

# EAST-WEST BIKEWAY: PIRIE-WAYMOUTH STREETS

Preliminary feedback on initial concept design development

## Workshop Purpose:

To provide preliminary feedback on the development of concept designs for the East-West Bikeway for the Pirie-Waymouth street corridor, as per the Motion on Notice on 9 April 2019.

**PROGRAM:** Planning, Design and Development

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The Committee Meeting - Agenda - 25 February 2020 - Item 4.2 - Distributed Separately

**A BEAUTIFUL  
DIVERSE CITY  
WITH AN  
ENVIABLE  
LIFESTYLE THAT IS  
WELCOMING TO  
PEOPLE AT ALL  
STAGES OF LIFE**

**LIVEABLE**

- Administration is working to respond to a Decision regarding the City Bikeways project, endorsed by Council on 9 April 2019.
- The Decision sought concept designs and an Engagement Strategy for a bikeway on the Pirie-Waymouth street corridor.
- The Pirie-Waymouth street corridor is a relatively narrow street corridor, which carries significant movement of people on foot, bike and motor vehicle as well as numerous popular outdoor dining areas. The crash history along the corridor is not insignificant, with several crash clusters.
- The installation of a bikeway (separated bike lanes) requires the reallocation of space from other street uses.
- Within the Pirie-Waymouth street corridor space could be reallocated from either the footpath, on-street parking or traffic lanes to create sufficient space for the separated bike lanes.
- There are impacts associated with each of these options, which are summarised in this presentation.
- We are seeking views on the possible options for reallocating space to enable installation of the bikeway on the Pirie-Waymouth street corridor.
- It is noted that the City Access Strategy, which is currently being developed, will include a preferred network for bikeways in the city.

KEY QUESTION

Do Members have views on the reallocation of space from either footpaths, traffic lanes or on-street parking in order to install the proposed bikeway on the Pirie-Waymouth street corridor?

KEY QUESTION

Do Members have views on any of the Design Considerations for the bikeway on the Pirie-Waymouth street corridor?

IMPLICATION	COMMENT:
Policy	City of Adelaide Strategic Plan 2016-2020: Plan and deliver priority walking and cycling routes throughout and beyond the City and Park Lands, including the provision of East-West and North-South cycleways and connections.
Consultation	Consultation will be undertaken in line with Council's Community Consultation Policy and the specific Engagement Plan that will be developed for the project.
Resource	Not as a result of this workshop
Risk / Legal / Legislative	Not as a result of this workshop
Opportunities	To utilise funding allocated by Council and the State Government for the East-West Bikeway as part of the City Bikeways Funding Deed.

# EAST-WEST BIKEWAY BUDGET / FINANCIAL IMPLICATIONS:

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IMPLICATION	COMMENT:
<b>19/20 Budget Allocation</b>	\$2.75 million allocated by Council to the development of the East-West Bikeway as part of the joint CoA/State Government \$12 million City Bikeways project.
<b>19/20 Budget Reconsideration (if applicable)</b>	Not as a result of this workshop.
<b>Proposed 20/21 Budget Allocation</b>	Not as a result of this workshop.
<b>Ongoing Costs (eg maintenance cost)</b>	Not as a result of this workshop.
<b>Life of Project or Life Expectancy of Asset</b>	Not as a result of this workshop.
<b>Other Funding Sources</b>	\$2.75 million allocated by the State Government for the East-West Bikeway, as part of the joint \$12 million City Bikeways project.

DATE	SUMMARY OF COUNCIL DECISION
<b>9 April 2019</b>	Request Administration to prepare: <ul style="list-style-type: none"><li>- concept designs for the Pirie-Waymouth street corridor.</li><li>- an engagement strategy for the East-West Bikeway project.</li></ul>
<b>26 February 2019</b>	Request Administration prepare a workshop briefing to Councillors including a summary of the Bikeways project, an overview of Bikeways as part of Council's Integrated Transport Strategy and opportunities to discuss options for the dedicated East-West Bikeway.
<b>28 November 2017</b>	Request Administration to put on hold, until further notice, the East-West Bikeway Engagement Strategy and any design work in relation to the East-West Bikeway project. Requested Administration to consult with impacted ratepayers with the question 'Do you support an East-West Separated Bikeway along Flinders and Franklin St', with the results to be reported back to Council.
<b>14 November 2017</b>	Approved the details of the consultation for the proposed East-West Bikeway, noting that the Engagement Strategy is yet to be developed and shall be approved by Council prior to commencement.
<b>26 September 2017</b>	Request that Council be provided with a report providing details regarding the consultation for the Flinders-Franklin East-West Bikeway project.
<b>12 September 2017</b>	Approved the selection of the Flinders Street – Franklin Street corridor as the route of the bikeway. Approved public consultation in finalising the design of the bikeway. Requested Administration to seek approval for the recommended final design.

