



# North Sydney Bike Action Plan

Saddle Survey Report

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Institute for  
*Sensible Transport*





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# Contents

<b>1.</b>	<b>Introduction .....</b>	<b>5</b>
1.1	What does this report do? .....	6
<b>2.</b>	<b>Summary of findings .....</b>	<b>7</b>
2.2	Overall network.....	9
2.3	Typology appropriateness.....	10
2.4	Movement and place considerations .....	13
2.5	Connectivity and wayfinding.....	13
2.6	Crossings and intersections .....	14
2.7	Connections to other LGAs.....	14
2.8	Site specific opportunities.....	16
<b>3.</b>	<b>2014 priority route assessments .....</b>	<b>17</b>
3.1	Route 1 – Sydney Harbour Bridge to Cammeray .....	19
3.2	Route 2 – North Sydney to Mosman .....	22
3.3	Route 3 – Sydney Harbour Bridge to Neutral Bay.....	24
3.4	Route 4 – Cammeray to Crows Nest.....	26
3.5	Route 5 – North Sydney to Cremorne.....	29

## List of figures

Figure 1	Three main stages of project .....	6
Figure 2	Key project components.....	6
Figure 3	Density of Fulcrum records during saddle survey .....	8
Figure 4	Existing cycling infrastructure in North Sydney.....	10
Figure 5	Designing bike riding infrastructure based on the speed and volume of motor vehicle traffic.....	11
Figure 6	Narrow bi-directional cycleways have the potential to become congested .....	11
Figure 7	Shared path on Miller St, adjacent to St Leonards Park .....	11
Figure 8	Separated bi-directional cycleway at Young St and Sutherland St .....	12
Figure 9	PS2 symbols on a street with higher traffic volumes and speeds than is appropriate .....	12
Figure 10	Wide kerbside lane in West St.....	13
Figure 11	Miller St, at North Sydney, has high activity but no cycling infrastructure .....	13
Figure 12	Cycling direction sign in Berry St, North Sydney .....	14
Figure 13	Cycling direction sign in Wollstonecraft.....	14
Figure 14	Beencke's Bridge between Wollstonecraft and Greenwich .....	15
Figure 15	Cycleway adjacent to the Warringah Freeway.....	15
Figure 16	People using bicycles are required to cross here to access the Warringah Freeway cycleway .....	16
Figure 17	2014 key proposed routes .....	18
Figure 18	Overview of route 1.....	19
Figure 19	Shared path along the Pacific Highway (near Bay St).....	20
Figure 20	Recently installed bi-directional cycleway on West St.....	20

Figure 21 Pacific Highway in North Sydney .....	21
Figure 22 Intersection between Middlemiss St, Alfred St and Lavender St.....	21
Figure 23 West St in Cammeray .....	21
Figure 24 Overview of Route 2.....	22
Figure 25 Separated bi-directional cycleway of Young St.....	23
Figure 26 Tobruk Ave with low traffic volumes and PS2 symbols.....	23
Figure 27 Overview of Route 3 .....	24
Figure 28 Broughton Street.....	25
Figure 29 Traffic dividers in Clark Rd .....	25
Figure 30 Uphill bike lanes on Murdoch St.....	26
Figure 31 Overview of Route 4 .....	27
Figure 32 Holtermann St .....	27
Figure 33 Willoughby Rd.....	27
Figure 34 Overview of Route 5.....	29
Figure 35 Contra flow lane in Winter Ave .....	30
Figure 36 Uphill cycle lane in Bent St.....	30
Figure 37 Wide kerbside lanes in Yeo St.....	30
Figure 38 Contra flow section of Winter Ave which could have better signage .....	31

## List of tables

Table 1 Summary of cycling infrastructure in North Sydney Council .....	9
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# 1. Introduction



North Sydney Council have identified the need to review and update the North Sydney *Integrated Cycling Strategy 2014*. This is the first in a series of reports that will be developed as part of this project and is focused on background data analysis and benchmarking. This will provide a solid evidence based to embark on future stages, including network assessment and development. The three key project stages are captured in Figure 1.



Figure 1 Three main stages of project

The project's key components are identified in Figure 2. These are colour coded by project stage.



Figure 2 Key project components

## 1.1 What does this report do?

The key objective of this report is to document the findings of the site assessment (saddle survey) conducted in February, 2024. This includes an assessment of the barriers and opportunities for enhancing the cycling environment in North Sydney. It also offers an examination of the five priority routes identified in the 2014 North Sydney Cycling Strategy. The findings of this work will help underpin the network development recommendations that are a core deliverable for this project.



## 2. Summary of findings

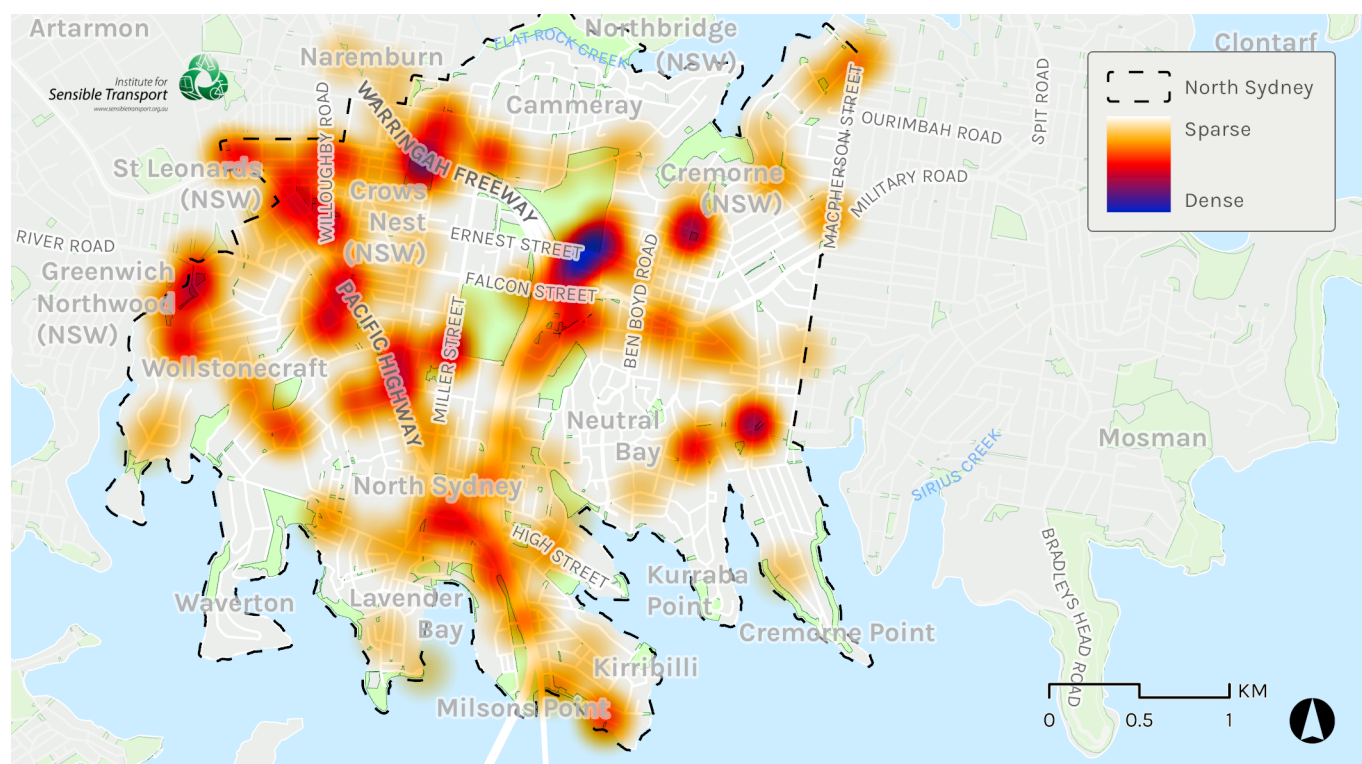




The saddle surveys occurred over three days from the 31<sup>st</sup> January to the 2<sup>nd</sup> February 2024. Over 60km of streets and paths were surveyed by our team. This included all five priority routes identified in the 2014 *North Sydney Integrated Cycling Strategy*. The survey also included an examination of locations and corridors identified through an earlier

desktop analysis conducted by our team. Local cycling advocates accompanied our team for portions of the survey, identifying areas of concern and opportunity.

