

#### DOMAIN COMMUNITY REFERENCE GROUP

Meeting #20

Wednesday 12 February, Seasons Botanic Gardens



# **WORKS UPDATE**



#### **ANZAC STATION PROGRAM**

#### LOOK AHEAD FOR 2020 **February** March May April Northern box base slab construction Middle box diaphragm wall construction Middle box initial excavation Tunnel boring machine delivery Tunnel boring machine commissioning (Millie & Alice) **Tunnelling (Millie)** Indicative only





#### **CURRENT AND UPCOMING WORKS**

- North box base slab construction
- Shed finishing works
- Diaphragm wall construction
- Tunnel boring machine (TBM) deliveries and assembly
- Service investigation works.



Cutterhead Install



# MIDDLE BOX STAGING



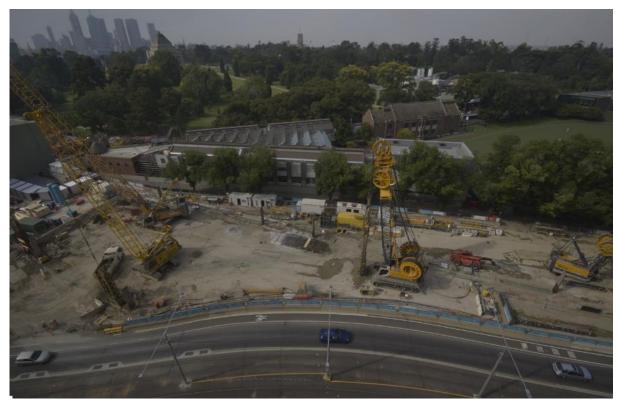
#### **MIDDLE BOX**

- Currently completing D-wall and piling works
- Work will continue in middle box to construct the roof slab
- This work will include:
  - Excavating to roof slab level
  - Putting down a blinding layer of concrete
  - Installing steel reinforcement
  - Pouring concrete slab
- This will be done in stages, similar to how the south box roof slab was constructed.





