

1.1 ATKINSON STREET OPTIONS – CYCLING CONNECTION – SCOTCHMANS CREEK TRAIL TO DJERRING TRAIL, OAKLEIGH
(SJW/RA: F18-34454)

Responsible Director: Peter Panagakos

EXECUTIVE SUMMARY

PURPOSE

The purpose of this report is to present and discuss the findings of the peer review undertaken to assess issues raised with the proposed two-way cycleway along Atkinson Street, Oakleigh. This report also presents various options developed in response to the peer review and recommends a preferred option.

KEY CONSIDERATIONS/ISSUES

A peer review has been undertaken in response to Council's direction to further investigate issues raised through the community engagement process regarding the Atkinson Street section of the proposed cycling connection. Council officers have consequently refined and reviewed the peer review report and investigated four options to determine the best design outcome in terms of safety and functionality. A summary of these options and the impacts of each are presented in this report for Council consideration.

FINANCIAL IMPLICATIONS

The cost of preparing a preliminary design of the preferred option is proposed to be absorbed within existing Council budgets. Detailed design will be able to proceed should Council resolve to support the preliminary design and continue with the project. The construction of the cycling track in Atkinson Street will be able to be considered by Council for multi year funding in it 23/24 and 24/25 budgets. The project would need to be staged and the stages for delivery would need to be evaluated and resolved upon.

CONCLUSION/RECOMMENDATION

Council approval is sought to proceed with development of the preliminary design and undertake community and stakeholder engagement on the recommended Option 2 and other previously consulted sections in the context of the complete cycling connection between Djerring trail and Scotchmans Creek. A report to be presented to Council with the results of the consultation at or before the November 2023 Council meeting for consideration and endorsement.

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RECOMMENDATION

That Council:

1. *Notes the findings regarding Atkinson Street options to facilitate the cycling connection between Scotchmans Creek Trail and Djerring Trail in Oakleigh.*
2. *Endorses Atkinson Street Option 2 as the preferred option, acknowledges that this option is proposed to be undertaken as a permanent option, and directs officers to undertake:*
 - a. *preliminary design of the option.*
 - b. *a detailed parking analysis to help identify changes to parking to accommodate parking loss and balance parking demand.*
 - c. *undertake community and stakeholder engagement on the option, in the context of the complete cycling connection between Djerring trail and Scotchmans Creek.*
 - d. *engage with Vic Track for the provision of a more direct connection to Djerring trail which would provide a superior and more direct connection.*
3. *Directs officers to report back to Council with the results of community feedback, stakeholder engagement and recommendation on final design for Atkinson Street before the end of November 2023 for consideration and endorsement.*
4. *Notes the construction of the cycling track in Atkinson Street will be able to be considered by Council for multi year funding in it 23/24 and 24/25 budgets. The project would need to be staged and the stages for delivery would need to be evaluated and resolved upon.*

INTRODUCTION

The purpose of this report is to present and discuss the findings of the peer review undertaken to assess issues raised with the proposed two-way cycleway along Atkinson Street, Oakleigh. This report also presents various options developed in response to the peer review.

The report recommends Council proceed to preliminary design and further community and stakeholder engagement on the recommended Option 2 and other previously consulted sections in the context of the complete cycling connection between Djerring trail and Scotchmans Creek. A report to be presented to Council with the results of the consultation at or before the November 2023 Council meeting for consideration and endorsement.

BACKGROUND

The provision of a cycling connection between two of Council's major trails, Scotchmans Creek Trail and Djerring Trail would provide a key north-south cycling link within the City of Monash and facilitate safer active transport access to the Oakleigh Activity Centre.

Council officers sought feedback from the community on a trial cycling connection between Scotchmans Creek Trail and Djerring Trail, including a protected two-way cycle track on the east side of Atkinson Street between Dandenong Road and Atherton Road. The community engagement included a preliminary plan for Atkinson Street and concept plans for other sections of the route, as presented at the Council meeting of 22 February 2022. These are provided in Attachments 1, 2 and 3. There were numerous valid safety concerns raised, particularly in relation to Atkinson Street.

At its meeting on 28 June 2022, Council resolved that it:

1. Acknowledges the community feedback on the initial proposal for a 1.4km cycling connection between Scotchmans Creek Trail and the Djerring Trail in Oakleigh.
2. Directs officers to undertake further investigation into the issues raised through the community engagement process and refine the design options and route alignment if required to ensure the best outcomes in terms of safety and functionality.
3. Directs officers to report back to Council with the final design in December 2022 for endorsement prior to construction tendering.

DISCUSSION

In accordance with the 28 June Council resolution, a traffic engineering peer review assessment of the proposed Atkinson Street section of the cycling connection, including the associated community feedback to the proposal, was prepared by traffic engineering consultant Stantec. This review evaluated Council's concept design through the lens of five principles of cycling infrastructure design: cohesion, directness, comfort, safety and attractiveness.

The resolution of the Atkinson Street cycling connection is critical to the success of the project and impacts on the design of other sections of the connection. Consequently, further stakeholder engagement has been held off until Council resolves the layout of the Atkinson Street section with

further community engagement required due to the proposed impact on Atkinson Street parking.

The peer review indicates that Council's original bi-directional (two-way) cycle track would be acceptable with additional safety measures and improvements in the width of key elements. Safety measures include the introduction of minimum sight line splays for side streets and driveways along the east side of Atkinson Street. Applying the increased width for elements of the design requires the west side of Atkinson Street to be converted to parallel parking and results in a major parking reduction on both sides of the street. Retention of the Logie Street turn lane is proposed for safety and operational functionality.

Option 1 overlays these improvements to the original design, and provides a functional, useable design outcome with the provision of the two-way cycle track which removes the need for cyclists to move back and forth on different sides of the road to access the route.

The peer review also suggested three alternative design options. The most radical option of modal filters (which would eliminate all traffic except buses and cyclists) was suggested if Council was actively pursuing a downgrade in the function of Atkinson Street. This option has not been explored further due to the significant impact this would have on surrounding streets and the accessibility to the Oakleigh Activity Centre.

In light of the parking loss associated with Option 1 and the physical modifications required to both sides of Atkinson Street, another option was developed by Council officers. Option 2 (which is the preferred option). Option 2 retains the angle parking on the west side of Atkinson Street and provides a clear unobstructed vision for cyclists, residents and motorists along Atkinson Street. It delivers a safer outcome for vulnerable cyclists, and maintains the functionality of Option 1 while providing the highest parking numbers of all the options. There is less impact to physical infrastructure and it is expected to have a lower implementation cost than the other options. To enhance safety a physical separation between vehicles and cyclists will be considered and provided for in the preliminary design.

The implementation of safety measures has resulted in more physical modifications in every option compared to the original design. As a result of the work undertaken, and the superior outcomes that can be achieved, it is considered that a permanent cycle path can provide the best and safest solution where at time in the past trial cycling connections may have been considered. Raised "bend out" crossing points at each of the side streets along the cycle track which may impact on services, trees and drainage could be provided at a later stage. Enhancement of the bus stop platform suggested by Stantec could also be added if required in a later stage.

Council officers have explored four options as a result of the peer review, as follows:

- Option 1 - Two-way cycle track on the east side of Atkinson Street with changes to width and increased parking setbacks at side streets and driveways. This also requires parking on the west side of Atkinson Street to be changed to parallel parking which will result in the loss of some parking spaces;
- Option 2 (preferred option) - Two-way cycle track on the east side of Atkinson Street with changes to width and all parking removed on the east side of Atkinson Street. This retains all the angled parking on the west side of Atkinson Street;
- Option 3 - Two-way cycle track shifted to the west side of Atkinson Street;
- Option 4 - One-way cycle track with parallel parking on both sides of Atkinson Street.

