

## 10.6. West Street Stage 2 - cycling, walking, and streetscape upgrades - Outcomes report

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<b>ENDORSED BY</b>	Gary Parsons, Director Open Space and Infrastructure
<b>ATTACHMENTS</b>	<ol style="list-style-type: none"> <li>1. Consultation Flyer West Street Stage 2 [<b>10.6.1</b> - 5 pages]</li> <li>2. Traffic Impact Assessment [<b>10.6.2</b> - 80 pages]</li> <li>3. Communication Engagement Plan - West Street Stage 2 [<b>10.6.3</b> - 6 pages]</li> <li>4. Submission Suggestions &amp; Questions [<b>10.6.4</b> - 6 pages]</li> <li>5. Submissions [<b>10.6.5</b> - 69 pages]</li> </ol>
<b>CSP LINK</b>	<ol style="list-style-type: none"> <li>2. Our Built Infrastructure</li> <li>2.3 Prioritise sustainable and active transport</li> <li>2.4 Efficient traffic mobility and parking</li> </ol>

### PURPOSE:

The purpose of this report is to provide Council with the outcome of the community consultation process for the proposed design for Stage 2 - West Street Cycling, Walking, and Streetscape Upgrades.

### EXECUTIVE SUMMARY:

- The West Street Cycling, Walking, and Streetscape Upgrades - Stage 2 proposal aims to improve active transport infrastructure along West Street, from Ridge Street in North Sydney to Amhurst Street in Cammeray. This route is a key initiative within Council's adopted North Sydney Integrated Cycling Strategy (2014).
- Public consultation was conducted from 5 December 2023 to 3 March 2024. 271 submissions were received. Most of the feedback (75%) was supportive of the proposed design. Minor design adjustments were made in response to feedback provided from the consultation.
- The proposed upgrades would provide significant benefits to the community by improving connectivity, safety, and the overall streetscape amenity.
- The project aligns with broader strategic objectives to promote sustainable transport and improve urban environments in North Sydney as outlined in the adopted North Sydney Integrated Cycling Strategy (2014).

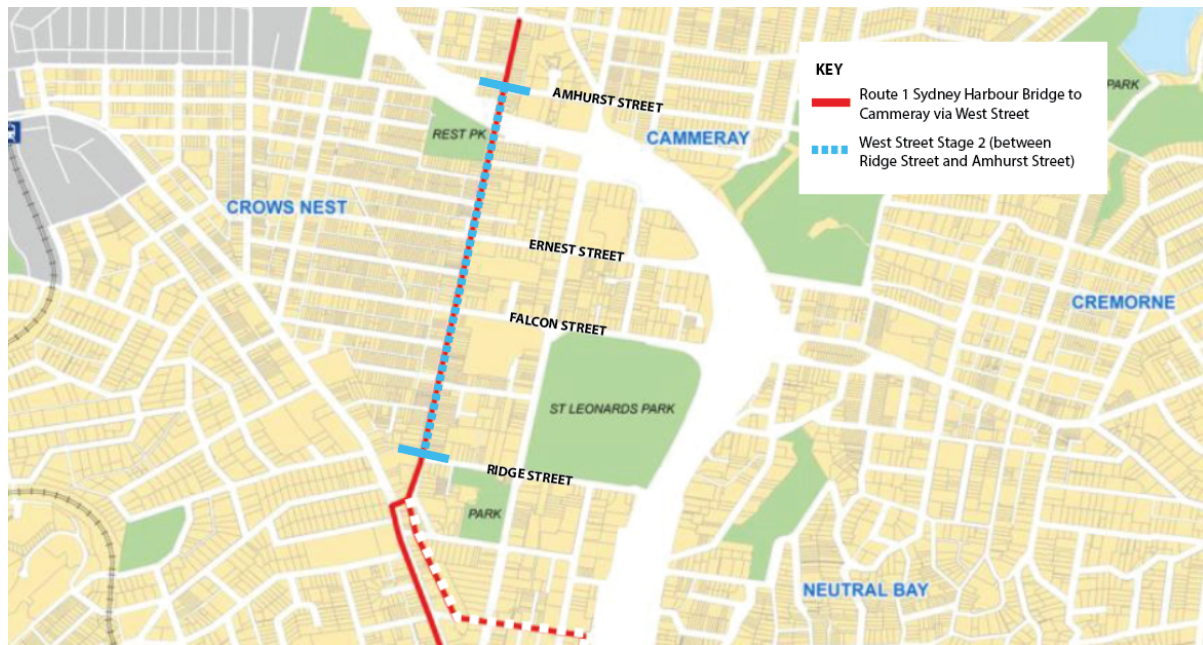
### RECOMMENDATION:

- 1. THAT** Council note the outcomes of the community consultation undertaken in relation to the proposed designs for the West Street Cycleway - Stage 2.
- 2. THAT** Council endorse the proposed design amendments to the West Street Stage 2 designs adopted in response to community consultation submissions for, as follows:

- a) Honeycomb line-marking to be marked at the beginning of the share path, near to the West Street and Amhurst Street intersection.
  - b) The installation of wayfinding signage at the intersection of Huntington Street and West Street, & Mathew Street and Atchison Street directing cyclists around St Thomas Rest Park.
  - c) The provision of a pedestrian crossing across West Street north of Metcalfe Street with the loss of one additional parking space from the consulted designs.
  - d) The reallocation of kerbspace on the eastern side of West Street south of Falcon Street from “No Stopping 6:30am-9:30am Mon-Fri” and “2P 9:30am-6pm Mon-Fri Permit Holders Excepted Area 21” to “No Stopping 6:30am-9:30am “3:30pm-6:30pm Mon-Fri” and “2P 9:30am-3:30pm Mon-Fri Permit Holders Excepted Area 21” to improve intersection performance. This will result in the loss of 5 additional parking spaces during weekday evening peak hours.
- 3. THAT** Council note that the final design for the West Street Cycleway – Stage 2 will be referred to the North Sydney Local Traffic Committee for endorsement.
- 4. THAT** Council continue to advocate and seek funding opportunities to progress the delivery of the West Street Cycleway – Stage 2 project.

## 1. Background

The West Street Cycling, Walking, and Streetscape Upgrades - Stage 2 proposal (between Ridge and Amhurst Streets) will deliver upgrades to cycling and walking infrastructure as well as streetscape improvements.



Map 1. Context map West Street Cycling, Walking and Streetscape Upgrades Stage 2

Council's North Sydney Integrated Cycling Strategy (2014) aims to deliver a cycling network accessible to people of all ages and cycling abilities and to enable more people in the community to choose cycling for day-to-day transport needs, particularly for short trips of between two – five kilometres. This proposal forms part of the Strategy's Route 1: Sydney Harbour Bridge to Cammeray via West Street.

The route is an important link for students, with five schools within 200 metres of the project area. Providing infrastructure for students to walk or cycle to school improves health outcomes and alleviate pressure on the road network, which currently experiences congestion in school pick up/drop off times.

In April 2022, Transport for NSW (TfNSW) released an overview of the Strategic Cycleway Corridors - Eastern Harbour City. The North Sydney cycling connections have been categorised as an immediate opportunity, aligning the Sydney CBD to Chatswood Corridor. This connection has a desired outcome to provide: A safe connection between Milson Point, North Sydney and St Leonards will improve access to Sydney Harbour Bridge and support forecast growth.



*Image 1: Intersection of West Street and Burlington Street. Proposed additional raised crossing provides safe pedestrian connections to Cammeraygal High School*

## **2. Proposed Design**

The West Street Stage 2 design proposes the following changes:

- 1.1km separated bike path on the western side of West Street from Ridge Street to Amherst Street;
- shared user path at Amherst Street and West Street;
- public domain improvements and expanded outdoor dining opportunities on West Street at the Carlow Street and Emmett Street intersections;
- new pedestrian crossing points along West Street at Myrtle Street, Emmett Street, Carlow Street, Hayberry Street, Burlington Street, Rosalind Street, Metcalfe Street, and Amherst Street;
- roundabout upgrade at Amherst Street;
- improvement to existing verges and streetscape, with 29 additional street trees and garden beds in West Street to improve street amenity;
- net loss of three car spaces along the project area and five parking spaces during evening peak hours; and
- pavement and pram ramp upgrades for improved access at Falcon Street and Ernest Street.

See Attachment 1 for further details.

## **3. Traffic Impact Assessment**

A Traffic Impact Assessment (TIA) was developed to assess the traffic impacts of the proposed design on the West Street & Falcon Street, and West Street & Ernest Street signalised intersections. The TIA suggests that:

- the design will have negligible impacts to the operational performance of the existing transport network, which was assessed as a 'worst case scenario' and did not consider any potential mode shift to more sustainable modes of transport.
- the West Street and Ernest Street intersection, including the cycleway, is expected to perform satisfactorily with stable flows and delays within normal and accepted design limits.

- the West Street and Falcon Street intersection modelling indicated a deterioration of intersection performance. To address this, a PM peak clearway is proposed, in addition to the existing AM peak. This improves the level of service from the existing LoS E to a LoS C. This would result in an improvement to the functioning of the intersection. This is further discussed in section 3.2 Addressing Queuing below.
- the proposed project will have negligible impacts on public transport and with a net loss of three on-street parking spaces and five parking spaces during weekday evening peak hours.

See Attachment 2 for full details.

#### 4. Consultation requirements

Community engagement has occurred in accordance with Council's *Community Engagement Protocol*. The detail of this report provides the outcomes from the engagement for Council to consider prior to adoption.

The 90-day public exhibition period was held from 5 December 2023 to 3 March 2024. Public consultation was promoted, and the community were encouraged to provide written feedback on the designs. A total of 270 submissions were received.

The proposed West Street Stage 2 designs will be referred to the North Sydney Local Traffic Committee for technical review and assessment.

##### 4.1 Promotion and Engagement Activities

A Community Engagement Strategy (Attachment 10.4.3) was developed to identify key messages, stakeholders, and engagement activities. Activities included:

- precinct memorandums, sent to all precincts on 4 December 2023.
- dedicated Your Say Page with submission survey.
- written materials - overview flyer and onsite signage.
- drop-in information stall to provide the opportunity to view the concept plan and ask questions of Council staff. Stall locations and times included:
  - 1) Northside Markets - 8am to 12pm, Saturday 20 January & 17 February 2024.
  - 2) corner of Miller Street and Ridge Street, 7am to 9am Thursday 14 December 2023
  - 3) St Thomas Rest Park, 2pm to 4pm, Thursday 18 January 2024
  - 4) Onsite walk-through to provide the opportunity to meet Council staff for an overview of the proposal with the opportunity to ask questions, including:
    - 5) five attendees at the corner of West Street and Burlington Street, 1pm to 2pm Wednesday 7 February 2024
    - 6) 17 attendees at the corner of West Street and Carlow Street, 1pm to 2pm Wednesday 14 February 2024.

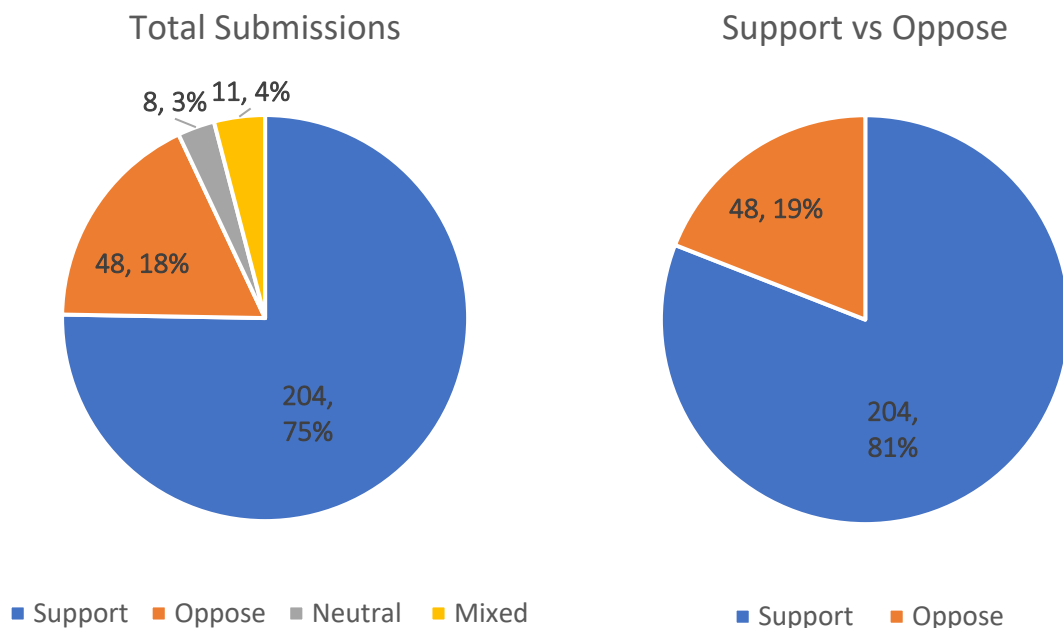
There were two Facebook posts and two Instagram posts to promote the consultation. Table 2 on the next page provides a summary of the social media posts.

Date	Social Media	Boosted	Reach	Likes/Comments
4 December 2023	<a href="#">Facebook</a>	Yes	Impressions: 10,670 Reach: 9,065 Engagements: 1,500	Comments: 12 Likes: 41 Shared: 14
	<a href="#">Instagram</a>	Yes	Impressions: 1,562 Reach: 1,468 Engagements: 27	Comments: 5 Likes: 21
17 January 2024	<a href="#">Facebook</a>	No	Impressions: 1997 Reach: 1917 Engagements: 95	Comments: 2 Likes: 22 Shared: 1
	<a href="#">Instagram</a>	No	Impressions: 1352 Reach: 1168 Engagements: 54	Comments: 2 Likes: 23

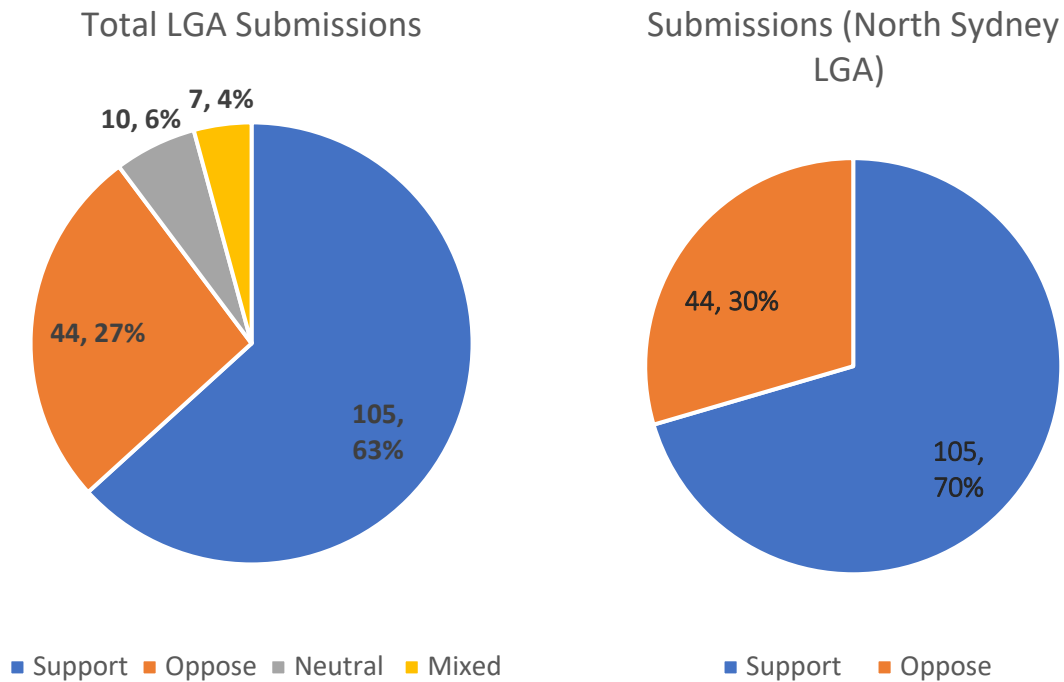
Table 2. Summary of social media posts

#### 4.2 Consultation Sentiment & Themes

There were 271 submissions. Each submission represents one individual; all duplicates or repeat submitters were counted as one. Of these, 204 submissions (75%) supported the project, 48 submissions (18%) opposed the project, 11 submissions (4%) were mixed, and eight submission (3%) were neutral:



165 submissions were from residents within the North Sydney LGA. Of these, 105 submissions (63%) supported the project, 44 submissions (27%) opposed the project, 10 submission (6%) were neutral, and seven submissions (4%) were mixed:



#### 4.2.1 Themes

Of the submissions that expressed support for the designs:

- 74 supported improvements to pedestrian and cyclist safety;
- 38 supported improvements to the road environment, such as cyclist separation from traffic, traffic calming measures, and minimising traffic congestion by encouraging alternate modes of transport;
- 37 suggested the route would support a connected cycling network and reduce car dependency;
- 28 suggested the upgrades would improve social sustainability outcomes, such as quality of life, accessibility, and health and wellbeing;
- 23 suggested the upgrades would improve amenity along the route; and
- 15 noted improvements to the environment such as pollution, noise, and minimising the urban heat island effect.

Of the submissions that opposed the designs, key themes included:

- 25 suggested there were insufficient cyclists along the route for a cycleway;
- 24 raised safety concerns for pedestrians, cyclists, and vehicles;
- 21 were concerned about the impact on queuing and congestion;
- 20 opposed the narrowing of the road;
- 16 objected to rate payer funds being used for the project;
- nine were concerned about turning paths of vehicles, sightlines at intersections, and accessing driveways;
- five were concerned that the project would impact the quality of life and amenity of the area;

- six raised concerns about the reallocation and loss of parking; and
- one raised concern regarding the removal of right-hand turn for southbound traffic at the Ernest and West Street intersection.

See Attachments 4 and 5 for further detail.

#### 4.2.2 Suggestions and Questions

Submissions suggested changes and additions to the project and raised questions about aspects of the design. Amendments that can be accommodated in the design scope are summarised in Table 3 below.

Option	Suggestion	Response	Impact
1.	Address potential conflicts between cyclists and pedestrians at the West Street share path intersection, south of Amhurst Street roundabout.	Honeycomb line-marking to be marked at the intersection to slow cyclists at this section.	Minor cost for line marking
2.	Minimise access for cyclists at St Thomas Rest Park	Install wayfinding signage at intersection of Huntington & West Streets, and Mathew & Atchison Streets, directing cyclists around St Thomas Rest Park.	Minor cost for signage
3.	Improve connections at the West Street and Amhurst Street intersection at the Gore Hill Freeway ramp.	Improving connections to the Gore Hill Freeway Cycleway under consideration with Transport for NSW (TfNSW) as the responsible authority.	None
4	Additional pedestrian/cyclist crossing on the western side of Amhurst & West Streets.	Further assessment required to understand impacts on queuing. Council undertaking discussions with (TfNSW) to improve the intersection of the Gore Hill Freeway and Amhurst Street.  A continuous footpath treatment has a low threshold for traffic volumes - max 45 vehicles/hour. Traffic counts undertaken in 2018 indicated 500 vehicles/hour entering the intersection from the Warringah Freeway exit ramp.	None
5	Additional pedestrian crossing at St Thomas Rest Park, corner of Metcalfe Street.	Additional pedestrian crossing can be accommodated at this T-intersection with the loss of 1 additional parking space. The amendment would improve	Moderate overall cost for construction



Option	Suggestion	Response	Impact
		pedestrian accessibility and safety as well as reduce vehicle speeds.	Loss of 1 parking space.
6	(TfNSW) requested additional assessment on West Street and Falcon Street to improve the Level of Service and reduce queuing.	Expand 'No Stopping' times on eastern side of West St (south of Falcon St) to include PM peak, to improve the Level of Service of the approach and the overall intersection performance. See Table 1, Modelling results for West Street and Falcon Street intersection for details.	Loss of 5 parking spaces on weekdays between 3:30pm to 6:30pm.

Table 3. Submission suggestions and council responses

#### 4.2.3 Precinct Motions

As part of consultation, a memo was sent on Monday 4 December 2023 to all precincts informing them of the consultation.

Precinct motions and Council response provided in Table 4, below.

Precinct	Motion	Council Response/ Action
Anzac Park <i>(31/1/2024 meeting)</i>	No motion raised.  Comment: Residents were concerned about the new infrastructure creating a hazard, particularly where the street is narrow.  Concerns were also raised that bike riders on West Street currently prefer cycling on the road over the designated cycleway.  Residents were asked to fill in the Council survey.	No motion raised. Council response not requested.
Hayberry <i>(27/2/2024)</i>	No motion raised.  Comment: Concerns were raised that bike riders on West Street currently prefer cycling on the road over the designated cycleway.  Residents also raised concerns about safety at the intersections of Carlow Street and Emmett Street.	No motion raised. Council response not requested.

Table 4. Precinct motions and Council response

#### 4.2.4 Sustainable Transport Reference Group

A workshop was conducted with the Sustainable Transport Reference Group members on 5 December 2023. The attendees identified strengths, weaknesses, opportunities, and threats in the West Street Stage 2 designs. See North Sydney Council website for minutes and outcomes from the workshop. The comments informed the design reviews for the proposal.

#### **5. Financial/Resource Implications**

There are no financial implications for Council in accepting the recommendations of this report.

The costs associated with the construction of the Stage 2 West Street cycling and walking upgrades on West Street are estimated to be in the order of \$6,722,228.18, which includes \$325,000.00 for detailed design and \$6,397,228.18 for construction.

Council will require grant funding to deliver this infrastructure. Council was unsuccessful in a recent grant application to TfNSW and will continue to seek funds for this proposal.

# West Street Cycling, Walking and Streetscape Upgrades

## Stage 2

### PROJECT OVERVIEW

North Sydney Council is committed to providing safe and healthy transport options to improve our streets and make them easier to walk and cycle. Council is seeking feedback on the proposed upgrades on West Street, between Ridge Street and Amherst Street.



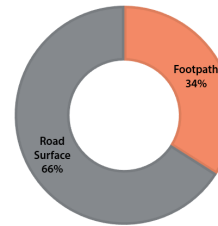
Context Plan: West Street extent of works

### PROPOSED IMPROVEMENTS

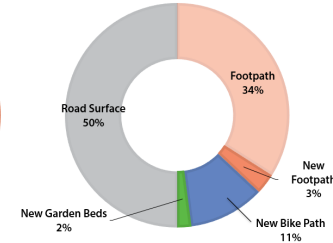
- Separated bike path from Ridge St to Amherst St
- Shared user path at Amherst St and West St.
- Public domain improvements and expanded outdoor dining opportunities on West St at the Carlow St and Emmett St intersections.
- Traffic calming to lower vehicle speeds
- New crossing points at Myrtle St, Emmett St, Carlow St, Hayberry St, Burlington St, Rosalind St, Metcalfe St, and Amherst St.
- Roundabout upgrade at Amherst St.
- Improved connections to local bike routes.
- Improved pedestrian amenity with new crossing points and shared intersection treatments.
- Improvement to existing verges and streetscape with 29 additional street trees and garden beds throughout West St to improve street amenity.
- Net loss of 2 car spaces along the project area.
- Pavement and pram ramp upgrades for improved access at Falcon St and Ernest St.

### WEST STREET SPACE ALLOCATION

Space allocation - Existing



Space allocation - Proposed



### Tree Coverage



LOSS	GAIN	TOTAL
-1	+30	+29

### Parking



LOSS	GAIN	TOTAL
-17	+15	-2

### FURTHER INFORMATION

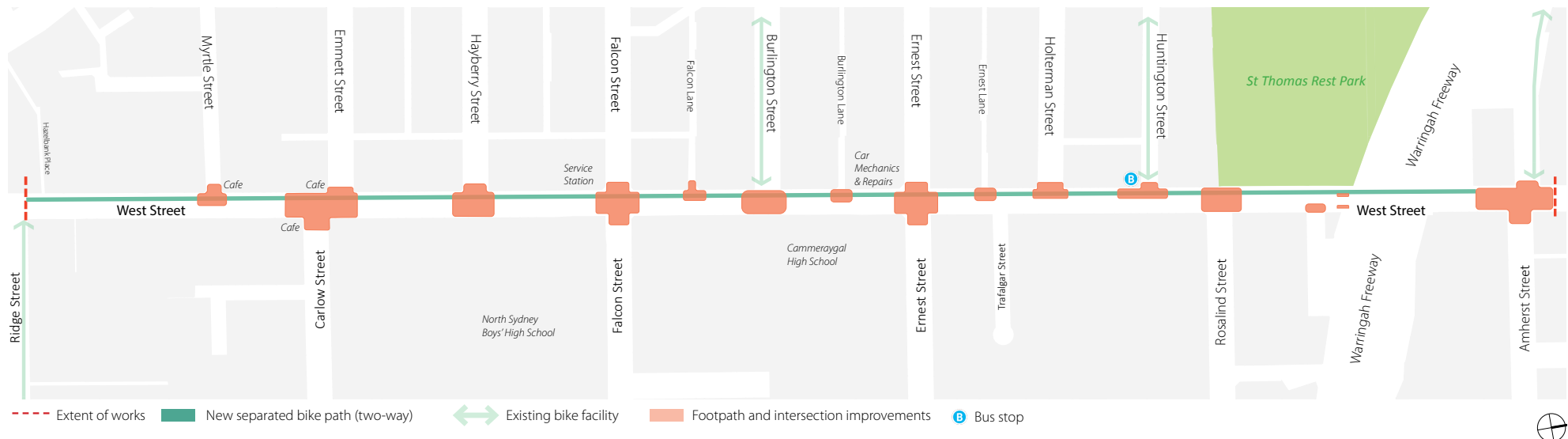
scan the QR code or visit Council's website for further information:  
[yoursay.northsydney.nsw.gov.au/west-street-stage-2](https://yoursay.northsydney.nsw.gov.au/west-street-stage-2)



Email: [YourSay@northsydney.nsw.gov.au](mailto:YourSay@northsydney.nsw.gov.au)

Postal: North Sydney Council,  
PO BOX 12, North Sydney,  
NSW2059

Feedback closes 3 March 2024



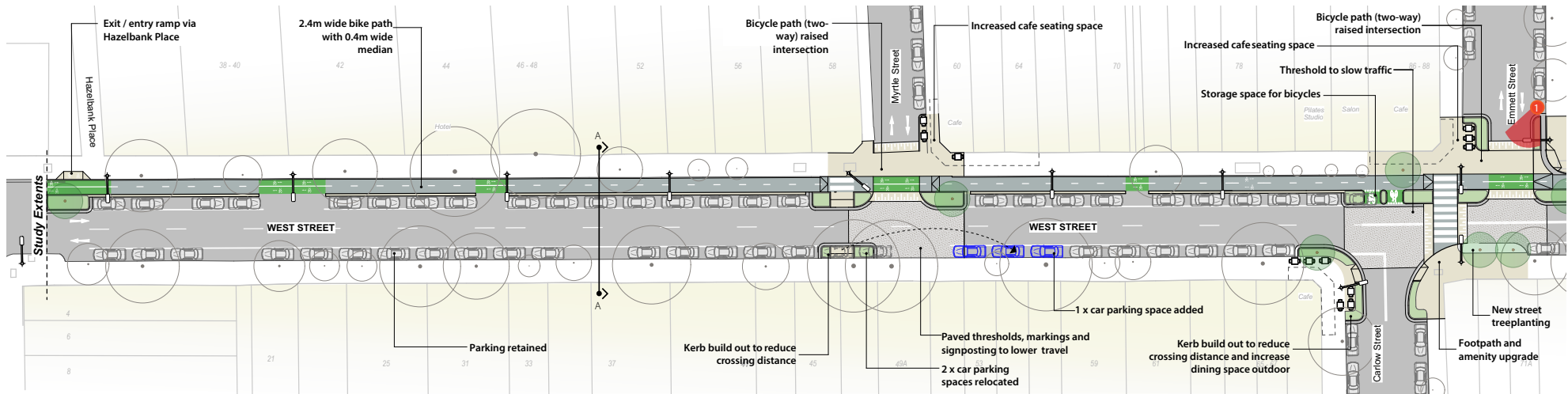
Overview Plan: West Street Concept Design - Proposed bike path alignment, pedestrian Improvements and traffic calming



# West Street Cycling, Walking and Streetscape Upgrades

Stage 2

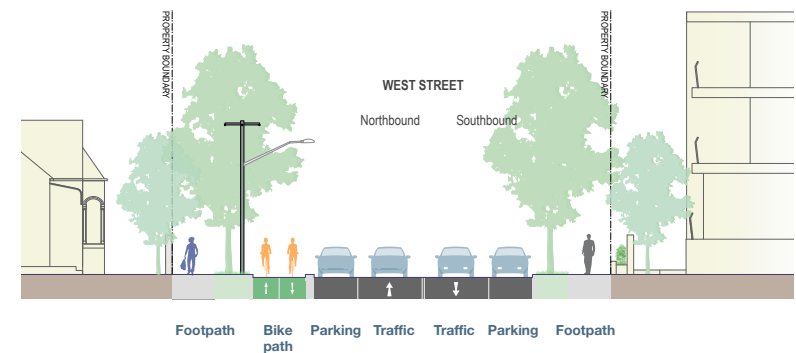
Attachment 10.6.1  
Concept Design



Plan 1: Ridge Street to Emmett St



1. Artist's impression: West St / Emmett St intersection

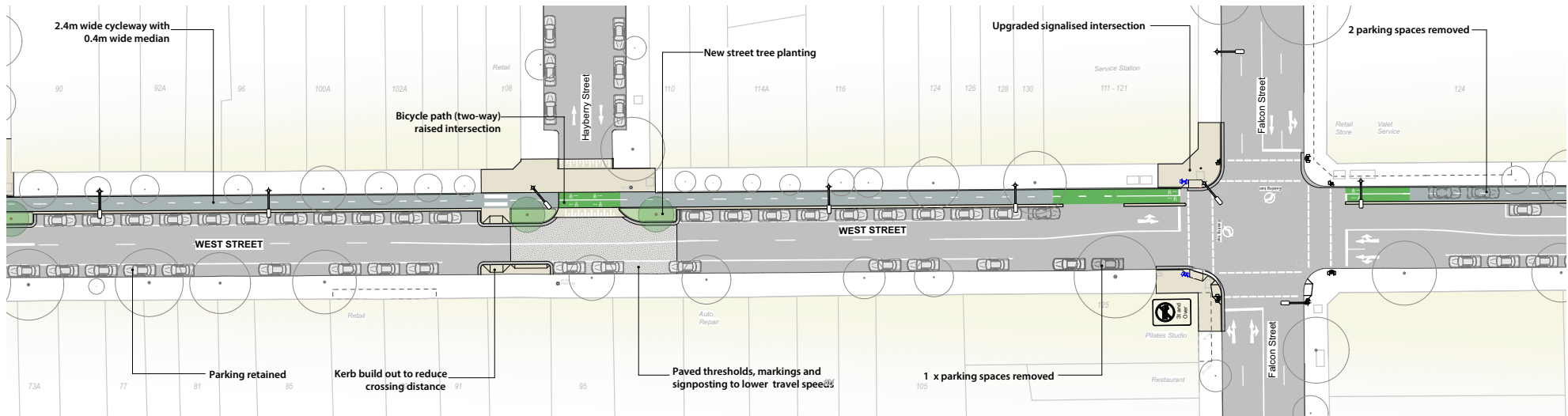


Typical Section A: Two-way bike path with parking and general traffic

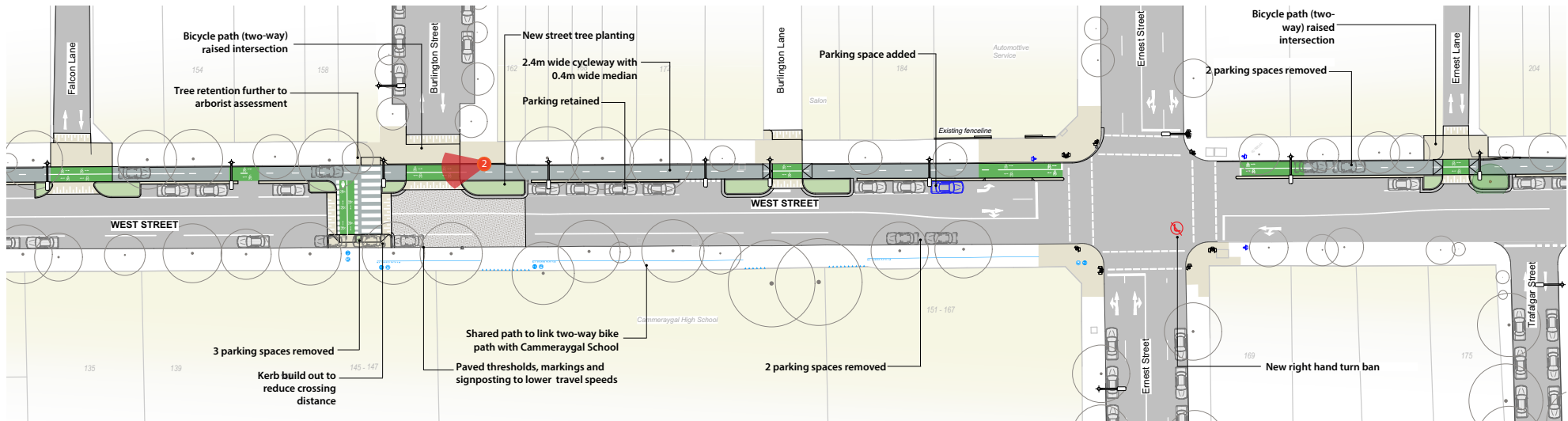


# West Street Cycling, Walking and Streetscape Upgrades

## Stage 2



Plan 2: Emmett St to Falcon St

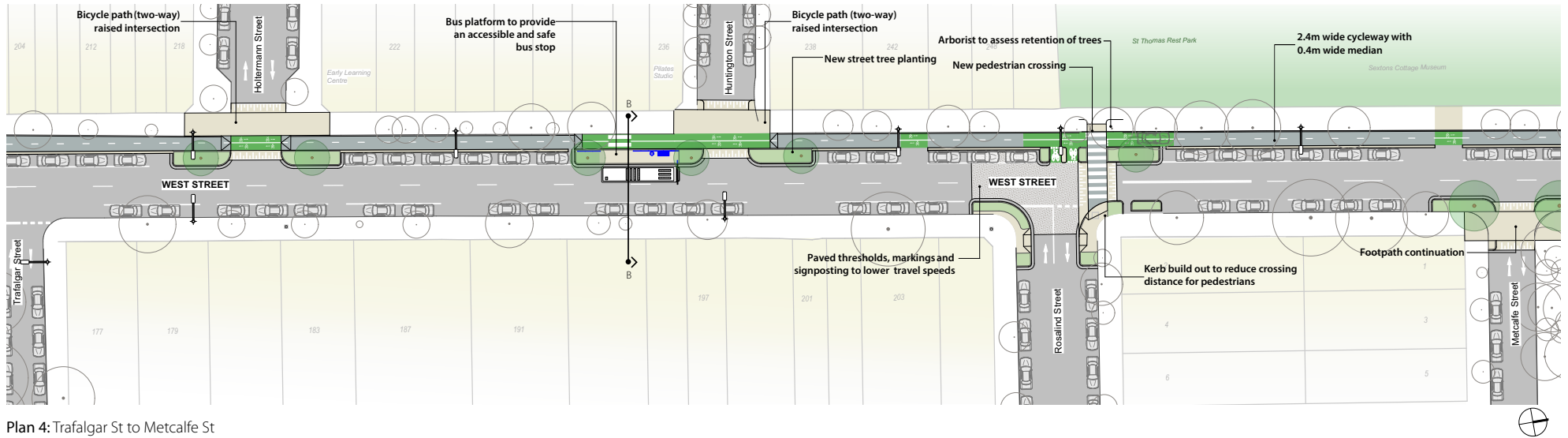


Plan 3: Falcon Lane to Trafalgar St



# West Street Cycling, Walking and Streetscape Upgrades

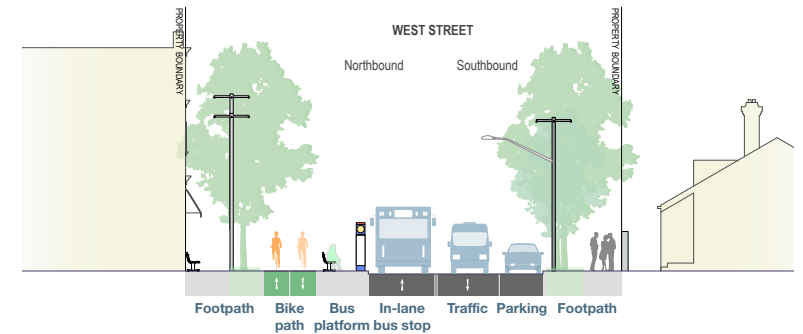
## Stage 2



Plan 4: Trafalgar St to Metcalfe St



2. Artist's impression: West St / Burlington St intersection

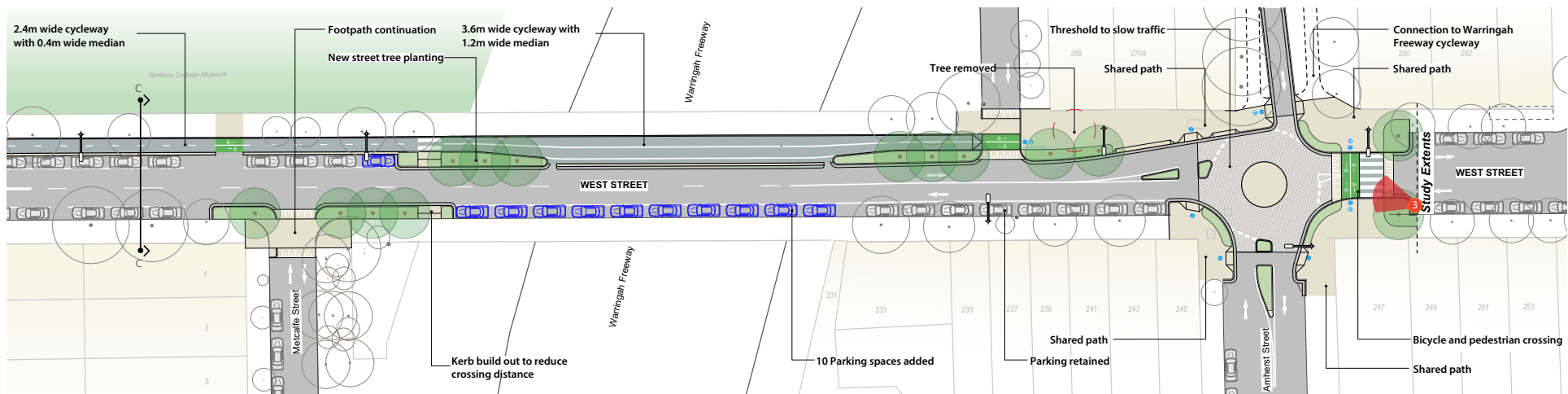


Typical Section B: Two-way bike path with in-lane bus stop and bus platform

# West Street Cycling, Walking and Streetscape Upgrades

Stage 2

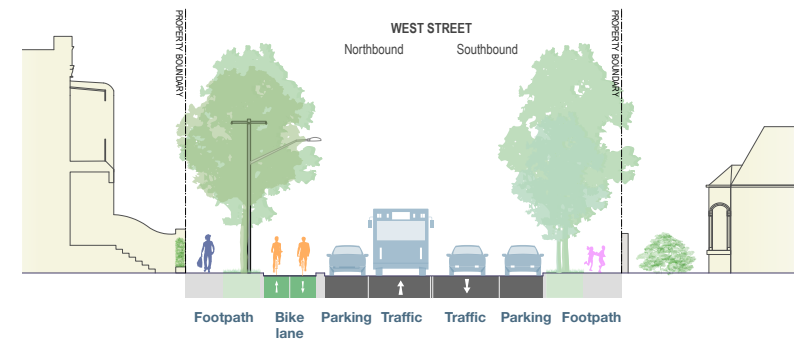
Attachment 10.6.1  
Concept Design



Plan 5: Metcalfe St to Amherst St



3. Artist's impression: West St / Amherst St intersection



Typical Section C: Two-way bike path along bus route



Sensitivity: General



# West Street Cycleway

Traffic Impact Assessment

Prepared for Spackman Mossop Michaels

Prepared by Beca Pty Ltd

ABN: 85 004 974 341

28 June 2024





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## Appendices

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**Appendix A – Traffic Survey Results**

**Appendix B – SIDRA Modelling Results**

Sensitivity: General

### Revision History

Revision N°	Prepared By	Description	Date
1	Jackson Fankhauser Claire Jung Yrish Estoce	Draft	24 November 2023
2	Jackson Fankhauser Claire Jung Yrish Estoce	Draft	28 November 2023
3	Claire Jung	Final	4 December 2023
4	Claire Jung Yrish Estoce	Revised modelling results incorporating the clearway option	28 June 2024

### Document Acceptance

Action	Name	Signed	Date
Prepared by	Jackson Fankhauser Claire Jung Yrish Estoce		28 November 2023
Reviewed by	Andrew Collings		28 November 2023
Approved by	Alex Seip		28 June 2024
on behalf of Beca Pty Ltd			

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## Executive Summary

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### Background and Project Overview

Beca has been commissioned to produce a Traffic Impact Assessment (TIA) for the development of a bi-directional cycleway within the existing road reserve on West Street in North Sydney. The purpose of the TIA is to assess the impact of this project on the transport network and to provide appropriate mitigation measures to minimise the identified impacts.

### Existing Environment

The Project is located within a residential area that consists mostly of low-density housing with a few mixed-use, Special infrastructure and recreation zones. West Street is also part of Holtermann's Estate, an extended heritage area.

Peak hour traffic in the project's traffic influence area is observed to be between 8:00 and 9:00 in the morning and between 5:00 and 6:00 in the afternoon. Weekend peak hour is between 11:30 am and 12:30 pm.

Active and public transport facilities are available in the area. There is also provision for on-street parking along the key roads – West Street, Ernest Street, and Falcon Street.

The review of the five-year crash statistics identifies that the predominant crash types along West Street are cross traffic and left turn sideswipe crashes at intersections which can be attributed to poor visibility and inadequate lighting at intersections or poor driver behaviour.

### Traffic Impact Assessment

#### Road Network

SIDRA intersection modelling was used to assess the performance of the below intersections with and without the Project:

- Ernest Street and West Street
- Falcon Street and West Street

Modelling results show that:

- The project will have negligible impacts to the intersection performance of Ernest Street and West Street intersection. The intersection will still perform satisfactorily with stable flows and acceptable delays; and will still have spare capacity to accommodate future vehicle and cyclist demand. The pedestrian level of service will also be satisfactory as delays are minimal and the likelihood of risk-taking behaviour is low.
- The project will lead to degraded intersection performance compared to the existing layout – performing at LoS F on weekday mornings. To enhance operational performance at this intersection, the implementation of a clearway on the south leg is proposed. The project will also result to decrease in pedestrian level of service which increases the likelihood of risk-taking behaviours at the intersection.

#### Public Transport

The proposed project will not impact the existing operation of public transport services along West Street but the conversion of the existing bus stop to an in-lane stop along West Street can potentially slow down traffic flow.

#### Active Transport

The proposed project is expected to improve active transport provision along West Street and promote cycling as a safe, accessible, and sustainable mode of transport.

#### Parking

The proposed project will have negligible impacts with an overall loss of two parking spaces, 17 parking spaces being removed and 15 on-street parking spaces to be reinstated elsewhere along West Street.

#### Road Safety

The proposed project will improve the overall safety in the transport network as conflicts between cyclists and vehicles are reduced.

#### **Conclusion and Recommendations**

Overall, the project is anticipated to have minimal impact on the operational performance of the existing transport network, provided that a clearway is implemented at the south leg of the West Street and Falcon Street intersection. Moreover, it is expected to enhance overall safety for all road users and potentially increase the use of cycling as the preferred mode for short, everyday trips in the area.

Recommendations for further improvement include:

- Enhancing pedestrian signal phasing to provide good separation between travel modes.
- Exclusive cycle phases to promote cycle priority to minimise conflicts and optimise the overall safety at the intersections.
- Implementation of clearways along West Street to not only improve traffic performance and reduce congestion but also to enhance overall road safety by minimising the risk of accidents. Additionally, clearways will facilitate smoother public transport operations and encourage cycling and walking by providing safer and more predictable travel conditions for all users.
- Conduct a stated preference survey to gauge the potential mode shift before the implementation of the proposed design as this has not been assessed in this TIA.

# 1 Introduction

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## 1.1 Overview

North Sydney Council, as part of the North Sydney Integrated Cycling Strategy, are implementing priority cycling routes across their network.

Sydney Harbour Bridge to Cammeray was identified as one of the priority routes to be developed for greater connections to the city. This development includes a separated bi-directional cycleway within the existing road reserve along this route on West Street (the Project)

## 1.2 Purpose of this report

Beca has been engaged to prepare a Traffic Impact Assessment (TIA) to assess the impact of the Project on the existing transport network and to provide appropriate mitigation measures to minimise the identified impacts.

This report documents the results of the TIA, including:

- A description of the existing traffic and transportation environment along the proposed Project and its surrounding area. This includes the review of recent traffic volumes, identification of existing active and public transport provision, and analysis of historic crash data.
- Review of the proposed cycleway design, including intersection treatments.
- High-level assessment of the intersection performance of West Street | Falcon Street and West Street | Ernest Street intersections with and without the proposed treatments.
- Summary of key findings and recommendations to minimise the identified impacts.

## 2 Existing Transport Context

### 2.1 Site Location

The Project will be located along West Street from the Ridge Street cycleway to Amherst Street. West Street runs through the suburbs of North Sydney, Crows Nest, and Cammeray, approximately 2kms north of the Sydney Harbour Bridge. The northern end of West Street is split by the Four Figs Park, and the southern end connects to the Pacific Highway. There are several side streets that connect to West Street, including Falcon Street, which is a regionally significant road.

The area surrounding West Street is predominately residential with areas of heritage status. There are also several schools, religious buildings, and parks nearby.

Other notable features include:

*On West Street:*

- Yemen Consulate
- North Sydney Police Station

*Around West Street:*

- Mater Hospital 350m to the west
- St Leonard's Park 250m to the east
- Crows Nest commercial area 500m to the west
- Warringah Freeway/M1 to the north and east of West Street

Figure 2-1 below shows the site and some of the identified features from above.

### 2.2 Site Access

West Street can be accessed via several local side streets as well as some significant regional and state roads, including:

- Pacific Highway which connects to the southern end of West Street leading to the Pacific Motorway 21kms away, which is Australia's primary motorway on the eastern edge of the country.
- Hazelbank Place shared path connection which connects to the Pacific Highway.
- Ernest Street which is a locally significant road and provides direct access from West Street to the Warringah Freeway.
- Falcon Street which is a regionally significant road providing connection from the Pacific Highway to Miller Street, Military Road (A8), and the Warringah Freeway.
- Brooke Street via the Cammeray on-ramp to the Warringah Freeway. The Warringah Freeway on-ramp from Brooke Street has an exit on to West Street.
- Ridge Street cycleway forming a section of Route 5. North Sydney to Cremorne cycleway, identified in the North Sydney Integrated Cycling Strategy.



Figure 2-1 West Street Area (Source: Open Street Maps modified by Beca)

### 2.3 Land Use

The Project is located within a residential area that consists mostly of low density housing on the west side of the street, with some mixed use areas on the south end of West Street and medium/high density housing on the east side (See Figure 2-2). There are also several Special Infrastructure areas and recreation zones that are within 800m radius. Additionally, West Street is part of Holtermann’s Estate, an extended heritage area (See Figure 2-3).

