



# ARDEN AND PARKVILLE COMMUNITY REFERENCE GROUP

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MEETING 15

5 February 2021

# AGENDA

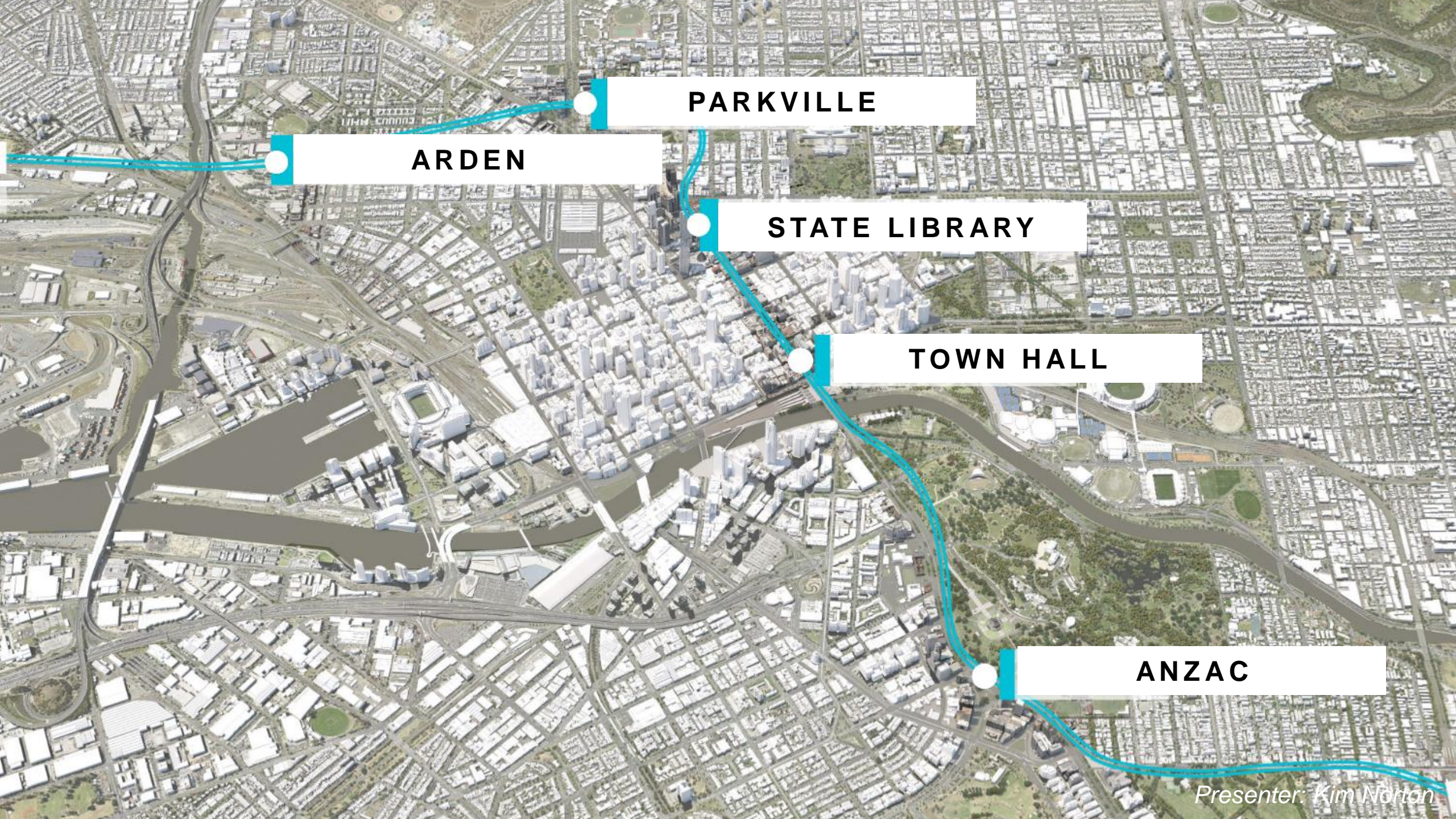
1. Introductions and welcome
2. Project wide construction update
3. Parkville construction update
4. North Melbourne construction update
5. Tunnelling update
6. Stakeholder and communications update
7. Metro Tunnel Creative Program update
8. General feedback and items for future discussion
9. Meeting close

# CONSTRUCTION UPDATE – PROJECT WIDE



*Presenter: Kim Norton*





**PARKVILLE**

**ARDEN**

**STATE LIBRARY**

**TOWN HALL**

**ANZAC**

*Presenter: Kim Norton*



# STATE LIBRARY STATION

- Top-down construction works are continuing at the La Trobe and Little La Trobe Street sites
- Structure and lining works are continuing below ground as the team continue to install the permanent architectural elements of the future State Library Station
- TBM Joan arrived at the State Library Station precinct in late December 2020.



*TBM Joan break through - December 2020*

# TOWN HALL STATION

- Excavation works within the northern and central sections of the City Square shaft are nearing completion
- Works to install a hand painted creative installation on the City Square acoustic shed recently commenced
- The first major concrete pour of the year (and the largest to date for the Town Hall Station precinct) will take place at the Flinders Quarter site in early February
- More than 30 metres beneath Swanston Street works are continuing for the construction of the underground station platform (ground beam installation works pictured).



*Construction at the Town Hall Station site*



# ANZAC STATION

- Works to construct the Shrine of Remembrance station entrance are underway
- Excavation continues for the tram interchange station entrance, with the team now excavating beneath the suspended roof slab
- Concrete pours are ongoing to construct the concourse level slab. Six out of ten pours have been completed.



