



# STATE LIBRARY STATION COMMUNITY REFERENCE GROUP

CROSS YARRA PARTNERSHIP  
FRIDAY 13 MARCH 2020





## STATE LIBRARY STATION COMMUNITY REFERENCE GROUP

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Jodie Barrington, CBD Precinct Lead, CYP D&C



Construction partner:



# AGENDA

1. Five years since work began on the Metro Tunnel Project
2. State Library Station update

# FIVE YEARS SINCE WORK BEGAN ON THE METRO TUNNEL PROJECT



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# STATE LIBRARY STATION UPDATE

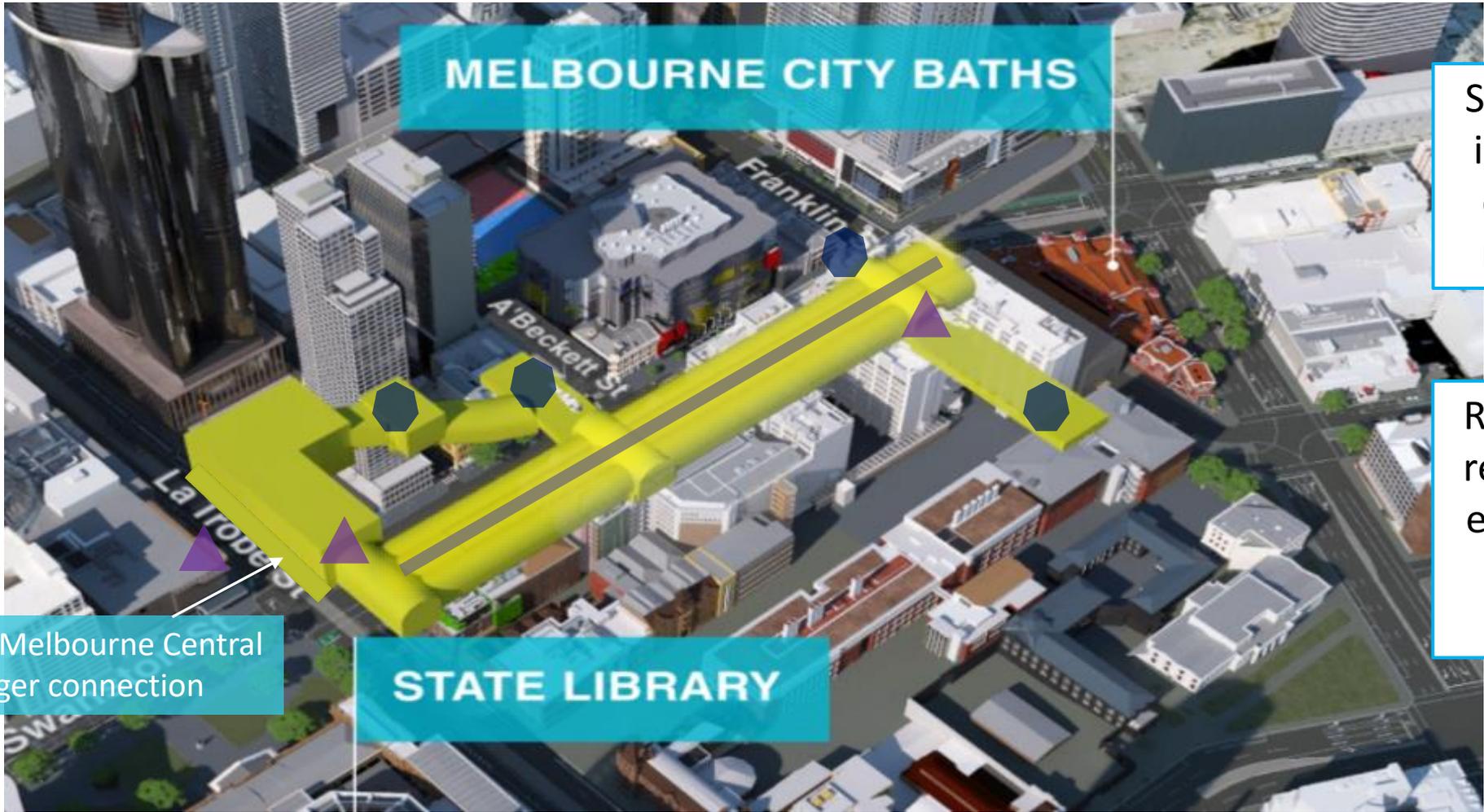