At its meeting on 9 April 2019, following a motion on notice, Council resolved that:

That Council administration, noting Council's 2016 decision to partner with the State Government of South Australia to design and fund a dedicated North-South and East-West bikeway, and the outcomes of The Committee workshop on bikeways on 2/4/2019:

1. Prepare bikeway concept designs, in preparation for community engagement, for the Pirie/Waymouth Street corridor with two options as follows:
  - a bikeway design option which could be delivered for the currently allocated \$5.5m
  - a bikeway design being consistent with the CoA Bikeways design guide for a fully separated Bikeway and an indication of the associated cost.
2. Prepare an engagement strategy for the East-West bikeways project, which includes impacted rate payers, businesses, residents and visitors to the city.

## The City Bikeways Funding Deed:

- specifies that the project is ‘intended to improve access, safety and connectivity for bicycle riders within the Council area.’
- identifies the project as the East-West Separated Bikeway between West Terrace and Dequetteville Terrace.
- has an end date of 30 June 2021, which is unlikely to be extended.

## The design considerations for the project include:

- a street that is safe for everybody, regardless of how they choose to travel.
- the necessary guidelines and standards.



# EAST-WEST BIKEWAY

## PIRIE-WAYMOUTH STREETS – PROPOSED BIKEWAY



## BIKEWAYS NETWORK 2012

The Bikeways network was developed to encourage cycling to and within the City by providing safe and low-stress bicycle routes catering for the needs and abilities of all levels of cyclists (new and existing).

It was included in the City of Adelaide's *Smart Move: Transport and Movement Strategy 2012-22*.

The East-West Bikeway is one route within this proposed connected network.

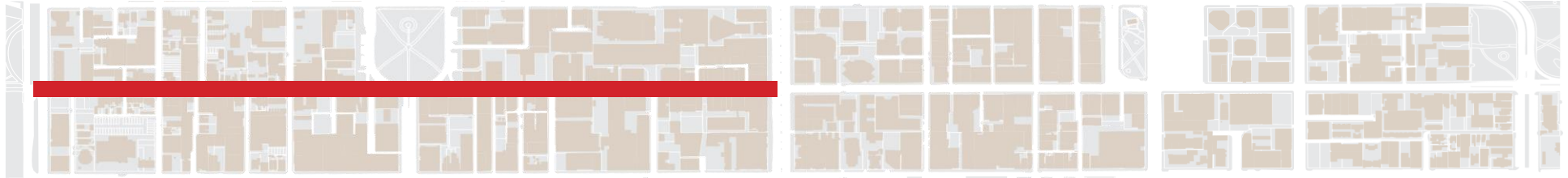


# EAST-WEST BIKEWAY

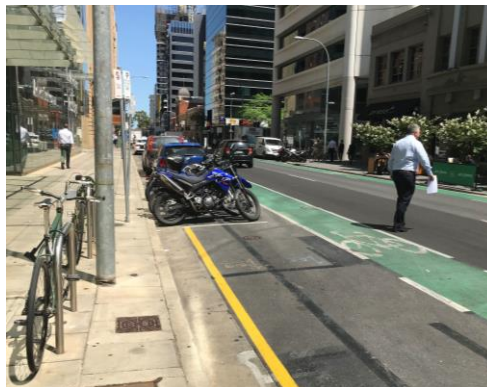
## WAYMOUTH STREET – EXISTING STREET – CURRENT STATE

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- 1.1km long
- Typically 20.5m wide from property to property
- 12.8m from kerb to kerb
- 6,200 to 8,200 vehicles per day
- 550 riders per day