Observations made during the saddle survey were recorded in Fulcrum (a Smartphone App used for collecting geolocated data). In total, 196 records were collected. The density of records captured is reflected in Figure 3.



**Figure 3 Density of Fulcrum records during saddle survey**

Source: Institute for Sensible Transport



## 2.2 Overall network

Cycling infrastructure in North Sydney (including the Sydney Harbour Bridge cycleway) was assessed as consisting of some 24km, broken down into the a variety of infrastructure typologies, as identified in Table 1. The typologies we have used in Table 1 are based on the general level of protection/comfort.

The North Sydney cycling network consists of almost 8km (~33%) of protected cycling environments. This included separated bike paths, separated bi-directional cycleways, or shared paths. These types of infrastructure physically separate people on bikes from motor vehicles, offering the highest quality of comfort and safety.

A further 4.2km (~18%) of the network consists of semi-protected cycling, with painted cycle lanes (either in one direction or both). Painted lanes offer dedicated space for cyclists, but do not offer any physical protection.

Lastly, just under 12km (~50%) of the network is unprotected. This consists of PS2 (bicycle) symbols painted in the travel lane or in a parking lane, with small sections of shared zones. These offer no dedicated space on the road, but can raise awareness that people riding bikes may be present.

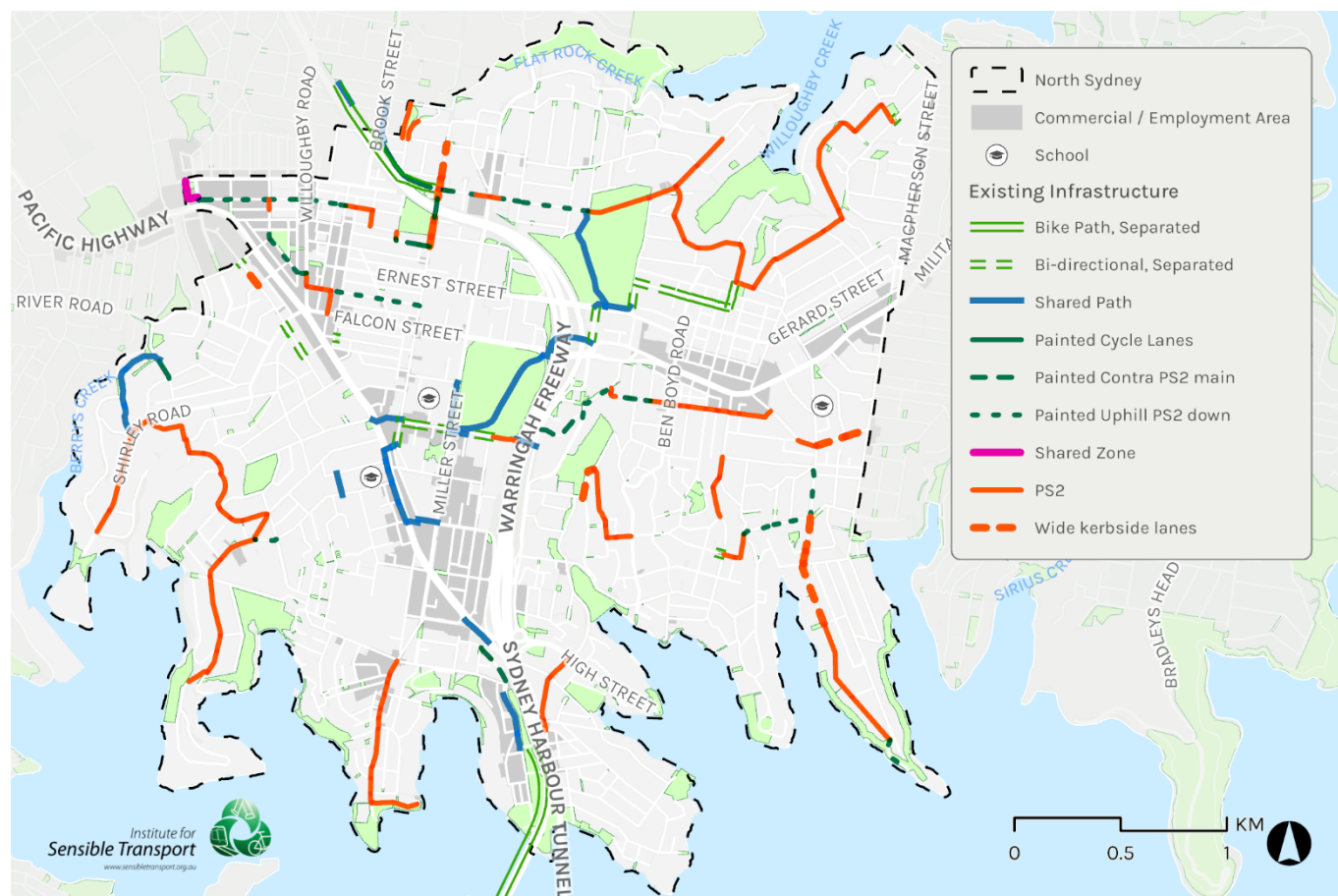
Section 2.3 offers more information on different cycling infrastructure typologies and user preferences.

**Table 1 Summary of cycling infrastructure in North Sydney Council**

Level of protection	Current typology	Length (m)	Percent
Protected	Separated bike path	2,400	10%
	Separated bi-directional cycleway	1,559	6%
	Shared path	3,941	16%
Semi-protected	Painted cycle lanes	520	2%
	Painted cycle lane contra / PS2 symbol painted in travel lane	761	3%
	Painted cycle lane uphill / PS2 symbol in travel lane downhill	3,095	13%
Unprotected	Shared zone	131	1%
	PS2 symbol in travel lanes	10,245	42%
	Wide kerbside lanes (PS2 symbol painted in parking lanes)	1,462	6%
Total		24,114	99%*

\*Rounding error

Figure 4 shows a spatial representation of the existing cycling network in North Sydney. The map highlights the fragmented nature of the cycling infrastructure in North Sydney. Large gaps exist that separate key origins and destinations. It is also important to highlight that some 50% network connections shown in Figure 4 are *unprotected*. This means that in many cases, especially in areas with high traffic volume and speeds in excess of 40km/h, these parts of the network are unlikely to appeal to the majority of potential riders (see Section 2.3 and Background Report).



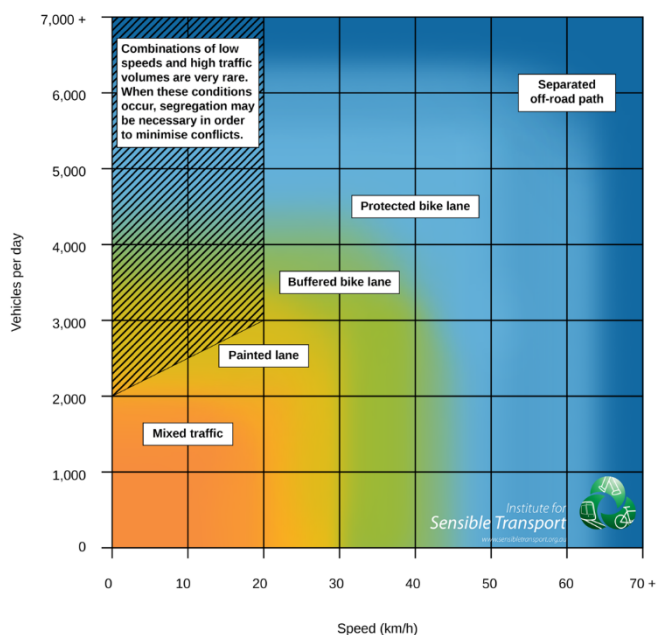
**Figure 4 Existing cycling infrastructure in North Sydney**

Source: Institute for Sensible Transport

## 2.3 Typology appropriateness

An overarching ambition of this project and the new North Sydney Cycling Strategy is to increase the proportion of the community that see cycling as an attractive option. It is therefore necessary to be sensitive to the type of street, before deciding on the most appropriate form of infrastructure. Roads with higher traffic volumes and higher speeds require greater levels of protection. Conversely, mixed traffic can be suitable for lower speed, lower traffic environments. This concept is illustrated in Figure 5.





