

WOOLLAHRA ACTIVE TRANSPORT PLAN



December 2023

Acknowledgement of Country

Woollahra Council acknowledges the Gadigal and Birrabirragal people who are the traditional custodians of this land and pay respects to elders past, present and emerging.



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Message from the Mayor

Committing to a healthier, more connected future

Active transport – our collective term for walking and cycling – is a central feature of healthy, happy and connected communities everywhere. This new Active Transport Plan affirms Woollahra Council's commitment to making active transport a safe, easy and healthy option for as many people as possible and meets our emission reduction targets.

Over the next 10 years our goal is to create a high-quality connected walking and cycling network that takes more of us to and from the places we live, work, shop and play.

With such an idyllic location, not far from the city and beaches, plenty of beautiful harbourside parks, unique commercial shopping villages and public transport hubs, Woollahra is well-placed to have popular and integrated active transport options for residents and visitors to enjoy.

Creating great walking and cycling infrastructure doesn't happen overnight. It takes careful planning, ongoing conversations and investment over time.

That's why we have prepared an action plan informed by community feedback – to help guide our efforts and identify achievable opportunities for improved walking and cycling experiences.

Expert transport engineers, urban planners and landscape architects have analysed our municipality's unique terrain and incorporated public feedback to create this ambitious yet achievable plan. Further consultation will occur before proceeding with any of the recommended projects.

This visionary plan will help guide how we manage streets, roads and public spaces in future. We will need to continue to work with State and Federal Government and local traffic and transport stakeholders and the community to deliver the outcomes we are striving for.

In addition to a shared commitment, these projects will require a significant amount of funding, which we won't be able to provide on our own.

Over time and with the implementation of these priority projects we hope to create an environment where riding a bike or taking a walk is the first choice and the best choice for our community.



*Councillor Richard Shields
Mayor of Woollahra*

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Rushcutters Bay

Promoting walking and cycling in Woollahra

Our vision for walking and cycling

Our vision is to make walking and cycling (which we call 'active transport' in this draft plan) the most convenient, comfortable and safe choice for short trips in Woollahra.

To achieve this vision, we will need to invest in safe, accessible and attractive pedestrian paths, crossings, cycleways, bicycle parking and supporting infrastructure. We especially want to support walking and cycling as the mode of choice for journeys to our major trip attractors, including our centres; our schools; natural attractions including parks, the harbour and the ocean; and public transport interchanges (Edgecliff, Bondi Junction and the ferry wharves).

We have set a long-term vision intended to guide investment and design decisions for the next 10-15 years. This Active Transport Plan includes the short-term priority projects we intend to deliver first, as well as our longer-term plan for the walking and cycling networks we will need to achieve our vision.

Objectives for this Active Transport Plan

The following objectives support our long-term vision:

1. Deliver attractive, vibrant and safe walking locations for pedestrians, especially in our centres and around our schools.
2. Develop, design and deliver a network of continuous, connected walkways and cycleways for the whole of Woollahra, focussed on our centres, including links to the City of Sydney and to Waverley.
3. Contribute to Transport for NSW's vision of zero deaths and serious injuries on the road network by making our roads safer for pedestrians and cyclists.
4. Improve the pedestrian accessibility, inclusivity and amenity of our greatest natural assets: parks and reserves, the harbour and the ocean front.
5. Maintain and improve the existing integrated walks that link with adjacent Councils including the Bondi to Manly Walk and others, and acknowledges the existing walking networks.



Rose Bay Promenade

Targets: how we will measure our success

To measure the success of our vision over the next 10-15 years we have set clear, measurable targets for this Active Transport Plan. Our targets are:

- To at least double the number of people who cycle to work from 1% to 2% (Source: 2021 Census Journey to Work) . If we achieve this, we will have twice more people choosing to cycle to work than the current Greater Sydney average. We will be comparable, although still just below, levels of cycling seen in the City of Sydney LGA and global cities such as London today. That is ambitious, given our very hilly topography – but we believe we can achieve it with the right investments in the right places.
- To increase the number of short walking journeys by at least 30%. This would represent a major shift from driving to walking for short trips, taking car journeys off our roads, and reducing congestion.
- To see a year-on-year decrease in road accidents involving pedestrians and cyclists; serious injuries

cut in half; and zero deaths. This would represent a major step towards Transport for NSW's goal of zero deaths and serious injuries by 2056.

- To ensure equitable access by promoting integrated planning across all active transport projects to improve accessibility including universal design principles.

Why a new Active Transport Plan?

The Active Transport Plan will guide Council's investment and design decisions for our walking and cycling networks. It has a timescale of 10-15 years and will be reviewed after 5 years.

This plan replaces the Woollahra Bicycle Strategy 2009, of which many elements of the 2009 strategy have been delivered. The Active Transport Plan looks to the future with a comprehensive, ambitious plan that covers both walking and cycling.

How this plan fits with other Council plans

The Active Transport Plan directly supports Council's Draft Integrated Transport Strategy and Community Strategic Plan – Woollahra 2032.

The Draft Integrated Transport Strategy sets out a vision for a more accessible municipality where active, sustainable, and efficient modes of transport are the most convenient choice for most trips. Theme 3 of the Draft Integrated Transport Strategy is Active Transport, and this Active Transport Plan delivers on the key actions identified under that theme.

The strategies and key priorities outlined in Council's Disability Inclusion Action Plan (2022) are embedded within Council's other strategic documents and provides Council with an opportunity to review current practices to enhance accessibility. A key priority in this plan is to ensure a program of works is in place to identify and increase accessibility of parks, amenities and public spaces for the mobility impaired community.

Both the Active Transport Plan and the Draft Integrated Transport Strategy also support Council's

Local Strategic Planning Statement 2020 (LSPS). The LSPS is Council's 20-year plan for managing land use and preserving our community's values and the special characteristics of our area. This Active Transport Plan delivers on the first planning priority in the LSPS, specifically Actions 3,4,7, 8 and 10: to deliver a healthy, sustainable connected community with access to a range of sustainable transport options.