# EAST-WEST BIKEWAY

## PIRIE STREET – EXISTING STREET- CURRENT STATE

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LIVEABLE  
OUTCOME 



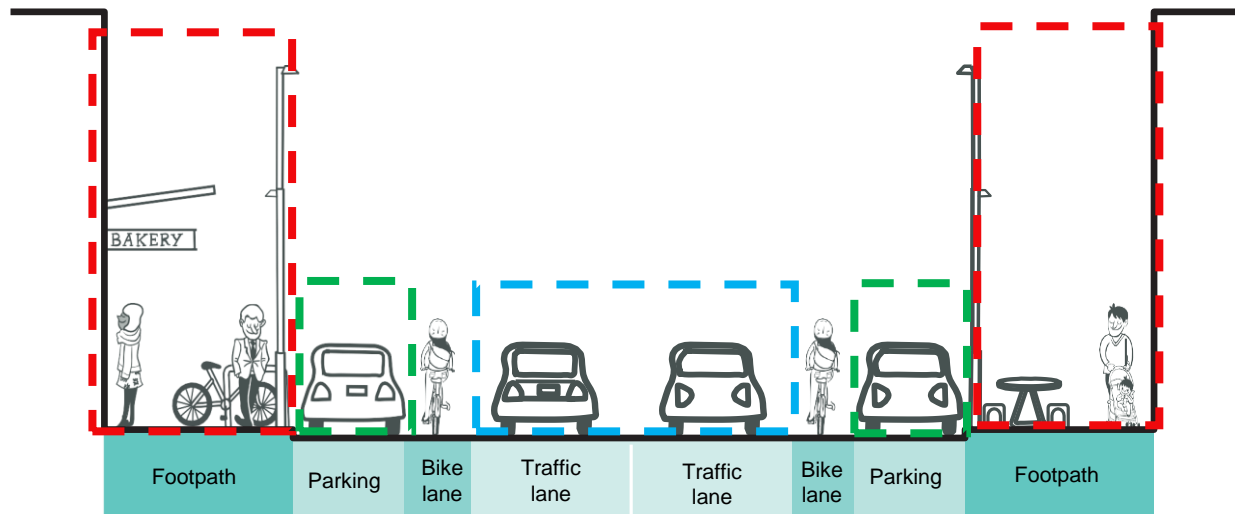
- 1.08km long
- Typically 20.5m wide from property to property
- 13.1m from kerb to kerb
- 8,200 vehicles per day
- 1,000 bike riders per day



The installation of separated bike lanes on Pirie-Waymouth streets requires the reallocation of space from other street uses.

On the Pirie-Waymouth street corridor separated bike lanes could be installed by reallocating space from either:

1. Footpaths
2. On-street parking
3. Traffic lanes



Pirie-Waymouth street corridor – typical existing cross-section

The following issues would be considered during the design process if space were to be reallocated from the footpath to make space for the bikeway:

- Current width of footpaths is generally 3.7 metres
- High volumes of people walking along footpaths (~6800 on each side per day)
- Outdoor dining on footpath, particularly between Light Square and Hindmarsh Square
- Crowding of existing footpaths at peak times
- Existing infrastructure (light poles, traffic signals, stormwater etc) would need to be relocated.
- Due to these constraints, this option is not considered to be feasible and has therefore has been discounted.



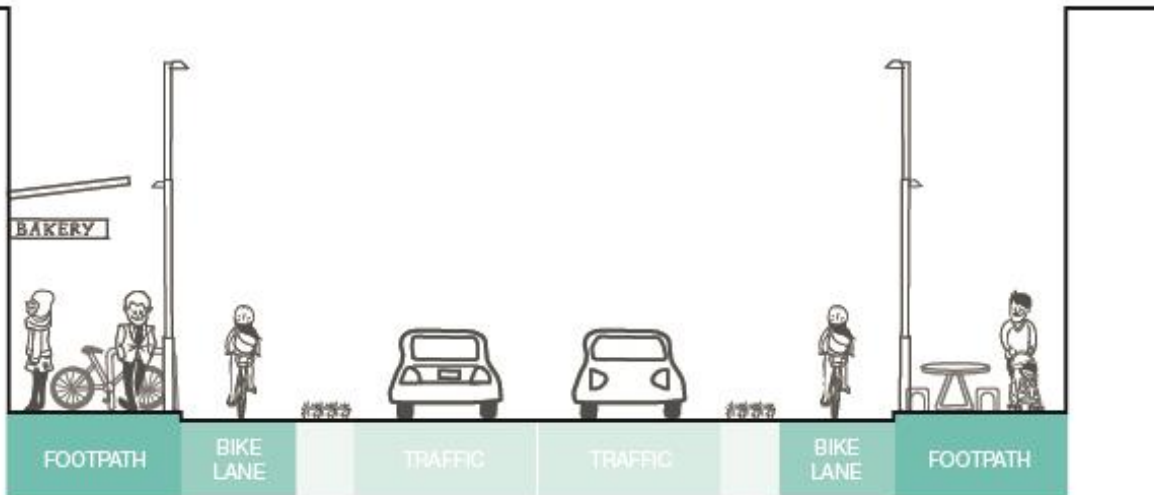


The following issues would be considered during the design process if space were to be reallocated from on-street parking to make space for the bikeway:

- All on-street parking, loading, taxi and mail zones along the corridor would be removed (336 vehicle and 63 motorbike spaces).
- The loss of parking revenue to Council would be approximately \$750,000 per annum.
- It may be possible to reallocate on-street parking in side streets adjoining the corridor to spaces for loading, taxi and mail zones.
- The parklet outside Cibo and the landscaped areas on Waymouth Street (West Terrace-Morphett Street) would also need to be removed, as these currently utilise kerb-side space.



The graphic below shows an indicative street cross-section if on-street parking spaces are reallocated to install separated bike lanes.



### Features:

- Separated bike lanes added to both sides of the street
- Two-way traffic
- Separation strips between bike and traffic lanes provide a buffer between bike riders and motor vehicles as well as providing space for people on foot to wait when crossing the street.

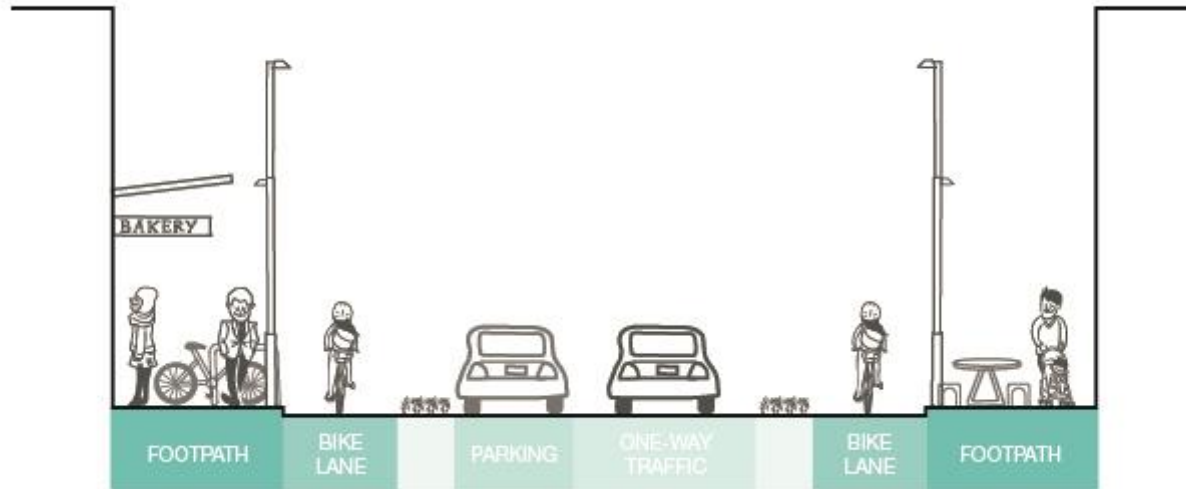


The following issues would be considered during the design process if space were to be reallocated from traffic lanes to make space for the bikeway:

- The existing city traffic network relies on two-way movement along the Pirie-Waymouth corridor.
- There are numerous large off-street car parks that are accessed from this street corridor, with current localised congestion occurring at peak times due to access/egress from carparks.
- It is not advisable to consider one-way traffic along this corridor without an assessment of the broader impacts on the wider street network and accessibility.



The graphic below shows an indicative street cross-section if space were reallocated from traffic lanes to install separated bike lanes.



### Features:

- Separated bike lanes added to both sides of the street
- One-way traffic
- On-street parking on one side of the street
- Separation strips between bike and traffic lanes provide a buffer between bike riders and motor vehicles as well as providing space for people on foot to wait when crossing the street.
- Changing Pirie-Waymouth streets to one-way traffic operation would have an impact on local access and the broader transport network within the city. Further analysis would need to be undertaken to fully understand and quantify the impacts.