**FRANKLIN ADIT**



**A'BECKETT ADIT**



MELBOURNE CITY BATHS

STATE LIBRARY

Future State Library Station entrance ▲

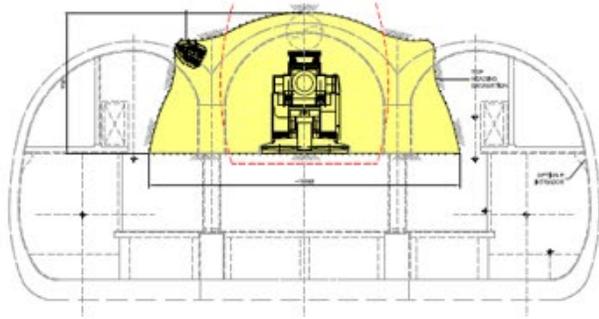
Future mechanical and electrical ●

Future Melbourne Central passenger connection ▲

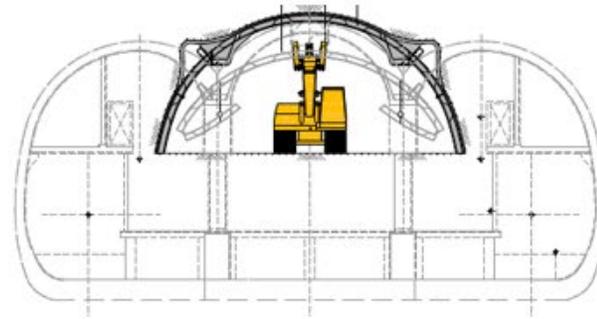
Steel column installations commence mid-March

Roadheaders recommence early June to finish tunnelling

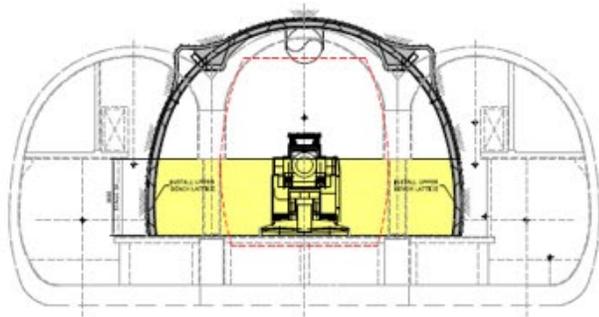
# TRINOCULAR CAVERNS



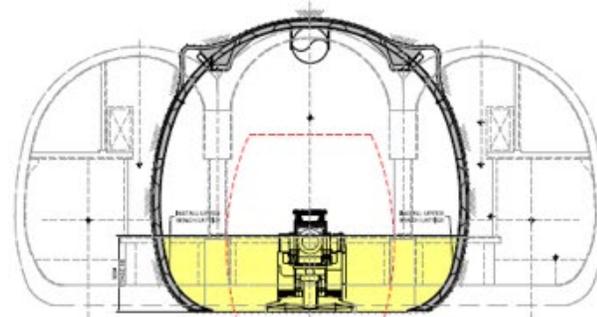
Station platform tunnel heading excavation