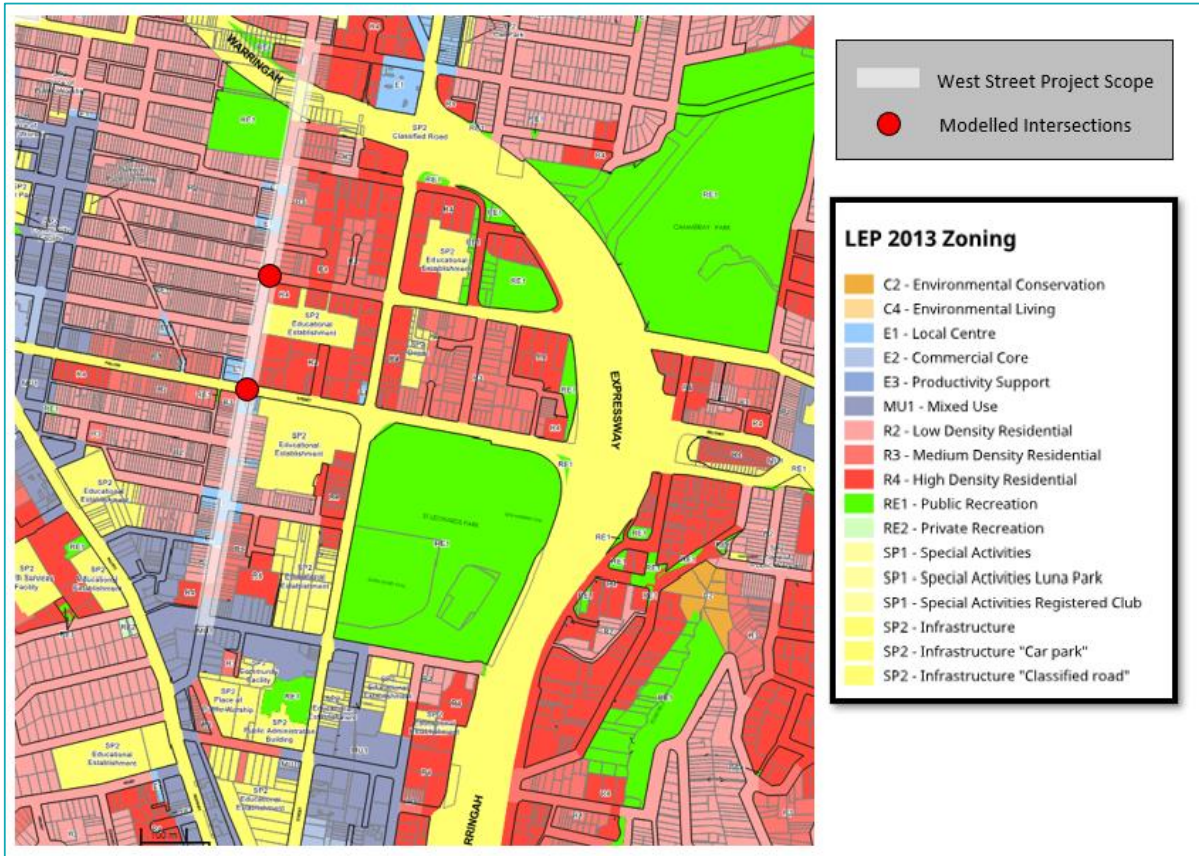


Figure 2-2 Planning Zones (Source: North Sydney Council Planning Maps modified by Beca)



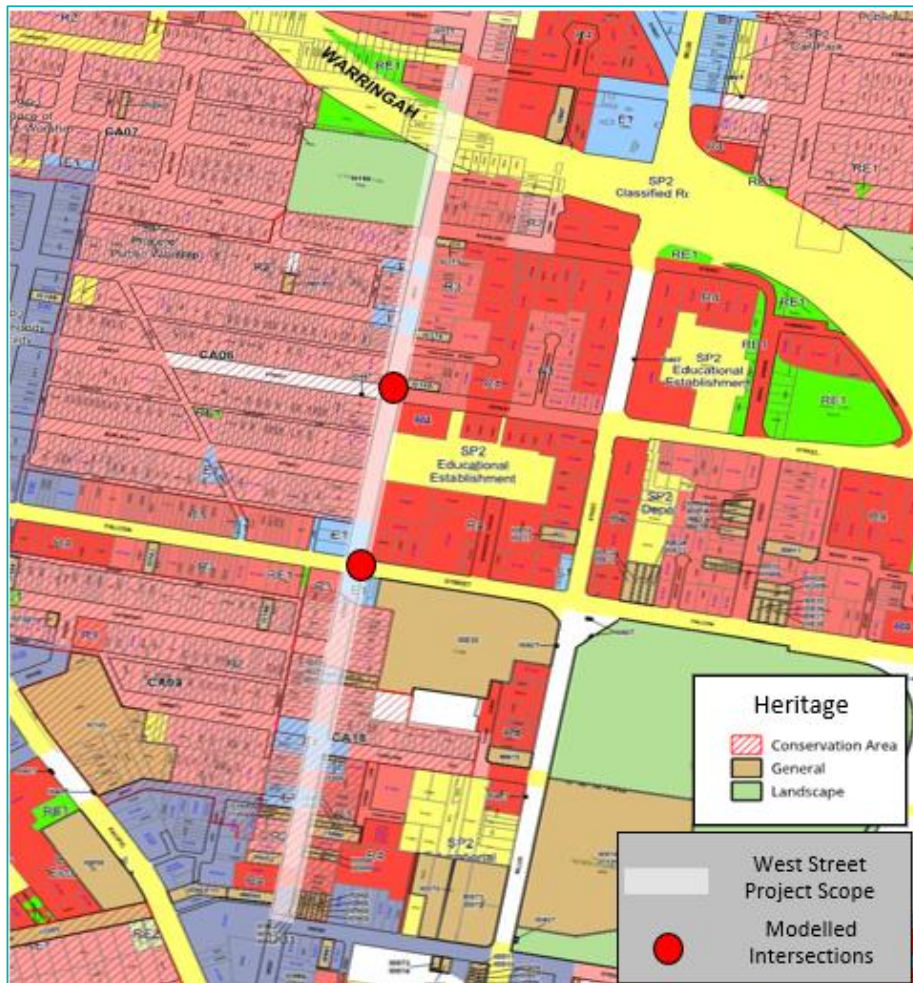


Figure 2-3 Heritage Areas Map (Source: North Sydney Council Planning Maps modified by Beca)

## 2.4 Road Network

### 2.4.1 Road Hierarchy

Roads within New South Wales (NSW) are categorised based on their classification and function as presented in Table 2-1 below.

Table 2-1 NSW Road Classification and Functional Hierarchy

Classification	Hierarchy	Function	Ownership /Management
State Roads	Freeways and Primary Arterials	Provide for vital or major movements of goods and services, people, and public transport to centres of regional economic or social significance	Transport for NSW (TfNSW)
Regional Roads	Secondary or Sub-arterials	Provide for medium level movements of people, goods and services and public transport to centres of local economic or social significance	Councils with substantial funding assistance from the State Government

Classification	Hierarchy	Function	Ownership /Management
Local Roads	Collector and Local Access Roads	Provide for local circulation and access to property and provide connection to the State and Regional Roads	Councils with limited funding assistance from the State Government

The classification and functional hierarchy of the Project’s key roads are presented in Table 2-2 and shown in Figure 2-4.

Table 2-2 Road Classification and Functional Hierarchy of key roads

Road	Classification	Functional Hierarchy
West Street	Local	Collector
Ernest Street	Regional/Local	Sub-Arterial
Falcon Street	Regional	Sub Arterial

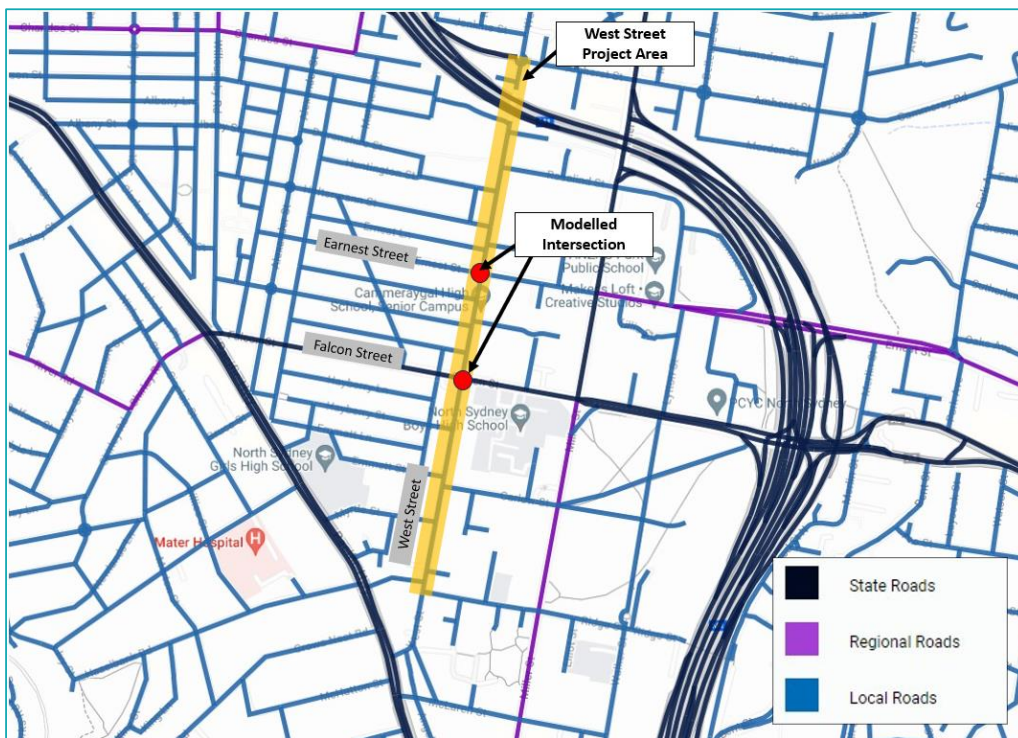


Figure 2-4 Road classification around West Street (Source: TfNSW Road Classification map modified by Beca )

## 2.4.2 Road characteristics

### 2.4.2.1 West Street

West Street (shown in Figure 2-5) is a local road which connects Four Figs Park to the Pacific Highway. It runs in a north to south alignment and forms signalised intersections with Ernest Street and Falcon Street.



Figure 2-5 West Street, viewed southwards towards Pacific Highway (Image Source: Google Street View)

The key features of West Street are detailed in Table 2-3.

Table 2-3 Key Features of West Street

Key Features	Description
Classification	Local Road
Carriageway	<ul style="list-style-type: none"> <li>Dual carriageway with a single lane</li> <li>12m wide</li> </ul>
Posted Speed limit	50 kph with 40kph school zones
Active Transport	Footpaths are provided on both sides. There is provision for cycling on the shoulder which also allows for on-street parking.
Public Transport	One bus stop is located on West Street with bus route 263, 267, 690W operating at this stop.
Parking	Kerbside parking permitted on both sides of the road with AM/PM Peak clearways leading up to the Falcon Steet intersection

#### 2.4.2.2 Ernest Street

Ernest Street (shown in Figure 2-6) is a local road with split classification. It runs in an east to west alignment from Ben Boyd Road to Alexander Street. From the intersection with Miller Street, it becomes a regional road, providing connection to the eastern suburbs of the North Sydney area.



Figure 2-6 Ernest Street, viewed westwards towards West Street (Image Source: Google Street View)

The key features of Ernest Street are detailed in Table 2-4.

Table 2-4 Key Features of Ernest Street

Key Features	Description
Classification	Regional/Local
Carriageway	<ul style="list-style-type: none"> <li>Dual carriageway with a single lane</li> <li>12m wide</li> </ul>
Posted Speed limit	50 kph with 40kpm School zones
Active Transport	Footpaths are provided on both sides.
Public Transport	<p>There are two bus stops is located on Ernest Street. One by the intersection with West Street, and the other by the intersection with Miller Street.</p> <p>West Street bus stop routes: 263, 267, 690w</p> <p>Miller Street bus stop routes:263, 267</p>
Parking	Kerbside parking permitted on both sides of the road

#### 2.4.2.3 Falcon Street

Falcon Street is a regional road running in an east to west alignment between the Pacific Highway and the Warringah Freeway.



Figure 2-7 Falcon Street, viewed westwards towards West Street (Image Source: Google Street View)

The key features of Falcon Street are detailed in Table 2-5.

Table 2-5 Key Features of Falcon Street

Key Features	Description
Classification	Regional
Carriageway	<ul style="list-style-type: none"> <li>Dual carriageway with two lanes</li> <li>12m wide</li> </ul>
Posted Speed limit	60 kph with 40kpm School zones
Active Transport	Footpaths are provided on both sides.
Public Transport	There are eight bus stops along this road, three of which are by the intersection with West Street servicing the following routes: 114,144, 688w
Parking	Kerbside parking permitted on both sides of the road from 7pm to 6am Monday to Friday and from 6.30pm to 8:30am on Saturday and Sunday when the clearway is not being enforced

### 2.4.3 Traffic Volumes

Matrix Traffic and Transport Data Pty Ltd was engaged to undertake pedestrian and traffic turning movement counts on Thursday 19<sup>th</sup> of October and Saturday 21<sup>st</sup> of October 2023 over a 12-hour period.

The count locations are shown in Figure 2-8.

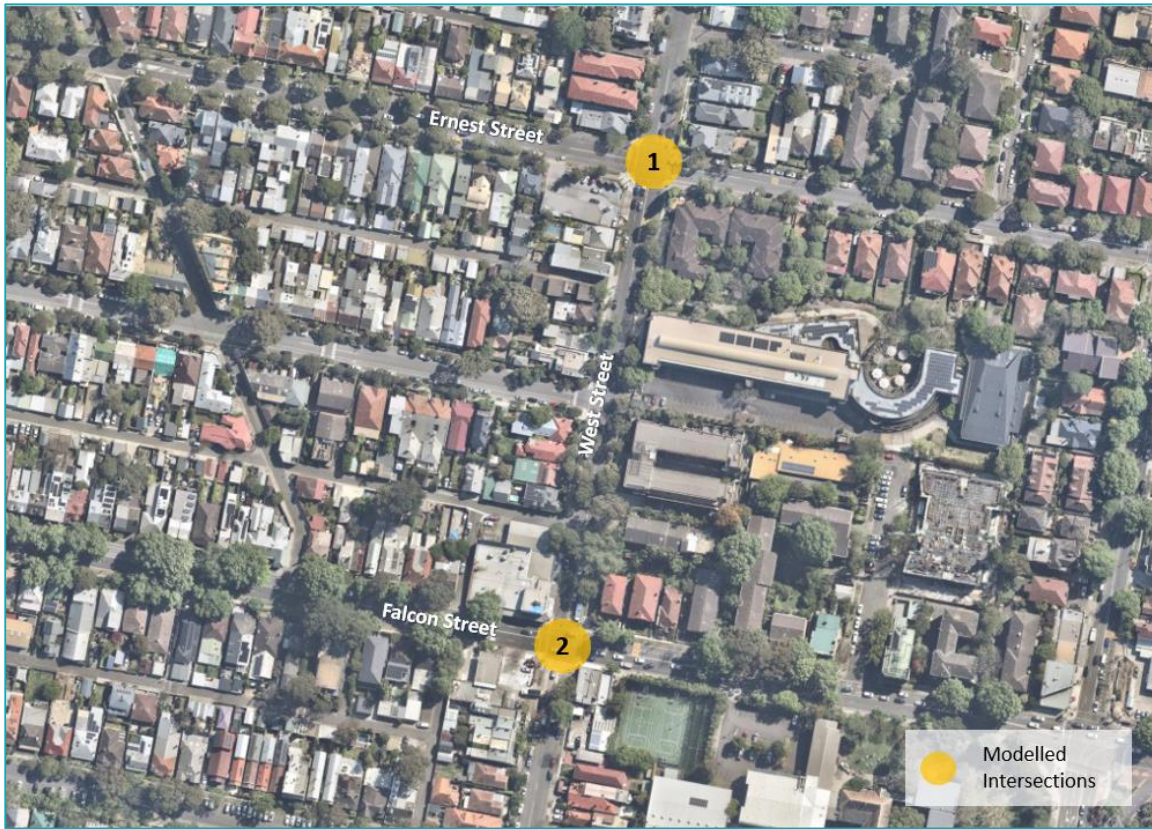


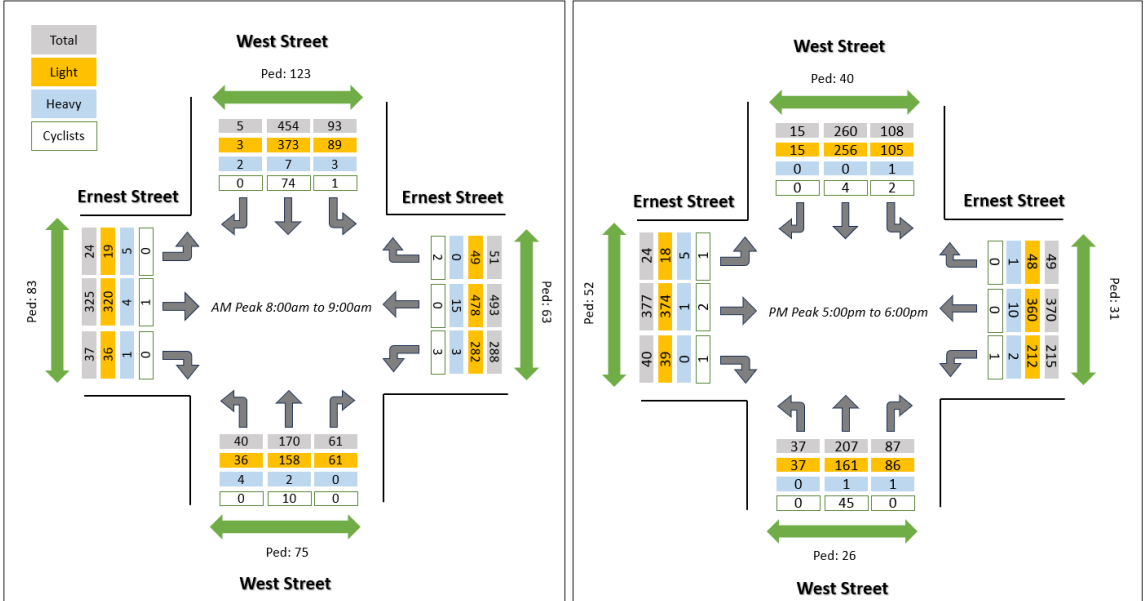
Figure 2-8. Traffic Counts Locations (Source: Nearmap modified by Beca)

A summary of the surveys undertaken and observed peak hours are presented in Table 2-6.

Table 2-6. Traffic Survey Summary

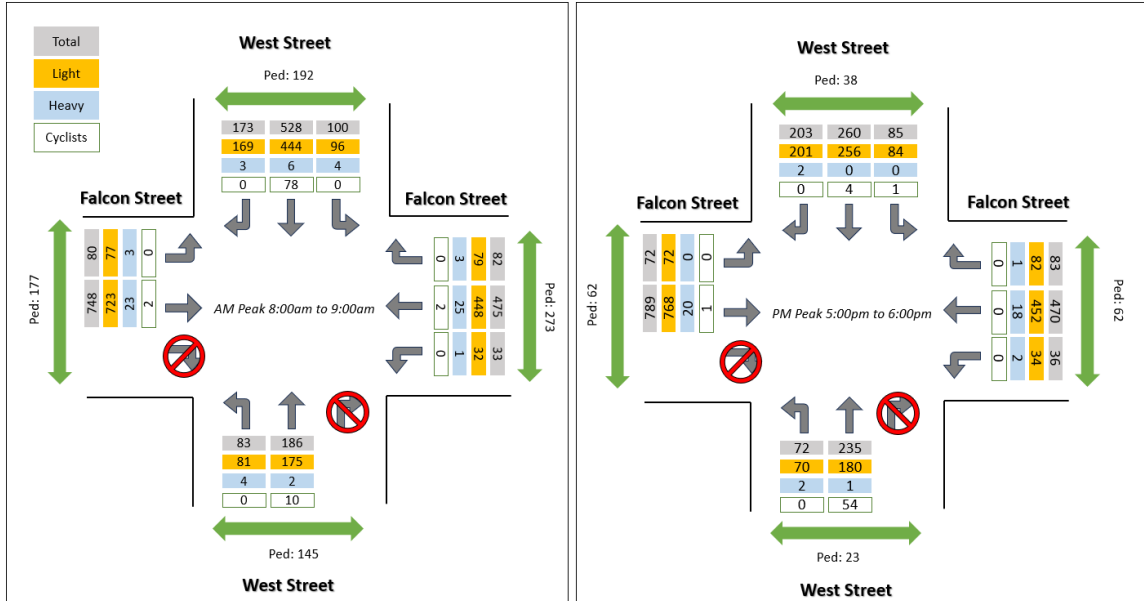
Reference	Count Type	Location	Weekday		Weekend
			AM Peak	PM Peak	
1	Turning Movements and Pedestrian Count	Ernest Street/ West Street	8:00-9:00AM	5:00-6:00PM	11:30-12:30PM
2	Turning Movements and Pedestrian Count	Falcon Street/ West Street	8:00-9:00AM	5:00-6:00PM	11:30-12:30PM

A summary of the surveyed Weekday AM and PM and Weekend peak hour traffic volumes at the key intersections are presented in Figure 2-9, Figure 2-10, and Figure 2-11 below. The full set of traffic count data is attached in **Appendix A – Traffic Survey Results**.



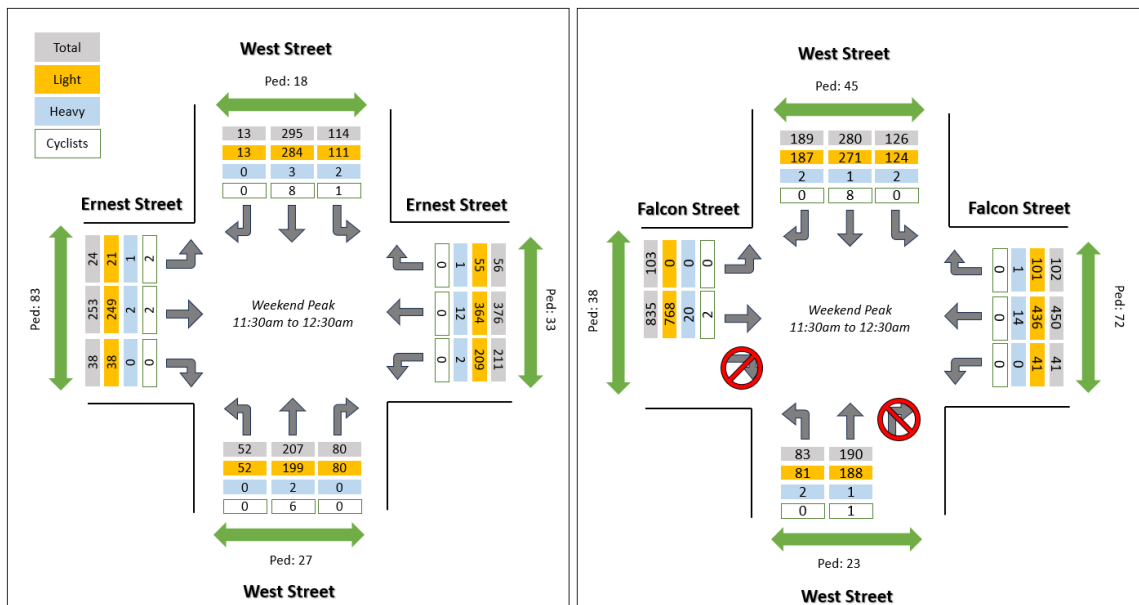
Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Figure 2-9. Weekday Traffic Counts of Ernest Street and West Street Intersection



Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Figure 2-10. Weekday Traffic Counts of Falcon Street and West Street Intersection



Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Figure 2-11 Weekday Traffic Counts of Two Intersections

## 2.5 Active Transport

Active transport facilities in proximity to the project study area are footpaths along Ernest Street and Falcon Street and on-road shared road shoulder along West Street. West Street is a part of the strategic cycling route in North Sydney. It connects with the bi-directional cycle lanes on Ridge Street providing access to open spaces such as the North Sydney Oval in St Leonards Park

Other cycling features in the area are shown in Figure 2-12, including:

- Non-separated cycle lane on the one-way Huntington Street.
- Bike paths on Warringah Freeway that connect to the north of West Street
- Hazelbank Place share path connecting Pacific Highway to West Street.
- Ridge Street Cycleway, forming a section of Route 5 North Sydney to Cremorne identified in the North Sydney Integrated Cycling Strategy



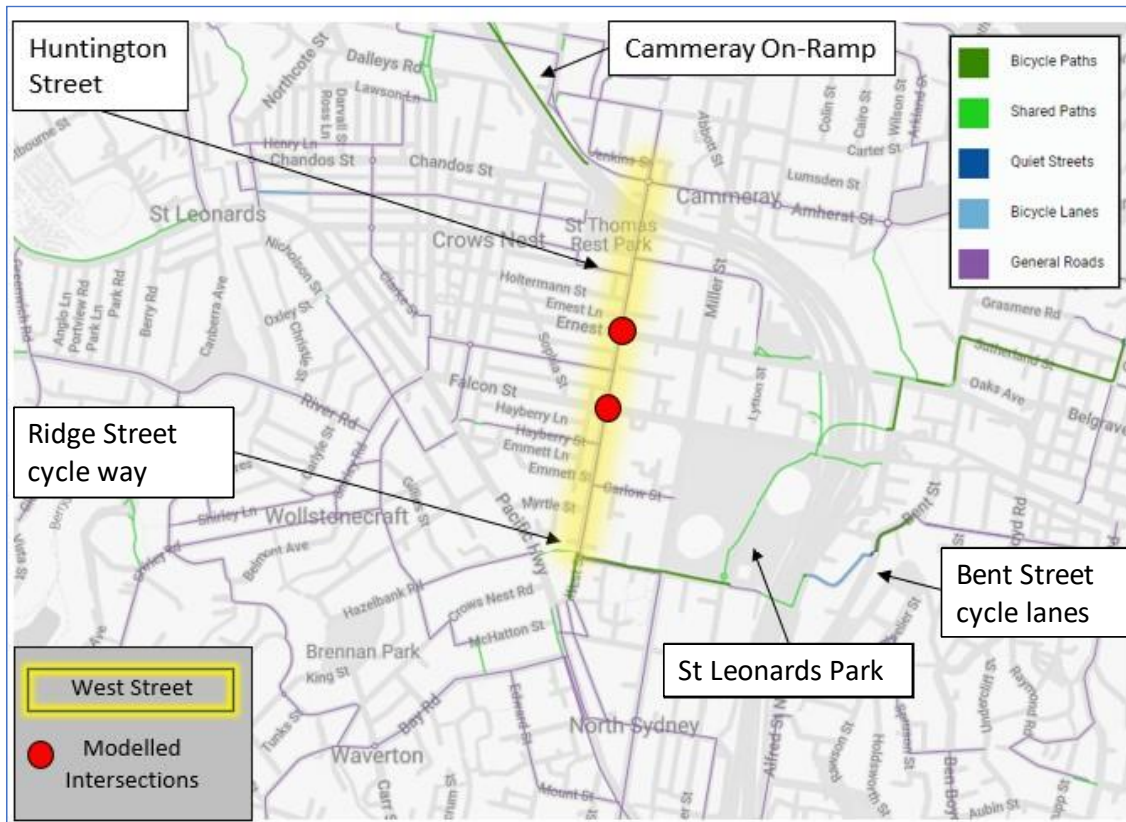


Figure 2-12 Wider North Sydney cycling paths (Source: NSW Cycleway Finder modified by Beca)

## 2.6 Public Transport

Public transport along and around West Street is accessible with several bus stops within a 300m catchment on West Street and its surrounding streets. There are 4 train stations within a 25-minute walk, or a 20-minute bus ride. The three routes that use the bus stop on West Street situated just before Huntington Street are:

- 263 City Gresham Street/Crows Nest – This bus route travels from Crows Nest and turns onto West Street at Ernest Street and circles around south to the Harbour Bridge and into the city at Gresham Street. This service runs every 30 minutes during peak times and then every 45 minutes on non-peak times (10am-3pm)
- 267 Chatswood – This bus route has the same origin point as the 263 but travels north to Chatswood. This service runs every 30 minutes during peak times, and every hour in non-peak times (10am-3pm)
- 690w East Willoughby – A school bus that operates only in the afternoons on weekdays with two buses leaving shortly after each other along the same route.



Figure 2-13 Bus Stops on and around West Street. (Source NSW Transport Trip Planner Modified by Beca)

## 2.7 Parking

### 2.7.1 West Street

Timed on-street parking is implemented along West Street. Some timed on-street parking zones have specific duration during which the restrictions are enforced e.g., half hour or one hour parking between 8:30am and 6pm, Monday to Friday. The on-street parking areas are currently shared by parked vehicles and cyclists.

### 2.7.2 Falcon Street

There is a dedicated clearway, marked with yellow dashed lines on the kerb lane, that is implemented on Falcon Street to the east of West Street between 8am-10am and 2pm-7pm, Monday to Friday. A no parking zone is also implemented from the bus stop to the intersection with West Street. On the western side of the

intersection, a no stopping zone and a 50m bus zone are implemented. There is also a dedicated clearway that is implemented between 6am and 10am and between 3pm and 7pm, Monday to Friday.

### 2.7.3 Ernest Street

There is a no stopping zone 50m before the intersection on Ernest Street to the east of West Street, which is implemented at all times. A 20m extension of this zone is being implemented between 6am and 10am, Monday to Friday. On the west side of the intersection, there is a 35m bus zone and timed on-street parking areas which are actively monitored between 8am and 6pm.

## 2.8 Road Safety

### 2.8.1 Crash history

Road crash information from 2018 to 2022 in the below locations (See Table 2-7) was collected from road crash statistics published by NSW Centre for Road Safety. There have been 13 crashes recorded along West Street from 2018 to 2022. Six of these crashes have occurred at the intersections of West Street with Ernest Street (3) and Falcon Street (3). One fatal crash occurred in 2022 between Rosalind Street and Huntington Street which was caused by running off the road into an object. Seven crashes were recorded in 2018 alone, three of which resulted to serious injuries.

Table 2-7 Crash Summary (2018-2022)

Location	Number of Crashes	Fatal	Serious	Moderate	Minor	Non-Injury
West Street	7	1	2	2	1	1
Falcon Street Intersection	3	0	1	1	0	1
Ernest Street Intersection	3	0	1	1	0	1

The predominant crash types are cross traffic and left turn sideswipe crashes at intersections. Of the 13 crashes recorded, 10 occurred at intersections, with one being on the roundabout at Amherst/West Street. Of these 10 crashes, half of them happened in the dark,

These can be attributed to poor visibility and inadequate lighting at intersections or poor driver behaviour such as speeding and running red lights.

Sensitivity: General

| Existing Transport Context |

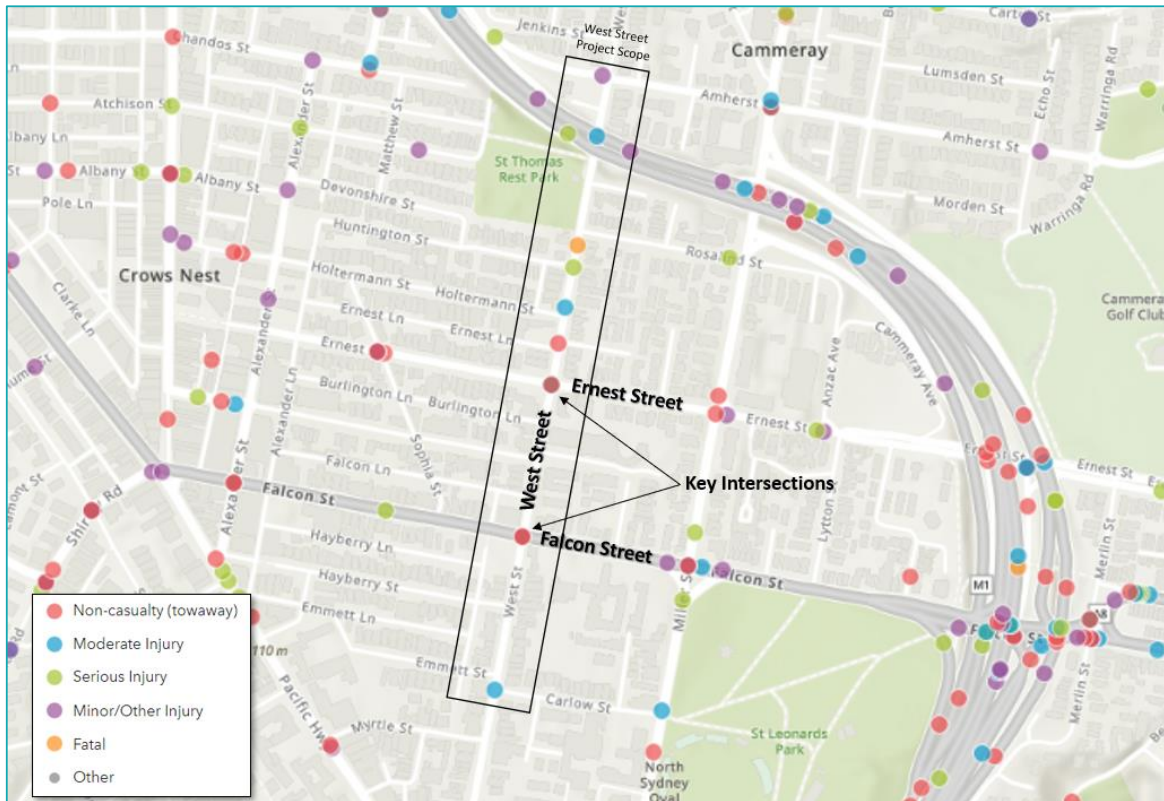


Figure 2-14 Crash History (Source: LGA View-Crashes Map modified by Beca)

## 3 Proposed Development

### 3.1 West Street Bi-directional Cycle Way

North Sydney Council, as part of their Integrated Cycling Strategy, is planning to install a bi-directional cycleway on the western side of West Street along with a number of safety improvements and upgrades to the current road layout. The Project will provide a dedicated cycleway, along a major cycle route that connects existing cycleways together with a cycleway separator.

#### 3.1.1 Ernest Street and West Street intersection

The proposed plan for the Ernest Street and West Street intersection is presented in Figure 3-1 which includes the following:

- 2.4m Bi-directional cycleway along the west side of West Street
- New right-turn ban with reduction on the number of lanes on the North approach of West Street
- Adjustment of lane width through reduction of entry and exit lanes on West Street

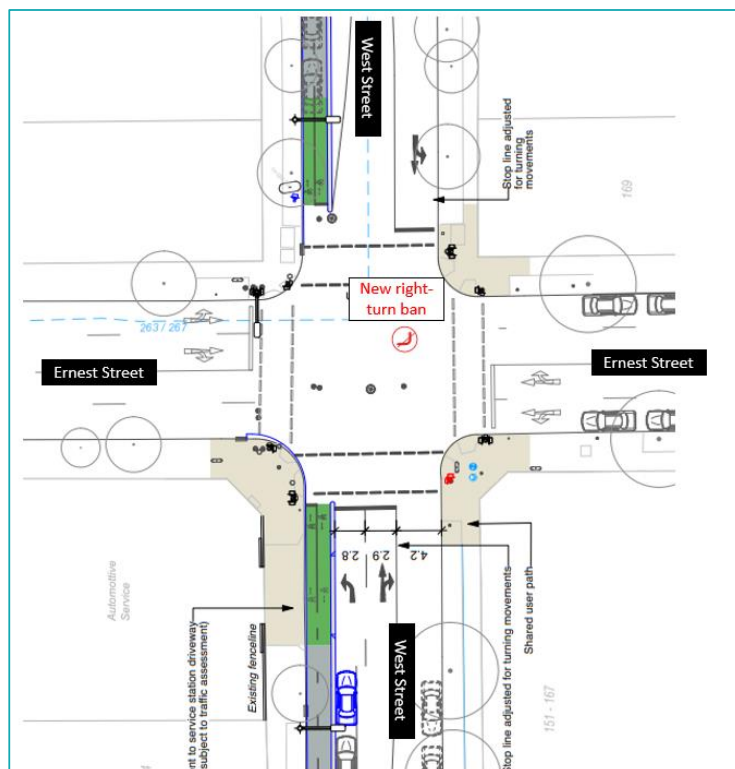


Figure 3-1 Proposed plan of Ernest and West Street Intersection

### 3.1.2 Falcon Street and West Street intersection

The proposed plan for the Ernest Street and West Street intersection is presented in Figure 3-2 and includes the following:

- 2.4m bi-directional cycleway along the west side of West Street
- Adjustment of lane width through reduction to one entry and one exit lane on the south approach leg of West Street

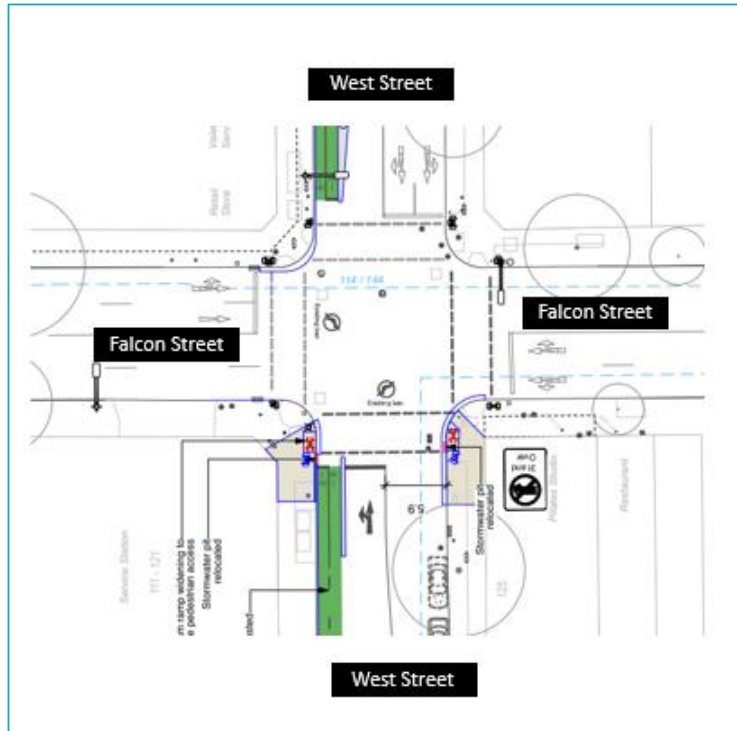


Figure 3-2. Proposed plan of Falcon and West Street Intersection

### 3.1.3 Parking

The project includes removal of 17 on-street car park spaces along West Street with 15 being reinstated along the developed area.

Two on-street car park spaces will be removed on the North approaches of the Ernest Street and West Street intersection and Falcon Street and West Street intersection due to the proposed lane reductions as shown in Figure 3-3 and , respectively. This will allow better manoeuvrability for turning vehicles and help improve traffic flow at the intersections.

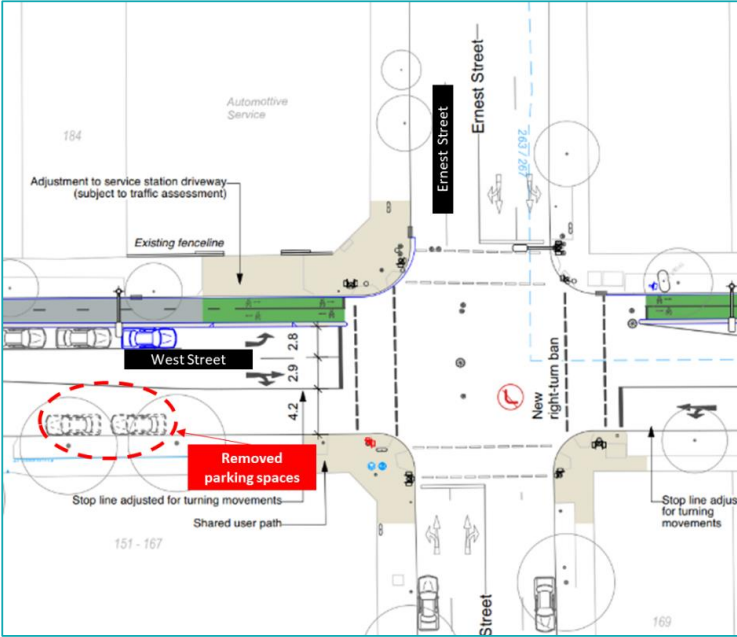


Figure 3-3 Removed parking spaces near Ernest Street intersection.

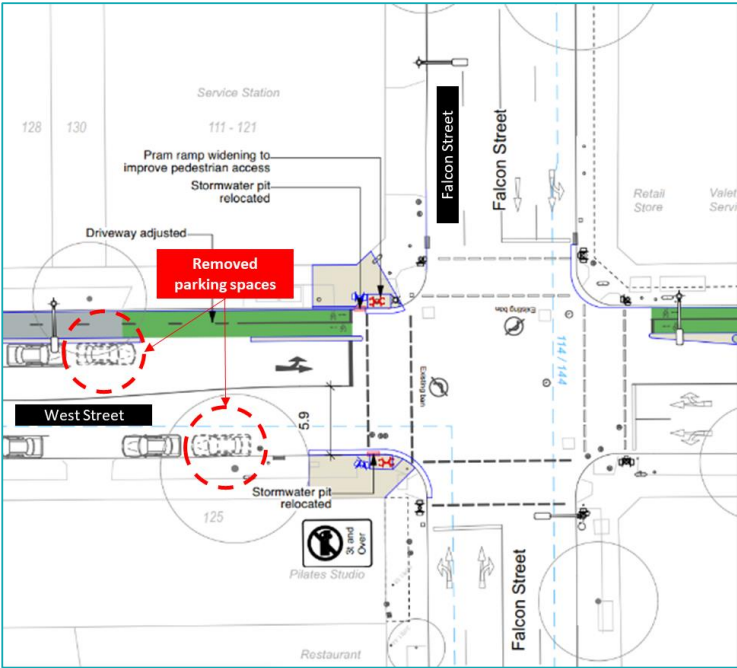


Figure 3-4 Removed parking spaces near Falcon Street intersection.

## 4 Traffic Impact Assessment

### 4.1 Road Network

SIDRA intersection modelling was used to assess the performance of the below intersections with and without the proposed plans:

- Ernest Street and West Street
- Falcon Street and West Street

The performance measures adopted for this assessment are:

- **Degree of Saturation (DoS):** is the ratio of arrival (demand) flow rate to capacity during a given flow period. A value of above 0.90 indicates the intersection is reaching capacity, a value of above 0.90 for a critical movement is common for a significant number of suburban intersections.
- **Level of Service (LoS):** is primarily used as a limit control for proposed scenario to ensure that the scenario represents a practical proposal. As a performance measure, the minimum requirement is LoS D for intersections in project scenarios for the future design year.
- **Average delay:** The delay in seconds that can be expected for all vehicles undertaking a particular movement.
- **95<sup>th</sup> Percentile Queue Length:** The maximum queue length in metres that can be expected in 95% of observed queue lengths in the peak hour

The following assumptions were made in modelling the intersections:

- No traffic forecasting has been undertaken for this assessment. Surveyed traffic volumes were used as model inputs for both 'existing' and 'proposed' scenarios.
- Generally, default SIDRA values have been used.
- Due to the relatively high number of pedestrians at the intersections, walk time extension to pedestrian timing has been applied.

The existing and proposed configurations for the above intersections are shown in Figure 4-1 and Figure 4-2 below.

It should be noted that the proposed intersection at Falcon Street and West Street has been modelled to include a short exit lane on the south leg (Option a). This configuration captures lane utilisation and merge delays at the intersection, demonstrating the improvement of implementing a clearway (Option b) as required by SIDRA.



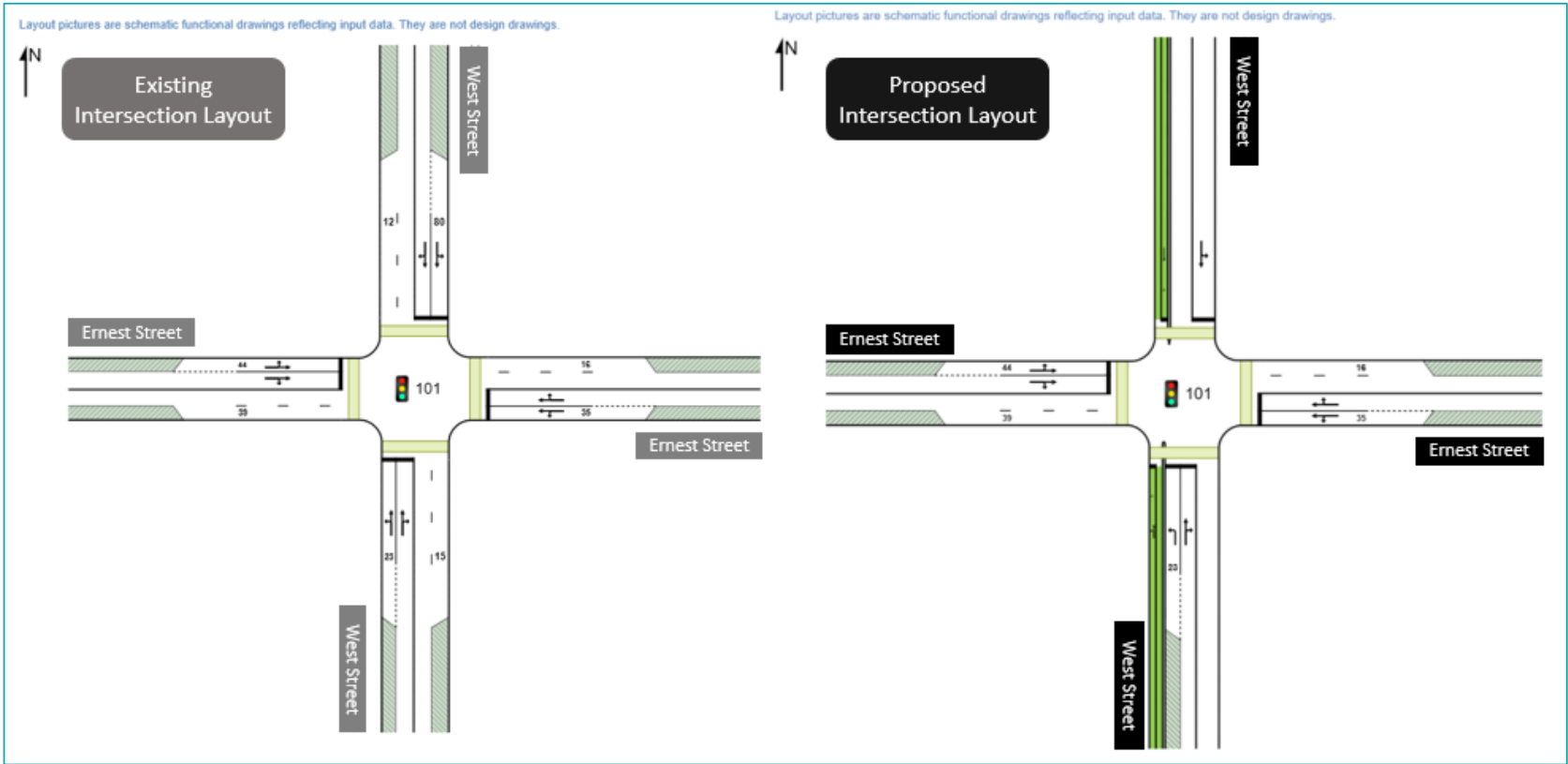


Figure 4-1 Existing and Proposed Layouts of the Ernest-West Street Intersection

Sensitivity: General

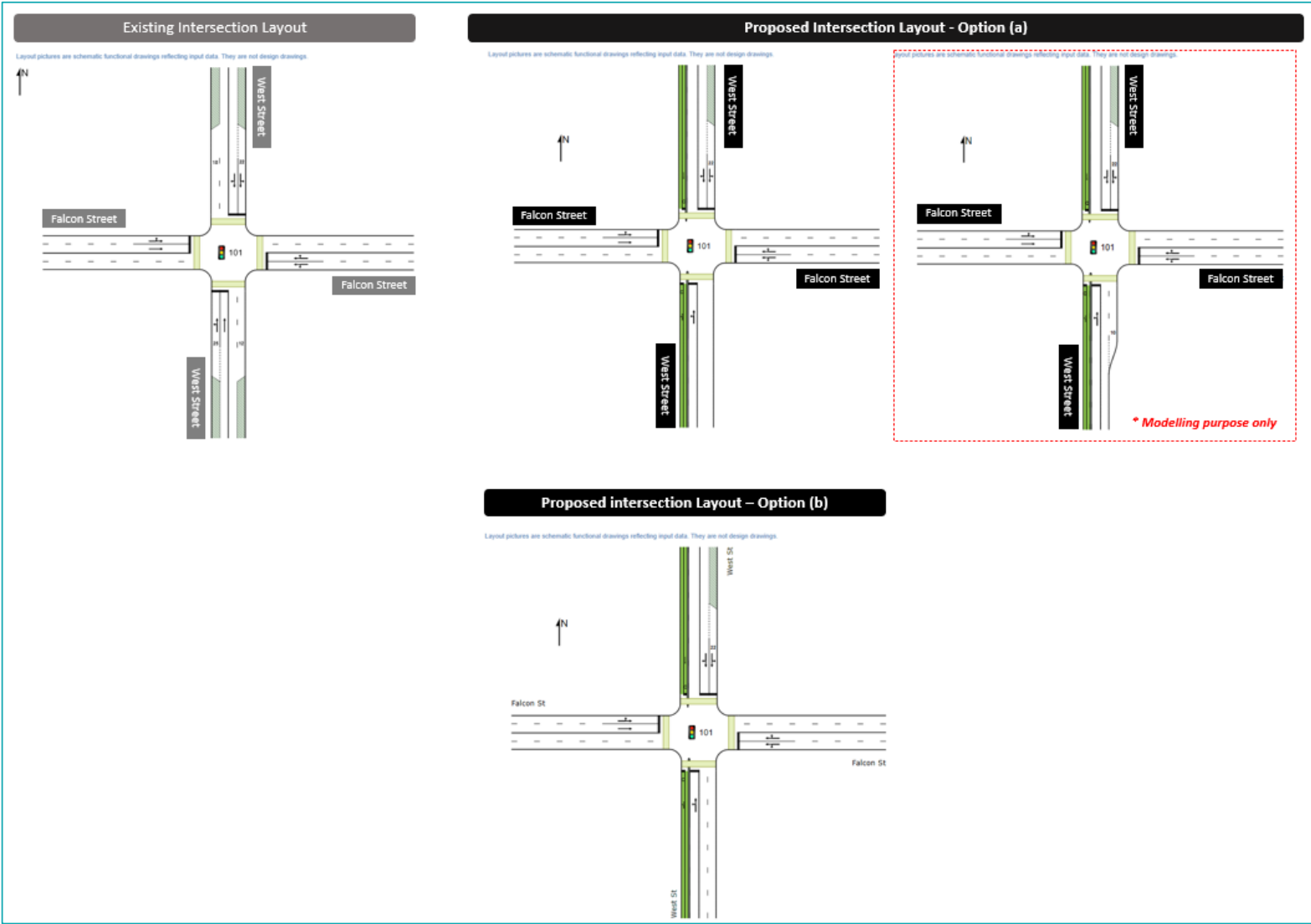


Figure 4-2. Existing and Proposed Layouts of the Falcon-West Street Intersection

## 4.2 Vehicle Movements

A comparison of vehicle movement modelling results during the weekday and weekend peak periods between the existing (base case) and the proposed layouts are shown in Table 4-1 (AM Peak), Table 4-2 (PM Peak), and Table 4-3 (Weekend Peak) below. Outputs from the SIDRA intersection modelling are provided in full in **Appendix B – SIDRA Modelling Results**.