**Figure 5 Designing bike riding infrastructure based on the speed and volume of motor vehicle traffic**

Source: Australian Transport Assessment and Planning Guidelines M4 Active travel

[https://www.atap.gov.au/sites/default/files/m4\\_active\\_travel.pdf](https://www.atap.gov.au/sites/default/files/m4_active_travel.pdf)

One consistent theme to emerge from the saddle surveys was that many of the bi-directional cycleways in North Sydney are located in quieter, more residential areas. In some of these cases, the level of protection may be higher than what would be suggested in Figure 5.

There are two key disadvantages of providing protected bi-directional cycleways on quiet streets. Firstly, they are more costly, resulting in less funds available for other areas. Secondly, due to space constraints, some of the bi-directional lanes are quite narrow (e.g. see Figure 6). These cycleways may become busier (especially during peak times) and this may result in conflicts and/or collisions between users. Similarly, there are many shared paths which have insufficient width and/or signage, and feel more like riding on a footpath than riding on a shared path (e.g. see Figure 7).



**Figure 6 Narrow bi-directional cycleways have the potential to become congested**



**Figure 7 Shared path on Miller St, adjacent to St Leonards Park**



## 2.4 Poor connectivity

Another consistent theme to emerge from the saddle survey was the level of connectivity of the network. Surveyors found protected infrastructure was not always well connected to other streets. For example, there are locations where a bi-directional cycleway turns a corner (e.g., Young St and Sutherland St, see Figure 8), but there are no ramps on or off. This acts as a barrier, creating friction for users who wish to enter or exit the facility and ride on streets without infrastructure.



**Figure 8 Separated bi-directional cycleway at Young St and Sutherland St**

Many main roads, some of which can carry higher levels of cyclists, have very poor levels of service. Cyclists are forced to ride in mixed traffic environments with higher volumes of faster moving traffic (see Figure 9). These environments are appropriate locations for separated infrastructure, such as bi-directional cycleways.



**Figure 9 PS2 symbols on a street with higher traffic volumes and speeds than is appropriate**

## 2.5 Targeting investment where it is needed most

There is an opportunity to focus resource allocation on the roads and routes which have highest levels of need, from the perspectives of cycling demand, *and* protection of high vehicle volumes and speeds. Areas of lower vehicle volumes and vehicle speeds could be treated in lower cost ways, such as quietways with *modal filters*.<sup>1</sup>

Designing lower cost interventions in a manner sensitive to *Movement and Place* principles can result in less reliance on PS2 symbols in isolation from other supporting interventions. The lower cost interventions can include traffic calming, and modal filters. Further, wide kerbside lanes (shown in Figure 10) are inappropriate in all contexts, and streets which currently have them should be remarked with either dedicated lanes or mixed traffic (as appropriate). Wide kerbside lanes force

<sup>1</sup> <https://www.movementandplace.nsw.gov.au/sites/default/files/guides/pdf/design-of-roads-and-streets.pdf>



riders to travel in the *door zone*, exposing people to unnecessary levels of risk.



Figure 10 Wide kerbside lane in West St

## 2.6 Movement and place considerations

The transport network in North Sydney, as with many LGAs, does not always align well with the TfNSW *Movement and Place* framework. The framework emphasises the need to recognise that roads and streets are for more than the simple conveyance of vehicles; they can be places in their own right, enabling people to interact and spend time. Many areas observed during the survey have a potentially very high place value, yet in many cases, it was the movement of vehicles that had priority. Miller Street offers a good example of this malalignment with *Movement and Place* (shown in Figure 11).



Figure 11 Miller St, at North Sydney, has high activity but no cycling infrastructure

Many shopping precincts and residential areas have speed limits of 50km/h. These are inappropriate for mixed traffic environments (see Figure 5) and out of step with Australian and international best practice. Higher speeds can also diminish the sense of place, which is particularly important for shopping precincts.

There is an opportunity to reduce speed limits in shopping precincts to 40km/h. This will enhance the sense of place and have greater alignment with the *Movement and Place* framework. The survey also revealed a lack of bicycle parking, which should likewise be incorporated into all shopping precincts and areas of activity.

In residential areas, lower speeds supported with traffic calming and modal filters to remove unwanted through traffic would create an environment more conducive for mixed traffic cycling treatments, such as quietways, while also enhancing the local feel of residential areas.

## 2.7 Connectivity and wayfinding

There are defined cycling routes across North Sydney, with directional signage mostly to a single destination (e.g. see Figure 12). In some cases the directions consist simply of an arrow, with no destination at all, such as in Figure 13. However, cycling infrastructure is highly fragmented, with these signs often directing cyclists to ride along roads without any infrastructure. Furthermore, there is an almost total absence of wayfinding, meaning that cyclists need to know about interim destinations or destinations further afield. This significantly diminishes the legibility of cycling in



North Sydney. There is also an opportunity to include time and distance, as part of a more comprehensive Wayfinding Strategy and Master Plan, which will be considered as this project progresses.



**Figure 12** Cycling direction sign in Berry St, North Sydney



**Figure 13** Cycling direction sign in Wollstonecraft

## 2.8 Topography

North Sydney has significant hills and steep rises. Ridgelines are present, but for a variety of historical reasons, these are also the locations for some of the busiest arterial roads (e.g., Military Road). This means that in many cases cycling ‘routes’ (defined by direction signs rather than infrastructure) take local streets, which have steeper rises and more turns. An example of this is the route along Phillips and Harriette St in Neutral Bay, which requires people riding bikes to navigate a set of stairs. This decreases the attractiveness and legibility of these routes, and is likely to reduce cycling participation.

The Warringah Freeway also poses a significant barrier, restricting connectivity between the south and west, and north and east. While there are some streets suitable for cycling (e.g., West St and Burton St) and several walking and cycling bridges, main roads do not offer safe and convenient cycling access.

## 2.9 Crossings and intersections

Safe crossings and intersections are a critical component of a cycling network. Many locations across North Sydney offer poor levels of service for cyclists. Some locations require cyclists to cross four lanes of traffic, without signals or refuge islands (e.g., Nicholson St/Sinclair St and Shirley Rd). Many signalised intersections have poor accommodations for people riding bikes, lacking any form of dedicated space (either lanes or bike boxes), with cycle lanes ending before the intersection (e.g., Amherst St and Miller St).

Where there are bike facilities, priority is not always in the favour of people using bikes. There were many locations where bike lanterns at intersections were sequenced in a way which gave priority to cars, and caused delay to cyclists. This delay reduces the time competitiveness and attractiveness of cycling, but can also impact compliance (and therefore safety).

## 2.10 Connections to other LGAs

Many trips in the inner Sydney region cross LGA boundaries. It is therefore important that the cycling network supports the choice for people to travel by bike to or from North Sydney. This is especially important for North Sydney given its role



as a major employment and education centre. Furthermore, it is the only cycling connection from the north shore and northern beaches to Sydney CBD. The saddle survey revealed poor connections between North Sydney's cycling network and surrounding areas.

A number of opportunities for improved connections between North Sydney and adjoining LGAs:

- The connection south, to Sydney CBD (City of Sydney) has steps to the Sydney Harbour Bridge cycleway which are slated to be supplemented with a ramp.
- The connection west from Wollstonecraft to Greenwich (Lane Cove Council) requires cyclists to dismount at Beencke's Bridge (River St is a potential alternative, but is highly unattractive to cycling due to high traffic volumes and speed).
- The connections to the northwest through Crows Nest along:
  - Pacific Highway (Lane Cove Council and City of Willoughby) which has no infrastructure
  - Christie St (City of Willoughby) which has no infrastructure
  - Willoughby St (City of Willoughby) which has no infrastructure
  - Brook St (City of Willoughby) which has no infrastructure
  - There is also a path alongside the Warringah Freeway which is narrow, with obstacles (see Figure 15 and a very poor crossing at the east (see Figure 16).
- The connection to the north is along Strathallen Ave (the continuation of Miller St) to the City of Willoughby which has no infrastructure
- There are multiple connections to the east, including the following which are marked as routes in the 2014 *North Sydney Integrated Cycling Strategy*.
  - Rangers Rd, which has no infrastructure and connects with a T-intersection to Spofforth St (Municipality of Mosman), which has no infrastructure and has high traffic volumes.
  - Ellalong Rd into Wyong Rd (Municipality of Mosman) which both have PS2 symbols and carry low traffic volumes.



