




CBD COMMUNITY REFERENCE GROUP

MEETING NO. 8

MONDAY 16 APRIL 2018





JOHN HOLLAND EARLY WORKS PROGRAM UPDATE



METRO TUNNEL EARLY WORKS CBD

Bec Rowe- Community Stakeholder Lead

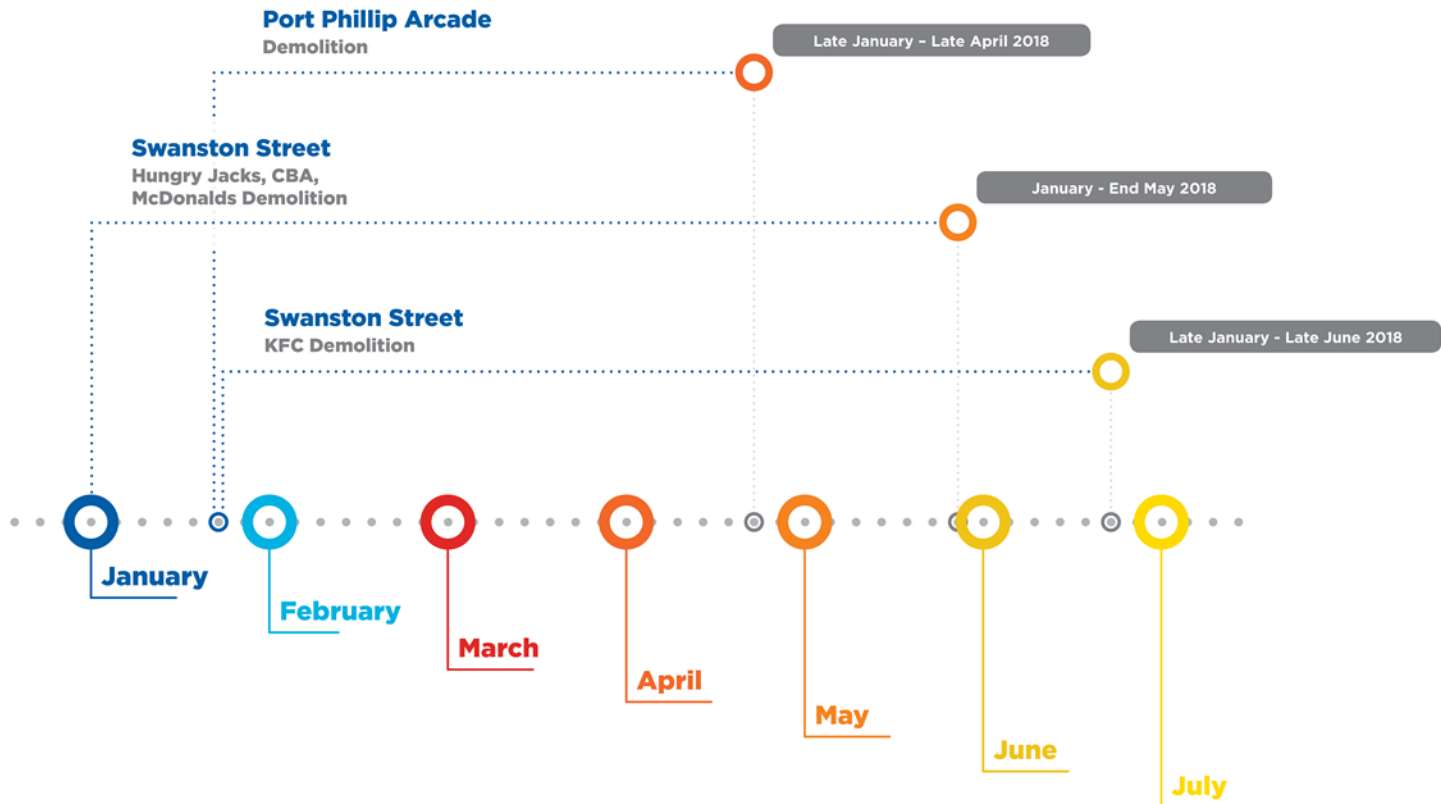
Fran Woodruff- Community Stakeholder Lead