Options identified within this report, where relevant, have considered previously released Council strategies such as the Draft Edgecliff Commercial Centre Planning & Urban Design Strategy (2021).

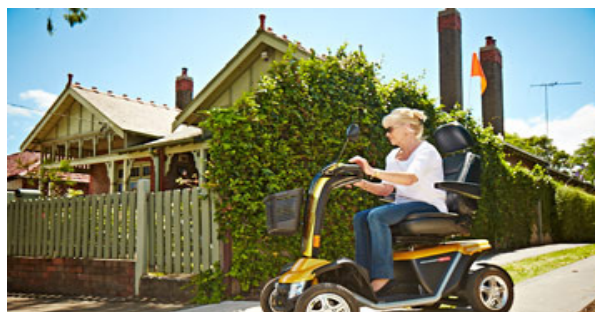
Structure of this Active Transport Plan

The remainder of this Active Transport Plan is structured as follows:

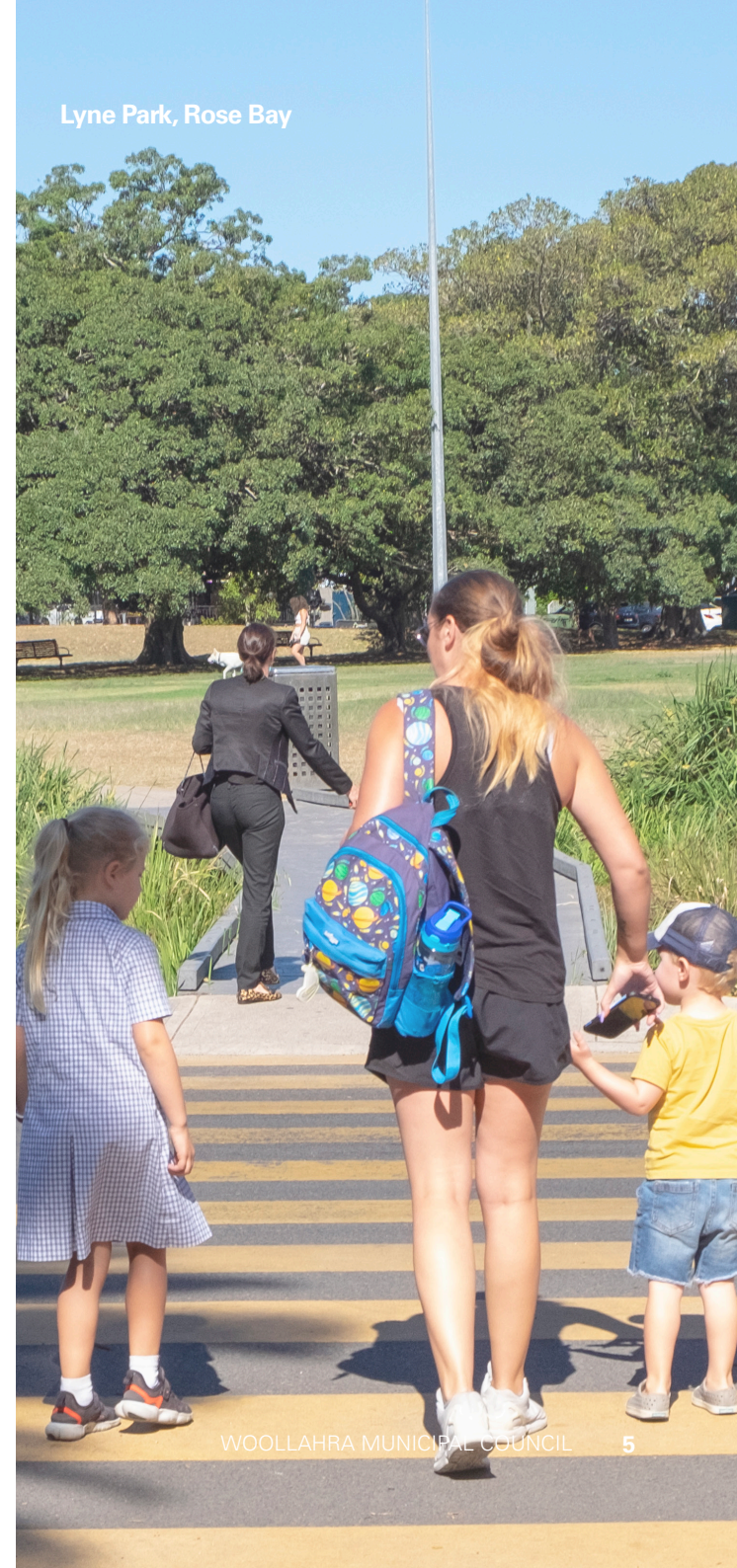
- **Section 2** reviews the current state of walking and cycling in Woollahra today.
- **Section 3** provides our plan for walking, including the design principles we will use to deliver better

walking infrastructure in centres, around schools, and on recreational routes.

- **Section 4** provides our plan for cycling, including the design principles we will use to deliver a comprehensive, continuous cycling network for the LGA.
- **Section 5** provides the implementation program for the Active Transport Plan.
- **Appendix A** shows the priority walking projects we will develop and deliver in the short term.
- **Appendix B** shows the priority cycling projects we will develop and deliver in the short term.
- **Appendix C** is an overview of Council's project pipeline for active transport and place activation in the LGA.
- **Appendix D** lists the indicative project cost for each priority project.



Lyne Park, Rose Bay



FERRY SHELTER



Rose Bay Ferry Wharf

Section 2

Walking and cycling in Woollahra

The benefits of walking and cycling

An enjoyable and comfortable way for everyone to get around

This Active Transport Plan is Council's plan to enable more of Woollahra's residents to walk and cycle. Enabling more people to walk and cycle will create a more liveable Woollahra, allowing quick and easy access to local schools, shops and businesses as well as our wonderful open spaces and harbour foreshore.