## METROTUNNEL D-WALL CONSTRUCTION

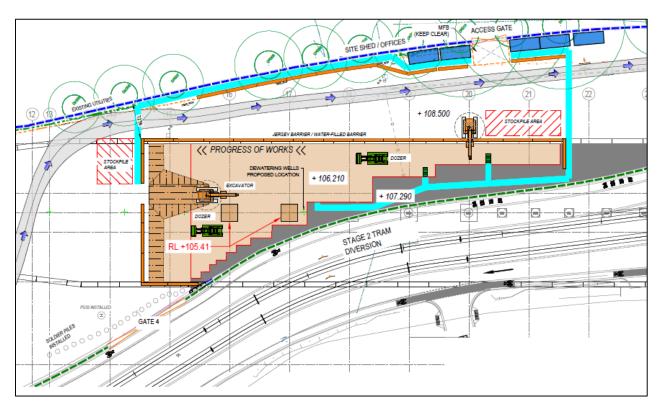




D-wall and piling works underway in middle box



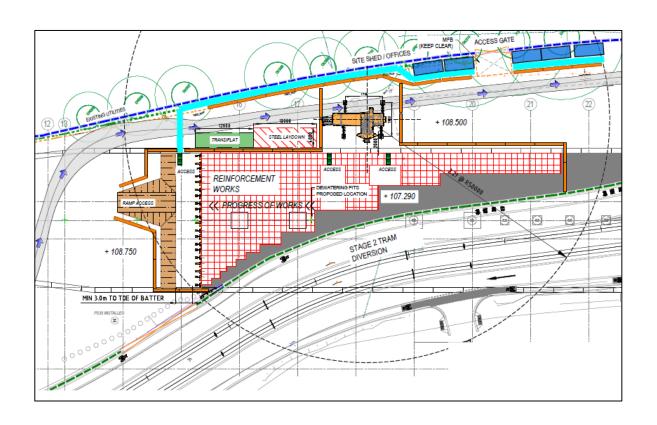
## **EXCAVATION AND DEMOLITION**







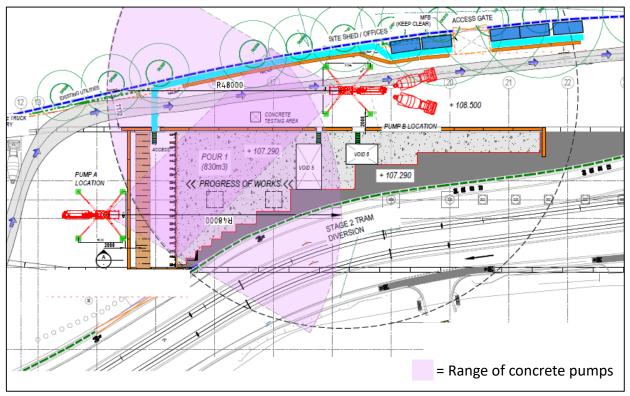
## REINFORCEMENT







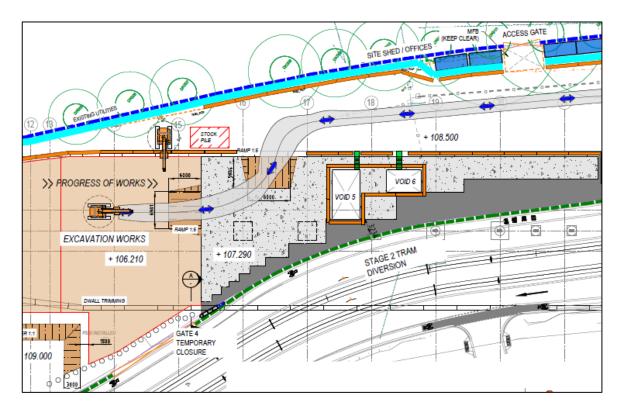
## **CONCRETE ROOF POUR**







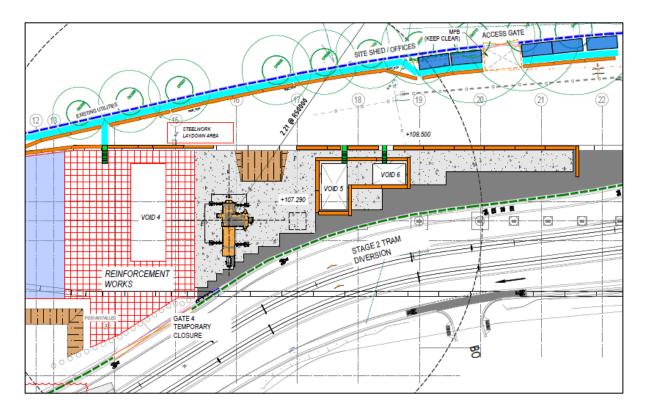
## METROTUNNEL EXCAVATION







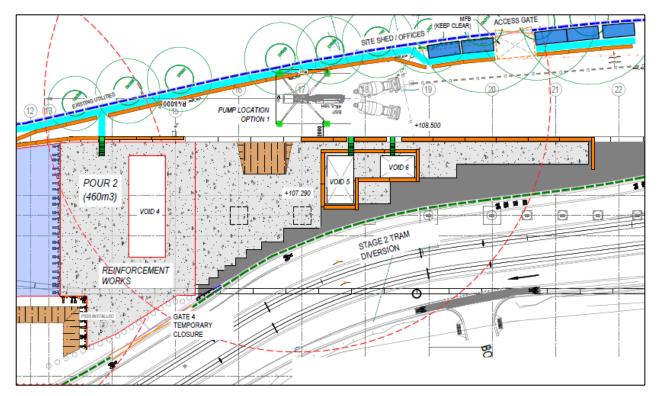
## METROTUNNEL REINFORCEMENT







#### METROTUNNEL CONCRETE ROOF POUR





# **TUNNELLING UPDATE**



#### **TBM ASSEMBLY**

- TBM Millie being assembled in the station box
- Cutterhead lowered and installed Tuesday
   4 February
- TBM deliveries will continue through to April 2020
- Tunnelling scheduled to commence late April/Early May.







#### TBM SPOIL REMOVAL

- 7pm 5am, 7 nights per week
- 18 trucks with 6 loads each per night
- Approximately 216 truck movements per shift
- Spoil removal may be impacted by major events
- Daytime spoil removal (outside school hours) may be required in the event of a delay in previous nights loadout of spoil.



