



KENSINGTON COMMUNITY REFERENCE GROUP

MEETING 5

30 JULY 2019



COMMUNITY UPDATE



DISCUSSION ITEMS

- Out of hours works, Childers Street



COMMUNITY ISSUES

Key issues raised during June and July

- Tunnelling impacts
 - Ongoing response to community enquiries
- Impacts to parking on local roads
 - Ongoing responses to community enquiries
 - Proposed changes to parking along Tennyson Street
- Use of Hobsons Road car park
 - Reminder to be included in next monthly update
 - Contact with local sporting groups to provide reminder
 - Additional signage to be installed at car park entrance
- JJ Holland Park path condition
 - Working with CoM to monitor condition of path during winter period

COMMUNICATION AND ENGAGEMENT

Notifications and communications

- July Kensington Construction Update (5 July)
- Detour route updates (8 July, 12 July)
- July out of hours works notification (15 July)
- Proposed traffic changes letter (22 July)
- August to September Childers Street out of hours works notification (22 July)
- Invitation to pop-up information session (23 July)

Door knocks, meetings, briefings and events

- City of Melbourne fortnightly progress meetings (24, 26 June, 8, 10, 22, 24 July)
- KCCC monthly progress meetings (18 July)
- Meeting with Unison (17 July)
- Lloyd Street Business Estate fortnightly progress meetings (19 July)
- Derby and Tennyson street doorknock (24 & 25 July)
- One-on-one meetings with community members and businesses throughout June and July



WORKS UPDATE



WHAT'S BEEN COMPLETED

- Road-side bored piling and pile break back
- Road-side pile capping beam
- Completion of stage one guide walls
- Gantry installed over Kensington Road
- Concrete slab poured for bentonite plant

BENTONITE GANTRY INSTALLATION



UPCOMING INTENSIVE PERIOD OF WORKS

- Over the next 12 months, there will be an increase in construction activities to build the western tunnel
- Given the large scale of the project, there are a number of complexities and challenges
- The Project and its contractors are collaborating to identify opportunities to shift and accelerate works for the safe and efficient delivery of the western tunnel entrance
- From August, an intensive period of works commence and will include:
 - 24 hour works to construct the TBM retrieval shaft (August to September)
 - Working until 11pm to construct diaphragm walls (August to late 2019)
 - 24 hour rail corridor works (weekend in August and two weeks in October)
 - Proposed 12 month closure of Childers Street (From August 2019)
 - TBM retrieval (early 2019)

CONSTRUCTION PROGRAM

Activity	Aug	Sept	Oct	Nov	Dec
Embankment stabilising and widening	■	■	■	■	■
Temporary bentonite facility construction	■	■	■	■	■
Diaphragm wall (D-wall) works	■	■	■	■	■
Rail corridor works	■	■	■	■	■
TBM retrieval shaft excavation and strutting	■	■	■	■	■
Cross passage ground improvement (CP2, CP3)	■	■	■	■	■
Tunnelling (North Melbourne to Kensington)	■	■	■	■	■
D-wall capping beam and temporary props	■	■	■	■	■

Program is indicative and subject to change

TBM RETRIEVAL SHAFT CONSTRUCTION

- Three layers of excavation. Each layer involves:
 1. Using excavators and trucks to excavate material from the TBM retrieval shaft
 2. Using excavator-mounted jackhammers to break back sections of tension piles (day works only)
 3. Spraying concrete (shotcrete) to line the walls of the shaft
 4. Installing steel supports (struts) to provide the structural frame. Struts to be removed as excavation progresses
- Once the bottom of the shaft has been reached, a concrete base slab will be constructed