Table 4-1. Modelling Results of AM Peak hour (Weekday)

AM Peak													
Intersecti on	Approach	Base Case				Proposed Layout Option (a) - only applicable to the Falcon Street intersection				Proposed Layout Option (b) - only applicable to the Falcon Street intersection			
		DoS	Average Delay (sec)	LoS	95% Back of Queue (m)	DoS	Average Delay (sec)	LoS	95% Back of Queue (m)	DoS	Average Delay (sec)	LoS	95% Back of Queue (m)
West Street and Ernest Street	South Approach	0.714	27.4	B	45.7	0.805	29.9	C	53.9				
	East Approach	0.834	19.1	B	118.8	0.873	22.7	B	133.1				
	North Approach	0.767	24.6	B	90.9	0.804	25.2	B	108.8				
	West Approach	0.445	14.2	A	49.0	0.464	15.0	B	50.2				
	All Vehicles	0.834	20.8	B	118.8	0.873	22.9	B	133.1				
West Street and Falcon Street	South Approach	0.978	82.4	F	104.5	0.994	91.4	F	148.8	0.865	44.8	D	87.4
	East Approach	0.776	47.2	D	190.3	0.773	44.7	D	170.1	0.627	27.0	B	104.2
	North Approach	0.968	57.3	E	309.0	1.045	83.7	F	371.5	0.963	35.8	C	156.6
	West Approach	0.959	77.9	F	241.8	1.020	104.1	F	268.9	0.927	50.3	D	160.3
	All Vehicles	0.978	64.5	E	309.0	1.045	82.1	F	371.5	0.963	39.5	C	160.3

\* The scenario with the proposed layout is only shown in vehicle lane summary only on West Street (South-North Approach), excluding the results of cycle lanes

- Intersection of West Street and Ernest Street

The SIDRA modelling results **during the AM peak** indicate that the implementation of the proposed layout will result to a slight increase in flow rate, average delay, and queuing at the intersection due to the reduced capacity at the approaches. The level of service, however, will still be at LoS B which means that the intersection will still perform satisfactorily with stable vehicle flows. Minor delays and reduced speeds can be expected but the intersection will still have capacity to accommodate future vehicle demand.

- Intersection of West Street and Falcon Street

The SIDRA modelling results **during the AM peak** indicate that the implementation of the proposed layout will result to an increase in flow rate, average delay, and queuing at the intersection due to the reduced capacity. The level of service will deteriorate from LoS E to LoS F, indicating that the intersection will operate at capacity under breakdown conditions with the proposed layout. This will likely result in significant delays, long queues, and congestion.

To address this, the enforcement of a clearway is proposed. As indicated in the table above, removing on-street parking to establish a clearway will enhance the level of service from LoS E to LoS C. This improvement implies that the intersection will be able to manage traffic more efficiently due to increased capacity, resulting in a stable traffic flow with manageable delays.

Sensitivity: General

| Traffic Impact Assessment |

Table 4-2. Modelling Results of PM Peak hour (Weekday)

		PM Peak											
Intersecti on	Approach	Base Case				Proposed Layout <u>Option (a) - only applicable to the Falcon Street intersection</u>				Proposed Layout <u>Option (b) - only applicable to the Falcon Street intersection</u>			
		DoS	Average Delay (sec)	LoS	95% Back of Queue (m)	DoS	Average Delay (sec)	LoS	95% Back of Queue (m)	DoS	Average Delay (sec)	LoS	95% Back of Queue (m)
West Street and Ernest Street	South Approach	0.569	22.4	B	39.1	0.618	22.8	B	42.2				
	East Approach	0.606	13.9	A	69.8	0.658	15.3	B	74.1				
	North Approach	0.499	20.5	B	49.1	0.576	20.4	B	66.1				
	West Approach	0.488	14.4	A	56.6	0.513	15.2	B	58.1				
	All Vehicles	0.606	16.9	B	69.8	0.658	17.6	B	74.1				
West Street and Falcon Street	South Approach	0.927	54.8	D	79.7	0.932	60.4	E	114.4	0.932	50.8	D	94.7
	East Approach	0.654	30.8	C	123.9	0.674	34.6	C	140.6	0.588	25.6	B	99.5
	North Approach	0.933	44.2	D	154.5	0.932	46.4	D	163.9	0.945	34.2	C	77.6
	West Approach	0.938	57.2	E	187.8	0.922	57.0	E	196.5	0.914	46.8	D	160.0
	All Vehicles	0.938	47.1	D	187.8	0.932	49.2	D	196.5	0.945	38.9	C	160.0

\* The scenario with the proposed layout is only shown in vehicle lane summary only on West Street (South-North Approach), excluding the results of cycle lanes

- Intersection of West Street and Ernest Street

The SIDRA modelling results **during the PM peak** indicate that the implementation of the proposed layout will result to a slight increase in flow rate, average delay, and queuing at the intersection due to the reduced capacity at the approaches. The level of service, however, will still be at LoS B which means that the intersection will still perform well with stable flows and slight delays; and will still have spare capacity to accommodate future vehicle demand.

- Intersection of West Street and Falcon Street

The SIDRA modelling results **during the PM peak** indicate that the implementation of the proposed layout will result to a slight increase in flow rate, average delay, and queuing at the intersection due to the reduced capacity at the approaches. The level of service, however, will still be at LoS D which means that the intersection is operating near its capacity, and any disruptions in the traffic flow can cause delays.

As discussed previously, enforcement of a clearway is proposed to improve the operational performance of the intersection. As indicated in the table above, removing on-street parking to establish a clearway will enhance the level of service from LoS D to LoS C. This improvement implies that the intersection will be able to manage traffic more efficiently due to increased capacity, resulting in a stable traffic flow with manageable delays.

Sensitivity: General

| Traffic Impact Assessment |

Table 4-3 Modelling Results of Weekend Peak hour

Weekend Peak hour													
Intersecti on	Approach	Base Case				Proposed Layout <u>Option (a) - only applicable to the Falcon Street intersection</u>				Proposed Layout <u>Option (b) - only applicable to the Falcon Street intersection</u>			
		DoS	Average Delay (sec)	LoS	95% Back of Queue (m)	DoS	Average Delay (sec)	LoS	95% Back of Queue (m)	DoS	Average Delay (sec)	LoS	95% Back of Queue (m)
West Street and Ernest Street	South Approach	0.733	14.8	B	32.2	0.715	23.5	B	60.2				
	East Approach	0.809	14.2	A	56.5	0.732	17.7	B	85.0				
	North Approach	0.652	14.1	A	33.0	0.581	18.9	B	71.6				
	West Approach	0.504	11.6	A	24.3	0.418	16.6	B	41.2				
	All Vehicles	0.809	13.8	A	56.5	0.732	18.9	B	85.0				
West Street and Falcon Street	South Approach	0.897	64.7	E	92.9	0.934	79.8	F	154.6	0.916	61.6	E	119.9
	East Approach	0.689	39.6	C	175.5	0.726	44.5	D	198.4	0.615	31.3	C	132.2
	North Approach	0.919	47.9	D	201.8	0.930	52.4	D	220.8	0.934	36.1	C	98.0
	West Approach	0.894	56.6	E	232.8	0.916	65.4	E	260.8	0.899	50.5	D	202.0
	All Vehicles	0.919	51.2	D	232.8	0.934	58.6	E	260.8	0.934	43.4	D	202.0

\* The scenario with the proposed layout is only shown in vehicle lane summary only on West Street (South-North Approach), excluding the results of cycle lanes

- Intersection of West Street and Ernest Street

Similar with the PM Peak, SIDRA modelling results **during the Weekend peak** indicate that the implementation of the proposed layout will result to a slight increase in flow rate, average delay, and queuing at the intersection due to the reduced capacity at the approaches. The level of service will still be at LoS B which means that the intersection will still perform well with stable flows and slight delays; and will still have spare capacity to accommodate future vehicle demand.

- Intersection of West Street and Falcon Street

Similar with the PM Peak, the SIDRA modelling results **during the Weekend peak** indicate that the implementation of the proposed layout will result to a slight increase in flow rate, average delay, and queuing at the intersection due to the reduced capacity at the approaches. The level of service will degrade from LoS D to LoS E, indicating that the intersection is operating at or near its capacity. Traffic flow will become highly unstable, capable of handling only a slight increase in traffic before breaking down into stop-and-go conditions.

As discussed previously, enforcement of a clearway is proposed to improve the operational performance of the intersection. As indicated in the table above, removing on-street parking to establish a clearway will enhance the level of service from LoS E to LoS D. This improvement implies that while traffic flow will experience substantial delays, it will sustain stable movement.



## 4.3 Active Modes

### 4.3.1 Cycling movements

The performance of the proposed cycle lanes at the intersections during the weekday and weekend peak periods are shown in Table 4-4.

Table 4-4. Cycling movement summary

Scenarios	Intersection	Approach lane	DoS	Average Delay (sec)	LoS	95% Back of Queue (m)	
Weekday (AM Peak)	West Street and Ernest Street	South Approach	0.005	14.6	B	0.5	
		North Approach	0.040	16.1	B	4.1	
	West Street and Falcon Street - option (a)	South Approach	0.008	39.1	C	1.0	
		North Approach	0.024	11.3	A	5.1	
	West Street and Falcon Street - option (b)	South Approach	0.007	27.5	B	0.7	
		North Approach	0.029	12.7	A	4.6	
	Weekday (PM Peak)	West Street and Ernest Street	South Approach	0.023	14.0	A	2.4
			North Approach	0.002	15.0	B	0.2
West Street and Falcon Street - option (a)		South Approach	0.057	37.3	C	6.2	
		North Approach	0.001	12.8	A	0.3	
West Street and Falcon Street - option (b)		South Approach	0.056	29.8	C	5.0	
		North Approach	0.002	13.0	A	0.2	
Weekend Peak	West Street and Ernest Street	South Approach	0.003	12.4	B	0.3	
		North Approach	0.004	13.7	A	0.4	
	West Street and Falcon Street - option (a)	South Approach	0.001	46.1	D	0.1	
		North Approach	0.003	14.6	B	0.6	
	West Street and Falcon Street - option (b)	South Approach	0.001	35.5	C	0.1	
		North Approach	0.003	14.9	A	0.6	

As shown above, cycleway at the Ernest Street and West Street intersection are anticipated to operate with stable flows with slight delays during the peak periods. At Falcon Street and West Street intersection, on the other hand, the north approach will have stable flows while longer delays are expected at the south approach especially during the weekend peak period which can be attributed to higher volume of recreational cyclists during the weekends.

#### **4.3.2 Pedestrian movements**

The comparison of pedestrian level of service and delay per person between the existing and proposed layouts are presented in Figure 4-3 and Figure 4-4.

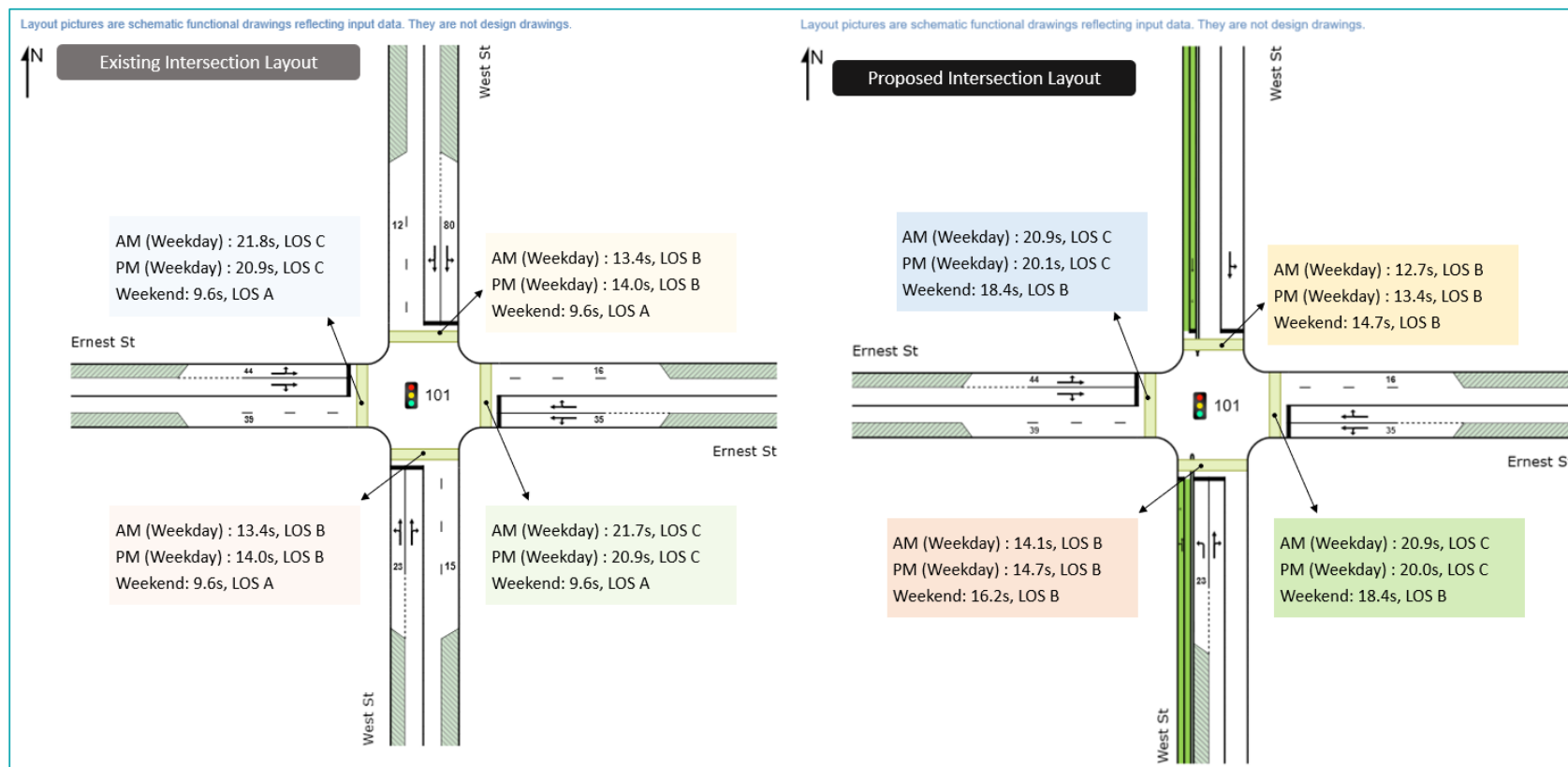


Figure 4-3. Pedestrian Movement Comparison - Ernest and West Street Intersection

- Intersection of Ernest Street and West Street

The existing level of service for pedestrian movement at this intersection ranges from LoS A to LoS C during the weekday peak periods. This means that there may be occasional and noticeable delays to pedestrians crossing the intersection. However, these delays are still not considered as inconvenient, and the likelihood of risk-taking behaviours is low. The existing level of service during the weekend is LoS A which means that delays are minimal as there is usually no conflicting traffic, so the likelihood of risk-taking behaviour is very low at these times. On the other hand, the implementation of the proposed layout will result to decrease in the level of service during the weekend peak. This means that during this peak period, delays are already noticeable and approaching tolerance levels which increase the likelihood of risk-taking behaviours at the intersection.

Sensitivity: General

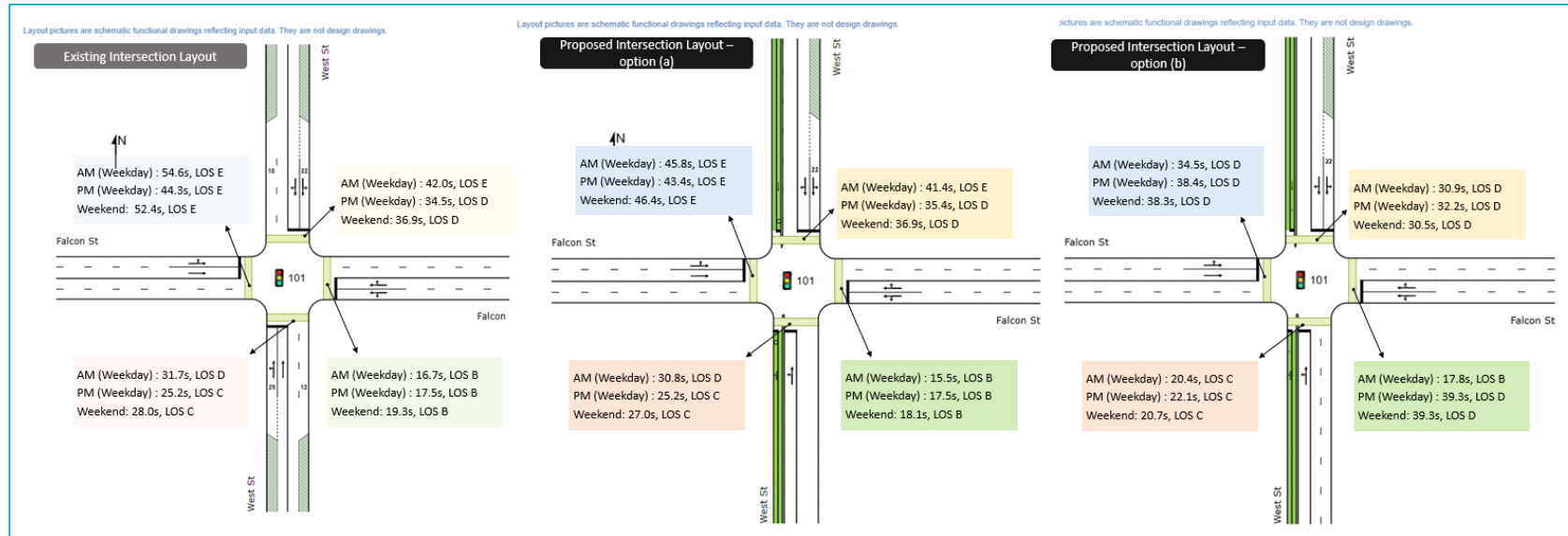


Figure 4-4 Pedestrian Movement Comparison - Falcon and West Street Intersection (the results significantly impacted were indicated in red)

- Intersection of Falcon and West Street Intersection

Contrary to the Ernest Street and West Street intersection, the proposed layout will improve the level of service for pedestrians at the Falcon Street and West Street intersection as shown above. Delays are still noticeable and irritating, and the likelihood of risk-taking behaviours is still high.

#### 4.4 Public Transport

The proposed project will not impact the existing operation of public transport services along West Street. However, the conversion of the existing bus stop to an in-lane stop along West Street will have an impact on the traffic flow as buses stopping and starting within the traffic lane can slow down other vehicles.

#### 4.5 Active Transport

The proposed project is expected to improve active transport provision along West Street and promote cycling as a safe, accessible, and sustainable mode of transport. This can potentially increase cycling mode share and reduce private vehicle use.

#### 4.6 Parking

As previously discussed in Section 3.1.3, the project will involve removal of 17 on-street car park spaces along West Street with 15 being reinstated along the developed area. Hence, impact to the provision of on-street parking is negligible. Additionally, the removal of a few parking spaces near the key intersections will allow better manoeuvrability for turning vehicles and help improve traffic flow at these intersections. It will also enhance safety for pedestrians and cyclists through increased visibility. Additionally, parking removal discourages private vehicle use and can help promote more sustainable transport modes.

#### 4.7 Road Safety

Based on the crash analysis described in Section 2.8, the predominant crash types are cross traffic and left turn sideswipe crashes at intersections. Providing bi-directional cycle lanes can increase the overall safety in the transport network as cyclists are directly in the line of sight of drivers. Additionally, marked bi-directional cycle lanes would also allow drivers to predict cyclist movements. As such, conflicts between cyclists and vehicles are reduced.

## 5 Conclusion and Recommendations

The key findings of this TIA are summarised below:

- Analysis of the traffic survey conducted by Matrix Traffic and Transport Data Pty Ltd identified the following peak hours:
  - AM Peak: 8:00-9:00am
  - PM Peak: 5:00-6:00pm
  - Weekend Peak: 11:30am -12:30pm
- Provision for active and public transport are available along the project area (West Street)
- The review of the five-year crash statistics identifies that the predominant crash types are cross traffic and left turn sideswipe crashes at intersections which can be attributed to poor visibility and inadequate lighting at intersections or poor driver behaviour.
- SIDRA modelling indicates that the project will have negligible impacts to the intersection performance of **Ernest Street and West Street intersection** during the identified peak periods. The intersection, including the cycle lanes, will still perform satisfactorily with stable flows and acceptable delays; and will still have spare capacity to accommodate future vehicle and cyclist demand. The pedestrian level of service will also be satisfactory as delays are minimal and the likelihood of risk-taking behaviour is low.
- For Falcon **Street and West Street intersection**, on the other hand, SIDRA modelling indicates that the project will lead to degraded intersection performance compared to the existing layout – performing at LoS F on weekday mornings. To enhance operational performance at this intersection, the implementation of a clearway on the south leg is proposed. The project will also result to decrease in pedestrian level of service which increases the likelihood of risk-taking behaviours at the intersection.
- The proposed project will also have negligible impacts on public transport and on-street parking provision.
- The proposed project is expected to improve active transport provision along West Street and promote cycling as a safe, accessible, and sustainable mode of transport.

Overall, the project is expected to have minimal impact on the operational performance of the existing transport network, provided that a clearway is implemented at the south leg of West Street and Falcon Street intersection.

Implementation of clearways along West Street is recommended to not only improve traffic performance and reduce congestion but also to enhance overall road safety by minimising the risk of accidents. Additionally, clearways will facilitate smoother public transport operations and encourage cycling and walking by providing safer and more predictable travel conditions for all users.

It should be noted, however, that this is expected to be the worst-case scenario as the assessment did not consider the potential mode shift to active modes after the implementation of the proposed design. The provision of the bi-directional cycleways may potentially influence travel behaviours through the promotion of alternative and more sustainable transport choices, resulting to reduced private vehicle use and improved intersection and network performance.

It should also be noted that the proposed lane widths to accommodate buses along West Street are between 3.1m and 3.9m. Based on the NSW Design Elements for buses and Guidelines for Public Transport Capable Infrastructure in Greenfield Sites (July 2018), the required lane width for streets that buses travel on should be

at least 3.2m on roads that are signposted for speeds up to and including 50km/h. Hence, lane widths below 3.2m should be widened to comply with the required minimum standard or concession should be sought.

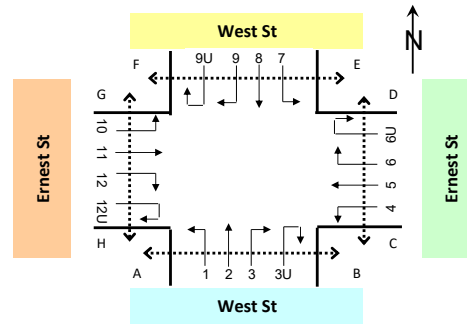
Additionally, though the implementation of the bi-directional cycle lanes will have positive effects at signalised intersections, they can still intersect with pedestrian crosswalks. As such, measures and treatments such as clear markings, dedicated crossing times, and proper signage should be implemented to minimise potential conflicts and optimise safety for all road users.

Sensitivity: General





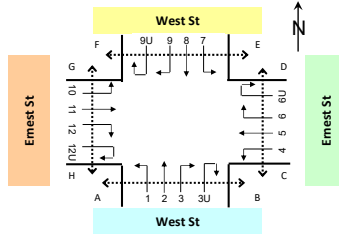
Job No. : AUNSW7838  
 Client : North Sydney Council  
 Suburb : Neutral Bay  
 Location : 6. West St & Ernest St  
 Day/Date : Thu, 19 Oct 2023  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Peak Hour Summary



Approach	West St				Ernest St				West St				Ernest St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
AM 8:00 to 9:00	255	6	10	261	809	18	5	827	465	12	75	477	375	10	1	385	1,950
PM 16:45 to 17:45	280	1	40	281	591	16	1	607	389	2	8	391	452	7	4	459	1,738

Approach	West St				Ernest St				West St				Ernest St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
6:00 to 7:00	108	4	3	112	303	16	2	319	135	5	12	140	101	6	0	107	678
6:15 to 7:15	123	4	3	127	359	21	3	380	175	5	14	180	136	7	0	143	830
6:30 to 7:30	142	5	6	147	431	21	5	452	213	7	24	220	168	6	1	174	993
6:45 to 7:45	139	5	7	144	516	17	6	533	251	9	35	260	207	7	1	214	1,151
7:00 to 8:00	146	4	8	150	567	18	8	585	295	9	43	304	262	6	1	268	1,307
7:15 to 8:15	160	5	10	165	678	17	9	695	364	14	57	378	295	7	1	302	1,540
7:30 to 8:30	181	5	11	186	743	11	5	754	436	12	72	448	331	9	0	340	1,728
7:45 to 8:45	231	5	12	236	776	17	6	793	467	11	76	478	339	7	1	346	1,853
8:00 to 9:00	255	6	10	261	809	18	5	827	465	12	75	477	375	10	1	385	1,950
8:15 to 9:15	258	4	9	262	805	22	4	827	408	8	59	416	360	9	1	369	1,874
8:30 to 9:30	253	4	9	257	769	27	6	796	350	11	39	361	305	11	1	316	1,730
8:45 to 9:45	207	3	6	210	695	24	4	719	313	12	24	325	279	9	0	288	1,542
9:00 to 10:00	186	2	6	188	629	24	3	653	274	11	17	285	212	9	0	221	1,347
<b>AM Totals</b>	<b>695</b>	<b>16</b>	<b>27</b>	<b>711</b>	<b>2,308</b>	<b>76</b>	<b>18</b>	<b>2,384</b>	<b>1,169</b>	<b>37</b>	<b>147</b>	<b>1,206</b>	<b>950</b>	<b>31</b>	<b>2</b>	<b>981</b>	<b>5,282</b>
15:00 to 16:00	319	4	6	323	623	18	0	641	305	13	6	318	295	10	0	305	1,587
15:15 to 16:15	300	3	10	303	635	17	0	652	284	8	6	292	267	8	0	275	1,522
15:30 to 16:30	293	2	12	295	607	11	0	618	294	2	4	296	278	7	0	285	1,494
15:45 to 16:45	260	2	17	262	615	14	2	629	287	1	4	288	290	7	0	297	1,476
16:00 to 17:00	257	0	20	257	597	13	2	610	311	2	7	313	337	8	0	345	1,525
16:15 to 17:15	274	0	28	274	595	16	2	611	324	3	7	327	395	9	0	404	1,616
16:30 to 17:30	272	1	34	273	624	18	2	642	348	3	10	351	423	8	1	431	1,697
16:45 to 17:45	280	1	40	281	591	16	1	607	389	2	8	391	452	7	4	459	1,738
17:00 to 18:00	284	2	45	286	620	13	1	633	376	1	6	377	431	6	4	437	1,733
17:15 to 18:15	283	2	51	285	613	12	1	625	375	0	8	375	378	5	4	383	1,668
17:30 to 18:30	272	2	54	274	587	11	2	598	368	0	7	368	346	6	3	352	1,592
17:45 to 18:45	265	2	51	267	590	9	2	599	344	0	8	344	312	5	2	317	1,527
18:00 to 19:00	242	1	43	243	533	9	3	542	297	0	9	297	274	5	3	279	1,361
<b>PM Totals</b>	<b>1,102</b>	<b>7</b>	<b>114</b>	<b>1,109</b>	<b>2,373</b>	<b>53</b>	<b>6</b>	<b>2,426</b>	<b>1,289</b>	<b>16</b>	<b>28</b>	<b>1,305</b>	<b>1,337</b>	<b>29</b>	<b>7</b>	<b>1,366</b>	<b>6,206</b>

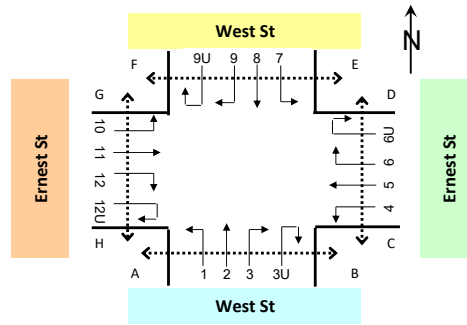
Job No. : AUNSW7838  
 Client : North Sydney Council  
 Suburb : Neutral Bay  
 Location : 6. West St & Ernest St  
 Day/Date : Thu, 19 Oct 2023  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Pedestrian Data



Direction	Crossing Pedestrians																							
	B to A			A to B			D to C			C to D			F to E			E to F			H to G			G to H		
Time Period	Peds	Cyclist	Total	Peds	Cyclist	Total	Peds	Cyclist	Total	Peds	Cyclist	Total	Peds	Cyclist	Total	Peds	Cyclist	Total	Peds	Cyclist	Total	Peds	Cyclist	Total
6:00 to 6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	1	0	1
6:15 to 6:30	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0	1	4	0	4	3	0	3	0	3
6:30 to 6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	1	0	1	0	0	0
6:45 to 7:00	3	0	3	0	0	0	2	0	2	0	0	0	1	0	1	1	0	1	0	0	0	1	0	1
7:00 to 7:15	2	0	2	0	0	0	4	0	4	3	0	3	2	0	2	3	0	3	2	0	2	2	0	2
7:15 to 7:30	0	0	0	3	0	3	1	0	1	2	0	2	1	0	1	1	0	1	3	0	3	6	0	6
7:30 to 7:45	0	0	0	1	0	1	0	0	0	2	0	2	3	0	3	2	0	2	5	0	5	4	0	4
7:45 to 8:00	2	0	2	6	0	6	10	0	10	4	0	4	1	0	1	1	0	1	5	0	5	11	0	11
8:00 to 8:15	2	0	2	3	0	3	11	0	11	4	0	4	0	0	0	4	0	4	2	0	2	8	0	8
8:15 to 8:30	1	0	1	4	2	6	15	0	15	1	1	2	30	2	32	3	0	3	6	0	6	21	2	23
8:30 to 8:45	3	0	3	19	0	19	17	0	17	4	0	4	38	0	38	4	0	4	14	0	14	10	0	10
8:45 to 9:00	9	0	9	32	0	32	8	0	8	2	0	2	28	0	28	14	0	14	11	0	11	9	0	9
9:00 to 9:15	2	0	2	7	0	7	12	0	12	4	0	4	4	0	4	6	0	6	1	0	1	3	0	3
9:15 to 9:30	3	0	3	11	0	11	7	0	7	1	0	1	4	0	4	4	0	4	0	0	0	7	0	7
9:30 to 9:45	1	0	1	3	0	3	10	0	10	3	0	3	2	0	2	1	0	1	1	0	1	4	0	4
9:45 to 10:00	3	0	3	4	0	4	2	0	2	3	0	3	0	0	0	5	0	5	5	0	5	6	0	6
<b>AM Totals</b>	<b>31</b>	<b>0</b>	<b>31</b>	<b>94</b>	<b>2</b>	<b>96</b>	<b>100</b>	<b>0</b>	<b>100</b>	<b>34</b>	<b>1</b>	<b>35</b>	<b>114</b>	<b>2</b>	<b>116</b>	<b>54</b>	<b>0</b>	<b>54</b>	<b>61</b>	<b>0</b>	<b>61</b>	<b>96</b>	<b>2</b>	<b>98</b>
15:00 to 15:15	53	0	53	2	0	2	2	0	2	29	0	29	6	0	6	29	0	29	15	1	16	3	0	3
15:15 to 15:30	35	0	35	4	0	4	7	0	7	3	0	3	5	0	5	76	0	76	18	0	18	7	0	7
15:30 to 15:45	4	0	4	2	0	2	2	0	2	13	0	13	3	0	3	4	0	4	3	0	3	0	0	0
15:45 to 16:00	3	0	3	1	0	1	1	0	1	3	0	3	0	0	0	2	0	2	2	0	2	0	0	0
16:00 to 16:15	0	0	0	1	0	1	1	0	1	2	0	2	0	0	0	3	0	3	3	0	3	5	0	5
16:15 to 16:30	6	0	6	2	0	2	0	1	1	4	0	4	2	0	2	2	0	2	5	0	5	3	0	3
16:30 to 16:45	3	0	3	4	0	4	3	0	3	6	0	6	1	0	1	7	0	7	5	0	5	4	0	4
16:45 to 17:00	7	0	7	4	0	4	6	0	6	2	0	2	7	0	7	5	0	5	5	0	5	2	0	2
17:00 to 17:15	4	0	4	8	0	8	2	0	2	2	0	2	0	0	0	0	0	0	4	0	4	6	0	6
17:15 to 17:30	4	0	4	3	0	3	5	0	5	1	0	1	6	0	6	8	0	8	12	0	12	6	0	6
17:30 to 17:45	1	1	2	2	0	2	4	0	4	11	0	11	3	0	3	5	0	5	8	0	8	6	0	6
17:45 to 18:00	1	0	1	2	0	2	1	0	1	5	0	5	10	0	10	8	0	8	8	0	8	2	0	2
18:00 to 18:15	3	0	3	3	0	3	4	0	4	4	0	4	1	0	1	6	0	6	1	0	1	4	0	4
18:15 to 18:30	5	0	5	2	0	2	3	0	3	3	0	3	0	0	0	3	0	3	4	0	4	3	0	3
18:30 to 18:45	1	0	1	4	0	4	3	0	3	4	0	4	1	0	1	2	0	2	5	0	5	4	0	4
18:45 to 19:00	4	0	4	1	0	1	3	0	3	3	0	3	7	0	7	4	0	4	3	0	3	1	0	1
<b>PM Totals</b>	<b>134</b>	<b>1</b>	<b>135</b>	<b>45</b>	<b>0</b>	<b>45</b>	<b>47</b>	<b>1</b>	<b>48</b>	<b>95</b>	<b>0</b>	<b>95</b>	<b>52</b>	<b>0</b>	<b>52</b>	<b>164</b>	<b>0</b>	<b>164</b>	<b>101</b>	<b>1</b>	<b>102</b>	<b>56</b>	<b>0</b>	<b>56</b>

Sensitivity: General

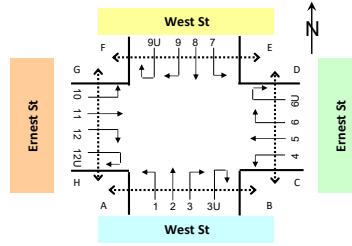
Job No. : AUNSW7838  
 Client : North Sydney Council  
 Suburb : Neutral Bay  
 Location : 6. West St & Ernest St  
 Day/Date : Sat, 21 Oct 2023  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Peak Hour Summary



Approach	West St				Ernest St				West St				Ernest St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
AM 11:00 to 12:00	320	3	12	323	645	13	1	658	347	2	12	349	280	5	1	285	1,615
PM 12:00 to 13:00	308	1	9	309	634	9	1	643	387	5	7	392	329	3	4	332	1,676

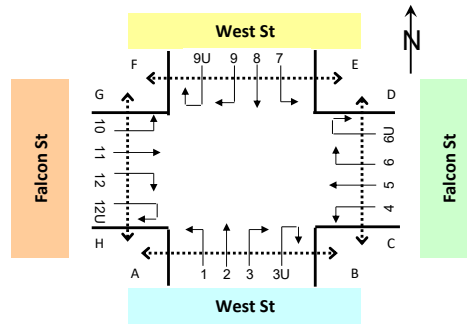
Approach	West St				Ernest St				West St				Ernest St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
9:00 to 10:00	295	0	11	295	618	10	3	628	270	7	14	277	187	3	1	190	1,390
9:15 to 10:15	309	4	9	313	612	10	4	622	278	6	14	284	226	3	0	229	1,448
9:30 to 10:30	310	4	10	314	613	9	5	622	291	6	16	297	232	2	1	234	1,467
9:45 to 10:45	312	5	6	317	611	8	7	619	297	2	14	299	250	4	1	254	1,489
10:00 to 11:00	302	6	11	308	574	7	7	581	305	3	15	308	249	4	1	253	1,450
10:15 to 11:15	295	2	13	297	603	7	6	610	289	2	12	291	240	6	1	246	1,444
10:30 to 11:30	300	3	14	303	624	7	5	631	291	2	10	293	259	6	0	265	1,492
10:45 to 11:45	304	3	18	307	644	7	2	651	316	2	9	318	278	5	0	283	1,559
11:00 to 12:00	320	3	12	323	645	13	1	658	347	2	12	349	280	5	1	285	1,615
11:15 to 12:15	327	3	8	330	645	12	0	657	378	3	9	381	292	4	3	296	1,664
11:30 to 12:30	331	2	6	333	628	15	0	643	408	5	9	413	308	3	4	311	1,700
11:45 to 12:45	320	1	5	321	616	15	0	631	408	5	11	413	316	3	4	319	1,684
12:00 to 13:00	308	1	9	309	634	9	1	643	387	5	7	392	329	3	4	332	1,676
12:15 to 13:15	288	1	8	289	633	10	1	643	353	4	10	357	332	3	2	335	1,624
12:30 to 13:30	263	1	9	264	642	6	2	648	335	2	9	337	301	4	1	305	1,554
12:45 to 13:45	266	1	6	267	644	8	3	652	303	2	8	305	267	3	1	270	1,494
13:00 to 14:00	277	0	2	277	621	9	2	630	312	1	8	313	259	4	0	263	1,483
13:15 to 14:15	279	0	4	279	604	7	2	611	292	1	7	293	237	3	0	240	1,423
13:30 to 14:30	280	0	2	280	584	7	1	591	257	0	8	257	230	3	0	233	1,361
13:45 to 14:45	260	0	5	260	587	5	0	592	269	0	6	269	234	3	0	237	1,358
14:00 to 15:00	234	1	9	235	551	4	0	555	239	0	7	239	232	2	2	234	1,263
14:15 to 15:15	235	2	8	237	543	3	0	546	245	0	5	245	224	2	2	226	1,254
14:30 to 15:30	232	3	10	235	558	4	0	562	240	0	4	240	235	4	2	239	1,276
14:45 to 15:45	239	3	9	242	540	5	0	545	230	0	3	230	225	4	2	229	1,246
15:00 to 16:00	220	3	6	223	532	5	1	537	236	1	2	237	211	4	0	215	1,212
15:15 to 16:15	195	2	6	197	528	6	2	534	233	2	5	235	209	5	0	214	1,180
15:30 to 16:30	188	1	8	189	522	8	2	530	240	2	6	242	213	3	0	216	1,177
15:45 to 16:45	175	1	7	176	505	7	2	512	228	3	7	231	205	3	1	208	1,127
16:00 to 17:00	189	0	6	189	545	7	1	552	214	2	7	216	224	3	1	227	1,184
<b>Totals</b>	<b>2,145</b>	<b>14</b>	<b>66</b>	<b>2,159</b>	<b>4,720</b>	<b>64</b>	<b>16</b>	<b>4,784</b>	<b>2,310</b>	<b>21</b>	<b>72</b>	<b>2,331</b>	<b>1,971</b>	<b>28</b>	<b>10</b>	<b>1,999</b>	<b>11,273</b>

Job No. : AUNSW7838  
 Client : North Sydney Council  
 Suburb : Neutral Bay  
 Location : 6. West St & Ernest St  
 Day/Date : Sat, 21 Oct 2023  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Pedestrian Data



Direction	Crossing Pedestrians																							
	B to A			A to B			D to C			C to D			F to E			E to F			H to G			G to H		
	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total
9:00 to 9:15	3	0	3	5	0	5	11	0	11	3	0	3	6	0	6	5	0	5	4	0	4	6	0	6
9:15 to 9:30	5	0	5	4	0	4	5	0	5	9	0	9	0	0	0	2	0	2	3	0	3	1	0	1
9:30 to 9:45	2	0	2	2	0	2	8	0	8	1	0	1	4	0	4	5	0	5	7	0	7	10	0	10
9:45 to 10:00	4	0	4	0	0	0	3	0	3	4	0	4	2	0	2	8	0	8	10	0	10	1	0	1
10:00 to 10:15	6	0	6	2	0	2	4	0	4	4	0	4	9	0	9	2	0	2	9	0	9	5	0	5
10:15 to 10:30	4	0	4	2	0	2	2	0	2	8	0	8	2	0	2	10	0	10	5	0	5	3	0	3
10:30 to 10:45	2	1	3	8	0	8	1	0	1	6	2	8	1	0	1	3	0	3	2	0	2	11	0	11
10:45 to 11:00	3	0	3	7	0	7	3	0	3	5	0	5	1	2	3	1	0	1	2	0	2	9	2	11
11:00 to 11:15	1	0	1	2	0	2	6	1	7	0	0	0	4	0	4	0	0	0	5	0	5	11	0	11
11:15 to 11:30	1	0	1	3	0	3	5	0	5	4	0	4	5	0	5	3	0	3	5	0	5	2	0	2
11:30 to 11:45	5	0	5	3	1	4	2	0	2	6	0	6	0	0	0	0	0	0	2	0	2	4	0	4
11:45 to 12:00	5	0	5	1	0	1	0	0	0	2	0	2	0	0	0	4	0	4	2	0	2	3	0	3
12:00 to 12:15	2	0	2	5	0	5	7	0	7	2	0	2	3	0	3	4	0	4	0	0	0	0	0	0
12:15 to 12:30	2	0	2	3	0	3	4	0	4	10	0	10	4	0	4	3	0	3	2	0	2	0	0	0
12:30 to 12:45	0	0	0	1	0	1	3	0	3	2	0	2	3	0	3	1	0	1	1	0	1	1	0	1
12:45 to 13:00	3	0	3	4	0	4	6	0	6	1	1	2	3	0	3	1	0	1	2	0	2	2	0	2
13:00 to 13:15	0	0	0	2	0	2	1	0	1	1	0	1	2	0	2	3	0	3	6	0	6	0	0	0
13:15 to 13:30	0	0	0	0	0	0	3	0	3	2	0	2	1	0	1	0	0	0	0	0	0	2	0	2
13:30 to 13:45	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	7	0	7	1	0	1
13:45 to 14:00	1	1	2	1	1	2	3	0	3	0	0	0	1	0	1	1	0	1	2	0	2	1	0	1
14:00 to 14:15	1	0	1	1	1	2	1	0	1	1	0	1	1	0	1	3	0	3	0	0	0	5	0	5
14:15 to 14:30	0	0	0	1	0	1	0	0	0	1	0	1	3	0	3	1	0	1	1	0	1	1	0	1
14:30 to 14:45	0	0	0	0	0	0	0	2	2	1	0	1	1	2	3	0	2	2	1	0	1	1	0	1
14:45 to 15:00	0	0	0	3	0	3	1	0	1	1	0	1	3	2	5	3	0	3	5	0	5	1	0	1
15:00 to 15:15	1	0	1	1	0	1	4	0	4	3	0	3	3	0	3	0	0	0	2	1	3	0	0	0
15:15 to 15:30	3	0	3	0	0	0	3	0	3	1	0	1	4	0	4	3	0	3	6	0	6	1	0	1
15:30 to 15:45	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	6	0	6	0	1	1
15:45 to 16:00	1	0	1	1	0	1	5	2	7	0	0	0	3	0	3	2	0	2	5	0	5	5	0	5
16:00 to 16:15	1	0	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	2	0	2
16:15 to 16:30	0	0	0	1	0	1	4	0	4	3	0	3	3	0	3	0	0	0	2	0	2	2	0	2
16:30 to 16:45	1	0	1	3	0	3	5	0	5	1	0	1	0	0	0	0	0	0	1	0	1	5	0	5
16:45 to 17:00	4	0	4	0	0	0	6	0	6	6	0	6	0	0	0	2	2	4	4	1	5	1	0	1
<b>Totals</b>	<b>62</b>	<b>2</b>	<b>64</b>	<b>69</b>	<b>4</b>	<b>73</b>	<b>107</b>	<b>5</b>	<b>112</b>	<b>90</b>	<b>3</b>	<b>93</b>	<b>74</b>	<b>6</b>	<b>80</b>	<b>72</b>	<b>4</b>	<b>76</b>	<b>116</b>	<b>2</b>	<b>118</b>	<b>97</b>	<b>3</b>	<b>100</b>

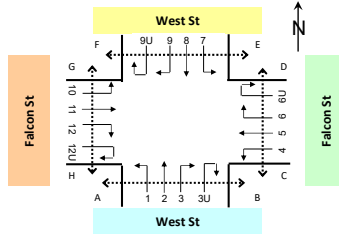
**Job No.** : AUNSW7838  
**Client** : North Sydney Council  
**Suburb** : Neutral Bay  
**Location** : 5. West St & Falcon St  
  
**Day/Date** : Thu, 19 Oct 2023  
**Weather** : Fine  
**Description** : Classified Intersection Count  
: Peak Hour Summary



Approach	West St				Falcon St				West St				Falcon St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
AM 8:00 to 9:00	256	5	8	261	559	29	2	588	709	13	78	722	800	26	2	826	2,397
PM 17:15 to 18:15	248	2	57	250	569	20	0	589	557	3	9	560	847	19	2	866	2,265

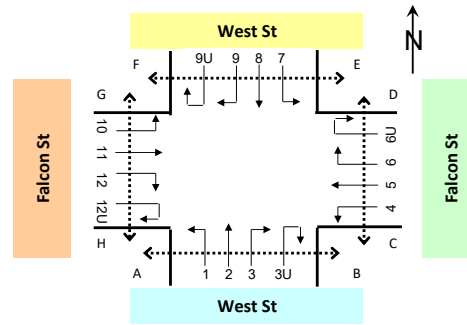
Approach	West St				Falcon St				West St				Falcon St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
6:00 to 7:00	64	3	4	67	305	10	7	315	259	14	12	273	513	40	12	553	1,208
6:15 to 7:15	85	4	3	89	338	14	13	352	310	18	18	328	601	45	2	646	1,415
6:30 to 7:30	96	3	4	99	393	18	18	411	347	19	30	366	662	48	4	710	1,586
6:45 to 7:45	116	3	4	119	431	22	16	453	434	20	41	454	672	43	4	715	1,741
7:00 to 8:00	118	3	4	121	429	26	12	455	459	18	50	477	741	43	5	784	1,837
7:15 to 8:15	145	2	5	147	455	31	6	486	589	18	63	607	768	41	5	809	2,049
7:30 to 8:30	185	2	7	187	514	31	1	545	671	13	78	684	794	36	2	830	2,246
7:45 to 8:45	224	6	10	230	534	31	2	565	699	10	81	709	822	34	2	856	2,360
8:00 to 9:00	256	5	8	261	559	29	2	588	709	13	78	722	800	26	2	826	2,397
8:15 to 9:15	261	6	9	267	552	24	3	576	605	14	64	619	783	31	2	814	2,276
8:30 to 9:30	229	6	10	235	509	28	3	537	555	17	39	572	736	40	1	776	2,120
8:45 to 9:45	181	2	7	183	488	24	2	512	484	18	26	502	695	42	1	737	1,934
9:00 to 10:00	167	2	6	169	458	28	3	486	433	15	18	448	637	47	0	684	1,787
<b>AM Totals</b>	<b>605</b>	<b>13</b>	<b>22</b>	<b>618</b>	<b>1,751</b>	<b>93</b>	<b>24</b>	<b>1,844</b>	<b>1,860</b>	<b>60</b>	<b>158</b>	<b>1,920</b>	<b>2,691</b>	<b>156</b>	<b>19</b>	<b>2,847</b>	<b>7,229</b>
15:00 to 16:00	285	3	8	288	640	39	0	679	481	20	8	501	632	25	0	657	2,125
15:15 to 16:15	263	4	11	267	639	37	0	676	478	17	6	495	666	30	0	696	2,134
15:30 to 16:30	242	3	14	245	605	29	0	634	471	8	4	479	664	25	0	689	2,047
15:45 to 16:45	213	2	18	215	584	25	1	609	486	4	3	490	698	23	0	721	2,035
16:00 to 17:00	222	1	20	223	550	22	1	572	499	5	7	504	695	22	1	717	2,016
16:15 to 17:15	238	1	30	239	540	19	1	559	506	5	7	511	712	15	1	727	2,036
16:30 to 17:30	245	1	35	246	572	24	1	596	535	3	8	538	747	14	1	761	2,141
16:45 to 17:45	265	2	45	267	548	22	0	570	551	4	7	555	797	19	1	816	2,208
17:00 to 18:00	252	3	54	255	568	21	0	589	541	2	5	543	840	20	1	860	2,247
17:15 to 18:15	248	2	57	250	569	20	0	589	557	3	9	560	847	19	2	866	2,265
17:30 to 18:30	220	3	60	223	513	19	1	532	554	3	10	557	835	19	3	854	2,166
17:45 to 18:45	204	2	57	206	513	18	1	531	518	2	11	520	785	15	3	800	2,057
18:00 to 19:00	202	1	46	203	489	17	2	506	481	2	14	483	730	12	3	742	1,934
<b>PM Totals</b>	<b>961</b>	<b>8</b>	<b>128</b>	<b>969</b>	<b>2,247</b>	<b>99</b>	<b>3</b>	<b>2,346</b>	<b>2,002</b>	<b>29</b>	<b>34</b>	<b>2,031</b>	<b>2,897</b>	<b>79</b>	<b>5</b>	<b>2,976</b>	<b>8,322</b>

Job No. : AUNSW7838  
 Client : North Sydney Council  
 Suburb : Neutral Bay  
 Location : 5. West St & Falcon St  
 Day/Date : Thu, 19 Oct 2023  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Pedestrian Data