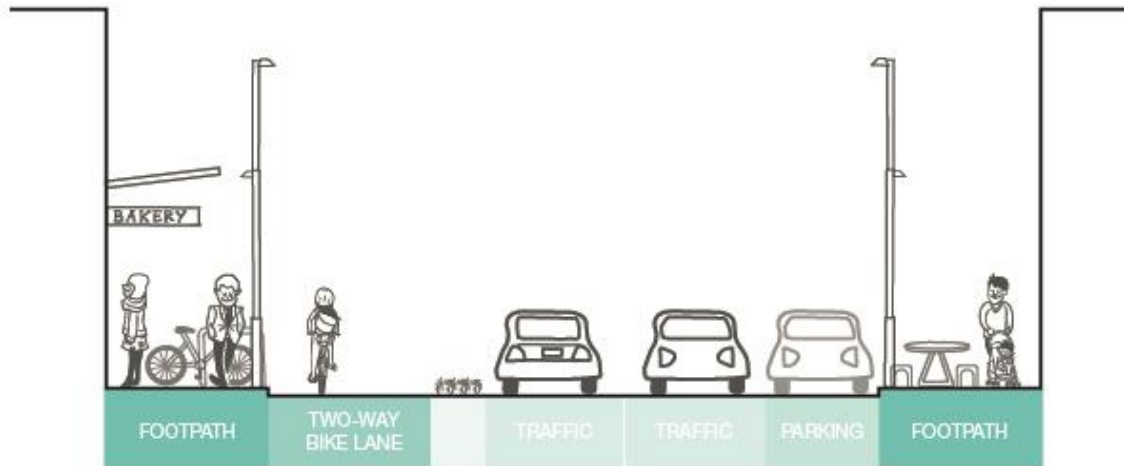
# EAST-WEST BIKEWAY

## STREET LAYOUT OPTIONS: BI-DIRECTIONAL BIKEWAY

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The graphic below shows an indicative street cross-section if a bi-directional (two-way) bikeway were to be installed on one side of the street.



### Features:

- Bi-directional bikeway added to one side of the street
- Two-way traffic
- On-street parking on one side of the street
- Separation strip between the bikeway and traffic lane provide a buffer between bike riders and motor vehicles as well as providing space for people on foot to wait when crossing the street.
- Whilst a bi-directional bikeway does fit within the indicative cross-section, the installation of a bi-directional bikeway can increase risks to bike riders and pedestrians in a busy city street.

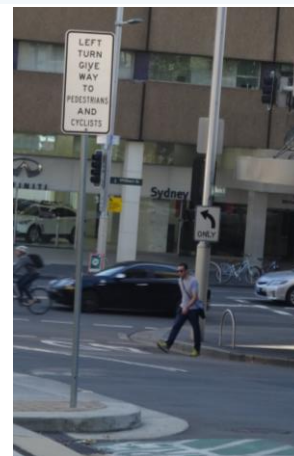
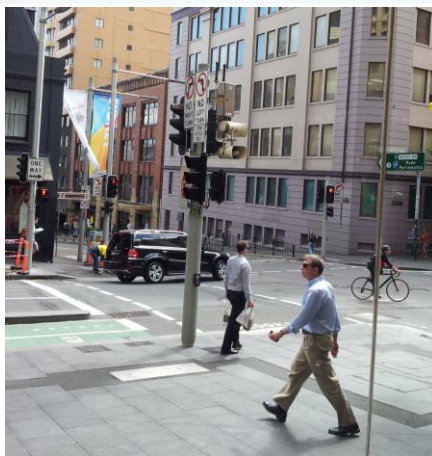


The graphic below shows an indicative street plan if a bi-directional bikeway were installed on one side of the street.



The installation of a bi-directional bikeway into a two-way street will create a more complex and less familiar street environment, which could lead to:

- There is an increased risk of conflicts between motor vehicles and bike riders as drivers have to look for and give-way to bike riders in both directions as the turn into/out of side streets and driveways.
- There is an increased risk of conflicts between people crossing the street on foot and bike riders/motor vehicles moving along the street, as people navigate a more complex street environment.
- Movements of bike riders, motor vehicles and pedestrians would need to be separately controlled at signalled intersections – with a separate phase added for bike riders. This is likely to result in delays for all users and/or turn bans for vehicles.
- A US study found that the risk of a crash or fall on a two-way protected bike lane at street level was much higher than that of a major road and that the combination of busy intersections and a two-way bike lane likely contributes to the high risk.  
[www.ihs.org/news/detail/some-protected-bike-lanes-leave-cyclists-vulnerable-to-injury](http://www.ihs.org/news/detail/some-protected-bike-lanes-leave-cyclists-vulnerable-to-injury)