**METRO TUNNEL
EARLY WORKS**

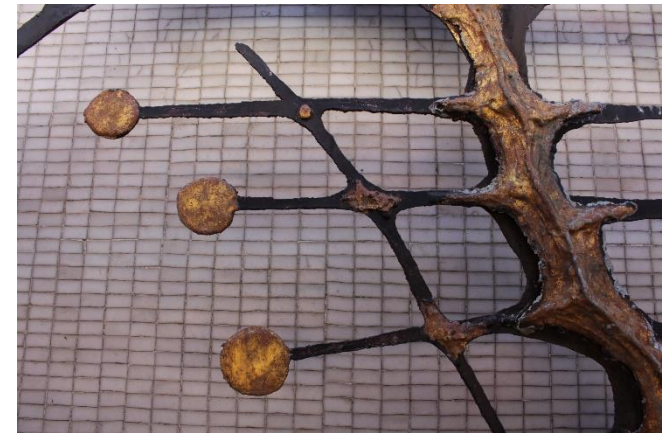
**TOWN HALL STATION
UPDATE**

TOWN HALL STATION TIMELINE – EARLY WORKS



Indicative timeline only

PORT PHILLIP ARCADE DEMOLITION

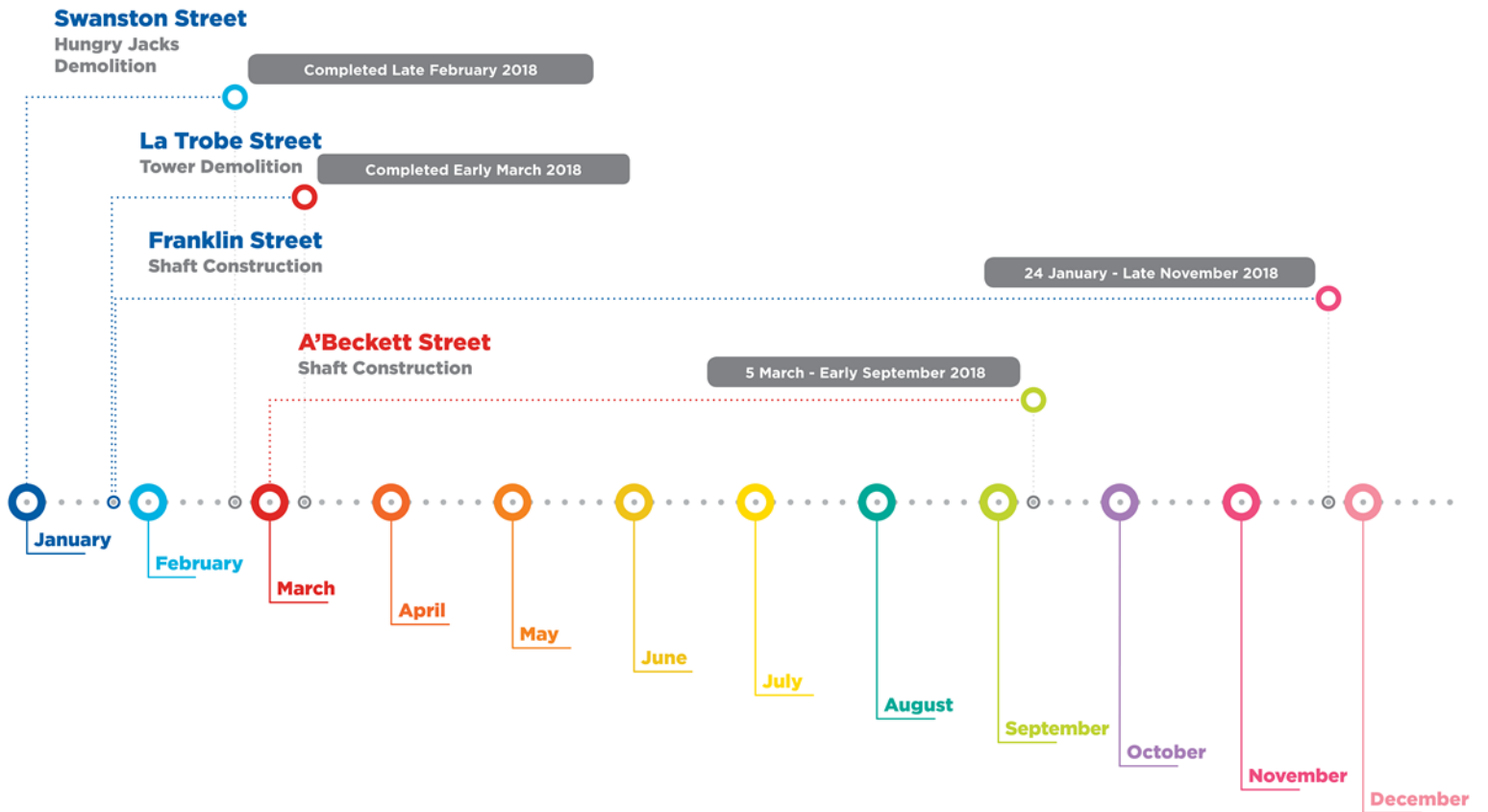




**METRO TUNNEL
EARLY WORKS**

**STATE LIBRARY STATION
UPDATE**

METROTUNNEL STATE LIBRARY STATION TIMELINE – EARLY WORKS



Indicative timeline only



FRANKLIN STREET & A'BECKETT STREET SHAFT UPDATE

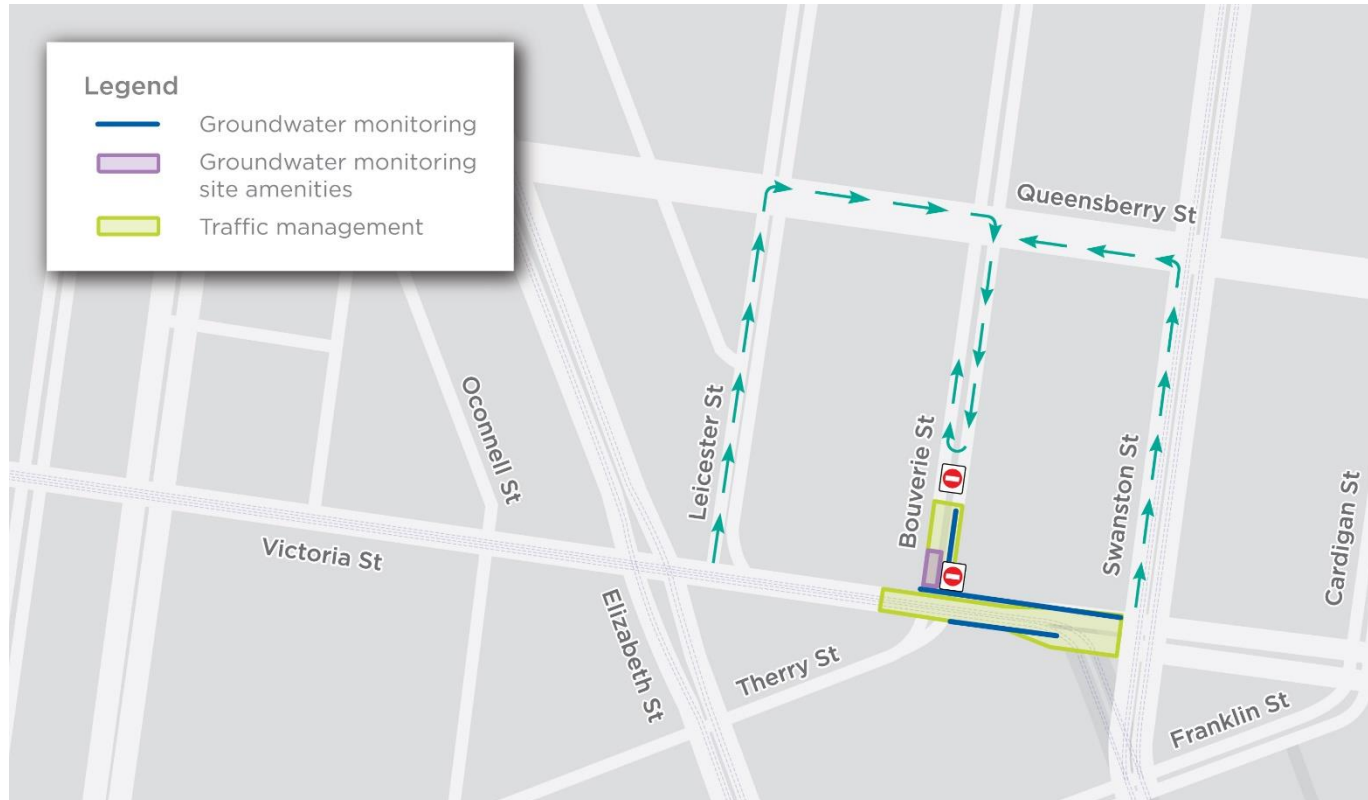
- 24 hour works are now underway at both shaft sites within the acoustic sheds
- Deliveries of props, beams and materials being prioritised to occur in early evenings from remote locations
- Doors to be closed for all night works



FRANKLIN STREET WEST SERVICE RELOCATION UPDATE

- Franklin Street, between Swanston Street and Stewart Street, closed from 15 April to 19 April between **6pm – 5am, Sunday to Thursdays** and on weekends in April between **7am – 6pm** to complete utility relocation works
- Franklin Street south side footpath has been re-opened, may require short term closures to complete reinstatement works
- Gas night works requiring the closure of the east bound lane and north side footpath are complete, with permanent reinstatement being carried out between 15 – 19 April
- Franklin Street, between Swanston Street and Stewart Street, westbound closure remains in place until completion of power works
- Drainage works will require closure of pedestrian access at intersection of Franklin Street and Swanston Street with detours in place around works

- Ongoing works on north and south side of Victoria Street requiring a combination of both day and night works
- Next phase of works to commence connecting boreholes on the northeast side of Victoria Street will shortly commence requiring day and night works





QUESTIONS?



CROSS YARRA PARTNERSHIP UPDATE

Environmental Monitoring and Modelling



Cross
Yarra
Partnership

Key themes

1. Property Condition Surveys
2. Ground movement
3. Noise & vibration
4. Air quality
5. Real-time monitoring

Property Condition Surveys

- Identify properties with CYP works zone of influence:
 - may experience vibration
 - may experience minor ground settlement
- Identify and contact building and asset owners
- Completes a visual inspection. Identify and record any existing defects
- Resulting report will be sent to owner, detailed discussion with the owner if required → final copy issued