Direction	Crossing Pedestrians																							
	B to A			A to B			D to C			C to D			F to E			E to F			H to G			G to H		
Time Period	Pedis	Cyclist	Total	Pedis	Cyclist	Total	Pedis	Cyclist	Total	Pedis	Cyclist	Total	Pedis	Cyclist	Total	Pedis	Cyclist	Total	Pedis	Cyclist	Total	Pedis	Cyclist	Total
6:00 to 6:15	0	0	0	1	0	1	2	0	2	1	0	1	1	0	1	2	0	2	1	0	1	3	0	3
6:15 to 6:30	0	0	0	2	0	2	3	0	3	1	0	1	2	0	2	1	0	1	1	0	1	3	0	3
6:30 to 6:45	1	0	1	0	0	0	2	0	2	1	0	1	0	0	0	2	0	2	2	0	2	3	0	3
6:45 to 7:00	1	0	1	0	0	0	4	0	4	3	0	3	1	0	1	2	0	2	0	0	0	1	0	1
7:00 to 7:15	1	0	1	2	0	2	4	0	4	8	0	8	0	0	0	1	0	1	2	0	2	3	0	3
7:15 to 7:30	1	0	1	7	0	7	5	0	5	4	0	4	1	0	1	0	0	0	3	0	3	12	0	12
7:30 to 7:45	1	0	1	1	0	1	13	1	14	5	0	5	7	0	7	1	0	1	9	0	9	13	0	13
7:45 to 8:00	4	0	4	20	0	20	11	0	11	7	0	7	11	0	11	7	0	7	4	0	4	25	0	25
8:00 to 8:15	0	0	0	8	0	8	44	0	44	7	0	7	16	0	16	2	0	2	5	0	5	13	0	13
8:15 to 8:30	3	0	3	15	0	15	42	0	42	9	0	9	34	0	34	5	0	5	8	0	8	42	0	42
8:30 to 8:45	6	0	6	61	0	61	77	0	77	10	0	10	67	0	67	9	0	9	9	0	9	72	0	72
8:45 to 9:00	5	0	5	47	0	47	55	0	55	29	0	29	55	0	55	4	0	4	8	0	8	20	0	20
9:00 to 9:15	5	0	5	2	0	2	15	0	15	7	0	7	13	0	13	4	0	4	7	0	7	10	0	10
9:15 to 9:30	2	0	2	8	0	8	7	0	7	19	0	19	11	0	11	8	0	8	6	0	6	8	0	8
9:30 to 9:45	0	0	0	1	0	1	8	0	8	9	0	9	8	0	8	3	0	3	4	0	4	9	0	9
9:45 to 10:00	0	0	0	4	0	4	6	0	6	7	0	7	2	0	2	3	0	3	10	0	10	8	0	8
<b>AM Totals</b>	<b>30</b>	<b>0</b>	<b>30</b>	<b>179</b>	<b>0</b>	<b>179</b>	<b>298</b>	<b>1</b>	<b>299</b>	<b>127</b>	<b>0</b>	<b>127</b>	<b>229</b>	<b>0</b>	<b>229</b>	<b>54</b>	<b>0</b>	<b>54</b>	<b>80</b>	<b>0</b>	<b>80</b>	<b>244</b>	<b>0</b>	<b>244</b>
15:00 to 15:15	2	0	2	4	0	4	70	0	70	14	0	14	9	0	9	24	0	24	26	0	26	15	0	15
15:15 to 15:30	37	0	37	5	0	5	18	0	18	73	0	73	4	0	4	51	0	51	36	0	36	6	0	6
15:30 to 15:45	6	0	6	1	0	1	5	0	5	6	0	6	5	0	5	4	0	4	9	0	9	3	0	3
15:45 to 16:00	7	0	7	0	0	0	2	0	2	2	0	2	6	0	6	3	1	4	5	0	5	6	0	6
16:00 to 16:15	6	0	6	2	0	2	4	0	4	2	0	2	5	0	5	5	0	5	9	0	9	3	0	3
16:15 to 16:30	4	0	4	2	0	2	9	1	10	1	0	1	5	0	5	17	0	17	8	0	8	4	0	4
16:30 to 16:45	2	0	2	1	1	2	2	0	2	6	0	6	6	0	6	3	0	3	8	0	8	6	0	6
16:45 to 17:00	1	0	1	3	0	3	5	0	5	2	0	2	3	0	3	6	0	6	7	1	8	3	0	3
17:00 to 17:15	0	0	0	1	0	1	6	0	6	2	0	2	4	0	4	9	0	9	5	0	5	4	0	4
17:15 to 17:30	2	0	2	1	0	1	10	1	11	8	0	8	10	0	10	6	0	6	9	0	9	6	0	6
17:30 to 17:45	1	0	1	5	0	5	5	0	5	10	0	10	9	0	9	3	0	3	14	0	14	8	0	8
17:45 to 18:00	2	0	2	11	0	11	10	1	11	9	0	9	4	0	4	3	0	3	9	0	9	6	1	7
18:00 to 18:15	4	0	4	9	0	9	5	0	5	6	0	6	8	0	8	8	0	8	5	0	5	19	1	20
18:15 to 18:30	12	0	12	15	0	15	7	2	9	7	0	7	5	0	5	3	0	3	8	0	8	4	0	4
18:30 to 18:45	9	0	9	3	0	3	16	0	16	3	1	4	4	0	4	14	0	14	9	0	9	2	0	2
18:45 to 19:00	4	0	4	1	0	1	6	1	7	22	0	22	12	1	13	9	1	10	4	0	4	7	0	7
<b>PM Totals</b>	<b>99</b>	<b>0</b>	<b>99</b>	<b>64</b>	<b>1</b>	<b>65</b>	<b>180</b>	<b>6</b>	<b>186</b>	<b>173</b>	<b>1</b>	<b>174</b>	<b>99</b>	<b>1</b>	<b>100</b>	<b>168</b>	<b>2</b>	<b>170</b>	<b>171</b>	<b>1</b>	<b>172</b>	<b>102</b>	<b>2</b>	<b>104</b>

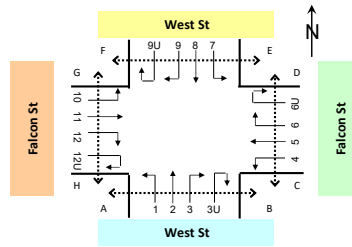
Job No. : AUNSW7838  
 Client : North Sydney Council  
 Suburb : Neutral Bay  
 Location : 5. West St & Falcon St  
 Day/Date : Sat, 21 Oct 2023  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Peak Hour Summary



Approach	West St				Falcon St				West St				Falcon St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
AM 11:00 to 12:00	262	1	6	263	531	16	0	547	552	3	11	555	837	18	3	855	2,220
PM 12:00 to 13:00	227	3	6	230	566	12	0	578	547	4	5	551	937	20	0	957	2,316

Approach	West St				Falcon St				West St				Falcon St				Grand Total
	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	Lights	Heavies	Cyclists	Total	
9:00 to 10:00	247	2	5	249	494	16	1	510	423	4	14	427	687	15	4	702	1,888
9:15 to 10:15	261	1	6	262	507	16	4	523	438	5	12	443	720	16	4	736	1,964
9:30 to 10:30	266	1	6	267	507	15	4	522	462	7	18	469	742	17	3	759	2,017
9:45 to 10:45	273	2	6	275	532	17	7	549	485	6	14	491	735	20	4	755	2,070
10:00 to 11:00	270	3	13	273	547	14	6	561	487	7	15	494	773	18	2	791	2,119
10:15 to 11:15	282	2	13	284	515	12	3	527	495	5	14	500	748	18	2	766	2,077
10:30 to 11:30	259	2	13	261	528	13	3	541	505	4	10	509	776	18	2	794	2,105
10:45 to 11:45	264	2	12	266	516	13	0	529	524	2	10	526	816	17	1	833	2,154
11:00 to 12:00	262	1	6	263	531	16	0	547	552	3	11	555	837	18	3	855	2,220
11:15 to 12:15	246	2	3	248	554	16	0	570	569	3	9	572	883	21	2	904	2,294
11:30 to 12:30	269	3	1	272	578	15	0	593	582	5	8	587	918	18	2	936	2,388
11:45 to 12:45	244	2	5	246	576	14	0	590	587	5	7	592	928	21	2	949	2,377
12:00 to 13:00	227	3	6	230	566	12	0	578	547	4	5	551	937	20	0	957	2,316
12:15 to 13:15	210	3	6	213	572	13	1	585	518	4	7	522	917	18	1	935	2,255
12:30 to 13:30	188	2	8	190	542	12	1	554	502	3	6	505	857	17	1	874	2,123
12:45 to 13:45	200	2	4	202	579	12	1	591	477	4	5	481	812	11	3	823	2,097
13:00 to 14:00	210	1	6	211	555	13	1	568	505	4	6	509	732	12	3	744	2,032
13:15 to 14:15	208	0	7	208	570	14	0	584	478	4	5	482	690	10	2	700	1,974
13:30 to 14:30	213	0	5	213	555	15	0	570	452	2	6	454	655	12	2	667	1,904
13:45 to 14:45	191	1	9	192	543	13	1	556	452	2	8	454	662	13	0	675	1,877
14:00 to 15:00	178	1	10	179	583	12	2	595	414	1	9	415	690	13	0	703	1,892
14:15 to 15:15	181	1	11	182	583	10	2	593	422	1	7	423	723	19	0	742	1,940
14:30 to 15:30	178	1	13	179	642	11	2	653	426	1	6	427	721	19	0	740	1,999
14:45 to 15:45	171	0	9	171	658	14	2	672	410	0	4	410	691	19	0	710	1,963
15:00 to 16:00	151	0	5	151	651	14	1	665	417	1	3	418	654	19	0	673	1,907
15:15 to 16:15	127	0	5	127	661	17	1	678	406	3	6	409	606	15	0	621	1,835
15:30 to 16:30	110	0	8	110	631	15	1	646	408	4	6	412	612	15	0	627	1,795
15:45 to 16:45	119	0	9	119	594	13	0	607	403	6	8	409	624	13	0	637	1,772
16:00 to 17:00	135	0	8	135	577	13	0	590	403	5	8	408	627	15	0	642	1,775
<b>Totals</b>	<b>1,680</b>	<b>11</b>	<b>59</b>	<b>1,691</b>	<b>4,504</b>	<b>110</b>	<b>11</b>	<b>4,614</b>	<b>3,748</b>	<b>29</b>	<b>71</b>	<b>3,777</b>	<b>5,937</b>	<b>130</b>	<b>12</b>	<b>6,067</b>	<b>16,149</b>

Job No. : AUNSW7838  
 Client : North Sydney Council  
 Suburb : Neutral Bay  
 Location : 5. West St & Falcon St  
 Day/Date : Sat, 21 Oct 2023  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Pedestrian Data



Direction	Crossing Pedestrians																							
	B to A			A to B			D to C			C to D			F to E			E to F			H to G			G to H		
	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total	Peeds	Cyclists	Total
9:00 to 9:15	10	0	10	4	0	4	9	0	9	1	0	1	4	0	4	8	0	8	9	0	9	10	0	10
9:15 to 9:30	2	0	2	5	0	5	7	0	7	8	0	8	2	0	2	3	0	3	3	0	3	6	0	6
9:30 to 9:45	1	0	1	2	0	2	7	0	7	3	0	3	4	0	4	4	0	4	7	0	7	3	0	3
9:45 to 10:00	2	0	2	8	0	8	18	0	18	8	0	8	13	0	13	2	0	2	10	0	10	13	0	13
10:00 to 10:15	3	0	3	5	0	5	6	0	6	10	0	10	4	0	4	5	0	5	13	0	13	10	0	10
10:15 to 10:30	5	0	5	4	0	4	4	0	4	7	0	7	1	0	1	6	1	7	9	0	9	10	0	10
10:30 to 10:45	3	0	3	5	0	5	10	0	10	11	0	11	6	0	6	5	0	5	6	0	6	15	0	15
10:45 to 11:00	2	0	2	5	0	5	4	0	4	8	0	8	4	0	4	13	0	13	4	0	4	12	0	12
11:00 to 11:15	3	0	3	1	0	1	2	0	2	2	0	2	6	0	6	4	0	4	21	0	21	8	0	8
11:15 to 11:30	4	0	4	4	0	4	9	0	9	5	0	5	8	0	8	2	0	2	5	0	5	4	1	5
11:30 to 11:45	0	0	0	6	0	6	5	0	5	8	0	8	3	0	3	2	0	2	4	0	4	12	0	12
11:45 to 12:00	1	0	1	7	0	7	8	0	8	6	0	6	9	0	9	3	0	3	5	0	5	2	0	2
12:00 to 12:15	2	2	4	0	0	0	17	0	17	9	0	9	9	0	9	10	0	10	7	3	10	0	0	0
12:15 to 12:30	7	0	7	1	0	1	7	0	7	12	0	12	4	0	4	5	0	5	4	0	4	1	0	1
12:30 to 12:45	6	0	6	5	1	6	16	1	17	12	0	12	16	1	17	9	0	9	6	0	6	4	0	4
12:45 to 13:00	6	0	6	6	0	6	4	0	4	5	0	5	2	0	2	6	2	8	5	1	6	5	0	5
13:00 to 13:15	10	0	10	0	2	2	9	0	9	3	0	3	10	0	10	10	0	10	14	0	14	6	0	6
13:15 to 13:30	6	0	6	2	0	2	7	0	7	3	0	3	1	0	1	6	0	6	6	0	6	4	0	4
13:30 to 13:45	3	0	3	6	0	6	2	0	2	8	0	8	6	0	6	3	0	3	17	0	17	4	0	4
13:45 to 14:00	3	0	3	9	0	9	4	0	4	4	1	5	5	0	5	7	1	8	4	1	5	10	0	10
14:00 to 14:15	7	0	7	6	0	6	7	0	7	5	0	5	4	0	4	7	0	7	5	0	5	11	0	11
14:15 to 14:30	6	0	6	0	0	0	3	0	3	2	0	2	4	0	4	2	0	2	1	0	1	1	0	1
14:30 to 14:45	0	0	0	3	0	3	2	0	2	2	0	2	8	0	8	5	0	5	1	0	1	8	0	8
14:45 to 15:00	0	0	0	1	0	1	3	1	4	2	0	2	6	0	6	4	0	4	1	0	1	2	0	2
15:00 to 15:15	2	1	3	2	0	2	5	0	5	12	0	12	12	0	12	4	0	4	6	1	7	6	0	6
15:15 to 15:30	3	0	3	3	0	3	4	0	4	2	0	2	5	0	5	2	0	2	5	0	5	1	0	1
15:30 to 15:45	0	0	0	7	0	7	1	0	1	4	0	4	2	0	2	2	1	3	2	0	2	8	1	9
15:45 to 16:00	1	0	1	2	0	2	6	0	6	0	0	6	0	0	5	7	0	7	5	0	5	5	0	5
16:00 to 16:15	5	0	5	2	0	2	3	1	4	3	0	3	6	0	6	0	0	0	8	0	8	3	1	4
16:15 to 16:30	2	0	2	6	0	6	2	0	2	5	0	5	3	0	3	4	0	4	1	0	1	1	0	1
16:30 to 16:45	8	0	8	7	0	7	0	0	0	2	0	2	3	0	3	3	0	3	6	0	6	9	0	9
16:45 to 17:00	1	0	1	5	0	5	6	0	6	4	0	4	1	0	1	3	0	3	7	0	7	5	0	5
<b>Totals</b>	<b>114</b>	<b>3</b>	<b>117</b>	<b>129</b>	<b>3</b>	<b>132</b>	<b>197</b>	<b>3</b>	<b>200</b>	<b>176</b>	<b>1</b>	<b>177</b>	<b>176</b>	<b>1</b>	<b>177</b>	<b>156</b>	<b>5</b>	<b>161</b>	<b>207</b>	<b>6</b>	<b>213</b>	<b>199</b>	<b>3</b>	<b>202</b>





Appendix B – SIDRA Modelling Results

## MOVEMENT SUMMARY

Site: 101 [Ex\_Weekday\_AM (West St and Ernest St) (Site Folder: Existing)]

West St and Ernest St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] veh/h	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: West St														
1	L2	40	4	42	10.0	0.143	22.1	LOS B	1.5	11.3	0.80	0.67	0.80	28.3
2	T1	170	2	179	1.2	0.714	27.0	LOS B	6.7	45.7	0.97	0.88	1.10	24.9
3	R2	61	0	64	0.0	0.714	31.9	LOS C	6.7	45.7	1.00	0.91	1.15	22.9
Approach		271	6	285	2.2	0.714	27.4	LOS B	6.7	45.7	0.95	0.86	1.07	24.9
East: Ernest St														
4	L2	288	3	303	1.0	0.361	14.7	LOS B	5.8	40.4	0.68	0.73	0.68	30.9
5	T1	493	15	519	3.0	0.834	21.1	LOS B	16.6	118.8	0.84	0.93	1.07	29.0
6	R2	51	0	54	0.0	*0.834	24.5	LOS B	16.6	118.8	0.84	0.93	1.07	27.3
Approach		832	18	876	2.2	0.834	19.1	LOS B	16.6	118.8	0.79	0.86	0.94	29.5
North: West St														
7	L2	93	3	98	3.2	0.201	23.5	LOS B	2.3	16.3	0.81	0.74	0.81	27.1
8	T1	454	7	478	1.5	0.767	24.8	LOS B	14.1	90.9	0.97	0.93	1.09	26.1
9	R2	5	2	5	40.0	*0.767	28.3	LOS B	14.1	90.9	0.97	0.93	1.09	27.9
Approach		552	12	581	2.2	0.767	24.6	LOS B	14.1	90.9	0.94	0.90	1.04	26.3
West: Ernest St														
10	L2	24	5	25	20.8	0.091	13.8	LOS A	1.2	8.9	0.57	0.59	0.57	36.4
11	T1	325	4	342	1.2	0.445	13.8	LOS A	6.9	49.0	0.72	0.69	0.72	32.6
12	R2	37	1	39	2.7	0.445	17.8	LOS B	6.9	49.0	0.75	0.71	0.75	32.2
Approach		386	10	406	2.6	0.445	14.2	LOS A	6.9	49.0	0.71	0.68	0.71	32.8
All Vehicles		2041	46	2148	2.3	0.834	20.8	LOS B	16.6	118.8	0.84	0.83	0.94	28.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).  
 Queue Model: SIDRA Standard.  
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	75	79	13.4	LOS B	0.1	0.1	0.67	0.67	178.6	214.8	1.20
East: Ernest St												
P2	Full	63	66	21.7	LOS C	0.1	0.1	0.85	0.85	186.4	214.0	1.15
North: West St												
P3	Full	123	129	13.4	LOS B	0.1	0.1	0.67	0.67	178.8	215.0	1.20
West: Ernest St												
P4	Full	83	87	21.8	LOS C	0.1	0.1	0.85	0.85	186.2	213.8	1.15
All Pedestrians		344	362	16.9	LOS B	0.1	0.1	0.75	0.75	181.9	214.5	1.18

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
 Pedestrian movement LOS values are based on average delay per pedestrian movement.  
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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 Organisation: BECA LIMITED | Licence: PLUS / Enterprise | Processed: Thursday, 27 June 2024 11:23:29 pm  
 Project: C:\Users\YE650\Downloads\West St TIA\_26.06.24.sip9

## MOVEMENT SUMMARY

### Site: 101 [Ex\_Weekday\_AM (West St and Falcon St) (Site Folder: Existing)]

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	81	2	85	2.5	0.570	64.6	LOS E	5.1	36.2	1.00	0.78	1.01	18.8
2	T1	186	3	196	1.6	*0.978	90.2	LOS F	15.1	104.5	1.00	1.21	1.67	12.2
Approach		267	5	281	1.9	0.978	82.4	LOS F	15.1	104.5	1.00	1.08	1.47	14.2
East: Falcon St														
4	L2	33	1	35	3.0	0.776	44.3	LOS D	26.1	190.3	0.96	0.88	0.99	21.0
5	T1	475	25	500	5.3	0.776	43.5	LOS D	26.1	190.3	0.97	0.90	1.01	23.6
6	R2	82	3	86	3.7	*0.776	69.9	LOS E	8.5	61.7	1.00	1.05	1.20	15.6
Approach		590	29	621	4.9	0.776	47.2	LOS D	26.1	190.3	0.97	0.92	1.04	22.3
North: West St														
7	L2	100	4	105	4.0	0.194	17.4	LOS B	5.5	37.8	0.51	0.57	0.51	33.3
8	T1	528	6	556	1.1	0.968	59.5	LOS E	46.7	309.0	0.85	1.02	1.18	16.2
9	R2	172	3	181	1.7	0.968	73.9	LOS F	46.7	309.0	0.92	1.11	1.32	18.2
Approach		800	13	842	1.6	0.968	57.3	LOS E	46.7	309.0	0.82	0.98	1.12	17.9
West: Falcon St														
10	L2	80	3	84	3.8	*0.959	81.0	LOS F	32.7	234.6	1.00	1.20	1.44	17.0
11	T1	748	23	787	3.1	0.959	77.5	LOS F	33.7	241.8	1.00	1.21	1.44	17.5
Approach		828	26	872	3.1	0.959	77.9	LOS F	33.7	241.8	1.00	1.21	1.44	17.5
All Vehicles		2485	73	2616	2.9	0.978	64.5	LOS E	46.7	309.0	0.93	1.05	1.25	18.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	145	153	31.7	LOS D	0.4	0.4	0.73	0.73	196.3	213.9	1.09
East: Falcon St												
P2	Full	273	287	16.7	LOS B	0.5	0.5	0.53	0.53	181.4	214.1	1.18
North: West St												
P3	Full	192	202	42.0	LOS E	0.6	0.6	0.84	0.84	206.9	214.3	1.04
West: Falcon St												
P4	Full	177	186	54.6	LOS E	0.6	0.6	0.96	0.96	219.1	213.9	0.98
All Pedestrians		787	828	34.2	LOS D	0.6	0.6	0.74	0.74	198.8	214.1	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
 Pedestrian movement LOS values are based on average delay per pedestrian movement.  
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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 Project: C:\Users\YE650\Downloads\West St TIA\_26.06.24.sip9

## MOVEMENT SUMMARY

**Site: 101 [Ex\_Weekday\_PM (West St and Ernest St) (Site Folder: Existing)]**

West St and Ernest St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] veh/h	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: West St														
1	L2	37	0	39	0.0	0.114	20.1	LOS B	1.5	9.5	0.76	0.65	0.76	29.4
2	T1	161	1	169	0.6	0.569	21.2	LOS B	6.2	39.1	0.90	0.76	0.90	27.3
3	R2	86	1	91	1.2	*0.569	25.6	LOS B	6.2	39.1	0.92	0.78	0.92	25.1
Approach		284	2	299	0.7	0.569	22.4	LOS B	6.2	39.1	0.89	0.75	0.89	26.9
East: Ernest St														
4	L2	215	2	226	0.9	0.270	14.1	LOS A	4.1	28.7	0.65	0.70	0.65	31.2
5	T1	370	10	389	2.7	0.606	13.4	LOS A	9.7	69.8	0.79	0.70	0.79	33.3
6	R2	49	1	52	2.0	*0.606	16.9	LOS B	9.7	69.8	0.79	0.70	0.79	31.4
Approach		634	13	667	2.1	0.606	13.9	LOS A	9.7	69.8	0.74	0.70	0.74	32.4
North: West St														
7	L2	108	1	114	0.9	0.203	21.9	LOS B	2.5	17.7	0.78	0.74	0.78	27.8
8	T1	260	0	274	0.0	0.499	19.7	LOS B	7.1	49.1	0.86	0.76	0.86	28.4
9	R2	15	0	16	0.0	0.499	23.0	LOS B	7.1	49.1	0.86	0.76	0.86	30.9
Approach		383	1	403	0.3	0.499	20.5	LOS B	7.1	49.1	0.84	0.75	0.84	28.4
West: Ernest St														
10	L2	24	5	25	20.8	0.100	13.9	LOS A	1.4	10.0	0.57	0.59	0.57	36.5
11	T1	377	1	397	0.3	0.488	14.1	LOS A	8.1	56.6	0.74	0.70	0.74	32.5
12	R2	40	0	42	0.0	0.488	18.0	LOS B	8.1	56.6	0.77	0.72	0.77	32.1
Approach		441	6	464	1.4	0.488	14.4	LOS A	8.1	56.6	0.73	0.70	0.73	32.6
All Vehicles		1742	22	1834	1.3	0.606	16.9	LOS B	9.7	69.8	0.78	0.72	0.78	30.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	26	27	14.0	LOS B	0.0	0.0	0.68	0.68	179.3	214.8	1.20
East: Ernest St												
P2	Full	31	33	20.9	LOS C	0.0	0.0	0.83	0.83	185.5	214.0	1.15
North: West St												
P3	Full	40	42	14.0	LOS B	0.0	0.0	0.68	0.68	179.4	215.0	1.20
West: Ernest St												
P4	Full	52	55	20.9	LOS C	0.1	0.1	0.84	0.84	185.3	213.8	1.15
All Pedestrians		149	157	17.8	LOS B	0.1	0.1	0.77	0.77	182.7	214.3	1.17

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

**Site: 101 [Ex\_Weekday\_PM (West St and Falcon St) (Site Folder: Existing)]**

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	72	2	76	2.8	0.423	47.9	LOS D	3.3	23.7	0.98	0.76	0.98	22.0
2	T1	235	1	247	0.4	*0.927	56.9	LOS E	13.2	79.7	1.00	1.13	1.55	17.0
Approach		307	3	323	1.0	0.927	54.8	LOS D	13.2	79.7	1.00	1.04	1.42	18.3
East: Falcon St														
4	L2	36	2	38	5.6	0.654	29.0	LOS C	17.1	123.9	0.88	0.80	0.88	26.5
5	T1	470	18	495	3.8	0.654	27.9	LOS B	17.1	123.9	0.89	0.82	0.90	28.1
6	R2	83	1	87	1.2	*0.654	48.0	LOS D	6.5	46.1	0.99	0.94	1.07	20.0
Approach		589	21	620	3.6	0.654	30.8	LOS C	17.1	123.9	0.91	0.83	0.92	26.9
North: West St														
7	L2	85	0	89	0.0	0.187	17.2	LOS B	4.1	28.5	0.57	0.60	0.57	33.5
8	T1	260	0	274	0.0	0.933	41.5	LOS C	22.1	154.5	0.83	0.97	1.17	20.0
9	R2	203	2	214	1.0	0.933	59.0	LOS E	22.1	154.5	0.95	1.14	1.45	20.5
Approach		548	2	577	0.4	0.933	44.2	LOS D	22.1	154.5	0.84	0.97	1.18	21.5
West: Falcon St														
10	L2	72	0	76	0.0	*0.938	60.4	LOS E	25.6	182.6	1.00	1.22	1.47	20.2
11	T1	789	20	831	2.5	0.938	56.9	LOS E	26.3	187.8	1.00	1.23	1.47	20.8
Approach		861	20	906	2.3	0.938	57.2	LOS E	26.3	187.8	1.00	1.23	1.47	20.8
All Vehicles		2305	46	2426	2.0	0.938	47.1	LOS D	26.3	187.8	0.94	1.04	1.25	21.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.



Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	23	24	22.8	LOS C	0.0	0.0	0.71	0.71	187.3	213.9	1.14
East: Falcon St												
P2	Full	62	65	17.5	LOS B	0.1	0.1	0.62	0.62	182.2	214.1	1.18
North: West St												
P3	Full	48	51	32.2	LOS D	0.1	0.1	0.85	0.85	197.0	214.3	1.09
West: Falcon St												
P4	Full	62	65	39.3	LOS D	0.2	0.2	0.94	0.94	203.8	213.9	1.05
All Pedestrians		195	205	28.7	LOS C	0.2	0.2	0.79	0.79	193.3	214.1	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
 Pedestrian movement LOS values are based on average delay per pedestrian movement.  
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

### Site: 101 [Ex\_Weekend (West St and Ernest St) (Site Folder: Existing)]

West St and Ernest St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 30 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	52	0	55	0.0	0.147	13.1	LOS A	0.8	5.9	0.80	0.68	0.80	33.1
2	T1	207	2	218	1.0	0.733	14.0	LOS A	4.6	32.2	0.96	0.95	1.24	31.5
3	R2	80	0	84	0.0	*0.733	17.9	LOS B	4.6	32.2	0.98	0.97	1.27	28.8
Approach		339	2	357	0.6	0.733	14.8	LOS B	4.6	32.2	0.94	0.91	1.18	31.0
East: Ernest St														
4	L2	211	2	222	0.9	0.373	12.2	LOS A	2.6	18.6	0.80	0.75	0.80	32.5
5	T1	376	12	396	3.2	0.809	14.7	LOS B	7.9	56.5	0.97	1.09	1.37	32.4
6	R2	56	1	59	1.8	*0.809	18.2	LOS B	7.9	56.5	0.97	1.09	1.37	30.6
Approach		643	15	677	2.3	0.809	14.2	LOS A	7.9	56.5	0.92	0.97	1.19	32.3
North: West St														
7	L2	114	2	120	1.8	0.279	15.6	LOS B	1.6	11.0	0.86	0.75	0.86	31.3
8	T1	295	3	311	1.0	0.652	13.4	LOS A	4.8	33.0	0.94	0.86	1.06	32.2
9	R2	13	0	14	0.0	0.652	16.7	LOS B	4.8	33.0	0.94	0.86	1.06	35.0
Approach		422	5	444	1.2	0.652	14.1	LOS A	4.8	33.0	0.92	0.83	1.01	32.0
West: Ernest St														
10	L2	24	1	25	4.2	0.103	12.4	LOS A	0.7	4.7	0.72	0.64	0.72	37.5
11	T1	253	2	266	0.8	0.504	11.0	LOS A	3.5	24.3	0.85	0.74	0.85	34.4
12	R2	38	0	40	0.0	0.504	14.6	LOS B	3.5	24.3	0.87	0.76	0.87	34.2
Approach		315	3	332	1.0	0.504	11.6	LOS A	3.5	24.3	0.84	0.73	0.84	34.6
All Vehicles		1719	25	1809	1.5	0.809	13.8	LOS A	7.9	56.5	0.91	0.88	1.08	32.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).  
 Queue Model: SIDRA Standard.  
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	27	28	9.6	LOS A	0.0	0.0	0.80	0.80	174.8	214.8	1.23
East: Ernest St												
P2	Full	33	35	9.6	LOS A	0.0	0.0	0.80	0.80	174.2	214.0	1.23
North: West St												
P3	Full	18	19	9.6	LOS A	0.0	0.0	0.80	0.80	175.0	215.0	1.23
West: Ernest St												
P4	Full	13	14	9.6	LOS A	0.0	0.0	0.80	0.80	174.1	213.8	1.23
All Pedestrians		91	96	9.6	LOS A	0.0	0.0	0.80	0.80	174.5	214.4	1.23

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
 Pedestrian movement LOS values are based on average delay per pedestrian movement.  
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

### Site: 101 [Ex\_Weekend (West St and Falcon St) (Site Folder: Existing)]

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	83	2	87	2.4	0.389	58.1	LOS E	4.8	34.6	0.96	0.77	0.96	19.9
2	T1	190	1	200	0.5	0.897	67.6	LOS E	13.2	92.9	1.00	1.06	1.40	15.1
Approach		273	3	287	1.1	0.897	64.7	LOS E	13.2	92.9	0.99	0.98	1.26	16.7
East: Falcon St														
4	L2	41	0	43	0.0	0.689	37.2	LOS C	24.5	175.5	0.89	0.82	0.89	23.3
5	T1	450	14	474	3.1	0.689	34.5	LOS C	24.5	175.5	0.90	0.82	0.90	26.0
6	R2	102	1	107	1.0	*0.689	63.1	LOS E	7.1	50.5	1.00	0.93	1.10	16.6
Approach		593	15	624	2.5	0.689	39.6	LOS C	24.5	175.5	0.91	0.84	0.93	24.1
North: West St														
7	L2	126	2	133	1.6	0.184	18.8	LOS B	5.3	37.0	0.53	0.63	0.53	31.7
8	T1	280	1	295	0.4	*0.919	50.8	LOS D	28.9	201.8	0.86	0.96	1.12	17.8
9	R2	189	2	199	1.1	0.919	62.9	LOS E	28.9	201.8	0.92	1.03	1.24	19.9
Approach		595	5	626	0.8	0.919	47.9	LOS D	28.9	201.8	0.81	0.91	1.03	20.4
West: Falcon St														
10	L2	103	0	108	0.0	0.894	59.6	LOS E	31.8	225.6	1.00	1.04	1.22	20.3
11	T1	835	18	879	2.2	*0.894	56.2	LOS D	32.7	232.8	1.00	1.05	1.22	20.9
Approach		938	18	987	1.9	0.894	56.6	LOS E	32.7	232.8	1.00	1.05	1.22	20.9
All Vehicles		2399	41	2525	1.7	0.919	51.2	LOS D	32.7	232.8	0.93	0.95	1.11	21.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ] ped m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	26	27	28.0	LOS C	0.1	0.1	0.68	0.68	192.6	213.9	1.11
East: Falcon St												
P2	Full	73	77	19.3	LOS B	0.1	0.1	0.57	0.57	184.0	214.1	1.16
North: West St												
P3	Full	45	47	36.9	LOS D	0.1	0.1	0.78	0.78	201.7	214.3	1.06
West: Falcon St												
P4	Full	38	40	52.4	LOS E	0.1	0.1	0.93	0.93	216.9	213.9	0.99
All Pedestrians		182	192	31.8	LOS D	0.1	0.1	0.72	0.72	196.5	214.1	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

Site: 101 [Pro\_Weekday\_AM (West St and Ernest St) (Site Folder: Proposed Layout )]

West St and Ernest St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	40	4	42	10.0	0.094	21.8	LOS B	0.9	7.2	0.78	0.69	0.78	27.8
2	T1	170	2	179	1.2	0.805	30.1	LOS C	7.6	53.9	0.98	1.00	1.29	23.9
3	R2	61	0	64	0.0	*0.805	34.6	LOS C	7.6	53.9	1.00	1.03	1.33	22.1
Approach		271	6	285	2.2	0.805	29.9	LOS C	7.6	53.9	0.96	0.96	1.23	23.9
East: Ernest St														
4	L2	288	3	303	1.0	0.374	15.3	LOS B	6.0	41.8	0.70	0.73	0.70	30.5
5	T1	493	15	519	3.0	0.873	26.3	LOS B	18.6	133.1	0.87	1.03	1.21	26.7
6	R2	51	0	54	0.0	*0.873	29.8	LOS C	18.6	133.1	0.87	1.03	1.21	25.1
Approach		832	18	876	2.2	0.873	22.7	LOS B	18.6	133.1	0.81	0.93	1.03	27.7
North: West St														
7	L2	92	3	97	3.3	0.804	29.4	LOS C	15.3	108.8	0.98	0.99	1.16	25.6
8	T1	454	7	478	1.5	0.804	24.4	LOS B	15.3	108.8	0.94	0.92	1.09	26.2
Approach		546	10	575	1.8	0.804	25.2	LOS B	15.3	108.8	0.94	0.93	1.10	26.0
West: Ernest St														
10	L2	24	5	25	20.8	0.097	14.4	LOS A	1.3	9.5	0.59	0.60	0.59	36.0
11	T1	325	4	342	1.2	0.464	14.6	LOS B	7.1	50.2	0.74	0.70	0.74	32.2
12	R2	37	1	39	2.7	0.464	18.5	LOS B	7.1	50.2	0.77	0.72	0.77	32.0
Approach		386	10	406	2.6	0.464	15.0	LOS B	7.1	50.2	0.73	0.70	0.73	32.4
All Vehicles		2035	44	2142	2.2	0.873	22.9	LOS B	18.6	133.1	0.85	0.89	1.02	27.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	75	79	14.1	LOS B	0.1	0.1	0.69	0.69	179.2	214.7	1.20
East: Ernest St												
P2	Full	63	66	20.9	LOS C	0.1	0.1	0.84	0.84	185.5	214.0	1.15
North: West St												
P3	Full	123	129	12.7	LOS B	0.1	0.1	0.65	0.65	176.6	213.0	1.21
West: Ernest St												
P4	Full	83	87	20.9	LOS C	0.1	0.1	0.84	0.84	185.4	213.8	1.15
All Pedestrians		344	362	16.5	LOS B	0.1	0.1	0.74	0.74	180.9	213.7	1.18

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

### Site: 101 [Pro\_Weekday\_AM (West St and Falcon St) (Site Folder: Proposed Layout )]

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	81	2	85	2.5	0.994	96.2	LOS F	20.9	148.8	1.00	1.31	1.72	15.0
2	T1	186	3	196	1.6	0.994	89.3	LOS F	20.9	148.8	0.99	1.28	1.68	12.4
Approach		267	5	281	1.9	0.994	91.4	LOS F	20.9	148.8	1.00	1.29	1.69	13.2
East: Falcon St														
4	L2	33	1	35	3.0	0.773	43.2	LOS D	23.3	170.1	0.96	0.89	1.01	21.5
5	T1	475	25	500	5.3	0.773	41.9	LOS C	23.3	170.1	0.97	0.91	1.04	24.0
6	R2	82	3	86	3.7	*0.773	61.6	LOS E	8.7	63.3	1.00	1.03	1.19	17.2
Approach		590	29	621	4.9	0.773	44.7	LOS D	23.3	170.1	0.97	0.93	1.06	22.9
North: West St														
7	L2	100	4	105	4.0	0.209	16.7	LOS B	5.5	39.0	0.52	0.57	0.52	33.9
8	T1	528	6	556	1.1	*1.045	83.1	LOS F	52.4	371.5	0.83	1.13	1.39	15.1
9	R2	172	3	181	1.7	1.045	124.5	LOS F	52.4	371.5	1.00	1.47	1.85	12.7
Approach		800	13	842	1.6	1.045	83.7	LOS F	52.4	371.5	0.83	1.13	1.38	13.8
West: Falcon St														
10	L2	80	3	84	3.8	1.020	107.4	LOS F	36.5	262.5	1.00	1.43	1.75	14.1
11	T1	748	23	787	3.1	*1.020	103.8	LOS F	37.5	268.9	1.00	1.45	1.75	14.5
Approach		828	26	872	3.1	1.020	104.1	LOS F	37.5	268.9	1.00	1.44	1.75	14.5
All Vehicles		2485	73	2616	2.9	1.045	82.1	LOS F	52.4	371.5	0.94	1.20	1.46	15.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.



Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	145	153	30.8	LOS D	0.4	0.4	0.75	0.75	195.5	214.1	1.10
East: Falcon St												
P2	Full	273	287	15.5	LOS B	0.5	0.5	0.53	0.53	180.2	214.1	1.19
North: West St												
P3	Full	192	202	41.4	LOS E	0.6	0.6	0.87	0.87	206.7	214.9	1.04
West: Falcon St												
P4	Full	177	186	45.8	LOS E	0.5	0.5	0.92	0.92	210.3	213.9	1.02
All Pedestrians		787	828	31.4	LOS D	0.6	0.6	0.74	0.74	196.2	214.3	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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 Project: C:\Users\YE650\Downloads\West St TIA\_26.06.24.sip9

## MOVEMENT SUMMARY

Site: 101 [Pro\_Weekday\_AM (West St and Falcon St) with clearway (Site Folder: Proposed Layout )]

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: West St														
1	L2	81	2	85	2.5	0.865	48.5	LOS D	12.3	87.4	1.00	1.06	1.37	22.6
2	T1	186	3	196	1.6	*0.865	43.2	LOS D	12.3	87.4	0.99	1.04	1.34	19.9
Approach		267	5	281	1.9	0.865	44.8	LOS D	12.3	87.4	1.00	1.04	1.35	20.8
East: Falcon St														
4	L2	33	1	35	3.0	0.627	25.5	LOS B	14.3	104.2	0.86	0.79	0.86	28.4
5	T1	475	25	500	5.3	0.627	24.7	LOS B	14.3	104.2	0.88	0.81	0.88	29.3
6	R2	82	3	86	3.7	*0.627	40.8	LOS C	6.4	46.2	0.98	0.91	1.02	22.2
Approach		590	29	621	4.9	0.627	27.0	LOS B	14.3	104.2	0.89	0.82	0.90	28.3
North: West St														
7	L2	100	4	105	4.0	0.853	32.2	LOS C	22.0	156.6	0.84	0.91	1.05	26.1
8	T1	528	6	556	1.1	0.853	25.4	LOS B	22.0	156.6	0.81	0.84	0.98	26.8
9	R2	172	3	181	1.7	*0.963	69.9	LOS E	9.8	69.7	0.95	1.21	1.88	18.3
Approach		800	13	842	1.6	0.963	35.8	LOS C	22.0	156.6	0.84	0.93	1.18	23.4
West: Falcon St														
10	L2	80	3	84	3.8	0.927	53.4	LOS D	21.7	155.5	1.00	1.23	1.49	21.6
11	T1	748	23	787	3.1	*0.927	50.0	LOS D	22.4	160.3	1.00	1.24	1.48	22.3
Approach		828	26	872	3.1	0.927	50.3	LOS D	22.4	160.3	1.00	1.24	1.48	22.2
All Vehicles		2485	73	2616	2.9	0.963	39.5	LOS C	22.4	160.3	0.92	1.02	1.23	23.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	145	153	20.4	LOS C	0.2	0.2	0.72	0.72	185.1	214.1	1.16
East: Falcon St												
P2	Full	273	287	17.8	LOS B	0.4	0.4	0.67	0.67	182.5	214.1	1.17
North: West St												
P3	Full	192	202	30.9	LOS D	0.4	0.4	0.88	0.88	196.2	214.9	1.10
West: Falcon St												
P4	Full	177	186	34.5	LOS D	0.4	0.4	0.93	0.93	199.0	213.9	1.07
All Pedestrians		787	828	25.2	LOS C	0.4	0.4	0.79	0.79	190.0	214.3	1.13

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

## MOVEMENT SUMMARY

### Site: 101 [Pro\_Weekday\_PM (West St and Ernest St) (Site Folder: Proposed Layout )]

West St and Ernest St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	37	0	39	0.0	0.072	19.8	LOS B	0.8	5.8	0.74	0.67	0.74	28.8
2	T1	161	1	169	0.6	0.618	21.1	LOS B	6.0	42.2	0.88	0.74	0.91	27.8
3	R2	86	1	91	1.2	*0.618	27.3	LOS B	6.0	42.2	0.95	0.83	0.99	24.5
Approach		284	2	299	0.7	0.618	22.8	LOS B	6.0	42.2	0.88	0.75	0.91	26.7
East: Ernest St														
4	L2	215	2	226	0.9	0.280	14.7	LOS B	4.2	29.7	0.67	0.71	0.67	30.8
5	T1	370	10	389	2.7	0.658	15.2	LOS B	10.4	74.1	0.83	0.74	0.84	32.3
6	R2	49	1	52	2.0	*0.658	18.6	LOS B	10.4	74.1	0.83	0.74	0.84	30.3
Approach		634	13	667	2.1	0.658	15.3	LOS B	10.4	74.1	0.78	0.73	0.78	31.6
North: West St														
7	L2	106	1	112	0.9	0.576	22.9	LOS B	9.4	66.1	0.88	0.79	0.88	28.5
8	T1	260	0	274	0.0	0.576	19.4	LOS B	9.4	66.1	0.87	0.78	0.87	28.2
Approach		366	1	385	0.3	0.576	20.4	LOS B	9.4	66.1	0.88	0.79	0.88	28.3
West: Ernest St														
10	L2	24	5	25	20.8	0.107	14.4	LOS A	1.5	10.7	0.59	0.59	0.59	36.1
11	T1	377	1	397	0.3	0.513	14.9	LOS B	8.3	58.1	0.76	0.71	0.76	32.0
12	R2	40	0	42	0.0	0.513	18.8	LOS B	8.3	58.1	0.79	0.74	0.79	31.8
Approach		441	6	464	1.4	0.513	15.2	LOS B	8.3	58.1	0.75	0.71	0.75	32.2
All Vehicles		1725	22	1816	1.3	0.658	17.6	LOS B	10.4	74.1	0.81	0.74	0.82	30.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ] m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	26	27	14.7	LOS B	0.0	0.0	0.70	0.70	179.9	214.7	1.19
East: Ernest St												
P2	Full	31	33	20.0	LOS C	0.0	0.0	0.82	0.82	184.7	214.0	1.16
North: West St												
P3	Full	40	42	13.4	LOS B	0.0	0.0	0.67	0.67	177.2	213.0	1.20
West: Ernest St												
P4	Full	52	55	20.1	LOS C	0.1	0.1	0.82	0.82	184.5	213.8	1.16
All Pedestrians		149	157	17.3	LOS B	0.1	0.1	0.76	0.76	181.8	213.8	1.18

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

Site: 101 [Pro\_Weekday\_PM (West St and Falcon St) (Site Folder: Proposed Layout )]

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	72	2	76	2.8	0.932	68.7	LOS E	16.2	114.4	1.00	1.16	1.51	18.7
2	T1	235	1	247	0.4	0.932	57.9	LOS E	16.2	114.4	0.97	1.04	1.37	17.0
Approach		307	3	323	1.0	0.932	60.4	LOS E	16.2	114.4	0.98	1.07	1.40	17.2
East: Falcon St														
4	L2	36	2	38	5.6	0.674	32.8	LOS C	19.4	140.6	0.89	0.81	0.89	25.1
5	T1	470	18	495	3.8	0.674	31.5	LOS C	19.4	140.6	0.91	0.83	0.91	26.9
6	R2	83	1	87	1.2	*0.674	52.9	LOS D	7.0	50.3	1.00	0.95	1.08	18.9
Approach		589	21	620	3.6	0.674	34.6	LOS C	19.4	140.6	0.92	0.84	0.94	25.7
North: West St														
7	L2	84	0	88	0.0	0.186	18.1	LOS B	4.6	32.1	0.56	0.59	0.56	32.9
8	T1	260	0	274	0.0	*0.932	42.8	LOS D	23.3	163.9	0.81	0.92	1.11	19.8
9	R2	203	2	214	1.0	0.932	62.7	LOS E	23.3	163.9	0.95	1.11	1.40	19.8
Approach		547	2	576	0.4	0.932	46.4	LOS D	23.3	163.9	0.82	0.94	1.13	20.9
West: Falcon St														
10	L2	72	0	76	0.0	0.922	60.1	LOS E	26.8	191.0	1.00	1.15	1.37	20.3
11	T1	789	20	831	2.5	*0.922	56.7	LOS E	27.5	196.5	1.00	1.15	1.37	20.9
Approach		861	20	906	2.3	0.922	57.0	LOS E	27.5	196.5	1.00	1.15	1.37	20.9
All Vehicles		2304	46	2425	2.0	0.932	49.2	LOS D	27.5	196.5	0.93	1.01	1.21	21.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ] ped m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	23	24	25.2	LOS C	0.0	0.0	0.71	0.71	189.9	214.1	1.13
East: Falcon St												
P2	Full	62	65	17.5	LOS B	0.1	0.1	0.59	0.59	182.1	214.1	1.18
North: West St												
P3	Full	48	51	35.4	LOS D	0.1	0.1	0.84	0.84	200.7	214.9	1.07
West: Falcon St												
P4	Full	62	65	43.4	LOS E	0.2	0.2	0.93	0.93	207.9	213.9	1.03
All Pedestrians		195	205	31.0	LOS D	0.2	0.2	0.78	0.78	195.8	214.2	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

Site: 101 [Pro\_Weekday\_PM (West St and Falcon St) with clearway (Site Folder: Proposed Layout )]

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: West St														
1	L2	72	2	76	2.8	0.932	58.6	LOS E	13.4	94.7	1.00	1.19	1.62	20.4
2	T1	235	1	247	0.4	*0.932	48.4	LOS D	13.4	94.7	0.97	1.06	1.45	19.0
Approach		307	3	323	1.0	0.932	50.8	LOS D	13.4	94.7	0.98	1.09	1.49	19.1
East: Falcon St														
4	L2	36	2	38	5.6	0.588	24.4	LOS B	13.7	99.5	0.83	0.77	0.83	28.9
5	T1	470	18	495	3.8	0.588	23.4	LOS B	13.7	99.5	0.85	0.78	0.85	29.8
6	R2	83	1	87	1.2	*0.588	38.5	LOS C	6.3	44.8	0.97	0.86	0.98	22.9
Approach		589	21	620	3.6	0.588	25.6	LOS B	13.7	99.5	0.87	0.79	0.87	28.8
North: West St														
7	L2	84	0	88	0.0	0.581	20.7	LOS B	9.5	66.8	0.73	0.66	0.73	31.9
8	T1	260	0	274	0.0	0.581	16.1	LOS B	9.5	66.8	0.72	0.66	0.72	31.5
9	R2	203	2	214	1.0	*0.945	62.9	LOS E	11.0	77.6	0.96	1.16	1.73	19.4
Approach		547	2	576	0.4	0.945	34.2	LOS C	11.0	77.6	0.81	0.84	1.10	24.4
West: Falcon St														
10	L2	72	0	76	0.0	0.914	49.9	LOS D	21.8	155.5	1.00	1.18	1.42	22.3
11	T1	789	20	831	2.5	*0.914	46.5	LOS D	22.4	160.0	1.00	1.19	1.42	23.1
Approach		861	20	906	2.3	0.914	46.8	LOS D	22.4	160.0	1.00	1.19	1.42	23.0
All Vehicles		2304	46	2425	2.0	0.945	38.9	LOS C	22.4	160.0	0.92	0.99	1.21	24.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).



Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ] ped m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	23	24	19.6	LOS B	0.0	0.0	0.70	0.70	184.3	214.1	1.16
East: Falcon St												
P2	Full	62	65	34.3	LOS D	0.1	0.1	0.93	0.93	199.0	214.1	1.08
North: West St												
P3	Full	48	51	29.8	LOS C	0.1	0.1	0.86	0.86	195.1	214.9	1.10
West: Falcon St												
P4	Full	62	65	34.3	LOS D	0.1	0.1	0.93	0.93	198.9	213.9	1.08
All Pedestrians		195	205	31.5	LOS D	0.1	0.1	0.89	0.89	196.3	214.2	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\YE650\Downloads\West St TIA\_26.06.24.sip9

## MOVEMENT SUMMARY

### Site: 101 [Pro\_Weekend (West St and Ernest St) (Site Folder: Proposed Layout )]

West St and Ernest St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	52	0	55	0.0	0.083	16.9	LOS B	1.1	7.4	0.68	0.67	0.68	30.3
2	T1	207	2	218	1.0	0.715	23.6	LOS B	8.6	60.2	0.94	0.88	1.06	26.5
3	R2	80	0	84	0.0	*0.715	27.4	LOS B	8.6	60.2	0.95	0.90	1.07	24.6
Approach		339	2	357	0.6	0.715	23.5	LOS B	8.6	60.2	0.90	0.85	1.01	26.5
East: Ernest St														
4	L2	211	2	222	0.9	0.298	16.1	LOS B	4.4	31.0	0.71	0.72	0.71	30.0
5	T1	376	12	396	3.2	0.732	18.0	LOS B	11.8	85.0	0.87	0.83	0.96	30.6
6	R2	56	1	59	1.8	*0.732	21.5	LOS B	11.8	85.0	0.87	0.83	0.96	28.7
Approach		643	15	677	2.3	0.732	17.7	LOS B	11.8	85.0	0.82	0.80	0.87	30.2
North: West St														
7	L2	113	2	119	1.8	0.581	21.4	LOS B	10.1	71.6	0.86	0.78	0.86	29.3
8	T1	295	3	311	1.0	0.581	17.9	LOS B	10.1	71.6	0.85	0.78	0.85	29.0
Approach		408	5	429	1.2	0.581	18.9	LOS B	10.1	71.6	0.85	0.78	0.85	29.0
West: Ernest St														
10	L2	24	1	25	4.2	0.087	15.4	LOS B	1.2	8.4	0.62	0.61	0.62	35.2
11	T1	253	2	266	0.8	0.418	16.2	LOS B	5.9	41.2	0.76	0.71	0.76	31.1
12	R2	38	0	40	0.0	0.418	20.2	LOS B	5.9	41.2	0.79	0.72	0.79	30.9
Approach		315	3	332	1.0	0.418	16.6	LOS B	5.9	41.2	0.76	0.70	0.76	31.4
All Vehicles		1705	25	1795	1.5	0.732	18.9	LOS B	11.8	85.0	0.83	0.79	0.87	29.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ] m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	27	28	16.2	LOS B	0.0	0.0	0.73	0.73	181.3	214.7	1.18
East: Ernest St												
P2	Full	33	35	18.4	LOS B	0.0	0.0	0.78	0.78	183.1	214.0	1.17
North: West St												
P3	Full	18	19	14.7	LOS B	0.0	0.0	0.70	0.70	178.6	213.0	1.19
West: Ernest St												
P4	Full	13	14	18.4	LOS B	0.0	0.0	0.78	0.78	182.9	213.8	1.17
All Pedestrians		91	96	17.0	LOS B	0.0	0.0	0.75	0.75	181.6	214.0	1.18

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

**Site: 101 [Pro\_Weekend (West St and Falcon St) (Site Folder: Proposed Layout )]**

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	83	2	87	2.4	0.934	83.1	LOS F	21.9	154.6	1.00	1.12	1.40	16.6
2	T1	190	1	200	0.5	0.934	78.3	LOS F	21.9	154.6	1.00	1.12	1.40	13.4
Approach		273	3	287	1.1	0.934	79.8	LOS F	21.9	154.6	1.00	1.12	1.40	14.5
East: Falcon St														
4	L2	41	0	43	0.0	0.726	42.1	LOS C	27.7	198.4	0.92	0.84	0.92	21.8
5	T1	450	14	474	3.1	0.726	38.8	LOS C	27.7	198.4	0.92	0.84	0.92	24.8
6	R2	102	1	107	1.0	*0.726	70.8	LOS F	7.4	52.1	1.00	0.96	1.14	15.4
Approach		593	15	624	2.5	0.726	44.5	LOS D	27.7	198.4	0.94	0.86	0.96	22.9
North: West St														
7	L2	126	2	133	1.6	0.186	18.7	LOS B	5.4	38.0	0.51	0.62	0.51	31.8
8	T1	280	1	295	0.4	*0.930	55.6	LOS D	31.4	220.8	0.84	0.95	1.11	17.0
9	R2	189	2	199	1.1	0.930	70.0	LOS E	31.4	220.8	0.93	1.04	1.25	18.7
Approach		595	5	626	0.8	0.930	52.4	LOS D	31.4	220.8	0.80	0.91	1.03	19.4
West: Falcon St														
10	L2	103	0	108	0.0	0.916	68.4	LOS E	35.6	252.8	1.00	1.07	1.25	18.8
11	T1	835	18	879	2.2	*0.916	65.0	LOS E	36.6	260.8	1.00	1.07	1.25	19.4
Approach		938	18	987	1.9	0.916	65.4	LOS E	36.6	260.8	1.00	1.07	1.25	19.4
All Vehicles		2399	41	2525	1.7	0.934	58.6	LOS E	36.6	260.8	0.93	0.98	1.14	19.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ] ped m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	26	27	31.2	LOS D	0.1	0.1	0.69	0.69	195.9	214.1	1.09
East: Falcon St												
P2	Full	73	77	18.9	LOS B	0.2	0.2	0.54	0.54	183.6	214.1	1.17
North: West St												
P3	Full	45	47	40.9	LOS E	0.1	0.1	0.79	0.79	206.2	214.9	1.04
West: Falcon St												
P4	Full	38	40	52.7	LOS E	0.1	0.1	0.90	0.90	217.3	213.9	0.98
All Pedestrians		182	192	33.2	LOS D	0.2	0.2	0.70	0.70	198.0	214.3	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## MOVEMENT SUMMARY

**Site: 101 [Pro\_Weekend (West St and Falcon St) with clearway (Site Folder: Proposed Layout )]**

West St and Falcon St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total	HV ]	[ Total	HV ]	v/c	sec		[ Veh.	Dist ]				km/h
		veh/h	veh/h	veh/h	%				veh	m				
South: West St														
1	L2	83	2	87	2.4	0.916	64.9	LOS E	17.0	119.9	1.00	1.14	1.44	19.3
2	T1	190	1	200	0.5	*0.916	60.2	LOS E	17.0	119.9	1.00	1.13	1.44	16.1
Approach		273	3	287	1.1	0.916	61.6	LOS E	17.0	119.9	1.00	1.13	1.44	17.2
East: Falcon St														
4	L2	41	0	43	0.0	0.615	28.9	LOS C	18.4	132.2	0.84	0.78	0.84	26.6
5	T1	450	14	474	3.1	0.615	27.2	LOS B	18.4	132.2	0.85	0.79	0.85	28.4
6	R2	102	1	107	1.0	*0.615	50.2	LOS D	6.7	47.2	0.99	0.89	1.02	19.4
Approach		593	15	624	2.5	0.615	31.3	LOS C	18.4	132.2	0.87	0.81	0.88	26.7
North: West St														
7	L2	126	2	133	1.6	0.648	24.0	LOS B	13.9	98.0	0.73	0.69	0.73	29.8
8	T1	280	1	295	0.4	0.648	19.3	LOS B	13.9	98.0	0.73	0.68	0.73	29.3
9	R2	189	2	199	1.1	*0.934	69.2	LOS E	11.8	83.6	0.91	1.08	1.55	18.4
Approach		595	5	626	0.8	0.934	36.1	LOS C	13.9	98.0	0.79	0.81	0.99	23.7
West: Falcon St														
10	L2	103	0	108	0.0	0.899	53.5	LOS D	27.6	195.8	1.00	1.09	1.28	21.5
11	T1	835	18	879	2.2	*0.899	50.1	LOS D	28.4	202.0	1.00	1.09	1.28	22.3
Approach		938	18	987	1.9	0.899	50.5	LOS D	28.4	202.0	1.00	1.09	1.28	22.2
All Vehicles		2399	41	2525	1.7	0.934	43.4	LOS D	28.4	202.0	0.92	0.95	1.13	22.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ]		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: West St												
P1	Full	26	27	22.5	LOS C	0.1	0.1	0.67	0.67	187.2	214.1	1.14
East: Falcon St												
P2	Full	73	77	44.3	LOS E	0.2	0.2	0.94	0.94	209.0	214.1	1.02
North: West St												
P3	Full	45	47	32.9	LOS D	0.1	0.1	0.81	0.81	198.2	214.9	1.08
West: Falcon St												
P4	Full	38	40	42.4	LOS E	0.1	0.1	0.92	0.92	206.9	213.9	1.03
All Pedestrians		182	192	38.0	LOS D	0.2	0.2	0.87	0.87	202.8	214.3	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
 Pedestrian movement LOS values are based on average delay per pedestrian movement.  
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## COMMUNICATIONS & ENGAGEMENT PLAN



# West Street, Cycling, Walking and Streetscape Upgrades - Stage 2

Prepared 16 November 2023

Councils are required under the *Local Government Act 1993* to inform the community of particular issues that potentially affect their way of life. North Sydney Council is committed both in principle and in practice, to engaging on matters affecting the North Sydney community. Community engagement opportunities will be provided across a range of 'engagement' levels.

## 1. Introduction

This Communication & Engagement Plan outlines the steps Council will take to engage the community on the concept design for the West Street Cycling, Walking and Streetscape Upgrades - Stage 2 between Ridge Street and Amhurst Street. The designs include new tree plantings, pavement upgrades and separated cycleway.

The West Street Cycleway (between Ridge Street and Amhurst Street) will complete a missing link in the Priority Route 1 - Sydney Harbour Bridge Cycleway to West Street as identified in Council's *Integrated Cycling Strategy (2014)*. The ICS identifies West Street as a key connection for residents to North Sydney and Sydney CBD, currently carrying approximately 400 cyclists each day.

### 1.1 Council's Community Engagement Protocol

This Communication & Engagement Plan has been prepared in accordance with Council's *Community Engagement Protocol*. The Protocol is used to determine the level of 'level(s) of impact' applicable to this project/decision (proposal). This proposal has been determined as:

LEVEL OF IMPACT	LEVEL OF ENGAGEMENT
High/Local	Inform/Consult

Council used the framework shown below in Table 1.1 to select the most appropriate 'level(s) of engagement' for this proposal to ensure an appropriate range of engagement 'levels' and methods were offered:

LEVEL	DESCRIPTION
Inform	Providing balanced and objective information to help the community understand problems, alternatives, opportunities and/or solutions
Consult	Obtain public feedback on alternatives and/or decisions
Involve	Work directly with the community throughout the process to ensure that public concerns and aspirations are consistently understood and considered
Collaborate	Partner with the public in each aspect of the decision including the development of alternatives and identification of the preferred solution

Table 1.1 Derived from the IAP2 Public Participation Spectrum



## West Street Cycling, Walking, and Streetscape Upgrades - Stage 2, Communications & Engagement Plan

### 2. Background

West Street Cycleway (between Ridge Street and Amhurst Street) forms a section of *Route 1. Sydney Harbour Bridge Cycleway to West Street*, identified in the adopted *North Sydney Integrated Cycling Strategy*.

Route 1 is a key cycling connection as it connects North Sydney's residents to the Harbour Bridge and the Sydney CBD. The route currently carries approximately 400 cyclists each day although the connection is predominantly on-road and not safe for more vulnerable users, such as young people and older adults.

#### Strategic Merit

Transport for NSW's (TfNSW) *Sydney's Cycling Future* (2013) identifies connecting Sydney's north to the CBD as a priority cycling link. The West Street Cycleway aligns to a regional scale network, providing a key connection between Sydney's CBD and the suburbs to the north and north-west.

In April 2022, TfNSW released an overview of the Strategic Cycleway Corridors - Eastern Harbour City. The North Sydney cycling connections have been categorised as an immediate opportunity, aligning to the Sydney CBD to Chatswood Corridor. This connection has a desired outcome to:

*'A safe connection between Milson Point, North Sydney and St Leonards will improve access to Sydney Harbour Bridge and support forecast growth' (p.5)*

The West Street Cycleway is part of a key cycling connection identified in both Council and State strategies.

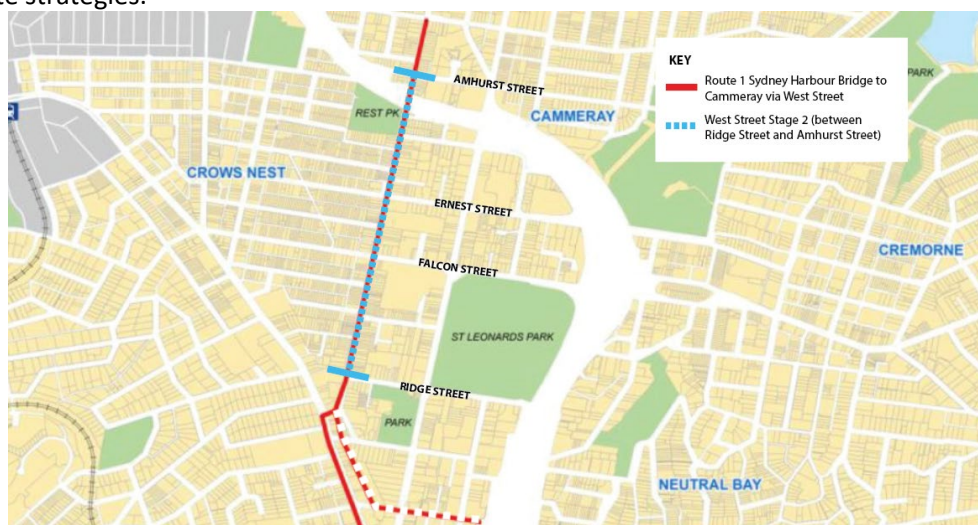


Image 1. Context map West Street Cycling, Walking and Streetscape Upgrades Stage 2

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### 3. Community Engagement Strategy

#### 3.1 Who are our community stakeholders?

The Communication & Engagement Plan identifies the following groups to engage within the local community:

- Government agencies - TfNSW, Road and Maritime Services, Sydney Buses, Sydney Water
- Advocacy groups - Bicycle NSW, Bike North, Bike Sydney, North Shore Bicycle Group
- Precinct Committees - Stanton, Hayberry and Edward
- Residents
- Educational institutions
- Businesses - cafés and other services along the route
- North Shore Local Area Command - North Sydney Police Station
- Sustainable Transport Reference Group members

#### 3.2 Key Communication Messages

- Council is seeking feedback on a final design concept for Stage 2 of the West Street Walking, Cycling and Streetscape Upgrades - between Ridge Street and Amhurst Street. The design includes new plantings, pavement upgrades, separated pedestrian and cyclist crossing, and the extension of the West Street bi-directional cycleway.
- The community can provide feedback on the concept design via the online form or email until 3 March 2024. All feedback received will be collated and inform the final design, which will be reviewed by the North Sydney Traffic Committee before being reported to Council for adoption.
- West Street is a key connection from the northern suburbs to the North Sydney and Sydney CBDs with about 400 estimated rides per day.
- The proposed cycleway will complete a missing link in Priority Route 1 Sydney Harbour Bridge Cycleway to West Street identified in Council's *Integrated Cycling Strategy*.
- About 30 additional trees will be planted along the route, with one tree to be removed.
- Stakeholders will be kept up to date with progress. Sign up via the Your Say North Sydney webpage to receive updates on upcoming key dates and milestones.
- If approved by Council, construction is due to start once grant funding is secured.

## West Street Cycling, Walking, and Streetscape Upgrades - Stage 2, Communications & Engagement Plan

### 3.3 Timetable

Community and stakeholder engagement will occur at various times during the 90-day consultation period. The key project development phases are outlined in the table below:

<i>Phase</i>	<i>Timing</i>
1a. Design consultation (public exhibition)	5 December 2023 to 3 March 2024
1b. Final Design (incorporating feedback)	April to June 2024
2. North Sydney Traffic Committee review and endorsement	July to August 2024
3. Post Exhibition Report to Council and planned adoption	Late 2024
4. Construction	TBC (dependent on grant funding)

#### 3.3.1 Phase 1 - Design Consultation

Between Tuesday 5 December 2023 to Sunday 3 March 2024 Council will offer various methods by which the community and stakeholders can participate in Phase 1 public exhibition of the draft concept plan, including face-to-face, online engagement, and written submissions allowing the community to participate through methods and at times that best suit their needs and commitments. Not listed in priority order:

<i>Method</i>	<i>Target Stakeholders</i>	<i>Engagement Level</i>	<i>Purpose</i>
Website (includes Your Say web page)	All	Inform	Provide information about the project and direct people to how they can have a say e.g. consultation opportunities.
Concept Plans/ Information Sheet			
Signage onsite	Residents		
Social media	Existing followers and local groups with social media accounts - Facebook, X, Instagram and LinkedIn		
eNewsletters	Subscribers of Council, Precincts and Business eNews		
Letterbox Drop	In the vicinity of the proposed project and surrounding areas		
Direct notification email/letter	Bicycle Advocacy Groups, TfNSW		
	<ul style="list-style-type: none"> <li>• North Sydney Boys</li> <li>• Cammeraygal High</li> <li>• North Sydney Girls</li> <li>• North Sydney Public</li> </ul>	Inform	Invitation to schools offering site visit with opportunity to ask questions.

## West Street Cycling, Walking, and Streetscape Upgrades - Stage 2, Communications & Engagement Plan

<i>Method</i>	<i>Target Stakeholders</i>	<i>Engagement Level</i>	<i>Purpose</i>
	School <ul style="list-style-type: none"> <li>• Marist and St Mary's</li> <li>• Monte Saint' Angelo</li> </ul> Mercy College <ul style="list-style-type: none"> <li>• Wenona School</li> </ul>		
	Neighbouring councils - Willoughby, Lane Cove, Mosman and City of Sydney	Inform	Invitation to neighbouring councils informing them of the design and encouraging submissions/comment.
Online Information Session (x1)	All	Inform	Providing project overview and Frequently Asked Questions
Onsite Walkthrough (x2)	All	Inform	Walkthrough of the project site providing stakeholders the opportunity to ask questions. Sites include: <ul style="list-style-type: none"> <li>• Emmet St and West St</li> <li>• Burlington St and West St</li> </ul>
Door Knock (X1)	Businesses	Inform	Provide information about the project and direct businesses to how they can have a say e.g. consultation opportunities.
Drop-in Information Stall (X4)	All	Inform	Council staff to host 4 X pop-up stalls to promote the project and provide opportunity to ask questions. Including x2 stall at the Northside Produce Markets and locations around the project area
Precinct Committees	Stanton, Hayberry and Edward	Inform / Consult	Memorandum encouraging Precinct Committees to promote the consultation opportunity to their members and/or to make a submission
Workshop	Sustainable Transport Reference Group	Involve	Deliver workshop with Reference Group members to discuss the designs, identify strengths and issues, and provide input into potential improvements.
Submissions	All	Consult	Free form feedback accepted by email or posted letter as well as via online form (series of questions).

Note: In accordance with Council's Community Engagement Framework described on page 1, the 'level of engagement' per engagement method is indicated.

## West Street Cycling, Walking, and Streetscape Upgrades - Stage 2, Communications & Engagement Plan

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Page 6

### **3.3.2 Phase 2 - Post Exhibition Reporting to Traffic Committee/Council**

All feedback received will be collated and analysed, and an outcomes report prepared. This will be submitted to the North Sydney Traffic Committee for review July/August 2024. A copy of the consultation report will be included for review.

The post-exhibition report will be submitted to a Council Meeting in late 2024 presenting the collated feedback received during the exhibition period, together with the final design and the Traffic Committee's recommendation for review and endorsement. Submitters will be informed of the outcomes.

### **3.3.3 Phase 3 - Construction**

Council officers will prepare procurement documentation for construction of the West Street Cycling, Walking and Streetscape Upgrades - Stage 2. Assuming community support and Council endorsement, construction is due to commence once grant funding is secured. Residents and businesses will be notified of construction and signage installed on site.

## **4. Opportunity Cost/Rationale**

Engaging the community in this proposal may entail financial costs to Council to achieve a high-quality engagement process. If the process is robust, community ownership of the decisions made will ensure efficient outcomes. Insufficient or poor-quality engagement can result in poor long-term decisions requiring further resources to rectify. The aim of a high-quality community engagement process is to make sustainable decisions. The engagement process will help Council staff and/or Councillors to understand the related recommendations rationale.

## **5. Further Information**

For further information contact Council's Max White, Sustainable Transport Project Coordinator, Traffic & Transport Operations Department:

Phone: 9936 8100

Email: [yoursay@northsydney.nsw.gov.au](mailto:yoursay@northsydney.nsw.gov.au)

Website: [www.northsydney.nsw.gov.au](http://www.northsydney.nsw.gov.au)

## Attachment D Response to themes and submission suggestions.

Theme	Description	Council Response/Action
Low cyclist numbers:  <i>25 submissions</i>	Submissions sighted low cyclist numbers along West Street.	The purpose of improving facilities for active transport is to encourage people to walk and cycle.  Lack of safe cycling infrastructure has been identified as the top barrier for people to ride bikes. The proposed design will improve safety for pedestrians and cyclists along West Street by providing separated cycling infrastructure, additional crossing points and road narrowing to reduce vehicle speeds.
Road Narrowing:  <i>20 Submissions</i>	Submissions opposed the reduction of road width due to cycleway and kerb build outs.	Road narrowing is shown to reduce vehicle speeds. A recent study assessed the impact of lane width on traffic safety found there was no negative impact of narrowing lanes on safety and vehicles crashes. Narrowing lanes for vehicles allow for improved walking and cycling infrastructure. <sup>1</sup>  Vehicle traffic will slow along West Street as a result of the proposed upgrades and road narrowing, which is the intended and desirable outcome for local, neighbourhood streets.  Minimum lane widths for buses has been maintained for the lanes where required for bus access.
Safety:  <i>24 Submissions</i>	Submissions raised concerns regarding safety for pedestrians, cyclists and vehicles.	The designs for West Street Stage 2 meet all safety design guideline requirements and there is considerable precedent for cycleways of similar design in Sydney (Bourke Street Cycleway, George Street Cycleway), as well as national and international example.  A further Road Safety Audit will be conducted on the designs for an independent review and the outcomes of this audit will be incorporated into the designs as required.
Queuing & Congestion:  <i>21 Submissions</i>	Submissions raised concerns regarding existing traffic congestion, particularly regarding school drop-off and pick-up. Comments suggested that the	A Traffic Impact Assessment (TIA) was prepared for the design to assess the impact on queuing and the Level of Service (LoS) on West Street at the Falcon Street and Ernest Street intersection (Attachment D).  The TIA found the proposed design would have negligible impacts to the West Street and Ernest

	proposed walking and cycling upgrades would exacerbate existing traffic.	Street intersections and the intersection would still perform satisfactorily. Further assessment of traffic signals can be reviewed at the detailed design phase.  There will also be improvements to pedestrian flows as a result of the Burlington Street pedestrian crossing.
Cost: <i>16 Submissions</i>	Submissions raised objections to rate payer funds used for the project	The project is predominantly funded by State Government grants that are specifically dedicated to active transport and not rate payer funds. The remaining council funding is contributed by section 7.11 developer contributions specifically dedicated to promoting sustainable transport.
Turn path, accessibility, and sightlines: <i>9 Submissions</i>	Submissions raised concerns about turning paths of vehicles, sightlines at intersections and accessing driveways.	Turn path analysis has been conducted on the proposed design and large vehicles, such as school buses and the chartered 263 and 267 buses, can safely turn where required.  A further Road Safety Audit will be conducted on the designs for an independent review and sightlines are considered in this audit.
Parking: <i>6 Submission</i>	Submission raised concern about the reallocation and loss of parking.	The Traffic Impact Assessment for the design conducted a high-level assessment of parking capacity in the area. The assessment concluded that there is available capacity, and the loss of parking would have a negligible impact on parking capacity.
Quality of Life & Amenity: <i>5 Submission</i>	Submission raised concern about the impacts on quality of life and amenity.	Quality of life and amenity is largely a subjective assessment of the designs.  The designs include a net increase of 29 trees, minimal impact on parking, a 2% increase in garden beds, 3% increase in footpath space and improved connections for pedestrians a cyclist. The designs will also slow traffic along the route improving safety.
Right Hand Turn Ban Ernest Street	Submissions raised concerns regarding traffic diversion onto Burlington Street because of the right-hand turn ban for southbound traffic at the Ernest Street and West Street intersection.	The right-hand turn ban at this intersection is required to accommodate the eastbound 263 and 267 bus left turn movement from Ernest Street onto West Street and to improve the intersection performance.  There are currently right-turn movements in both the AM and PM peaks - 20 vehicles in AM and 42 vehicles in PM peak. This is, on average, 8 vehicles per hour.

		This traffic can be easily accommodated by right hand turns at Holterman Street, Burlington Street and Falcon Street.
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Table 1. Key themes and council response

Theme	Suggestion/Question	Council Response
Speed	Reduce speed zones to 30 or 40km/hr along West Street	Changes to speed limits, in particular 20, 30 or 40km/hr, need to be reflected in the existing road environment. The NSW Speed Guidelines state that for a road to be 20, 30 or 40km/hr the road should be 'self-explaining speed limit through physical traffic calming devices.'  Council is currently installing High Pedestrian Activity Areas across select suburbs and this work is ongoing.  Further strategic assessment for 30km/hr speed zones will be considered as part of the bike action plan refresh.
	'No Traffic Zones' for areas along West Street for peak times to	Prohibiting traffic on West Street would require extensive impact assessment and community consultation.  Out of scope.
	Encourage police to enforce speed limits	North Sydney Council collaborate with
	Upgrade footpaths	Footpaths will be upgraded along the route as required and considerable improvements made to pedestrian facilities such as continuous footpath treatments and pedestrian crossings.  North Sydney Council conducts routine footpath upgrades. In the 23/24 FY, Council spent 1.2 million on footpath reconstruction.
Connectivity	Additional pedestrian crossing at Carlow Street.	Further turn path analysis required to assess appropriateness of crossing.  To be considered as part of future work
	Additional pedestrian crossing at Ridge Street.	Out of scope
	Additional pedestrian crossing at Holtermann Street	Further turn path analysis required to assess appropriateness of crossing.  To be considered as part of future work



	Stopping distances for vehicles set further back at pedestrian crossings.	Inconsistent with standards
	Safe connections to North Sydney CBD, Victoria Cross Metro station and St Leonards.	Expanding the network
	Install cycleway along Pacific Highway.	Pacific Highway is a State Road and required approval and collaboration with Transport for NSW.
Infrastructure & Design	Ensure the quality of new garden beds with retaining walls, proper topsoil, mulch, plant choice.	Noted
	Ensure streetscape upgrades do not impede sightlines.	An independent Road Safety Audit will be conducted to ensure sightlines meet current standards
	Install EV chargers as part of the project.	Noted
	Install E-Bike chargers as part of the project.	Noted
	Bike path should be raised to be level with the top of the kerb.	The cycleway will involve a mix of at-grade with footpath and street level. At grade with the footpath is prioritised for high pedestrian and activity centres as they slow cyclists and improve place elements of an area.
	Bike path should be at road level.	See above.
	Install 1 metre buffer between parked cars and cycleway.	The standard buffer between parked cars and the cycleway is 40cms. This balances protection of cyclists and reduces impacts on parking loss.
	Cycle path on eastern side of West Street	An options assessment was prepared for West Street and a cycleway on the western side was preferred due to driveways. There are 16 driveways on the western side and 32 on the eastern side.
	Provide better delineation of cycleway and footpath at Carlow Street intersection	Noted
	Install painted bike lanes instead of full separated cycleway facilities.	Council aims to design cycleways that encourage vulnerable road users to ride a bike more often. Painted bike lanes on the road do not provide safe, separated facilities, and

		would not deliver the desired outcomes to increase cycling.
	Install uni-directional cycleway rather than bi-directional cycleway	A uni-directional cycleway was considered in the options analysis for West Street. A bi-directional cycleway was the preferred option as it provides separated facilities and minimises impact on parking loss.
	Widen bike path to 3 metres.	The proposed cycleway is 2.4 metres wide with a 40cm buffer. This meets the standards for a safe cycleway, whilst minimising parking loss.
	Pop-up infrastructure to trial cycleway	The proposed design includes a range of place making improvements and raised intersections to improve safety for pedestrians and slow cyclists at key intersections. Pop-up infrastructure does not provide these enhancements and is therefore not a preferred treatment for West Street.
	Extending the cycleway northwards to Jenkins St (approximately 50 metres to provide a safe connection into the cycleway.	Extending the cycleway northwards to Jenkins Street would encourage cyclists to use the cycleway more. The extension will be proposed as part of future work.
	Signage, obstacles and barriers to slow cyclists on the cycleway.	An independent road safety audit will be conducted on the designs to ensure cyclists are at appropriate speeds. Installing unnecessary obstacles and signage will create street clutter and tripping hazards, which should be avoided.
	Remove Huntington Street bus stop	Removal of the Huntington Street bus stop is not considered as part of this project.
Intersection	Extend traffic light signal phasing for vehicles at signalised intersections	Signal phasing will be considered in the detailed design and impacts on vehicles will be considered in these designs.
	Extend traffic light signal phasing for pedestrians at signalised intersections.	Signal phasing will be considered in the detailed design and impacts on pedestrians will be considered in these designs.
	Additional parking restrictions from the driveway of Cammeraygal High school to the lights on West Street and Falcon Street	The Traffic Impact Assessment suggested the intersection at Falcon Street and West Street would continue to function at LOS D. With proposed changes to PM peak clearway (see main report section 2.3 Addressing Queuing) the intersection performance increases to LOS D.

		No further parking changes are not required at this section to improve performance.
	Removal of right-hand turn for southbound traffic at the Ernest and West Street intersection	<p>Traffic counts were conducted for the Ernest and West Street intersection.</p> <p>The right-hand turn for southbound traffic at this intersection is 5 cars in the AM Peak (8am to 9am) and 16 cars in the PM peak (4:45pm to 5:45pm). This accounts for 1% of traffic in the AM peak and 4% of traffic in the PM Peak.</p> <p>The Right-Hand Turn ban is required to accommodate bus movements and improve the</p>
Parking	Review untimed and timed parking around 97A West Street so residents have fair access to parking	Changes to parking at this location may be considered as part of future work.
	Expand motorbike parking at 196A West Street	Additional motorbike parking considered at this location assuming low impacts on existing vehicle parking.
	Don't add the parking space near Ernest St.	An independent Road Safety Audit will be conducted to ensure setbacks and queuing areas meet current standards.
	Install parallel parking on off-streets	Changes to parking beyond the scope of the project area are not considered.
<i>Table 2. submission suggestions and council response.</i>		

## Reference

<sup>1</sup> Hamidi, S. (2023) A national investigation on the impacts of lane width on traffic safety. *John Hopkins Bloomberg School of Public Health.*

## Attachment ##

ID	Name	Sentiment	Submission Comment
1	JM	Oppose	I do not support these piecemeal installation of cycleways that waste public money, disrupt the community installing them and take away needed parking. Cyclists don't even use the bike paths installed in the area and choose to ride on the road. Instead install a connected cycleway through north Sydney cbd where it may actually be used.
2	Dianne	Oppose	West Street is too narrow to add bike lanes and also, they are rarely used. Bike lanes are best added to the green networks where they are safe for cyclists and pedestrians.
3	G	Oppose	my office is in West St, and I have seen the work that has been done and money spent on the cycleway and it is not used by cyclists. They continue to use the road, sometimes three abreast. It is a waste of rate payers money
4	Yvonne	Oppose	The existing cycle ways in West st and Ridge St block 2-way traffic flow because of the now narrow width of these Sts due to cycle way implementation. Every occasion I enter each of these streets and there are cars parked either side I need to wait for oncoming traffic to pass as there is not sufficient space for two way traffic to pass each other without coming very close to each other or the parked cars- I have had my side mirrors clipped by a passing car so now I wait until I am able to proceed one way - west street entry from the pacific hwy is already too narrow to turn into without encroaching into the oncoming traffic lane. Bikes continue to ride on road and not all use cycle way, can infringements be issued to those who do not use the cycle ways after north Sydney rate payers have foot the bill for this access that only some use? Expansion of cycle ways will only add to the problems created in ridge and west streets for those that pay road taxes and rates.
5	Emma	Oppose	I am against the building of more cycle paths in the North Sydney council. As Ridge St demonstrates, the cycle paths are not used. Pelotons continue to ride along the Ridge St road surface meaning that there is even more traffic congestion on the road. Unless there are laws that require cyclists to use bike paths when they are available, the council is wasting its money.
6	Rachel	Oppose	I am extremely disappointed at the design and the danger this places cyclist in, as a person who regularly uses a drive way on West Street to entry a work place. The visibility is terrible and when the cyclist who are mostly non existent fly by not only endangering them self but also the families and children of the day-care @ 8 West Street. The street itself has halved and the danger also placed on not only cyclist and pedestrians at the crossing is poorly thought out, if not dangerous. I see many cars mounting the curb to enter West street past the crossing as the road now is far to narrow for 2 cars to pass safely and I only wait to see a head on accident at the junction as the garden juts out into the middle of the road to make it look pretty. The access to West Street from the Pacific Highway is ridiculously narrow and I witnessed a bus stuck on the highway trying to enter West Street. The town planning of this infrastructure has not been well thought out at all.

			It is a total danger and in all cases I have witness underuse as all of the cyclist continue to ride on the road avoiding the bike lane altogether.
7	Tim	Oppose	<p>I am a resident of this area in North Sydney and oppose this proposal for the following reasons:</p> <ol style="list-style-type: none"> <li>1. the existing bike paths along Ridge and the more recent one in West street are not used by bicyclists. I have rarely seen one on Ridge street. Since the West st one has opened I have seen just one cyclist using it.</li> <li>2. The reduction of width of West street to accommodate the bike path has made it quite difficult to drive along this length of road. The width of space for cars to park plus the drive way is very narrow Also the removal of the pedestrian safe zone on the corner of Pacific highway and West street has been a backward step making this crossing kore dangerous'.</li> </ol> <p>I oppose this proposal.</p>
8	Georgina	Oppose	<p>As a resident we went through 3 months of agony whilst bike track 'planted' around Union Hotel area.</p> <p>We see little or no one using this bike track - rather the cyclists use the road. Vehicular traffic has been made impossible to have a normal two way flow with the reduction in width or each vehicular lane. It is a tight squeeze especially when ute's or larger vehicles are parked over lapping the suggested parking lines.</p> <p>With vehicles parking on both sides adjacent to bike track it is now impossible to expect a clear run when in a vehicle proceeding up West Street. There just is not enough room for safety. One has to pull in and let the oncoming vehicle come through - it is not regularly a two way street any more. Along with that we have the regular cyclists who refuse to use the bike lane for whatever reason - some say they do not like the surface. As a car driver we are not allowed to drive our cars on the bike track - can you answer why cyclists are therefore allowed to use the road where a bike track is provided.</p> <p>The Council must see that the cyclists cannot have it both ways and if bike tracks are installed it should be made illegal for cyclists to use the road ways causing danger to themselves and to vehicle drivers and parked cars on coming traffic flow through.</p>
9	Marianne	Oppose	Concerned about the impact this will have on the amenity for local residents. There is a huge amount of traffic now on west between Ernest & Falcon streets
10	Claire	Oppose	I have an office on ridge street, just around the corner, with a bike path out the front. This bike is rarely used, you more often see kids on scooters playing on this path than bikes using it to commute. It Will also compromise the footpath dining and atmosphere of the cafes on this road, which are a great asset to the local community.
11	Maral	Oppose	I am formally against the proposal for cycling, walking it's not necessary there are so many other places to cycle walk and the financial burden which we don't need in this financial climate it's NO from me
12	Stuart	Oppose	Stop this madness
13	Adam	Oppose	What a dangerous idea for pedestrians and cyclists. Seen many near misses and cyclists are not even using new cycleway.

14	Anita	Oppose	<p>I live at <i>(house number removed)</i> West Street North Sydney. Thanks to the narrowing of West Street, getting out of our driveway - and there are 101 units in our property, many having two cars - is a dangerous exercise, made even more difficult by Council refusing to remove the two metered parking spaces on the left of our driveway. Often there are trucks or large vehicles parked in those spots, making it impossible to see if a vehicle is approaching from the left. The same applies when looking to the right due to the row of cars there, especially if not driving an SVU.</p> <p>Then you factor in Ridge Street and we are watching three-ways to exit,</p> <p>If you must go ahead with this, in my opinion ridiculous plan, could you please at least remove the two metered spaces outside townhouses 1 and 2 at <i>(house number removed)</i> West Street</p>
15	Michael	Oppose	<p>I believe this cycleway proposed for West Street is a terrible concept and will do nothing to "green" the city, but will in fact cause congestion, increase the possibly of serious accidents and will be a complete waste of funds. Already the cycleway that has been installed in West St (between Ridge St &amp; Pacific Highway) has acutely demonstrated all of the follies of this proposal. In addition this current cycleway has at best one of two cyclists using it per day, and these are often e-cycles used by delivery staff. They are therefore travelling at 30+ Km --- and we will just wait for a very serious accident to occur because of all the blindspots and the council will in my view be responsible. Apart for ordinary citizens who may be "hit", I worry particularly for the children that are on there way to or from schools. Given the number of schools in the area, there are hundreds of schools-kids at risk. This proposed new infrastructure will achieve zero, will waste funds, and will cause serious problems. Just a completely ridiculous project and the councillors should hang their heads in shame</p>
16	Mike	Oppose	<p>The 1st stage of cycling walking is not confinement and imposing many safety issues given the narrow West Street, and becoming traffic issue when many cars are on the road. I seldom see the cycling lane is used as expected. The 2nd stage of upgrade plan should be stoped.</p> <p>The project for phase I has caused lot of inconvenience and traffic jams in the narrow street. The project shall not have been proceeded and approved at the day one.</p> <p>Stage 2 - NO GO!!!</p>
17	Geoff	Oppose	<p>This would be yet another great waste of rate payers money. The current new bike path is rarer used, the street is now dangerously narrow creating many near misses of car crashes and pedestrians and access to all residents along these streets is impeded. Most bike still just use the street as they should. Additionally the works have created negative impacts on stormwater run off and the footpath plantings are inadequate. How about getting your pool finished before you look to waste money on other folly's like these. Residents don't want these works, cyclists don't use them, find other green initiatives if that's what behind it.</p>

18	Ian	Oppose	<p>Currently, vehicle traffic along West St in both directions is quite heavy, particularly in morning, afternoon &amp; evening peak periods. Parking in West St, Emmett St &amp; Carlow St is very limited. Pedestrian traffic, particularly school children going to &amp; from the many schools in the area, is very heavy. Pedestrians crossing West St into or out of Carlow do so with difficulty.</p> <p>The proposed changes involving two way bike tracks along West St will make pedestrian crossing of West St at the Carlow/ Emmett intersection potentially very dangerous. Vehicle access in &amp; out of Emmett &amp; Carlow will be made much more difficult. Increased out door dining proposed will also add to the pedestrian / vehicle &amp; parking problems. Implementation of these proposals appears quite irresponsible!</p>
19	Jim	Oppose	No to cycleway
20	Shaun	Oppose	This is an absolute waste of taxpayer money. Existing cycle ways are under utilised and cause massive disruption when being built. I'm a cyclist and I don't use them!
21	Amit	Oppose	Do not support cycleway as it is a waste of money. Cycleway is not required on this road. We need more motorcycle parkings
22	Vic	Oppose	The section of Pacific Highway coming off the bridge and then up through North Sydney needs to be sorted out first. If is a cyclist death trap. I have heard that excuse that it is federal because it is a highway but stiff the fact remains that it is totally unsafe now!!
23	Fred	Oppose	The Council proposes to spend considerable funds to construct a bike lane in West Street, the construction of which will have a substantial negative effect on traffic. Traffic will also increase substantially with development in the area as a result of the NSW Government push for greater density. Council should consider the result of construction of bike lanes in Sutherland St Cremorne. Sutherland Street has become a nightmare with the narrowing caused by constructing bike lanes and the fact that few cyclists actually use the designated lane. The 'lycra' squad and the food delivery bike riders seem to consider using bike lanes to be beneath them thus adding to more congestion on the very narrow road. The bike lane gets very little use. Council should carry out a cost benefit analysis before committing ratepayers funds to the West Street project.
24	Name withheld	Oppose	<p>I don't live in West Street so will defer to the feedback of those that do. I do however drive to West Street for business generally once a week. I absolutely hate the bike lanes newly created. The street now feels narrow. Trying to enter from the highway is tighter. I have never seen a bike use it. I have seen many bike riders, they continue to ride on the road.</p> <p>Given the proximity to the highway it begs the question as to how necessary is it and is Council pandering to the needs of a few outspoken 'residents?'. Speaking of which, I would further suggest the days of permitting people to take up parking space for trailers, tinnies, boats and Caravans should be closing out. Many roads in the Council area are narrow and they not only take up needed parking but make it more dangerous to drive. I would further add that Council's efforts on beautification are also traffic hazards. The amount of times you have to take a leap of faith when driving because of some</p>

			out of control planting or prominent verges particularly around Alexander St Crows Nest is just crazy. As a very long time resident it is becoming very frustrating.
25	Shannon	Oppose	<p>I am concerned that no consideration has been given to the effects of the new massive / overdevelopment of the Marist school site and the increased traffic in Carlow St (the new car exit is Carlow St) and how the reduced width in West St/ Carlow junction from a Bicycle lane will exacerbate the effects of high traffic that lead to the various schools in the area. Ridge st is almost hazardous as it is too narrow - frustratingly, I see more people riding on the road beside the bicycle path than on it in Ridge St...</p> <p>Also, if you are still taking submissions, why is there work being done on the East side of West St near Carlow to put in a bike holder, which isn't even shown on the plans? Makes everyone feel that consultation is merely a PR exercise.</p>
26	Darren	Oppose	<p>We are a resident of (<i>house number removed</i>) West Street and we currently have a driveway (reverse only) onto West Street. The existing sight lines to the north are heavily impeded by trees which makes it extremely difficult to navigate reversing out under current traffic arrangements.</p> <p>Please explain how a residents will able to reverse safely out of their existing driveways onto West Street under what will be substantial compressed distances between allocated parking, south bound traffic and north bound traffic.</p> <p>Please also explain how bike users will be forced to utilise the bike path (vs road) under reduced clearances between north and south bound traffic.</p> <p>Based on the experience to date, bike users continue to occupy the road and not the newly installed bike path at the end of West Street. This has greatly increased to risk of accidents to parents, and children navigating this area (Childcare Centre). Please provide a number count of bike users on the path since opening vs road - this will then provide a clear business case for justification (or not) of further deployment of community funds into such initiatives. A simple survey of bike path in the West Street precinct should be completed prior to extension of these bikes paths.</p>
27	Jane	Oppose	<p>the cyclists do not use the cycleways available to them now in Ridge street now. I see more pedestrians use iwth cyclists continuing to use the road corridor.</p> <p>There is a reasonable presence of cyclists that travel each way on West Street. What measures are council putting place to ensure the cyclists use the cycleway and do not remain on the road proper and I continue to interact with vehicluar traffic on what will be a narrower road corridor?</p> <p>So, very limited people use the Stage 1 bike path, they actually still use West Street not the bike path. The council is responding to bike users who don't use this amenity, as opposed to residents who use West Street and the business owners who create an amazing cafe society in our neighbourhood. The residents and surrounding streets love our community where we can meet in a pleasant green filled environment. Streets are green filled, don't take that away from our beautiful neighbourhood. The Warringah tunnel is going to impact West Street, give us a break. If you put this bike track in, we will have reduced ability to get to our homes. We just ask for sensibility</p>



28	David	Oppose	<p>My big concern is the car parking spaces that will be lost on the street. It's sometimes very hard to find a parking spot and removal of many will be a nightmare.</p> <p>Seems pretty indulgent to have local residents negatively affected only for bike riders to ride through to their houses in other areas.</p>
29	Geoff	Oppose	<p>This proposal raises many issues that will affect the residents, businesses, visitors and the cycling community.</p> <p>1) Increased risk of accidents The main carriageway of West Street will be reduced by 2.8m to allow for the 2-way bike path. This will increase the congestion and frustration on the street leading to an increase in accidents involving vehicles, cyclists and pedestrians. Currently, our street is already utilised by a large number of cars, trucks, buses, large construction vehicles, contractors, Council rubbish removal contractors and emergency vehicles. The traffic on the street has been steadily increasing over the last few years and will increase more in the coming years. The addition of a 2-way cycle-way will in effect be funnelling commuter traffic through a very narrow portal.</p> <p>2) Obstruction of large vehicles (refer photos at #8) Large vehicles, including buses and trucks that currently use West Street, are already experiencing delays and obstruction. Reducing the size of the road and adding the traffic and hazard of the 2-way cycleway will further obstruct their movement. Cars will have no room to 'pull over' to let them pass. Trucks and buses already have a limited amount of room to enter or leave West Street at Myrtle, Carlow, Emmett and Hayberry Streets, plus the other streets North of Falcon Street. This action will be considerably more difficult and more dangerous given the reduced carriageway and the two-way bike path crossings at these intersections.</p> <p>3) Obstruction of emergency vehicles The Police Station is at the end of West Street and their cars regularly speed through the street to reach their call out destinations. The planned reduction of the road will prevent cars from pulling over, as they are legally required to do, when a police car has their siren on. The cycleway will also mean that cars will be unable to easily exit West Street to allow police cars through. Cars will have to give way to cyclists going in both directions on the two-way cycleway. Additionally, fire and ambulance vehicles will be stuck as cars have no room to 'pull over' to let them pass, as required under the law, when emergency vehicles are approaching with sirens blazing. On West Street we frequently observe social groups of 8-12 cyclists, cycling 2 abreast, chatting to each other as they ride. These groups are unlikely to use the bike path so they will be on the main carriageway negotiating with the motor vehicles.</p> <p>4) Safety of cyclists using the bike bath. Cyclists do not always maintain a true straight line when cycling. A slight swerve (particularly common uphill or due to lack of concentration, checking GPS or phone message) and the</p>

		<p>cyclist may clash with the oncoming cyclists on the two-way bike path.</p> <p>If intending to use the pike path, young children and tentative cyclists are at risk of injury from faster cyclists and those that travel in groups. They will be forced to use the footpath rather than risk being run down by cyclists on the two-way bike path.</p> <p>The 400mm medium is the only space between the cyclists and the parked cars on the west side of the street. Passengers exiting vehicles will open their car doors to step out and move to the safety of the footpath. There is real risk of collisions here with cyclists, passengers, and car doors.</p> <p>5) Obstruction to trade access, online delivery, couriers and mail delivery.</p> <p>Contractors, tradespeople and utility providers, regularly park on the street and need to continually access tools, materials and equipment as required from their vehicles. They will need to do unload, traverse and load-up across the bike path, which is dangerous for all parties.</p> <p>Supermarket on-line delivery vehicles, couriers and Australia Post delivery drivers regularly park on the street and will need to unload across the proposed two-way cycle way, to deliver their goods, packages etc into the homes on the west side of West Street.</p> <p>6) Safety of pedestrians</p> <p>When a pedestrian crosses West Street they will have to constantly check left and right as they cross. First looking right &amp; left when crossing the 2-way bike lane and then again right and left across the main carriageway. This is unexpected and not standard practice across NSW roads. It creates a new and unexpected hazard. Due to the decreased width of the carriageway, the space between parked and moving cars will be minimal, creating further risk for drivers, passengers and pedestrians.</p> <p>Large groups of school students march down from the Pacific Highway bus stops through Hayberry &amp; Emmett Streets in order to get to their schools, Marist College, North Sydney Boys, Cammeraygal High School etc. They do this in reverse in the afternoons.</p> <p>The proposed changes will only increase the frustration of residents, motorists, cyclists and pedestrians as the streets become even more congested.</p> <p>5) The road cambers.</p> <p>Parts of West Street have a considerable camber, particularly near the cafes (near Emmett and Carlows Streets) and between Hayberry and Falcon Streets. The high point of the camber is typically in the centre between the two vehicle lanes. The installation of the bike path would move the centre of the vehicle lanes 2.8 metres to the east. As a result, the motor vehicles travelling north will be riding on the ridge of the camber. The vehicles travelling south will be driving much closer to the passenger side kerb where the camber is greater, and the carriageway slope is unusually steep. There will be an increased hazard between those vehicles travelling south on west street and the parked vehicles on the east side of the road. This hazard increases considerably when you add the height of vans, trucks, buses etc (leaning to the left!).</p>
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## 6) Loss of 2nd lane at West &amp; Falcon St

The traffic light intersection on West and Falcon St is already chaotic and often at a standstill at peak times. In the mornings and afternoons, it is difficult for cars to get through these lights within the green and amber light phases. Sometimes the cars at the front, attempting to turn, do not get through. West Street currently has 2 lanes at this intersection (northbound) but it is still insufficient. Replacing a lane in order to have a 2-way cycle-way will prevent movement altogether. While left turn traffic is waiting for pedestrians to cross Falcon Street, the straight through traffic (that should have priority on a green light), will be trapped behind the left turning traffic. Motorists will increasingly become frustrated and more accidents will occur. This could lead to another dangerous occurrence, a 'rat run' through the petrol station.

## 7) West Street &amp; Ernest Street intersection.

The traffic light intersection on West and Ernest St is also chaotic and often at a standstill at peak times. In the mornings and afternoons, it is difficult for cars to get through these lights within the green and amber light phases.

Although the proposal is showing the 2 lanes on West Street (northbound) remain intact, the proposed 'parking space added' will be a further restriction to the left-hand turning traffic reaching the intersection.

## 8) Related photos

1. Photo 14\_02\_2024 318pm\_ Bus West St North bound
2. Photo 14\_02\_2024 318pm\_ School Bus West St Southbound
3. Photo 16\_02\_2024 1123am\_Articulated semitrailer West St northbound to Carlow Street
4. Photo 19\_02\_2024 1042am\_Concrete mixer West St northbound
5. Photo 02\_03\_2024 1010am\_Mobile crane plus 2 heavy vehicles West St northbound

See attached photos 1 to 3

Photos 4 & 5 will be emailed directly as directed below.