Officers will explore the inclusion of buffers (to separate vehicles and cyclists) which could include raised with concrete kerbing and a suitable infill, with a preference for sustainable options. The inclusion of landscaping could also be investigated. An example of a buffer used extensively in the City of Melbourne, which demonstrates a simplistic version of the proposed physical separation is provided in Attachment 4.

The features and impacts of the four options assessed are tabulated below.

No.	Description of option	Benefits/Concerns	Parking spaces remaining	Infrastructure impacts
1	<ul style="list-style-type: none"> • Two-way cycle track on east side • Increase parking setbacks to driveways and provide Stopping Sight Distance (SSD) to side streets on both sides to ensure adequate sight lines for motorists and cyclists for safety reasons. This results in a significant loss of parking on the east side. • Change to parallel parking on west side required due to widening of cycle track, buffer 	<ul style="list-style-type: none"> • Provides single, straightforward cycling connection to Dandenong Road and Atherton Road • Improved sight lines and safety • Loss of parking on both sides 	<ul style="list-style-type: none"> • 7 spaces - east side (46 existing) • 31 spaces - west side (49 existing) • Total 38 spaces (95 existing) 	<ul style="list-style-type: none"> • Modification of Logie Street median and kerb extensions • Removal and relocation of central island south of Logie Street to accommodate turn lane

	and travelling lanes			
2	<ul style="list-style-type: none"> Two-way cycle track on east side Removal of parking east side to maximise sightlines for motorists and cyclists Retain angle parking west side 	<ul style="list-style-type: none"> Provides single, straightforward cycling connection to Dandenong Road and Atherton Road Maximises sight lines and safety for residents, cyclists and motorists Complete loss of parking on east side 	<ul style="list-style-type: none"> 0 spaces - east side (46 existing) 49 spaces - west side (49 existing) Total 49 spaces (95 existing) 	<ul style="list-style-type: none"> Modification of Logie Street median and kerb extensions Removal and relocation of central island south of Logie Street to accommodate turn lane
3	<ul style="list-style-type: none"> Two-way cycle track shifted to west side of Atkinson Street Increase parking setbacks to driveways and provide Stopping Sight Distance (SSD) to side streets on both sides to ensure adequate sight lines for motorists and cyclists for safety reasons. 	<ul style="list-style-type: none"> Continuous cycling connection not possible due to existing major infrastructure Better access to Oakleigh facilities Removes need to cross Dandenong Road slip lane Crossfall on west side steeper so reduced comfort for cyclists Cyclists required to shift to a different side of the road in full cycling connection (Scotchmans to Djerring) 	<ul style="list-style-type: none"> 11 spaces – east side (46 existing) 20 spaces – west side (49 existing) Total 31 spaces (95 existing) 	<ul style="list-style-type: none"> Removal and relocation of central island south of Logie Street to accommodate turn lane Modification of kerb extensions either side of Palmer Street and Taylor Street
4	<ul style="list-style-type: none"> Uni-directional (one-way) cycle track both sides Increase parking setbacks to driveways and Stopping Sight Distance (SSD) both sides to ensure adequate sight lines for motorists and cyclists for safety reasons 	<ul style="list-style-type: none"> Drivers do not have to look in both directions for cyclists Improved sight lines Reduced buffer to cycle track from parking lane compared to Option 1 and 2 Reduced buffer between parking 	<ul style="list-style-type: none"> 8 spaces – east side (46 existing) 20 spaces – west side (49 existing) Total 28 spaces (95 existing) 	<ul style="list-style-type: none"> Modification of kerb extensions either side of each side street (both sides) Modification of Logie Street median Removal of central island south of Logie Street to

	<ul style="list-style-type: none"> • Change to parallel parking on west side required due to widening of one-way cycle tracks and travelling lanes, and provision of buffers 	<p>lane and travelling lane compared to Option 1 and 2</p> <ul style="list-style-type: none"> • Continuous cycling connection not possible • Loss of parking on both sides • Cyclists required to shift to a different side of the road in full cycling connection (Scotchmans to Djerring) 		<p>accommodate turn lane</p> <ul style="list-style-type: none"> • Bus stops on both sides require modification
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Option 1. Bi-directional (two-way) cycle track with parallel parking both sides

The peer review of Council’s original two-way cycle track and community feedback indicated that in general the design is supported with adjustment, however the parking loss on the east side is significant with 7 spaces able to be retained. The review identified a number of recommendations to improve the design which Council officers have adapted according to their impact. The following changes to the original design are shown in Figure 1 and detailed below.

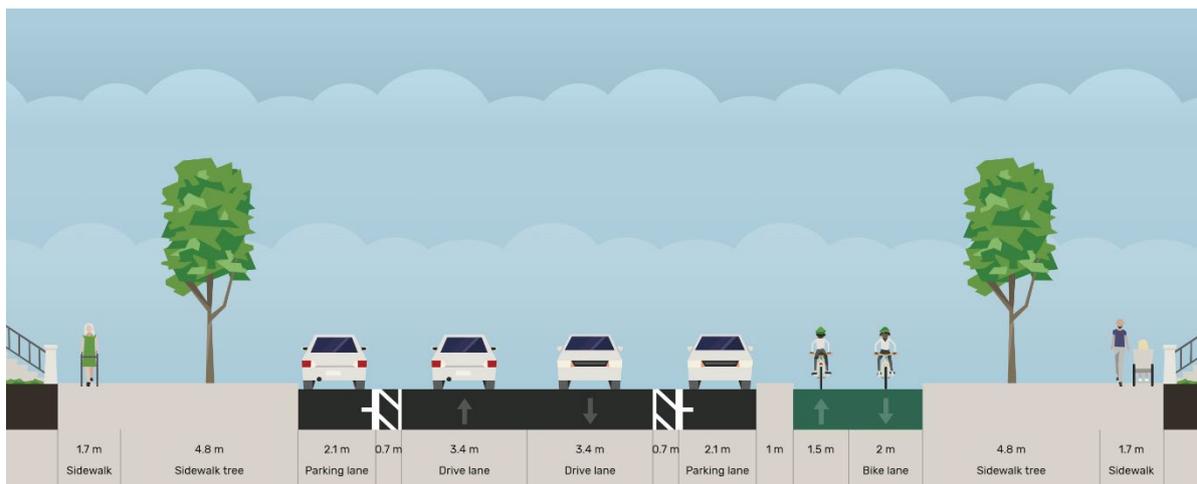


Figure 1. Cross section of two-way cycle track, east side - parallel parking both sides - Option 1

1. Effective 3.0m wide cycle track.

- The width of the cycle track increased from 2.7m to 3.5m, which provides an effective width of 3.0m taking into account the bluestone channel is difficult for cyclists to traverse and a wider path helps to

avoid pedal strikes. The 3.0m width meets the standard for a Type 1 path. This allows for the “wobble factor” of a rider negotiating the steeper section of Atkinson Street and allows for the speed differential between a less confident person riding and regular riders.

2. Provide 1.0m buffer between cycle track and parallel parking, east side

- A 0.6m buffer was considered acceptable as an absolute minimum where there are constraints, however it was recommended that in a permanent design additional space would allow for a landscaped buffer to be installed. The Austroads guidelines indicate that a 1.0m or greater physical separation for motor traffic is desirable. Waste bin collection at the kerbside will be difficult to achieve with bins required to be collected in and around parking lanes or cycle track buffer. A 1.0m buffer will allow for the larger bins to be accommodated with some space for movement during the bin collection. The peer review recommended that any trial utilise a bolt-down kerb separator with sufficient buffer either side to avoid kerb strikes by cars and pedal strikes by people riding.