- Heritage/significant buildings – further investigation may be required
- Feed investigations and site inspections into CYP modelling to inform our design process
- Dedicated full-time survey team for ongoing management and assistance during construction



Ground Movement

- EPRs: GM1-6
- Extensive modelling
 - Methodology
 - Plant & equipment
 - Design changes
- Property condition surveys
- Mitigation prior to and during excavations
 - Extensive real-time monitoring
 - Plant and equipment methodology
 - Site controls
 - Design



Noise & Vibration

- EPRs Noise and Vibration (NV1-21)
- Planning and modelling currently being undertaken
- Detailed plant and equipment noise assessments for:
 - Airborne noise
 - Ground-borne noise
 - Vibration
- Real-time monitoring will be undertaken during early construction stages and beyond
- Mitigation measures include:
 - Scheduling of activities
 - Plant and equipment selection
 - Source controls



Air Quality



- EPRs: AQ1-3
- Assessments currently being undertaken
 - Plant and equipment used
 - Work areas including materials and types of excavation
 - Small, localised areas of work
- Control measures include
 - Plant and equipment selection
 - Air quality controls at the source
 - Water suppression
 - Acoustic sheds designed for emission control

Real Time Monitoring

- Significant monitoring program
 - Air
 - Noise & Vibration
 - Groundwater
 - Ground Movement
- Real-time results
 - Fixed full-time locations
 - Spot measurements
 - Modelling program
- Full-time dedicated resources
- Real-time system for project



Questions



Cross
Yarra
Partnership

Truck safety and management



Cross
Yarra
Partnership

TRANSPORT MANAGEMENT PHILOSOPHIES

- Incorporate all PS&TR requirements and EPR's in everything we do
- Minimising disruption
- Safety for all - separation of public space and construction areas
- Amenity and confidence in personal safety
- All transport modes incorporated - focus on modal priorities
- Keeping Melbourne moving – e.g. Emergency services, building services, deliveries, private access, other construction projects
- Smooth integration and change over from EWMC traffic management
- Focus on truck heavy haulage routes, impacts and mitigations
- Early notification and communication to ensure no surprises
- Major and minor events to be considered and catered for