*Tram interchange excavation*

# CONSTRUCTION UPDATE - PARKVILLE



*Presenter: Danielle Smits*



# GRATTAN STREET EAST



Construction partner:



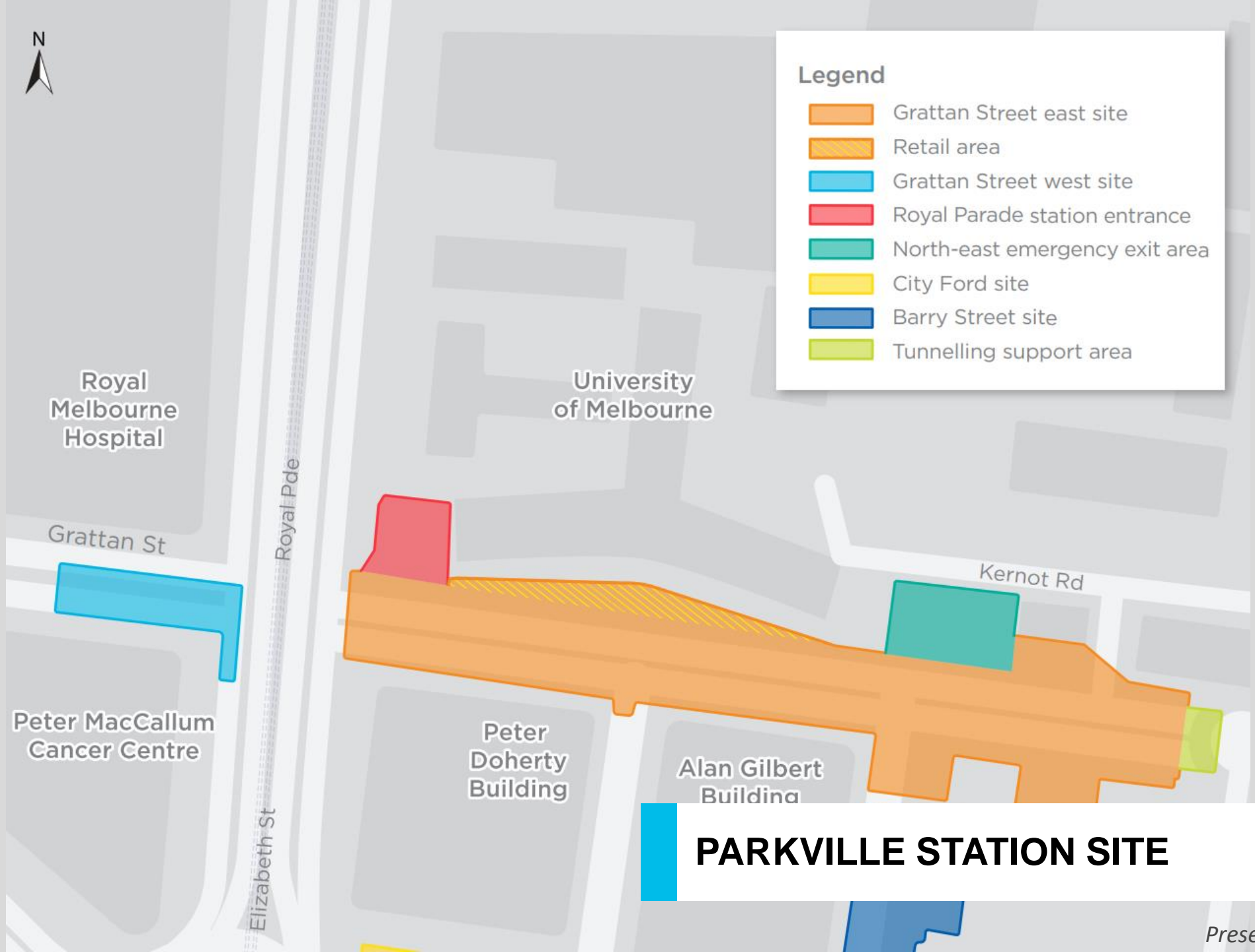
*Presenter: Danielle Smits*



**DECEMBER 2020**

*Presenter: Danielle Smits*





## PARKVILLE STATION SITE



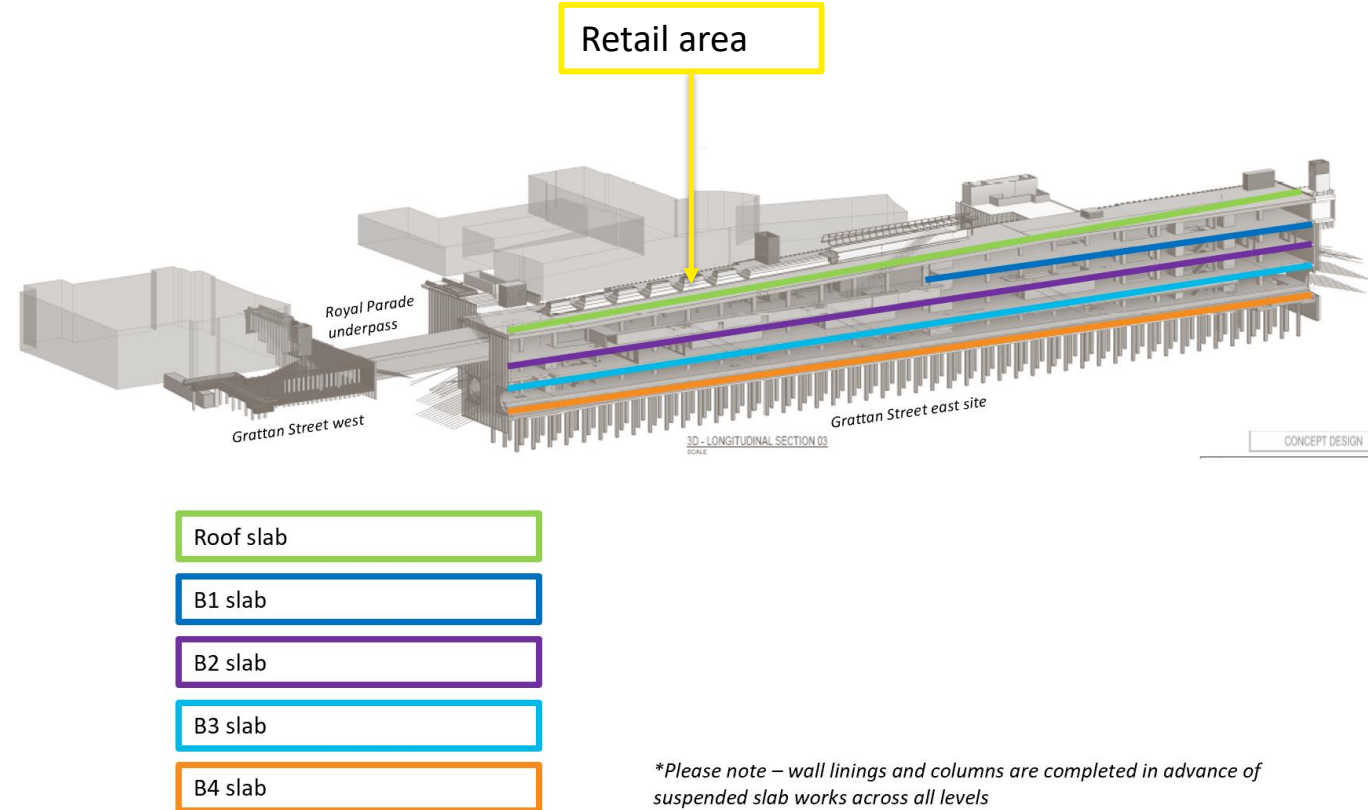
# 6 MONTH PROGRAM

Works	Feb	Mar	Apr	May	Jun	Jul
Permanent structure works						
Royal Parade station entrance (excavation)						
Royal Parade station entrance (structure)						
Retail area (excavation)						
Retail area (structure)						
North-east emergency area (excavation)						
Staged pile removal (Retail/Royal Pde entrance)						
TVS East / Goods Lift (piling, strutting, excavation)						
TVS West / Chiller Plant (prep, piling, strutting, excavation)						
Station box fit out (mechanical, electrical, plumbing)						
Royal Parade pedestrian underpass construction						

*Indicative only*