We want Woollahra to be Sydney's best Local Government Area to grow up in, to live and work in, to visit, and to grow old in. We want to ensure Woollahra's streets are safe, inclusive and deliver a high quality of life for everyone. To achieve this, we can look for inspiration at countries that consistently score highest on the World Happiness Index, such as the Netherlands and Denmark.

What do these countries have in common? They consistently design their streets with pedestrians

and cyclists in mind, giving them uninterrupted, protected space and prioritising them over other modes of transport. The result is an urban realm that is comfortable, safe, inclusive and enjoyable to get around.

Woollahra already has plenty of great urban and natural assets that make it a fantastic place to live and to visit. The street life outside shops and cafés in Double Bay, the heritage streetscapes of Paddington, the harbourside views in Rose Bay or the cliff walks in Watsons Bay are examples of this. But there is so much more that we can achieve.

Many of our streets have been designed around cars, leaving them unattractive and unsafe to walk or cycle on. We want a Woollahra where our residents – especially the young, the old and those who are mobility impaired – can choose from many attractive transport options. We want a Woollahra where you do not just have the freedom to drive anywhere; but where you have the freedom not to have to drive everywhere.

Improving the health and wellbeing of Woollahra residents

Research has consistently shown walking and cycling are some of the best, and easiest, ways Australians can remain fit and healthy.¹

Walking for around three kilometres three times a week can significantly reduce the risk of developing type 2 diabetes, musculoskeletal conditions, and some cancers².

The mental health benefits associated with walking and cycling are also well documented. Engaging in a 15-minute walk or 30-minute cycle on a regular basis has been linked to a reduction in risk of developing depression by up to 30%³.

¹ UNICEF (2020), *Worlds of Influence: Understanding What Shapes Child Well-being in Rich Countries*. Innocenti Report Card 16, 2020.

² Victoria Walks, Arup (2018) *The economic case for investment in walking*

³ Australian Institute of Health and Welfare (2012), *Risk factors contributing to chronic disease*, Cat No. PHE 157



The business benefits of improving London's streets for walking

In the UK, Transport for London compared five London high streets that had recently been improved for walking with similar unimproved high streets.

Businesses on the walking-friendly high streets roundly beat the unimproved high streets: on the improved high streets, retail vacancy rates were 17% lower, and rents 7.5% higher, reflecting better business performance. Office buildings were also more attractive to businesses and to their employees. People walking spent 40% more time in the town centres than car drivers⁴.

Vibrant centres: benefits for businesses and the local economy

Investing in walking and cycling not only creates safer, healthier, and happier places – it supports Woollahra's businesses too. In our busy local centres, walking and cycling are the most space-efficient modes of transport, allowing more people to move through the same space. Each new cyclist or pedestrian is a car trip saved, and congestion cut.

There is clear evidence, across many global cities, that designing streets for active transport delivers business benefits. Walking and cycling increase the vibrancy of areas, increasing footfall and customer dwell times and thus boosting retail vitality.

Towards Vision Zero: safety benefits

We want Woollahra's streets to be safe for everyone – especially for vulnerable groups such as our children, our elderly, and residents with visual or mobility impairments.

People will only choose to walk or cycle when feels safe to do so. We want to design our streets for residents that would like to walk and cycle but are currently hesitant due to busy traffic and high vehicle speeds.

Although we have made a lot of progress on road safety, we need to go much further. In the five years from 2015 to 2019, there were 72 road accidents involving pedestrians, and 46 involving cyclists. That is nearly 20% of all road accidents in the same period – a significant over-representation of these vulnerable road users, given how many more people currently drive than walk or cycle.

⁴ Transport for London (2018), *Walking action plan: Making London the world's most walkable city*.

Looking at serious crashes only, of the four people that lost their lives on our roads between 2015 and 2019, two were cyclists and one was a pedestrian. There were 39 crashes that resulted in serious injuries to pedestrians, and 16 that resulted in serious injuries to cyclists. We will continue to work to make our roads truly safe.

We believe that every death or serious injury on our roads is one too many. This Active Transport Plan therefore supports Transport for NSW's goal of working towards a road network with zero deaths and serious injuries. By designing our roads to avoid crashes or reducing the impact of a crash if it happens, we want to ensure that nobody's mistake on the road should cost anyone their life.