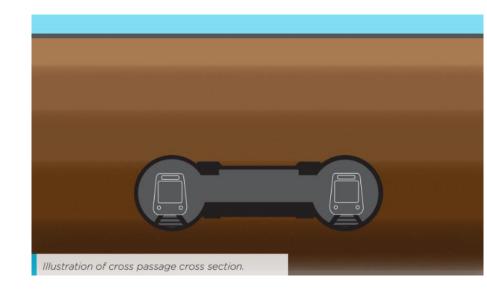


# **CROSS PASSAGE 15**



#### **CROSS PASSAGES**

- A cross passage is a short tunnel that connects two parallel tunnels
- The Metro Tunnel will have 26 cross passages located approximately 230 metres 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.

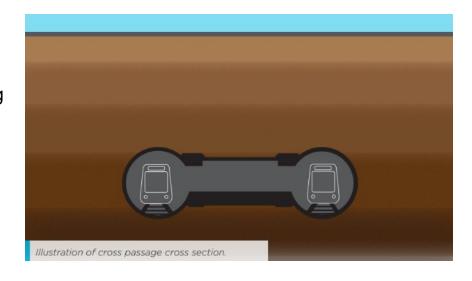






#### **CROSS PASSAGE CONSTRUCTION**

- Cross passages will be constructed from below ground within the tunnels after the tunnel boring machines (TBMs) have passed through
- The cross passages are generally constructed using traditional mining techniques to create a link between the two tunnels
- In some locations, the ground conditions are not suitable for mining between the two tunnels without firstly increasing the strength of the ground and reducing groundwater permeability.

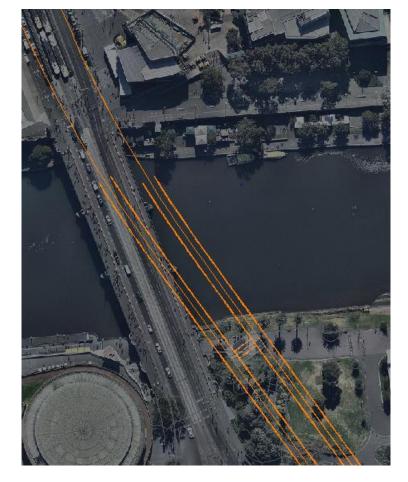






#### METROTUNNEL CROSS PASSAGE 15

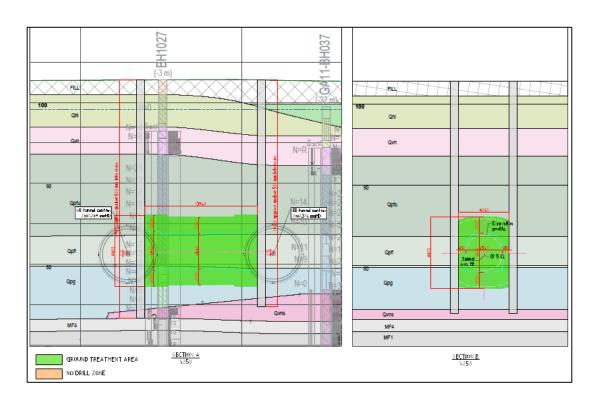
- Cross Passage 15 is located on the southern bank of the Yarra River, just east of Princes Bridge
- The ground conditions at this location requires ground improvement works from surface level.







#### **GROUND TREATMENT**



#### **Ground treatment purpose**

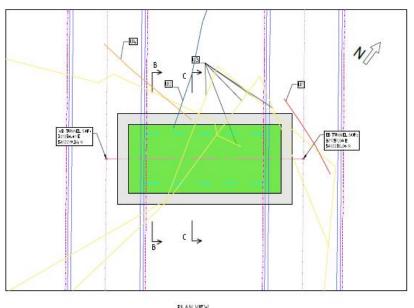
- Requires underground wall to cutoff water flows
- Require jet grouting to create mineable strata between the twin tunnels.