TBM RETRIEVAL SHAFT CONSTRUCTION

Out of hours works

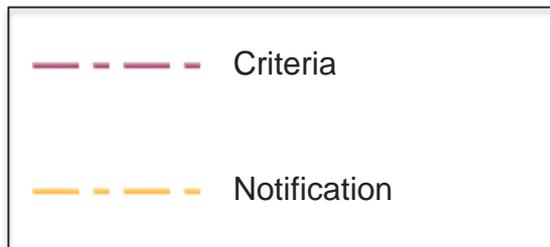
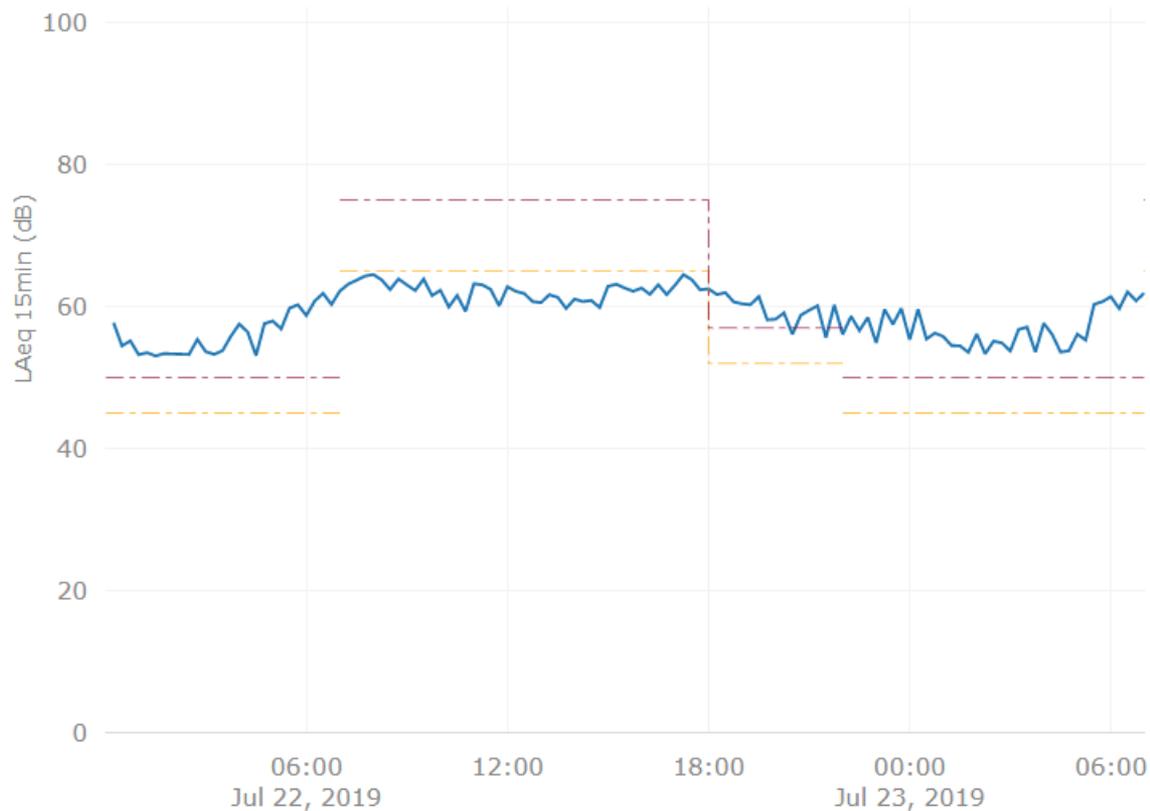
- Required to ensure the shaft is ready for the arrival of the first TBM
- Two stages:
 - Evening works (Monday to Friday until 10pm): from 6 – 20 August
 - 24 hour works (Monday to Friday): from 20 August – end of September
 - 7am – 3pm, Saturdays during the above periods
- In-home respite options or temporary relocation will be available to impacted residents or those with special circumstances
- Offer for directly impacted residents to meet with project team to discuss works

TBM RETRIEVAL SHAFT CONSTRUCTION – NOISE MODELLING



TBM retrieval shaft construction (out of hours works)				
Period	Modelled	CNVIA Criteria	Location	Existing background noise level
Evening	56 dBa	56 dBa	Closest residential property	62 dBa
Night	56 dBa	50 dBa	Closest residential property	58 - 60 dBa

EXISTING NIGHT-TIME BACKGROUND NOISE LEVELS, KENSINGTON



D-WALL CONSTRUCTION

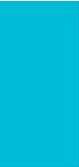
Delivery and setup

- Ongoing to mid-August
- Delivery of cranes, silos, mixing pool, generators, de-sanding equipment