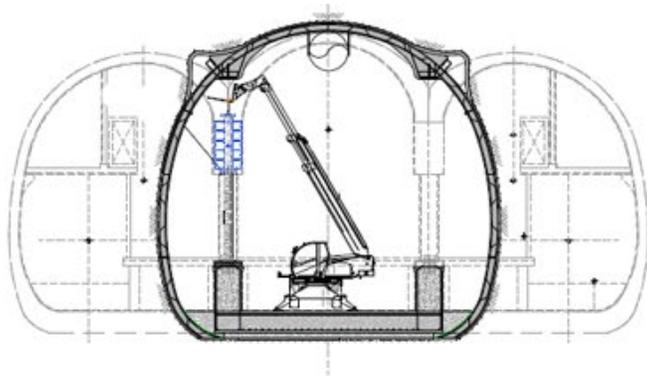
Positioning arch installation



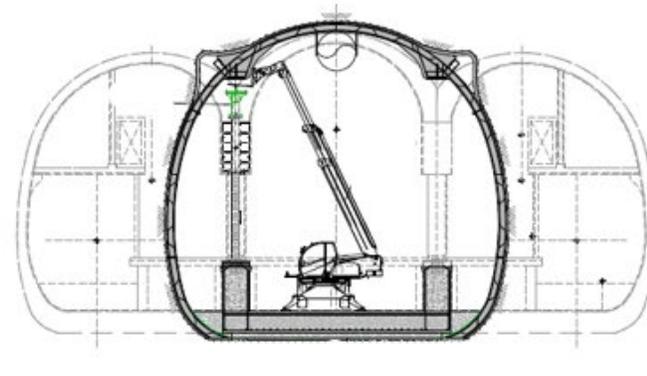
Station platform upper bench excavation



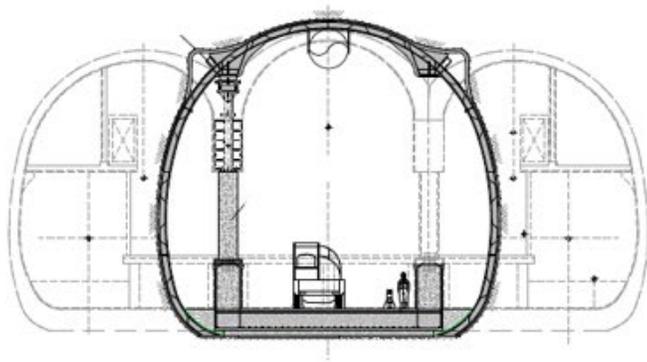
Station platform lower bench excavation



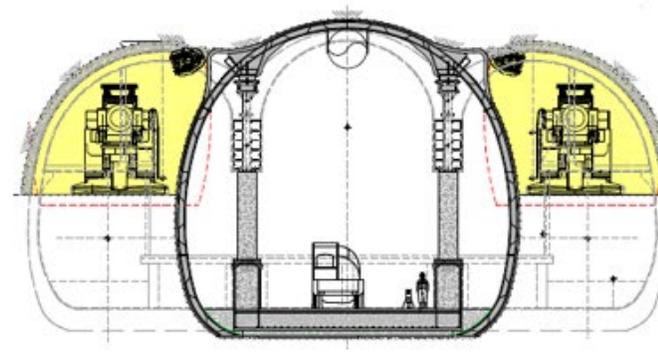
LHS steel tower part 2



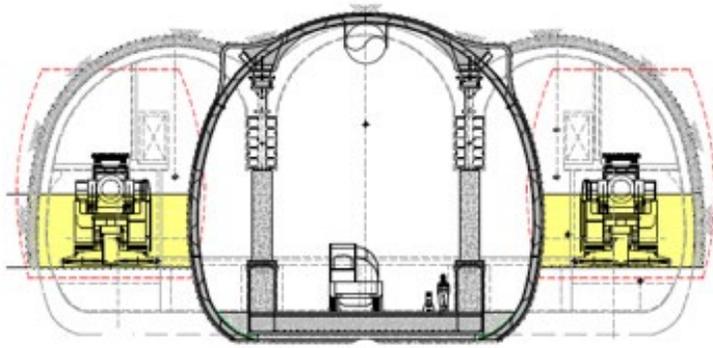
LHS Steel tower, part 3



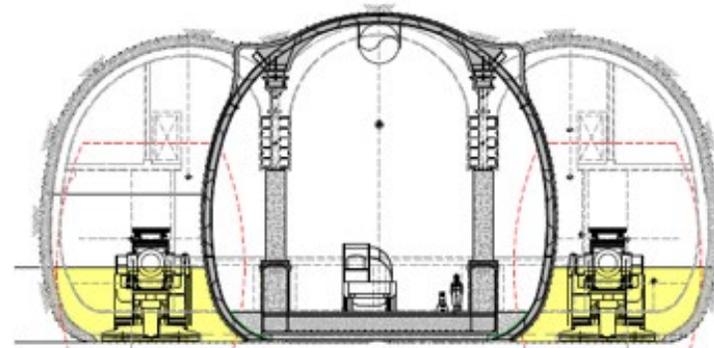
Installation of grout pad and permanent column concreting