3. Provide 0.7m buffer between the parking lane and the travelling lane, both sides.

- Currently the bike lanes act as a buffer for drivers exiting their vehicle without having to wait for a gap in traffic. The review suggests that the lack of buffers is a particular concern with the higher speeds and volumes associated with Atkinson Street. While this is half the width of the current bike lane, it will still allow a person to safely exit their vehicle.

4. Maintain existing 3.4m travelling lanes.

- The existing width of the travelling lanes is proposed to be retained for operational functionality and ability to accommodate heavy vehicles, including buses. In order to provide for the increase in width of various components of the cycle track, there is a need to convert the existing angled parking on the west side of the road to parallel parking. This allows for the existing width of the travelling lanes to be maintained.

5. Require 5m setback to each driveway on the side of the cycle track and 3m on the opposite side to assist driver sightlines to cyclists when entering.

- Stantec’s review of current thinking indicated that while 3m is the absolute minimum for parking setbacks, a 5m setback is strongly advised, particularly with a bi-directional track. It suggests that while familiarity with the facility outside residential properties will eventuate, the increased speeds of people riding downhill or on electric-assisted bicycles and scooters will still pose a risk if visibility is compromised. This is especially the case with drivers turning right who may struggle to see someone cycling if they are behind parked

cars. The risk is also increased on downhill sections of Atkinson Street.

6. *Require 42m Stopping Sight Distance (SSD) to the side streets in accordance with current standards.*

- Concern was raised in the peer review that the visibility of drivers in side streets to approaching traffic in Atkinson Street is reduced considerably in the proposed design and is up to 10m less than existing conditions. It was strongly suggested that the application of a 42m sight line splay from the driver's position looking in both directions to approaching traffic is necessary, in accordance with Australian Standards. As a result of this requirement, a number of parking spaces in Option 1 would need to be removed.

7. *East side parking 7 spaces (46 existing).*

- The parking spaces able to be retained as a result of the above requirements is 7 spaces reduced from 46 spaces. The combined requirements outlined in items 5 and 6 above reduce the number of parking spaces on the east side by a significant amount.

8. *West side parking 31 spaces (49 existing).*

- In order to provide for the increase in width of various elements in this option (i.e. the cycle track, buffer between cycle track and cycle track, travelling lanes) there is insufficient width available within the road reserve to retain the angled parking on the west side. Consequently, this is required to be converted to parallel parking. Council officers estimate that the west side can accommodate around 31 parallel spaces reduced from 49 spaces.

9. *A total of 38 spaces would be available in Atkinson Street between Atherton Road and Dandenong Road, reduced from 95 spaces.*

10. *Provide additional separation and bollard adjacent to left turn at side street intersections.*

- The original design proposes a "bend in" treatment (towards the travelling lanes) as a temporary solution. The peer review indicates that this is not uncommon where there are constraints and can increase visibility. However, it suggests that this arrangement should be enhanced to ensure vehicles turn slowly and as late as possible, with the provision of a low-profile physical traffic separator and bollard where vehicles turn left into side streets.

11. *Retain the existing turn lane at Logie Street/Logie Court.*

- This requires a shift to the existing travelling lanes further west, removal and relocation of the existing central island south of Logie Street and removal of part of the western kerb extension and central median at Logie Street.

12. At a later stage, introduce raised “bend out” cyclist crossing points (similar to those at Gardiner Road side streets) at side streets on the cycle track.

- This will assist in moving the cycle track further away from motor vehicle traffic at the intersections and allow a vehicle to prop at the crossing without blocking Atkinson Street.

13. At a later stage, investigate the option of an extended raised platform and zebra crossing at the bus stop on the east side.

- Further investigation into the necessity of this enhancement can be undertaken once the cycle track is in operation. The option may impact on existing drainage.

Option 2. Bi-directional (two-way) cycle track with no parking on east side and parallel parking on west side

Option 2 is the preferred option, which retains the angle parking on the west side of Atkinson Street, removes all parking on the east side and increases the buffer between the cycle track and the southbound travelling lane.

The main difference between Option 1 and Option 2 is that Option 2 removes all blockages due to parked vehicles for drivers entering and exiting properties and side streets, and allows clear unobstructed vision for cyclists, residents and motorists along the east side of Atkinson Street. This results in better safety outcomes than Option 1 while still maintaining the functionality of a two-way cycle track, supplies the highest parking yield of all the options, has less impact to physical infrastructure (as no changes are required on the west side) and is expected to have a lower implementation cost than the other options. Waste collection will be simplified in this option.

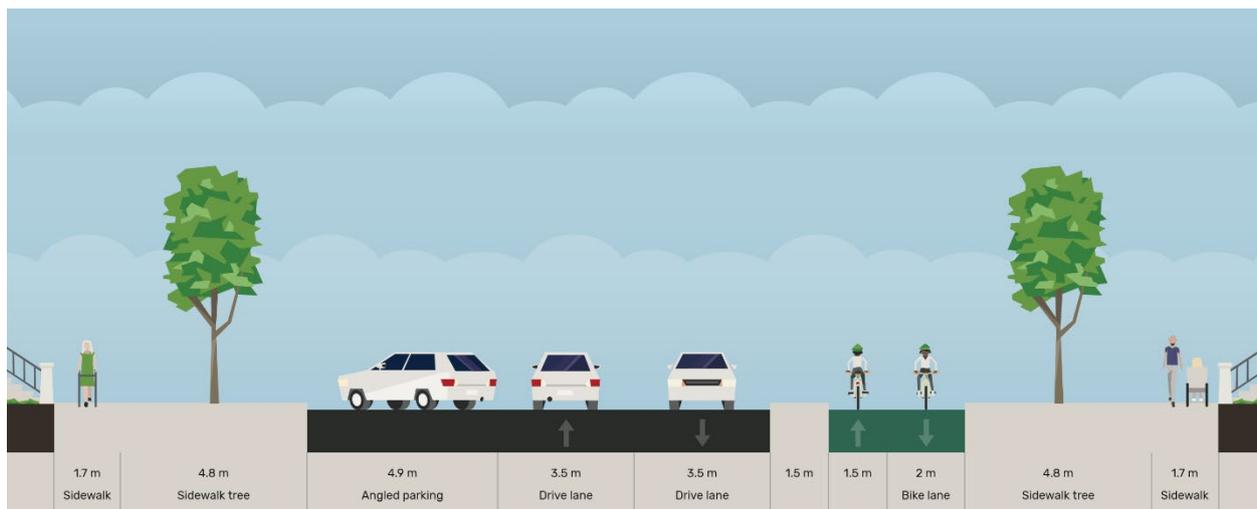


Figure 2. Cross section of two-way cycle track, east side – no parking east side, retain angle parking west side - Option 2

1. Provide 1.5m wide buffer between the cycle track and the travelling lane.

- This allows for an increased buffer to accommodate waste bin collection clear of the cycle track with bins stored within the buffer.

2. **Maintain 3.4m travelling lanes.**
 - Similar to Option 1.
3. **East side parking 0 spaces (46 existing).**
 - Parking setbacks to side streets and driveways, as detailed in Option 1, will not be required due to removal of parking on the east side.
4. **West side parking 49 spaces.**
 - The existing angled parking on the west side of the road is retained with a total of 49 existing spaces.
5. **A total of 49 spaces would be available in Atkinson Street between Atherton Road and Dandenong Road, reduced from 95 spaces.**
6. **Provide additional separation and bollard adjacent to left turn at side street intersections.**
 - Similar to Option 1.
7. **At a later stage, introduce raised "bend out" cyclist crossing points (similar to those at Gardiner Road side streets) at side streets on the cycle track.**
 - Similar to Option 1, to be installed where possible.
8. **Increase width of travelling lanes to 3.5m.**
 - Alternatively a small buffer of 0.2m could be retained at the rear of the existing angled parking spaces on the west side to facilitate reverse movements.
9. **At a later stage, investigate the option of an extended raised platform and zebra crossing at the bus stop on the east side.**
 - Similar to Option 1.

