



ARDEN AND PARKVILLE COMMUNITY REFERENCE GROUP

MEETING 12

24 July 2020



Construction partner:



AGENDA

1. Introductions and welcome
2. Parkville construction update
3. Arden construction update
4. Tunnelling update
5. Sustainability update
6. Stakeholder and communications update
7. Creative Program update
8. Arden draft structure plan update
9. General feedback and items for future discussion
10. Meeting close

COVID-19



COVID-19

Health and safety

The health and safety of our workers is our key priority as we continue to deliver the Metro Tunnel Project, as is supporting social distancing measures in line with current health advice.

- The project will continue to protect the health and welfare of our people and the community we operate within during this time
- Construction activities are continuing across all precincts
- On-site measures being taken to meet government advice on social distancing measures
- Communications and Stakeholder Engagement team reviewing how upcoming engagement activities are delivered.

CONSTRUCTION UPDATE - PARKVILLE



Presenter: Martin Watine

CONSTRUCTION UPDATE – GRATTAN STREET EAST



Presenter: Martin Watine

GRATTAN STREET EAST PROGRAM

Activity	Jul	Aug	Sep	Oct	Nov	Dec
Permanent structure works – wall linings and columns	Dark Grey					
Permanent structure works – suspended slab construction	Light Grey					
Royal Parade station entrance excavation and strutting	Dark Grey	Dark Grey	Light Blue	Light Blue	Light Blue	Light Blue
Retail area excavation and strutting	Light Grey	Light Grey	Light Grey	Light Blue	Light Blue	Light Blue
Tunnelling support works (launch frame / deck removal)	Light Blue	Dark Grey	Dark Grey	Dark Grey	Light Blue	Light Blue
Gatekeeper's Cottage (excavation)	Light Blue	Light Blue	Light Grey	Light Grey	Light Blue	Light Blue
Service relocations – goods lift	Light Blue	Dark Grey				

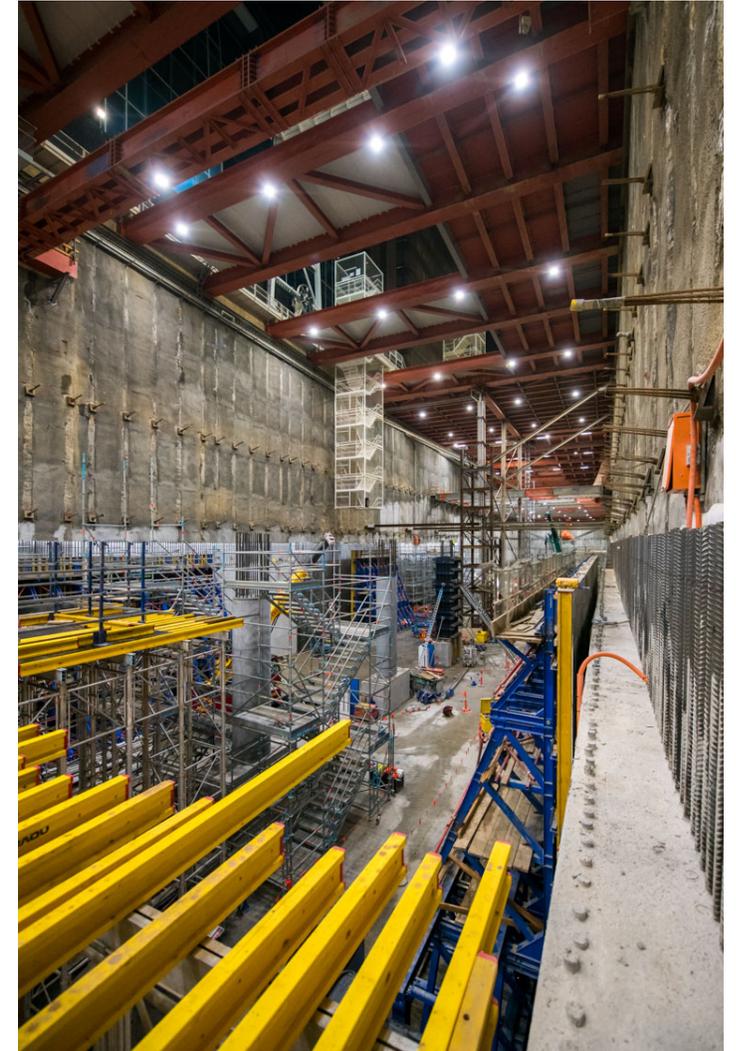


Presenter: Martin Watine

WHAT'S HAPPENING AT GRATTAN ST EAST

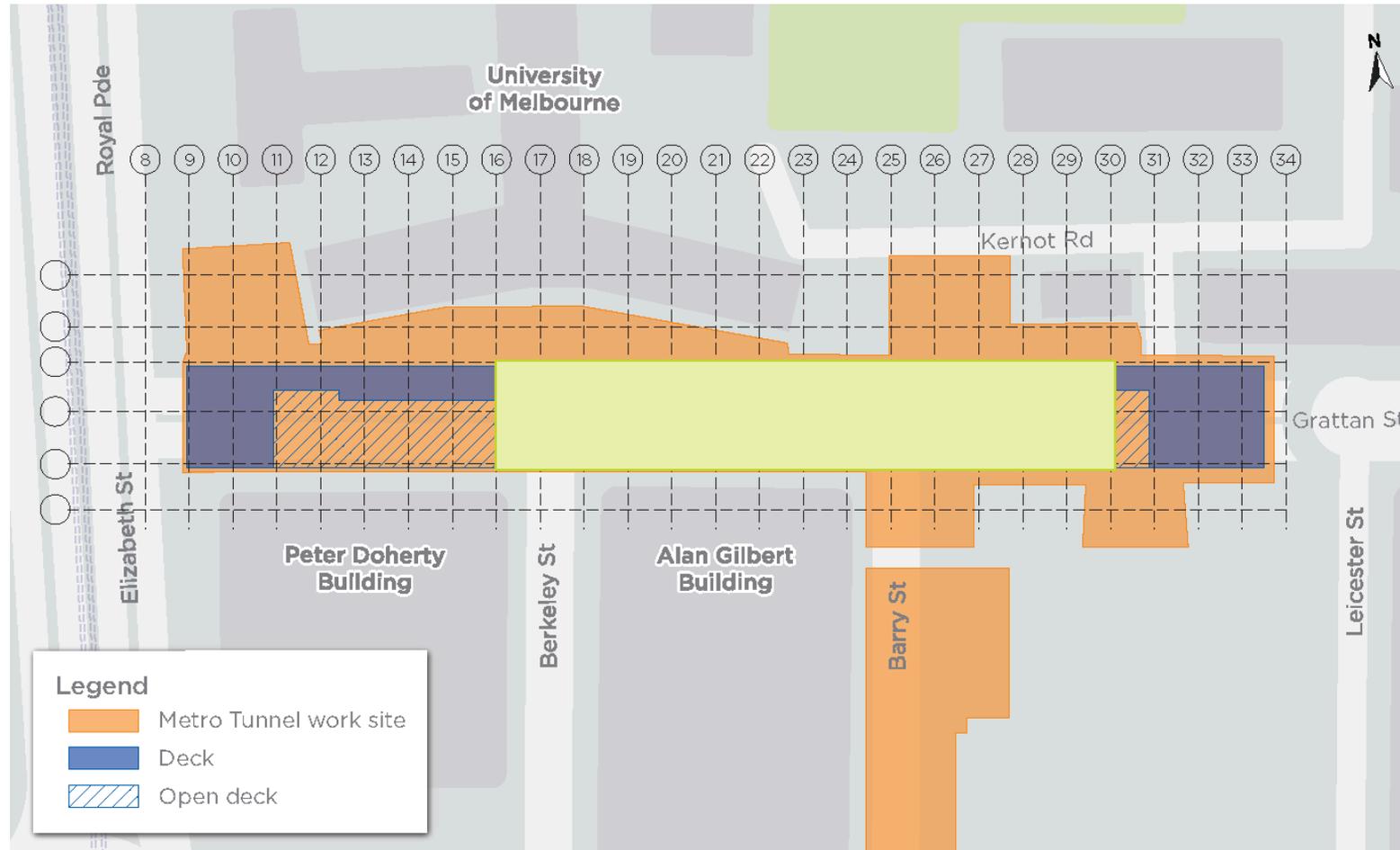
Permanent structure works ongoing:

- Base slab - complete
- Wall lining and columns are ongoing
- B3 suspended slab – 3/10 sections complete. Total of 7 sections need to be completed prior to TBM arrival.