D-wall construction

- Commencing mid-August to late 2019



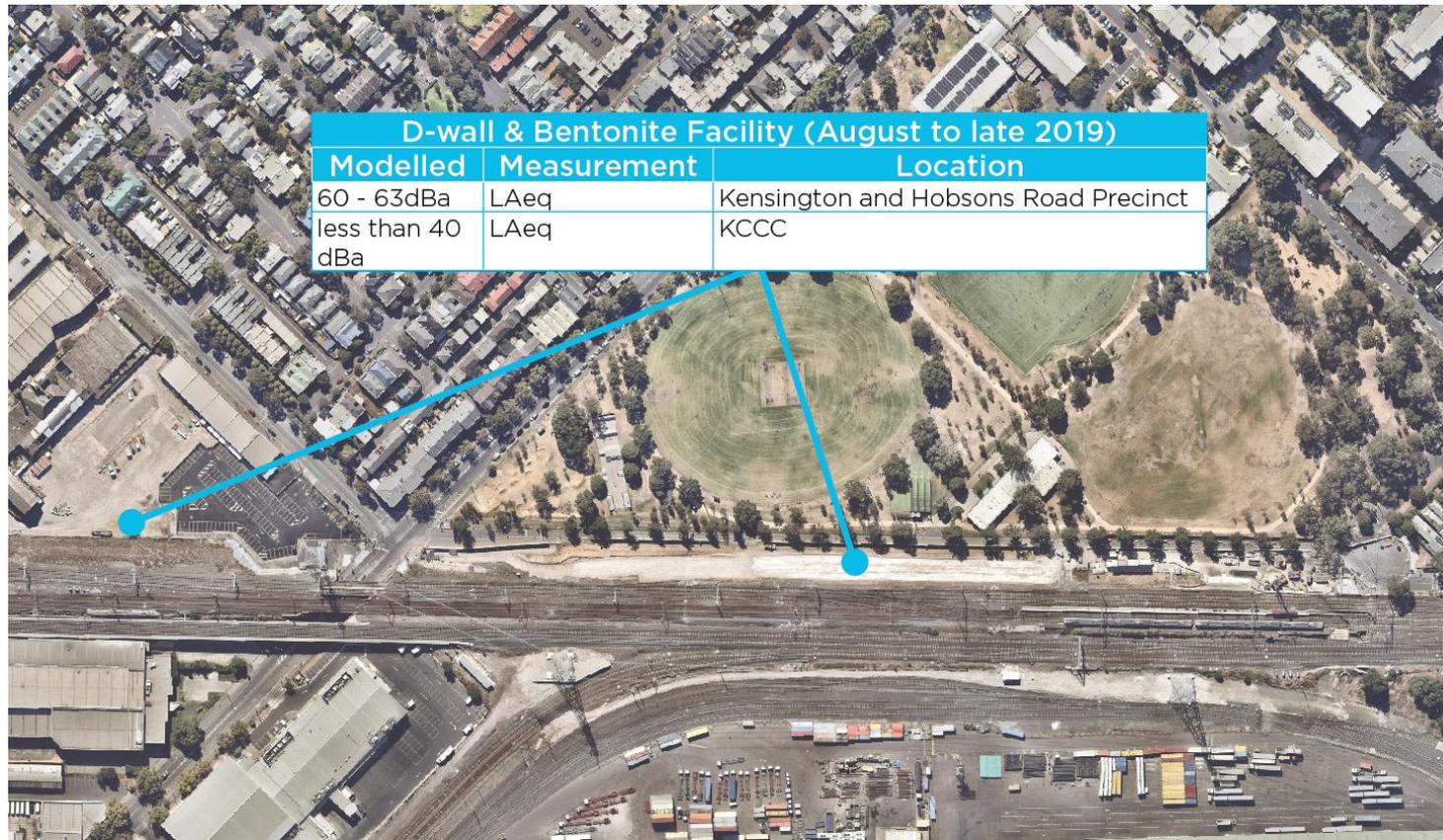


D-WALL CONSTRUCTION

Out of hours works

- Minimise the overall construction impact to Kensington
- Timing:
 - 7am to 11pm, Monday to Saturday from mid-August – late 2019
- Meetings with directly impacted residents will be offered to discuss works and respite options

D-WALL CONSTRUCTION - NOISE MODELLING



RAIL CORRIDOR WORKS - AUGUST

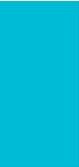
- 9pm Friday 16 August to 5am, Monday 19 August
- Installing guide walls, rail fencing and geotechnical investigations
- Notifications sent to residents prior to works
- Directly adjacent residents to be contacted directly in lead up to works
- Buses will replace trains on the Sunbury line during this time
- South Kensington station will remain open

Previously installed guide walls along the rail corridor



RAIL CORRIDOR WORKS - NOISE MODELLING





PROPOSED TRAFFIC CHANGES

Over height vehicles would use Kensington Road, Derby Street and Tennyson Street detour for 12 months.