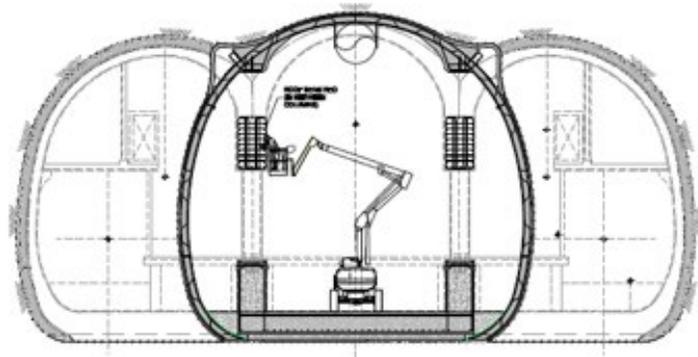
Eastbound/ westbound top heading excavation



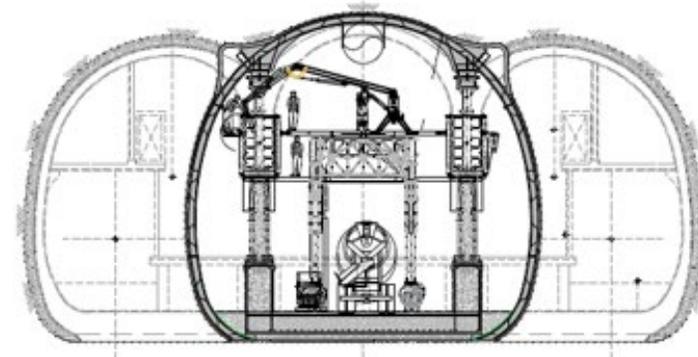
Eastbound/ westbound upper bench excavation