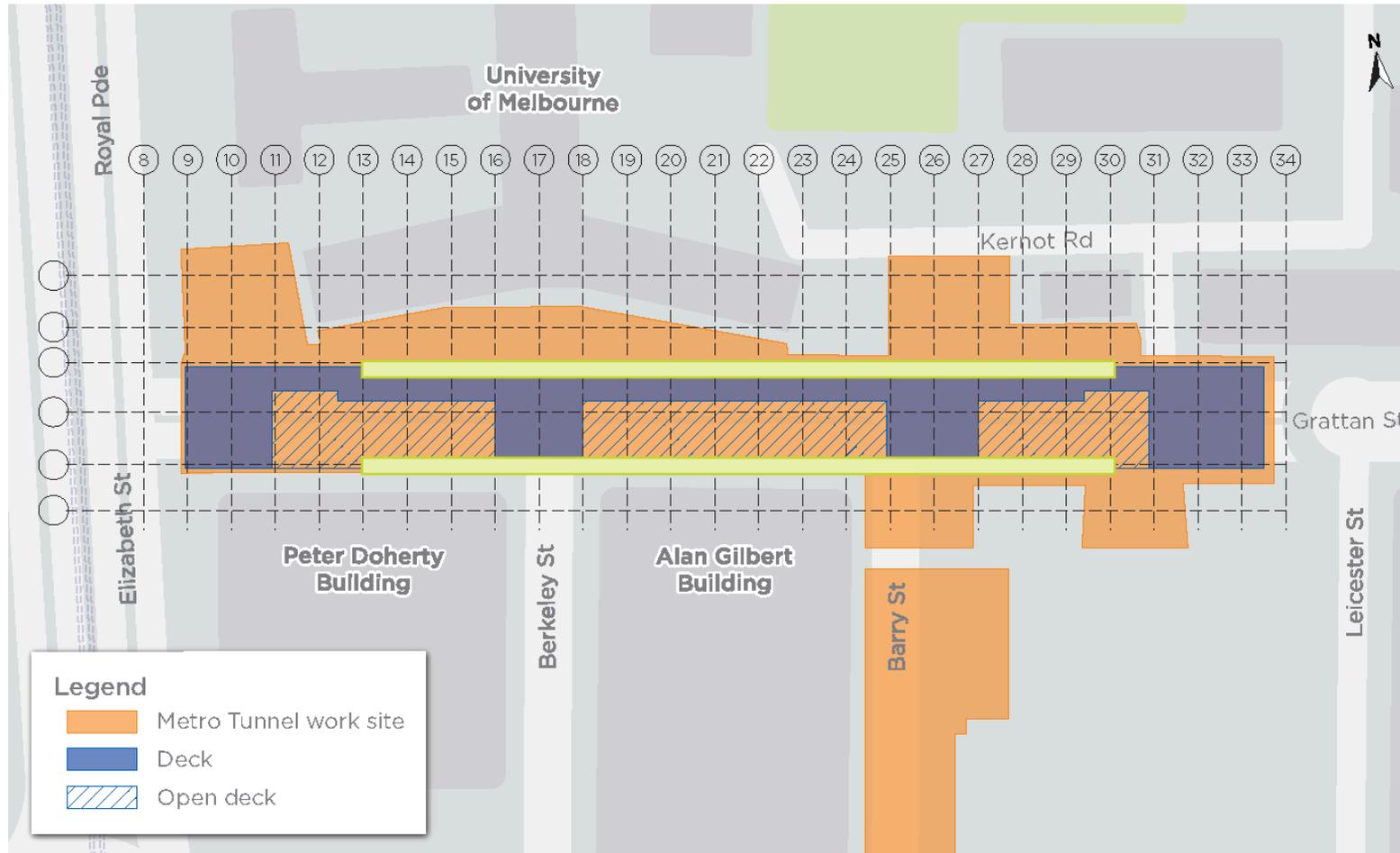


B3 suspended slab works

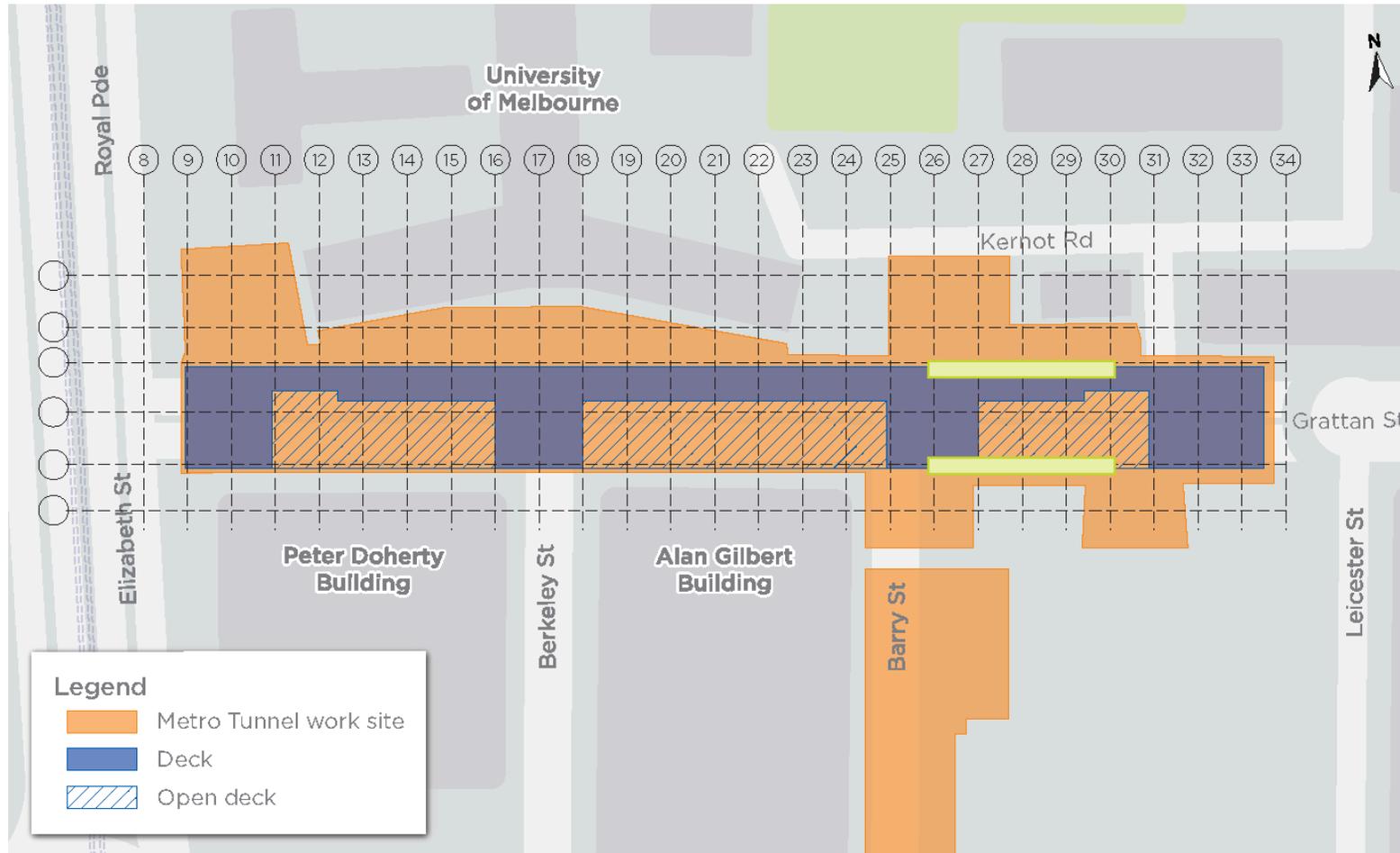
PERMANENT STRUCTURE WORKS PROGRESS – WALL LININGS B3 SUSPENDED SLAB



PERMANENT STRUCTURE WORKS PROGRESS – WALL LININGS B4-B3



PERMANENT STRUCTURE WORKS PROGRESS – WALL LININGS B3-B2



ROYAL PARADE STATION ENTRANCE EXCAVATION

- Works are anticipated to conclude in early September and will resume in 2021 to coincide with excavation and permanent structure works
- Strutting works commenced
- HV support works commenced
- Total excavation depth approximately 20 meters
- Station entrance construction will continue with permanent structure works.