Fiveways, Paddington

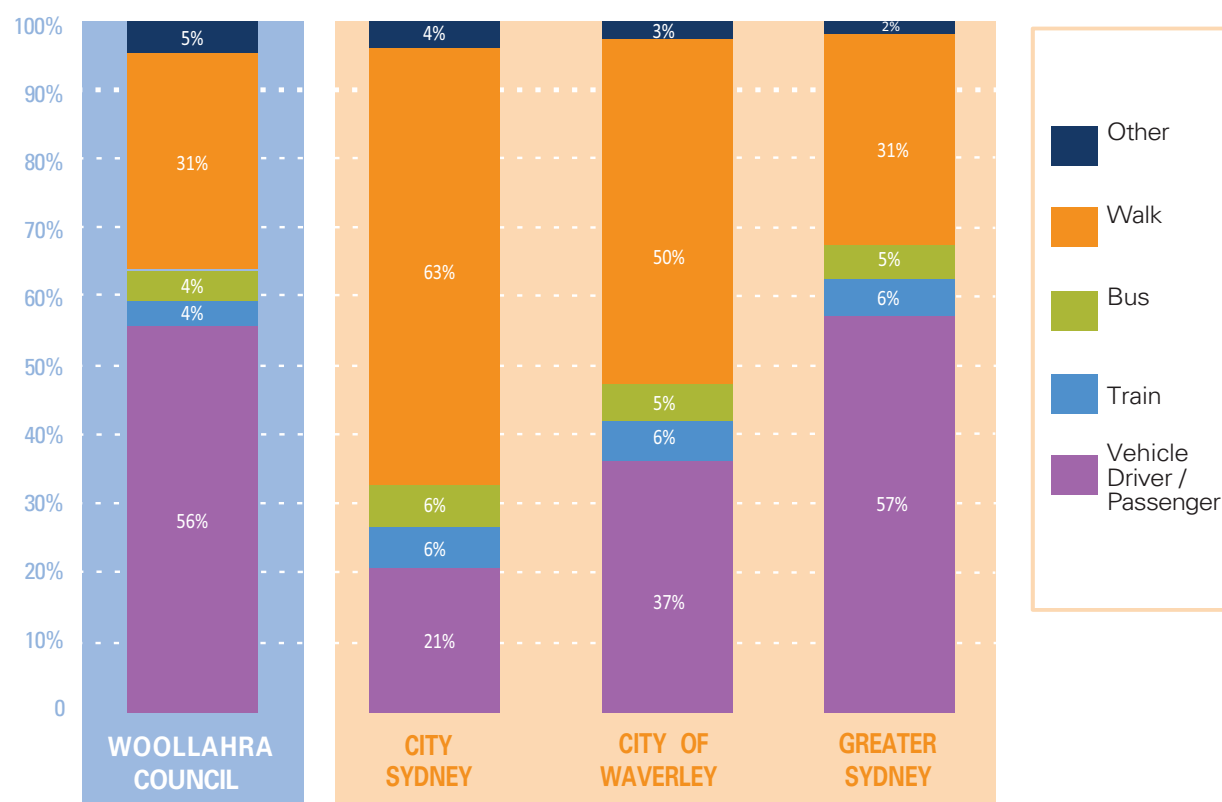
How we travel

Walking

Woollahra's residents choose to walk about as often as the average Greater Sydney resident: 31 % of all journeys are undertaken on foot (Figure 1).

Despite Woollahra's inner-urban character and prime harbourside location, the walking mode share is below the neighbouring LGAs of Waverley (50%) and the City of Sydney (63%), where much greater numbers of residents choose to walk. This suggests Woollahra's walking infrastructure is not attractive enough to encourage many residents to walk for many local journey purposes.

Figure 1: Mode of travel, all trips (residents)



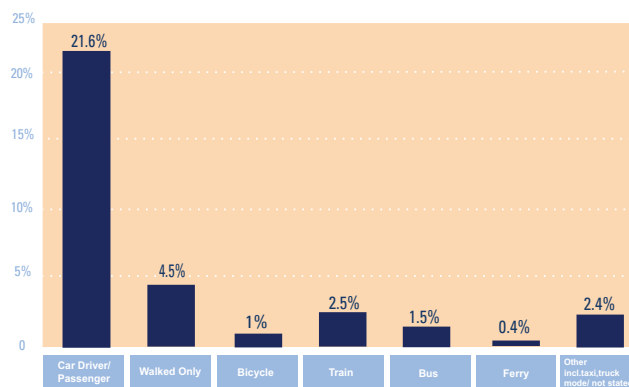
Source: TfNSW Household Travel Survey 2019/20. Excludes 'linked trips', such as short walks from one shop to the next. Cycling trips are too low to estimate with confidence, and are part of 'Other'

Cycling

Currently, around 1% of Woollahra residents travel to work by bicycle (Figure 2). That is slightly higher than the Greater Sydney average (0.8%), but still below the cycling mode share in Waverley (1.6%) and the City of Sydney (2.3%). All are below levels of cycling in comparable global cities like London, which has a cycling mode share of just over 4% ⁵.

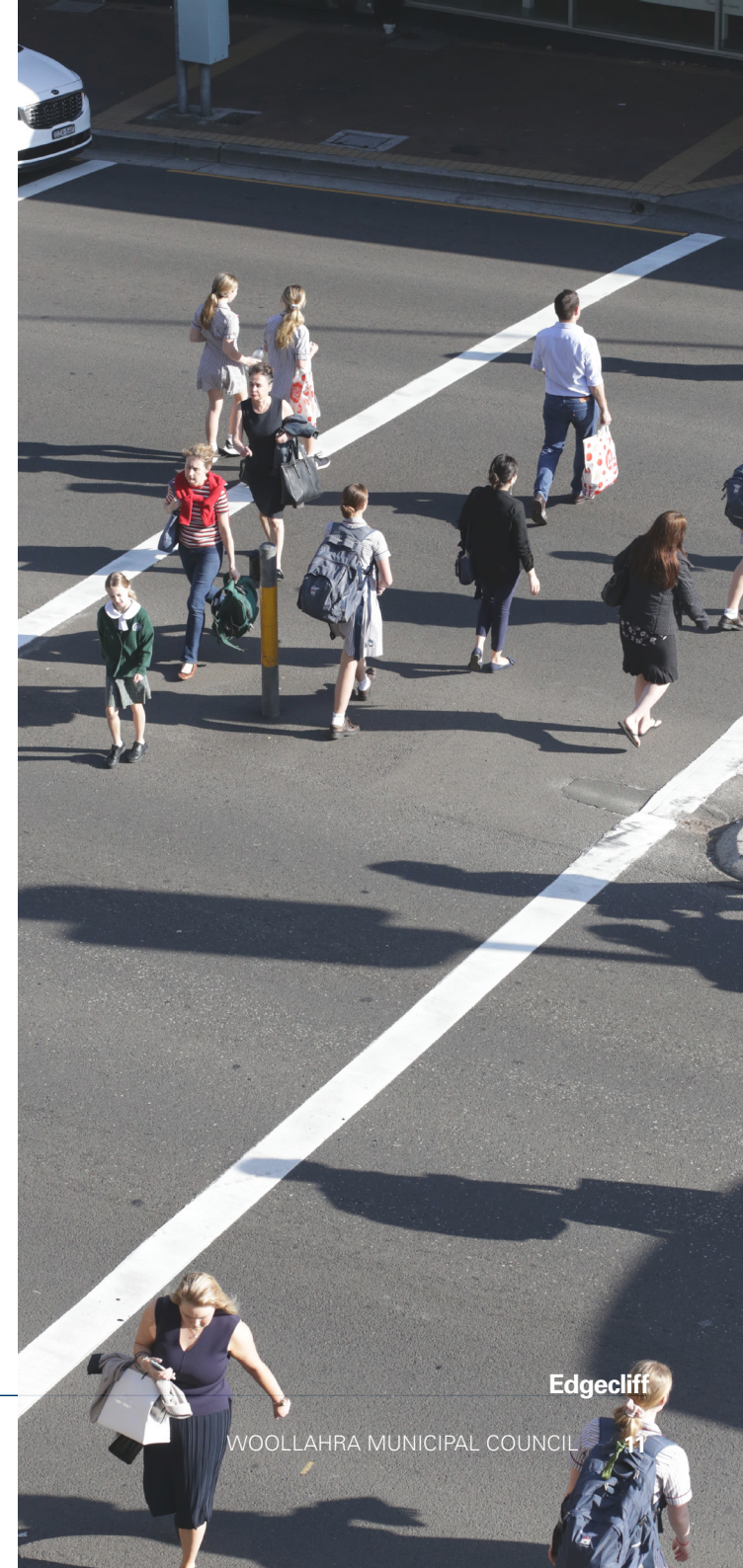
Overall, the data shows that walking and cycling are not yet the natural mode of choice for many Woollahra residents. Combined, they account for around 13% of all commuting journeys, and less than 35% of all journeys.