# PERMANENT STRUCTURE WORKS

- Works on B1, B2 & B3 slabs are in progress, as the team close the tunnelling lifting windows
- Wall linings between B1 and the roof slab have commenced
- Structure works in the retail area have commenced
- Roof slab works are anticipated to commence from mid-February 2021.



# PERMANENT STRUCTURE WORKS – ROOF SLAB

- Roof slab works will occur progressively from east to west
- Key considerations are maintaining access for other work areas e.g. north-east emergency exit area
- Works involve deck removal, steel fixing, concrete pours, backfill.





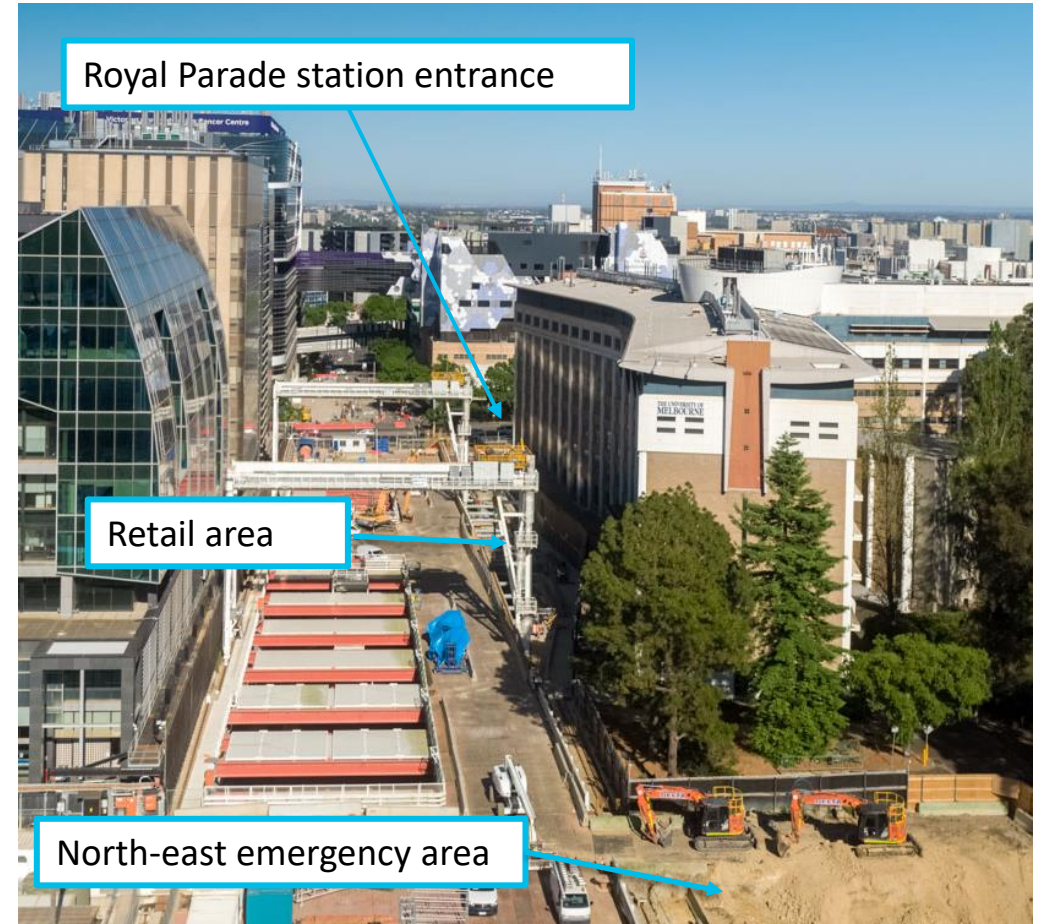
# STATION FIT-OUT WORKS

- From late February 2021, fit out works at the Grattan Street east site will commence
- Fit-out works are required to make the station suitable for occupation
- Works will include primary architectural walls, services and plant
- Fit-out works will require increased deliveries of plant and material to site. Oversized deliveries will also be required.