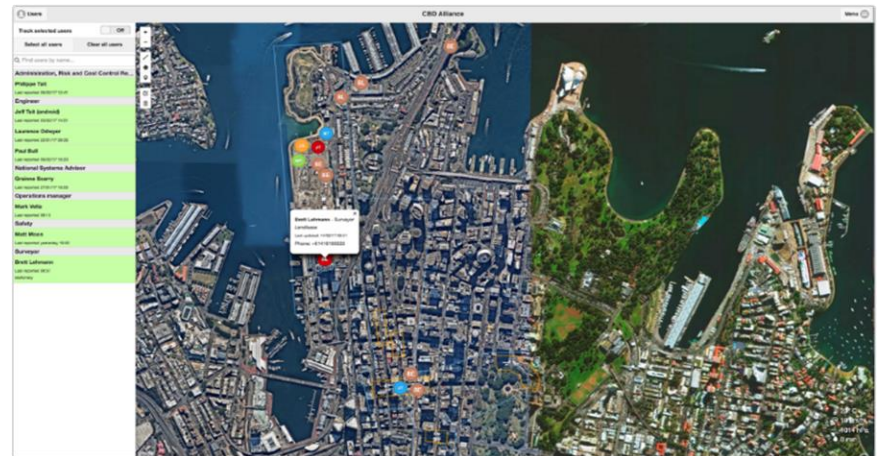
TRANSPORT MANAGEMENT

Compliance to Environmental Performance Requirements

- Where practicable select traffic routes to prioritise routes with existing heavy vehicle usage where possible and avoid local roads
- Monitor construction vehicle driver behaviour
- Identify locations for trucks to idle pending arrival at construction sites
- Minimise the need for trucks to reverse and require and require the use of broadband reverse alarms
- Management of workforce parking
- Prepare and implement a Spoil Management Plan

CONSTRUCTION MONITORING - VIRTUAL SUPERINTENDENT

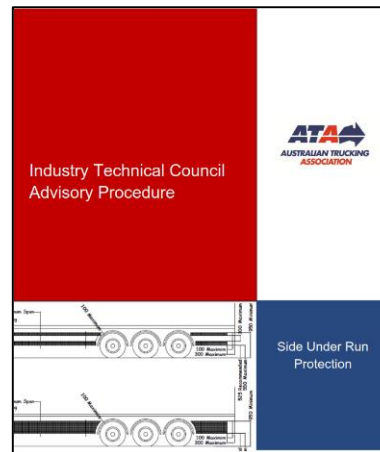
- Web-based Virtual Superintendent
- Tracks all heavy vehicles associated with the project
- Real Time monitoring
- Coordination of deliveries
- Tracking of spoil trucks, call up, hold or divert through VS
- Other uses:
 - Fatigue Management
 - Vehicle Safety tracking
 - Load tracking
 - Reporting



VULNERABLE ROAD USER PROGRAMME

State Government led working group

- Side under-run protection
- Blind spot elimination – front / sides / rear
- Audible left turn alert (once developed)
- Vehicle signage
- Driver training: under development by Amy Gillet Foundation
- Cycling groups engagement



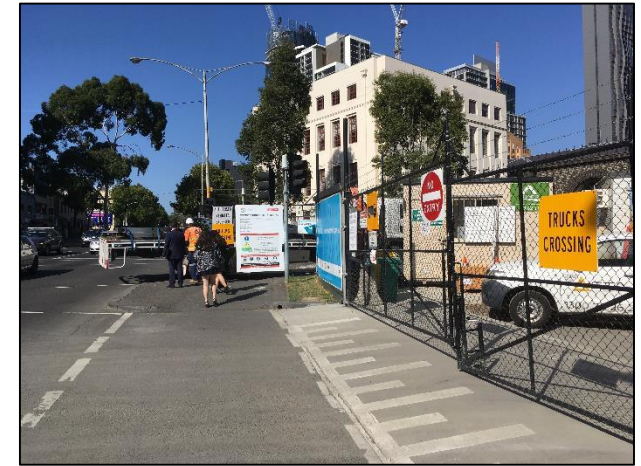
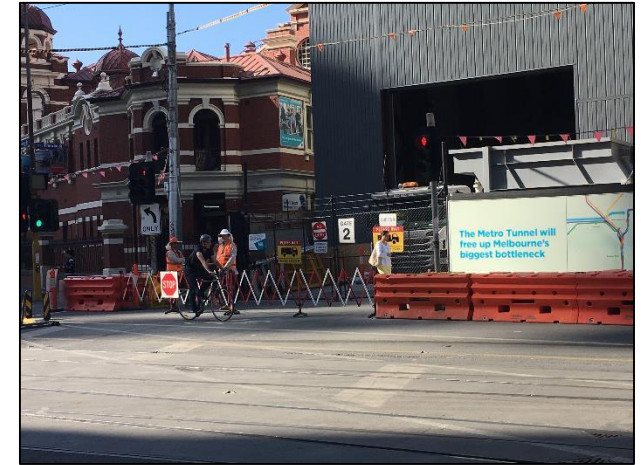
VULNERABLE ROAD USER PROGRAMME



SITE CONSIDERATIONS

Active Measures

- Still in development
- Will change with time as sites develop
- Traffic controllers with physical barriers to halt pedestrians



PEDESTRIAN CONSIDERATIONS

General awareness

- Look up from phone when crossing roads and site entrances
- Keep your ears open when cycling
- Co-operate with the pedestrian management / traffic control
- Only cross at designated pedestrian crossings

Truck safety awareness engagement possibilities

- Student education opportunities

Pedestrians must take responsibility for their own safety, and be personally aware of their surrounding environment.