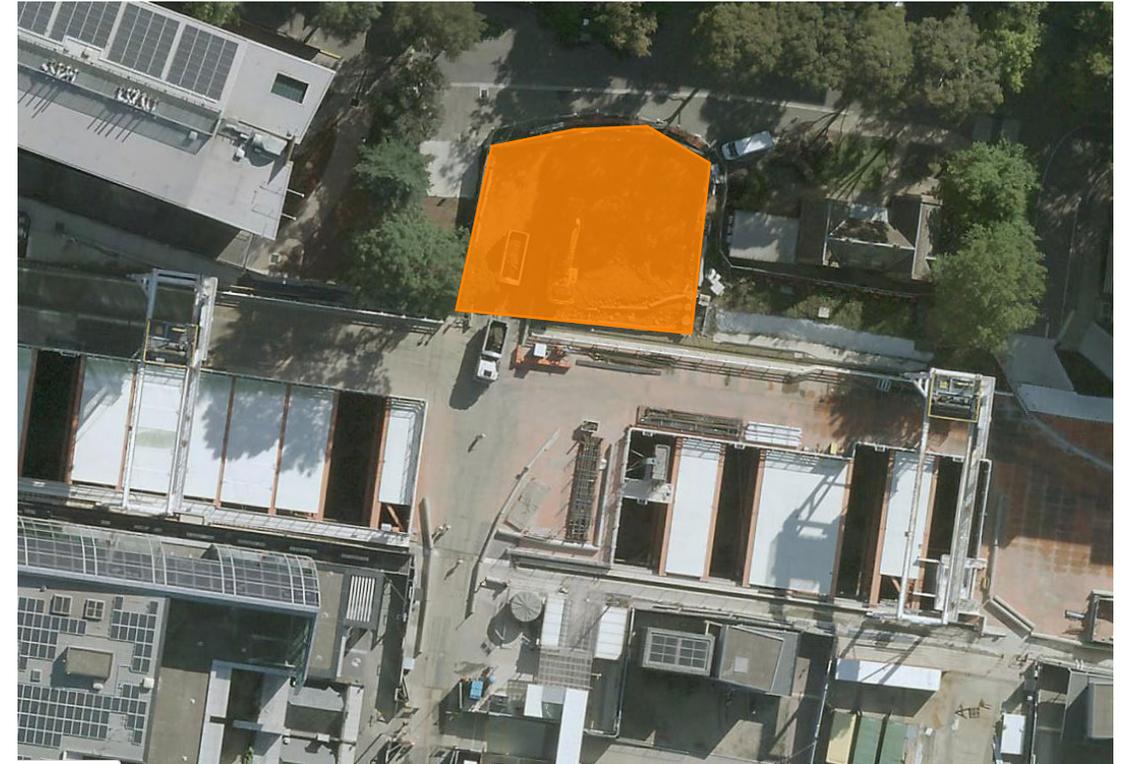
RETAIL AREA WORKS

- Works anticipated to commence from late July to install struts in the retail area
- Strut installation occurs for around four weeks
- Following additional excavation and associated works, retail area activities will continue with permanent structure works in early 2021
- Total excavation depth of retail area will be approximately 15 meters.



GATEKEEPER'S COTTAGE AREA

- Works to commence from early September for approximately 6-8 weeks, involving:
 - Excavation
 - Strut installation
 - Shotcrete
- Works will resume from mid 2021 until mid-late 2022:
 - Excavation and associated works
 - Permanent structure works
 - Mechanical, electrical, and plumbing fit-out
- Total excavation depth will be approximately 9 metres deep in total.

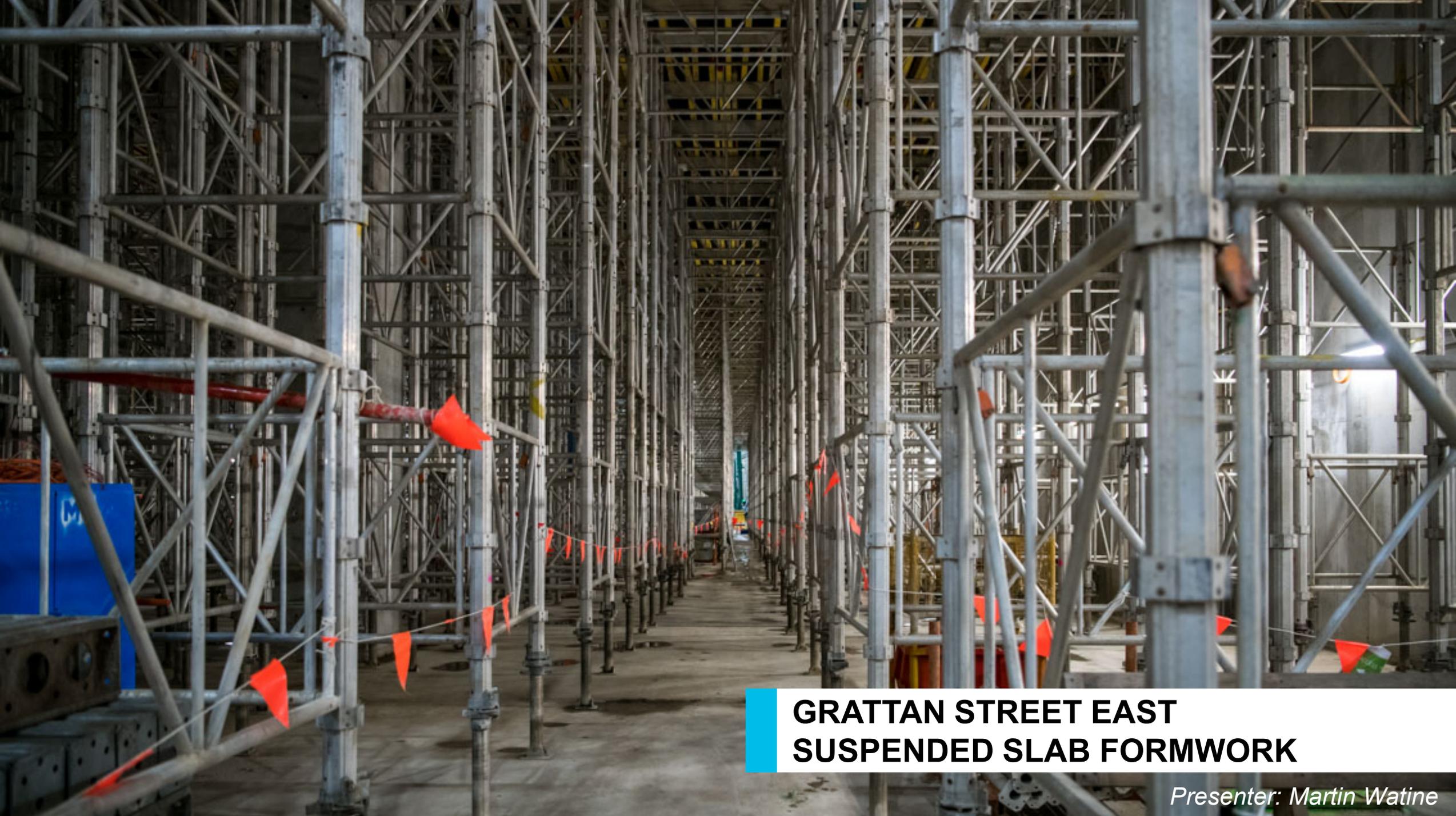


Gatekeeper's Cottage area



**GRATTAN STREET EAST
EAST TYMPANUM WALL**

Presenter: Martin Watine



GRATTAN STREET EAST SUSPENDED SLAB FORMWORK

Presenter: Martin Watine



**GRATTAN STREET EAST
B3 SUSPENDED SLAB**

Presenter: Martin Watine



GRATTAN STREET EAST COLUMNS AND WALL LININGS

Presenter: Martin Watine

CONSTRUCTION UPDATE – GRATTAN STREET WEST



Presenter: Martin Watine

GRATTAN STREET WEST PROGRAM

Activity	Jul	Aug	Sep	Oct	Nov	Dec
Piling	Dark Grey	Light Blue				
Excavation	Light Blue	Dark Grey	Dark Grey	Light Blue	Light Blue	Light Blue
Roof slab construction	Light Blue	Light Blue	Dark Grey	Dark Grey	Dark Grey	Dark Grey

Dates are indicative and subject to change



Presenter: Martin Watine

CONSTRUCTION UPDATE

- Piling activities are more than 80% complete
- Once the piling works are complete, excavation equipment will dig out the top few metres of material
- Following excavation, roof slab construction will commence.