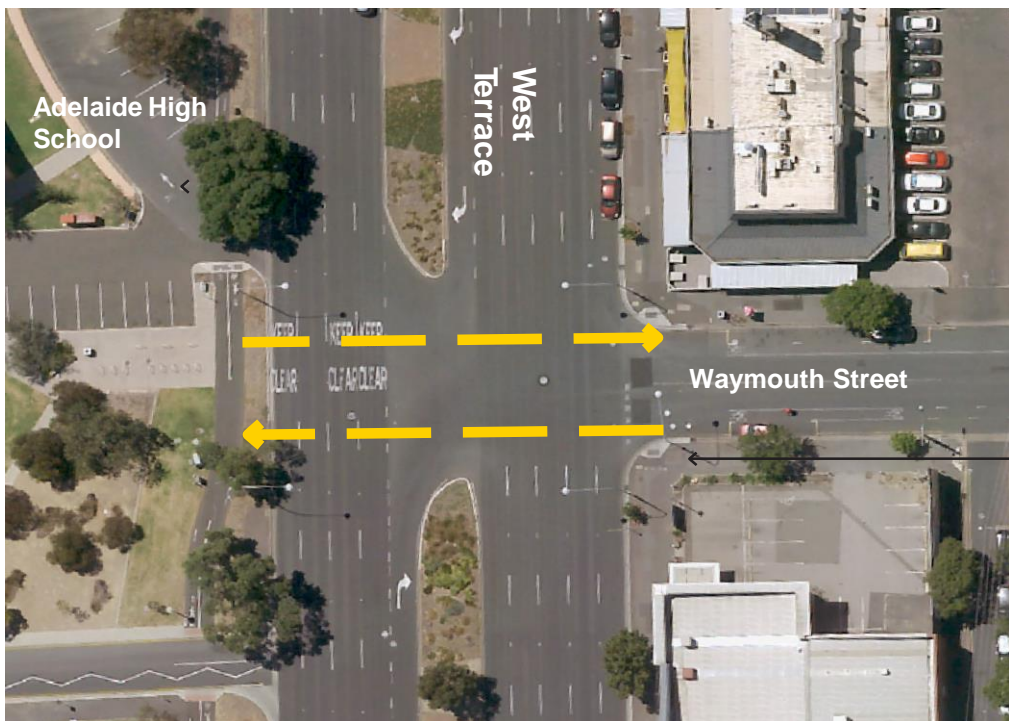
There are a series of further design considerations that would need to be addressed if a bikeway is to be constructed on the Pirie-Waymouth street corridor:

1. West Terrace / Waymouth Street intersection
2. Waymouth Street landscaping
3. Light Square
4. Waymouth Street widened footpaths
5. Parklet at Cibo
6. Hindmarsh Square

# EAST-WEST BIKEWAY DESIGN CONSIDERATION – WEST TERRACE/WAYMOUTH STREET



West Terrace  
intersection

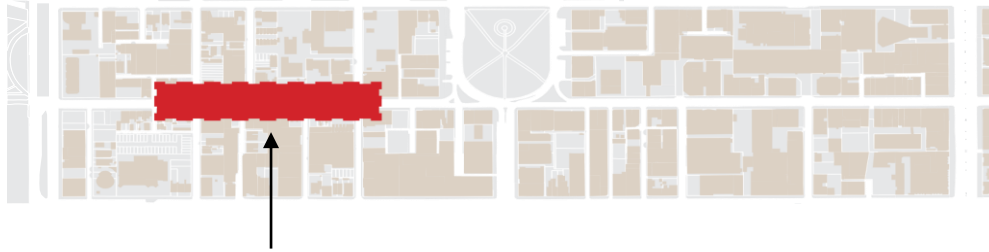


Waymouth Street / West Terrace intersection

## Design Considerations

- No existing traffic signals at West Terrace
- Traffic signals are required for bike riders to cross West Terrace safely
- Traffic signals would also benefit pedestrians
- New traffic signals will impact traffic movement along West Terrace
- Likely high cost for installation of new traffic signal infrastructure, circa \$1.0m