30	Helen	Oppose	<p>This Plan creates a dangerous alteration to the flow of traffic on West Street. The roadway is reduced in size and also more complicated to navigate. The range of users of West Street is already large and diverse. The road services the foot traffic of approx. 10 schools and at the same time is utilised by high-speed emergency vehicles and by large trucks and buses. Parts of West Street have a considerable camber, particularly near the cafes and between Hayberry and Falcon Streets. The high point of the camber is typically the centre between the two existing vehicle lanes. The current design of the camber makes a vehicle more stable on the road and steering is easier. The installation of the 2-way bike path would move the centre of the vehicle lanes - such that they are at odds with the camber of the road. This is an unexpected traffic condition for all vehicles and particularly dangerous for the many tall buses and trucks on West Street. The proposed plan for West Street poses an unacceptable risk to the foot traffic on the street. A large number of local children cross West Street in order to get to and from school. They cross at points all the way along West Street. Students coming from the Pacific Highway bus stops and from the Falcon Street bus stop, cross the street in extremely long and large packs. They are walking to and from up to 10 schools in the area. This is a circumstance that is unique to West Street and creates traffic conditions and hazards that are not seen on any other street in NSW. The plans for the 2-way cycleway create a uniquely dangerous situation and impede the ease of movement for the very large number of young pedestrians. Additionally, contractors, service workers and tradespeople regularly park on West Street and need to continually access tools, materials and equipment from their vehicles into homes and onto the footpath. Under this Plan they would be required to - unexpectedly - negotiate their way to the footpath across the bike path, which is dangerous for all parties. Pedestrians crossing West Street will have to constantly check left and right as they cross. First looking right &amp; left when crossing the 2-way bike lane and then again right and left across the main carriageway. This is unexpected and not standard practice across NSW roads. It creates a new and unexpected danger. Young children using the 2-way cycleway would be at risk from fast cyclists and those that travel in groups. This is what we already observe on West Street and the reason why young children currently cycle on the footpath rather than the cycleways. This behaviour can be expected to continue with the 2-way cycleway. The people served by the proposed plan are therefore a small group within an already small group of cyclists. Meanwhile the majority of people utilising West Street will be disadvantaged. On West Street we frequently observe cyclists riding together and social groups of up to 8-12 cyclists. Sometimes the ride 2 abreast, chatting to each other as they ride. These groups are not choosing to stay only within the existing cycleways, when they are available. It is therefore unlikely that they will use the 2-way bike path in the way that this plan envisages i.e. single file and completely off the main road. They will most likely continue to also make use of the reduced main carriageway, negotiating with the motor vehicles. This impedes and causes greater risk to all road users. We also know that cyclists do not maintain a true straight line when cycling. This is a particular concern on a 2-way cycleway on an already congested road. A slight swerve, away from oncoming cyclists, cars, car doors and pedestrians, or a lack of concentration, and the cyclist could clash with others on the bike path, footpath or road. Additionally, from the parked cars, exiting passengers will open their car doors to step out and move to the safety of the footpath, there is real risk of collisions with cyclists.</p>
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		<p>Passengers will not be expecting a cyclist on the footpath side of their car. Emergency vehicles, and particularly police cars from the West Street station, regularly speed through the street as they respond to emergencies. The planned reduction of the road and addition of the cycleway, will reduce the ability for motorists to pull over, as they are legally required to do. The 2-way cycleway will also mean that cars will be unable to easily exit West Street to make way for an emergency vehicle to get through. The result is that fast travelling emergency vehicles will be significantly obstructed from providing a quick response. The role of the Council and State government is to maximise the utility and safety of our roads. This plan, instead, prioritises the desires of a tiny minority over the needs of the majority. Already, West Street is failing to meet the pressure of ever-increasing traffic, including: cars, trucks, buses, students moving en masse, large construction vehicles, tradespeople, Council rubbish removal contractors and emergency vehicles. The main carriageway of West Street will be reduced, causing further congestion and delays. Frustration levels will increase and greater risks will be taken. There will be an increase in accidents involving vehicles, cyclists and pedestrians. In the proposed plan, there are reductions in/removal off the 2nd lanes for cars at key West Street intersections. This is to create a 2-way cycleway and thus serve a very small minority at the expense, and danger to, the vast majority of those utilising West Street. These traffic lights already experience congestion and long delays during the peak times. The traffic light intersections on West / Falcon St and West St / Ernest St are already highly congested and motorists are frequently unable to get through the intersection in one or two or three phases of the traffic lights. Along West St vehicles are often at a stand still during peak times. Reducing the size of the carriageway and reducing/removing the 2nd lane in places, for the 2-way cycle-way, will prevent movement. Motorists will be further delayed. Confusion and frustration leads directly to an increase in accidents. The Council and State government have approved significant projects that have increased the volume and diversity of traffic on West Street. This includes: new schools, increased school roles, new school development projects, new large scale residential buildings and changes to arterial roads etc. As well as cars, the large vehicles, including buses and trucks that currently use West Street, are already experiencing delays and obstruction. Trucks and buses already have a limited amount of room to enter or leave West Street at Myrtle, Carlow, Emmett and Hayberry Streets etc. This plan will make their movement considerably more difficult and more dangerous. Reducing the size of the road and adding the additional traffic and hazard of the 2-way cycleway will further obstruct their movement. Cars will have no room to 'pull over' to let them pass.</p>
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31	James	Oppose	<p>Having just read it was noted that this whole exercise is for a projected 70 cycle riders in the 1 hour peak periods of the day.</p> <p>Nothing has been implemented to control traffic violations by cyclists at traffic lights nor has there been any discussion about verbal noise from some riders. Out of the 70 riders proposed or counted how many will use the cycleway?</p> <p>The next issue is deliveries to the relevant businesses will become a major danger zone for West st users because of the proposed reduction in road width and having a proposed cycle hazed to cross. Space awareness is a growing problem with drivers avoiding trucks will create traffic chokes and road anger.</p> <p>If this proposal is to proceed a lot more thought needs to go into it and the cost justification for 70 riders for 1 hour in the morning and evening if they use it !!, needs to be explained, not to mention the impact and potential loss of trade to the local businesses. One might think this action by Council is a reaction to a minority.</p> <p>Research into other council cycleways reveals a total disaster, loss of money and lack of practical use of the cycleways.</p> <p>As a major rate payer in this street i have concerns!!!</p>
32	Jim	Oppose	<p>I am writing this letter to you to complain about the proposed cycleway in West st, I am against the present design for many reasons.</p> <p>1/ Safety of the street with a reduced width for traffic ,this impacts on all rescue vehicles and delivery vehicles and vehicles in general.</p> <p>The present section completed in West st forces cars to travel dangerously down the centre of the road avoiding you guessed it Bikes which are riding on the road because it is better. As a bike rider myself i will stay on the road its quicker and better.</p> <p>2/ The Junctions at pedestrian crossings and streets with this bike lane could possibly cause major accidents. I have been knocked over by a group o bike riders who rode through a red light and then had the gaul to tell me it was ok they are on bikes.</p> <p>3/ The decline in property values in front of this proposed lane will be affected! Will council be reducing the rates for these properties?</p> <p>4/ Lose of parking will be a annoyance to residents who now struggle to park there cars.</p> <p>5/ An absolute waste of taxpayers money when this money could be used for housing or flats.</p> <p>6/ Why can't you just paint a green section like other councils this is cheaper and allows the road width to remain safely if when needed.</p> <p>7/ Presently Police cars and Fire trucks use this street as access which is great but will cause concern if reduced width by introducing this 2.4meter wide bike lane goes ahead.</p> <p>8/ My property fronts the bike lane corner Hayberry and West with this proposal there could be bike riders below my bedroom talking with each other loudly as they do which will impact on my sleep and peace, I think the street as is works ok even though noise levels are sometimes high.</p>

		<p>9/ Having bikes so close to the footpath is dangerous to the pedestrians if used they will scoot along at speeds in excess of 50kph and that's not taking into consideration E bikes and scooters that can go up to 80kph or more.</p> <p>Having the bike lane painted on the road is a far safer proposal as it is separated from pedestrians by the verge and gutters.</p> <p>10/ When i purchased here i didn't spend millions of dollars to have a narrowed street and bike lane forced upon me.</p> <p>If you are genuine then compensation needs to be discussed.</p> <p>11/ Why do we spend millions of dollars to placate a few wingers when the majority of residents i speak to don't want this to go ahead.</p> <p>12/ Buses use west st every day to pick the kids up from school, it now causes a huge traffic jam as buses negotiate the turn into Hayberry st</p> <p>How will this work when the street is narrowed and a 2.4 meter wide bike lane added to the equation.</p> <p>I could go on but will save you the boredom i am a concerned resident and enjoy the street scape as it is and have concerns about the proposed bike lane going in.</p> <p>I hope you can read this and perhaps make some sense of this ridicules proposal and waste of taxpayers money and explain to me why as a resident fronting this street change i feel like i am fighting a losing battle.</p> <p>If this goes ahead in its present form then will council compensate me and other residents for the possible lose of property value .</p> <p>This is a down size community so population is aging how do they deal with Bikes speeding along if used a designated lane next to a footpath.</p> <p>The narrowing of West st to accomodate the proposed cycle way is dangerous to the local inhabitants. Why when nearly all riders dont use the existing one in Ridge at and West st South end does council want to waste our money.</p> <p>As far as street scape goes this will only go towards ruining the local harmony and creating major road rage and pedestrian rage. THIS MUST NOT GO AHEAD.</p> <p>In response to the sign left in West st Crows Nest informing us of the preposed extension stage 2) of the cycleway.</p> <p>In my opinion this is a waste of time and money as the cycleways already introduced are minimally used by cycles and only serve to congest the already congested traffic in West st</p> <p>I believe it will create a dangerous vehicular access along a future narrowed West st, businesses will suffer because of this and so will residents.</p> <p>At present we have a nice street scape with ability to walk down the foot paths with comfort and safety, introducing cycles to this area will create problems.</p> <p>Already i have been knocked over by cyclists going through RED lights at North Sydney, Twice, i have spoken to Police about this and they inform me it is a major problem that they are struggling with</p> <p>I confronted the bike riders at the time who retorted with " its ok we are on bikes!!! " and spend off up the hill.</p>
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			<p>Introducing this bike lane will only create more problems and they won't use it anyway.          Bikes need to have a registration number and visual plate so they can be accountable for their actions on the road.          I don't want to have bike riders screaming up and down outside my residence, their talking is loud and very disturbing and only serves to ruin the peaceful ambience of this old established suburb.          This letter will probably fall on deaf ears but the corruption in government is quite obvious and I'm sure council could spend my money in far better way.          It is a waste of time and my money to proceed with this ridiculous cycle way. Clearly if you open your eyes you can see the Ridge st and recent West st cycle way is hardly used most bikers use the road.          This will create a more dangerous vehicle access along a future narrowed West st. and create stress for the local people living here. The proposed cycleway if used will exacerbate the already noisy cycle riders who converse with each other as they ride past my residence at a decibel that penetrates my home comfort.          The existing coffee shops will suffer having there attractive street scape removed to allow for this idiocy of a cycle path.          I personally have been knocked over by cyclists who when i confronted them they just replied" its ok we are on bikes" I have had discussions with the Police about this and they inform me it is a problem that they have major concerns with.          Introducing a cycle way along West st is a knee jerk reaction to a minority group who are rude and selfish.</p>
33	Adam	Oppose	<p>Please NO! Cyclists DO NOT use dedicated cycle paths as can be clearly illustrated by the path at the corner of Ernest St and Park Ave. The safest place to walk up there is on the cycle path. Visiting that area 3-4 times per week for the last 5 years I am yet to come across any cyclists actually on the cycle path.</p>



34	Desolom	Oppose	<p>Submission West Street: feedback on the proposed walking, cycling and streetscape upgrades. I object to the proposed dedicated bi-directional cycleway in West St between Ridge Street and Amhurst Street based on concerns for safety as follows:</p> <ol style="list-style-type: none"> <li>1. Pedestrian safety Decrease in safety for pedestrians – in order to cross from one side of West St to the other pedestrians will need to perform multiple additional actions as follows: i) Stop at the bike path - Look left and right to ensure bike path is clear, then ii) Stop at the roadway – look out for cars left and right This will result in a decrease in safety and flexibility of pedestrians to enjoy the act of walking.</li> <li>2. Passenger safety Car doors opening directly onto a cycleway creates multiple safety issues: <ol style="list-style-type: none"> <li>i) Danger to passengers alighting from cars</li> <li>ii) Danger to cyclists from car doors opening or obstructing the cycleway</li> <li>iii) Danger and decrease in amenity to vehicle owners who need to load or unload items from their vehicle. Increase in distance to carry items The following photo shows the dangerous situation of a car door opening onto a cycleway Photo Reference: SMH 15.2.243. Decrease in amenity to vulnerable members of the community The cycleway will add complexity to crossing West St and to the act of alighting from a vehicle to the most vulnerable members of the community including the elderly, physically disabled and children. In order to cross West St, it will be necessary to stop and check for cyclists first, then to stop and check for cars separately. This adds to the cognitive and physical complexity of the task of crossing the road. Alighting from a vehicle from the pedestrian side will also be made more difficult for elderly or physically impaired people due to the safety issues outlined above. Parents with small children will also find it more difficult to load children. Pet owners will experience similar safety issues. Vision Australia in the “Victoria Walks” document outlines the safety issues to vision impaired members of the community posed by bicycles: While motor vehicles are the main threat to the safety of vision impaired pedestrians, the risk of collision with bicycles should not be overlooked. Unlike a motor vehicle, a bicycle does not emit sufficient noise to alert the pedestrian of the bicycle’s approach and for those individuals who rely on residual vision, bicycles are also more difficult to see. In the survey of pedestrians with vision impairment, 24% of collisions and near collisions were with bicycles. Only 19% of respondents expressed confidence in their interaction with cyclists (Oxley et al 2012). Older pedestrians generally are also uncomfortable sharing walking space with cyclists. In a survey of 1,128 Victorian seniors, 39% identified “bicycle riders on shared walking and cycling paths” as a moderate or major constraint on their walking (Garrard 2013). Shared paths should not be installed where there are significant numbers of elderly or pedestrians with vision impairment, large numbers of walkers generally, or high speed cyclists. Generally, existing footpaths should not be converted to shared or separated paths. separated paths should have a physical barrier between them to prevent pedestrians with vision impairment inadvertently moving into the cycle path.<a href="https://www.visionaustralia.org/sites/default/files/docs/pedestrian-safety/road-safety-audit-tool-pdf.pdf?sfvrsn=6">https://www.visionaustralia.org/sites/default/files/docs/pedestrian-safety/road-safety-audit-tool-pdf.pdf?sfvrsn=6</a>Other comments West St has a large volume of pedestrians. Has Council</li> </ol> </li> </ol>
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			<p>done a pedestrian count? In making a decision, the number of pedestrians using West St should be compared to the number of cyclists? For the reasons outlined above, I do not support the dedicated cycleway in West St.</p>
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35	Martin	Oppose	<p>I have reviewed the proposed cycleway plans and my overwhelming conclusion is that the safety of pedestrians has been compromised in order to improve amenities for cyclists.</p> <p>In short, the reference stretch of West Street currently has a footpath intended to be used by pedestrians and a road (at least in part) delineated for the use of cyclists and vehicles. The proposed "cycleway" includes sections which force cyclists onto the footpaths and implies that this is acceptable by calling these sections "shared paths".</p> <p>In my submission, wherever there is a "shared path" or an area of footpath that is easily accessible to cyclists there is a danger to pedestrians. Calling these areas "shared paths" does not make them safe for pedestrians, it simply provides Council permission for cyclists to be mingled with pedestrians. Even when bicycles and scooters were propelled by the rider's efforts alone this was a dangerous mix. With the proliferation of battery-enhanced cycles and scooters, it is in my opinion totally irresponsible for Council to implement a system in which cyclists are not only encouraged to ride on the footpath but are actually directed to do so. I trust that Council, both as an organisation and as individual councilors, will accept responsibility when pedestrians are injured by cyclists on the "shared path".</p> <p>Of particular concern is the "shared path" at the Amherst Street end of the proposed works. Simply stated, the cycleway ends on the footpath and therefore funnels all cyclists onto the footpath. How can that be anything other than a sacrifice of pedestrian safety over cyclist amenity?</p> <p>Similarly, cyclists entering West Street from the ramp up from Warringah Freeway/Brook Street are no longer required to utilise the roundabout (West Street/Amherst Street) but are instead directed onto the footpath in order to access the dedicated West Street cycleway. At the immediate area of entry there will be pedestrians waiting to cross West Street. The safety of those pedestrians will be, in my submission, compromised.</p> <p>It is common for pedestrians to be waiting to cross either West Street or Amherst Street (or the ramp from the freeway/Brook Street) at all four 'corners' of this roundabout. Under Council's proposal all of these pedestrians will also now need to be concerned about avoiding being hit or abused by cyclists as they wait on the footpath to cross the road. Staying with the West Street/Amherst Street roundabout, the plans I have reviewed do not make clear the manner in which cyclists are meant to access Amherst Street from the West Street cycleway. On one reasonable interpretation it appears that such a cyclist comes to the northern end of the cycleway, is directed onto the footpath, across the ramp road entry, onto the opposite footpath, across West Street using the "Bicycle and Pedestrian crossing" and back onto the footpath on the north side of Amherst Street. At all these points there is a high likelihood that pedestrians will be attempting to negotiate their way across either West Street or Amherst Street. In my opinion, it again appears that pedestrian safety will be compromised.</p> <p>Furthermore, with the close proximity of St Thomas Rest Park which is a well-known and widely used dog exercise park, many pedestrians in this area of West Street will be leading one or more dogs. The implementation of "shared paths" in which pedestrians, cyclists, and dogs on lead are all intended to travel is, in my submission, neither sensible nor responsible.</p>
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It is also not clear after my review of the plans where along Amherst Street a cyclist who has come from West Street is meant to move onto the Amherst Street roadway. Although not shown on the plans I viewed, it is notable that there is a bus stop on the North side of Amherst Street in close proximity to where cyclists using the West Street "Bicycle and Pedestrian crossing" are deposited back onto the footpath. Will the cyclists still be using the footpath as they pass the bus stop?

A safer design at the Amherst Street end of the cycleway would be to have cyclists directed into the roundabout rather than directed onto the footpath. Please note that by "directed" I do not mean just the use of signage - the structure of the cycleway must be such that cyclists are forced to use the roundabout, that structure being necessary to overcome the tendency of some cyclists to take whatever route is most convenient for them. Vehicular traffic in this area slows to enter and traverse the roundabout so there should be very little speed difference between cyclists and vehicles at this point. By comparison, cyclists at the northern end of the cycleway will certainly be travelling considerably faster than pedestrians so the danger in directing the cyclists onto the footpath should be obvious.

I draw attention to the paths through St Thomas Rest Park. It is my understanding that neither of the paths are bike paths (other than for use by children riding in the park) and they are not designated as such. However, it is common for the northernmost path through the park to be used by adults riding bicycles and motorised scooters. I am not concerned about considerate adults accompanying children - it is the commuters and delivery riders that are of concern. I fear that with the construction of the West Street cycleway the number of adult cyclists and scooterists using the St Thomas Rest Park paths will increase. Please ensure that at the very least appropriate signage is placed at all entrances to the park making clear that the paths do not form part of the cycleway and that adult riders are not to utilise those paths. Ideally, such signage would be supported by physical impediments to easy bicycle and scooter entry to the park.

Whilst my submissions have primarily addressed the "shared paths" at the northern (Amherst Street) end of the cycleway, it should be obvious that my concerns arise wherever cyclists are utilising the same paths as pedestrians. I encourage Council to re-design the cycleway to eliminate the "shared paths" and thereby improve the safety of pedestrians.

Finally, an observation leading to a question. Pedestrians generally travel less distance than do cyclists. It is therefore a fair assumption, in my opinion, that the pedestrians affected by the cycleway are more likely to be North Sydney council ratepayers than are the cyclists for whom the cycleway is being constructed. On that basis it is also fair to question why Council is not only putting the safety of cyclists ahead of the safety of pedestrians but also apparently putting the interests of non-ratepayers ahead of North Sydney council ratepayers.

36	Geoff	Oppose	<p>I am concerned that Traffic Impact Assessment is fundamentally flawed due to the Traffic Counts being undertaken Thursday 19th of October and Saturday 21st of October 2023 over a 12-hour period.</p> <p>The AM traffic flows in West street are driven by school traffic and during this period the Students doing HSC are not being driven to school. Hence the basis of the traffic data is not correct and significantly underestimates the traffic flows. To get correct data, the traffic counts need to be repeated in first and second terms. If the data that the report is based on is not correct, then the report is not correct.</p> <p>As the new Cycleway is an extension of the just completed cycle way at the southern end of west st</p> <p>Has the council reviewed the actual traffic conditions there vs the design</p> <p>I drove through this area during a peak school drop off time and it was very congested and limited room between cars going either direction</p> <p>Has the council reviewed the design in light of the traffic issues caused by the works completed to date</p>
37	Claire	Oppose	<p>It is unclear from the parking diagram the block between Ernest Lane and Holterman St. There are currently 5 parking spots (and a meter). (address West St is incorrectly marked on the parking map, it should be <i>(house number removed)</i> West Street. There is no marking saying a spot has been removed - is this correct? Resident parking is already so challenging. There are approximately 20 units at <i>(house number removed)</i> West st without parking. Parking spots outside there are being reduced as well. Having additional spots on the bridge over the expressway does not help those of us who live near Ernest St. Perhaps resident parking could be limited to one per property? I am attaching photos of typical morning and afternoon traffic. In the morning, traffic is backed up from Ernest St to the roundabout at Amherst St. With buses also using West St, this will have a seriously negative effect on traffic flow when stopping. It will be very tight with a narrower road, stationary traffic on one side and buses. Holterman St is not addressed in traffic flow. It is very dangerous and I am surprised there are not more accidents. Traffic runs in and out of Holterman onto West - it is really difficult to cross Holterman during many times of the day. Adding a cycle path will create even bigger problems. Perhaps a roundabout? Is there a way the cycle path could be put on the eastern side of West St instead of the Western side?</p>
38	Name withheld	Oppose	<p>With regard to what is currently there I object both as a pedestrian and driver. As a pedestrian it is difficult to cross with the added two way cycle lane and as a driver the junction near the Union pub and the Church is an accident waiting to happen. Luckily I know the area but can see cars and pedestrians confused as you have a crossing and a junction all together and the very narrow turns - too much going on for some drivers and pedestrians. As for the cycle lanes I have yet to see a cyclist using them but have seen the occasional cyclist (fast food delivery) still using the pavement.</p>
39	Paul	Oppose	<p>Since the cycle way has been put in on West St I have seen little to no use of the cycle way, instead I have seen an increased risk to pedestrians and vehicles with a narrower road, driveways having to navigate walk ways and cycle ways - clearly a waste of tax payers money and little to no thought given to the impact of the cycle way.</p>
40	David	Oppose	<p>Concerned that we can no longer turn rights at Ernest Street going south along West Street.</p>

41	Angelique	Oppose	<p>Against proposal due to low volume of cyclists actually using current cycleway on West or Ridge Street, they are always on the road. Cycleway does not form part of a long pathway, just another 'little bit'! West Street narrowing is a nightmare with traffic grid lock experience school start/stop times on West + shocking turn circles from west to church street now. Against extended garden beds on Emmett Street, already difficult turning right to West Street. Take a look at tyre marks on extended garden beds on West Street to Church Street! Please do not do this on my street - Emmett Street. Do not narrow West Street.</p> <p>The addition of garden beds to the side footpaths - e.g Church &amp; West St hamper the ability to drive safely around a corner! They look nice but are not practical. The addition of the cycle way along Ridge to West st has narrowed the roadway a lot, at peak school drop off time its a nightmare, cars weaving and dodging each other as the road way has been narrowed too much for the occasional cyclist. I have lived in the area for 20 years, I walk Ridge/West St most mornings at peak and afternoon at peak - not many cyclists at all. In fact they are normally on the road! I also argue the use of the cycleway that goes where? To the Pacific Highway? The cycle way absorption of the roadway should of been used as a drop off / pick up zone - a kiss and ride area with the multitude of schools in the area. We don't want any more narrowing of our streets!! No more side garden beds that are an impediement for drivers. I live in Emmett St. Currently to exit right onto West is a challenge, I can't imagine what it will be like with the addition of a cycleway, narrowed street, new garden beds to avoid driving onto to and an existng crossing. Please don't do this to my street.</p>
42	Peter	Oppose	<p>We cannot object strongly enough against the proposal to extend the cycle path stage 2 along West Street. We live in a unit at 28 West Street and experience daily the disastrous effects of what has been done so far. It has created an extremely dangerous exercise driving in and out of our underground car parking area for the following reasons.</p> <ol style="list-style-type: none"> <li>1) Visibility is completely impeded by the parked cars on either side of our ramp entrance.</li> <li>2) The speed at which the few bicycles and electric bikes go down the cycle path is very very dangerous and fast with no warning, particularly if there are children in the area.</li> <li>3) The additional bit of flower bed opposite our entrance serves no purpose whatsoever only makes the road even narrower.</li> <li>4) School pick up time there is complete pandemonium in that area, 2 cars cannot pass each other, people are totally confused as to who has priority.</li> <li>5) If Stage 2 is allowed to happen the whole of West Street will be very narrow lanes indeed and a lorry or waste disposal truck will take up the whole space making any passing impossible.</li> </ol> <p>Basically it looks like a major disaster waiting to happen. I understand there have already been 2 accidents in the road outside our block.</p>
43	Kathy	Oppose	Don't expand it, nobody uses the onces we have. Traffic is now more congested

44	Piers	Oppose	<p>As a resident of (<i>house number removed</i>) West Street, which has a completed part of the cycleway on our street front, I would like to make some comments:</p> <ol style="list-style-type: none"> <li>1. The cycle traffic projections used to justify the cycle way grossly overstate the volume of cycle traffic to date. Once upon a time, before the cycleway in Ridge St was built, many cyclists used West Street and Ridge St to access the City. They often did this as part of a peloton. All those cyclists have disappeared. I believe the reason is that serious cyclists will not use the type of cycleways you are building because they are too dangerous for riders. There is virtually no distance between riders going in different directions and the risk of collision is much higher than when riders use roads. As a consequence, I believe, the high volumes of cyclists Council used to justify the cycleways are an illusion.</li> <li>2. The end result is council is spending millions of dollars on cycleways that are barely used by riders. To make matters worse, there is no user pay principle in place. Cyclists pay nothing for the privilege of having a dedicated lane for themselves. The cycle ways significantly affect vehicles and they pay the price in terms of inconvenience whilst residents pay the cost of building cycleways that are hardly used. I urge you to re engage consultants to measure the volume of cyclists on the cycle ways you have built to date and if those results turn out to be way less than your original projections you should be revisiting the scope of your project.</li> <li>3. I can say personally that I think this cycle way has increased the risk of accidents in front of our building. That risk has increased in two ways. The first is that in order to exit the building onto West St we have to cross the middle of the road to turn in either direction. This is inevitably increasing the risk of an accident because the intersection with Ridge St has a lot of traffic on it and drivers I'm not always noticing all the traffic on the roads. The second risk is to cyclists themselves. Coming out of our driveway and even more so coming into our driveway from West St it is not easy to see cyclists coming up or down West St because there are cars that block our view. If cyclists are travelling at any speed there is a risk of a collision with a car.</li> <li>4. So I questioned the financial viability of extending the cycleway further down West Street towards Cammeray. The risk you are creating a huge white elephant of a project that will end up with hardly any users at vast cost to the right players. The only tangible benefit I see is the extension of outdoor dining facilities near the existing cafes in West St.</li> </ol>
45	Vicki	Oppose	Ridiculous - too narrow. The existing cycleway along Ridge Street is hardly used. Ok if you're young, but + no children.
46	Andrew	Oppose	<p>I want to share from the outset that I am in favour of improving the accessibility for cyclists in North Sydney Council and the general proposed improvements to the amenity on West Street.</p> <p>However, the execution of the cycling lanes on West Street near The Union Hotel, particularly the Church Street intersection, is dangerous and a hazard to residents, motorists and pedestrians. There is not enough width on the roadway to make the lefthand turn from the Pacific Hwy onto West Street, and the following lefthand turn along West street near the Church Street intersection.</p> <p>This section of road is particularly hazardous for parents dropping children at the Childcare Centre on West street, and The Catholic School on Ridge Street. With Children and prams getting out onto either a bike lane, or a very tight street, it</p>

			<p>is highly unsafe in the current state.          It would be completely inappropriate and dangerous for the rest of West street in the future to resemble West street between Ridge and Church street in it's current state.          I trust the council will consider the safety of the residents when doing any future upgrade works as the most recent cycling upgrades on West street are nothing short of a disaster.</p>
47	Peter	Oppose	<p>This feedback is respectfully submitted to show the Council that the above proposal is poorly planned, unnecessary, wasteful of ratepayers' money, and actually dangerous. It is also unlikely to achieve its purposes, and it will create more problems for residents. Finally, its assumed purposes could be solved by much simpler, less expensive, and certainly less disruptive means. The West Street Stage 1 has failed. It created a bidirectional cycleway for which there never was, nor still is, any demand. It begins or ends at West Street and Pacific Highway, where a concrete road divider prevents any cyclists heading south from entering the cycleway. Any cyclists heading north in the heavy traffic are unlikely to want to go on to the Cycleway at West Street. In fact, as a resident who walks along West Street from Ridge Street several times daily at various hours, I have only seen one cyclist use it. There never was a demand for the Stage 1 Cycleway, nor is there likely ever to be. It also creates difficulty for motorists, as West Street has been narrowed and is at times-particularly at schools pick up and drop off hours- hard if not impossible to move in either direction. This problem will be exacerbated when the Victoria Cross Metro station at McLaren and Miller Streets opens in 2024. Police station traffic compounds this problem. With regard to the police station that backs onto West Street where the police vehicles are mainly parked, when those vehicles head north on West Street on perceived urgent police business, they travel at rapid rates of speed that are already dangerous for traffic along both the existing Stage 1 section of West Street, and will be even more so for the lengthy portion of West Street heading north that will be narrowed by the Cycleway Stage 2. No legitimate, evidence-based demand for Stage 2 of the Cycleway exists. It appears to be virtue signalling for a perceived "green" future. The residents of the area do not present demands for such cycling traffic, and the Council should not undertake Stage 2 to satisfy its perceived, but largely non-existent, demand of residents from other areas. There just is little cycle traffic along West Street to begin with at all daily times. A "build it and they will come" approach, with all its attendant problems, is unlikely to create such a demand. In any event, Stage 2 will not be benefitting local residents affected by it. They'll be endangered. This example is but one part of the danger Stage 2 will create. There are serious traffic problems at intersections along West Street. Council should know, for example, that traffic at the intersection of West and Ernest Street heading east is a regular nightmare for motorists. Those heading north on West trying to take a right turn onto Ernest Street east are backed up in long lines. The oncoming traffic from West Street heading south going straight blocks motorists trying to take such a right turn so that at most peak hour periods only 3 or less vehicles are likely to be able legally to take that right turn during the green light opportunity. Most vehicles on West Street heading north that want to continue along West Street must get into the left lane. However, because the right lane traffic is often backed up to 10 or 12 vehicles, and cars are parked along West Street on the west side, the cars wanting to get into the left lane are unable</p>



to get into it to continue straight. In this regard, the Stage 2 plan, to add one additional vehicle parking space along West Steet close to the intersection with Ernest Street on the west side of West Street heading south, will make it virtually impossible to get into the left lane. That will really cause a traffic problem at this intersection. Road narrowing only worsens it. Bad road behaviour will follow. Traffic heading south further along West Steet is already seriously impaired and obstructed at the intersection of Falcon Street. Motorists wanting to turn right to head west on Falcon must wait for the oncoming traffic heading west on West Street to clear before they can legally turn right. However, because the Council allows vehicle parking on the east side of West Street too near that intersection, cars wishing to continue along West Street are backed up in most peak hours behind the cars wanting to turn right on Falcon and are unable to get in the left-hand lane to proceed across Falcon because they are blocked by parked vehicles. Again, this existing poor situation will be made worse by Stage 2's narrowing of West Street. The motorists' increased frustration at both this and the Ernest Street intersection are likely to cause poor and dangerous driving decisions. School children as well as other numerous pedestrians along this route are likely to be endangered as a result. Speeding along Falcon worsens it. The Stage 2 plan is based on 2 observations conducted at the intersections mentioned above at West and Falcon and West and Ernest. Only 2 intersections were surveyed on behalf of Nth Sydney Council in the report generated by BECA Dec 2023 - West / Falcon and West / Ernest. The surveys were for a total of 2 x 12 hr periods, one on a weekday and one on a weekend day. The conclusions indicate "slight" benefits to flow and "potential" increases in bike transport as an option. Those are pretty week reeds on which to base Stage 2, and the assumptions therein are questionable at best. The number of bicycles observed was very low indeed. Our observations of West St, as local Myrtle St homeowners, are that West St is a busy thoroughfare for traffic coming on via the expressway off-ramp at the northern end of West St and/or entry via all of the side streets along the entire length of West St. The 11 schools from Cammeray to Nth Sydney put particular pressure on West St from 7.30am to 9.30am and 2.30 to 4pm every school day. Narrowing this road will create risky behaviour by motorists competing with the regular peak periods for work bound motorists. Drop offs are often completed in No Standing or No Stopping zones. This will be exacerbated by the cycleway. Adding back a parking spot on the south western corner of West and Ernest to a spot that is not currently there will create a backlog of cars extending to the West / Falcon intersection, as cars are already held up from continuing along West St because of the many cars turning Right into Ernest from West, on their way to the expressway on-ramp to the city, near Cammeray Golf Course - Apple Maps show this way as the preferred way into the tunnel. The addition of a parking spot on the SW corner of West/Ernest is ludicrous when one considers the congestion. Narrowing the road is short sighted and expensively so. The extensions of footpaths at crossings only pushes vehicles further into intersections, often blocking other cars. There are other problem intersections along West Street. One such is where West Street is intersected on the east by Carlow Street and on the west by Emmett Street, on a busy corner where the Eighty Ate Café is located. Motorists along West in either direction have to deal with many pedestrians gathered there, including school children, who are crossing the crosswalk, often with short notice, and where cars are entering the intersection going in three possible directions from either

		<p>Carlow or Emmett Streets. Adding designated bicycle traffic to this mix on a narrowed West Street, would be a serious mistake and likely to result in injury. Motorists already face difficult concentration issues there. With less room to manoeuvre and less space, the challenge will lead not only to frustration, but surely to incidents. Slightly further south from there along West Street at the intersection with Myrtle Street, that heads west, there is a very tricky intersection with many pedestrians including school children who head in both directions up and down Myrtle. There are numerous traffic incidents there already. Also, motorists throughout the day use it to make a legal U turn. Adding bicycle traffic to already busy West Street with all the local schools nearby and all the many construction vehicles traversing it all day long would add further pedestrian danger to the mix. It is toxic. The Council's traffic study to support Stage 2 is both inadequate and inapposite. It is based on only 2 observations at limited times, one on a Saturday, at the intersection of West and Falcon Streets. The study observations need to have been made at several full peak hour traffic times on weekdays, particularly Fridays. The study does not reflect actual traffic conditions at all points along West Street at most times, does not consider what the narrowing of West Street is likely to do to traffic flow, and fails to look at the areas along West Street where the problems from Stage 2 are most likely to manifest, such as those mentioned. The lack of using simpler, less disruptive means is also a serious flaw. There already are wide bicycle lanes painted on both sides of West Street beginning at Amherst Street where traffic from the freeway exit leads onto West, and they extend all the way to Huntington Street. Another example of this successful approach to bicycle traffic is along Burlington Street as it runs west off West Street. There Council has again painted bike lanes directly on both sides of the road itself, without narrowing the road or creating a two-way Cycleway for pedestrians and bicycles. Pedestrians on Huntington can use the footpaths, just like they can and do along the entirety of West Street. It is a less costly solution—if indeed a solution for the non-existent or minimal bicycle traffic is even needed. Moreover, it avoids disruption. When Council considers that the main entry to the north end of West Street is from an exit ramp off the Expressway, it does raise the question of what bicycles could be said to be entering West Street in the first place. If the Council's objective is to slow traffic along West Street, despite the many intersections and traffic lights at Ernest and Falcon Streets already, then perhaps collaboration and cooperation from local area police commands is a more effective and appropriate way to achieve speed reduction along West Street. It also does not create the dangers, roadblocks and driver frustrations that are certain to result from the Stage 2 plan. If Council members want to see how traffic actually works along West Street, I propose that they meet me to perform an onsite walkthrough at peak hour times on a few successive days. That will give Council the true picture of traffic on West Street and will show that there is no need for the Stage 2 Cycleway.</p>
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48	Mary	<p>I attended the walkthrough that was held on 14th February and commend the officers for their patience. I see this upgrade as an important part of the regional cycling network. As well as assisting cyclist it will also provide a lot more safety for pedestrians. I have found that most drivers are not aware that they must give way to pedestrians when they are turning at intersections. Having raised footpaths along the length of the cyclpath will reinforce the need to give way. I also totally support having narrower roadways to encourage lower speeds.</p> <p>I am an older cyclist (mid 70s) and will not ride along a busy street such as West St. So my riding is very limited and I find I am taking my bike on trains most of the time. I know that this piece of infrastructure will give me the confidence to use it. I am in complete support of this plan</p> <p>Summary of Support</p> <p>I am a 75 year old woman who enjoys riding a bike. However, I find riding on streets, particularly busy streets really formidable.</p> <p>I strongly support the extension of the existing West St cycleway north to Amhurst St. West St is a critical gap in the regional cycling route linking Naremburn and the Sydney Harbour Bridge. West St is already heavily used by experienced commuting cyclists heading into North Sydney CBD and across the bridge. The creation of a safe and convenient cycleway along West Street and into a future Pacific Hwy cycleway will complete the main missing link to connect the majority of Northern Sydney area into North Sydney.</p> <p>Motor vehicle numbers have dramatically increased along West St since Cammeraygal High School opened its senior campus there in 2019. This has made the route much more dangerous for existing riders – but even more concerningly – there are negligible numbers of students cycling to this campus relative to its catchment area.</p> <p>The proposed cycleway on the western side is quite narrow to minimize the number of car parking spaces lost. The low design speed of the bidirectional cycleway will mean that many fast commuter cyclists will need to use the general traffic lane. I support traffic calming measures being proposed and encourage North Sydney Council to push for a 30kmh speed limit along the route which will make it safer for students and slower riders using the cycleway to cross West St to access schools and other eastbound routes. I urge North Sydney Council to ensure that the cycleway is designated as a bike path and not a legal “Bike Lane” so that faster moving riders are not forced to use narrow infrastructure that is unsafe for their speeds.</p> <p>Additional improvement suggestions</p> <p>I also support the bicycle + pedestrian crossings at Amhurst St and Cammeraygal High School. I would like North Sydney Council to install a similar crossing at Rosalind St, rather than the currently proposed pedestrian-only crossing. Including a bicycle crossing will activate the quiet Rosalind St as an East-West connection down to ANZAC Park Public school and the East-West link through the backstreets of Cammeray and Cremorne.</p> <p>Further considerations</p> <p>West Street Phase 2 will unlock the new Victoria Cross Metro Station to residents in Cammeray, Folly Point, parts of</p>
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			Willoughby LGA and potentially even Cremorne and further east depending on an efficient East-West connection. I hope that North Sydney Council will ensure that a safe and efficient cycling connection from the southern end of the West St cycleway to the metro station at McLaren Street will be built. I also trust that bicycle parking is created and maintained. While broadly outside North Sydney Council's responsibility, an active transport overpass crossing of the Warringah Freeway and Brook St is the only realistic high capacity, fully accessible option for this section and I encourage North Sydney Council to petition TfNSW to work with Willoughby Council and itself to get it implemented. It will be critical to complete these cycling, walking and streetscape upgrades before the opening of the Warringah Freeway Upgrade to avert the likelihood of increased motor traffic along West Street from rat running around the freeway.
49	Mark	Support	I am writing to provide my support for the extension of the West Street bicycle and pedestrian enhancements. I note that it incorporates many of the best practice with raised crossovers protecting better vulnerable road users. The improvements will improve the local amenity and connectivity between Cammeray and North Sydney.
50	Jack	Support	I would like to express my support for the project as this is a fantastic opportunity to promote active travel for residents and visitors to the North Sydney LGA and prioritises the safety of bike riders. I particularly like elements like the advance stop lines for bike riders at traffic signals. Ideally, I would like to see a 1m buffer to the bike path from the parking lane to ensure the safety of bike riders and to prevent any potential 'dooring' but I acknowledge the high parking demand in the area and the need to provide for bus routes. Any consideration to this would be an excellent outcome.
51	Blathnad	Support	I wholeheartedly support this
52	Norm	Support	I fully support this, as there are lots of families and children in the area, and the cycle path provides a safe way to cycle for both adults and children without having to cycle on the road, and avoid cars, and car doors being opened. This also completes a missing cycling link between the dedicated cycleway ending at West St, and into North Sydney.
53	Paul	Support	Excellent. a missing link that has long needed to be completed. I hope this gets pushed through quickly. the separated bicycle paths in the North Sydney area are not only viable transport links but they enhance the street scape considerably, so everyone does benefit, not just the cyclists.
54	Scott	Support	I use West Street almost everyday to commute into the city and any additional cycle ways would be excellent and very welcome. I heartily endorse this plan and can't wait for completion.
55	Theresa	Support	Anything and everything Council are doing to improve access to cycling is of paramount importance, and has my full support. More people cycling improves health/mental health, removes cars from the road, allows parents to have a free activity with their children, combats climate change, and increases revenue to small businesses. Please ensure you complete this project as soon as is feasible.

56	Colin	Support	<p>I support this plan. I think it is well-designed and offers significant community benefit. However, I do have two questions:</p> <p>(1) How will the existing Ridge Street separated cycleway connect to the West Street cycleway? Currently, westbound cyclists on the Ridge Street separated cycleway reach West Street at a pedestrian crossing. It is unclear if the cyclists should dismount to cross at the crossing, or if cars are required to give way to cyclists crossing West Street, or if cyclists are required to give way to cars. This confusion has caused many near misses between cyclists and cars and between cyclists and other cyclists. I understand that physically "joining" the cycleways is probably not feasible, however at minimum I think that the safety of this intersection needs to be improved by providing unambiguous signage and marking for both cyclists and motorists as to who should give way to whom at this crossing point.</p> <p>(2) How are non-expert cyclists expected to proceed at the Amherst Street end of the new cycleway? The current plan seems to suggest that northbound cyclists would turn left at the roundabout and go toward the Warringah Freeway, however this route is completely unsuitable and unsafe for a majority of cyclists (it leads to an uncontrolled level crossing of the freeway's high-speed and multi-lane Brook Street on-ramp, followed by an unfenced stretch of concrete freeway verge directly adjacent to a high-speed freeway lane). Are the planners aware that a safe separated cycleway already exists that by-passes this dangerous stretch completely? The cycleway route starts just 50m beyond the current proposed end of the new West Street stage 2 cycleway, at the intersection of West Street and Jenkins Street. The route follows Jenkins Street and Armstrong Streets (both wide, quiet back streets) and leads on to the marked North Sydney Council cycle route on Hamilton Lane. At Hamilton Lane it crosses the municipal boundary into the City of Willoughby and joins the start of the existing, separated, and family-friendly Flat Rock Creek cycleway. This route is already widely used by families, small children and casual and older cyclists. It is not significantly longer than the freeway "suicide route", and is quiet, pretty, safe, and mostly is on an existing separated cycleway through parkland. The route feeds directly onto the main Gore Hill freeway at Naremburn just west of the Willoughby Road historic bridge. For many cyclists heading north to Chatswood and Lane Cove, or west to Macquarie Uni and beyond, this is the only route they will take, due to safety concerns. NSW Transport's master plan for cycling aims to support cycling for "everyone from eight to eighty". I think this is visionary and an essential part of building better communities. Cycleways that are only for the ultra-fit or ultra-risk-takers does not meet this vision, and I suspect that a majority of would-be cyclists would never use a cycle route involving such dangerous sections. Therefore, I ask that Council consider extending the West Street stage 2 cycleway by an extra 50m so that instead of terminating at Amherst Street and leaving risk-averse cyclists stranded, it ends at Jenkins Street, just 50m further to the north. Doing so would create a continuous safe cycling route for all cyclists from eight to eighty that stretches from the heart of North Sydney all the way to Chatswood in the North and Macquarie University in the west; this would seem like a major gain for the cost of just an extra 50m of cycleway. It may also make the difference between a cycleway that ends up being only used by elite cyclists versus a cycleway that is useful to the much wider community, encouraging cycling by mums and babies, young children, families, older commuters, retirees and more.</p>
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			look forward to your consideration and responses to these two questions. Many thanks for the opportunity to input, and best wishes for the project.
57	Tom	Support	Separated cycleways are great. They make our city safer, nicer and better. I don't really care about parking, I think safe cycling routes should be prioritised over car parking. This cycleway looks fantastic and well needed. I appreciate the added wombat crossings and other traffic calming. I also like the width of the cycleway which will make riding my cargo bike on it comfortable. I'm very happy that it results in more trees to help keep the street cool. I'm not fussed that there is a very minor loss of parking. In fact, I think it would be fine to lose a few more parking spaces if it meant the street could be made even safer and more pleasant for cyclists and pedestrians.
58	Edmund	Support	Keen for the project to go ahead
59	James	Support	Have a staff of 100 in Milsons Point who commute across North Shore. All desire a safe riding route.
60	Matt	Support	A very necessary and important connection in the bike network that represents a key step in realising the strategic bike corridors from the CBD to the City's north. I strongly support this proposal.
61	Kim	Support	I don't own a car so bicycle is my major form of transportation. I live near West St and would greatly benefit from a dedicated cycle lane there. The design looks very good, with minimal tree loss. I would query the addition of 10 parking spaces on the section of West St that passes over the Warringah Freeway. Suggest that construction would be simplified if no parking was allowed from the overpass until Rosalind St, as there are no houses with driveway access for this entire section. So bike lane could just use parking lane and road lane remains as is.
62	O	Support	Great to see the West St Stage 2 Plans Moving! Plan documentation looks strong and impact to the area seems outstandingly positive. I can't wait to have a new way to get into the North Sydney CBD and look forward to future connections to Crows Nest too. The path will give me and others access to a number of businesses and key locations that are difficult to access by bike at present, meaning we can leave the car at home and free up space on the road in addition to seats on our trains and buses. Eager to see this project proceed.
63	Fiona	Support	The proposal looks fantastic. I used to ride very regularly into North Sydney but more recently have been deterred by less than ideal cycling conditions. I look forward to visiting North Sydney regularly in future, with this top class infrastructure.
64	Chris	Support	This project is important for me to safely travel to City on my folding bike with small wheels. As I ride a small bike, it is very confronting to share the street with motor vehicles, especially heavy vehicles who may not see me due to lower height and slower speed. I am not a cycling enthusiast who rides long distances. I am a recreational cyclist who wants to have the option to safely commute to work From Willoughby to the Sydney CBD.

65	Ethan	Support	I support this cycleway as it will help me ride my ebike from the M2 cycleway near Epping to the Harbour Bridge and into the city. The cycleway plan looks good, I like how it is mostly separated cycleway rather than shared path. Please use separated cycleways instead of shared paths wherever possible. I would also like to see a separated cycleway connection all the way from West Street to the Merremburn Avenue shared path entrance/exit, so I can ride all the way from Epping to North Sydney without having to ride on the road, as riding on roads like Palmer Street and Merremburn Avenue feels dangerous and discourages me from riding there more often.
66	Liam	Support	I think the cycleway is a well overdue cycle link that will better connect North Sydney with the CBD and vice versa for those commuting or looking to explore North Sydney and beyond by bike.
67	Anthony	Support	I love the plans, making north Sydney more walkable and bike friendly
68	Phil	Support	In general this looks to be a very well thought through scheme. Having shared paths around the Amherst St roundabout is a very good idea with appropriate signage, conflict is common here especially with cars leaving the Brook St ramp who have been travelling at high speed whilst cyclists go slowly uphill, so this is a big improvement My only concern is with the phasing of the lights at Falcon St & Ernest St. If cyclists get the same minimal allowance as pedestrians, requiring them to be stationary at the intersection to make the phase, then they will not use the bike path - they'll cut into the road instead, leading to conflicts. This is a busy cycle commuter route, used by a lot of confident and regular cyclists who are used to being in the road, so it's unrealistic to expect they will slow their journey at this point if motor vehicles aren't on stop.
69	Jason	Support	I strongly support the proposal. A safe, separated cycling facility along West Street is essential to get more people on bikes. In addition, the council should consider as a priority: (1) completing the link between the Amherst Street roundabout and the end of the high quality freeway cycleway at Merremburn Avenue - the current arrangement which requires riding on a narrow footpath, with poles and very little separation from 60/80km/h freeway traffic is unacceptable and discourages casual cycling; and (2) connecting the corner of West Street and Pacific Highway with the harbour bridge cycleway at Milsons Point. The 2020 proposal for a pop-up cycleway along the Pacific Highway was a very good idea.
70	Jonathan	Support	I fully support the plan to extend the bike path along West St. It will make riding along the street much safer and cause less issue between cars and bikes.