GRATTAN STREET WEST TRAFFIC CHANGES



We are building the new
Parkville Station

https://www.youtube.com/watch?v=zm7qODq01D4&feature=emb_logo



Presenter: Danielle Smits



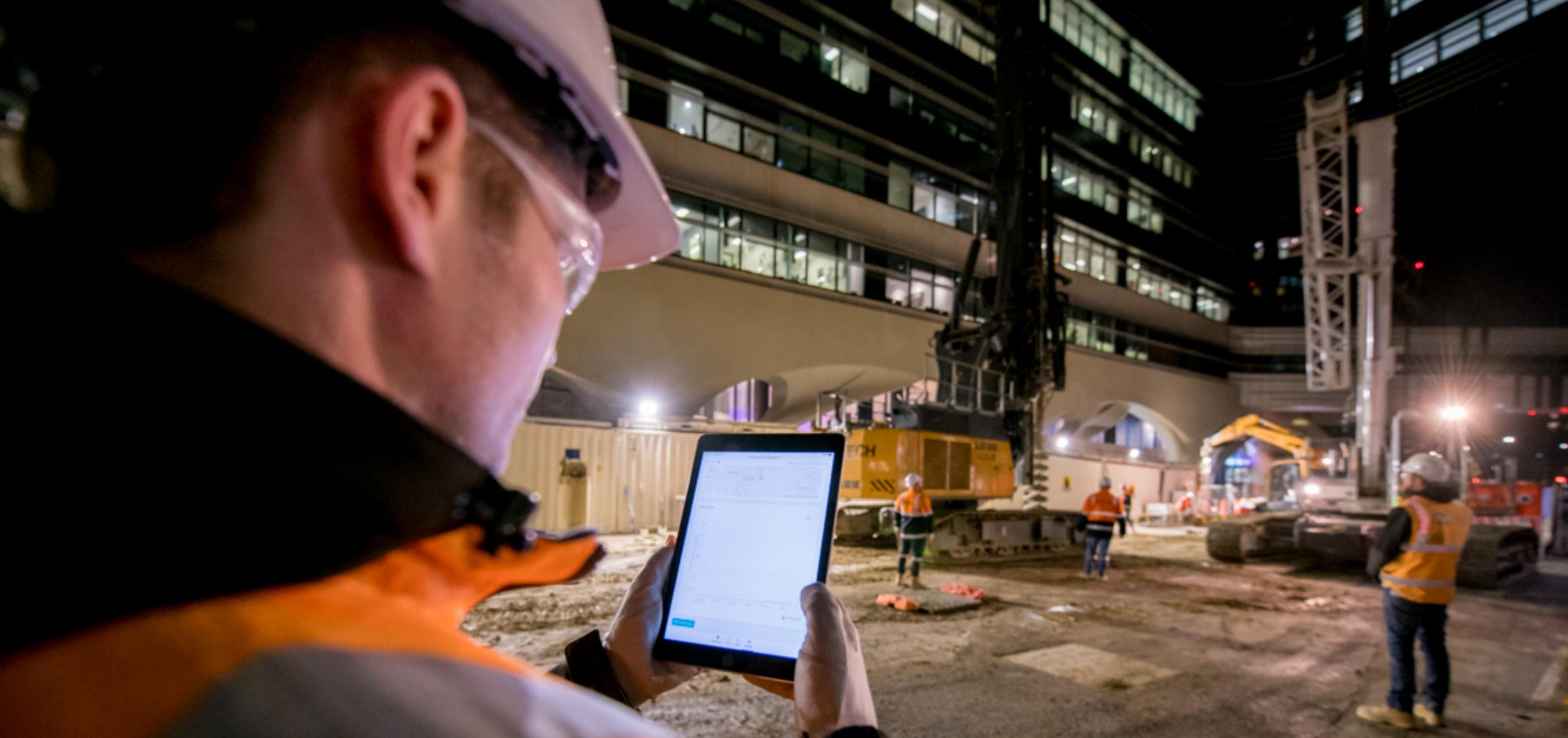
GRATTAN STREET WEST

Presenter: Danielle Smits



GRATTAN STREET WEST

Presenter: Danielle Smits



GRATTAN STREET WEST

Presenter: Danielle Smits

CONSTRUCTION UPDATE – NORTH MELBOURNE



NORTH MELBOURNE PROGRAM

Activity	Jul	Aug	Sep	Oct	Nov	Dec
Tunnelling (Arden to Parkville)	█	█	█	█	█	█
Concourse slab construction	█	█	█	█	█	█
West box inner wall construction	█	█	█	█	█	█
East box inner wall construction	█	█	█	█	█	█
Roof slab construction	█	█	█	█	█	█
Intake substation early works and construction	█	█	█	█	█	█
Cross passage construction	█	█	█	█	█	█

Program is indicative and subject to change

WHAT'S HAPPENING IN NORTH MELBOURNE

Arden Station site

- Inner wall construction
- Core walls and column construction
- Roof slab construction
- Strut removal activities
- Operation of concrete batching plant (including transport of concrete to other Metro Tunnel sites)
- Site maintenance activities
- Service proving
- Survey and monitoring activities

North Melbourne electrical (intake) substation

- Service relocations
- Piling
- Foundation structure

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
 - TBM reassembly and commissioning
 - Tunnelling, slurry treatment plant, grout pump and segment facility operation
 - Trucks transporting excavated material from site



STATION BOX ROOF SLAB

Presenter: Kim Mas



ARDEN STATION CONCOURSE CONSTRUCTION



ARDEN STATION CONCOURSE CONSTRUCTION

Presenter: Kim Mas

TUNNELLING



TUNNELLING TIMELINE

Indicative timing	Activity
May – Oct 2020	TBM 1 and 2 tunnelling North Melbourne to Parkville

Program is indicative and subject to change

TBM PROGRESS

TBM Joan

- Total tunnel length: 1449 metres, 852 rings
- 982 metres
- 572 rings installed

TBM Meg

- Total tunnel length: 1447 metres, 851 rings
- 612 metres
- 355 rings installed

TBM PROGRESS



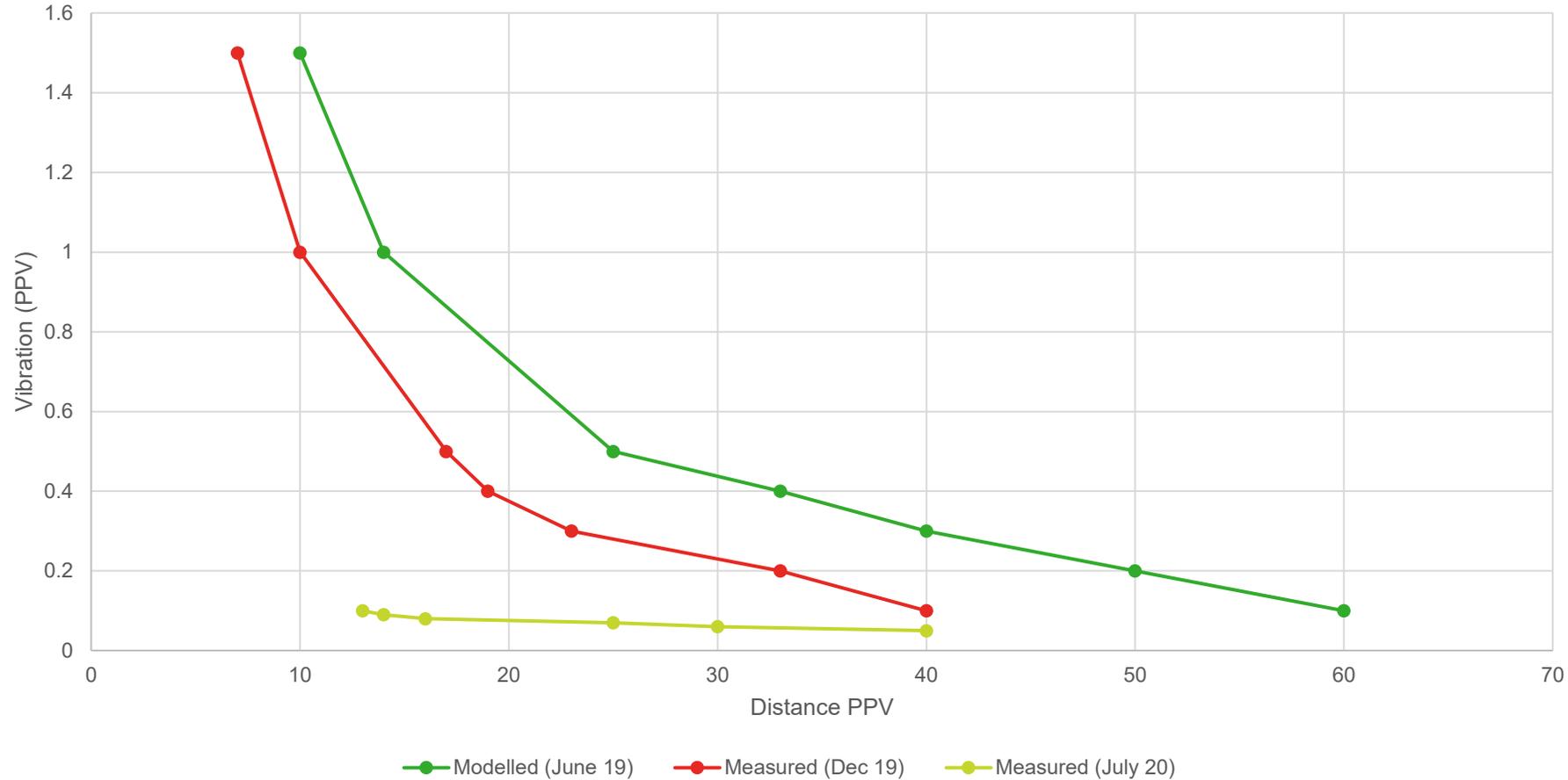
PARKVILLE TBM BREAKTHROUGH

- TBMs to mill slowly through the fibreglass 'soft eye' of the station box
- The 'soft eye' is designed to minimise impacts of the breakthrough
- Reduced confinement pressure to maintain slurry flow and ensure maximum amount of spoil/debris is pumped back to the Arden Station site slurry treatment plant (STP)
- Process to contain slurry in the station box after breakthrough