Figure 2: Mode of travel to work (Woollahra residents)



Note: 57% of the population worked from home and 9% did not go to work on Census Day in 2021

Source: 2021 Census Journey to Work data



⁵ UK 2011 Census Journey to Work data

Figure 3: Typical footpath: residential street



Our current walking and cycling networks

Woollahra's walking network is typical of older, inner-urban Sydney suburbs. Most residential streets have footpaths on both sides of the road, separated from the kerb by wide, tree-lined grass verges, as shown in Figure 3. In centres, footpaths are usually wider and extend directly to the kerb. Woollahra also has many separated recreational walking paths, which attract visitors from all over Sydney.

Although Woollahra already has some great walking infrastructure, there is more we can do to make our centres and key destinations more walkable. During our community consultation events, which were held across the LGA, and responses from the online survey we heard what residents loved about Woollahra but also things which need to be improved.

Compared to walking, Woollahra's current cycling network is of a much lower design quality, as most of our streets have historically been designed

around the car. The cycling network is also much less comprehensive, with many gaps in the network and some centres lacking any cycling infrastructure (Map 1).

Community engagement – what we heard

To ensure this plan is shaped by the needs, concerns and priorities of the Woollahra community, extensive community engagement was held prior to creating this plan.

We ran an online survey on our engagement platform Your Say Woollahra, met with local walking and cycling groups, and held pop-up information sessions in popular locations including Lyne Park, Kiaora Place, Five Ways and Watsons Bay. The purpose of engagement was to understand the community's priorities for walking and cycling, as well as how Council can support people to walk and cycle more often.

Figure 4: Council team consulting on the draft ATP



Across these feedback channels the community told us what they loved about walking in Woollahra, in particular how our many tree-lined streets, parks and harbour foreshore make journeys pleasant and enjoyable. However, there were also things which residents said could be improved, including:

- A need for better shade and shelter from weather, and more places to sit – whether to take a rest, or simply to enjoy the scenery.
- Lack of separation between cyclists and pedestrians on busy paths, which can make pedestrians feel unsafe.
- Narrow footpaths, especially in busy centres which have a lot of foot traffic.
- A need for more and safer crossings which protect pedestrians from fast-moving car traffic.
- Uneven footpaths and trip hazards such as tree roots, which can make walking harder for those who are not as steady on their feet or use mobility aids.

- Relatively few walking trips are made to some schools, causing congestion and parking issues.

Woollahra residents told us some of the key issues on the current cycling network include:

- A lack of continuity, with cycleways often ending abruptly at busy intersections.
- High vehicle speeds and volumes can make even experienced cyclists feel uncomfortable and unsafe
- Cycleways that are too narrow, resulting in conflicts with moving traffic, and pedestrians.
- Cycleways that have many interruptions – sometimes so many that experienced cyclists would prefer to cycle in the traffic lanes instead.
- Woollahra's hilly topography can make cycling a challenge even for experienced cyclists
- Poor maintenance, including cracks, potholes, and a lack of lighting.