71	Ryan	Support	<p>As a regular user of West Street (driving 3 to 4 times per week both ways, and walking and cycling occasionally), user of Thomas Rest Park, Cammeray Village and Crows Nest I think the overall plan is great. It is well considered in the most part and I'm very supportive. There are a few areas where the design could provide improvements for all road users (drivers, walkers and cyclists):</p> <p>Power Pole at 40 West Street Suggest moving the power pole in middle of driveway of 40 West Street to reduce driveway width – this could potentially create a car space which is a good outcome for all. (This would enable parking space near Ernest Street not to be added; see below). This may be an additional cost but I know how hot parking space removals can be. The pole looks old anyway.</p> <p>Emmett Street Potential for conflict between cyclists and café patrons outside café 88 on the corner of Emmett Street is high. Looks like its proposed to move dining area to northern side (Emmett Street) frontage which is very sensible. It is unclear whether that would mean no or less (say only two seat tables against wall on West Street) footpath dining at café? Reducing tables on that side to 2 seat tables would be sensible. Biggest conflict will still be people waiting for takeaway coffees waiting on the cycleway. Suggest relocating ped crossing to southern side of Carlow Street. Lots of people walk down Myrtle and Carlow Streets (from/to the Mater) so a ped crossing on southern side makes sense. Parking impact would be net zero. Cafe 88 is always busy; the other café not so much. Failing that consider physical separation such as low planting between cycleway and footpath dining.</p> <p>Ernest Street West street at Ernest Street is already terrible for cars. Northbound often only one or two cars get through per cycle due to turning cars waiting for pedestrians. I actively avoid this route (and use Holtermann) for that reason. Suggest not adding an extra carspace in the northbound kerbside lane as that will just exacerbate the issue as it will only take two cars either way to stop all traffic. And southbound traffic backs up past Holtermann Street resulting in gridlock. Putting in the right turn band will help southbound traffic but I think will remain an issue.</p> <p>Holtermann Street. The most important issue that needs resolution is the Holtermann Street intersection. Holtermann must be the highest traffic volume (unsignalized) cross street on the route. Don't know how many near misses I've seen here due to poor sightlines and high traffic volumes and turning and queuing present on all legs. I don't think a shared space crossing is appropriate or would meet TfNSW warrants given the traffic volumes down Holtermann. This needs to be a bend in ped and cycle crossing to enable cars to store between the intersection and the crossing and stop cars inevitably storing across the shared space/cycleway. I'd also strongly suggest removing no parking in peak times opposite Holtermann to enable cars to go around cars turning right (similar to what is on Edgeware Road and Murray Street in Marrickville). Cars queuing to turn right is already an issue and having the cycleway will exacerbate this.</p> <p>Pedestrian Crossing at St Thomas Rest Park north of Metcalfe Street The pedestrian build out near St Thomas Rest Park north of Metcalfe Street is good but given the amount of people (and especially mums, kids and prams) that use this a pedestrian crossing would be better, this especially true in morning peak with school drop off. The build out is a worse outcome than the existing refuge; a ped crossing would be better for everyone. I'd be surprised if it didn't meet warrants. There are always people waiting to cross or on the existing refuge when I drive through.</p> <p>Armherst Street roundabout The interventions at the Armherst roundabout are generally good but</p>
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			again the pedestrian and bike crossing should be bent out to allow a car to store between the crossing and the roundabout, to stop cars inevitably storing across the cycleway or stopping in the roundabout itself. Also to the Armherst roundabout there is no facility for bikes to continue from the shared path south along West Street, which is a bike route. There currently is a rampon the southbound side, which needs to be reinstated in the design, and a similar ramp should be instated on the northbound side too.Can a pedestrian crossing also be put in at the top of the freeway off ramp? Finally on the Armherst roundabout, buses turn here currently very awkwardly, sometimes three movements. It looks like this has been considered but would be if reconstructing the whole intersection I'm sure this could be improved. Looking forward to the continuation of the bidirectional separated to palmer Street and down Armherst Street too.
72	James	Support	I fully support the proposed improvements for walking, cycling and traffic calming on West Street.
73	Matthew	Support	I support the proposal to improve cycling facilities
74	Kirsty	Support	Great project and will provide a great link for bike riders. Particularly school children.
75	Dusan	Support	<p>I strongly support the proposed development of a new cycleway. This new development would contribute to safety of cyclists, improved quality of life for majority of people living 2km around it and wider, higher foot traffic, hence healthier population, opportunities for new small businesses along the way, lower emissions and due to proposed greening, a bio-carbon sink.</p> <p>It is also worth recognising that there may be at least two groups who would see this as a threat, residents who would loose some street parking, and visitors to some local businesses who would also loose some parking, so the remaining parking would come at a higher stress.</p> <p>The first group would benefit from increased property value as they will be next to new cycleway, and those benefits should outweigh some of the reduced parking availability stress.</p> <p>The second group can be motivated to walk or cycle to local businesses and cafes. Here we need to recognise that this part of Sydney is very hilly and cycling may not be enjoyment for everyone.</p> <p>Therefore I suggest a few things:</p> <ul style="list-style-type: none"> <li>- Support groups who support the cycleway as a first,</li> <li>- Install a safe cycleway which separates cyclists and the street with a narrow green patch,</li> <li>- Install E-bike chargers close to popular spots, so people who do not enjoy hill cycling can use their E-bikes,</li> <li>- Educate on e-bikes, how to procure, where to charge, what the costs are,</li> <li>- Support future small businesses that cater to cyclists and E-bikes along the route.</li> <li>- Install a cyclist counter somewhere along the route to monitor the amount of cycling traffic.</li> </ul>
76	Chris	Support	This will be an amazing upgrade. I ride from Forestville to the city. During the whole trip I feel most unsafe on the West St + Falcon St intersection and the West St + Ernest St intersection. Great work!!!!
77	Judith	Support	I fully support this! It would certainly improve my cycle to work.

78	Alan	Support	West st is a major through way for all cyclists in North Sydney. This cycleway will be a fantastic addition to North Sydney. I completely support it and would be a regular user of it. In addition North Sydney needs to improve the cycling facilities from the harbour Bridge to West St. Currently this is extremely dangerous and a massive disincentive for anyone to ride in North Sydney.
79	Maleka	Support	I fully support this submission and feel that we can't have enough cycling routes
80	Cameron	Support	Fantastic initiative and a great design. Would have loved it to be a uni directional path but understand that would pact on parking. Hopefully in the future we can get a large unidirectional with removing parking on one side of the street.
81	Sydney	Support	I am a senior citizen (soon to turn 79) and live in Middle Cove. I ride through North Sydney to the city over the harbour bridge 3 to 4 times each week, mostly for exercise and recreation but also to business meetings in the city. My route takes me from Hallstrom Park along the shared cycle/pathway onto Market St E, Dawson St and thence along West St. From West St I use the Ridge St cycleway until I'm forced to ride along Walker St through the commercial district. The intersection at Berry St is dangerous for cyclists going straight as many vehicles turn left from the right lane. In addition, riding through heavy traffic areas is uncomfortable and dangerous for cyclists. I have no great desire to be impaled upon someone's opening car door yet motorists often do not check whether it is safe to open their door. On the other hand, cyclists might encounter aggression riding in the traffic lane as they avoid the danger of opening doors. Almost universally my peers comment that they do not ride because they consider it too dangerous to be in traffic on a cycle. The point of my submission is that Council would encourage cyclists to forgo their cars and ride to the city by providing a safe route connecting the West St upgrades to the Harbour bridge. The West St upgrade is needed, is appreciated, but on its own is not enough to encourage significant numbers to change their transport preference.

82	Michael	Support	<p>I commute to work North Ryde and the City and have approximately 350 times travelled through Nth Sydney from the Warringah Freeway at Amherst St through to the Harbour Bridge since after the lock downs end. The shut of Warringah freeway city bound shoulder as part of the Warring Freeway (downgrade) works has a big impact to resulting in me and lots of other cycling commuters utilising West Street. Unfortunately after only a month of utilising West St I was hit by a car turning into Cameraygal High School from the North bound lane as I traveled Sth. Further I am constantly having to ride with a great amount of vigilance due to the mixing of cycles , cars, bikes trucks and buses on this busy road As such I have used West Street stage 1 separated bike lane extensively which is safer and has good sight lights. For this reason I am very supportive for the quick installation of the proposed West Street stage 2. My comments for consideration are:</p> <ul style="list-style-type: none"> <li>• Design generally looks good.</li> <li>• Landscaping needs to be carefully conceived to allow safe sight lines for cars, cyclist and pedestrians and does not pose an unnecessary barrier for pedestrians to traverse</li> <li>• Consider traffic lights particularly at Ernest St and West St. Ernest seems to be prioritised on this intersection and while I have never jumped the lights the unduly slow lights has resulted in some poor behaviors by cyclists and pedestrians</li> <li>• West St Stages 1 &amp; 2, Church La and Angelo St which is a largely safe journey across the northern fringe of Nth Sydney. The cyclist still has to traverse Berry St and Miller St on the way to the Harbour Bridge which are strictly for experienced riders and the mixing of cars , buses and cyclists is unacceptably dangerous and stress full for all road users</li> <li>• Please consider the needs and uses of e-bikes as these are exponentially appearing more on the roads</li> <li>• Please consider how the bike lane works when it traverses zebra crossings such as the West Street stage 1 bike lane ending on the crossing at West and Church st pedestrian crossing and cars and cyclists are confused as to who has right of way</li> </ul>
83	Jon	Support	<p>Expansion of safe biking tracks on the lower north shore is essential West St cycleway between Ridge and Amhurst Sts is much needed</p>
84	William	Support	<p>Support, super important cycle link which will improve safety and amenity on West St for cyclists and pedestrians. Motorists will benefit with less cyclists on the road and greater safety.</p>
85	Molly	Support	<p>As a local resident I am really pleased with the improvements coming to our neighbourhood, especially the increased pedestrian crossings improving safety for our children who regularly walk to school and day care with us, and beautification of our streets. Safer and dedicated cycle ways is always needed!</p>
86	Joshua	Support	<p>I support this project and North Sydneys direction in building more active transport infrastructure.</p>
87	Denise	Support	<p>As a bicycle commuter coming through this area and using West Street I support the improvements outlined as this will directly benefit me and all cyclists using this route. It is great to see that the parking is maintained for the local residents as well as the amenity improvements with the trees but most of all making it a safer, more enjoyable, accessible route for cyclists. I am keen to see what can be done to improve the link from West Street to the shared path which extends to Macquarie</p>

			<p>Park in the future. Perhaps a button that cyclists can push to stop the traffic coming from the Brook Street ramp to make it safer for cyclists and easier to cross would be good as an interim measure.</p> <p>It would also be good if the cycling connections further south could be improved from the end of West St in the future. This is a vital link for all cyclists North of the bridge and with e-bikes there are more cyclists coming from further as cycling gets easier and becomes more convenient.</p>
88	Shaun	Support	<p>This will be an important connection to ensure greater safety, accessibility and connectivity for cyclists commuting or travelling across the Bridge from North to South or vice versa - integral for continuing the bike network to future-proof Sydney.</p>
89	Ellis	Support	<p>Brilliant idea. Fully support it. Please ensure final design is according to best practice and results in a highly attractive alternative to car use.</p>
90	Tom	Support	<p>This project has my very strong support as it will add greatly to safety on a key cycling route. It is greatly needed! One addition point: Can the cycleway be continued northwards to Jenkins St, Cammeray, to provide that additional safe route for the many cyclists riding to/from Cammeray and Willoughby? If this extra section is added cyclist would not have to ride on the West St roadway at all, again improving safety.</p> <p>The current completed Stage 1 in West St is a great improvement for pedestrians and cyclists alike. The same will be said for Stage 2 when completed. West St is a major cycling route for cyclists heading to/from North Sydney and the Harbour Bridge. Completion of Stage 2 will greatly enhance safety for cyclists and pedestrians. Yes, it will slow down vehicular traffic a little but given the short distance there really is little reason for motorists to complain. Safety of other road users (cyclists and pedestrians) a higher priority.</p>
91	Hamish	Support	<p>I am supportive of extra seating for cafe 88 on west street, provided that the existing seating boundaries are adhered to. The cafe regularly has tables setup outside boundary lines and block the single width footpath onto Emmett street, meaning pedestrians need to walk off the footpath and blocking access for kids on bikes/scooters.</p> <p>Example image attached</p>
92	saurabh	Support	<p>Please build the bike lane. The eventual goal should be to take it to CrowsNest, Willoughby and Northbridge. The networking effect is extremely important for the long term success.</p> <p>Kindly make sure that the 2-way bike lane is at least 3m wide! The current 2.5m seems quite tight especially given the bigger cargo bike that the available in the market.</p> <p>Insure a wide enough Green separator from the road. It would be great to have actual trees planted in this green separator! :) Cyclist need protection from cars and Sun which makes the cycling lane more appealing.</p> <p>It should ideally be at the road level instead of being at footpath level to discourage people from walking in the lane.</p> <p>I have one more observation to share: the decision to implement a 2.4m wide two-way bike lane is quite underwhelming and seems inadequate for future considerations. I recognise the limitations you're facing, particularly with the need to accommodate parking, but it's nonetheless disheartening to see.</p>

			As we approach the end of the decade, the demand for parking is anticipated to decrease due to the emergence of autonomous vehicles. Therefore, it's prudent to adopt a design approach that allows for easy expansion in the future to accommodate changing needs.
93	Jonathan	Support	<p>The proposed design looks great, well done! The design improves amenity for people who ride, and would increase my likelihood of cycling to destination in the North Sydney Council Area. I strongly support this cycleway being constructed as soon as possible.</p> <p>A couple of comments to consider in the refinement:</p> <p>consider constructing a temporary version of this in the interim. This street is currently dangerous to ride.</p> <p>Pedestrians - the modelling suggested some increase in delay for pedestrians. The modelling also suggested improved Level of Service for vehicles. Please align the signalling for the key intersections with the transport for nsw modal heirarchy and road space allocation policy, so that pedestrians receive a better outcome.</p> <p>Pedestrian amenity - footpaths for pedestrians along this corridor should be upgraded at the same time as the cycleway construction.</p> <p>interface at amherst street - People who ride need a proper way to continue north (or join the cycleway from the north going south) on west street as this forms a useful and more protected riding path to the north and west (compared with the route along the freeway). the current plan is ambiguous about how this will work.</p> <p>interface at amherst street - the crossing of the warringah freeway exit is not raised for pedestrians or cyclists. This is not aligned with the road user space allocation policy. I understand there are volumes of traffic exiting here, but none of this traffic is actually from the freeway, it's all more local. if there is traffic here, surely it could be distributed to ernest street or sailors bay road if a raised crossing was introduced at the exit?</p> <p>loss of parking - parking loss is minimal, please remember for any complaints that parking loss over the entire corridor is roughly 1%, it is not worth scrapping this project for, or compromising outcomes for other road users. At the end of the day it is a privilege to be able to store private property on public land, not a right.</p> <p>Signalised intersections - It is noted that turning movements across the cycleway are being retained. Please ensure signaling prioritises people who walk and people who ride. It is critical on this stretch in the early phase for signalling to be good so that the existing commuter base will move onto the path rather than staying in the general traffic lane. the different types of riders this infrastructure will attract are more likely to value safety, but the current set value time and have the confidence to mix with general traffic to achieve their ends if it is not provided for in the cycleway.</p> <p>Speed limits - this road is a perfect candidate for 30kph speeds. please consider implementing as part of the construction bus lane width concerns - please look at gadigal avenue in Waterloo between o'dea avenue and lachlan st. the 304 runs at least every 10 minutes in peak on a 3.1m wide lane. the lane width keeps vehicle speeds low and prevents through traffic. while there is a giant median on this street, the narrow lanes set a good precedent for frequent bus services being able to run on narrower lanes.</p>

			Consider a wombat crossing at metcalfe street crossing west st, there is a surprising amount of pedestrian activity there, and it doesn't make sense that bikes have to give way but not general traffic.
94	Jonathan	Support	Any addition to cycleway is welcome as North Sydney council has made little headway with helping improve conditions for cyclists in the past. West st is currently dangerous for cyclists and a separate cycleway is necessary.
95	Steph	Support	I strongly support this cycleway establishment as it is a critical missing link in the Epping Road cycleway for people riding to the Harbour Bridge and CBD safely from the North Shore. It will open this cycling route and make it accessible to many more people, including casual cyclists and families with children, who currently don't feel safe riding on road, in traffic on a busy street. This is much needed regional active transport infrastructure!
96	Sarah	Support	Love the concept and idea for the extension. Having lived in Emmett Street until I moved out, and having a mother and cousin still living there I can see their worry about the congestion and traffic build up at the Falcon Street/West Street set of lights. The lights should be longer crossing over West Street to accommodate the cycle path upgrade. There should be no parking from the driveway of Cammaraygal senior campus on the left hand side all the way to the lights on West/Falcon otherwise the congestion will be a HUGE disaster. It already was a nightmare when there was a temporary 2 year sub station box . The car traffic build up impacted Ernest Street and West Street traffic .This needs to be taken into consideration. When turning right from Ernest into West the traffic build up can be so bad, with the increase of school traffic and peak hour. It will become a carpark if you do not think logically about how to decrease the congestion with the expansion of the cycleway.
97	Jay	Support	This is a great step forward for cycling in the area and will provide valuable infrastructure for cyclists as well as the broader community. Riding through North Sydney is always a pain point for me as it is scary riding on the road with cars. A separated cycle path will improve safety and allow both cyclists and motorists to commute without fear of collision. I also like that the cycle path has added layers of protection with parking and plants acting as further separation from traffic. The planting of trees and the traffic calming measures will also add amenity to the area. I am looking forward to using this and seeing more separated cycleway like this in the future.
98	David	Support	Hi - this is a great solution that will make it safer for bike riders, pedestrians and separate cars from and it should proceed as soon as possible.
99	Max	Support	I love the idea of this bike lane as it forms a key part of my commute to work every day on bike from the Gore Hill Highway path to North Sydney and over the bridge. Completing this will get one step closer to a fully complete safe path from the Harbour Bridge all the way north to Lane Cove and beyond! Let's get this built and they will come :)

100	Gavin	Support	<p>I am a reasonably regular daytime cycling user of West Street. I am satisfied the plan will likely meet current cycling traffic requirements in all but the busiest of peak hours.</p> <p>I am concerned the Harbour Bridge offramp will greatly increase peak hour traffic and the proposed cycleway will be manifestly inadequate. Cyclists will overflow onto the West Street car lanes.</p> <p>I do recognise the Strategic Plan includes improvements on a number of other arterial routes and it my comment may simply a request these new cycleways be installed as soon as is practicable</p>
101	Rebecca	Support	<p>I am very excited by the prospect of a St Leonards to Harbour Bridge continuous cycle path. I support this extension of the network. A lack of safe cycle routes in the area has drastically reduced my cycling habits. I would like to see a continuation of the cycle path across Pacific Hwy to Hazelbank Rd as this is a popular entry to the cycling network for those west of Pacific Hwy.</p>
102	Alex	Support	<p>I write in support of the proposed cycleway - this is an important link that will improve accessibility for both inexperienced and experienced cyclists - the former of which may find West Street daunting (notwithstanding lower vehicle speeds, there are still climbing sections, the risk of dooring, and often risks involved in lane filtering and having to merge back into a lane as car parking resumes at certain areas). This will reduce bike/traffic conflicts, and experienced riders will also be able to overtake inexperienced ones using the opposite bike lane (when safe to do so), as opposed to presently where they need to swing out to the right (and might run the risk of vehicle impact or aggression if the overtaking does not occur fast enough).</p> <p>Two potential improvements for consideration would be to mark clearways for the intersecting roads to West Street (to allow cars to pull out when traffic has banked up - otherwise it might be difficult to turn onto West street with both high cycleway traffic and no gaps in the traffic and we may find vehicles perched on the cycleway for longer periods of time trying to turn out), and to have vehicles stop a little further back from pedestrian crossings if possible, which would allow cyclists to conserve a bit more momentum on the uphill section as visibility of approaching pedestrians will be improved with the cars 1-2 metres behind the crossing.</p>
103	Kevin	Support	<p>As a cyclist using West St regularly to get to the city from our home in Artarmon, I think that the new bike track will be a huge improvement in the safety of cyclists. The small section already completed, from the Pacific Highway to Ridge St is great and I look forward to the completion of the project. At the moment it is a potentially dangerous ride and if the bikes and cars can be separated it will be a big improvement and encourage more people to cycle.</p>
104	Okka	Support	<p>I support the development of this cycleway as it will improve safety for all road users, and will make cycling and walking more attractive in this area. West Street is also a key cycling route for those travelling from the area, and further north to key destinations such as North Sydney and Sydney CBD.</p> <p>The design is great and should be how all streets with vehicle volumes higher than 1000 AADT are designed.</p>

105	Derek	Support	As a regular user of this street on my bike, an upgrade is long overdue. I cycle from Greenwich ( after taking ferry from Birchgrove) to the city and although there are some great parts of cycle infrastructure on this route there are also some very poor ones or none at all and this section is one of these.
106	shawn	Support	I would like to be able to safely ride from Harbour Bridge to Neutral bay, this is one more piece in the active transport network we need
107	Nicole	Support	I am a parent of two children who attend Anzac Park Public School. We live in Crows Nest and like to walk to and from school. West street is unfortunately so dangerous for our children to cross (as it is for the many, many children walking to and from school each day). It isn't clear whether the pedestrian crossing 'points' will be actual pedestrian crossings or just have pedestrian islands to assist with crossing. I am worried that having the cycle-way will make crossing West street even harder for children. Crossing at the traffic lights on West/Ernest St isn't helpful either as then the children must cross at Holterman street which is also really dangerous for them. Please can you consider adding a proper pedestrian crossing on West Street near St Thomas Rest Park. This is something that I know many parents worry about, especially with busses travelling along West street in the afternoons and the large amount of walking school children. Adding in a cycle-way will make it more dangerous without a pedestrian crossing. It's great that cycling is being considered but I'd like to see North Sydney council really consider the safety of children in the area. The lack of pedestrian consideration around Anzac Park Public school has always been terrible and a shame it wasn't considered more carefully in planning around the school being built.
108	Tanya	Support	I totally support the project. I think it's a great idea to extend the bicycle lane and it would significantly improve cyclists' safety on West Street. I like that it is completely separated from pedestrians and not too close to the moving vehicles (i.e. there is a separation in the form of parked vehicles and bus lane). The better and safer the infrastructure the more people would be comfortable using it, including families with kids and elderly people. The whole project would decrease the noise in the area as the vehicles would travel slower.
109	Christian	Support	Please consider continuing bike lane through intersection conflict area, maybe as a dotted yellow lines on the edge of the bike lane. These lines will join the bicycle lane on either side of the intersection. The point is to provide a visual discrimination of the bicycle lane to left turning traffic particular, and right turning traffic. Traffic turning left particularly is newly crossing an inside lane - the bicycle lane - that can be an unfamiliar experience for many and a consideration sometimes forgotten with consequences for cyclist. Can you also consider putting a bicycle symbol in the intersection area for all bicycle movements to emphasize the risk even when no obvious bicycles. Also consider putting bicycle symbols at regular intervals less than the site distance of a 'standard car'.
110	Anahi	Support	Cycling is the best transport, it's sustainable, doesn't create pollution, noise, it doesn't occupy too much public space, it's healthy and it's the fastest transport for every day distances. Unfortunately cycling in Sydney is very dangerous. Sydney needs a lot more bike lanes so it's safe and more people can



			join, and use their bicycle as an everyday transport. It's proven that the more bike lanes and safe is to cycle the more cyclist we will have.
111	Nathan	Support	More isolated cycle paths are most welcome, West Street is a commonly used cycle route so a marked path there would be great, helping to connect otherwise disconnected segments of cycle ways.
112	Anne	Support	Support proposal. Need safer alternatives to Pacific hwy which is too busy and has too much traffic
113	Jerson	Support	Fully support
114	Amanda	Support	This is a fantastic idea to extend , currently it is quite dangerous for cyclists once the current path ends . I often ride to work in St Leonard's and pass through Nth Sydney .The journey is often slow navigating the traffic safely.
115	miles	Support	Very happy to see connections forming for a cycle network north of the bridge. Active transport is the future, so let's get it there!
116	David	Support	Thank you for the opportunity to provide feedback on this proposal. I was very involved in the feedback and design submissions back in 2017-18, and I continue strongly to support this initiative. In addition to the active-transport benefits of the proposal, Stage 2 of the West Street cycleway would introduce significant traffic-calming measures in an area that has a very high density of schools and a very high volume of children walking to and from their school and St Leonards Park, which, in this era of disappearing school playgrounds, has become a de facto school sports and recreation area (what a shame said schools are exempt from paying Council taxes!).I consider that most of the proposals made by Precinct Committees and individuals back in 2017-18 have been factored into the new design. There are, however, a number of measures that would contribute to the effectiveness of the final outcome, and I enumerate these below.1. Traffic calming measures/need for more pedestrian crossingsWhile kerb build-outs to increase cafe seating capacity and thresholds/shoulders/raised intersections to calm traffic are better than nothing, they will not be nearly as effective as pedestrian crossings. There are several quite dangerous intersections along the proposed route. West and Carlow is particularly bad. Cars approaching West Street along Carlow have a 'Stop' sign, but in my 20 years living on West Street and walking extensively each day, I am yet to witness a motorist come to a complete stop at the sign unless giving way to traffic on West Street. Rather, motorists tend to treat the intersection as a 'Give Way' situation. Drivers looking to turn left into West Street look to their right as they approach the sign and turn left without stopping - often at 20 kph if there are people crossing the nearby crossing on West Street and thereby holding up the southbound traffic - if there is no traffic heading south along West Street. This means that pedestrians, who have the right of way under the road rules, will be in extreme danger should they exert their rights. A pedestrian crossing here would reinforce the requirement that motorists must come to a complete stop at the 'Stop' sign. Similarly, the intersections at Burlington and Holtermann streets are very difficult for pedestrians, especially at busy times of the day. And, as outlined earlier, many of these pedestrians are school children.2. 'High pedestrian area' speed limitIt would be timely to introduce a 40 kph speed limit on West Street once the cycleway is completed. This would encourage more parents to allow their children to walk to and from school as well as recognise the need for careful driving in an area with so many cyclists and pedestrians. Every

		<p>school in the area continues to grow. Now is the time to recognise this by introducing a speed limit that reflects the enormous school campus we have in North Sydney.<sup>3</sup> Improvements to verges and streetscapesThe Council has a mixed record in this regard. There are some examples where this has been done well (Church and McLaren St intersection) and others where the result has been very poor (Ridge Street). The good examples tend to be characterised by garden beds that have depth and proper borders that prevent the topsoil (and plants) from running onto the footpath. This allows rain water to nourish the plants and for the plants to thrive and develop. In too many cases, it's obvious from the outset that the plants have no chance at all. A poor selection of plants and/or insufficient plants to allow for clumping leads to an inevitable loss of the plants. In short, poorly-designed garden beds won't last, so it's better to pay for good-quality in the first instance and save on maintenance/plant replacement costs in the long term. It's also clear that garden beds are difficult where there are substantial tree roots, and these will require expert input.<sup>4</sup> Opportunity to review parking restrictionsMuch is made in the documents about the fact that the proposal will not result in the substantial loss of on-street parking. There is, however, no consideration of instances where existing on-street parking along the proposed route makes no sense. The example I would like to cite is the unrestricted parking on the east side of West Street between Ridge and 47 West Street. There are currently no restrictions in this area. As a consequence, given that there are many local residents who neither have off-street parking nor are eligible for a resident's parking permit, these spots tend to be taken whenever they become available and thereafter 'hogged' for days, week or even months. I live in this area and can usually list the cars parked there because they become so familiar over the days, weeks and months they remain there. On some occasions, a car has only been removed when its registration has expired and it has been reported. One sometimes sees cars full of people's possession, presumably while they couch-surf while looking for somewhere to live, and there have even been people sleeping in their cars on occasion. This has been a good spot to leave a car which is for sale, as there is good passing foot traffic. Most typically, it is a great place to leave a car throughout the week while the owner walks and uses public transport while still having access to a car on the weekends (one can sometimes find a spot on the weekend if one looks regularly). In short, these car spots are not available for the purpose for which they were intended, but rather as a fallback position for drivers who, according to Council policies, should not require a car or who have made a choice to live somewhere without parking. The result is that it is virtually impossible for local residents to accommodate tradespeople who need to park close by as there is nowhere to park. While it will always be challenging in such a central area, at least there would be some chance if sensible restrictions were introduced. As it is, the parking spots benefit very, very few and in a way contrary to policy intentions. The obvious solution is to place some sort of restriction on parking in this area, whether the limit be 2, 4 or more hours. The current policy simply encourages use of the spots as an outdoor garage at ratepayer expense. While there was probably a rationale for unrestricted parking sometime in the past, I do not believe that it makes any sense today. Reviewing such anomalies as part of the stage 2 cyclepath along West Street would make very good sense.</p>
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117	Elizabeth	Support	I fully support the West Street - Stage 2 initiative. However, I would ask Council to ensure proper and viable landscaping. I need only ask Council staff to visit Ridge Street to view the "landscaping" in conjunction with the cycleway development along that street. Most plant beds along Ridge Street have little or no retaining wall which means that, from the very start, plants are barely surviving in hard soil. Any top soil or bark cover added since has simply been washed away by rain or is constantly disturbed by passing dogs walking into the plant beds. Compared to other street plantings within the Council precinct, Ridge Street displays absolutely no attempt at creating visual amenity (block plantings of Liriope/Mother-in-law's tongue etc are completely uninspiring). On the other hand, the plantings at Church/McLaren Streets are a delight and uplifting. All beds need a retaining wall (even a shallow one makes a difference), proper top soil, mulch and a creative approach to plant choice without any great difference in maintenance requirements. I have enclosed photos of Ridge Street beds to support these comments.
118	Chris	Support	Fully supportive of this - I cycle this route in and out 1 day per week and believe any segregation of bikes and traffic would make for a better experience for both cars and bikes
119	Madeleine	Support	Love the idea of getting a better and safer cycle path - west st is a great connect road between north sydney offices and crows nest, Naremburn and cammeray homes, let's get it better for walkers and riders
120	Gionata	Support	I am supportive of the proposal which is well thought through and I believe it will have a positive impact on the community.
121	Brendan	Support	I fully support making the area a more pedestrian and bike friendly space. That part of town is too vehicle heavy and its harder to get around on bike or walking so this will help.
122	Chalisa	Support	I would love to have a more pedestrian and bike friendly neighborhood
123	Adam	Support	This plan is very good and much needed. West Street currently marks the beginning of a large, dangerous gap in northern Sydney's cycling network which is otherwise capable of connecting suburbs all the way up to Epping to North Sydney and the city. As a frequent cycling commuter, I have had many near-misses on West Street from drivers trying to find gaps in slow peak hour traffic and witnessed many more as cyclists try to find a safe line between cars. This plan will take out all of that ambiguity and guesswork. This is good for regular riders such as myself trying to get home in one piece, but will also make cycling a viable option for so many new or less confident riders. It would even make it possible for me to start riding with my toddler in the passenger seat on the bike to the parklands around North Sydney Oval and the nearby cafes, something I would never feel safe doing with the current open road setup of West Street. The study you've commissioned shows, as is usually the case with these projects, that changing the lane and parking setups doesn't actually impact the traffic and parking flows in any noticeable way. Armed with this knowledge, please hold your ground against the inevitable "never cycling" NIMBYs who will always oppose this kind of infrastructure. This lane will be a lasting boon both to the residents of North Sydney and also the greater northern suburbs who will be able to more easily and safely connect with the area.

124	Name withheld	Support	<p>I'm the mum of a preschooler. Our family live locally in an apartment and only have 1 car space so doing as much as we can without using a car is really important. I do a lot of walking which is fine if it's not too hot or too far but is harder when you need to go more than a kilometer or so (particularly with a preschooler). I'm a beginner rider and have an ebike that I'm gradually becoming confident with. I really support building cycleways like West St because I get really scared and flustered around cars and being on a cycleway makes me feel less stressed. As our kids grow up more, I would really like them to be able to have the independence to go to parks and friends' homes themselves and I would feel much more comfortable if they aren't riding on busy roads with cars. We're in the catchment for Cammeraygal High School and when my kids get to high school age, I really hope that they will be able to ride to school. There are so many cars on West Street each morning now that it's not safe anymore. As North Sydney gets busier, I just can't see how our kids can get around with cars all the time because there's nowhere to store them.</p>
125	Name withheld	Support	<p>I'm a very experienced cyclist and using a bike is my primary way of travel for local trips around North Sydney LGA and commuting to work (~17km each way). I frequently do shopping by bike and transport my kids by bike too. I strongly support the West St cycleway. It would have been great to have wide unidirectional cycleways on either side of West St to allow faster riding. The narrow unidirectional cycleway that minimizes car parking losses is obviously a compromise but the traffic calming surface treatments, lane narrowing and multiple crossings from the cycleway to the Eastern side are a good step towards making the general traffic lanes safe for faster commuting cyclists that will be too fast to ride safely in the narrow cycleway. I urge Council to work with TfNSW to implement a 30km/h speed limit along all of West St and Ridge St to compliment the narrow bidirectional cycleways there. A 30kmh limit on the general traffic lane with slower and inexperienced cyclists on the narrow cycleway should ensure that there is no need for motorists to overtake commuting cyclists continuing to ride in the general traffic lane and remove all the existing danger. 30kmh limits will also remove noise pollution from the street making it more pleasant for people walking and sitting outside – such as cafes. I strongly support the pedestrian + cycling crossings installed and particularly the one at Cammeraygal High School. I urge Council to also implement a similar pedestrian + cycling crossing at the proposed new crossing of Rosalind Street because this will help activate an East-West route to ANZAC Park Public School and its catchment area in the west that extends to St Leonards Station. The proposed design has car parking spaces quite close to major driveways like the Ampol Service Station at Falcon St and the Car dealership at Ernest St. While I expect that removal of those spots would be difficult politically, I encourage Council to look at ways to ensure that the vehicles parked in spaces adjacent to major driveways are small and easy to see through so that drivers can easily see cyclists on the path and not cut them off. Caravans, large boats on trailers, large panel vans and large American style pickups are examples of items that have poor “through visibility” and should be discouraged from using those spots. Share cars (which tend to be small) and motorcycle parking would be ideal candidates for using these spots.</p> <p>The northern end of the cycleway has some complexities to deal with the Brook St offramp. Ideally a pedestrian / bike crossing would be installed across the offramp intersection given that West St is a residential area where people should</p>

			be prioritized over motor vehicles. If that isn't possible, even surface treatments to slow cars down as they approach the roundabout would be beneficial. One option could be to provide an opportunity for northbound cyclists on the cycleway to move down onto the road shortly before the roundabout so that they maintain priority through the roundabout area. This also has the advantage of reducing the number of people in the shared zone. It may also have a secondary advantage of ensuring cars coming up the ramp from Brook St have to stop and give way and then provide more time for pedestrians to cross at an otherwise non-priority crossing.
126	Alexandra	Support	My name is Alexandra and I am 3. I like to ride my balance bike. Sometimes I like to ride my pedal bike and scooter too. I ride my balance bike all the way to school (on West Street). I can even ride to the pizza market (Twilight Markets using West St and Ridge St cycleways). Daddy says it is more than 1 kilometer! I like riding in the alleyway and cycleway (West Street cycleway phase 1) the best because it is quiet and I don't cough from cars. Daddy says that when the cycleway gets bigger, I can ride to the train park (Thomas Rest Park) on my own bike. Daddy takes me to lots of different parks to play. He takes me in the bike trailer or on Mummy's bike because it is a long way and I get tired. I like riding because I can see all the puppies and brush turkeys. Sometimes the puppies say woof to me. I like to wave at them. Sometimes we can't go to the park I want because Daddy says it is too dangerous because there are too many cars then. If there are cycleways then I can ride to the park whenever I want to. Mummy sometimes doesn't come to the park with us because she is scared of cars like me. Please build the cycleway so that Mummy can come with us to the train park too.
127	Mike	Support	This is an excellent proposal that will enable more people to ride bikes, especially people rightly concerned about mixing with traffic. It improves on prior shared environment intersection solutions with bicycle priority. I don't live in the area I ride through here when visiting family. If there was a dedicated path like this my wife would also ride with me.
128	Adrian	Support	This project is very welcome. It is a continuation of the 'model bicycling paths' already established and well used in Cammeray, such as Sutherland Street. I lead rides for retirees from the Eastern Suburbs across the Harbour Bridge and it is important to develop West Street as it links up well with cycleway system in the Willoughby LGA. By the way, we usually stop at cafes in Ridge or West Street on longer rides, such as into the Lane Cove National Park or via The Spit to Manly.

129	William	Support	<p>I'm not against the proposal what so ever, but after being a resident in the area for 13 years now and having since raising kids in the area we are well versed in the pedestrian and bicycle nature in the area.</p> <p>My fundamental concern with the method in which North Sydney Council have executed the cycle laneways.</p> <p>We walk down Ridge Street 4-6 times a day to drop kids off at school and daycare. We love that the cycleway is at the pedestrian level as this effectively doubles the pedestrian footpath area and work well for little kids to utilise, particularly to and from school. I do however feel that this is also fought with issues as the keen cyclists do pose a risk to meandering kids and people getting out of there cars. We recently witnessed a significant accident where a passenger of a care whipped out a cyclist whilst exiting the car. This then pushes true cyclists onto the road as they feel that the risk is too great and would not like to impose this on pedestrians. I am a cyclists myself and do have a lot of friends that commute via bike and this is the opinion we all have. It may be helpful that North Sydney Council and Consultants (TIA) consult with local Cycle Clubs to seek their feedback on this arrangement.</p> <p>The cycleways in and around the Sydney CBD and Surry Hills are fantastic, but i fundamentally believe that this is the case as the bike paths are on the same level as the roadway which then promotes the use by real cyclists (not 5 year olds) and provides them with a safe buffer from the pedestrians. It also allows for a much faster flow on the bike lane.</p> <p>Please do consider this as i do not believe the outcomes at the south of West Street and the Ridge Street cycleway are not anywhere near as effective as the need to be. This is a in my opinion a design fault caused by a lack of consultation with the true end users; cyclists.</p> <p>The TIA reference images all show bike lanes that are at the same level as the roadway. Even The Typical Section A on the Flyer shows the bike lane on the level of the roadway.</p> <p>For this to be utilised by cyclists in the nature North Sydney Council anticipate i strongly believe that the bike lanes need to be on the same level as the roadway. There is not point in doing this twice.</p> <p>2. I have a concern with the delineation of bike lanes to the pedestrian and patrons of Cafe Eight Ate on the corner of West and Emmett Street. This is a typically congested area with patrons milling on any given day and children commuting to school. I find that there needs to be a buffer from cyclists to pedestrians. This could be in the way of a planter and dedicating that quadrant to being a 'shared zone' to allow pedestrians to cross West Street to the east side. I would like to see a plan capturing the full extent of the Carlow/ Emmett Street junction to West street. The flyer cuts off this in 2 sections and is hard to understand. This junction is always a challenge to navigate by car and needs to be carefully considered as it has the additional overlay of the 2 x Cafes which are busy nodes in this prescient. Can this be provided to the community and the local residence/ shop owners as a Appendix to the current information?</p>
130	Stephen	Support	<p>Please build this wonderful plan and help fill in the gaps for safe, dedicated and segregated cycling infrastructure through North Sydney.</p> <p>The fact it only loses two car spaces and gains trees is a great piece of planning and might keep the NIMBY's quiet, but no</p>

			doubt they'll find other 'reasons' to object. I support this project and hope it gets built in full in the near future.
131	Jean-Claude	Support	I have read the submission and I would like to say I support this plan. It's clear NS council is trying to connect the bike paths from the bridge through North Sydney and this is a great proposal. Moving high speed traffic to miller st and making West st, bike, cafe and pedestrian area is something that I fully support. West st and Miller st run parallel however west st isn't a great through street and these proposals increase the utility. I do note though that North Sydney police often use west st as a high speed street and would like to know if this is still going to be the case as this would make this a dangerous situation with more bikes and pedestrians with high speed police cars? I would suggest a consultation with NSW police however I assume this has been done?
132	Christian	Support	I support the proposed upgrades for cycling and walking in North Sydney.
133	Allan	Support	The improvements to the West Street Cycleway are much appreciated. Most of it currently is little more than paint dropped on the road surface, and with cars parked both sides, others turning right at Falcon and Ernest, it is risky for cyclists and motor vehicles - a separated cycle path will help greatly from the north Sydney CBD to Amherst Street. But once at Amherst Street, cyclists heading West to the Gore Hill share path have an immediate problem - crossing the Willoughby Road on ramp. With an 80km/h speed limit and frequent congestion, it can be very difficult, and the risks are enormous. While maybe not a council issue directly, I'm sure council are working with Transport for NSW for the Warringah Freeway upgrade, and the cost of a suitable pedestrian and cycling bridge would be a drop in the ocean for the billions being spent.
134	sally	Support	Thank you for promoting initiatives for affordable, accessible, clean and safe transport with improvements to cycling infrastructure. A lot is known about the benefits to everyone of this clean mode of transport, and its contribution to helping Australia to achieve its net zero emissions. If you look at communities around the world with high happiness levels, cycling features in the mix of their thinking and daily activity for healthy living and in ways that consider impacts on others.
135	Robert	Support	West Street link very important
136	Edward	Support	I support the cycleway. This is a vital link leading to the Harbour Bridge.
137	James	Support	I support the extension of the cycleway along West St. This is a much needed safe connection that will be used by many in our community.
138	Nash	Support	I fully support this project. This is a much needed active transport connection in the area.
139	Russell	Support	I support Councils submission for the West Street cycleway. I would regularly use it as I believe it will be a valuable resource for health and fitness and commuting by bike into the City which I do 10 to 12 times a month. It will be a much safer route reducing contact with motor vehicles. It will also compliment the cycleway to Chatswood which I use 1 to 2

			times a week, and also compliment the about to be built Harbour Bridge North end and South end cycleways. I believe it will also give a more village feel to Crows Nest where I live. School kids from Cammeraygal H.S.would I believe utilise bikes more when constructed.
140	Alistair	Support	I support the West Street streetscape upgrades as proposed by the Council. There is a need for greater pedestrian accessibility, in particular at the Carlow St/Emmett St intersection. There would be value in also considering a pedestrian crossing across Ridge St at a later stage. The benefits to pedestrians, in particular families, will be significant and there is minimal loss of street parking opportunities.
141	JoJo	Support	West Street looks good, let's do it, connecting north Sydney to the harbour bridge via bike lane will open up cycling to work to all my co workers. cycling through north Sydney is a big blocker for my coworkers because there is no way through unless it's through peak hour traffic which is perceived by most as scary and unsafe.
143	Chiara	Support	I am in support of the proposed changes to the West Street Cycleway. This will be a safer option for all including kids.
143	Armin	Support	I strongly support a safer environment for cyclists which prerequisites the building of cycling dedicated pathways.
144	Natalie	Support	Fantastic to see micromobility and traffic calming. Safety should be the highest priority of any road system. Separation of drivers (+40km/h in urban areas), cyclists (typically 20-30km/h) and pedestrians (5-10km/h) just makes sense!
145	Ben	Support	I fully support this cycleway through West St and am looking forward to using it once it is built! One thing I wanted to query was how bicycles will travel through the traffic lights intersections of West St cross Ernest St and West St cross Falcon St. I feel as though with no ground markings, cars turning left or right (from opposite) may turn across bikes. Not sure on the current best practice standards, but even continuing the green bike lane marking through the intersection would remind cars that bikes travelling straight through have priority. Thanks for a great design, hopefully it can be built ASAP
146	Jonathon	Support	I strongly support the proposed cycleway design - it will provide a range of significant benefits and is consistent with Council and State strategic priorities. I urge Council to support it.
147	Richard	Support	I am in favour of any addition to shared paths.... allowing more recreational and 'to work's cycling
148	Minerva	Support	I think this is an excellent idea, and the cycle paths should be further expanded
149	Jennifer	Support	I am very supportive of the proposed West St cycleway. I am a resident nearby (I live on Falcon St) and a regular bike rider, driver and pedestrian in the area. West St is a very popular commuting cycling route, which becomes dangerous for both cars and bikes particularly in the evening peak at dusk, when bikes are hard to see. I am impressed that the proposed design manages to maintain almost all the current parking and trees. This is likely to also improve the peak hour traffic at school drop off and pick up times. With so many schools in this area, if students are able to cycle to school rather than be driven, then the pressure on surrounding streets will reduce. My only disappointment is that the proposal doesn't go all the way to Palmer St, and then Hamilton St. The cycleway from Hamilton St all the way through Naremburn, Artarmon to Chatswood is also very popular, and a full link from West St all the way to Chatswood would make a huge



			difference to the availability of cycling in the area. Thanks to all who have got this proposal to this point, and please build this as soon as possible!
150	Jean	Support	I am very supportive of this proposal, as a local who walks along West St at least once a week. Although, at 83, I'm not riding a bicycle any more, I have ridden a bike most of my life, and I think cycling infrastructure really improves quality of life for everyone. I also hope that more people riding in the area will take cars off the road.
151	Josh	Support	The completion of the next stage of the proposed West street cycleway, would be a major help to those of us who cycle from further 'up the line', towards the Harbour Bridge. Having cycled West street regularly (as it is a connector of the bike path that runs from my house in Naremburn with the Harbour Bridge, where I work in Kirribilli) it is presently the most dangerous part of my commute. I often seek to ride in the middle of the car lane in West street where I can, as I'm trying to avoid being hit by the car door of an unsuspecting driver of a parked car who opens it without thinking about cyclists. Doors often swing open without fear or favour, into West street. The problem is, while I ride an e-bike, I do at times slow traffic down when I ride in the middle of the lane. The cars are good about it and hang back from me. But it would be lovely to coexist on west street with traffic in a safer way—such as through the proposed cycle way extension. Recently rather than buying a second car, I've upgraded to a cargo e-bike so I can take my daughter to school. It is an environmentally healthy way to travel, and brings great deal of joy to me and her. Global statistics show that e-bikes are really helping the reduction of carbon emissions. They are also so much cheaper to run, and 'pay for themselves' quickly when the cost of a new car and petrol are taken into account. Many cities around the world have a far greater cycling culture than we do in Sydney. Improved infrastructure will change that, when people see there is a cheaper (and safe) way to travel. My bike has the capacity to also transport my son and I could take him to his preschool. But that would involve using West street. I'd love to be able to do that, but I am not willing to take kids onto main arteries like West street, unless there is a separate bike path. As a 35 year old male renter in the North Sydney catchment (of two years), I believe younger residents of North Sydney like myself, will increasingly find improved cycling infrastructure very appealing, so I can only imagine extending the bike lanes in West street, will only make real estate, and liveability, more appealing for all residents.
152	Rowan	Support	Great proposal - It's one of the biggest missing cycling links North of the bridge. Absolutely critical link!
153	Jed	Support	I am supportive of this project. It is essential to connect the regional cycleways that run from Cammeray to Epping and from the Cooks River to the Harbour Bridge. The 'missing link' is the section that is within North Sydney LGA. The West Street cycleway is one important component. Please continue to deliver the remaining pieces urgently as this is limiting uptake of cycling in your LGA and across Sydney more broadly. The design looks suitable. I would urge you to consider the phasing of the traffic lights at West/Falcon and West/Ernest and how this will impact on the usefulness of the bike lane. Too many traffic lights in Sydney with bike phasing give only a few seconds to bikes to prioritise turning vehicles. This results in a much longer 'green time' for vehicles in the general traffic lanes than the cycle lane which compromises the traffic hierarchy guiding this document which seeks to prioritise

			active modes. This encourages cyclists to go against the red or to give up and use the general traffic lanes. One solution here is to allow turning across the cycleway but only while yielding to pedestrians or cyclists, just as a car would turn right across oncoming traffic without a solid green arrow. This will ensure cyclists have an equal amount of 'green time' to the equivalent mixed traffic lanes. This service delivery is just as important to get right as the infrastructure.
154	Antonia	Support	I strongly support more cycle paths in North Sydney Council! Having cycle paths from West St to the start of the path over the harbour bridge would be ideal for commuting
155	Stratton	Support	This cycleway looks excellent and is really really needed. As someone who has cycled to North Sydney for work for years this would be so helpful and generally make it safer. In addition, with the growing push for ebike and emobility we need to be creating more safe cycleways. Please keep up the good work and expand the network. Being supportive of e-mobility is an important step as well. It unlocks fast travel at a much cheaper cost than owning a car and in the current cost of living crisis gives a lot of people an avenue to get around fast and cheap. We need to champion this mode of transport and building bike lanes does just that.
156	Som	Support	Proceed as planned
157	Anthony	Support	We believe that the current proposed new marked crossing at the roundabout on West St at the Brook St off-ramp & Amherst St is a good addition. However, a raised crossing from St Thomas Rest Park to Metcalfe St is critical as a safety item for children walking to Anzac Park Public School. The current traffic island crossing is not big enough and the crossing not being marked does not allow traffic enough.
158	Carmel	Support	I am very excited about The cycle upgrades. The current set up excludes disabled people and children. More should be done to make cycling safer and more accessible,
159	David	Support	The concept looks great and a much needed cycling infrastructure project in the lower north shore. One improvement I would suggest is extending the existing Warringah Freeway cycleway slightly further than existing so that it connects up with the newly proposed shared path on the northwest corner of the West Street/Amherst Street roundabout. This would give cyclists from the Waringah Freeway cycleway a direct connection to the new proposed shared paths and avoid cyclists having to merge in with traffic on this approach to the roundabout (usually traffic coming from Brook Street to the West Street/Amherst Street roundabout travel at fairly high speeds given this is also an on-ramp to the Waringah Freeway). See attached markup. This improvement would also greatly improve the connection for cyclists travelling from West Street towards the Waringah Freeway cycleway. Currently a lot of cyclists travelling in this direction try to use the very narrow footpath along the southern side of the road given that there's no formal connection to the on-road cycleway. A narrow median to separate traffic and the on-road cycleway along the Brook Street to West Street ramp (Waringah Freeway cycleway connection) would also be a huge benefit from a cyclist safety perspective.

160	Sarah	Support	Bike lane a great thing. Makes sure planting lots of trees and shrubs to keep the area green. We think planted bushes either side of Emmett street is a good idea.
161	Maggie	Support	I am very much in support of this upgrade to West Street, I reside on this street. My concern is regarding fair use of the street parking when the cycle path built and in operation. Currently we have very limited and restricted street parking due to the business operating at ( <i>house number removed</i> ) West Street Crows. This business dominates all the all day parking spaces in front of their business and all the timed spaces opposite. Could I request that when the cycle path is built that the untimed and timed parking around this business be reviewed so residents have fair access to parking and not restricted any further. Possibly the introduction of parking meters to help regulate this issue?
162	Carlo	Support	My concerns and comments are in relation to the commercial property opposite my residence and the fair use of street parking particularly when the cycle path has been constructed. I support the cycle path and think it will be beneficial for the area but there are already limitations and restrictions on residents due to the mechanic business operating at ( <i>house number removed</i> ) West Street Crows Nest. The business occupies all the parking on both sides of the street leaving residents unable to park 7 days a week. They control all of the all-day parking and also all of the timed parking with very limited access for residents to use. In conjunction with the cycle path upgrade consideration needs to be made on how existing businesses are compromising street parking and how to have a fair shared space for residents. The council could consider parking meters outside such businesses like this one on West Street to help alleviate this issue.
163	David	Support	Support the proposal. West Street needs to become a better corridor for cyclists and pedestrians. Separated bike and pedestrian pathways are the preferred option. However, there is a need to go further with traffic calming and reduce the speed limit of traffic on West Street to 40km/hr. West Street is a long straight road and many cars exceed the current speed limit of 50km/hr. Crossing West Street during the peak hour (apart from the intersections with lights) can be difficult due to the speed and volume of traffic. It should be noted that West Street is a crossing point for a number of schools and this reinforces the need to reduce the speed limit.
164	Adam	Support	I support the proposed west street cycle path. I commute from Beecroft to the city by bicycle.
165	Noah	Support	i think it would be great to have a safe way for cyclist and pedestrians to not have to share the same footpath. especially with the influx of cyclist these days due to take away services
166	John	Support	I fully endorse this proposal. However, this is a missing component. The cyleway on the west side of the Warringah Freeway crosses the freeway via a shared pedestrian/cyclist bridge at the Naremburn shops then follows a shared path on the east side of the freeway up to the on-ramp from Brook St. Q: why isn't there a pedestrian crossing to safely cross the on-ramp? This is literally the "missing link". Just do it! It is one of the busiest cycle routes and has become high risk as the vehicular traffic increases every year.