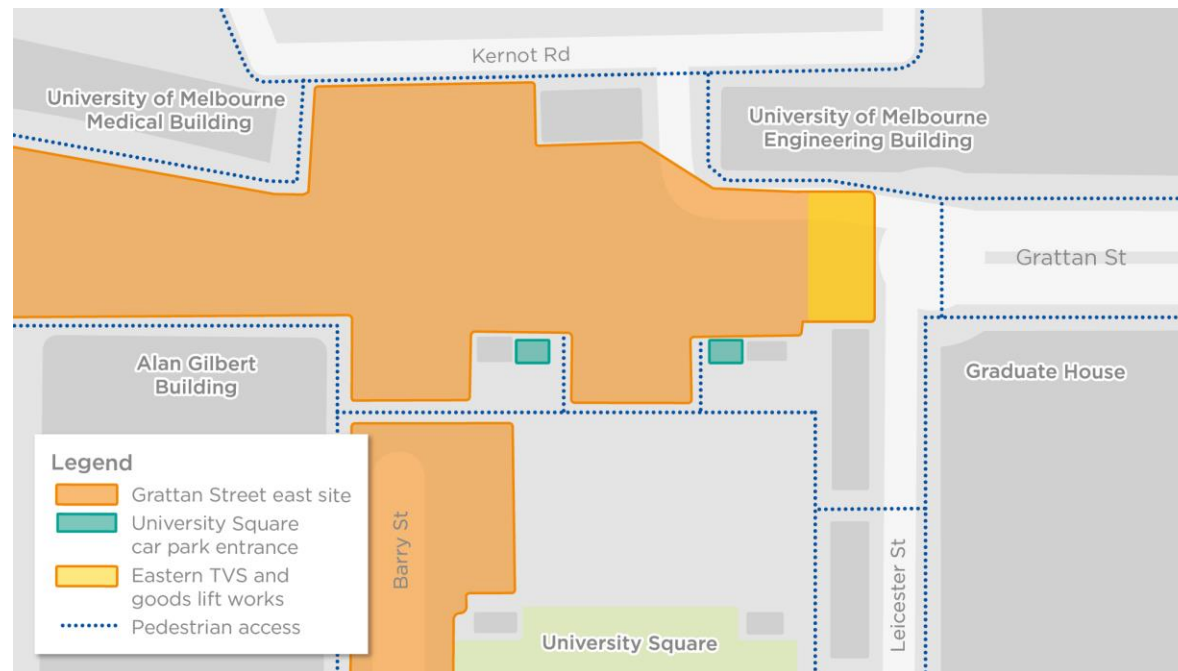
# SECONDARY BOXES

- Royal Parade station entrance:
  - Excavation is complete
  - Shotcrete and tension piles are ongoing
  - Structure works to follow
- Retail area:
  - Excavation is ongoing in at the west end
  - Structure works have commenced at the east end
- North-east emergency area:
  - Excavation and gantry crane rail removal
  - Strutting works to follow
  - Works will pause until roof slab construction adjacent has occurred.



# TUNNEL VENTILATION SHAFT (TVS) EAST & GOODS LIFT

- Construction of the Leicester Street mid-block pedestrian crossing has commenced
- Southern boundary changes to be undertaken following completion of the Leicester Street crossing
- Piling works have commenced and will continue for around three weeks.

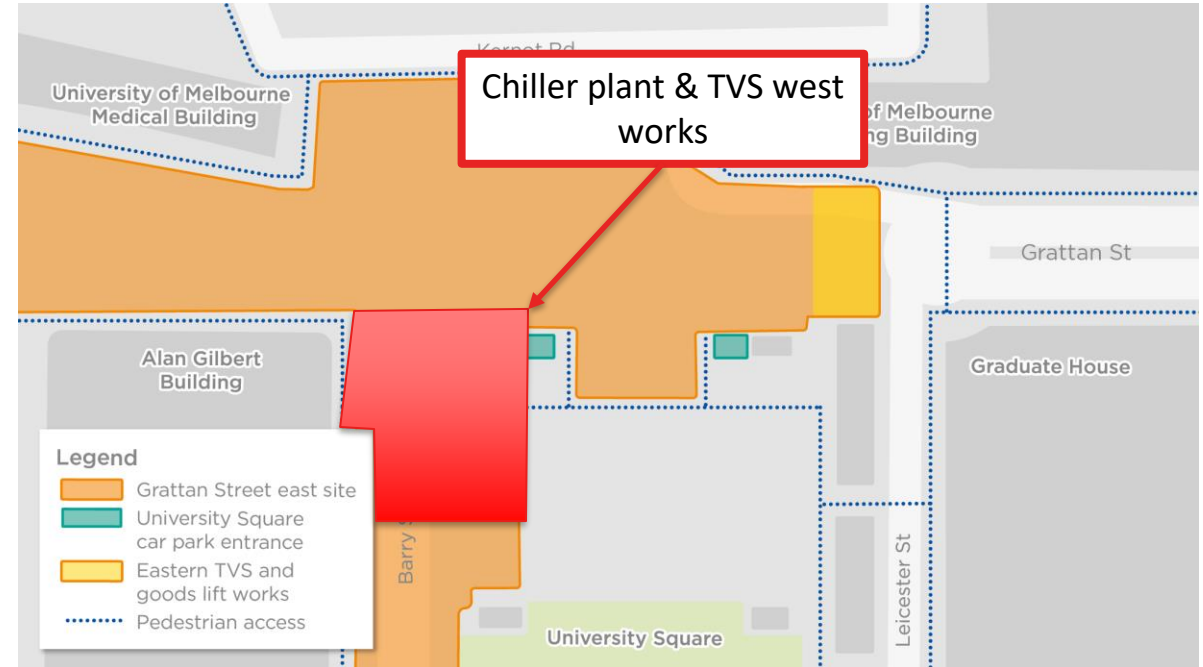


*Indicative only*



# TVS WEST & CHILLER PLANT

- Preparatory works for the TVS west and chiller plant are scheduled from late March
- This will require the closure of the Barry Street pedestrian crossing. A new crossing located approx. 50 metres south will be open
- Works will involve:
  - Preparatory & site establishment works
  - Piling
  - Excavation
  - Permanent structure



*Indicative only*



**B3 SLAB – NOVEMBER 2020**

*Presenter: Danielle Smits*





**B2 SLAB – NOVEMBER 2020**

*Presenter: Danielle Smits*





**RETAIL AREA – NOVEMBER 2020**

*Presenter: Danielle Smits*





## ROYAL PARADE STATION ENTRANCE AREA – NOVEMBER 2020

*Presenter: Danielle Smits*

# GRATTAN STREET WEST



*Presenter: Danielle Smits*





**DECEMBER 2020**

# 6 MONTH PROGRAM

Works	Feb	Mar	Apr	May	Jun	Jul
Preparatory works						
Site establishment (including traffic switch)						
Piling						
Excavation						
Structure works						

Indicative only



# PREPARATORY WORKS

Works are required to enable construction of the future station entrance:

- Services works (relocation and removal of redundant services)
- Pedestrian crossing works (creation of ramps, crossings)
- Removal and relocation of street furniture
- Constructing a future site access point on Royal Parade.