Figure 14 Beencke's Bridge between Wollstonecraft and Greenwich



Figure 15 Cycleway adjacent to the Warringah Freeway



**Figure 16** People using bicycles are required to cross here to access the Warringah Freeway cycleway

## 2.11 Site specific opportunities

The saddle survey revealed some highly site-specific opportunities. These are identified below and subsequent stages of the project will focus on recommendations designed to address these issues.

- **Crossing Military Rd:** Barry St could be used to connect Young St, by moving the existing pedestrian crossing approximately 15m east. This would provide a north-south cycling route between Cremorne and Neutral Bay over Military Rd, which, in addition to not being safe for cycling itself, also acts to sever north/south connections between different parts of North Sydney.
- **Miller St:** This is the commercial centre of North Sydney, is the site for the new Victoria Cross Metro Station and, despite no infrastructure, already carries relatively large volumes of cyclists to and from the Sydney Harbour Bridge. The high levels of existing and latent demand are due to its strategic location and effective north/south connection. There is significant potential for

Miller St to be the keystone of the future cycling network in North Sydney.

- The rail corridor between Waverton and Luna Park has potential to incorporate an active travel path, which would provide a gentle grade connection between the west and the Sydney Harbour Bridge. This would also connect with the Luna Park and North Sydney Olympic Pool area.
- Integration between cycling and public transport, including:
  - Victoria Cross Metro Station (soon to be opened on Miller St)
  - Crows Nest Metro Station (soon to be opened between the Pacific Highway and Clarke Lane)
  - McMahons Point Ferry Terminal (along Blues Point Road)
  - Milsons Point Wharf (along Alfred St South)
  - Kirribilli Wharf (along Kirribilli Ave/Carabella St)
  - Cremorne Point Wharf (along Milsons Rd).

The next section of this report reviews the priority routes identified in the 2014 North Sydney Integrated Cycling Strategy.



### 3. 2014 Priority Route Assessments

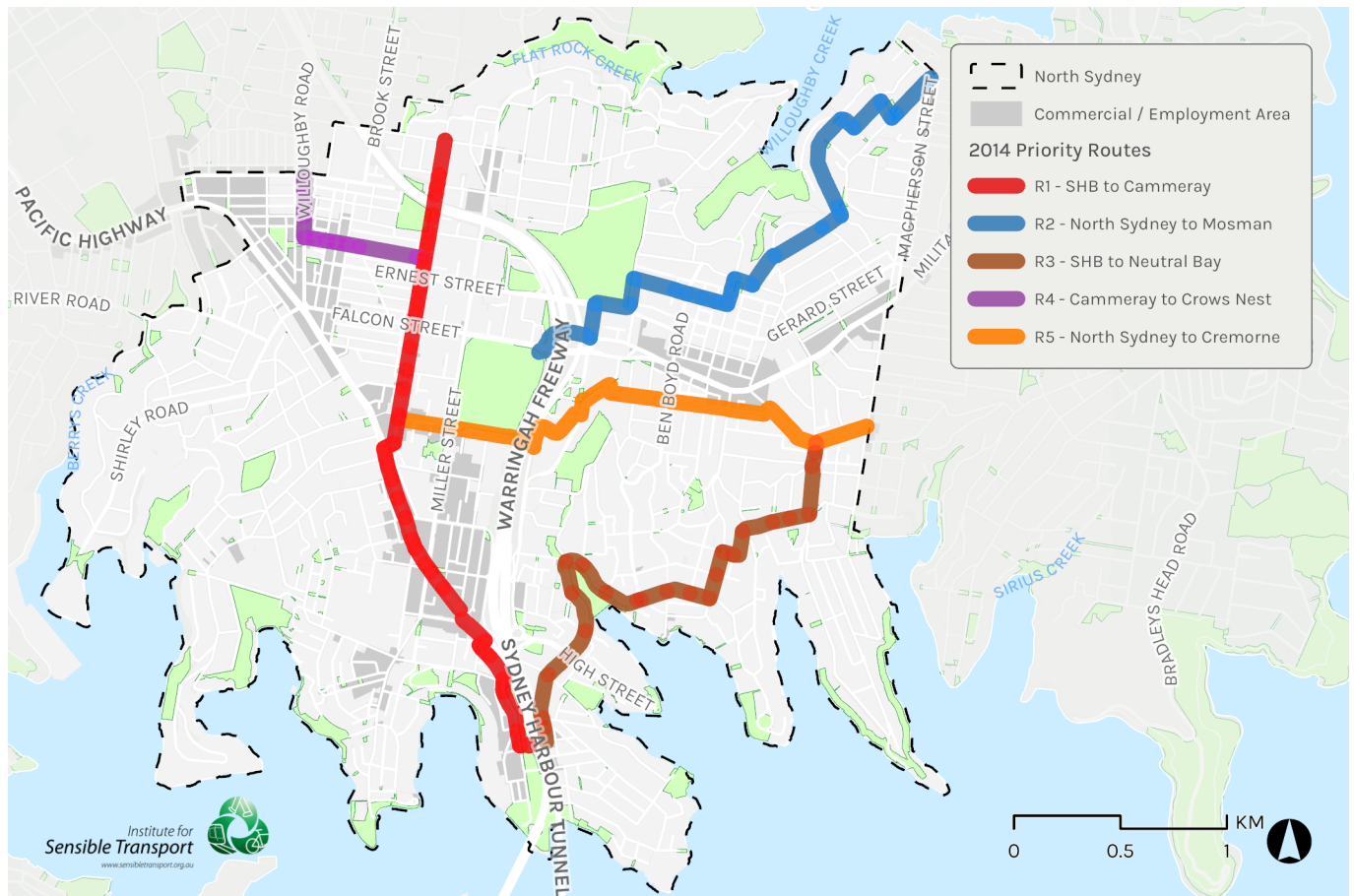




**A key objective of the saddle survey investigated cycling conditions along the five routes identified as priority routes in the 2014 *North Sydney Integrated Cycling Strategy*.**

These five routes shown in Figure 17, discussed in more detail in the following sections are:

- Route 1 – Sydney Harbour Bridge to Cammeray
- Route 2 – North Sydney to Mosman
- Route 3 – Sydney Harbour Bridge to Neutral Bay
- Route 4 – Cammeray to Crows Nest
- Route 5 – North Sydney to Cremorne



**Figure 17 2014 key proposed routes**



### 3.1 Route 1 – Sydney Harbour Bridge to Cammeray

This proposed route is approximately 3.1km, running from the Sydney Harbour Bridge cycleway to Cammeray in the North of North Sydney. The route is intended to run primarily along the Pacific Highway and West Street. The 2014 *North Sydney Integrated Cycling Strategy* proposed this route to be a separated bi-directional cycleway. Figure 18 contextualises Route 1 with key destinations and existing issues.