167	Kenneth	Support	This is a critical missing link between the North and the CBD. I and many people that commute to the CBD from suburbs in the north and north shore are regularly faced with an incredibly challenging journey navigating a small stretch from the Epping road cycleway to the harbour Bridge. It's a narrow road, and drivers are often aggressive when faced with what they perceive as a hindrance.
168	Alex	Support	I support the second stage of the West Street cycleway. It is a much needed upgrade that will hopefully improve the safety of cyclists who use the route between Cammeray and North Sydney. I have used this route on the way to work and university, and I can say from experience that there needs to be a protected bike lane along this stretch of road. The main reason I say this is because the busy intersections at Falcon and Earnest Street are points where collisions between bikes and cars are likely to occur, and I have been involved in a few near-misses at these locations. At these sets of traffic lights, could council please consider giving the proposed cycle lanes right of way over turning vehicles? If this is done, it would encourage greater uptake of cycling along this route since cyclists would be better protected from turning vehicles. In future works involving bike and pedestrian infrastructure, could council also consider the widening of the footpaths in St Thomas Rest Park. The park acts as a connection to Atchison Street (which goes through to St Leonards Station) from West Street and improvements here will make it easier for pedestrians and cyclists to use the path at the same time without one person having to move off the path to let someone through or go around them.
169	Cressida	Support	Please read my submission in full, it is detailed and I have made sure there are multiple proactive solutions proposed. In the Stage 2 submission there is the removal of 2 x motorbike/scooter parking spots outside ( <i>house number removed</i> ) West Street Crows Nest. This is the ONLY dedicated space for scooters/motorbikes in the area. I just purchased an apartment in ( <i>house number removed</i> ) partly because I could park my scooter, my primary method of transport, directly outside - I was so excited. ( <i>house number removed</i> ) is an art deco building with no off street parking and there are no bicycle parking spaces on the property or anywhere near the property. In the proposal for stage 2 those spots are removed and replaced with a carparking spot. There are a number of bikes in the area and we cannot park in the painted spots because we are small and take up a whole spot and all other spots on the street and nearby streets are permit only and permits cannot be obtained from council for motorbikes! This makes it impossible! Also cars often damage motorbikes that are parked amongst cars. I submit that the proposed single spot outside 196A is instead used for motorbike parking. 4-6 motorbikes can fit in a standard car space compared to 1 car and motorbikes that currently have to squeeze between cars can be parked together here. While I believe that is the most appropriate solution a second option would include motorbike designated parking behind the single car space (which won't impact the cycle lane and will be very far from the Ernest St intersection) OR at least one of the grassed curved beds installed at the corners of Ernest Lane should allow for motorbike parking given motorbikes do not impact sightlines. I have read the existing North Sydney Council Motorbike and Scooter Parking strategy which pledged to seek to increase parking, but this is actively reducing parking. Figure 7 of the strategy document shows that at least 53 motorbikes/scooters were in Area 19 which is the area covered by these proposed changes. I am shocked that council's existing proposal does not take this existing

			<p>strategy document into account and is reducing vehicle options for residents of the affected areas. Furthermore, public transport for this section of West St is really limited to city only bus services from Cammeray or a very circuitous bus that goes through Cammeray. We are actually also outside the 'walkable' zone detailed on the Crows Nest Metro Station maps. Taking away these spots will increase resident vehicle congestion and place increased pressure on surrounding streets. While there are a number of houses on West St there are also a number of mid rise unit blocks, for example (<i>house number removed</i>) have a combined 19 apartments most, if not all, multiple occupancy. I have attached a number of documents including the following:- A notated copy of the current proposal of works between Ernest Street and Ernest Lane indicating the omitted removal of motorbike spaces and the places where they should be at a minimum reinstated or, more appropriately, increased. - A notated map of the immediate area showing a number of places that could include motorbike only parking spots. I have numbered the spots and submit numbered and annotated photographs to support my proposal. I note some of these are 'no stopping' sections designed to improve vehicle visibility HOWEVER page 14 of the Motorbike and Scooter Parking strategy explicitly states that these spaces are locations which may have motorbike parking introduced. It is key for this to be signed and line painted parking to be approved under technical direction 2014/005 and the spaces I have suggested would not increase risk at all. In particular my proposed parking space outside (<i>house number removed</i>) west street is a wide open view area and the proposal to include 4 x spots behind the 1 x car spot proposed for outside (<i>house number removed</i>) would be ideal. I think improved cycle paths is important, I also think increased motorbike parking is important. I look forward to this being a consultation process that does listen to residents and make changes based on these submissions. I also look forward to attending in person consultations.</p>
170	Name withheld	Support	<p>I commute via west street on average two times a week. It is busy. It is high traffic. It has parked cars. Last month a driver in a parked car opened the door without looking while I was cycling past. The door hit my leg. Had the door been opened two seconds earlier I would have cycled into the door at 20km per hr. I probably would have been seriously injured. Then I would have sued the driver and then looked at whether I could sue the council for allowing these unsafe conditions to persist. The fact there isn't a cycleway already is absurd.</p>
171	Lauren	Support	<p>I think this is a balanced plan and particularly also improves pedestrian safety. I think the addition of car parks on the freeway overpass is a good solution to the lose of parks. I also like the addition of trees which will be an asset to the street beautification. The 3 pedestrian crossings are all desperately needed, particularly near St Thomas Rest Park. This crossing has been identified as a safety issue by the school/P&amp;C at Anzac Park Public School and the school supports this improvement and as an APPS P&amp;C Road Safety parent rep I would be very happy to have a conversation with NS Council about this. The only other issue would be looking at adding a crossing st Holtermann at West St which i csn see will be a safety issue without a crossing added. Many ppl use Holtermann to get to Crows Nest and this will increase under this plan where the no right turn at Ernest St is implemented.</p>

172	David	Support	highly supportive of this initiative I am a cyclist who commutes from Naremburn to work in the city, I am very supportive of the upgrades.
173	Grant	Support	I fully support any efforts of council to improve active transport within the North Sydney LGA. I also support efforts to reduce motor vehicle speeds in neighbourhood streets. Ideally I would have preferred West Street to be converted to a "bike boulevard" or similar sort of low traffic zone, but presumably this is off the table. In relation to the cycleway, the biggest pity is that it wasn't built 10 years ago. I make the following comments: a) it's not apparent why two parking spaces need removal between Ernest Street and Ernest Lane - there appears to be sufficient space there b) there have been discussions in the past about a better crossing at Metcalfe Street - it seems obvious that there is a real "desire line" there between Rest Park and Metcalfe Street so it's not apparent why a crossing wouldn't be formalised there c) is there any reason why the Amherst St roundabout wouldn't adopt the "dutch style" design principles that have been employed at the roundsabout at Oxley and Albany? The low vehicle entry speeds and four way crossing actually make that intersection bearable/navigatable now as a pedestrian, whereas previously it was a disaster. d) I don't know what the Australian design rules are with solid white lines before traffic light controlled intersections (I'm sure there's a technical name for them), but it completely escapes me why they are permitted to be so close to the pedestrian markings. In the Netherlands, the "stop" line is well (2-3 metres) before the pedestrian crossing broken line. Given most Australian motorists appear incapable of stopping anything other than about 1.5 metres past that line, this project should be used as an opportunity to have that stop line shifted back well before all of the intersections at Falcon and Ernest, such as that marked northbound on Ernest Street on sheet 3/5. e) you may as well take this opportunity to put in a pedestrian crossing across Carlow at West f) I think the West Steet entry/exit of the service station at Falcon needs some work. There doesn't appear to be much there in terms of a raised crossing or anything in the way of traffic calming. It's always a pretty scetchy part of the ride along West Street and the concern is that with a bike lane there motorists exiting the service station will be looking for cars in the middle of the road rather than bikes in the bike lane. g) Council should consider this an opportunity to install roadside EV chargers. h) please quickly build it.
174	Sue	Support	Looks great and I live on this street . Just think the number of people using the bus at the Huntington st stop is so low it does not need a stop and if possible get the buses onto Miller st instead.
175	Yaffa	Support	This is a very important connection for cyclists, allowing easy egress from Pacific Hwy to Naremburn and beyond. Having a separated cycleway is essential, reducing driver/cyclist angst. It will also help with the need to reduce emissions associated with transport, and the health-promoting benefits of physical exercise.

176	Geoffrey	Support	The proposed cycleway along West Street is a very welcome and long overdue piece of infrastructure which will help to alleviate any ill will of motorists and pedestrians towards cyclists. It will help address the issues of essential decarbonisation needed with transport, and the health-promoting benefits of physical exercise.
177	Name withheld	Support	I am supportive of the proposed cycleway for West St as it will make cycling and driving safer on West St. If the roadway for cars is narrower it may also discourage commuters from using West St as a rat run. However I am keen to ensure that there are slow-down obstacles installed so cyclists cannot travel at high speed. I work in a street in Pymont with a similar road arrangement and it can be quite dangerous to cross the cycleway as a pedestrian during peak hours.
178	Renee	Support	Please replicating the trees of Huntington St - Crepe Myrtle and their neighbourhood appeal and growth compared to Jacarandas.
179	Annie	Support	Great to see the intent of bike paths which allow safe cycling for the community and children to get out and be active together. Looking forward to this bike path becoming a reality
180	Luca	Support	Great looking cycle link connecting some pretty important destinations. Will be a big improvement to pedestrian amenity and the atmosphere along the street. Great for all road users, residents, and traders.
181	Wendy	Support	As a regular bike commuter, would very much appreciate a more cycling friendly suburb. Safety from cars is the most important consideration for me as a rider (& for my family) so a better separated cycle lane is a must.
182	Vanessa	Support	I think the upgrade comes with many benefits including better landscaping, safer pathways for cyclists and pedestrians including large numbers of children (with the 2 new crossings) as well as overall slowing down of the traffic (we regularly see cars travelling along this section of West Street doing over 80+ KM per hour). My only feedback is with the additional parking spaces being added that these must be time 'limited' otherwise we will simply have more trailers and boats from outside the area/zone as we already do on West Street outside St Thomas Rest Park (today I counted 9 trailers) making it regularly difficult for actual residents of the area to find parking.
183	Matt	Support	Please make this!!! it will be a safety gamechanger
184	Andrew	Support	I support the installation of a bi-directional separated cycleway in the West Street road reserve as it will make it safer for a wider range of cyclists to use, including school children and promote cycling as a viable safe alternative form of travel for local and last mile trips, reducing local traffic and supporting easy access to the new Metro station at Victoria Cross which will open this year. I also support the installation of the bi-directional separated cycleway as it will result in improvements to the public domain which will improve amenity in the area. It will also help resolve potential conflicts between pedestrians and cyclists as cyclists will have their own dedicated space. It will also prevent cyclists from being 'doored' which is a huge safety risk at the moment as cyclists travel beside parked cars on West Street with no separation and a huge concern to me as my wife regularly cycles along West Street.

185	Elisabeth	Support	I support the installation of a bi-directional separated cycleway in the West Street road reserve as it will make it safer for a wider range of cyclists to use, including school children and promote cycling as a viable safe alternative form of travel for local and last mile trips, reducing local traffic and supporting easy access to the new Metro station at Victoria Cross which will open this year. I also support the installation of the bi-directional separated cycleway as it will result in improvements to the public domain which will improve amenity in the area. It will also help resolve potential conflicts between pedestrians and cyclists as cyclists will have their own dedicated space. It will also prevent cyclists from being 'doored' which is a huge safety risk at the moment as cyclists travel beside parked cars on West Street with no separation. The formalisation of the route will also make it more obvious at roundabouts that cyclists are part of the mix and reduce cyclist accidents at roundabouts (I have personally witnessed cyclists going over the bonnets of cars at the roundabout on the intersection between West & Amherst Streets).
186	Sam	Support	Great to see upgrades to the bike infrastructure of West St. I ride from Lane Cove to the CDB 2 times a week and North Sydney is the most dangerous part of my ride. It would be great to complete the separated bike path connection from Cammeray through to the bridge. This will undoubtedly increase safety of cyclists. On another note the Ridge St bike path is working terribly. It is safer to ride on the road, especially during school drop off/pick up times.
187	Chelsea	Support	More bike lanes required. North Sydney area is the gateway to the Harbour Bridge which is a ico to Sydney
188	Matt	Support	I strongly support the project. However, for the project goals to be properly realised, North Sydney Council needs to actively engage with TfNSW on the crossing on Warringah Freeway on Brook St, and the connection to the Harbour Bridge cycleway along the Pacific Highway. There is significant latent demand for cycling in the area that won't be realised whilever the network is disjointed.
189	Ben	Support	This is an important link in the cycling infrastructure connecting North Sydney and Northern Sydney. It is essential to improve the safety of pedestrians and cyclists. Long-term, this will also help showcase how we can make more livable cities by de-prioritising large cars sitting around doing nothing. Look at how George Street has been revolutionised and pedestrianised by removing cars. Cafes like Aighty Eight will benefit hugely from being in a modern pedestrianised area.
190	Amelia	Support	I support the cycle way  I actually submitted a response already but didn't realize the proposal wouldn't be as you exit the park on West Street at the top end near the bridge. This is our preference for the cross walk not where you have put it in the proposal. The photo is misleading
191	Yvonne	Support	I support safe cycling provision for people cycling through this area and hope that this project can proceed soon.



192	Cameron	Support	I strongly support these upgrades. They will make West St a much more pleasant place to be, and importantly, a lot safer for people walking and cycling. It will reduce traffic by enabling students and parents to cycle to the schools in the area. West St is an extremely important cycling link from Willoughby to North Sydney and beyond but is currently unsafe. Unsafe roads are the number one issue preventing people from cycling more. This upgrade will enable people to cycle more, which can bring huge benefits to our community. Not just health and environmental benefits, but social and economical ones as well. It's a win for everyone and should begin construction as soon as possible. I think West St shares a lot of similarities with Bourke St in Surry Hills. Since City of Sydney installed a great cycleway there I've seen more and more families riding to school, to shops and to work. How great it would be to see this happen in North Sydney.
193	Bike North	Support	See appendix A
194	Ross	Support	Proposal looks good. Please ensure a cyclist continuing northbound on West Street can safely navigate the West & Amherst street roundabout. On approach to the roundabout they will need to get off the cycleway and onto West Street to be in the line of sight of drivers coming up to the roundabout from Brook Street. If the rider is too close in to the footpath drivers will look past them and not see them. This should be easily accommodated with a decent length gap in any path separation kerb on approach to the roundabout. Similarly consider how a southbound cyclist coming from the northern end of West St joins the cycleway at that roundabout - is this via a right turn at the roundabout and then a hard left onto the path? Need to get safely and quickly clear of northbound cars before making that left turn on to the path, so the design of the entry to the path is important.
195	John	Support	I am in favor of the proposed cycle way to enhance the experience of cyclists and pedestrians.
196	Rolf	Support	I strongly support the upgrades in principal and urge council to finish them as soon as practical. Encouraging and supporting people who live, work, study or just passing through to use active transport will return environmental, health, transport and amenity dividends for everyone in the North Sydney area.
197	Linda	Support	Support
198	Leona	Support	Great idea! I support this
299	Graham	Support	Improve pedestrian and cyclist safety
200	Kristina	Support	Brilliant. Less cars the better
201	Diane	Support	Holterman/West Street Crossing - Would benefit from a crossing. Wide road, lots of activity
202	Michael	Support	Definitely support this proposal
203	Murray	Support	More cycleways the better
204	Michelle	Support	A great initiative. Too much focus on cars at the moment with devasating effects (WFU)

205	Julie	Support	I support this. I would also like to have better access from West Street to Gore Hill expressway and from West Street to the Bridge
206	Martin	Support	I support the upgrade proposal
207	Collette	Support	I support the project. Linemarking for car parking spaces to allow for efficient use of space. Around Hayberry Street upgrade crossing at Falcon & West Street at Ampol service station to allow for significant number of students
208	Steven	Support	See value in dedicated bike path
209	Hilary	Support	Cycleway is a sound idea. I have an issues (existing) with the phasing of the traffic lights West Street and Ernest. Need to increase the West Street flow - great if can be achieved as part of the process. Plus to allow greater frequency for pedestrian crossing. PS Ernest/Miller Phasing is dreadful for kids getting to Anzac Park School
210	Kate	Support	Basically in favour however I have a few concerns 1. Right hand turn onto Ernest going is a problem with narrow street u-turns will be hard/imporriblse so more important to be able to drive around the block 2. Biggest concern the 'loss' of parking and the shift of 10 spaces onto west street overpass. As a person with a chronic illness loss of parking will make grocery shopping and parking harder.
211	Lucy	Support	Very Supportive of a Cycleway! More please
212	David	Support	Please build this as it will make a big difference to accessibility for our community. Providing seperated cycle routes creates safety for adults and children
213	Tzo	Support	We are very pro-cycle path - it would dramatically imporve the cycle options and livrability of the area. The design has been well thought through.
214	Bill	Support	The West Street Dedicated cycleway is a great idea. A more interconnected system is something to be encouraged
215	Sammi	Support	Add electric vehicle charging stations along West Street while you're adding to the footpath, Thanks!!! No one long the street has parking, so can't have it in home.
216	Evan	Support	Fully support the proposal
217	Alex	Support	Good idea, interconnections between all the other paths would be great
218	Weng	Support	Good idea, will make it easier to walk and cycle in the locality.
219	Denise	Support	I support the bike path upgrade! Anything to encourage more exercise and less reliance on cars is great for the community
220	Arielle	Support	I support this cycling upgrade. It is a very very smart idea, plus I got a free badge. With this, people could get more exercise. There would be lots of struggle without this. Bikes might bump into people. I think this is a great idea
221	Bruce	Support	Great idea lots of cyclists come down West Street from Amburst Street
222	Nicholas	Support	Always need more cycleways!

223	Ania	Support	I support the cycleway
224	L	Support	A useful summary of the forthcoming work in West Street. The cycle path is a good concept and the continuation of the existing pathway will be welcomed.
225	Stephanie	Support	No opposition to getting more bikes on the road and less cars
226	Andrew	Support	Happy with the proposal. Think it's a great idea and excellent for the community. Would be great to see it link over the Pacific Highway in a future stage and work with the NSW Government on making this achievable.
227	Manini	Support	I would love that with more tracks and may be able to even sort out the cycle during the day hours
228	Michael	Support	I support the proposal
229	Keith	Support	A much needed connector in what is a popular and populated part of North Shore. We need State Government funding. Great to see no net loss of trees.
230	Christine	Support	I fully support the proposed upgrades to West Street cycling, walking and streetscape upgrades. The proposed plans look great and as a local resident, fully support all improvements and development for green spaces too as well as walkers as ## of that locally! :-)
231	Bryce	Support	I am very much supportive of this upgrade. I regularly cycle along West Street from North Sydney to Cammeray
232	Robert	Support	Anything that improves cycle safety is worth it
233	Zihan	Support	Support the West Street Walking Upgrades
234	Jim	Support	Thank you for taking the time to discuss the proposed Extended outdoor seating and Paving, Terrible photo of me,
235	David	Support	Thank you for presenting the concept designs and conducting a walking tour for West Street Cycling, Walking & Streetscape Upgrades. It is pleasing that North Sydney Council has a commitment to providing safe and healthy transport options, by improving the streets to make them easier (and safer) to walk and cycle. This will encourage more people to cycle, especially school students as they travel to the nearby schools. The principle component of this design - introducing a bi-directional separated cycleway, is commended. Studies show that more people would cycle more, if they felt safe and a separated cycleway is safer than competing on the road with motorists or footpath with pedestrians. This section of cycleway will also improve connections with other North Sydney Council bicycle routes. Also commended are the provision of twenty-nine more trees and associated garden beds and verges. This will improve the street amenity, provide shade & help reduce the 'heat island effect' of the surrounding roads, footpaths and housing.

			<p>Population Health Promotion also commends Council on introducing traffic calming measures, which will reduce car &amp; truck speeds, making it safer for pedestrians and cyclists.</p> <p>Recommendations:</p> <p>1) Consult with Transport for NSW to reduce speed limits along West St to make to safer for pedestrians and cyclists. This may also reduce traffic, particularly heavy vehicles.</p> <p>2) Introduce the proposed changes on a trial basis so local residents can see the upgrades in action. This may allay some of their fears regarding increased traffic and loss of car spaces.</p> <p>Thank you once again for allowing Population Health Promotion to comment on your well thought out concept designs for West St.</p>
236	Justin	Support	I support the addition of the cycleway along Ridge Street and West Street
237	Jeremy	Support	Bike paths are great to establish good commuting paths and encouraging everyone to cycle. I very much support this.
238	Mara	Support	Bike lanes are great - I will ride more + drive less if there are more. They make me feel safe! Don't listen to people who don't like them!
239	Elvira	Support	Please approve because it would be a great connection with Northbridge suburb
240	Joaquin	Support	I would like this proposal approved in order to enjoy our bikes even more in North Sydney
241	Akemi	Support	It's good idea
242	Ivan	Support	Great proposal. Fully supportive of the proposal
243	Daniel	Support	I support
244	Monique	Support	Looks great, happy with the proposal We use cycleway regularly X 2 adults and X 2 kids this would create educational safe ways of getting to school
245	Yvette	Support	Looks fantastic
246	Christine	Support	I am happy with that. I ride a bike and it's dangerous there
247	Bel	Support	I support your project
248	Cathy	Support	I support the proposed cycleway
249	Graham	Support	<p>1. In the West St Stage 1 there is already something of an issue of pedestrians walking in the cycle pathway, even when the footpath is clear. In fact pedestrians also walk in the Middlemiss Street cycle lane often enough for me to notice. Once I had a pedestrian say 'That's dangerous mate' when I cycled around him when he was walking in the Middlemiss Street cycle lane. I think he was referring to cyclists being dangerous, rather than walking on a roadway being dangerous. I suggest a raised kerb, or additional signage, or even a penalty regime for pedestrians walking in the cycleway. This is after all, a dedicated cycleway, not a shared pathway.</p> <p>2. The plans will make West St a much better cycling and pedestrian environment. However, a separate matter is that the</p>

			<p>traffic lights at Falcon St and Ernest St take a very, very long time to change when coming down West St. I don't know why that is - traffic flow? There don't seem to be that many cars coming along Falcon St and Ernest St to warrant the lights taking so long to change for West St traffic. If West St traffic is a problem that the lights not changing often is intended to address, I suggest car traffic calming, because the lights are also stopping cyclists and pedestrians. Although, there is a fair amount of pedestrians crossing against the red, which is not ideal.</p> <p>Change the traffic light sequencing at Ernest St and Falcon St to improve West St pedestrian and cycle traffic flow.</p>
250	Jan	Support	The more provision given to pedestrians the better. So often we become the invisible element (healthy 75 year old resident & non-online shopper).
251	BicycleNSW	Support	See Appendix B 1
252	R	Mixed	<p>Please take the following statements into account in your final design for Stage 2:</p> <ol style="list-style-type: none"> <li>1. The bike path must be raised to be level with the top of the kerb to remove the trip hazard and entry/exit problems for restricted movement of passengers in cars.</li> <li>2. Stage 1 West Street has demonstrated that the final 2 way car traffic flow width is too narrow for passing cars and especially school buses. The centre double painted line has to be often driven upon. Hence redesign the width of Stage 2 West Street to prevent this occurring.</li> <li>3. The Carlow Street car entry/exit to West Street must not be narrowed as drawn, for safety due to the number of vehicles, pedestrians and school buses.</li> <li>4. Species selection of any tree planting outside Cafe Eight Ate and on the opposite side of West Street at the corner to Carlow Street is very important, to not restrict the view of pedestrians by car drivers.</li> </ol>
253	Alasdair	Mixed	It's safer to have cycle lanes in the same direction as traffic. Pedestrians don't tend to look in the opposite direction of traffic when crossing and walk into the path of cyclists. As a result of this danger they do not construct cycleways of this design in the Netherlands and they tend to know what they are doing. I'd suggest building it right the first time and have lanes on each side of the road.
254	Alex	Mixed	We need more space for queuing traffic southbound at the intersection with Falcon St. Much of the through traffic on West St turns right there, and it blocks access to the southern portion of West St. Alternatively a "no right turn" at that intersection.
255	Ric	Mixed	<p>The addition of dedicated lanes will inevitably make West St less safe by</p> <ol style="list-style-type: none"> <li>(i) narrowing what is already a narrow road; and</li> <li>(ii) having bike lanes close to park cars with poor visibility for cars exiting driveways. Accordingly, it is essential that suitable traffic 'calming' measures be part of the changes. And that these include calming measures for bikes. While many bike riders are responsible, a not insignificant number of riders that currently use West St try to race between (at least)</li> </ol>

			Ridge and Falcon Streets. For example, measures such as partial barriers that require riders to slow down at different points, accompanied by suitable signage could be provided and make the strip safer for all.
256	Ben	Mixed	The ride along West Street isn't too bad. The money would have been better spent providing a safe cycle route from the Harbour Bridge to West Street
257	Emily	Mixed	Please consider 1. Safe pedestrian movement across West St at Amherst/freeway end in a north/south direction. Great to have a pedestrian across West St on the north side of roundabout- but for pedestrians approaching from the south they still need to negotiate the always dangerous northbound road crossing to get there. 2. The reason for bike paths in an east-west direction at the West-Amherst St pedestrian crossing is not clear and not supported.
258	Shane	Mixed	Overall, I think this is a good proposal, as long as safety has been the highest priority on the design of this cycleway. One concern I have though, is the net loss of 6 car parking spaces on West Street in the section between Falcon Street and Ernest Street. This is the section where I live. It is already difficult to park in this section, so the net loss of 6 spaces is too high in this section, in my view. Is there any way to add/create additional parking spaces to reduce this net loss of parking spaces, either through, for example, not creating one or two new garden beds elsewhere, or perhaps by installing some new angled street parking spaces on one side of Burlington Street (which, I believe, was being considered at one point recently by the council anyhow)?
259	Lachlan	Mixed	The renderings provided show no loss of parking on either side of the street. I don't understand how North Sydney Council plans to achieve this. The latest cycle way addition at the end of West St is now incredibly narrow. If NSC plans to build this road, then they need to remove all the 'rat run' traffic that should be using Miller St. Since the closure of the Falcon St Exit of the Warringah Freeway, cars now exit at Miller St, turn right on Earnest St, then left onto West St to be able to get back onto Flacon St. I'm 100% for a cycle way to be added, but the traffic now forced onto West St needs to be addressed first.
260	Geoff	Mixed	Don't add the parking space near Ernest St, left turn lane should be given a bit more space to reduce obstruction of through traffic. Don't think the West St crossing at corner with Burlington St is a good idea. Right turn traffic out of Burlington St will cross 2 sets of cycleways and pedestrian crossings in one manouver while having reduced visibility of pedestrians, cyclists and cars as the car stops further back from the intersection. Cars turning left on to Burlington also have to navigate the same so might end up queued on the first pedestrian crossing.

261	Fiona	Mixed	I live near the corner of West and Holtermann Steets, where parking is a real challenge because of the apartment block on the corner of Ernest and West , where no one has a car space and yet everyone has a car!! My concern is the loss of other car spaces in this plan, especially in the areas mentioned above.On Holtermann St, could you not consider parallel parking similar to Hayberry St - this would increase the car spaces and also hopefully slow the traffic down in the area.
262	Jennifer	Mixed	Complete waste of funds Bike Parking Hoops not used Currently riding on footpaths Support pedestrian improvements
263	David	Neutral	Please ensure freight deliveries, parking and loading zones, including regular deliveries and garbage and recycling are given a priority. Roads are needed by all
264	Bruce	Neutral	The construction of the Ridge Street cycle path, that was supposedly completed in February 2019, provides the Council with a number of clear examples of how it can do better if it continues to proceed with cycle upgrades in North Sydney. There are also some issues that were first highlighted and ignored in a submission sent by me to Council in August 2017 and need to be restated as they are relevant to the West Street proposal. Points for consideration area as follows: 1. The construction period for Ridge street was grossly understated leading to months of serious disruptions to local residents who were largely kept in the dark with these issues. 2.The construction was plagued by obvious design flaws that meant that garden beds at the Ridge Street /West Street intersection were dug up and replaced to allow proper and safe vehicular access from West Street into Ridge Street.. 3.Original safety issues were and continue to be ignored with entry onto Ridge Street from hidden driveways a continuing major concern. The decision to construct the cycle path on the northern side of Ridge Street was seriously flawed. Safety was not a priority!! 4.The cycle path to this day carries more pedestrian traffic than cycle traffic. Council needs to do more to educate people about the dangers of walking on the cycle paths. 5. To this day, some 5 years after supposed completion, the garden beds on both sides of Ridge street at the Miller Street intersection have not been completed. Why does Council continue to ignore these failings? Hopefully lessons can and will be learnt.
265	Claudia	Neutral	I am a long-term resident, competent cyclist and regular user of West Street for both shopping, services, visiting family, commuting to work and recreational and commuting cycling.

266	Sandra	Neutral	<p>I note that part of the proposed changes include an increase in outdoor dining space. Being a resident of Emmett St, I wish to draw Council's attention to the parking problems we face in our street. During the week parking is generally restricted in Emmett St to 1 hour (except for residents) However on weekends there are no time restrictions for non-residents. This poses problems for residents trying to park when there are sporting games or concerts nearby, particularly if unloading shopping. It is most likely that with the increase in outdoor dining activities these problems for residents will increase, There will likely be diners who choose to drive to the location.</p> <p>Perhaps the council could include time limits for non-residents on weekends. The parking challenge should not be ignored.</p>
267	Luke	Neutral	<p>I use the cycleway over the bridge every weekend. Having to carry or wheel my bike up and down the stairs is difficult and can be risky in bicycle shoes with the hard soles and cleats, particularly in wet weather.</p> <p>The proposed cyclist ramp design is beautiful. It blends in with the urban landscape and preserves the utility of the park under the ramp.</p> <p>I strongly support the development of the cycle way ramp.</p>
268	Name withheld	Neutral	<p>Council to prohibit ALL cyclists from using the pedestrian footpaths that cross St Thomas Rest park between West Street, and Chandos Lane and Devonshire Street. Council has already allocated bike lanes around the park for cyclists, and they should be made to use them. Pedestrians, dog walkers, parents with young children and prams should feel safe using the footpath through the park and not have to move aside or be threatened physically or verbally by cyclists. Signage at all entrances to the park will assist with the rights of pedestrians. Electric bikes should be registered as road users and made to use the road.</p>
269	Michael	Neutral	<p>I would like further information on the expected traffic volumes with the bike lane and traffic calming measures in place. Where will current West Street traffic be diverted to? My concern is with a slower street and the same amount of traffic result in greater congestion for residents.</p>
270	Miss	Neutral	<p>No Traffic Zone - no cars 8am-9am along West Street from Falcon Street to McClaren Street Monday - Friday. Please - Bumper to bumper - stalled traffic along west street most days from traffic along west st most days from Carlow Street - McClaren Street -</p>
271	Linda	Oppose	<p>Thank you for your email following on from my email to Councillor Bourke regarding the traffic congestion around the West/Ernest Street intersection and a possible right turn arrow from West into Ernest towards Anzac Park School.</p> <p>You responded and indicated the bike path would be extended along West St, resulting in a new No Right Turn arrow into Ernest St for southbound traffic along West. You indicate that Ernest St is strategically important as an east west corridor in the LGA. If this is the case, removing the ability for traffic to be able to turn right into Ernest would result in Burlington becoming the major corridor for vehicles wanting to access Crows Nest from West which would have a detrimental effect on we Burlington St residents (I am a long term resident.) Burlington already takes much of the traffic up to Crows Nest,</p>



			<p>plus the semi-trailers that deliver to Woolworths, crashing over the speed humps day and night. Surely Ernest should remain the major corridor.</p> <p>While I'm all in favour of cycling as a means of transport, it should not be at the expense of the lifestyles of existing residents. Please pass these comments on to the appropriate stakeholders,</p>
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Max White  
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NORTH SYDNEY NSW 2059

By email: [council@northsydney.nsw.gov.au](mailto:council@northsydney.nsw.gov.au)

29<sup>th</sup> February 2024

Dear Max,

**Re: West Street Cycling, Walking and Streetscape Upgrades – Stage Two**

Thank you for the opportunity to provide feedback on the plans for West Street, North Sydney. Bicycle NSW has been the peak bicycle advocacy group in NSW for forty-eight years and has more than 30 affiliated local Bicycle User Groups. Our mission is to 'create a better environment for all bicycle riders', be they 8 or 80. Bicycle riding has so many benefits. It is a healthy, sustainable form of transport that reduces congestion, gets people outdoors and active, and eases pressure on household budgets. We elevate active transport in all its forms.

**Bicycle NSW strongly supports the proposal to extend the separated cycleway and streetscape upgrades on West Street, between Ridge Street and Amherst Street.**

The new cycleway will complete the northern half of of Priority Route 1: Sydney Harbour Bridge to Cammeray identified in the 2014 North Sydney Integrated Cycling Strategy shown in Figure 1. It will help fill a critical gap in the regional cycling route linking Naremburn and the Sydney Harbour Bridge.

West St is already heavily used by experienced commuting cyclists heading into North Sydney CBD and across the bridge. However, it is a very dangerous route and not suitable for less confident riders, or the hundreds of children attending schools along the route. Traffic volumes have dramatically increased along West St since the Cammeraygal High School senior campus opened in 2019. There is no doubt that it is time to address bicycle and pedestrian safety.

The project will deliver 1.1km of separated cycleway, continuous footpath treatments at most intersections, 3 additional pedestrian crossings, kerb build outs and upgraded pedestrian refuges, a bus platform that prioritises public transport, and, in a fantastic win for the community, 29 new trees. The narrower vehicle lanes will slow traffic, reducing noise and improving safety for all road users. This is very appropriate on a local road such as West Street with high levels of pedestrian activity.

We are delighted that, as for [Stage 1](#), **the detailed plans are of a very high standard**. We congratulate North Sydney Council for investing in excellent staff and consultants. The Bicycle NSW *Build it for Everyone* policy pillar<sup>i</sup> sets a standard that bicycle infrastructure should be fit for eight-year-old children or elders to ride on. The West Street bi-directional bicycle path design comply with the current best practice set out in the 2021 Cycleway Design Toolbox<sup>i</sup> and the 2017 Austroads Cycling Aspects of Austroads Guide (AP-G88-17). It will be an all ages and abilities facility.

The proposed road configuration was chosen to preserve parking spaces. As a result, the bicycle path is quite narrow and it will have a fairly low design speed (around 20km/h). This will suit the majority of current and potential bike riders who would like to cycle along West Street. – school children, woman, people doing local utility trips, older riders and families.

(02) 9704 0800 | [info@bicyclensw.org.au](mailto:info@bicyclensw.org.au) | [www.bicyclensw.org.au](http://www.bicyclensw.org.au)  
Gadigal Country, Tower 2, Level 20, 201 Sussex Street, Sydney NSW 2000  
ABN 26 511 801 801

However, the **project also caters for confident commuters**. These riders travel at faster speeds that are inappropriate on the bicycle path at busy times. Many will opt to continue riding in the vehicle lanes. The narrowed lanes, traffic calming interventions such as raised crossings and intersections, and resulting lower vehicle speeds will make mixed traffic riding safer. Riders will be able to use the full lane rather than the existing 'door zone' painted bicycle lane. They will no longer risk being overtaken and close passed.



Figure 1: The priority routes outlined in the North Sydney Integrated Cycling Strategy, 2014 (Source: North Sydney Council / GTA Consultants)

## Recommendations:

- **Deliver West Street Stage 2 as soon as possible**

There is not yet any funding allocated for West St Stage 2. We encourage the Council to petition the State Government for funding so that this critical missing link can be built quickly. Bicycle NSW can assist through our connections with politicians, Transport for NSW and neighbouring metropolitan councils.

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It is essential to complete these cycling, walking and streetscape upgrades before the opening of the Warringah Freeway Upgrade to avert the likelihood of increased motor traffic along West Street from rat running around the freeway.

The continuation of West Street cycleway to Amherst Street is critical to plans to finally link the Harbour Bridge to the shared path that runs alongside the Gore Hill Freeway from Merrenburn Avenue to Lane Cove, Epping Road and beyond. The connection from West Street to the start of the Gore Hill SUP is difficult. An active transport overpass crossing of the Warringah Freeway and Brook St is the only realistic high capacity, fully accessible option for this section.

In the short term, options have been developed as part of the [Active Transport Network Review](#) to improve the at-grade crossing of the Brook Street on-ramp. This must be delivered as part of the Warringah Freeway Upgrade, as required by the Providing for Walking and Cycling in Transport Projects Policy. Bicycle NSW will continue to work with North Sydney Council and Willoughby Council to urge TfNSW to complete this work while the contractors are on site.

- **Reduce speed limits to 30km/h on West Street and other local roads in North Sydney CBD**

30 km/h has been shown as an optimal speed limit to allow people driving and cycling to share the road safely<sup>iii</sup> and is becoming a standard speed limit in many parts of the world. All single lane roads in Spain have been under a 30km/h limit since May 2021 and 30% of UK residents live in 20mph areas<sup>iv</sup>.

Lower speed limits are an important building block for Vision Zero, an approach to road safety that was launched in Sweden in 1994 with the simple premise that no loss of life is acceptable. The Vision Zero approach has been highly successful and has spread to many other countries. The key policies include prioritizing low urban speed limits, pedestrian zones, physical separation between bicycle and car traffic, data-based traffic enforcement and behaviour-change education<sup>v</sup>.

A 30km/h limit will make it safer for pedestrians, students and slower riders using the cycleway to cross West St to access schools and the east- and westbound links to the local bike network.

- **Maximise integration with current and future bike network**

Although we trust that Council's staff and consultants are considering how bike riders will access and cross the West Street bicycle path, we would like to highlight the following important links:

- Rosalind St is an appealing quiet street that provides an east-west connection down to Anzac Park Public school and back street routes through Cammeray and Cremorne. A rideable crossing at Rosalind St, rather than the pedestrian-only crossing proposed, will help bike riders access Rosalind St.
- Huntingdon Street is another quiet street that riders can use to reach the Crows Nest town centre, the Naremburn shops and an access point to the Gore Hill Freeway SUP by the Willoughby Road bridge. The raised intersection proposed here is great and allows an easy transition to the vehicle lanes of Huntingdon. Additional signage and road markings will help clarify the route.
- A shared path on the south side of Amherst would make more sense than on the north side, with a raised crossing to create safer access from the West Street cycleway. The shopping village is on the south side, an important destination for less confident bike riders. Cyclists heading over towards Cammeray will probably be happy to continue using the vehicle lanes on Amherst.

- The termination point of the cycleway at Amhurst St roundabout is complex and there are many unknowns because of the Warringah Freeway Upgrade works. At this stage we encourage North Sydney Council to allow for various future scenarios by maximising the space for bikes and pedestrians on all sides of the existing roundabout.
- McLaren Street will provide a connection to the new Victoria Cross Metro and needs to be linked by safe bicycle infrastructure (quietway treatments or a separated cycleway) to the southern end of the West Street cycleway. This will unlock the new station to residents in Cammeray, parts of Willoughby LGA and potentially even Cremorne and further east. Of course, high-quality, well-located bicycle parking is essential in the station precinct.

## Conclusion

There are currently nearly 79,100 residents in the North Sydney local government area and the population is expected to grow by 14% to around 89,900 by 2041<sup>vi</sup>, placing increasing demands on an already stressed transport network. The roads are jammed with cars and buses are overflowing.

North Sydney is a collection of vibrant '15-minute neighbourhoods' where all daily destinations could be accessed by an easy walk or bike ride. The built form is compact and population density is very high at 64.0 people/hectare<sup>vii</sup>, compared to 3.9 people/hectare across Greater Sydney<sup>viii</sup>. This is reflected in a higher-than-average proportion of trips by walking and cycling (12% of journeys to work, compared with 4.8% for metropolitan Sydney) and lower car ownership 1.2 per household (1.7 for Greater Sydney)<sup>ix</sup>.

Despite this, far too much of road network is dedicated to the movement and storage of private vehicles, creating a hostile environment for people walking and cycling, with dangerous intersections, narrow footpaths, fast-moving noisy traffic and long distances between crossings. North Sydney remains a very difficult area to traverse safely by bicycle.

The North Sydney Community Strategic Plan 2018-2028<sup>x</sup> identified that improved walking and cycling connections are a key priority for the community. Feedback from the community consistently indicates that many more people would walk and cycle when safer, more convenient and more attractive routes are available. During the engagement process for the review of the 2018 CSP in late 2021, 64% of respondents felt that 'supporting sustainable transport' was of highest priority<sup>xi</sup>.

Creating space for walking and cycling became easier after the *Road User Space Allocation Policy CP21000*<sup>xii</sup> was published by Transport for NSW in early 2021. This policy establishes a road user hierarchy that considers pedestrians first and private cars last. It provides local and State governments with a **powerful lever** to prioritise road space for active transport.

The reconfiguration of streets to provide more space for walking and cycling does not only achieve transport objectives. Projects such as West Street are significant urban design proposals with a vision to deliver quieter, calmer, leafier streets that benefit every resident and visitor.

Bicycle NSW recognises that the historic urban fabric, enhanced by steep topography and waterways but severed by major road and rail lines that bring heavy through traffic, complicates the delivery of cycling infrastructure. Although faced with similar constraints, the City of Sydney has rolled out some fantastic new separated bicycle paths in recent years. The residents of North Sydney now see and use best practice infrastructure as part of their daily trips and the call for improved facilities north of the Harbour Bridge gets louder.

It is exciting to see a new generation of North Sydney Councillors and staff, who understand how active travel can decarbonise transport, improve public health and ensure future liveability, working to supercharge the roll-out of safe, protected active transport infrastructure.

Bike North, a large and active Bicycle User Group, has worked hard over many years to advocate for better conditions for active travel. We thank Bike North for championing the West Street route over two decades.

We very much look forward to riding on the cycleway, alongside crowds of local school students, very soon!

Please reach out with any questions or help needed.

Yours faithfully,



Sarah Bickford

Active Transport Planner  
Bicycle NSW



Peter McLean

Chief Executive Officer  
Bicycle NSW

<sup>i</sup> Bicycle NSW (2018) Our Policy, [online as at 24/2/2021] <https://bicyclensw.org.au/our-policy/>

<sup>ii</sup> Cycleway Design Toolbox: designing for cycling and micromobility. Transport for NSW. <https://www.transport.nsw.gov.au/system/files/media/documents/2021/Cycleway-Design-Toolbox-Web.pdf>

<sup>iii</sup> City of Yarra - 30km/h speed limit: pre-trial final report, 2017. <https://thanksfor30.com.au/sites/default/files/2018-08/City-of-Yarra-Pre-Trial-Report-Aug-2017-FINAL%5B1%5D.pdf>

<sup>iv</sup> O'Sullivan, F. (2020, November). Why Europe is slowing down. Bloomberg CityLab. <https://www.bloomberg.com/news/articles/2020-11-18/speed-limits-are-dropping-in-europe-and-the-u-k>

<sup>v</sup> Vision Zero Network. (2015, April 13). European Cities Lead the Way Toward Vision Zero. <https://visionzeronetwork.org/european-cities-lead-the-way-toward-vision-zero/>

<sup>vi</sup> North Sydney Council. 2022. Draft Community Strategic Plan – North Sydney Vision 2040. <https://yoursay.northsydney.nsw.gov.au/72233/widgets/371601/documents/231175>

<sup>vii</sup> North Sydney Council. 2022. Draft Community Strategic Plan – North Sydney Vision 2040. <https://yoursay.northsydney.nsw.gov.au/72233/widgets/371601/documents/231175>

<sup>viii</sup> City of Sydney. 2020, April 9. The city at a glance. <https://www.cityofsydney.nsw.gov.au/guides/city-at-a-glance>

<sup>ix</sup> Australian Bureau of Statistics, 2016. Quickstats for North Sydney LGA. <https://www.abs.gov.au/census/find-census-data/quickstats/2016/LGA15950>

<sup>x</sup> North Sydney Community Strategic Plan 2018-2028. [https://www.northsydney.nsw.gov.au/files/assets/public/docs/1\\_council\\_meetings/policies\\_plans/strategic\\_plans/communitystategicplan\\_2018-2028\\_final\\_lr.pdf](https://www.northsydney.nsw.gov.au/files/assets/public/docs/1_council_meetings/policies_plans/strategic_plans/communitystategicplan_2018-2028_final_lr.pdf)

<sup>xi</sup> North Sydney Council. 2022. Community Strategic Plan Review - Stage 1 Engagement Outcomes. <https://yoursay.northsydney.nsw.gov.au/72233/widgets/371601/documents/233876>

<sup>xii</sup> NSW Government, Road User Space Allocation Policy CP21000, [www.transport.nsw.gov.au/system/files/media/documents/2021/road-user-space-allocation-policy.pdf](http://www.transport.nsw.gov.au/system/files/media/documents/2021/road-user-space-allocation-policy.pdf)



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Therese Manns  
General Manager,  
North Sydney Council

CC  
Max White – Sustainable Transport Project Coordinator  
Mayor Zoe Baker – Mayor of North Sydney Council  
Cr Shannon Welch – Sustainable Transport Reference Group Chair

Dear Therese, Max, Zoe, Shannon,

### **West Street Cycling, Walking and Streetscape Upgrades - Stage 2**

#### **Introduction**

Bike North is a volunteer cycling advocacy organization of over 500 members covering Northern Sydney including North Sydney LGA. We thank North Sydney Council for providing the opportunity to comment on its proposed West Street - Cycling and Walking Upgrades – Stage 2.

#### **Summary of Support**

Bike North strongly supports the extension of the existing West St cycleway north to Amhurst St. West St is a critical gap in the regional cycling route linking Naremburn and the Sydney Harbour Bridge. West St is already heavily used by experienced commuting cyclists heading into North Sydney CBD and across the bridge. West St is well known for dangerous close passes with some cyclists even attaching pool noodles and poles to their bicycles to discourage this dangerous behaviour. The creation of a safe and convenient cycleway along West Street and into a future Pacific Hwy cycleway will complete the main missing link to connect the majority of Northern Sydney area into North Sydney.

Motor vehicle numbers have dramatically increased along West St since Cammeraygal High School opened its senior campus there in 2019. This has made the route much more dangerous for existing riders – but even more concerningly – there are negligible numbers of students cycling to this campus relative to its catchment area.

Bike North notes that the proposed bidirectional cycleway on the western side is quite narrow to minimize the number of car parking spaces lost. The low design speed of the bidirectional cycleway will mean that many fast commuter cyclists will need to use the general traffic lane. Bike North is supportive of the traffic calming measures being proposed and encourage North Sydney Council to push for a 30kmh speed limit along the route which will make it safer for students and slower riders using the cycleway to cross West St to access schools and other eastbound routes. Bike North urge North Sydney Council to ensure that the cycleway is designated as a bike path and not a legal “Bike Lane” so that faster moving riders are not forced to use narrow infrastructure that is unsafe for their speeds.

#### Additional improvement suggestions

Bike North is very supportive of the bicycle + pedestrian crossings installed at Amhurst St and Cammeraygal High School. We urge North Sydney Council to implement a similar crossing at Rosalind St, rather than the currently proposed pedestrian-only crossing. Including a bicycle crossing will activate the quiet Rosalind St as an East-West connection down to ANZAC Park Public school and the East-West link through the backstreets of Cammeray and Cremorne.

#### Further considerations

The termination point of the cycleway at Amhurst St roundabout is complex because of the Warringah Freeway / Brook St ramp up to West St. Bike North is aware that this freeway crossing and ramp up to West St is the subject of investigations from the Active Transport Network Review. Bike North encourages North Sydney Council to work with TfNSW integrate the approach as best as possible and particularly to prioritise bicycle and pedestrian flow over cars as much as possible – whether by dedicated crossings if possible or even with surface treatments to slow cars approaching the West St residential area.

West Street Phase 2 will unlock the new Victoria Cross Metro Station to residents in Cammeray, Folly Point, parts of Willoughby LGA and potentially even Cremorne and further east depending on an efficient East-West connection. Bike North encourages North Sydney Council to ensure that a safe and efficient cycling connection from the southern end of the West St cycleway to the metro station at McLaren Street and particularly bicycle parking is created and maintained.

While broadly outside North Sydney Council's responsibility, an active transport overpass crossing of the Warringah Freeway and Brook St is the only realistic high capacity, fully accessible option for this section and Bike North encourages North Sydney Council to petition TfNSW to work with Willoughby Council and itself to get it implemented.

Bike North note that there is not yet any funding allocated for West St - Cycling and Walking Upgrades – Stage 2. We encourage the Council to petition the State Government for funding to be allocated so that this critical missing link can be built as quickly as possible. It will be critical to complete these cycling, walking and streetscape upgrades before the opening of the Warringah Freeway Upgrade to avert the likelihood of increased motor traffic along West Street from rat-running around the freeway.

Regards,



Phillip Hart  
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Bike North  
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