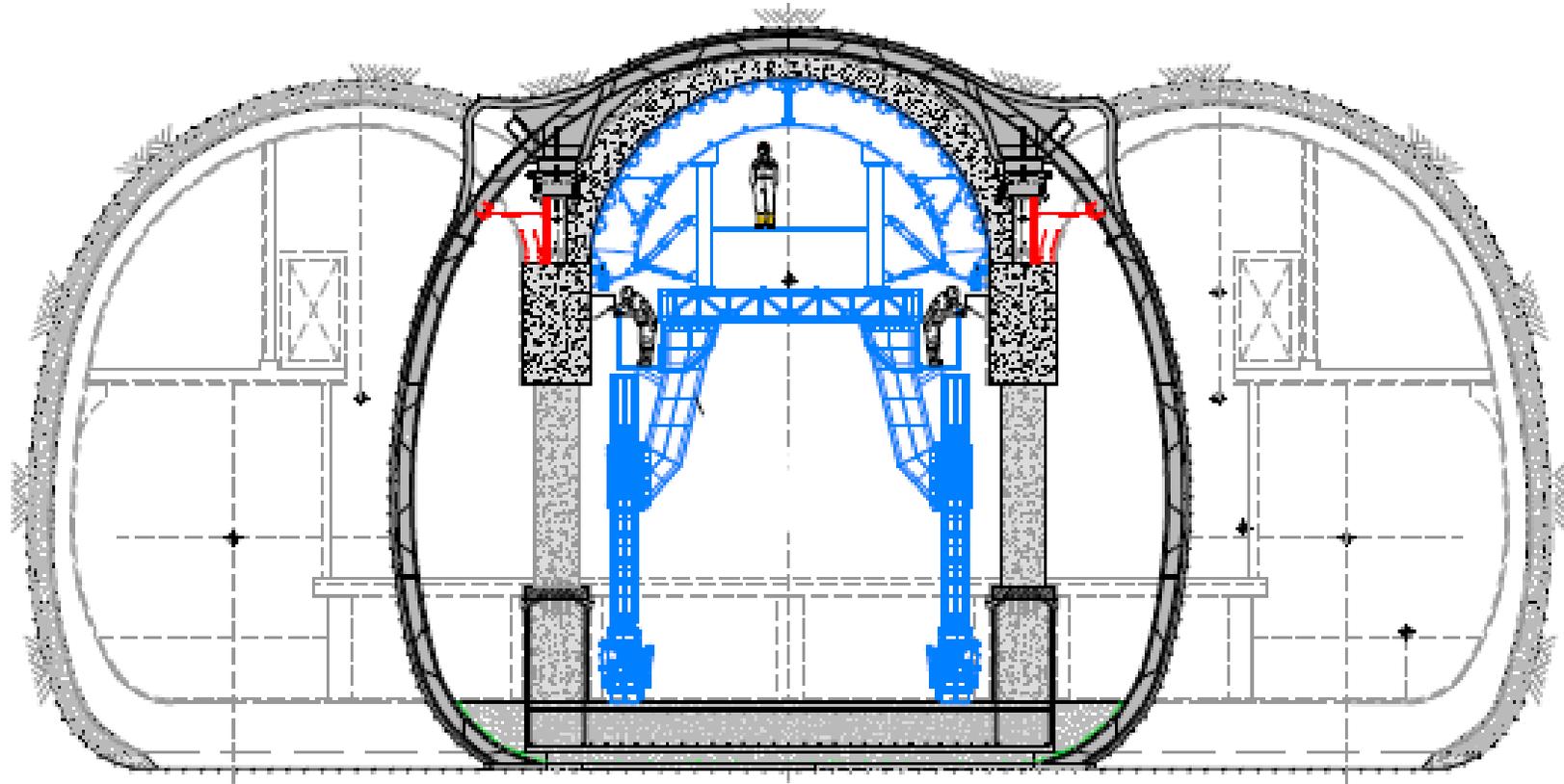
Eastbound/ westbound lower bench excavation



Roof beam reo in between columns



Roof beam pouring



Station tunnel crown waterproofing

Station tunnel crown reo installation

Station tunnel crown concreting

# STEEL COLUMN INSTALLATION PROGRESS



Casting plates for steel columns



CONCEPT IMAGE

Steel columns to be encased in concrete for the permanent structures

## **A'Beckett Street site**

Tunnelling works

- 24/7

## **Franklin Street East site**

Tunnelling works

- 24/7

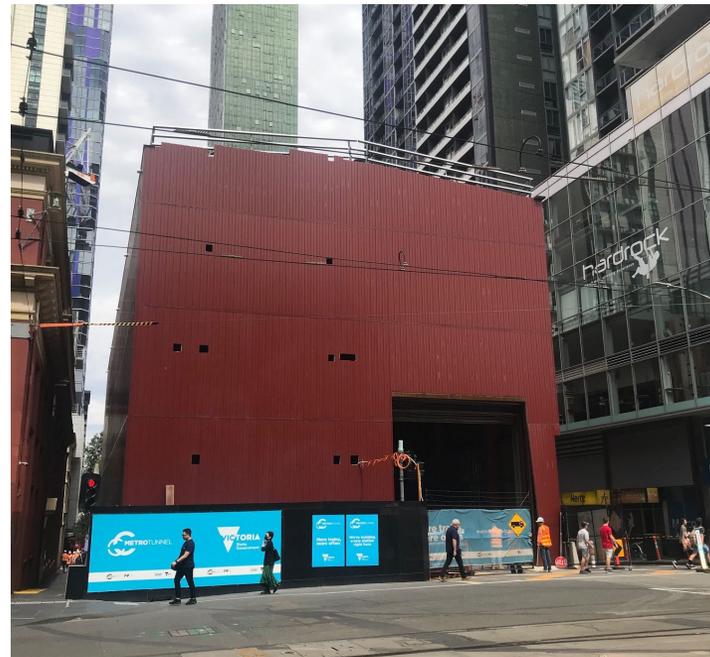
The Franklin Street East site is continuing construction of the underground station platform, this involves delivery of steel and concrete to the site using trucks.