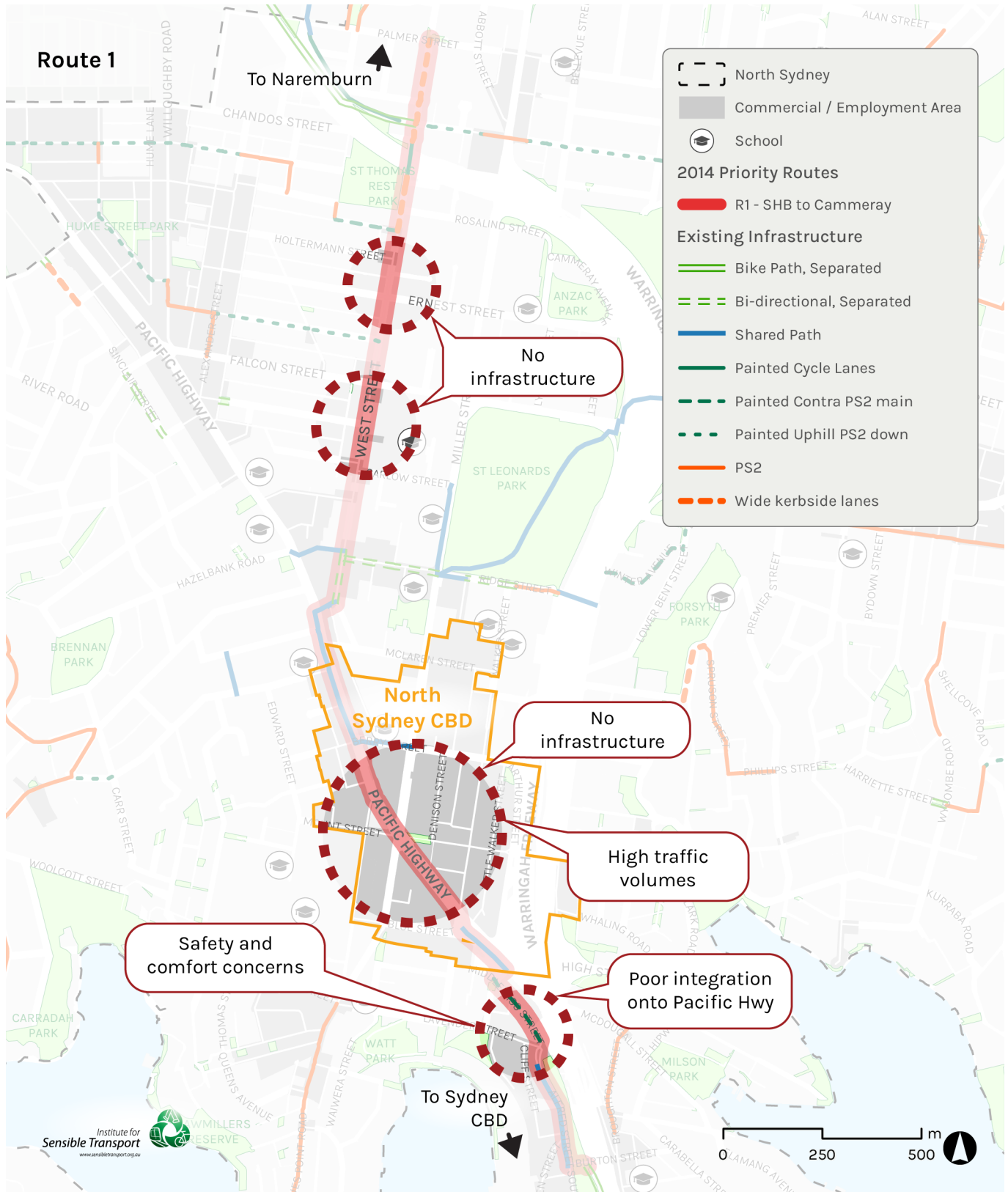


Figure 18 Overview of Route 1

### 3.1.1 Current context

As of 2024, this route is approximately 4% separated with a bi-directional cycleway (~137m) running along West Street. Around 26% of the route is shared path (~812m) primarily along the Pacific Highway, where a shared path runs along the east side of the road between West Street and Berry Street (shown in Figure 19), and the west side of the road between Blue Street and Arthur Street. There is also a section of shared path along Alfred Street South, leading to the Sydney Harbour Bridge cycleway (which have steps, that are expected to be bypassed by a new ramp in 2025 or 2026). West Street has recently had a section of separated bi-directional cycleway installed (shown in Figure 20), with another 1.1km (between Ridge Street and Amherst Street) commencing construction later in 2024 or 2025.



**Figure 19 Shared path along the Pacific Highway (near Bay St)**



**Figure 20 Recently installed bi-directional cycleway on West St**

The remainder of the route is unprotected, with either no infrastructure, or PS2 symbols painted into travel lanes or parking lanes. Notably, this includes a gap of approx. 560m along the Pacific Highway where users are provided no viable route, other than riding in mixed traffic (shown in Figure 21). Observations conducted during the saddle survey indicated that despite the high traffic volumes and no infrastructure, this junction was among the busiest for cycling traffic across the LGA. This is an indication of the potential for this part of the network, should the level of service/infrastructure be improved. Furthermore, the intersection between Middlemiss Street, Alfred Street and Lavender Street (shown in Figure 22) offers no protection for cyclists.





**Figure 21 Pacific Highway in North Sydney**



**Figure 22 Intersection between Middlemiss St, Alfred St and Lavender St**

Route 1 feeds into the Amherst Street connection to the Naremburn shared path (along the Warringah Freeway). This connection, while not part of Route 1, needs particular attention, as it currently requires people using bikes to cross a two lane on-ramp with heavy traffic flows, on an angle, placing people using bikes in a very vulnerable position (discussed above in Section 2.10).

### 3.1.2 Route suitability

A route between the Sydney Harbour Bridge cycleway to Cammeray has strong strategic justification. It will connect multiple residential

areas, inside the North Sydney LGA and beyond, including the Sydney CBD. It also has the potential to act as a north-south 'spine' in North Sydney, connecting other local and regional routes with each other. The route also serves the North Sydney CBD, which is a major employment hub with almost 50,000 people employed.

West Street (shown in Figure 23) provides the best option for north south travel, being, low traffic, with adequate road widths for separated facilities and being connected to existing infrastructure to Crows Nest, Cammeray and beyond.



**Figure 23 West St in Cammeray**

While the Pacific Highway offers the most direct route, traffic volumes and speeds make it unattractive to cycle. The Pacific Highway is also a State Road, managed by Transport for NSW. Without separated infrastructure, the Pacific Highway will remain largely avoided by people using bikes. An alternative route along Miller Street and Blue Street would offer similar directness, while also connecting with the heart of the North Sydney CBD and new Metro Station. As an interim measure, Berry Street and Walker Street could be used.

### 3.1.3 Opportunities

The following opportunities exist for short and longer term improvements in safety and attractiveness on Route 1:

- Upgrade the intersection of Middlemiss Street, Alfred Street and Lavender Street to offer protected cycling facilities, as a key priority.
- Construction of 570m link along Berry Street (Miller Street to Walker Street) and Walker Street (Berry Street to Pacific Highway), as an interim measure.
- Construction of 1.1km link along Miller Street (Ridge Street to Blue Street) and Blue Street.
- Improve connectivity between the northern end of Route 1 and the Naremburn shared path.

### 3.2 Route 2 – North Sydney to Mosman

This proposed route is approximately 3.1km, running from the North Sydney (at the northern entrance to St Leonards Park) to Mosman. The route runs primarily along a series of less heavily traffic streets. The 2014 *North Sydney Integrated Cycling Strategy* proposed to have a majority of the route being on-road mixed traffic with difficult sections upgraded with dedicated cycle lanes or other cycle specific infrastructure. Figure 24 offers an indication of key contextual factors along Route 2.