*Indicative only*



# STAGE 2 NORTH ENTRANCE WORKS

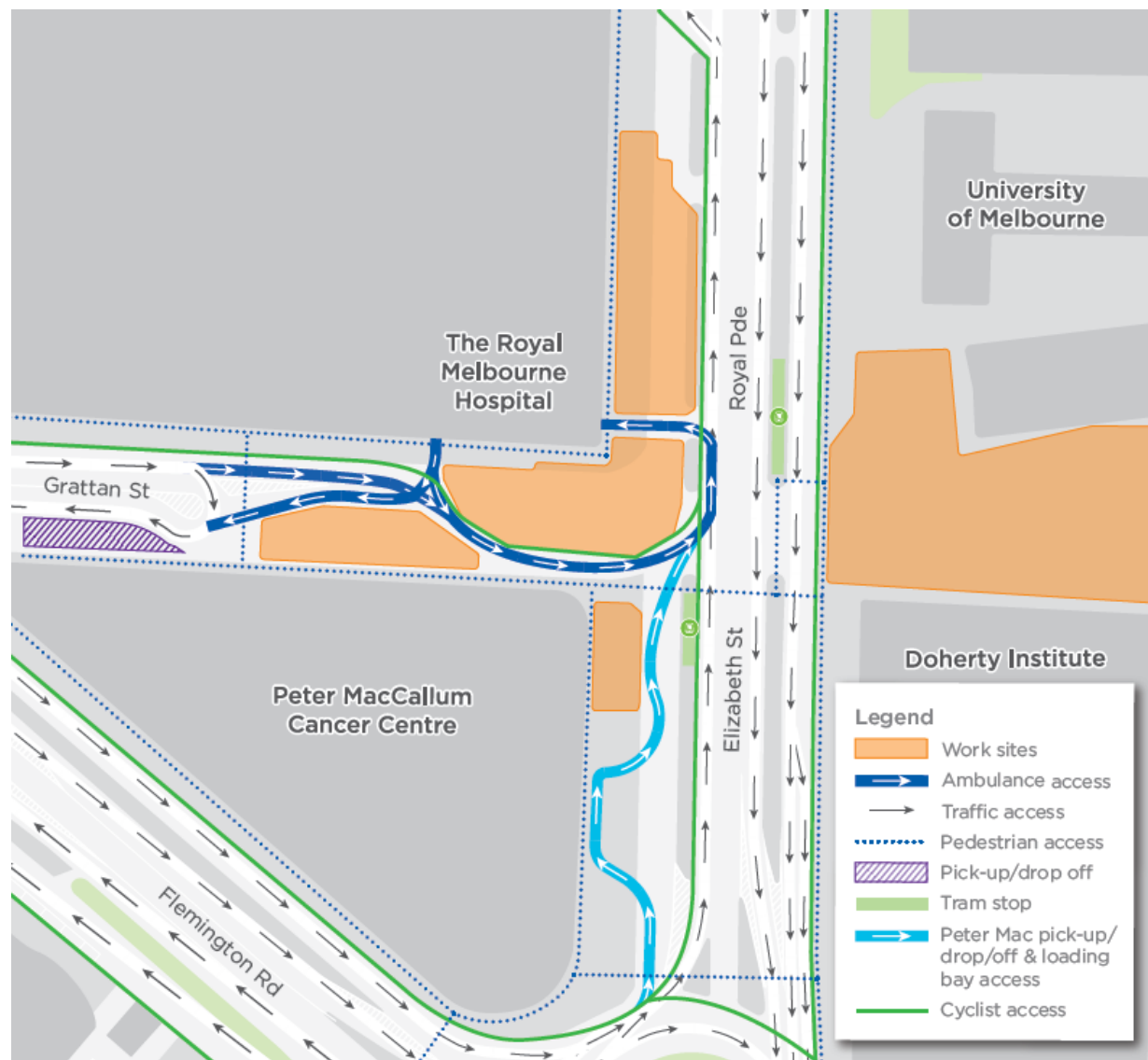
Works will involve:

- Site establishment and preparatory works
- Piling
- Excavation to roof slab
- Roof slab construction
- Excavation under roof slab
- Structure works for walls and base slab.



*Piling at Grattan Street. June 2020*

# PROPOSED STAGE 2 TRAFFIC ARRANGEMENTS



*Indicative only*

# CONSTRUCTION UPDATE – NORTH MELBOURNE



# NORTH MELBOURNE PROGRAM

Activity	Feb	Mar	Apr	May	Jun	Jul
Roof slab construction						
Driven piling (foundation reinforcement)						
Service proving (Laurens Street)						
West (services building) construction						
East (station entrance) construction						
Over Track Exhaust (OTE) and platform construction						
Intake substation construction						
Cross passage construction						