**FRANKLIN STREET WEST UPDATE**

# FRANKLIN STREET WEST SITE UPDATE

| Activity   | Location | Mar | April | May | June | July | August |  |
|--|----------|-----|-------|-----|------|------|--------|--|
| Shaft construction   | Site     | ●   |       |     |      |      |        |  |
| Tunnelling support works and commencement of permanent structure build |          |     |       |     |      | ●    |        |  |





**LA TROBE STREET UPDATE**

# LA TROBE STREET SITE UPDATE

| Activity  | Location | Mar | April | May | June | July | August |  |
|---|----------|-----|-------|-----|------|------|--------|--|
| Perimeter piling and plunge column installation | Site     | —●  |       |     |      |      |        |  |
| Tower crane installation                        | Site     | ●—● |       |     |      |      |        |  |
| Slab works                                      | Site     |     | ●—    |     |      |      |        |  |
| Excavation                                      | Site     |     | ●—    |     |      |      |        |  |

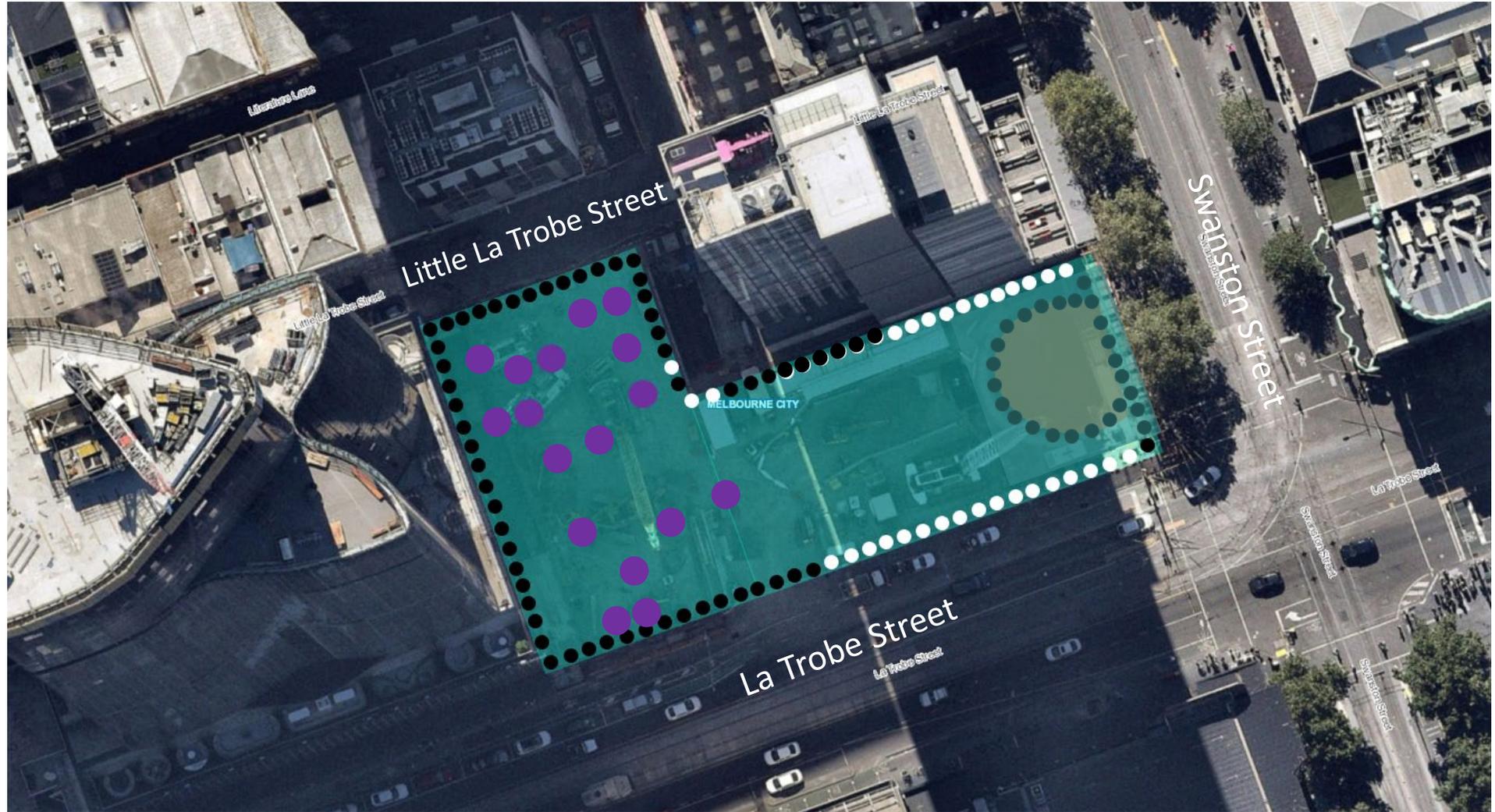
# LA TROBE STREET SITE PILING

## Perimeter piling

- 120 of 172 complete 

## Plunge columns

- 25 of 56 complete 



# LA TROBE UPDATE

## **Tower crane installation**

- A tower crane will be installed at the La Trobe Street site from **8pm Friday 13 March until 8pm Friday 20 March 2020** to facilitate the top down excavation and construction works required for the future State Library Station, under an eastbound road closure of La Trobe Street
- Little La Trobe Street will also be closed from 7am to 6pm Wednesday 18 March (Thursday 19 March and Friday 20 March, if required), to build the boom for the tower crane