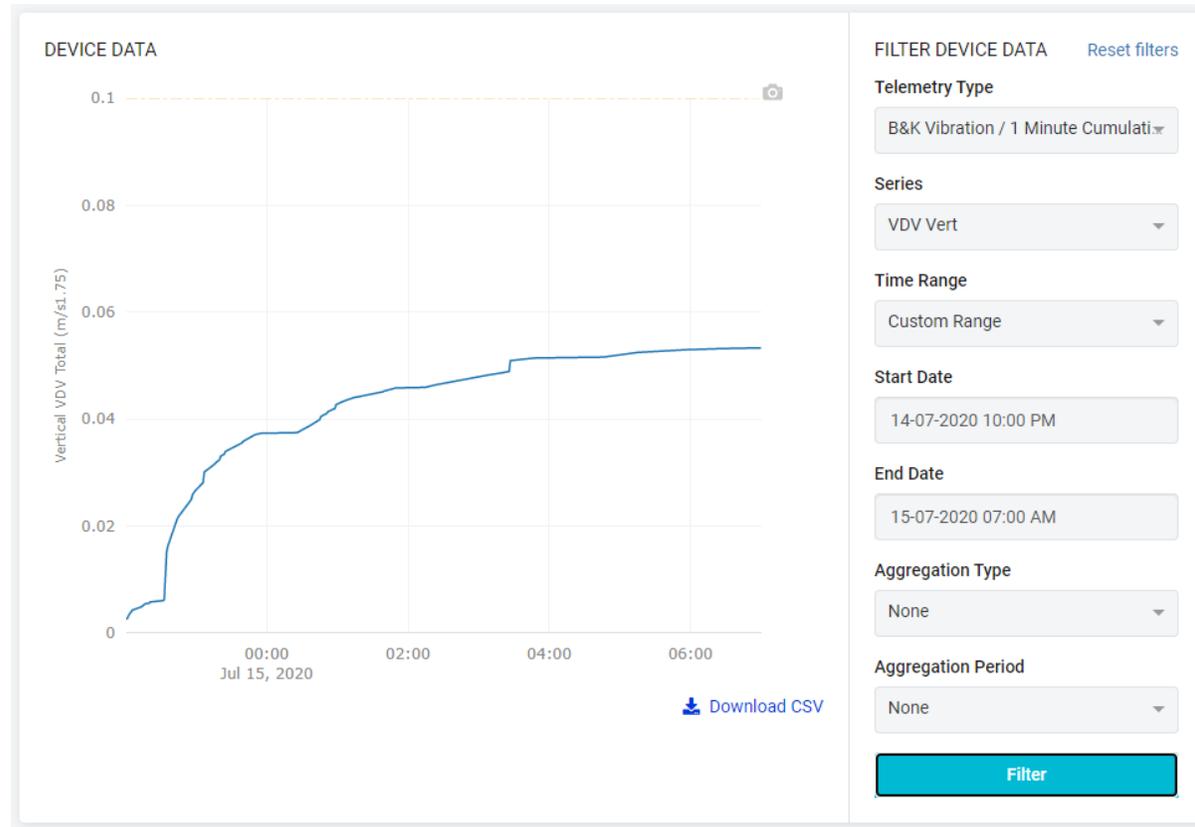
MANAGING NOISE AND VIBRATION - TBMS



PPV as a Function of Distance



TBM MONITORING – VDV NIGHT



TUNNELLING COMMUNICATIONS AND ENGAGEMENT

COMPLETED

Notifications and communications

Abbotsford Street to Curzon Street

- TBM arrival letters, noise and vibration from TBM tunnelling fact sheet, tunnel depth and alignment map to residents on Abbotsford Street, Arden Street, O'Shanassy Street and Curzon Street
- TBM1 one week out letters to residents on Abbotsford Street, Arden Street, O'Shanassy Street and Curzon Street
- TBM2 one week out letters to residents on Abbotsford Street, Arden Street, O'Shanassy Street and Curzon Street

Meetings, briefings and events

- Online tunnelling information session with residents – Abbotsford to Curzon streets (3 June and 10 June)
- SMS updates requested by/provided to one resident

TUNNELLING COMMUNICATIONS AND ENGAGEMENT

COMPLETED

Notifications and communications

Curzon Street to Errol Street

- TBM arrival letters, noise and vibration from TBM tunnelling fact sheet, tunnel depth and alignment map to residents on O'Shanassy Street, Falshaws Lane and Errol Street
- TBM1 one week out letters to residents on O'Shanassy Street, Falshaws Lane and Errol Street
- TBM2 one week out letters to residents on O'Shanassy Street

Meetings, briefings and events

- Online tunnelling information session with residents – Curzon to Courtney streets (24 June and 1 July)
- SMS updates to be provided to six residents

UPCOMING

- TBM2 one week out letters to residents on Falshaws Lane and Errol Street

TUNNELLING COMMUNICATIONS AND ENGAGEMENT

COMPLETED

Notifications and communications

Errol Street to Courtney Street

- TBM arrival letters, noise and vibration from TBM tunnelling fact sheet, tunnel depth and alignment map to residents on O'Shanassy Street, Market Lane and Courtney Street
- TBM1 one week out letters to residents on O'Shanassy Street, Market Lane and Courtney Street

Meetings, briefings and events

- SMS updates to be provided to two residents

UPCOMING

- TBM2 one week out letters to residents on O'Shanassy Street, Market Lane and Courtney Street

TUNNELLING COMMUNICATIONS AND ENGAGEMENT

COMPLETED

Notifications and communications

Courtney Street to Flemington Road

- TBM arrival letters, noise and vibration from TBM tunnelling fact sheet, tunnel depth and alignment map to residents on Courtney Street, Mary Street, Villiers Street and Flemington Road
- TBM1 one week out letters to residents on Courtney Street, Mary Street and Villiers Street

Meetings, briefings and events

- Online tunnelling information session with residents – Courtney Street to Flemington Road (15 July)
- SMS updates to be provided to five residents

UPCOMING

- TBM2 one week out letters to residents on Courtney Street, Mary Street, Villiers Street and Flemington Road

TUNNELLING COMMUNICATIONS AND ENGAGEMENT

RESIDENT FEEDBACK

- Hotham Gardens
- Falshaws Lane
- Errol Street
- Courtney Street
- Villiers Street



Presenter: Kim Norton

SUSTAINABILITY



Presenter: Kate Rowan

CYP SUSTAINABILITY APPROACH

‘CYP have adopted environmental, social and economic sustainability principles to create infrastructure that connects our communities and delivers a legacy for present and future generations’



SUSTAINABILITY OBLIGATIONS

- **Infrastructure Sustainability (IS)**
 - Rating - 84
- **Green Star Ratings**
 - 5★ at each station
- **Contract Deliverables**
 - Specific requirements beyond rating tool requirements



ISCOA Infrastructure
Sustainability
Council of Australia



Developed by the
Green Building Council of Australia



SUSTAINABILITY OUTCOMES



ENERGY AND CLIMATE CHANGE

125kW solar panel array

Escalators and lifts

Station heating and cooling system includes allowances for increased temperatures based on climate change

Energy Efficient fixtures and fittings



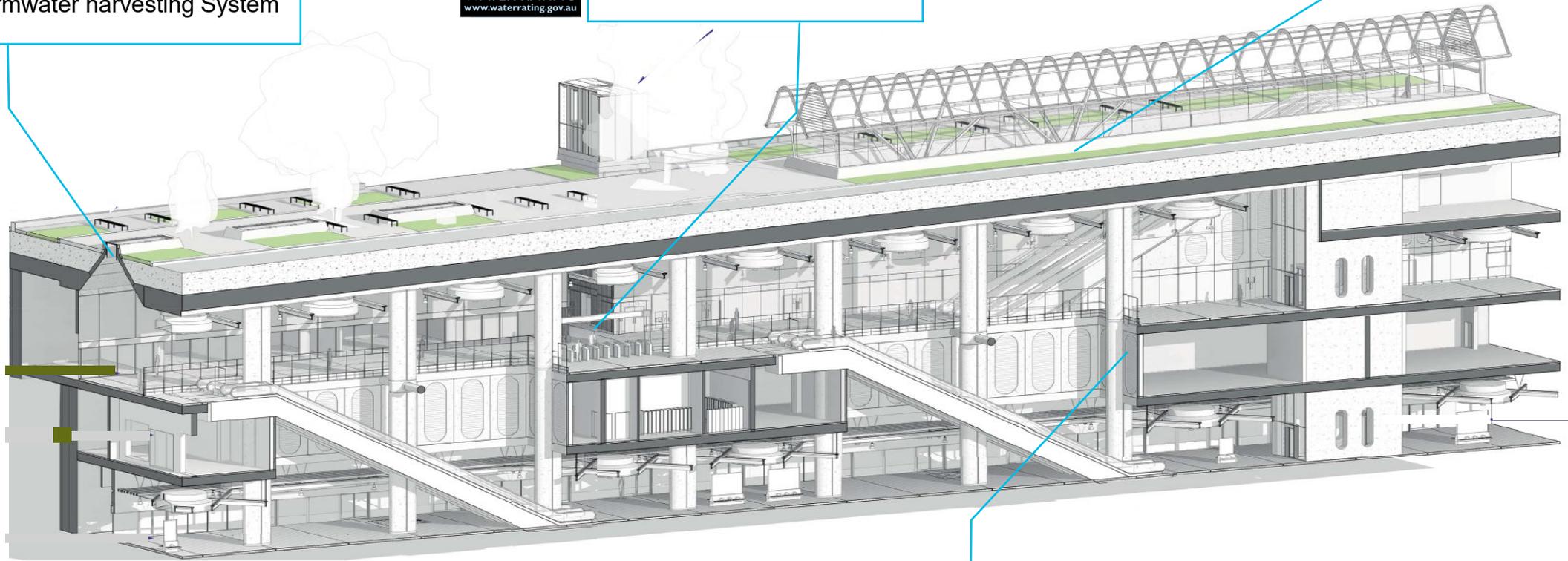
WATER

Stormwater harvesting System



Water efficient fixtures and fittings

Urban Realm design ensures best practice water quality performance objectives are achieved