Option 3. Bi-directional (two-way) cycle track on west side with no change to parking on east side and parallel parking on west side

This alternative design option was offered by Stantec and is essentially Option 1 flipped to the other side of the road, however other issues arise for this option as noted below. A major concern with this option is that there is insufficient road space at each end (Dandenong Road and Atherton Road) to allow for a cycle track with traffic lane requirements on the west side Atkinson Street at each intersection, and service authority infrastructure effectively prohibiting the ability for an off-road option.

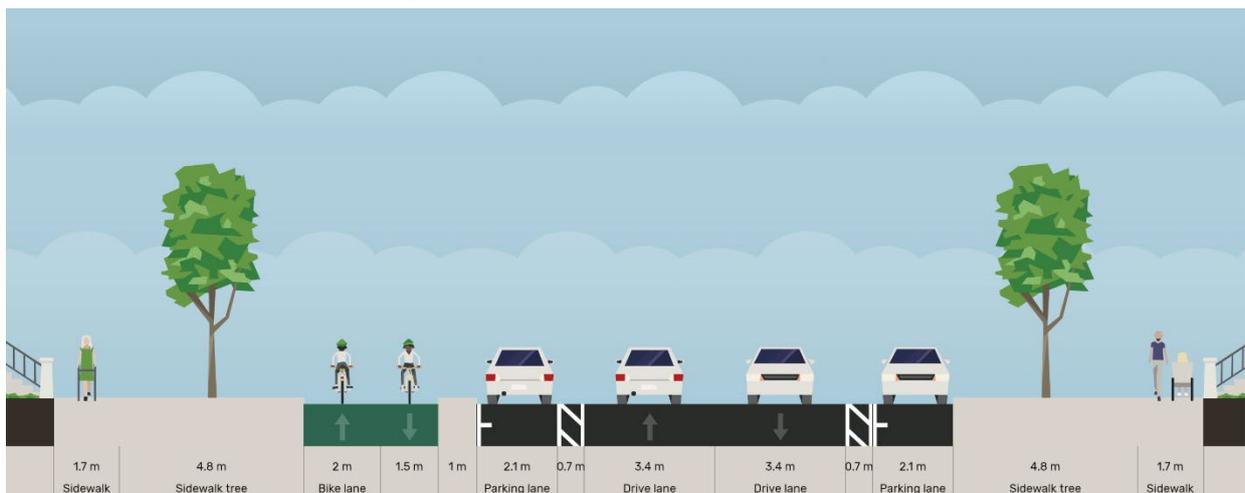


Figure 3. Cross section of two-way cycle track, west side – parallel parking both sides - Option 3

- 1. Improved access to nearby land uses.**
 - A two-way cycle track on the west side improves access to land uses on this side of the street, such as Oakleigh Library, Oakleigh Primary School and Warrawee Park.
- 2. East side parking 11 spaces (46 existing).**
 - Stantec has raised concerns about the existing sight distance at side streets which does not meet current standards. Residents also raised safety issues exiting their driveways on the east side of Atkinson Street due to inadequate sight distance. There is now an obligation that, even if parallel parking on the east side is retained, a review of sight lines for side streets and driveways is required for safety reasons. Consequently, it is expected that around 11 parking spaces on the east side will be kept.
- 3. West side parking 20 spaces (49 existing).**
 - The angle parking is to be converted to parallel parking, and provision for parking setbacks of 5m either side of each driveway and Stopping Sight Distance applied on both sides of each side street. This results in 20 parallel spaces on the west side.
- 4. A total of 31 spaces would be available in Atkinson Street between Atherton Road and Dandenong Road both sides, reduced from 95 spaces.**
- 5. Continuous cycling connection not possible on the west side.**
 - There is insufficient road space at the Dandenong Road end to allow for a cycle track with major gas infrastructure effectively prohibiting the ability for an off-road option. The Atherton Road end is also problematic as the facility would not be able to start until north of the Atkinson Street car park access and a shared off-road path from Atherton Road to this access cannot be achieved due to traffic signal infrastructure.
- 6. Cyclists forced to cross to the east side at Atherton Road.**
 - People cycling will need to shift sides to continue on the broader cycling connection, creating a less convenient, indirect link.
- 7. Reduced comfort for people cycling due to steeper crossfall on west side.**
 - The crossfall on the west side of Atkinson Street is steeper than the east side which is expected to reduce comfort for people cycling.

Option 4. Uni-directional (one-way) cycle track on both sides with no change to parking on east side and parallel parking on west side

Stantec provided an alternative design option of a uni-directional (one-way) cycle track similar to Option 1 with cycle lanes each side operating in the direction of the traffic flow. The width of some elements has been compromised to fit within the current road space. The modifications required are expected to make this the most expensive option. As with Option 3, the major concern with this option is that there is insufficient road space at each end (Dandenong Road and Atherton Road) to allow for a suitable cycle track connection, particularly on the west side.

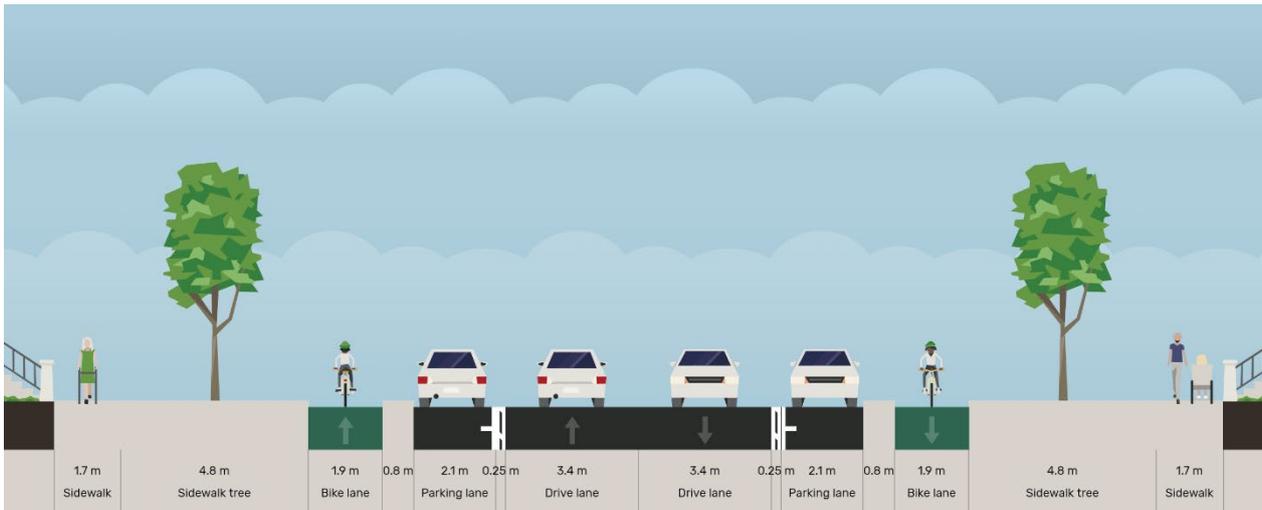


Figure 4. Cross section of one-way cycle track both sides - parallel parking both sides – Option 4

1. *Effective width of one-way cycle track 1.4m.*

- One-way section of cycle track 1.9m wide to provide an effective width of 1.4m adjacent to the bluestone kerb on both sides.

2. *Buffer width of 0.8m between the cycle track and the parking lane.*

- This is less than the desirable width of 1.0m and would just accommodate Council's larger bins if placed carefully.

3. *Provide a 0.25m buffer between the parking lanes and travelling lanes.*

- This would not be sufficient for drivers to exit their vehicle without having to wait for a gap in traffic.