Questions



Cross
Yarra
Partnership

SITE INVESTIGATIONS DATES

We are currently undertaking further site investigations in the CBD to finalise our design and construction methodology.

Locations to be investigated

- Elizabeth Street – 13 April – 19 May
- Russell Street – 13 April – 19 May
- Yarra River – 16 April – 18 May
- Other CBD locations* – late April/May

**stakeholder and landowner engagement has commenced to organise these site investigations*

Historical Archaeology and the Melbourne Metro Rail Project



- **On overview of historical archaeology in Melbourne**
- **Some case studies**
- **The MMRP sites**
- **How the process works**
- **Project capacity**
- **Opportunities**



The Age editorial,
24 November 2009

THE AGE

ESTABLISHED IN 1854

A maturing city mines its foundations for meaning

IN A land whose first inhabitants' ancestry goes back at least 10,000 generations, archaeological explorations of Melbourne's past, all of half-a-dozen generations' worth, may at first seem almost quaint. Lake Mungo yielded evidence of an Aboriginal presence 40,000 years ago; the city is only 174 years old. Indeed, not that long ago, many Melburnians looked to "Mother England" to answer questions about their forebears. Today, enough history has unfolded that archaeology is coming into its own in the city. To go beyond living memory and find out who and what made Melbourne, we literally dig into the foundations of our history. Hundreds of projects are registered each year.

The latest high-profile dig is at the car park site of the former German Garden created next to the Royal Exhibition Building for the 1880 Melbourne International Exhibition. The discovery of the footings of a kiosk and garden pathways will

enable the garden to be re-created next to Victoria's only World Heritage-listed building. The dig has also found large amounts of shells discarded by Melburnians who consumed oysters not with champagne but as a cheaper meat than mutton or beef. Other major digs have included the brewery site on Swanston and Bouverie streets, one of the first neighbourhoods of Melbourne, which showed a shift in drinking habits from hard liquor to beer after the 1860s, and the Casselden Place project, which brought to life the "Little Lon" slum as a surprisingly diverse community of working-class homes, brothels and opium dens.

As archaeology reveals more about the making of Melbourne, the work enables Melburnians to deepen their sense of place by connecting them to the world of their forebears. This city of immigrants might even gain a better grasp of the depth of the bond between Aboriginal Australians and the land of their ancestors.

The Heritage Act 2017

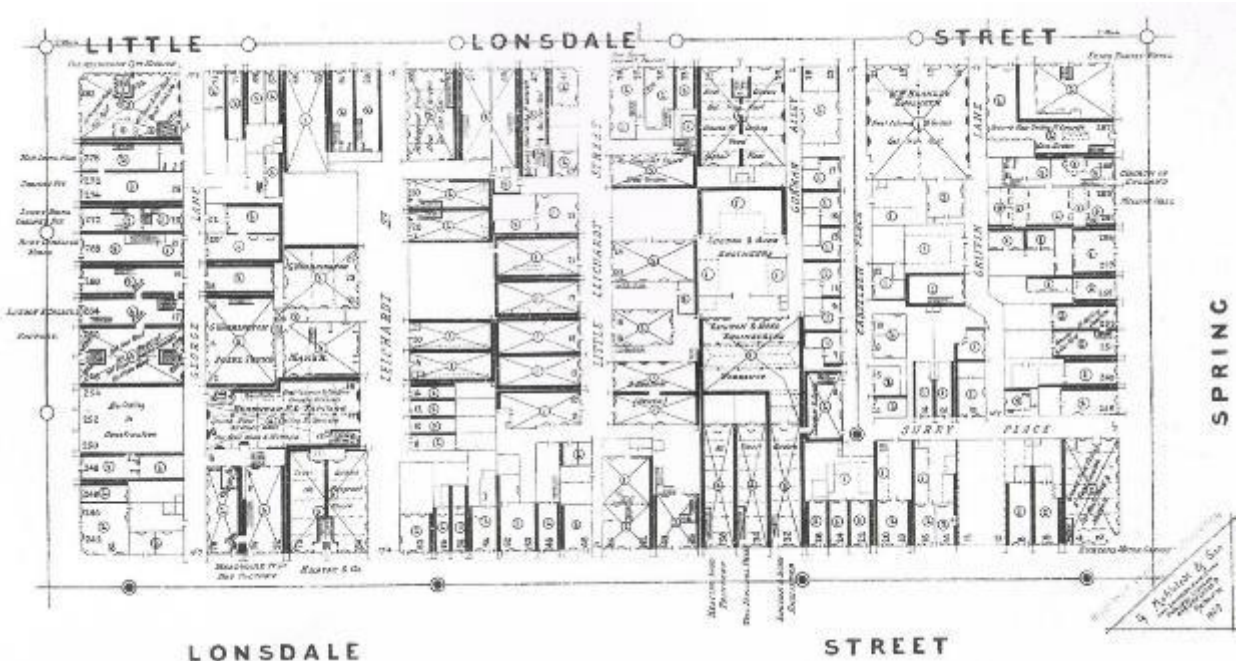
In Victoria it is an offence to disturb any historical archaeological site, unless *Consent* has been obtained from the Executive Director, Heritage Victoria (section 123).