Engagement Responses

153 Detailed survey responses received on Your Say Woollahra

1189 People reached via social media posts on **Facebook and Instagram**

9 Meetings and conversations with local government partners, transport authorities, schools and advocacy groups

100+ Face-to-face conversations with local residents and visitors

4 Pop-up information sessions at Double Bay, Rose Bay, Paddington and Watsons Bay

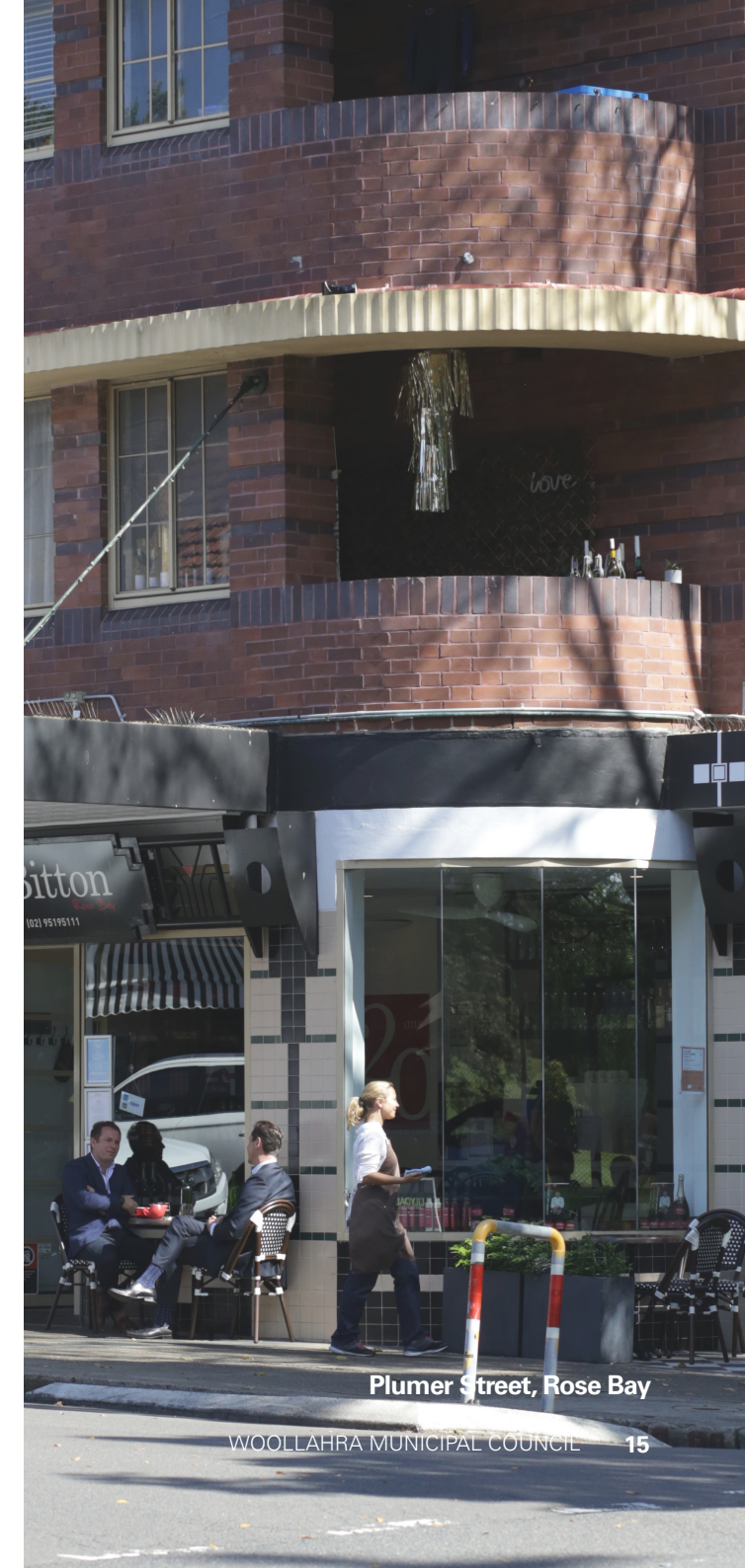
1655 Subscribers received updates via the Your Say Woollahra newsletter

Two key variables that will drive our decision-making on our future cycling network are traffic volumes on our roads (**Map 2**), and the topography of our area (**Map 3**).

Traffic volumes are relevant to cycling network design because cyclists typically find it much harder to cycle together with motorised traffic when traffic volumes are high. The higher the traffic volumes, the greater the need for separation between cyclists and motorised traffic. Most cyclists struggle in mixed traffic environments with more than 5,000 vehicles a day (**Map 2**), and less experienced cyclists may only be comfortable with significantly fewer than that. Typically, cyclists should be able to safely mix with traffic when there are fewer than 2,500 vehicles a day and traffic speeds are low.

Due to areas of challenging topography in Woollahra, the greatest returns on investment would be through an initial focus on flat routes, such as Rose Bay to Bondi via O'Sullivan Road or Newcastle Street (**Map 3**).

Where cycle routes are hillier, cycle routes will need to be designed accordingly. Going uphill, good separation between slow-moving cyclists and fast-moving cars is required. Going downhill, mixed traffic routes are more acceptable but greater pedestrians protection is needed from cyclists going downhill at higher speeds.



Plumer Street, Rose Bay



Walking and Cycling safety in Woollahra

During community consultation, we heard repeatedly that people will only choose to walk and cycle when it feels safe. We cannot expect to achieve our vision for walking and cycling unless we tackle our major road safety hotspots.

As mentioned in **Section 2**, pedestrians and cyclists are over-represented in our road accidents statistics. Between 2015 and 2019, they were involved in nearly 20% of all road accidents (72 accidents involving pedestrians, and 46 involving cyclists, in five years).

Map 4 shows the locations of pedestrian crashes by severity. Tragically, there was one fatal pedestrian crash, on Birriga Road, and 39 crashes that resulted in serious injuries to pedestrians. Major clusters of serious pedestrian injury crashes include New South Head Road in Double Bay; Oxford Street through Paddington; and Old South Head Road in Rose Bay.