4. *Provide 5m setback to each driveway in the direction of flow.*

- Sight distance improvements with the provision of parking setbacks is required in the direction of the cycle track flow, and 3m in the opposite direction as recommended.

5. *Provide 42m Stopping Sight Distance (SSD) to the side streets.*

- Stopping Sight Distance is required to allow drivers on the side streets to see approaching traffic in both directions.
- 6. *East side parking 8 spaces (46 existing).***
 - The reduction in parking setback to 3m on the south side of driveways will allow for one more space than Option 1 to be achieved.
 - 7. *West side parking 20 spaces (49 existing).***
 - The angle parking is to be converted to parallel parking, and provision for parking setbacks of 5m on the north side and 3m on the south side of each driveway and Stopping Sight Distance applied on both sides of each side street. Due to fewer driveways on the west side, this does not result in additional parking being available. Consequently, the parking provision remains at 20 parallel spaces on the west side.
 - 8. *A total of 28 spaces would be available in Atkinson Street between Atherton Road and Dandenong Road both sides, reduced from 95 spaces.***
 - 9. *Provide additional separation and bollard adjacent to left turn at side street intersections on both sides of Atkinson Street.***
 - 10. *Provide bus stop platforms and zebra crossings on both sides of Atkinson Street.***
 - People boarding and alighting from buses at the bus stops on either side of Atkinson Street will need to cross the cycle track.
 - 11. *At a later stage, introduce raised “bend out” cyclist crossing points (similar to those at Gardiner Road side streets) at side streets on the cycle track.***
 - Similar to Option 1, to be installed where possible on both sides of Atkinson Street.

Effect on broader cycling connection

The available road width for the extension of the cycling connection to the south may impact on the width of the cycle track and buffers, however this of less concern as the area is a lower speed environment.

Recommended option

Following review of all four options as outlined above, Council officers recommend Option 2 as the preferred option. This option provides for more direct, achievable connections north and south of Atkinson Street with the removal of parking on the east side allowing clear vision for cyclists, residents and motorists along Atkinson Street. It delivers a safe outcome for vulnerable people cycling, acknowledging that the loss of parking is unavoidable. This option maintains the highest parking yield of all the options with lower impact to physical infrastructure.

SOCIAL IMPLICATIONS

The provision of additional active transport facilities provides improved access for people cycling, with positive health and recreational benefits.

HUMAN RIGHTS CONSIDERATIONS

The provision of additional active transport options seeks to represent the needs and aspirations of the broader Monash community.

GENDER EQUITY ASSESSMENT

A gender impact assessment has not been undertaken on this concept project at this time. Prior to finalisation of the design, Council officers will consider whether a gender impact assessment is required.

CONSULTATION

The report recommends Council proceed to preliminary design and further community and stakeholder engagement on the recommended Option 2 and other previously consulted sections in the context of the complete cycling connection between Djerring trail and Scotchmans Creek .

A parking analysis of available parking in the area is also proposed to be undertaken, and changes to parking considered in order to accommodate the parking loss and balance the various parking demands. Any suggested changes to parking will be included as part of the community engagement.

It is expected that consultation could be undertaken around July/August 2023.

A report to be presented to Council with the results of the consultation at or before the November 2023 Council meeting for consideration and endorsement.

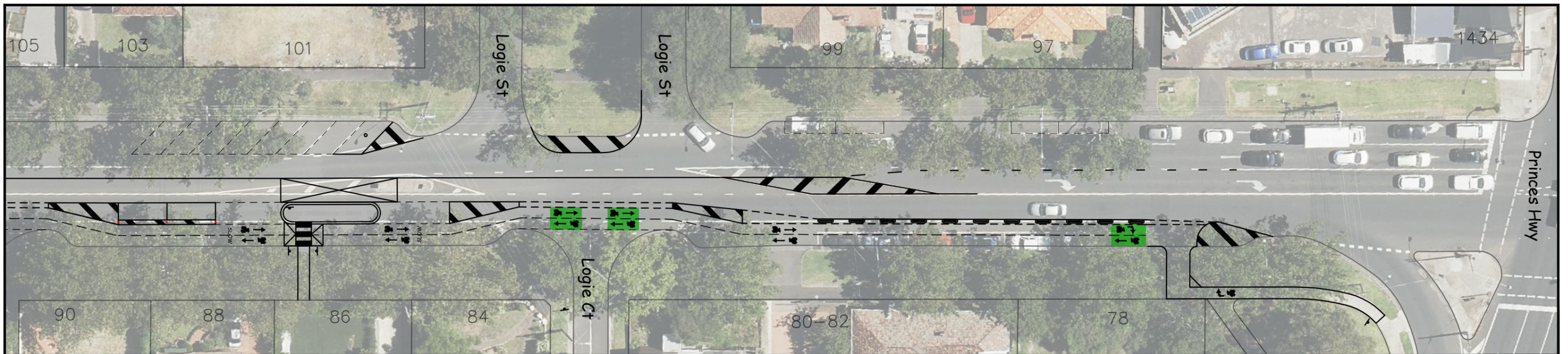
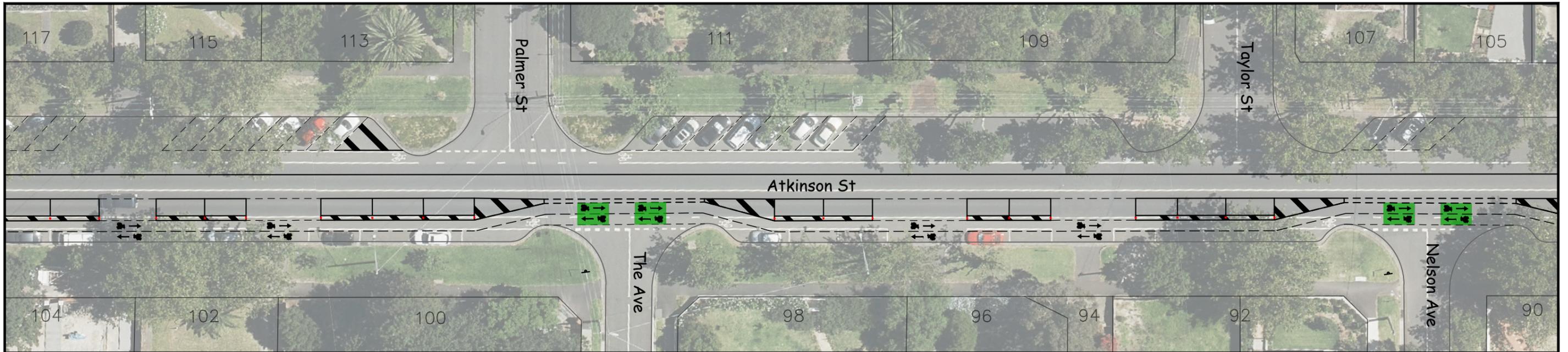
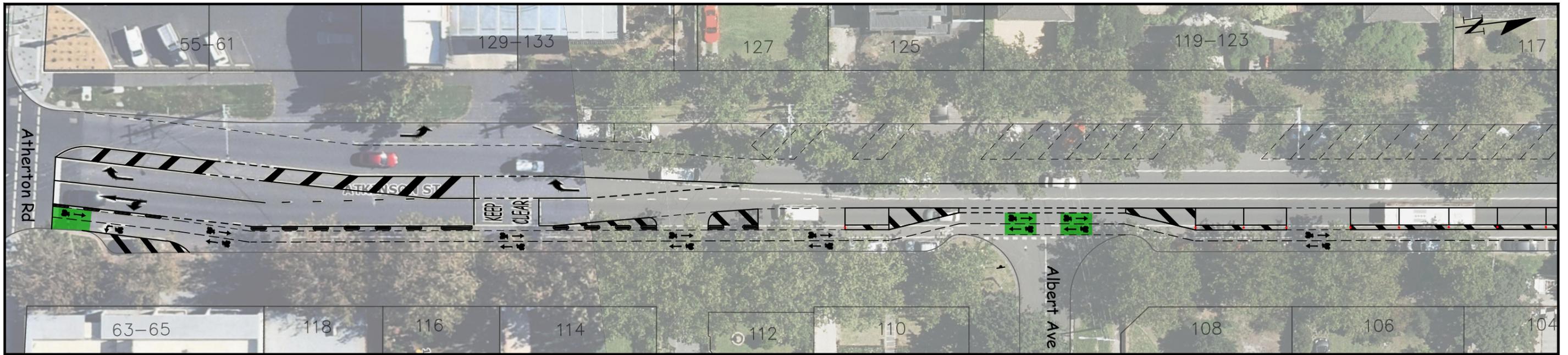
FINANCIAL IMPLICATIONS