An “archaeological site” means a place which:

- (a) contains an artefact, deposit or features which is more than 75 or more years old; and
- (b) provides information of past activity in the State;
- (c) requires archaeological methods to reveal information about the settlement, development or use of the place; and
- (d) is not associated only with the Aboriginal occupation of the place.

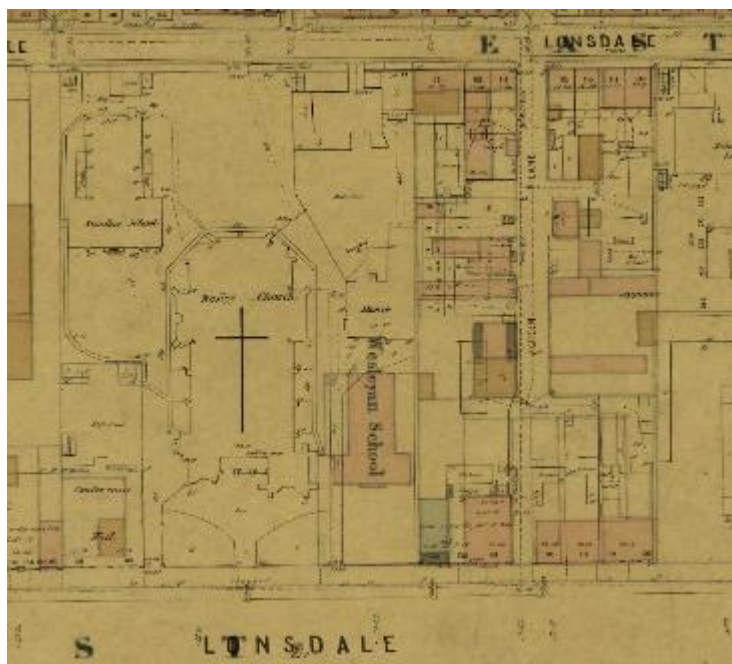


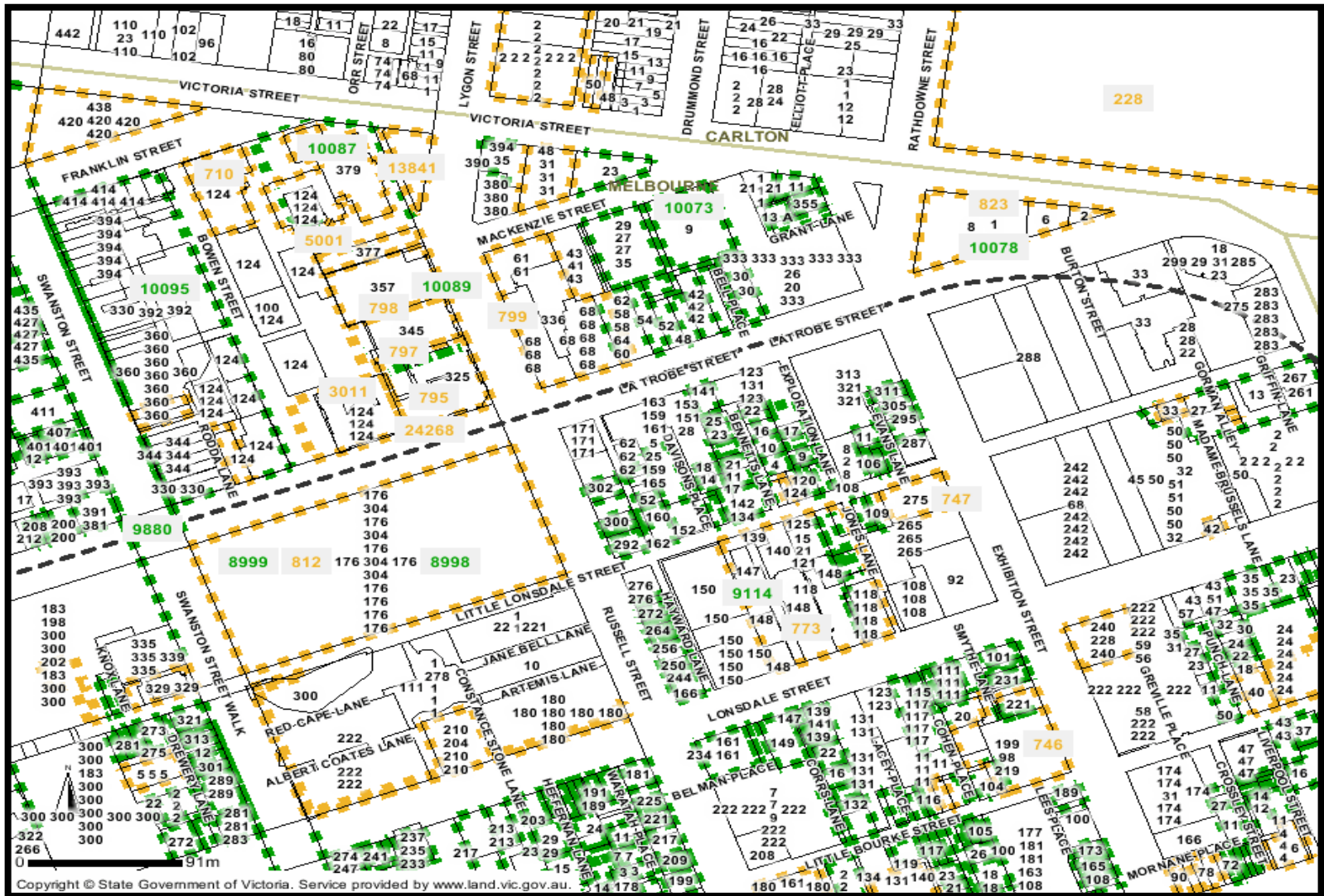
EXHIBITION



LONSDALE

STREET





Address: <http://services.land.vic.gov.au/maps/hermes.jsp>

Gold: Victorian Heritage Register

Green: Heritage Inventory



Casselden Place site, 2002





The amazing things beneath Melbourne's surface

In a dark room, many, many years ago, a lice comb fell through a crack in the floor. That's just the start.