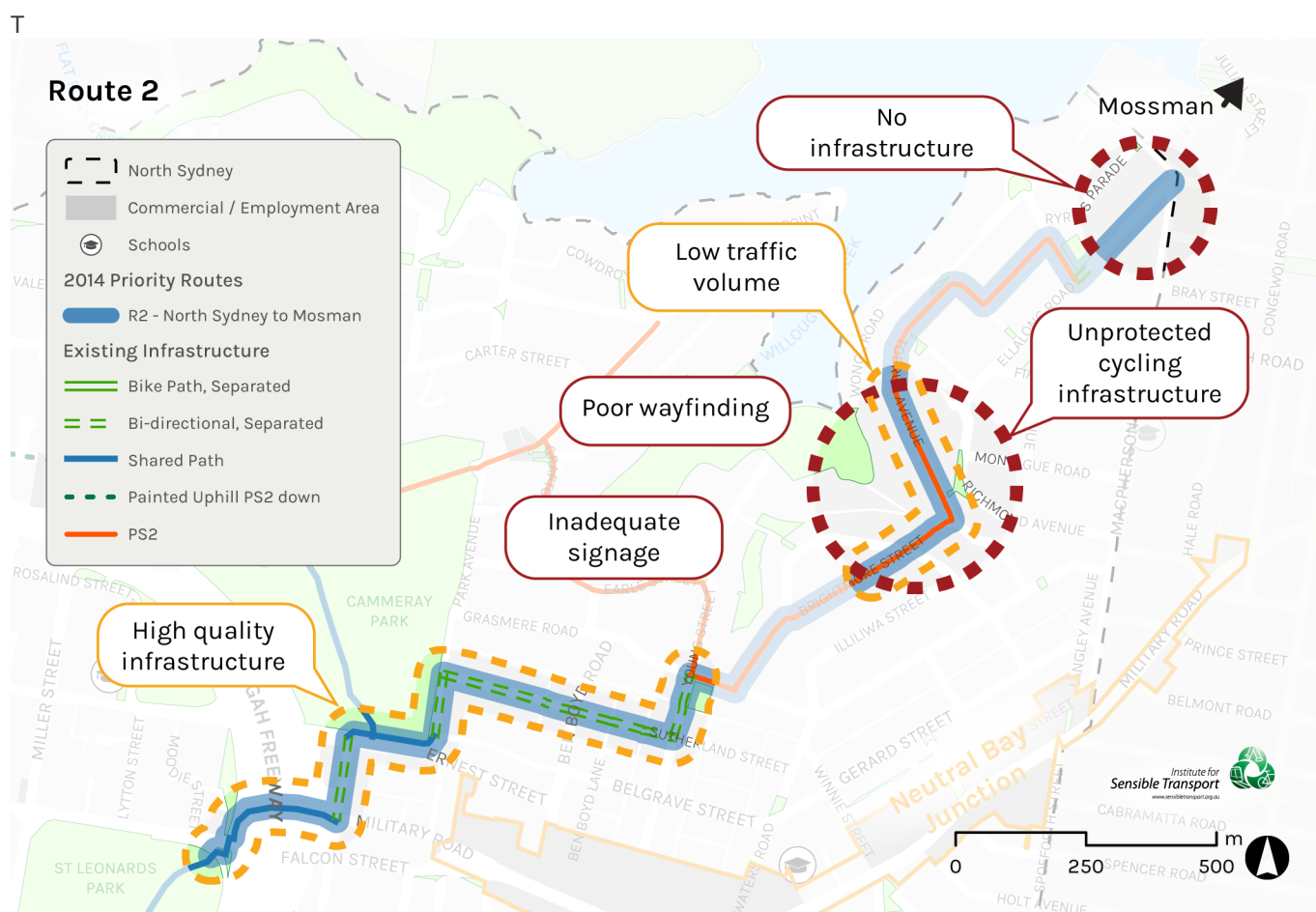


Figure 24 Overview of Route 2



### 3.2.2 Current context

As of 2024, this route is approximately 28% separated bi-directional cycleway (~863m) along Merlin Street, Park Avenue, Sutherland Street and Young Street (a typical example of this style of infrastructure is shown in Figure 25). An additional 16% is shared paths (~486m). These sections provide a route fully separated from motor vehicle traffic from St Leonards Park to the intersection of Young Street and Grasmere Road (~1.3km).



**Figure 25 Separated bi-directional cycleway of Young St**

The section between Young Street and Mosman is unprotected, with PS2 symbols painted on the roadway (a typical example is shown in Figure 26). This section has low traffic volumes and speed, making on-road, unprotected cycling appropriate.



**Figure 26 Tobruk Ave with low traffic volumes and PS2 symbols**

### 3.2.3 Route suitability

Route 2 has strong strategic justification, providing those living along the route and in Mosman, or beyond (in the broader Northern Beaches Region) a convenient route into the North Sydney CBD and onward towards the Sydney CBD.

The western section has an appropriate level of service, being fully protected. The eastern section lacks physical protection, but the alignment is good, with low traffic and gentle grades. Modal filters near MacPherson Street/Wyong Road also help to reduce through traffic.

### 3.2.4 Opportunities

The following opportunities exist for short and longer term improvements in safety and attractiveness on Route 2:

- Upgrade bicycle markings in streets in the eastern section, with more frequent PS2 symbols and better wayfinding.
- Reduce speed limits on streets in the eastern section to 40km/h and implement traffic calming in locations in which average travel speed exceeds 40km/h.

### 3.3 Route 3 – Sydney Harbour Bridge to Neutral Bay

This route is approximately 2.8km, running from the Sydney Harbour Bridge (at the intersection of Burton St and Broughton St) to Neutral Bay (at the intersection of Murdoch St and Rangers Rd). Figure 27 shows an overview of the route along with key observations. The 2014 *North Sydney Integrated Cycling Strategy* proposed the route as an ‘on-road route with infrastructure upgraded at key points to improve safety and function.

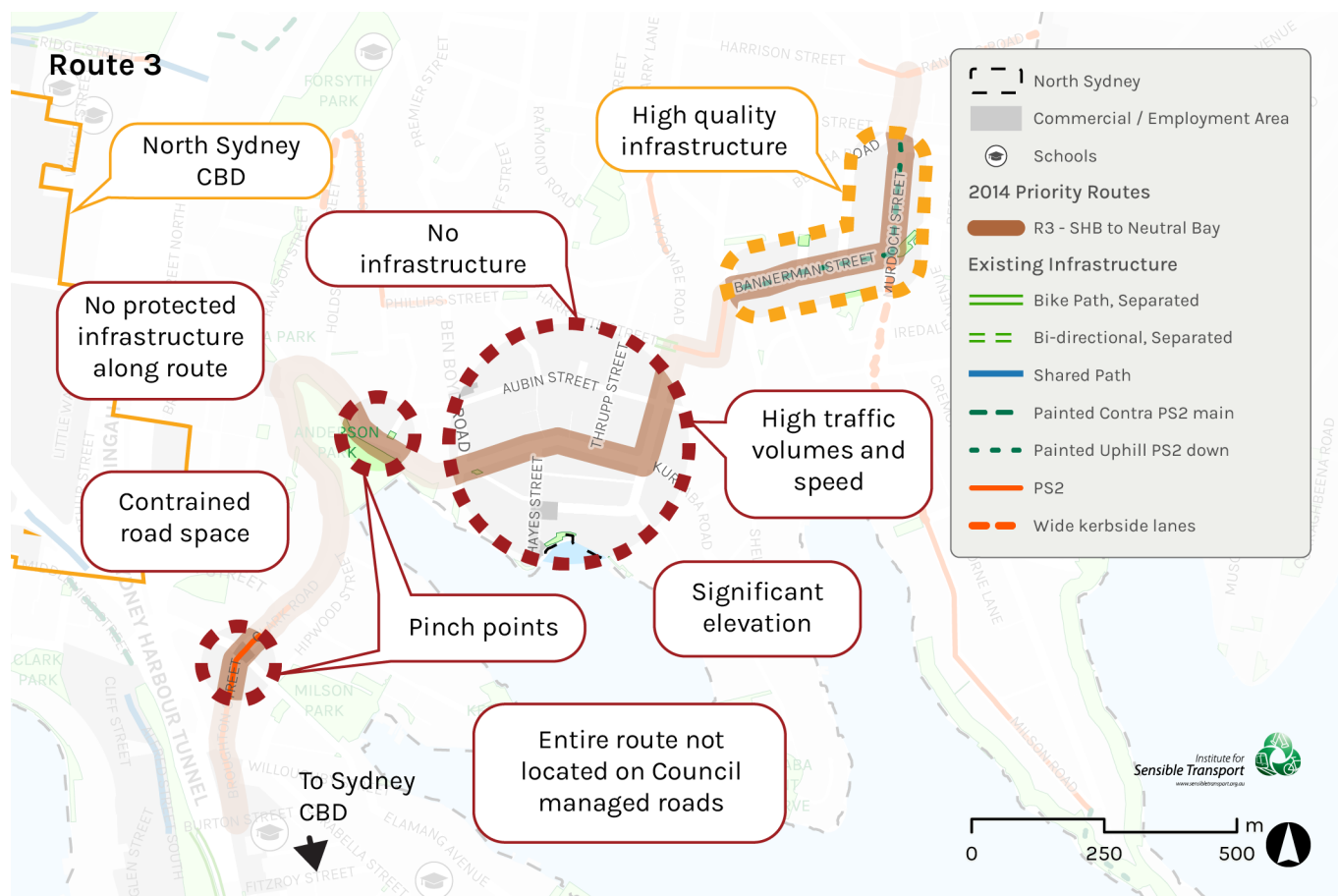


Figure 27 Overview of Route 3



### 3.3.2 Current context

As of 2024, this route has no protected infrastructure. Approximately 20% (553m) has painted lanes up hill, with PS2 symbols downhill. Another ~20% (575m) only has PS2 symbols painted on the roadway. The remaining 60% has no cycling specific markings or infrastructure, with cyclists riding in mixed traffic.