*Program is indicative and subject to change*

# ROOF SLAB CONSTRUCTION

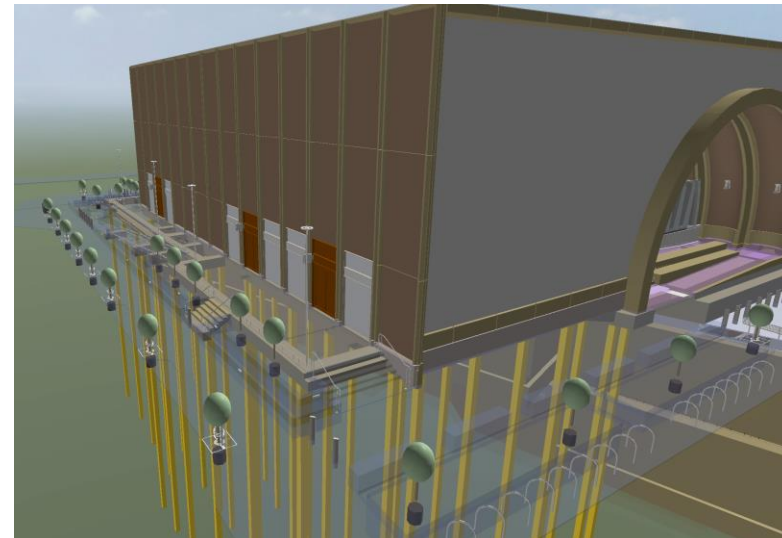
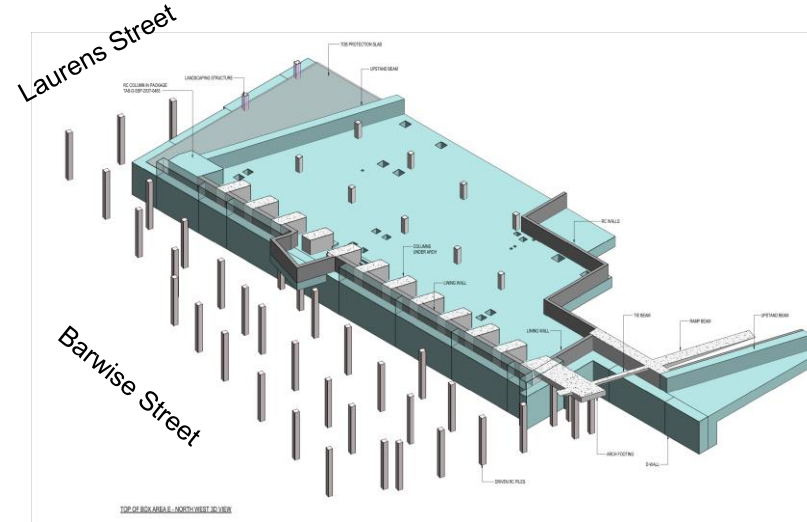
- Nine out of 11 bays have been poured to date
- The tenth pour will occur during February/March
- The final pour (underneath the gantry crane shed) will occur around September/October



*Station box roof slab (east box)*

# DRIVEN PILING (FOUNDATION REINFORCEMENT)

- 37 driven piles will be installed in the north east corner of the station box and one pile in the south east corner
- Piles will reinforce the station building foundation (where the building access points sit outside of the station box footprint)
- Driven piling to commence late February 2021
- Driven piling works will only be undertaken during normal construction hours (7am – 6pm Monday to Friday and 7am to 1pm Saturday)



*Location of driven piles relative to the station building*



# SERVICES BUILDING CONSTRUCTION

- Work will commence on the new Arden Station services building in February 2021
- The services building will be located at the western end of the station box
- The building will house high voltage (HV) switch rooms, provide HV reticulation for the entire project, and serve as an emergency access point
- Initial works will include construction of concrete slabs, back of house stair access to platform and brick lined pre-cast concrete façade panels
- Construction will take approximately six months



*Arden Station building concept – station entrance (foreground), skylights (middle), services building (background)*

# STATION ENTRANCE CONSTRUCTION

- Work will commence on the new Arden Station entrance in April 2021
- The station entrance will be located on Laurens Street (near the corner of Barwise Street)
- Construction will take approximately 12 months



*Arden Station building concept – station entrance (foreground), skylights (middle), services building (background)*

# OTE (OVER TRACK EXHAUST) AND PLATFORM CONSTRUCTION

- Construction of the station platform and OTE system (west box) commenced in January 2021
- The OTE forms part of the tunnel and station ventilation system
- Works in the west box will take approximately three months
- Works in the east box will commence mid year and take approximately three months. They will occur later to accommodate the retrieval and return of the TBMs.



*Segments of the OTE system installed in the station  
west box*





**STATION PLATFORM CONSTRUCTION**



**STATION PLATFORM CONSTRUCTION**



# INTAKE SUBSTATION CONSTRUCTION

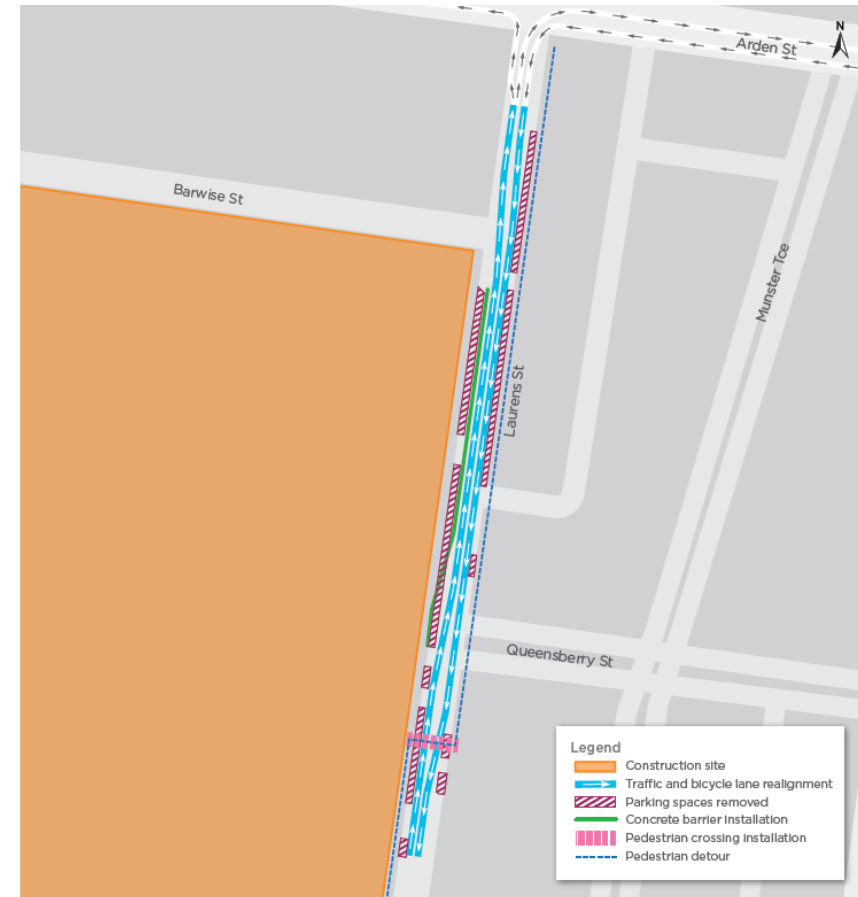
- Foundation structure complete
- Building works to commence February 2021
- Under creek bore works (66kV in from the West Melbourne Terminal Station to ISS) scheduled for April 2021)
- Under track bore works (22kV out from the ISS to Arden Station) scheduled for late 2021



