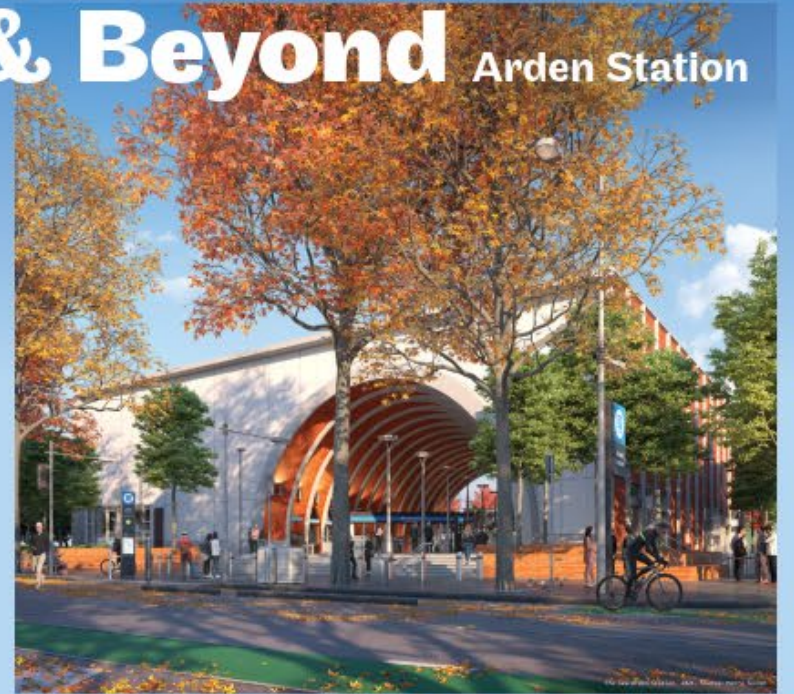
The new Metro Tunnel Arden Station, near the corner of Arden and Laurens streets, is part of broader urban renewal efforts in the Arden-Macaulay precinct. Over the next 30 years it is expected the area will become home to 15,000 residents and more than 34,000 jobs directly connected to the train network via the Metro Tunnel. In 2029, Arden Station will directly link with Melbourne Airport.

The Metro Tunnel will create a new end-to-end rail line from Sunbury, in the west, to Cranbourne/Pakenham, in the south-east, with high-capacity trains and five new underground stations. Due to open in 2025, it will enable more than a half a million additional passengers per week across Melbourne's train network to use the rail system during peak periods.

Arden's rich industrial history will be reflected in the design of the station, featuring materials such as clay brick, bluestone, timber, steel and glass. It will feature 15 soaring brick arch segments comprising more than 100,000 bricks, all manufactured in Victoria.

Laurens and Barwise Streets will be greener, pedestrian-friendly and public transport-oriented. Landscaped public spaces will be gathering places for locals and passengers alike. Because the broader Arden precinct is prone to flooding, water-sensitive design elements have been incorporated. Drainage at the station has been designed to capture the natural flow of rainwater and distribute it into nearby gardens.

The new station is within walking distance of the North Melbourne Recreation Centre, Arden Street Oval and tram route 57.



Communications and stakeholder engagement update

Communications and engagement update

North Melbourne and Parkville



Notification and communications

- North Melbourne: February/March construction update (2 February)
- North Melbourne: Queensberry Street closure reminder (11 February)
- Parkville: February/March construction update (2 February)
- Parkville: weekly update to key stakeholders (ongoing).

Door knocks, meetings, briefings and events

- North Melbourne: fortnightly meetings with City of Melbourne
- North Melbourne: monthly meeting with Mauri
- Parkville: fortnightly meetings with Peter MacCallum Cancer Centre, Melbourne Health, University of Melbourne, City of Melbourne and monthly meeting with Graduate House.

Communications and engagement update

North Melbourne and Parkville



Community issues/enquiries and key stakeholder engagement

- Parkville: Royal Parade entrance boundary adjustment for escalator works

Upcoming engagement

- Parkville: Legacy work activities
- North Melbourne: 2022 activities