The Age article, July 5, 2016





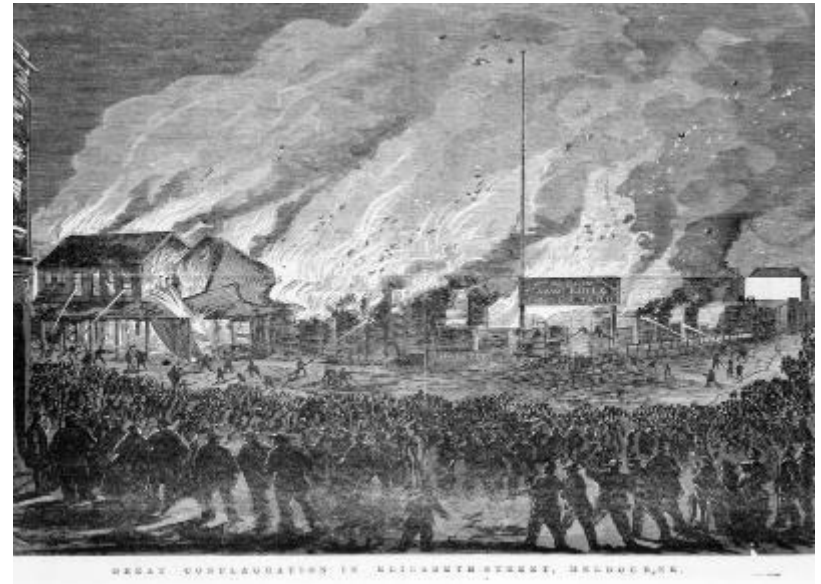
Langlands Iron Foundry site on Flinders Street, excavated 2015.

58 A'Beckett Street

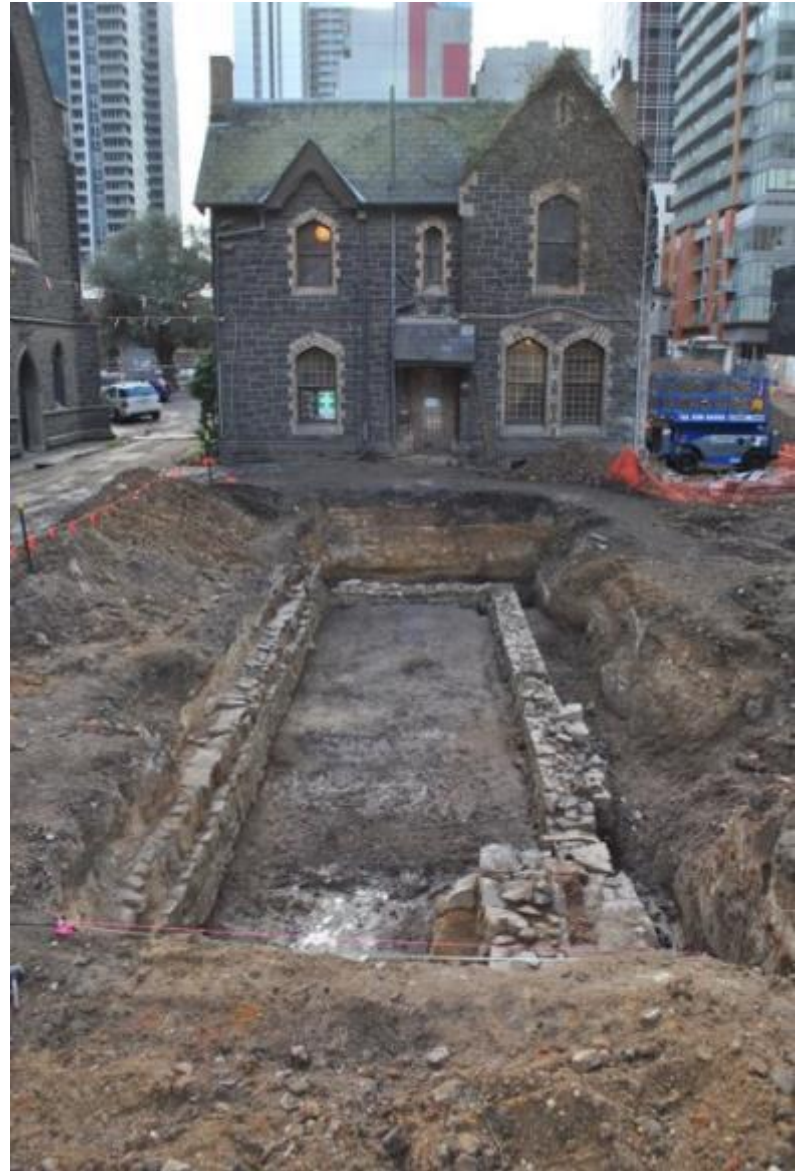
John Greenwood (later Albion) steam sawmill site,
(excavated early 2016)