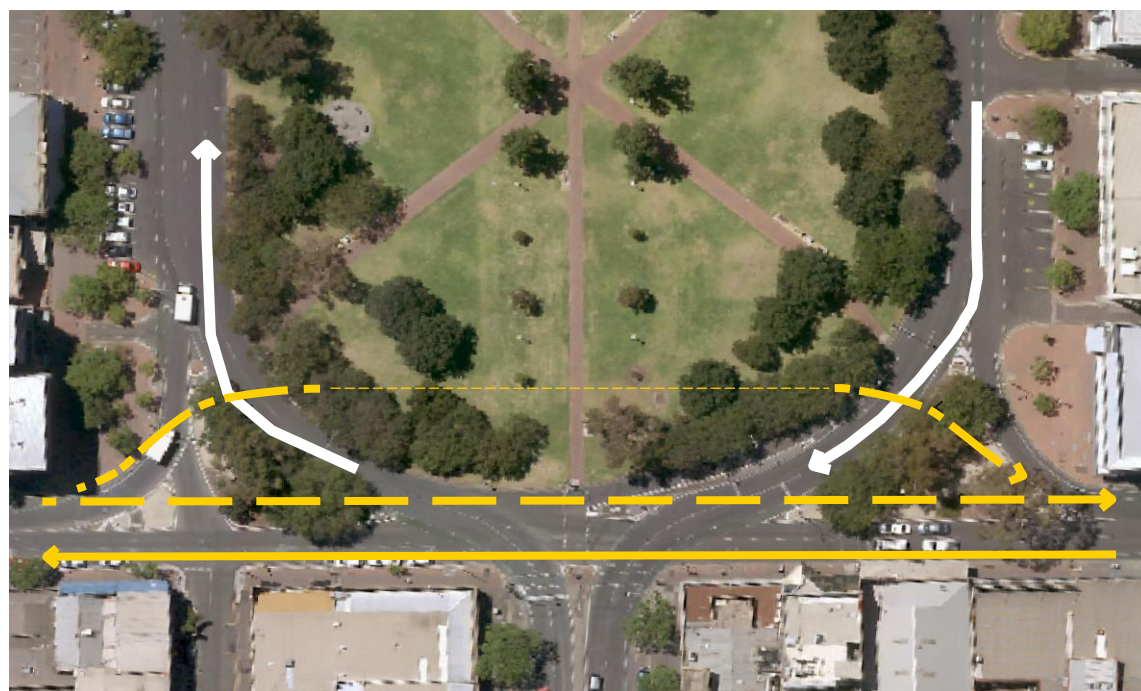
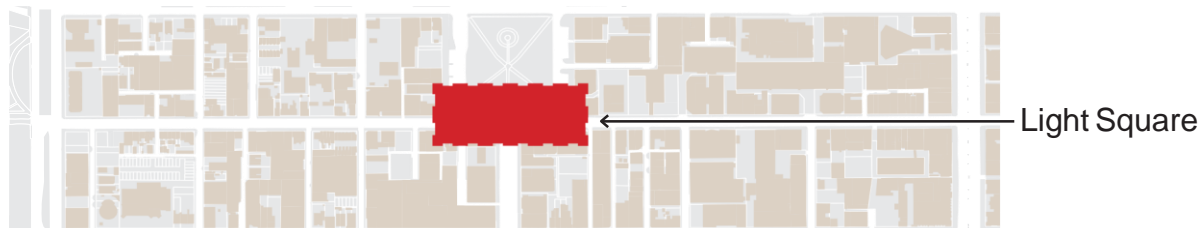
Location of existing landscaped areas on Waymouth Street

### Design Considerations

- Installation of bikeway will require the removal of all landscaped areas that are located within the roadway, including the street trees, planting and recently installed Water Sensitive Urban Design infrastructure along Waymouth Street