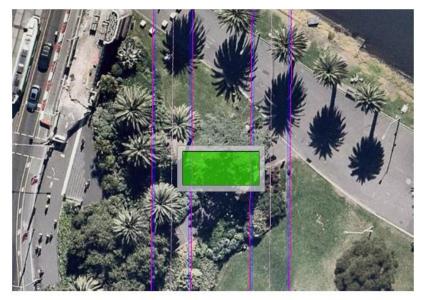




## METROTUNNEL GROUND TREATMENT METHODOLOGY

#### Underground wall with jet-grouting infill





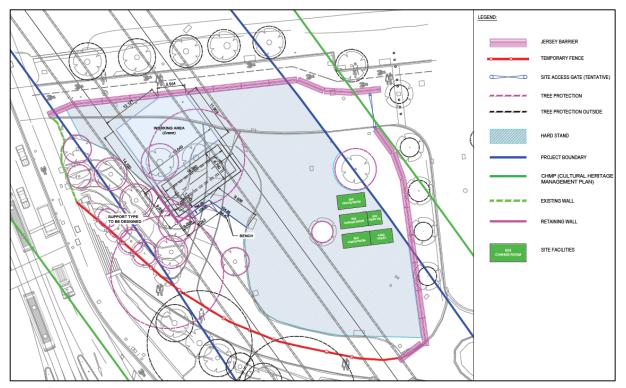
PLAN VIEW 1:200 PLAN VIEW



CONCEPT ONLY – SUBJECT TO CHANGE



#### SITE ESTABLISHMENT



- Pedestrian / cyclist thoroughfare maintained (4m wide path)
- Site access via Boathouse Drive to single site gate
- Fenced off enclosure for the site (traffic barriers with screens)
- Peppercorn Lawn utilised for site establishment and plant laydown
- · Rowing activities not affected
- Four trees will be removed (2 palm trees, 1 cedar and 1 gumtree on Peppercorn lawn).





#### **CONSTRUCTION LOGISTICS**

Estimated start date: Late April 2020

Estimated duration: 12 months

Estimated number of vehicle movements:

10-12 concrete truck deliveries intermittently

Up to 12 tandem trucks daily at peak excavation

Some plant and equipment deliveries on semi trailers floats.

(Based on current plans and is indicative only)





## **HAULAGE ROUTE**





CONCEPT ONLY – SUBJECT TO CHANGE

## **ENVIRONMENT UPDATE**



#### **TBM ASSEMBLY**

- TBM Assembly occurring within the acoustic shed 24/7
- Acoustic shed performing very well
- Attended monitoring undertaken for TBM assembly







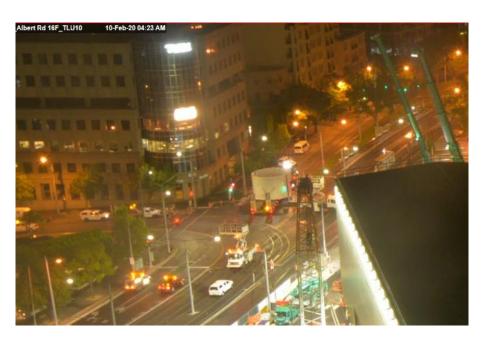
## METROTUNNEL NOISE MONITORING - TBM ASSEMBLY

Building	Measured (Night) dB Laeq 15min
The Domain	58
The Botanica	58
Hallmark Apartments	58
Domain Hill	59

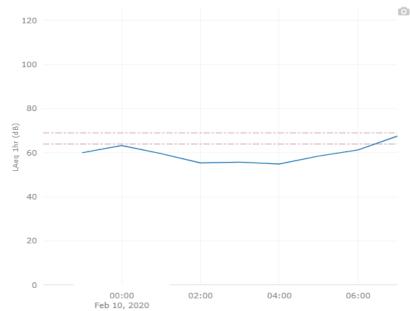




#### **NOISE MONITORING -TBM DELIVERY**



DEVICE DATA



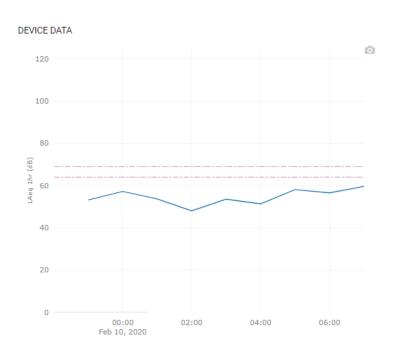
Noise Monitoring – The Domain

TBM Tailskin Delivery 10/02 – 4:00am





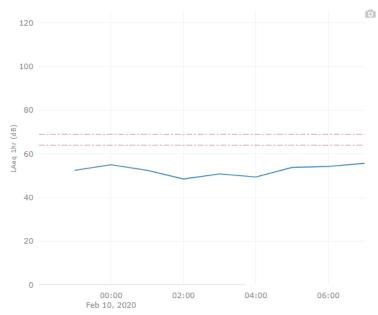
#### **NOISE MONITORING –TBM DELIVERY**



#### Noise Monitoring – Domain Hill



#### DEVICE DATA



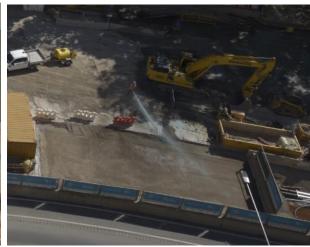
Noise Monitoring – Hallmark



#### **DUST MITIGATION**

- Stabilised/sealed road –
   Asphalting
- Apply stabilising agent
- Use of water sprayers
- Entry, exit and haul roads are kept clean
- Acoustic Shed