A preliminary design of the preferred option will need to be developed for further community and stakeholder engagement. This cost can be absorbed in existing Council budgets. Survey and detailed design of the Council-endorsed option would be undertaken in the 23/24 Council budget utilising existing budget.

CONCLUSION

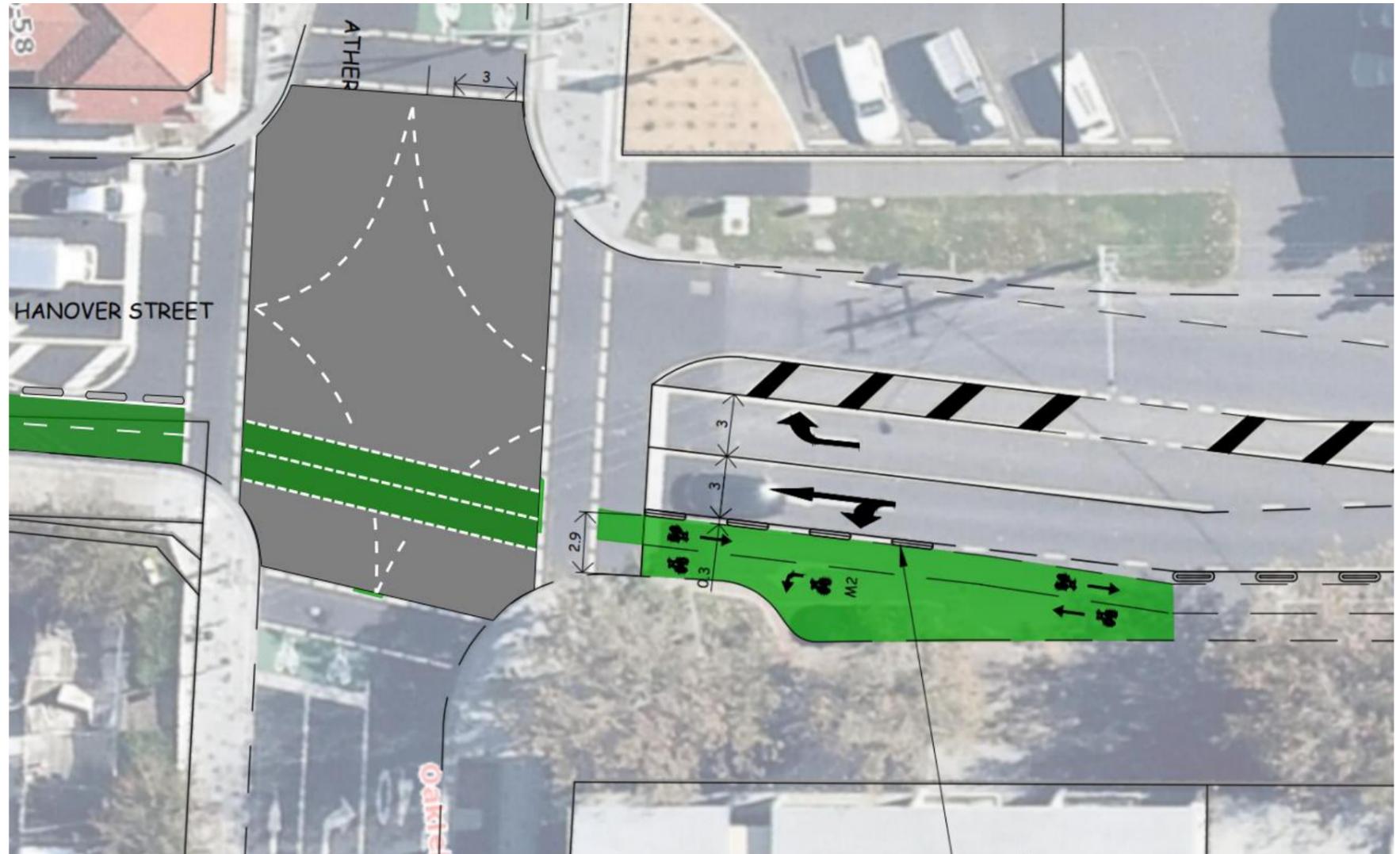
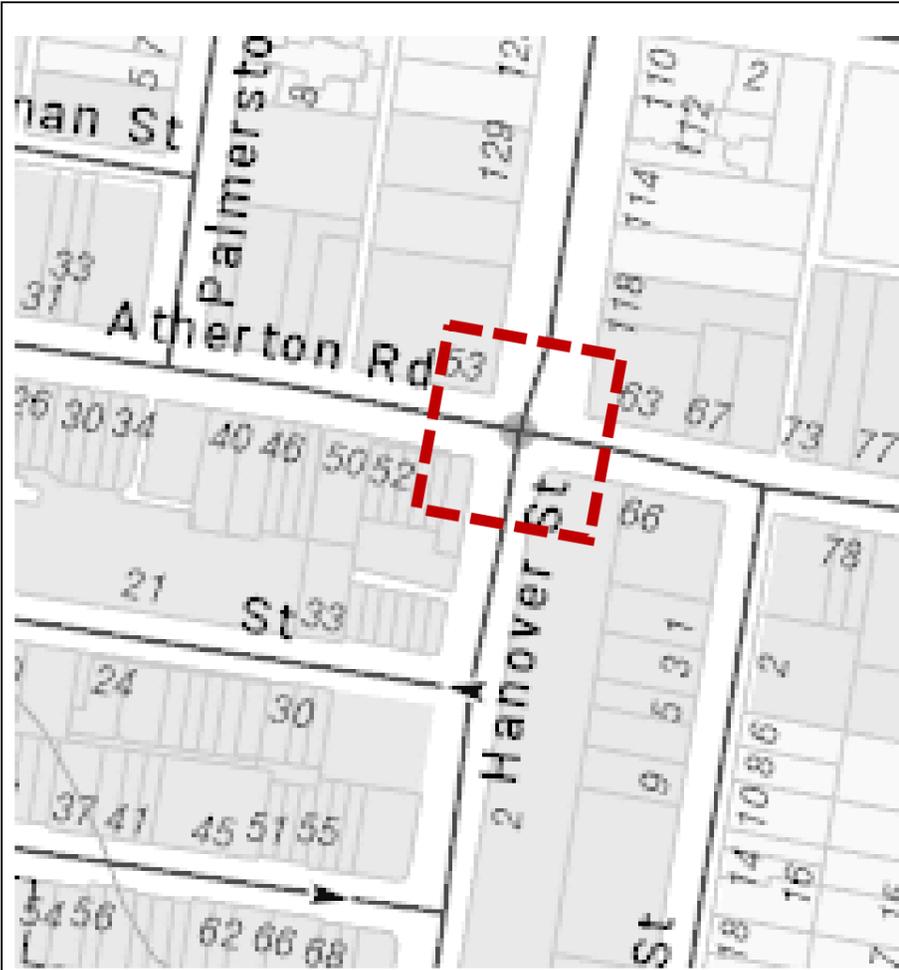
A thorough review of the various options for provision of a protected, safe and accessible cycling connection along Atkinson Street was required as a result of community feedback and valid concerns. The bi-directional (two-way) cycle track on the east side was considered acceptable by the consultant, however recommended modifications to the original design as detailed in Option 1 would reduce the parking space provision on the east side to a bare minimum.