The route runs entirely along roads classified as Regional Roads, meaning that TfNSW has joint management with Council, and their approval would be required for changes.

The route has several pinch points, where road space is heavily constrained, including:

- Broughton Street, between Greenway Dr and McDougall St (shown in Figure 28). This street is ~9.7m wide, with parking on both sides. This makes travel lanes ~2.8m. Buses also run down this street. There is insufficient space for dedicated cycling infrastructure without removal of parking from both sides of the street.
- Clark Rd has median dividers which narrow the travel lanes to ~3.4m north of McDougall Street (shown in Figure 29) and between Adderstone Ave and Kurraba Rd. This means the road space is not wide enough for vehicles to safely pass people riding bicycles. Road space would need to be reallocated from parking and/or motor vehicle travel to make adequate space for people to safely ride bikes along Clark Rd.
- Kurraba Rd has median dividers which narrow the travel lanes to ~3.4m between Clark Rd and Ben Boyd Rd. This means the road space is not wide enough for vehicles to safely pass people riding bicycles. It should be noted that this did not prevent vehicles from overtaking cyclists, and one member of the survey team was overtaken by a vehicle while riding uphill between Clark Rd and Holdsworth St. The road reserve is very narrow, and there is insufficient space for dedicated cycling lanes.
- Harriette St has median dividers which narrow the travel lanes to ~4m around the corner between Wycombe Rd and Shellcove Rd. This means the road space is not wide enough for vehicles to safely pass people riding bicycles.



Figure 28 Broughton Street



Figure 29 Traffic dividers in Clark Rd

In the east of the route, Bannerman Street and Murdoch Street have painted lanes uphill and shared travel downhill (shown in Figure 30). This design offers some level of comfort to people riding uphill at a reduced pace, while those riding a bicycle downhill are more likely to be able to travel at a speed where motor vehicles need not overtake.



**Figure 30 Uphill bike lanes on Murdoch St**

Lastly, the route has significant grades with a total of 77m in climb over the route's 2.8km (in the northeast direction). Many areas of uphill riding are also in the highly constrained road environments described above.

### 3.3.3 Route suitability

While this route appears to offer the potential for efficient travel between Neutral Bay and the Sydney Harbour Bridge, it offers almost no level of protection from vehicles, on roads which carry reasonably heavy traffic volumes. As such, it is

unlikely to have general appeal. The pinch points above must be removed for this route to have any form of appeal outside of 'strong and fearless' riders. In many cases, the constraints to this route are insurmountable without a major change to the way in which road space is allocated, and it is likely this level of change will be met with significant resistance. It would appear that the 2014 decision to create this priority route may have been influenced by high levels of existing ridership. It is unlikely to attract significant new riders for the reasons identified above.

### 3.3.4 Opportunities

Given the constraints listed above, there are very few short-term opportunities for improving cycling conditions along this route. Without major changes, this route will not have broad appeal. There is, however, the opportunity to improve alternative paths, such as Route 5, and to develop other routes through Neutral Bay as a higher priority, while safety improvements are made to this route.

## 3.4 Route 4 – Cammeray to Crows Nest

This proposed route is approximately 871m, running from West St to Chandos St (the border of City of Willoughby) along Holtermann St and Willoughby Rd. Figure 31 shows the key observations for Route 4, The 2014 *North Sydney Integrated Cycling Strategy* proposed the route as an 'on-road mixed traffic' route.



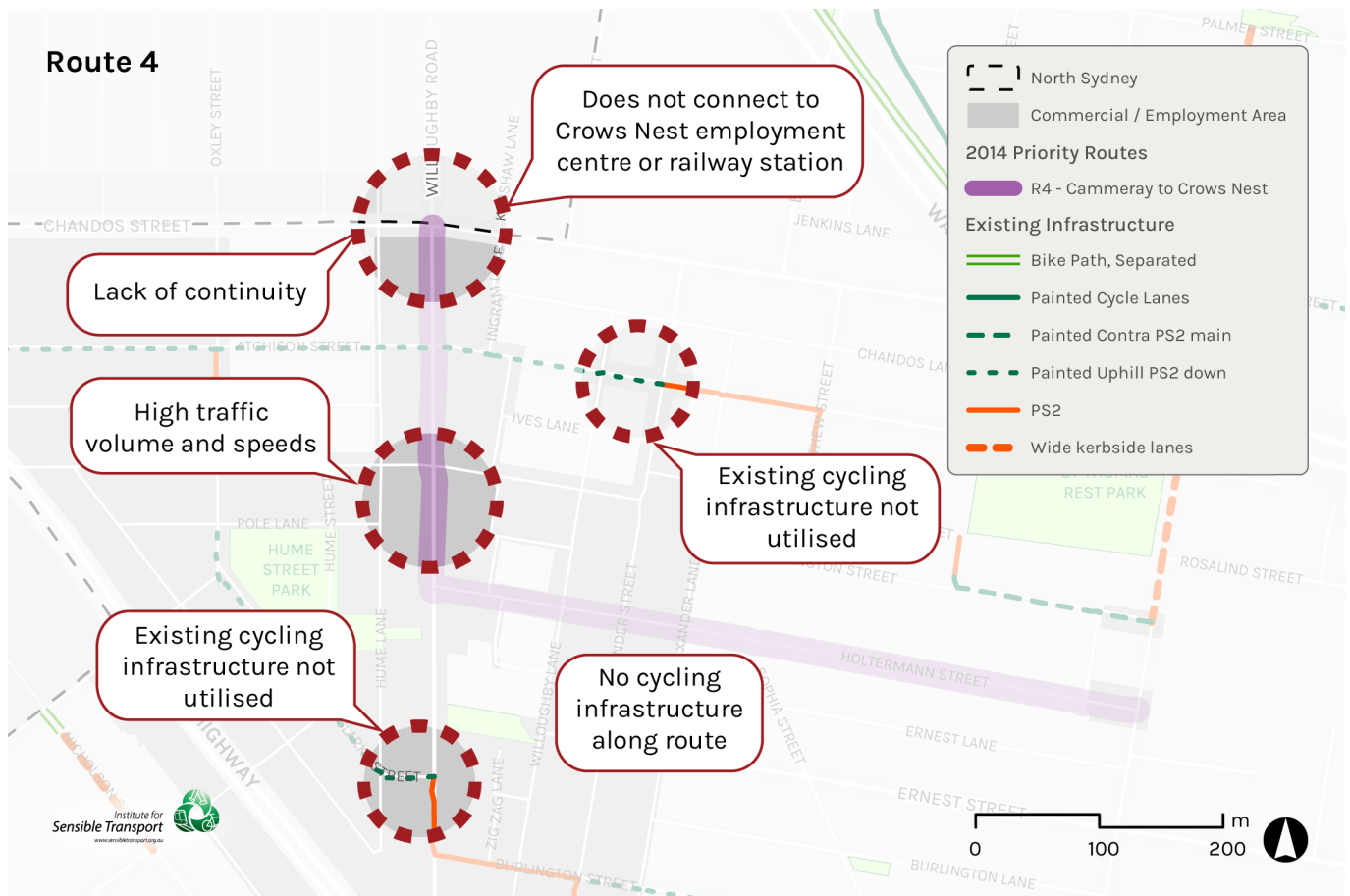


Figure 31 Overview of Route 4

### 3.4.1 Current context

There is no infrastructure along Holtermann St (see Figure 32) or Willoughby Rd (Figure 33). Willoughby Rd is a local road with high traffic volumes and speeds. North of Chandos Street, Willoughby Rd is a Regional Road (which is important as the route would need to continue north, in the City of Willoughby).