Air-cooled chillers

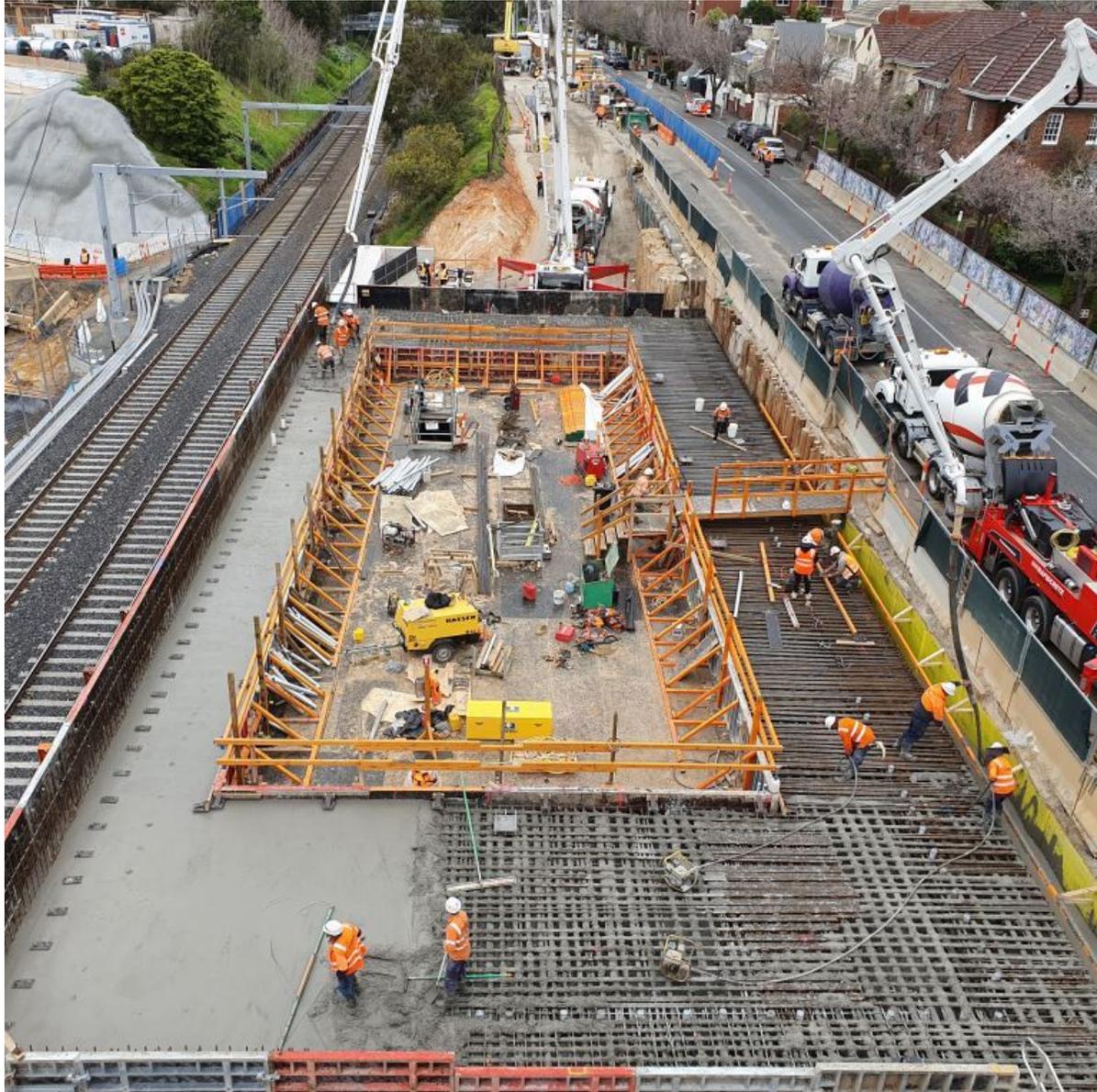


Presenter: Kate Rowan

WASTE AND RECYCLING



MATERIALS



SUPPLY CHAIN



Presenter: Kate Rowan



green building council australia

6 greenstar

Custom (Melbourne Metro Rail Authority)
2020

Design Review



Presenter: Kate Rowan

STAKEHOLDER AND COMMUNICATIONS UPDATE



ENGAGEMENT AND COMMUNICATIONS UPDATE

NORTH MELBOURNE AND PARKVILLE

Notifications and communications

- Arden – June/July 2020 Construction Update (11 June)
- Parkville – weekly update to key stakeholders

Door knocks, meetings, briefings and events

- Parkville - fortnightly meetings with Peter MacCallum Cancer Centre, Melbourne Health, University of Melbourne, City of Melbourne and Graduate House
- Parkville Precinct Reference Group (14 July)
- Parkville Communications Working Group (22 July)
- Arden – fortnightly meetings with City of Melbourne (24 June, 15 July, 22 July)

ENGAGEMENT AND COMMUNICATIONS UPDATE

NORTH MELBOURNE AND PARKVILLE

Community issues and enquiries

- Dirt and mud on Arden Street
- TBM noise and vibration enquiries
- Grattan Street west station entrance construction – comprehensive engagement with hospitals regarding construction activities