*Foundation building construction*

# LAURENS STREET REALIGNMENT

- Laurens Street, between Queensberry and Arden streets, will be realigned in late February/early March to support construction of the new station entrance. Works will include:
  - Installing a pedestrian crossing on Laurens Street, south of Queensberry Street
  - Closing the western footpath on Laurens Street (between Arden and Queensberry streets)
  - Closing on-street parking spaces on both sides of Laurens Street, from Arden Street to just south of Queensberry Street
  - Installing concrete barriers on the western side of Laurens Street to delineate the site footprint
  - Realigning traffic and bicycle lanes around the concrete barriers
  - Reducing the speed limit on Laurens Street to 40 km/h



*Laurens Street changed traffic conditions*



# MECHANICAL, ELECTRICAL, PLUMBING (MEP)

Over the next two years, works at Arden Station will include:

- Installation of large transformers, electrical switchboards, general light and power and cabling
- Installation of large tunnel ventilation systems, mechanical ventilation and air conditioning systems
- Station drainage systems, hot and cold water services, and water treatment plants
- Installation of fire protection and detection services, including hydrants, hose reels, sprinklers, smoke detectors and gas discharge systems
- Installation of security systems, including CCTV and access control
- Installation of signalling equipment.

# WHAT'S HAPPENING AT ARDEN STATION

## Out of hours works (Arden Station site)

- 6pm – 10pm (evening works), Monday to Friday
  - Primary structure construction (including concrete pours), as required
  - Strut removal, as required
- 10pm – 7am (night works), Monday to Friday
  - Over-size equipment deliveries to and from site and use of a crawler crane to unload deliveries
  - After 6pm, construction vehicles will enter and exit via Arden Street wherever possible
- 24 hours, seven days a week
  - Tunnelling, slurry treatment plant, grout pump and segment facility operation
  - Trucks transporting excavated material from site
  - Cross passage construction between Arden and Parkville
- 7am – 6pm, Saturday
  - Localised closure of Laurens Street, between Queensberry and Arden streets for one day (late February/early March)
  - Installation of concrete barriers and line marking associated with Laurens Street realignment

# TUNNELLING





# TBM PROGRESS

## TBM Joan

- Broke through at Parkville Station 27 August 2020
- Relaunched from Parkville Station 15 October 2020
- Broke through at State Library Station 20 December 2021
- Scheduled to relaunch from State Library Station end February 2021

## TBM Meg

- Broke through at Parkville Station 19 September 2020
- Relaunched from Parkville Station 4 November 2020
- Has currently completed approximately 870m (of 970m)

# STATE LIBRARY STATION

TBM BREAKTHROUGH DECEMBER 2020



JOHN  
HOLLAND



**STATE LIBRARY BREAK THROUGH**



# CROSS PASSAGE CONSTRUCTION

- Cross passage 5 (Lothian Street) – excavation and waterproofing complete. FRP lining works ongoing
- Cross passage 6 (Hotham Gardens) - excavation and waterproofing complete. FRP lining works ongoing
- Cross passage 7 (corner of Errol and O'Shanassy streets) – excavation complete. Waterproofing ongoing
- Cross passage 8 (Villiers Street) – excavation complete. Waterproofing to commence early February
- Cross passage 9 (Flemington Road) – excavation complete. Waterproofing ongoing
- Cross passage 10 (Church Street) – break in and excavation commenced
- Cross passage 11 (Canada Lane) – break in and excavation programmed to commence early February