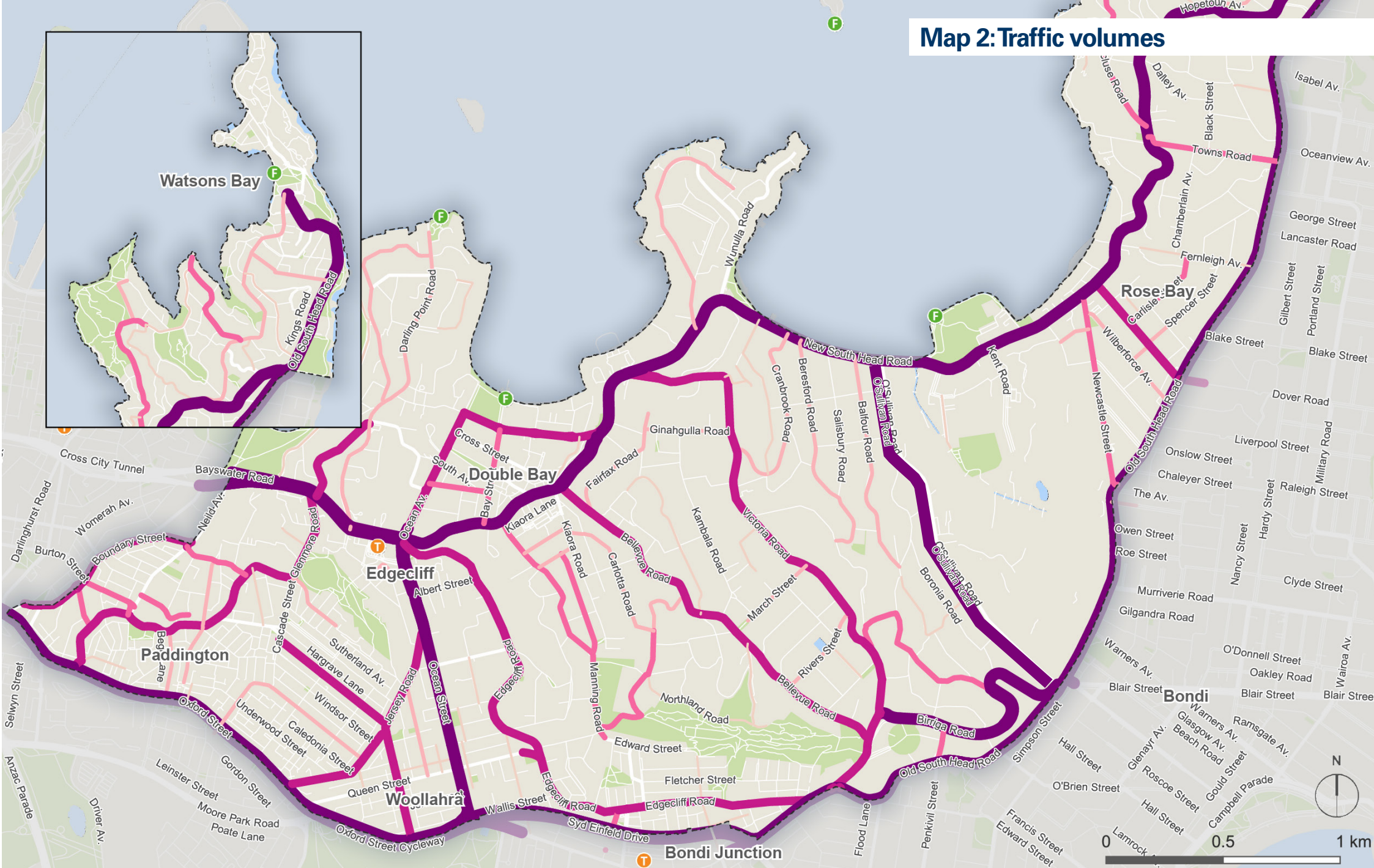
All these roads are characterised by heavy traffic volumes, wide carriageways and limited crossing opportunities for pedestrians.

Crashes involving cyclists are shown on **Map 5**. Sadly, two cyclists lost their lives between 2015 and 2019 on New South Head Road. There were also 16 serious injury crashes involving cyclists, including five more on New South Head Road. This suggests New South Head Road is the top location to address, if we are to make cycling safer in Woollahra.