Upcoming engagement

- Tunnelling operations in the Parkville Precinct



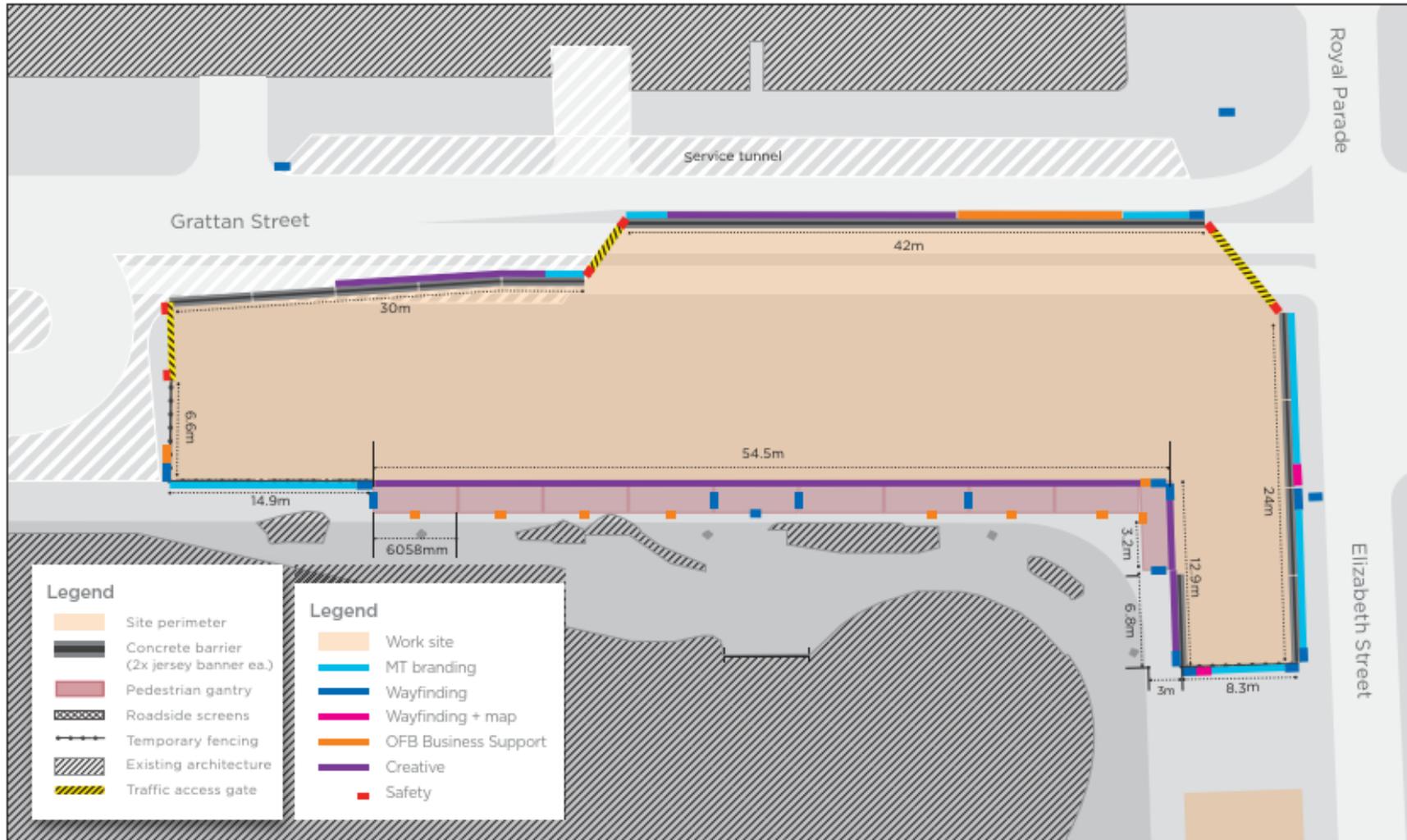
Presenters: Kim Norton & Danielle Smits

METRO TUNNEL CREATIVE PROGRAM

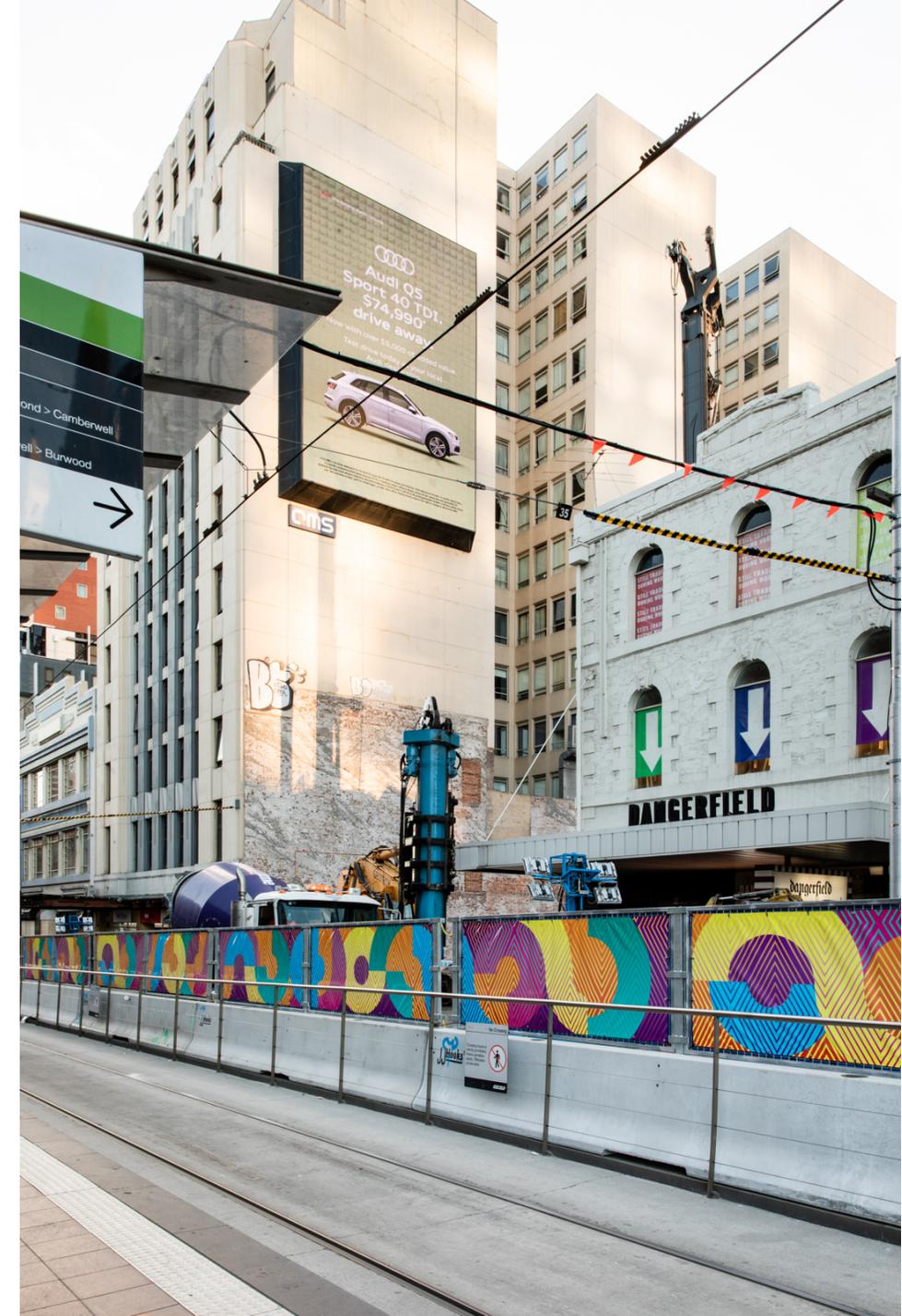
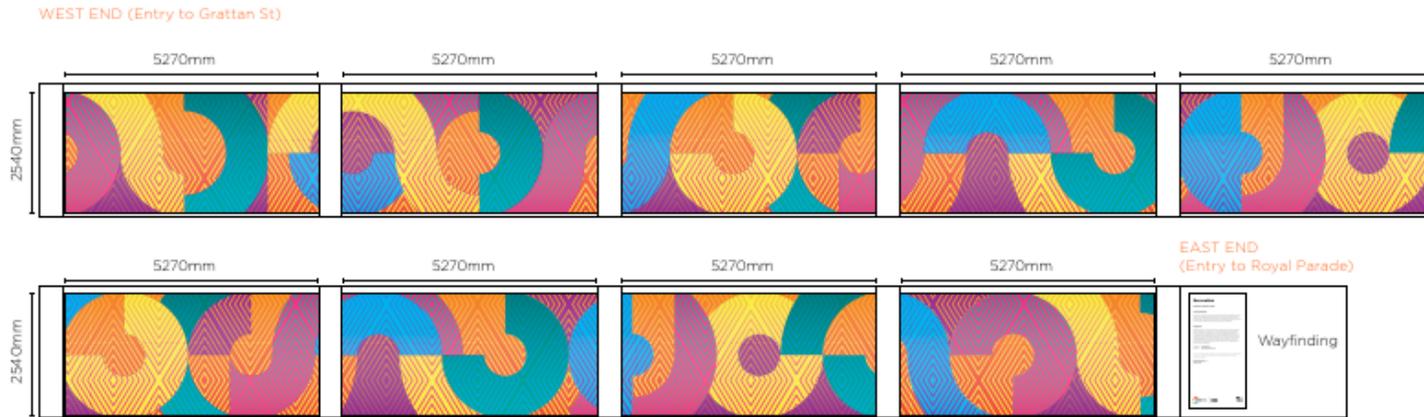


Presenter: Danielle Smits

HOARDING SITE PLAN



INTERIM CREATIVE IN PEDESTRIAN GANTRIES



- Timing: Frame built for gantries is happening now.
- Print and install expected from week commencing July 27

PARKVILLE PHOTO ESSAY UPDATE

- Once hoarding line has been moved, design of essay will be completed.
- Expect to print and install in August
- Black and white shots from the photo essay to be displayed in the pedestrian gantries



DRAFT ARDEN STRUCTURE PLAN



Presenter: Tim Benedict

DRAFT ARDEN STRUCTURE PLAN

METRO TUNNEL PROJECT - CRG

Victorian Planning Authority & City of Melbourne

24 July 2020



Indicative only for illustrative purposes



Presenter: *Tim Benedict*

1 Introduction

Purpose

Overview of the draft Arden Structure Plan

What's next?

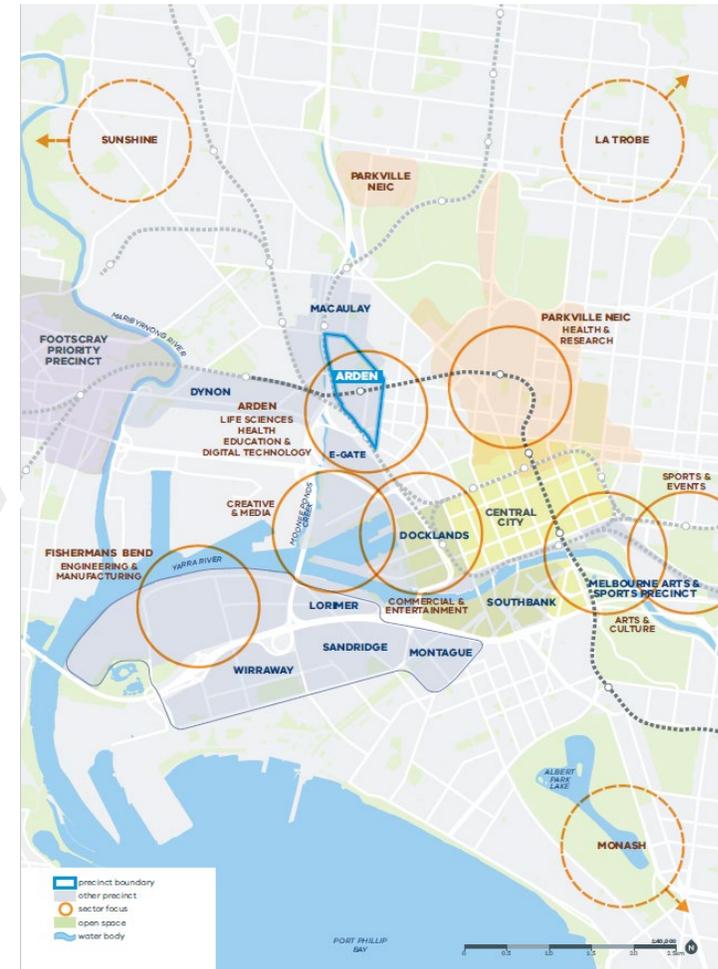
Public consultation open until August 9.

Consultation feedback will inform the final Arden Structure Plan and preparation of planning scheme amendment package.

We are doing this to

Implement planning controls for Arden and facilitate development in line with new station opening in 2025.