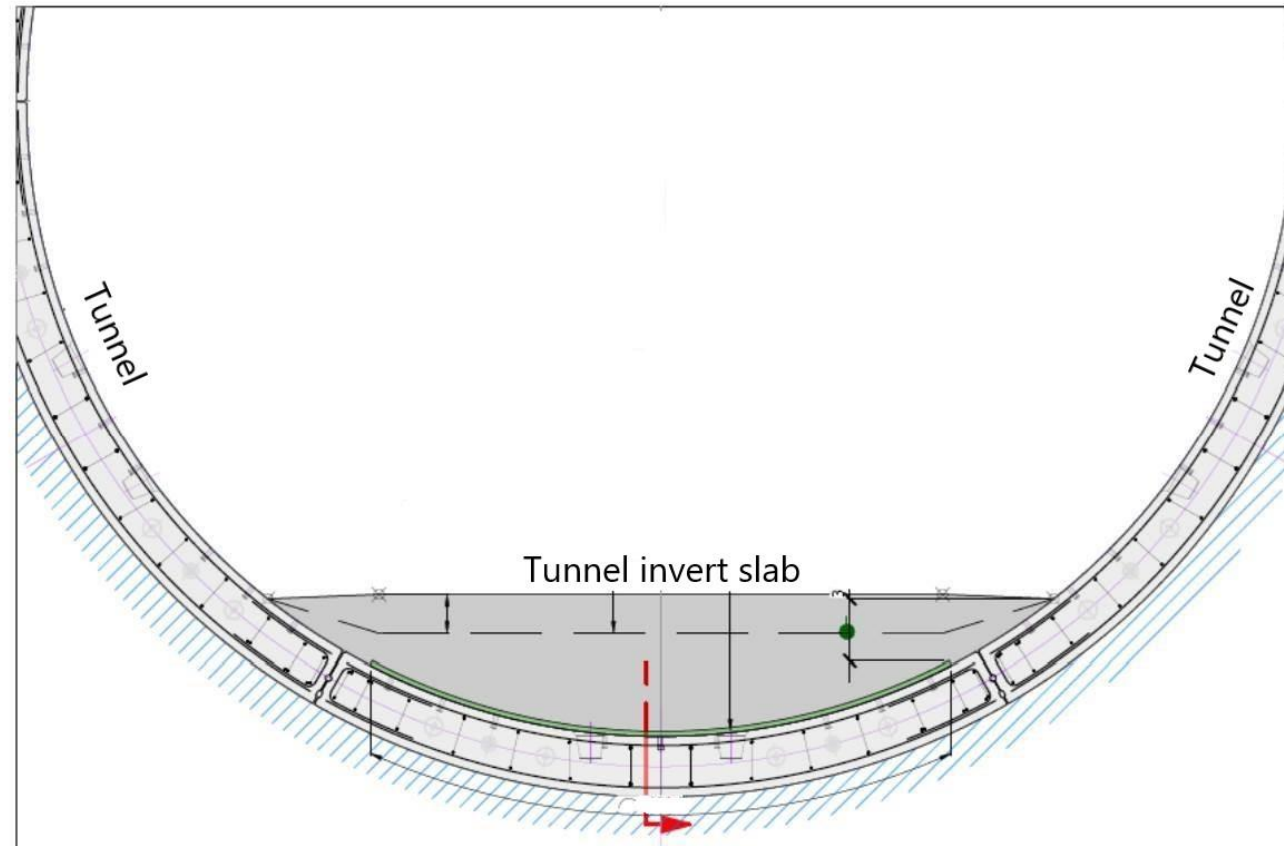
*Permanent lining works complete (CP4)*



# TUNNEL INTERNAL STRUCTURES

## Tunnel invert construction

- Pouring the flat form section (floor slab) of the tunnel



# TUNNEL INTERNAL STRUCTURES

## Tunnel invert construction

- 100m sections of invert poured per day
- Pours to occur using custom-built, “dual drive” concrete agis
- Works to occur in the westbound tunnel between the Western Portal (Kensington) and Arden Station between mid-February and mid-March
- Works to occur in the eastbound tunnel between the Western Portal (Kensington) and Arden between mid-March and mid-April



# STAKEHOLDER AND COMMUNICATIONS UPDATE





# ENGAGEMENT AND COMMUNICATIONS UPDATE

## NORTH MELBOURNE AND PARKVILLE

### Notifications and communications

- North Melbourne – cross passage 8 excavation update letter (28 November)
- North Melbourne – December/January, February/March Construction Update (14 December and 4 February)
- Parkville – cross passage 10 and 11 construction notification (22 and 29 January)
- Parkville – Grattan St east: goods lift and tunnel ventilation shaft construction works notification (19 January)
- Parkville – Grattan St west: service works notification (20 January)
- Parkville – Grattan Street west: preparatory works (23 January)
- Parkville – weekly update to key stakeholders (ongoing)

# ENGAGEMENT AND COMMUNICATIONS UPDATE

## NORTH MELBOURNE AND PARKVILLE

### Door knocks, meetings, briefings and events

- North Melbourne – fortnightly meetings with City of Melbourne (25 November, 9 December, 3 February)
- North Melbourne – Mauri ANZ (George Weston Foods) monthly briefing (3 December, 11 February)
- North Melbourne – cross passage 7 and 8 daily excavation updates to residents of Errol and Villiers streets (November, December, January)
- Meeting with Nick Theodossi Prestige Cars and NMFC RE Laurens Street realignment (26 November, 3 December)
- North Melbourne – follow up meeting with developers of 88 Laurens Street RE Laurens Street realignment (14 December)
- North Melbourne – meeting with Autism Partnership Australia RE Laurens Street realignment (12 January)
- Parkville – fortnightly meetings with Peter MacCallum Cancer Centre, Melbourne Health, University of Melbourne, City of Melbourne; monthly meetings with Graduate House
- Parkville Precinct Reference Group (2 February)
- Parkville – business engagement (December and January check-ins)

# ENGAGEMENT AND COMMUNICATIONS UPDATE

## NORTH MELBOURNE AND PARKVILLE

### Community issues and enquiries or key stakeholder engagement

- Queensberry Street - use of local roads outside of approved haulage route
- Grattan Street west station entrance construction
- Grattan Street east – Goods lift, tunnel ventilation shaft and chiller plant works

### Upcoming engagement

- Laurens Street realignment
- Arden Station driven piling
- Cross passage construction (ongoing)
- Grattan Street – pedestrian arrangements during tunnel ventilation shaft and chiller plant construction



# METRO TUNNEL CREATIVE PROGRAM UPDATE



*Presenter: Mary Parker*

# 2020 COMMUNICATION DESIGN

2020

Communication Design

← BACK

Metro Tunnel Creative  
Program – Parkville  
precinct



FINALIST

Next →





HOME

MADE

Mystery Guest

Diimpa

Israel Carter

Hannah McKittrick

Mystery Guest

Diimpa

Israel Carter

Pérolas

Bonnie Mercer

Tanya George

SOUND

Presenters: Mary Parker



# PHOTO 2021

- New international photo biennale will takeover all construction sides from February
- Keep Melbourne's cultural life vibrant to support arts and the economy with world class public art
- Opportunity to view local talent given same prominence at internationals
- 500 metres of new art being installed



# PHOTO 2021

- 'Surge' artwork at City Square
- Evolved from 'Thank you' photo wall
- M Pavillion talk with photographers



[Exhibitions & Artist Projects, Outdoor]

KATE DISHER-QUILL & PHOEBE  
POWELL (AU)

Surge  
Central

Metro Tunnel Creative Program

# PHOTO 2021/BARRY ST + UNI SQUARE PLAZA





# PHOTO 2021/LAURENS ST (FEB – JULY)

- Renowned UK photographer George Georgiou
- 'American's Parade'



# LAURENS ST – NORTH MELBOURNE TIMELINE

- Work with local historical society and designer on a timeline of the area – Indigenous through to modern day



# QUESTIONS?



*Presenter: Chris Lovell*



# NEXT MEETING

Friday 26 March 2021



*Presenter: Chris Lovell*





Western Portal

South Kensington

Arden

Parkville

North Melbourne

Melbourne Central

State Library

Flagstaff

Parliament

Town Hall

Southern Cross

Flinders Street

Richmond

Anzac

South Yarra

Eastern Portal

Sunbury Line

Cranbourne / Pakenham Line