Consequently, it is recommended that Option 2 be adopted as the preferred option. This option provides a safe, protected bi-directional cycle track with good connections to the north and south, superior sightlines for residents on the east side of Atkinson Street, cyclists and motorists turning across the cycle track, provides more parking than Option 1 and protects the existing parking layout on the west side of Atkinson Street.



4. Atherton Road intersection – See also Point 5 below

- a. Extend cycleway through intersection south to Hanover Street – potential stand up lane configuration on Hanover Street

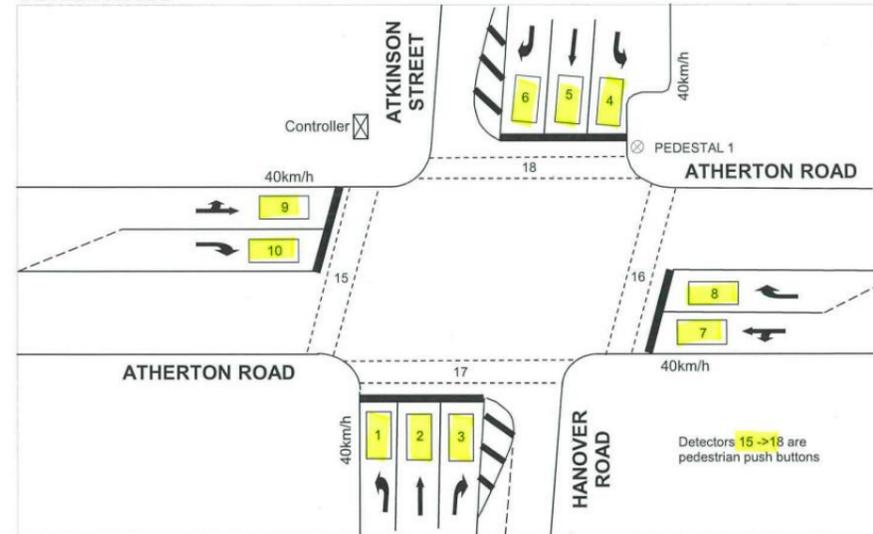


Note: Top of image is west

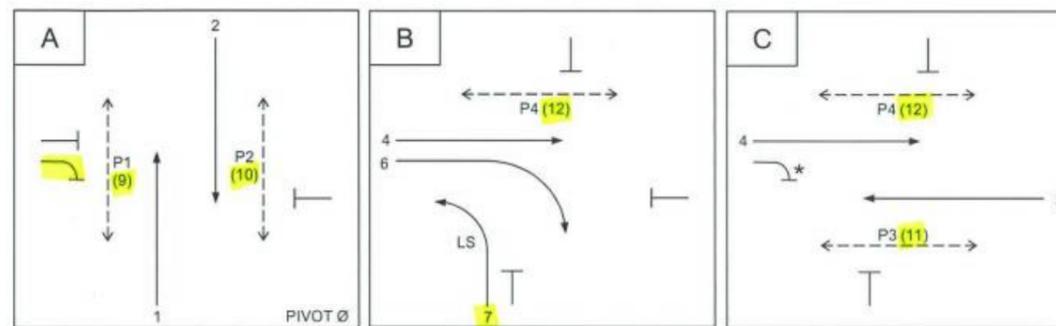
Signal phasing:

- Cycleway is compatible with existing phasing
- Three-aspect bicycle lanterns should be installed to duplicate north-south vehicle movement in Phase A
- Signalling loops in cycleway are not strictly necessary as bicycle movement occurs during pivot in Phase A

DETECTOR MAP



Existing traffic signals detector map (top of diagram is north)



Existing traffic signal phasing (top of diagrams is north)

Separating cycleway and right-turning vehicles

- Funding permitted, traffic signals should be amended to fully control the right turn from Hanover Street south into Atherton Road east

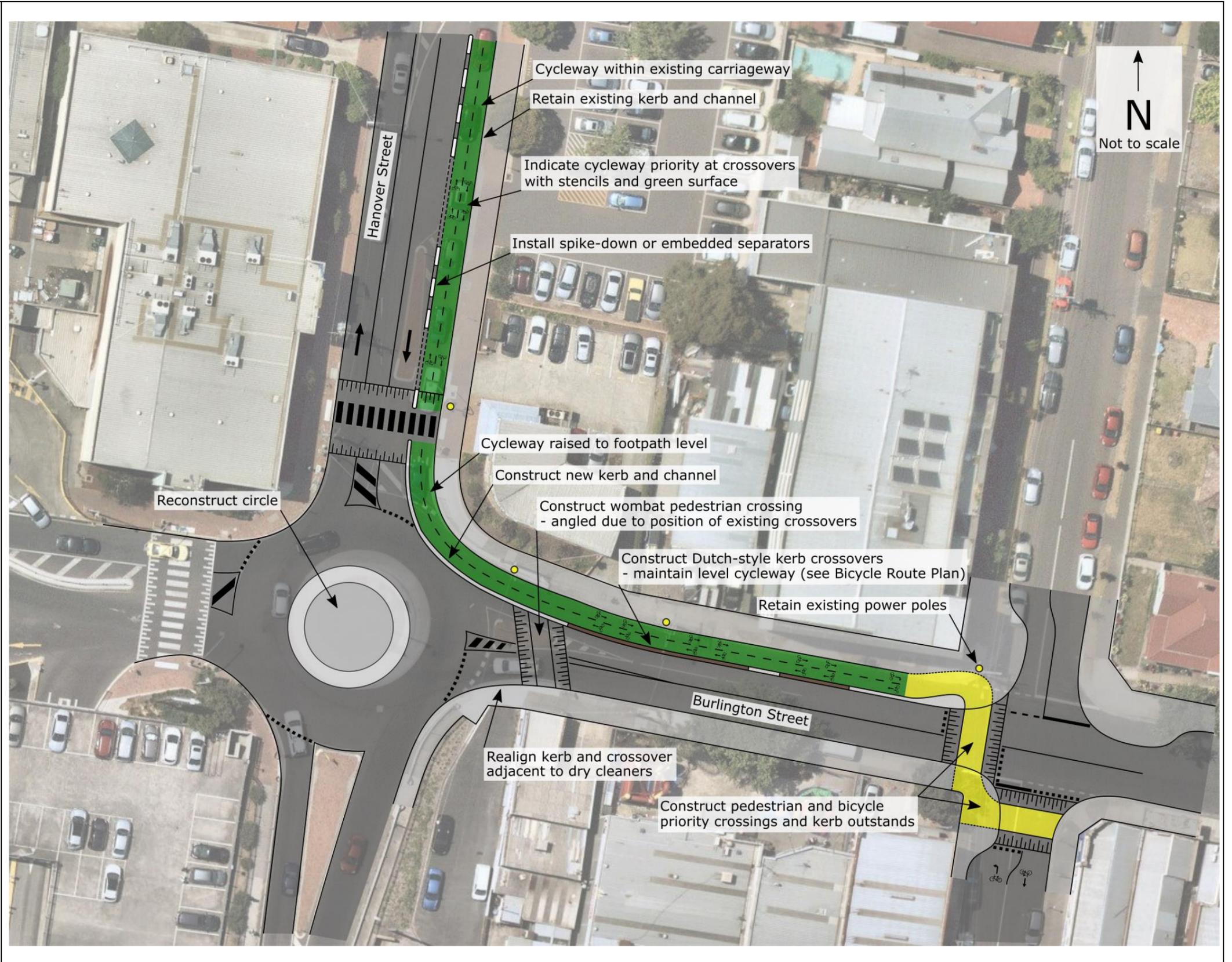
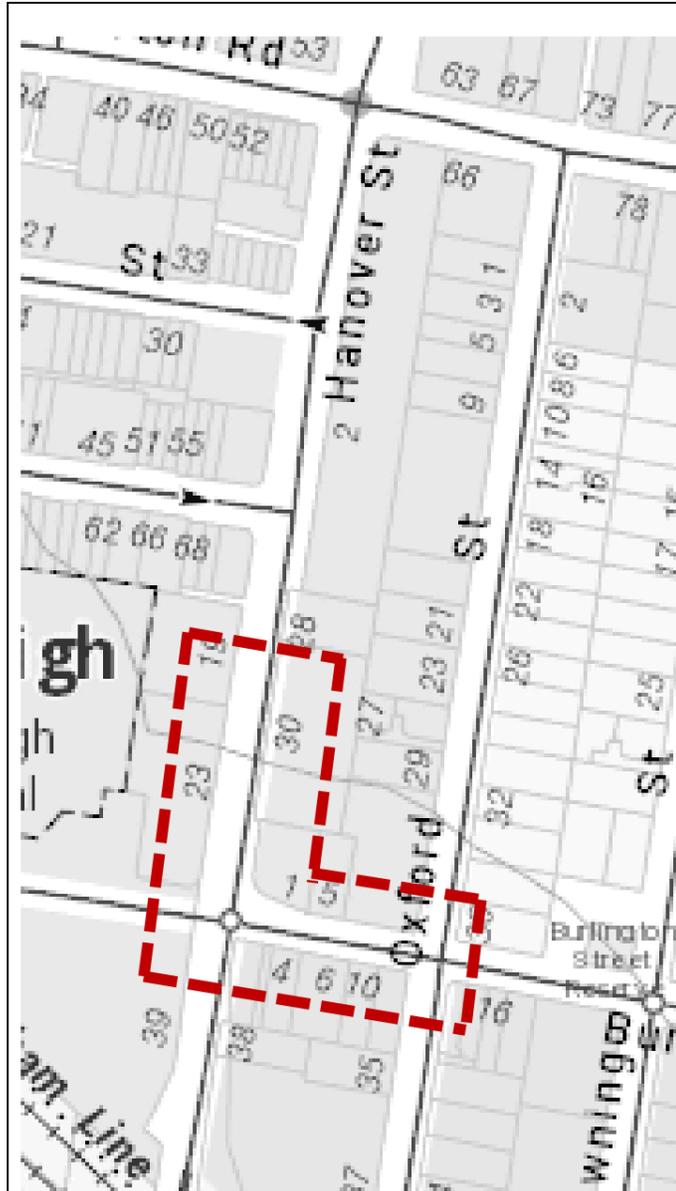
7. Cycleway connections on Hanover Street to/from Chester and Portman Street