The draft Plan builds from the *Arden Vision* (2018) and will guide development for 30+ years



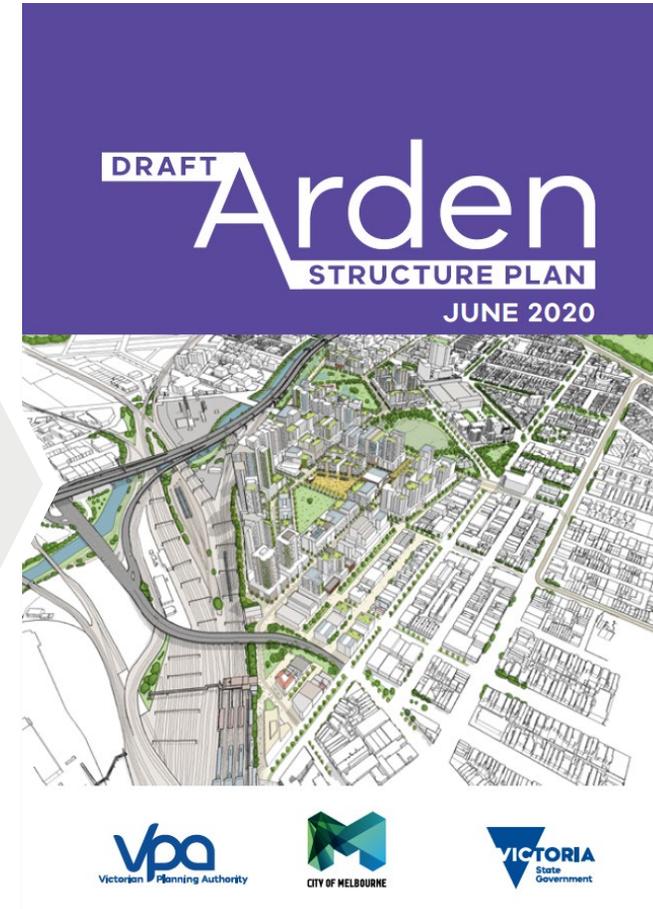
1 Introduction

What is the draft Arden Structure Plan?

- Guides land use and development, business investment and infrastructure delivery.
- Shows street layout, new buildings, parks, community facilities and infrastructure
- Guides future government decisions on things like schools and transport.
- Will be the basis of planning scheme rezoning in 2021 to unlock the innovation precinct

Why Arden?

- Melbourne's population is predicted to grow to almost 8 million by 2050.
- It's close to Melbourne's central city and serviced by three train stations and the new Metro Tunnel,
- Significant opportunity to accommodate the new jobs and residents of a growing Melbourne.



2 Arden Vision to Draft Arden Structure Plan

Arden Vision 2018: key targets



Pursue a range of sectors including: health, education, digital technologies and life sciences



34,000 jobs



15,000 residents



Best practice standards sustainability:

- Zero net emissions targets
- Alternative district water, waste and energy solutions



40% tree canopy cover by 2040 for the City of Melbourne area



Open space within 300m of all residents and workers

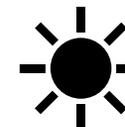
Flood prone land protected from impacts of 1 in 100 year flood



2-4 new schools and 2 community hubs



Protect solar access to key open spaces



Affordable housing comprising:
15% affordable housing, CoM land
10% on govt owned land for first home buyers
6% on privately owned land



2 neighbourhood parks, green links, and Capital City open space.



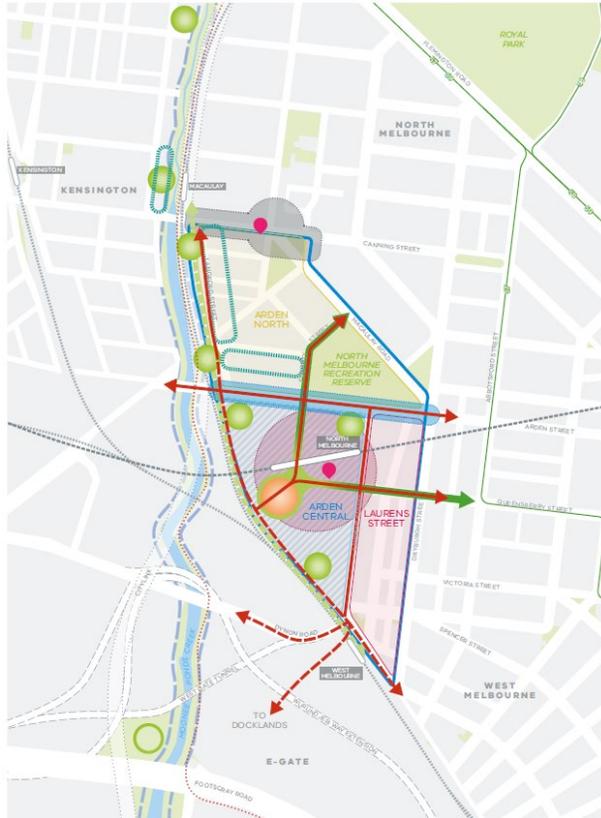
90% active and public transport modes



2 Arden Vision to Draft Arden Structure Plan

From a framework plan to spatial layout backed by technical work

Arden Vision 2018



Technical studies

- ✓ Drainage
- ✓ Open space
- ✓ Sustainability
- ✓ Economic narrative and innovation requirements
- ✓ Built form testing
- ✓ Community infrastructure
- ✓ Integrated transport
- ✓ Heritage and cultural values
- ✓ Contamination

Technical studies will be available at exhibition of the final Arden Structure Plan and planning scheme amendment

Draft Arden Structure Plan 2020



Presenter: Tim Benedict

2 Arden Vision to Draft Arden Structure Plan

The Draft Arden Structure Plan delivers

The Draft Arden Structure Plan...

- Achieves approximately 34,000 jobs & 15,000 residents
- Describes principles and key moves informing the 2D spatial layout including streets, land uses, built form, open spaces and public realm
- Sculpts built form through a combination of Floor Area Ratios, heights and design objectives
- Illustrates a transport network to prioritise walking, cycling and public transport, future proofs for a high capacity public transport route, with limited centralised car parking
- Outlines Arden flood management strategy and potential delivery mechanism (TBD by Melbourne Water)
- Reinforces affordable housing targets and highlights the aspiration for global best practice
- Propose strategies to provide for a zero-carbon precinct
- Highlights matters to be included in a development contributions plan



There are 8 themes, 31 objectives & 116 strategies

Presenter: Tim Benedict

3 HOW TO GET INVOLVED

Public Consultation



Consultation commenced 29 June 2020 until Sunday 9 August 2020. | Feedback will help shape the final Arden Structure Plan and planning scheme amendment, anticipated for exhibition in early 2021



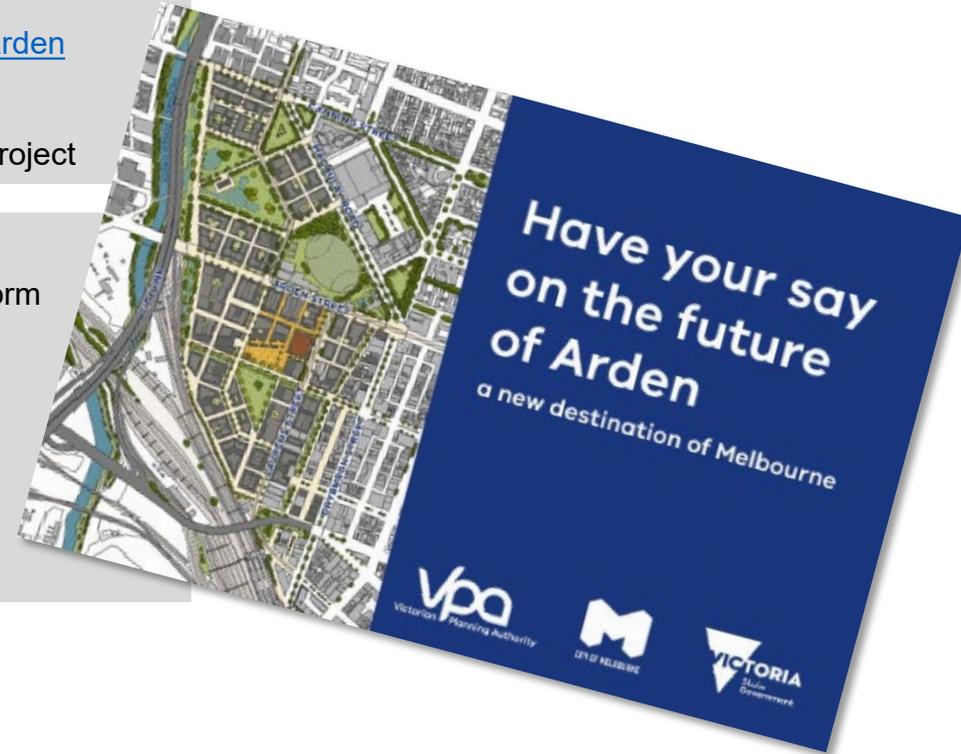
Where to find all the information?

- Visit <https://participate.melbourne.vic.gov.au/arden>
- Online Q&A sessions
- Call 9651 9600 to speak to a planner on the project



Key consultation activities

- Online survey via Participate Melbourne platform
- Small group discussion
- Interactive online webinar
- Arden hotline for enquiries
- Targeted community interest group
- One on one meetings



5 The Draft Plan

Future Urban Structure

Key Themes:

1. Transforming Arden
2. Designing a distinctive place
3. Embedding sustainable change
4. Prioritising active transport
5. Celebrating water
6. Creating diverse open spaces
7. Accommodating diverse communities
8. Investing in community infrastructure



QUESTIONS?



Presenter: Chris Lovell



NEXT MEETING

Friday 18 September 2020



Presenter: Chris Lovell



Western Portal

South Kensington

Arden

Parkville

North Melbourne

State Library

Melbourne Central

Parliament

Flagstaff

Town Hall

Southern Cross

Flinders Street

Richmond

Anzac

South Yarra

Eastern Portal

Sunbury Line

Cranbourne / Pakenham Line