# METRO TUNNEL CREATIVE PROGRAM - POP-UP PARKS





#### **SURVEY FEEDBACK**

- Approximately 150 surveys completed so far hard copy and online
- The majority of feedback supports that the park remains in place beyond the five-month trial period
- Some survey comments suggest some residents would prefer to have the car parks reinstated and felt there was not enough consultation
- Online survey available at: <u>metrotunnel.vic.gov.au/domain-road-pop-up-park</u>
- Thank you to residents and businesses.



#### **SURVEY COMMENTS**

#### **Positive**

- It's made Domain Road a special destination and would be attracting more locals and visitors so wonderful for the Botanical gardens as well
- I love this area and think this only adds to the ambience
- Great outdoor initiative
- · Keep it, more greenery
- This is a brilliant initiative and so important to the local community to enhance the environment. The residents and businesses in the area have been negatively impacted by the Metro Tunnel and this initiative is welcomed in the community
- Better than expected
- Fantastic for local community and businesses. Please keep it
- It would be a backwards step to remove the park. It's a feature that gives the cafe greater variety and standalone features that complement the Bot Gardens.

#### **Negative**

- It is totally unnecessary in this area of established parks and cafes. Parking is needed for this popular area for the many visitors
- Please finish the trial so we can revert to the original lay out Also do not want it a permanent pop-up as hope the #8 tram will return to Domain Road and such a development would make this difficult
- The "engagement" document attached to the website totally misrepresents that there was any meaningful consultation with local residents. There was none. It was a fait accompli before local residents heard about it. Why should local residents have to put up with something which merely serves to gratuitously expand the business of three eateries largely patronised by visitors to the area. The added 'greenery' is a meaningless artificial contribution to an already beautiful natural green environment in Domain Park South.





# ALBERT ROAD RESERVE POP-UP PARK – UPDATE

Activity	Timing
Community and stakeholder engagement	From February 2019
Refine design	Complete
HV process and updates	From early 2019
Works commence	First half 2020 *pending permits
Works	Onsite 6-9 weeks approx.
Park in use	Up to two years

The Creative Program commits to communicating all stages of the park installation with relevant key stakeholders, local community and businesses.

The Creative Program will manage all maintenance of the park.

## **DOMAIN PRECINCT - ARTWORKS**







# DOMAIN PRECINCT - JERSEY BARRIERS MELBOURNE GRAMMAR FACING

Banner sets along walkway on St Kilda Road

19



Banner sets along walkway from St Kilda Road to Domain Road



Banner sets along walkway on Domain Road



## **LEGACY ARTS PROGRAM UPDATE**

#### **LEGACY ART PROGRAM – LINE-WIDE ARTIST MAREE CLARKE**

- Maree Clarke is a Yorta Yorta / Wamba Wamba / Mutti Mutti / Boonwurrung woman who grew up in Mildura and now lives in Melbourne
- Her line-wide artwork will feature across all five new underground stations – North Melbourne, Parkville, State Library, Town Hall and Anzac
- Other permanent artworks will be installed in the five new stations
- Artists have been shortlisted for North Melbourne, State Library, Parkville and Anzac station artwork commissions. These artists will commence concept development shortly, with the final station artists announced in mid-late 2020.



#### **LEGACY ART PROGRAM – TOWN HALL EOI**

Expressions of interest to create a permanent public artwork for the new Town Hall Station as part of the Metro Tunnel Legacy Artwork Program are open until 5pm 17 February 2020.

https://metrotunnel.vic.gov.au/about-theproject/creative-program/legacy-artwork/town-hallstation-EOI

Stakeholders who wish to share precinct specific information to be given to the artists for their consideration can do so here:

https://www.surveygizmo.com/s3/5283679/Metro-Tunnel-Legacy-Arts-Program

Or you can send information of no more than two pages to: legacyartprogram@metrotunnelcyp-dc.com.au



# **THANK YOU**