Note: Top of image is north

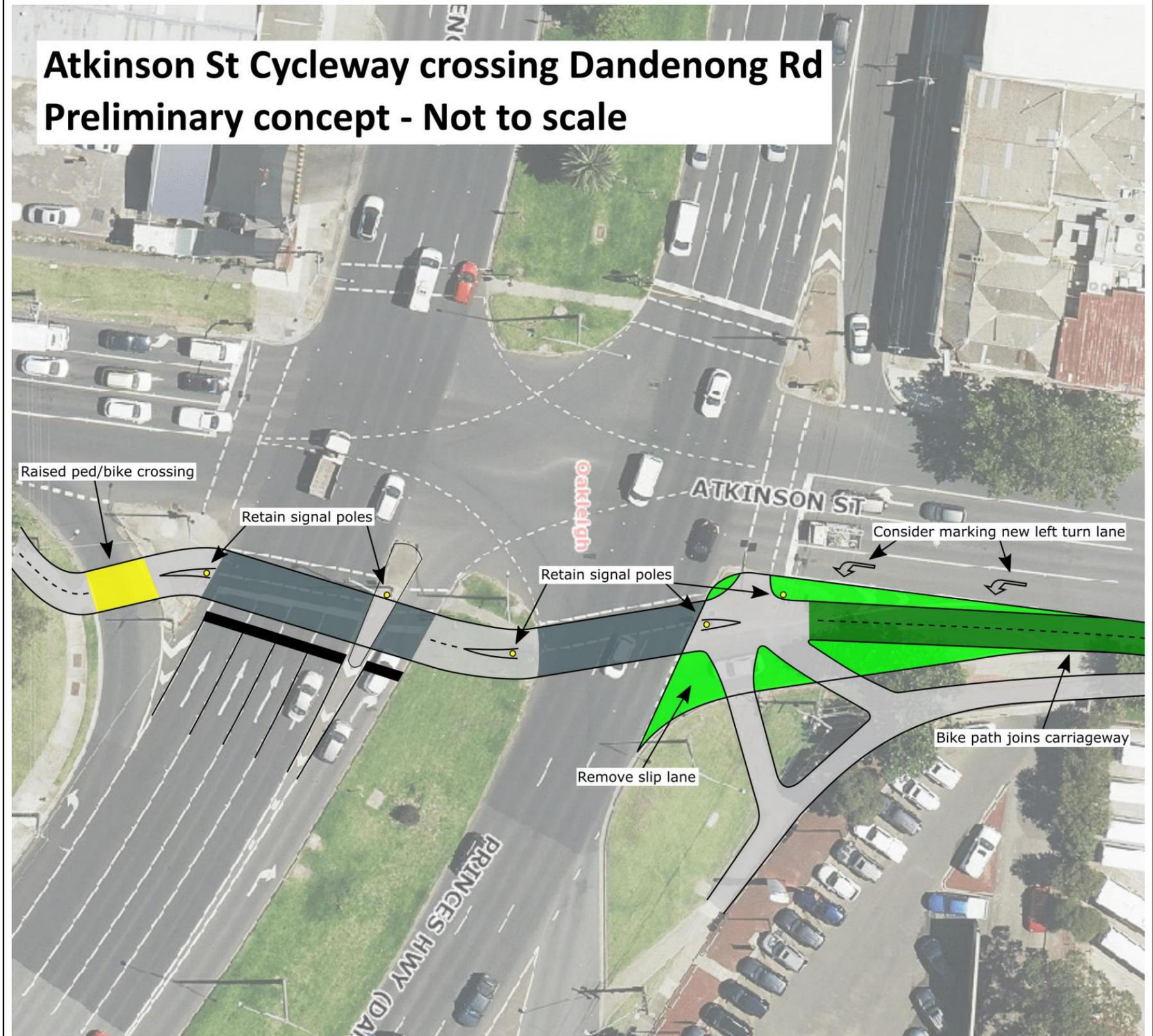
9. Concept for cycleway transition from Hanover Street to Burlington Street and to Oxford Street (south)

- a. Raised cycleway allowing for greater bicycle operating space in constrained environment and greater separation from vehicles given lengthy crossovers



3. Dandenong Road intersection

- a. Engage engineer to determine viability of concept shown
- b. Construct shared crossing on eastern side
- c. Remove slip lane on north-east corner
- d. Retain as much signalling and utility infrastructure as possible – install two-aspect bicycle lanterns duplicating pedestrian lanterns



Note: Top of image is west

Example of potential buffer treatment to provide physically separation to cycle track



Source: City of Melbourne Bike Lane Design Guidelines – June 2019