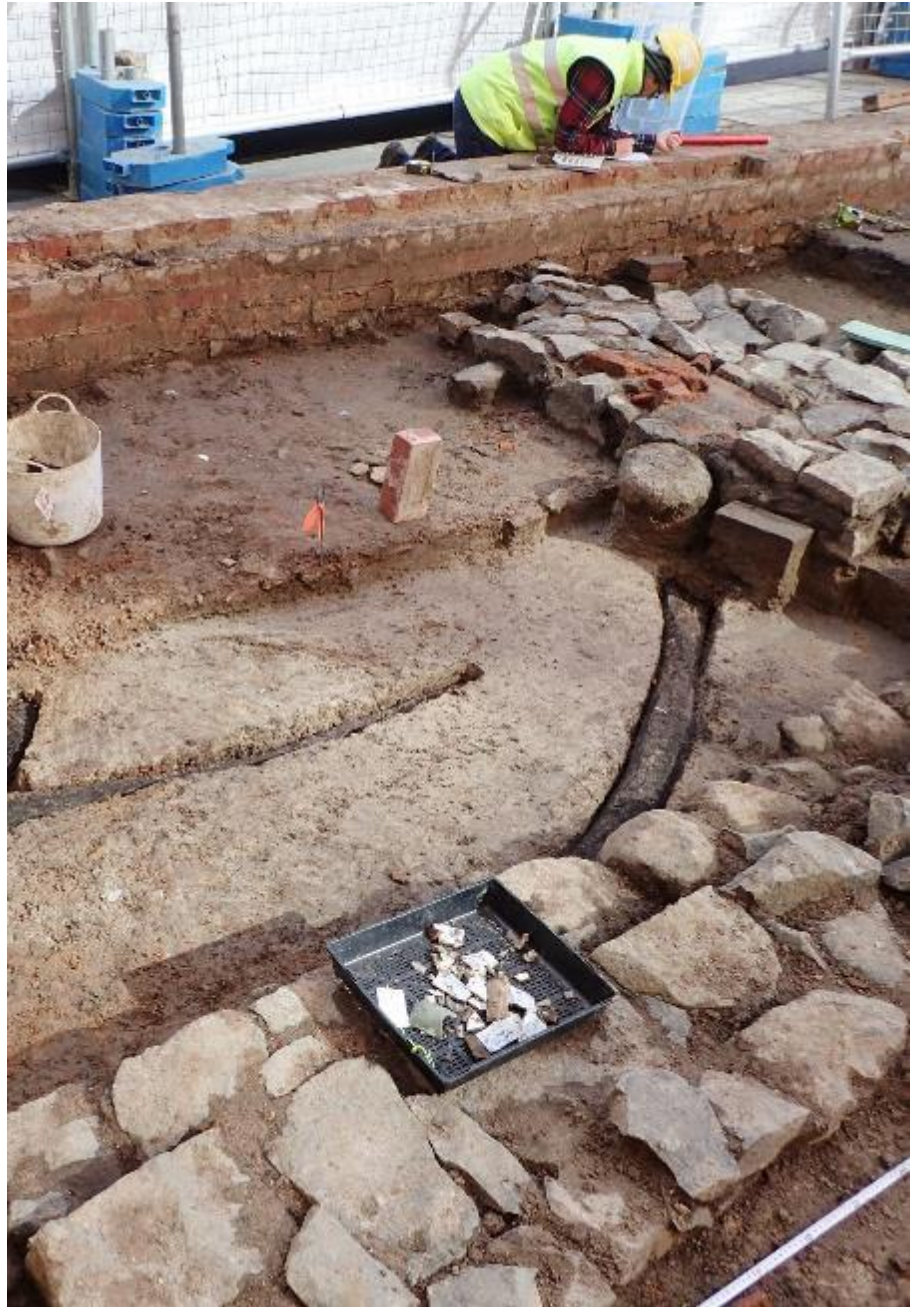


Below; detail of De Gruchy
& Leigh's 1866 isometric
Plan of Melbourne











Former Carlton & United Brewery site
No. 1 cellar (excavated 2013).



56 A'Beckett Street (corner of Colgin Place). Fire Brigade Hotel site (excavated early 2016)

The Melbourne Metro sites



CBD South: Swanston Street
4 Heritage Inventory sites

CBD North: La Trobe Street
6 Heritage Inventory sites

Swanston Street

- Some hotels (Freemasons, Beehive, Gippsland)
- Other businesses – tobacconists, grocers, small warehouses.
- 2 storey, brick and stone
- Moderate sub-surface disturbance



La Trobe Street:

- Single-storey stone buildings (shops and warehouses); merchants, butchers, fishmongers, carpenters and printers.
- Forge (1868) Bowden Brothers
- Light industry in 20th century
- Very little sub-surface disturbance (confirmed by preliminary work).

The Archaeology Process

Excavation phase

- Development of site Research Framework
- Removal of current site structures
- Archaeological excavation, investigation and recording of significant remains in accordance with Heritage Act Consent conditions
- Artefact management
- Community engagement program
- Addressing of CHMP requirements

Post excavation

- Analysis of results and addressing of Research Framework
- Project reporting
- Artefact Management including conservation works
- Interpretation outcomes (exhibitions, publications, other)



Guidelines for Investigating
Historical Archaeological
Artefacts and Sites



Consent to Uncover works (currently underway at corner of La Trobe & Swanston Streets)



A field team should include:

- a site director,
- a managing archaeologist,
- 3 supervising archaeologists,
- 3 trench assistants,
- 8-10 junior (qualified) archaeologists,
- 8-10 archaeology students,
- 2-4 community participants,
- 1-2 site records officers (plans & photography),
- a conservator,
- an artefact manager and assistant,
- a community/student liaison role



Project opportunities



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