- Constraints with the current work area which is close to operating trains and a high-pressure gas main
- 12 months of intensive works with large operating equipment
- Delays to works and interruptions to business deliveries



METROTUNNEL

PROPOSED TRAFFIC CHANGES IN KENSINGTON



PROPOSED TRAFFIC CHANGES – NEXT STEPS

- Speaking with local organisations, businesses and residents
- Online feedback open until 2 August (survey available on Metro Tunnel website)
- Community pop up: 5pm to 7pm, Thursday 1 August (Bill Vanina Pavilion)
- Update to be provided to community in mid-August



TBM ASSEMBLY – JOAN



TUNNELLING - TIMELINE

Indicative timing	Activity
Q1 2019 – Q3 2019	TBM 1 & 2 arrive at North Melbourne and assembled
Q3 2019 – Q4 2019	TBM 1 & 2 tunnelling North Melbourne to Western Portal
Q1 2020	TBM 1 & 2 retrieved and transported back to North Melbourne
Q1 2020 – Q4 2020	TBM 1 & 2 tunnelling North Melbourne to Parkville

Program is indicative and subject to change



TUNNELLING – CONSTRUCTION NOISE AND VIBRATION

- TBM ground-borne noise and vibration model process
 1. Model project-wide impacts
 2. Validate in stages (North Melbourne to Kensington; North Melbourne to Parkville) using attended monitoring
 3. Update model with attended monitoring data
- Consultation will be undertaken with potentially affected residents.

TUNNELLING – CONSTRUCTION NOISE AND VIBRATION

Human comfort

Location	VDV (m/s ^{1.75})			
	Day 7:00am to 10:00pm		Night 10:00pm to 7:00am	
	Preferred Value	Maximum Value	Preferred Value	Maximum Value
Residences	0.20	0.40	0.10	0.20
Offices, schools, educational institutions, places of worship	0.40	0.80	0.40	0.80
Workshops	0.80	1.60	0.80	1.60

- (VDV) Vibration Dose Value = vibration over time
- Guideline targets are the goals that CYP are setting out to achieve

Ground-borne noise

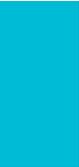
Time Period	Internal L _{Aeq,15min} , dB
Evening, 6pm to 10pm	40
Night, 10pm to 7am	35

- Internal levels
- Levels are only applicable when ground-borne noise levels are higher than airborne noise levels
- The noise levels are assessed at the centre of the most affected habitable room



TUNNEL OPERATIONAL NOISE AND VIBRATION

- Interim internal design completed in June
- Additional inputs associated with the HCMT added to model
- Certified design to be issued in August



TBM RETRIEVAL

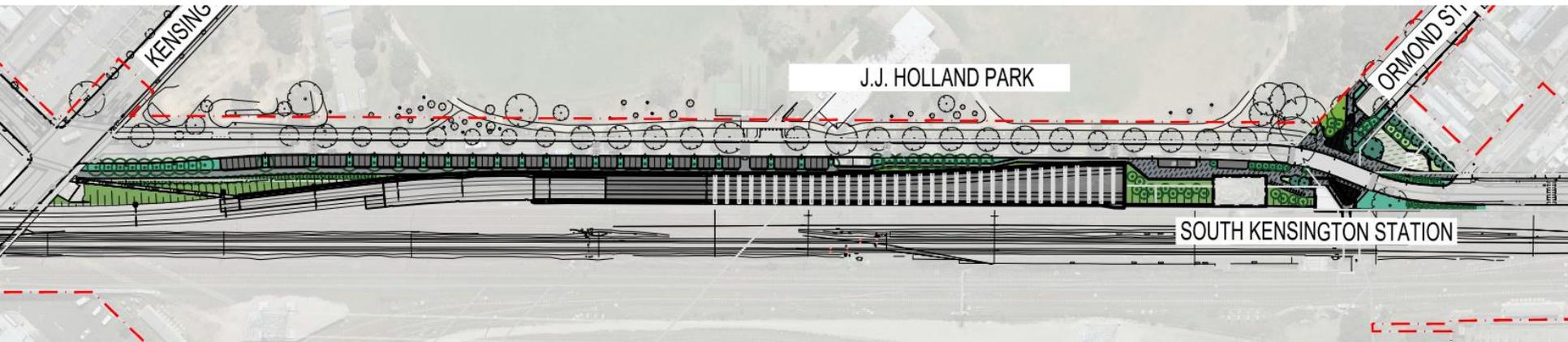
- Retrieval of each TBM expected to take approx. three weeks (up to four weeks apart)
- Traffic impacts anticipated to include (at a minimum):
 - Closure of Childers Street
 - Night works to facilitate oversized vehicle movements



PLANNING AND DESIGN

PLANNING & DESIGN UPDATE

- Workshop to be held in mid-August to present updated concept





OTHER ITEMS?



Western Portal

South Kensington

North Melbourne

Parkville

West Melbourne

The existing 'North Melbourne' station will be renamed West Melbourne.

Melbourne Central

Flagstaff

Southern Cross

Flinders Street

State Library

Parliament

Town Hall

Anzac

Richmond

South Yarra

Eastern Portal

Cranbourne / Pakenham Line

Sunbury Line