Figure 32 Holtermann St



Figure 33 Willoughby Rd

Although there is no infrastructure along the route, other parallel streets do have some cycling infrastructure, albeit limited. Thus there is an opportunity to make better use of the infrastructure that does exist.

### 3.4.2 Route suitability

This route lacks a strong strategic justification in a number of ways. Firstly, while it connects to Crows Nest, it does so at the edge, and does not connect to the central employment centre or railway station. This means that the potential ridership is less than would be with an alternative alignment. Further, the connection along Willoughby Rd is largely to connect with the Warringah Fwy shared path, which could be connected more directly and with less cost via Route 1.

Holtermann St offers a reasonably low traffic route, but with no infrastructure. Parallel routes (i.e., Burlington St or Atchison St) do have infrastructure, and form better connections to key destinations.

Willoughby Rd carries significant traffic volumes, including buses. The current arrangement does not offer an adequate level of comfort or safety to people riding bicycles. Dedicated infrastructure would be required for many of the *'interested but concerned'* before Willoughby Rd could be seen as a viable option, for most people.

### 3.4.3 Opportunities

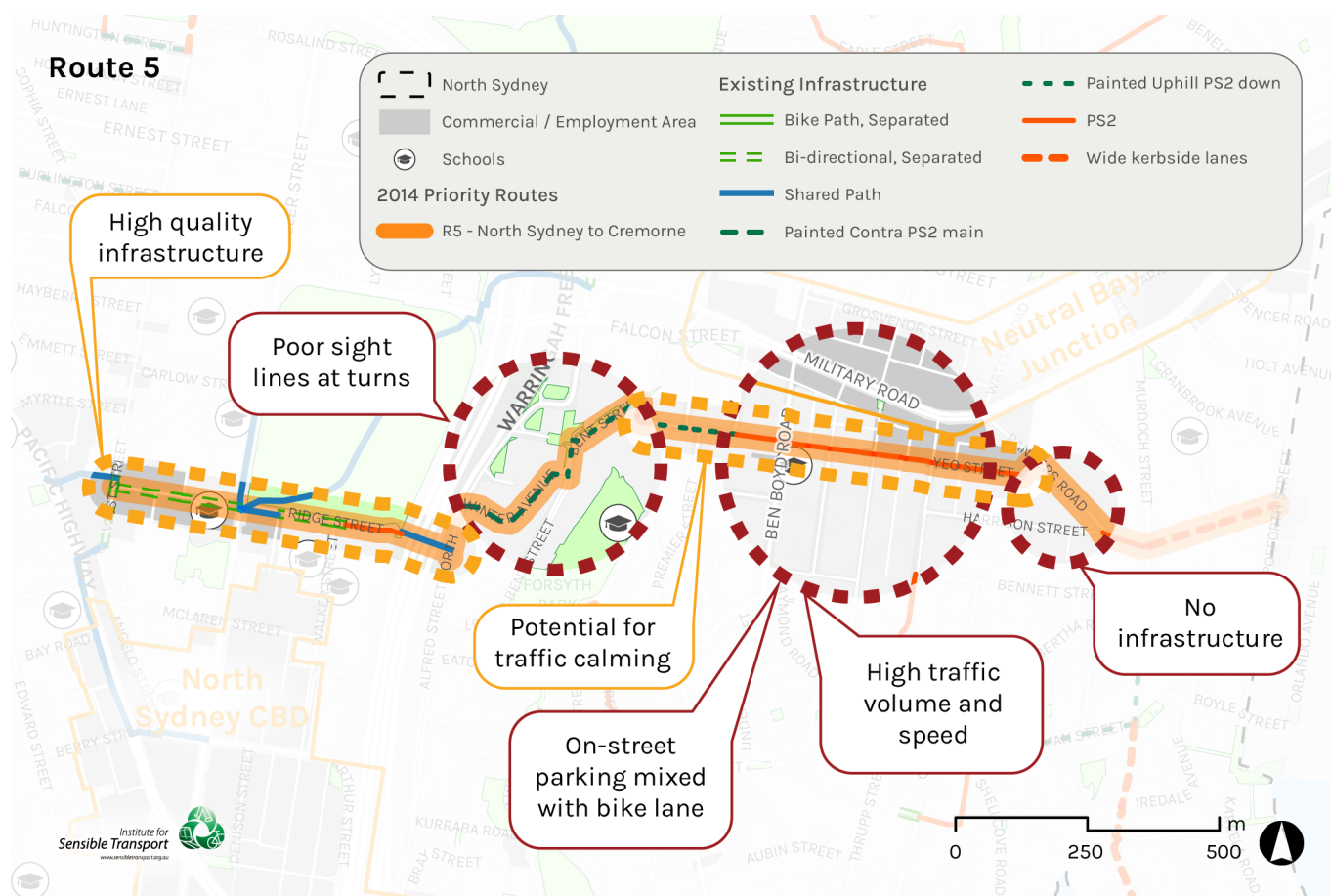
There is the potential to consider an alternative alignment for Route 4, which connects the commercial and activity heart of Crows Nest with the broader cycling network. This will be detailed in subsequent components of the project.



### 3.5 Route 5 – North Sydney to Cremorne

This proposed route is approximately 2.6km, running from North Sydney (at the intersection of West St and Ridge St) to Cremorne (at the

intersection of Rangers Rd and Spofforth St). The 2014 *North Sydney Integrated Cycling Strategy* proposed the route as using ‘a variety of infrastructure treatment including on-road mixed traffic sections, dedicated cycle lanes and use of an existing pedestrian/cyclist overpass’. Figure 34 shows the key issues and opportunities for Route 5.



### Figure 34 Overview of Route 5

### 3.5.2 Current context

As of 2024, this proposed route is approx. 21% (521m) protected, with bi-directional cycle lanes and shared paths running along most of Ridge St (with the exception of the section between Walker Street and the Warringah Fwy) and a shared bridge across the Warringah Fwy. A further 25% is semi-protected, with contra flow painted cycle lanes along Winter Ave (shown in Figure 35) and uphill cycle lanes along Bent St (which is oddly located on the ‘wrong’ side of the road, as shown in Figure 36) and Yeo St. Approx. 43% of the route is unprotected, with either PS2 symbols painted on the road surface or wide kerbside lanes which allow parking (shown in ). The remaining 11% has cycling specific line markings or infrastructure.



Figure 35 Contra flow lane in Winter Ave



Figure 36 Uphill cycle lane in Bent St



Figure 37 Wide kerbside lanes in Yeo St

### 3.5.3 Route suitability

The proposed Route 5 is intended to provide a direct connection between North Sydney and Cremorne, offering an alternative to Military Rd (and to some extent Route 3). This route also connects with the shopping precinct around Military Rd, and many local services.

The sections along Ridge Rd offer a high quality of service to people riding bikes. Given the constrained space, the provision along Winter Ave and Bent St is acceptable. However, there are some blind spots along both Winter Ave (shown in Figure



38) and Bent St which could be improved with signage and convex mirrors,



**Figure 38** Contra flow section of Winter Ave which could have better signage

Yeo St lacks dedicated infrastructure (for most of the length), and has high traffic volumes. It is unlikely to be attractive to many *'interested but concerned'* people without either providing dedicated infrastructure or reducing traffic volume and speed.

Similarly, Rangers Rd has no dedicated infrastructure and has high levels of fast moving traffic. It is unlikely to be attractive to the overwhelming majority of North Sydney residents without either providing dedicated infrastructure or significantly reducing traffic volume and speed.

### 3.5.4 Opportunities

The following opportunities exist for short and longer term improvements in safety and attractiveness on Route 5:

- Upgrade bicycle markings in Winter Ave and Bent St, with more frequent PS2 symbols and better wayfinding.
- Install signs for motorists to watch for cyclists and mirrors at curves/pinch points along Winter Ave and Bent St.

- Decrease the speed limit along Yeo St to 40km/h, and implement traffic calming (which could include modal filters).
- Install painted cycle lanes into Yeo St where space permits, and quietways where space is constrained.
- Install dedicated bi-directional cycling lanes on Rangers Rd.

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