## **Piling and plunge column works**

- Monday to Saturdays, 7am to 6pm
- Concrete pours and minor works, Monday to Fridays, 6pm to 10pm

## **Excavation and slab works**

- Commencing late-March
- Monday to Saturdays, 7am to 6pm
- Concrete pours and minor works, Monday to Fridays, 6pm to 10pm

## **Oversized deliveries**

- 1am to 7am, as required



**LITTLE LA TROBE STREET UPDATE**

# LITTLE LA TROBE STREET SITE UPDATE

| Activity                       | Mar | April | May | June | July | August |
|--------------------------------|-----|-------|-----|------|------|--------|
| Piling                         | —   |       |     |      |      |        |
| Little La Trobe Street closure |     | —     |     |      |      |        |
| Plunge column installations    |     | —     |     |      |      |        |
| Capping beam                   |     |       | —   |      |      |        |
| Slab and excavation works      |     |       |     | —    |      |        |

## Stages of piling

1

### SETTING UP THE RIG

Deliver the rig to site and move it into position



2

### DRILLING

Drilling holes into the ground using a core barrel, and excavating material



3

### STEEL REINFORCEMENT

Removing the material and inserting a prefabricated steel reinforcement cage into the hole



4

### CONCRETE POURING WITH TREMIE PIPE

Pouring concrete into the hole to form the pile. Once the concrete sets, the pile is complete



5

### CAPPING THE PILES

Once the piles are constructed, the top layer of concrete is removed and topped by a capping beam to prevent lateral displacement.