Examples of existing landscaped areas on Waymouth Street



*Light Square*

## Design Considerations

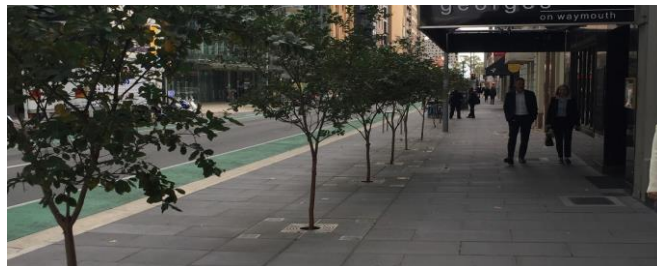
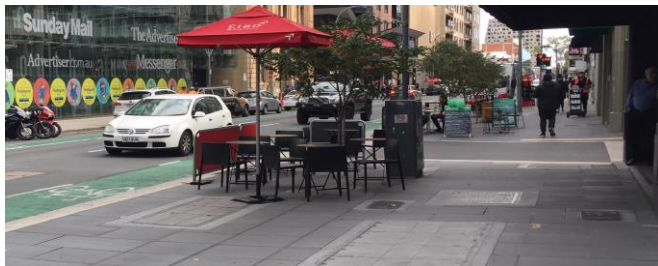
- Existing one way traffic movement around square
- East-bound bike riders currently have to ride around the square to continue along Waymouth St, adding unnecessary time, distance and risk to their trip
- Significant crash history at this location, particularly for bike riders
- Multiple traffic signals
- Existing trees and vegetation
- Heritage and culturally significant space
- Significant impact to Light Square to accommodate the bikeway



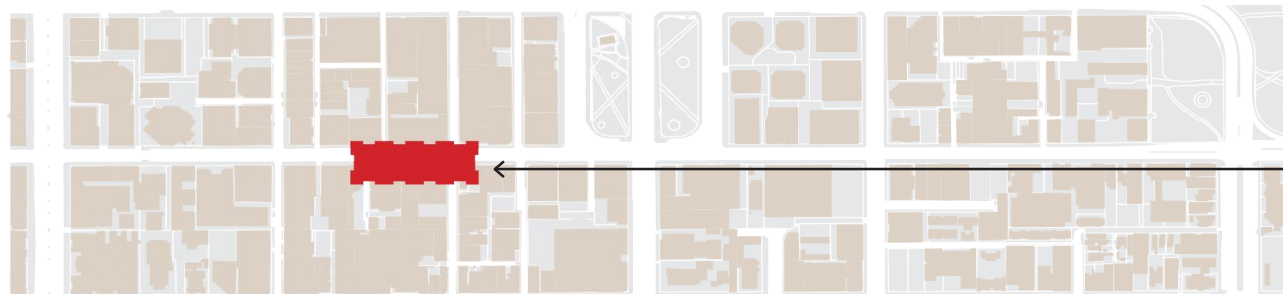


### Design Considerations

- Footpath has been widened to allow for larger outdoor dining areas, the addition of trees and high pedestrian volumes.
- The narrower road width at this location would impact on the design of the bikeway.



Waymouth Street widened footpath (Topham Mall – King William Street)



Cibo Parklet

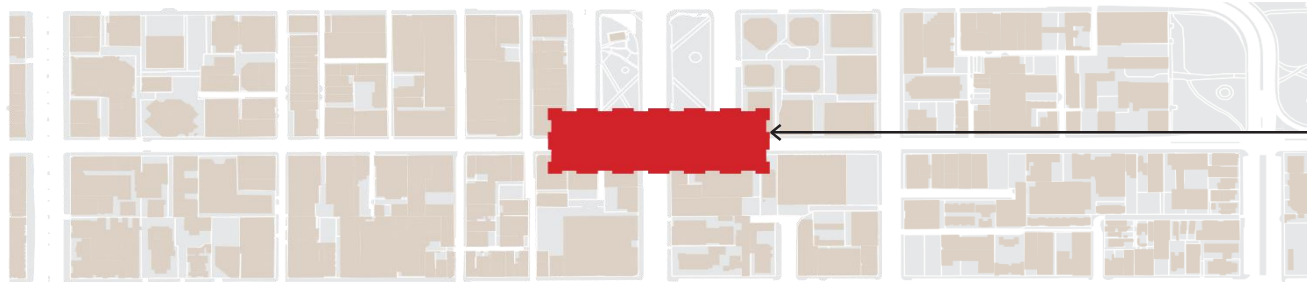


*Parklet outside Cibo on Pirie Street*

### Design Considerations

- The parklet is used for outdoor dining at Cibo on Pirie Street
- The parklet may need to be removed for construction of the bikeway





Hindmarsh Square



Hindmarsh Square

## Design Considerations

- Multiple conflict locations with traffic movement and bikes
- Heritage and culturally significant space
- Poor existing pedestrian movement
- Impact to original square layout
- Changes required to traffic lanes

KEY QUESTION

Do Members have views on the reallocation of space from either footpaths, traffic lanes or on-street parking in order to install the proposed bikeway on the Pirie-Waymouth street corridor?

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Do Members have views on any of the Design Considerations for the bikeway on the Pirie-Waymouth street corridor?