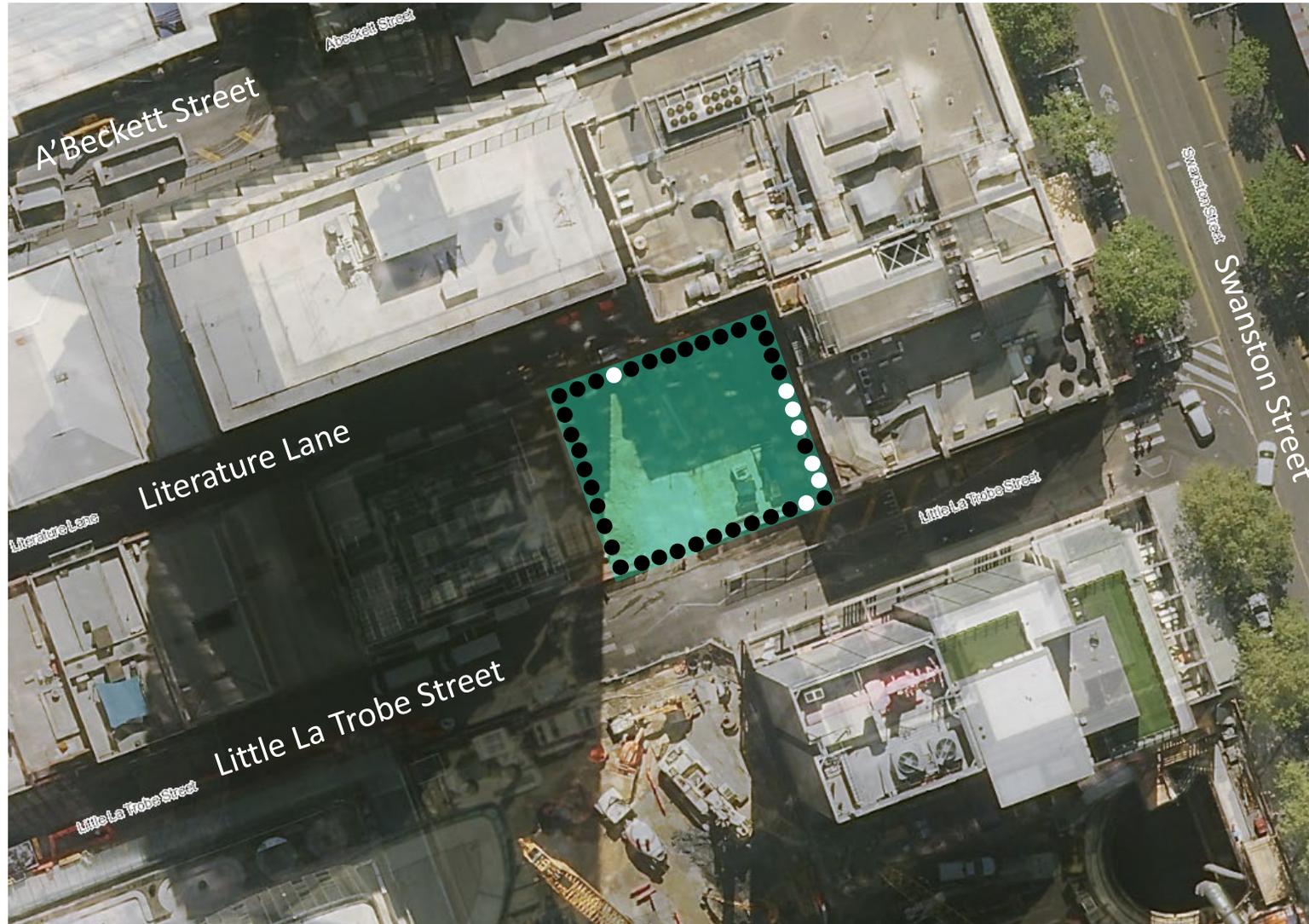


Start of the pile top removal process

# LITTLE LA TROBE STREET SITE PILING

## Perimeter piling

- 59 of 67 complete



## **Piling works**

- Monday to Saturdays, 7am to 6pm
- Concrete pours and other activities which generate low levels of noise may be required from 6pm to 10pm on weeknights.

## **Plunge column works**

- Commencing late-March
- Monday to Saturdays, 7am to 6pm
- Concrete pours and other activities which generate low levels of noise may be required from 6pm to 10pm on weeknights.

## **Little La Trobe Street closure for La Trobe site tower crane installation**

- 7am to 6pm Wednesday 18 March (Thursday 19 March and Friday 20 March, if required)

## **Crane mobilisation for plunge column installations**

- Tuesday 24 March, 1am - 5am

# QUESTIONS?