Map 1: Woollahra's current cycling



Map 2: Traffic volumes



Annual Average Daily Traffic (AADT) In both directions

0 - 1,000

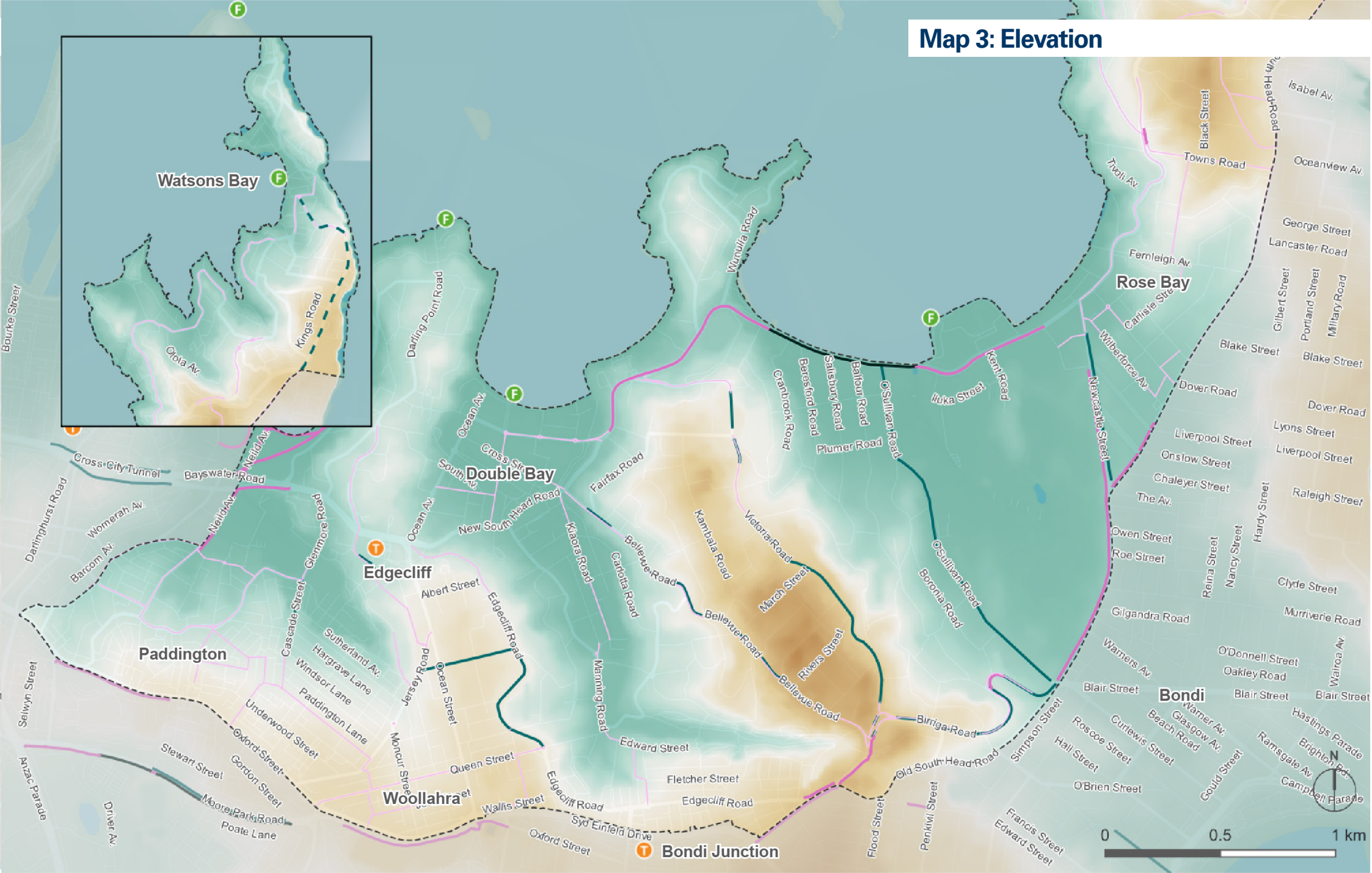
1,000 - 2,500

2,500 - 5,000

■ 5,000 - 10,000

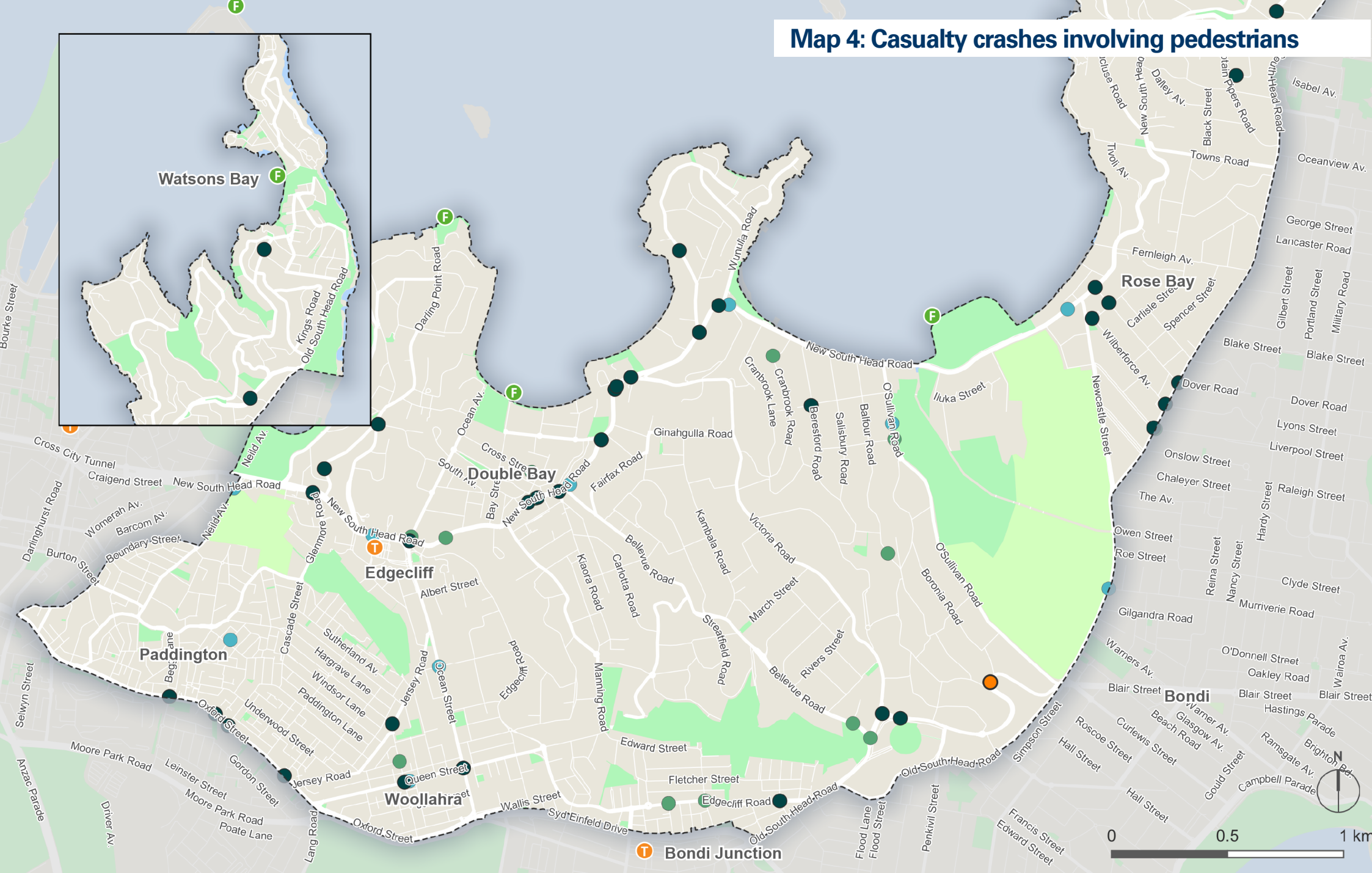
 > 10,000

Map 3: Elevation



— Shared pedestrian / cycle path
 — Off-road cycle path
 — On-road cycle lane
 — On-road cycle marking
 ■ 0m
 ■ 27.5m
 ■ 55m
 ■ 82.5m
 ■ 110m

Map 4: Casualty crashes involving pedestrians



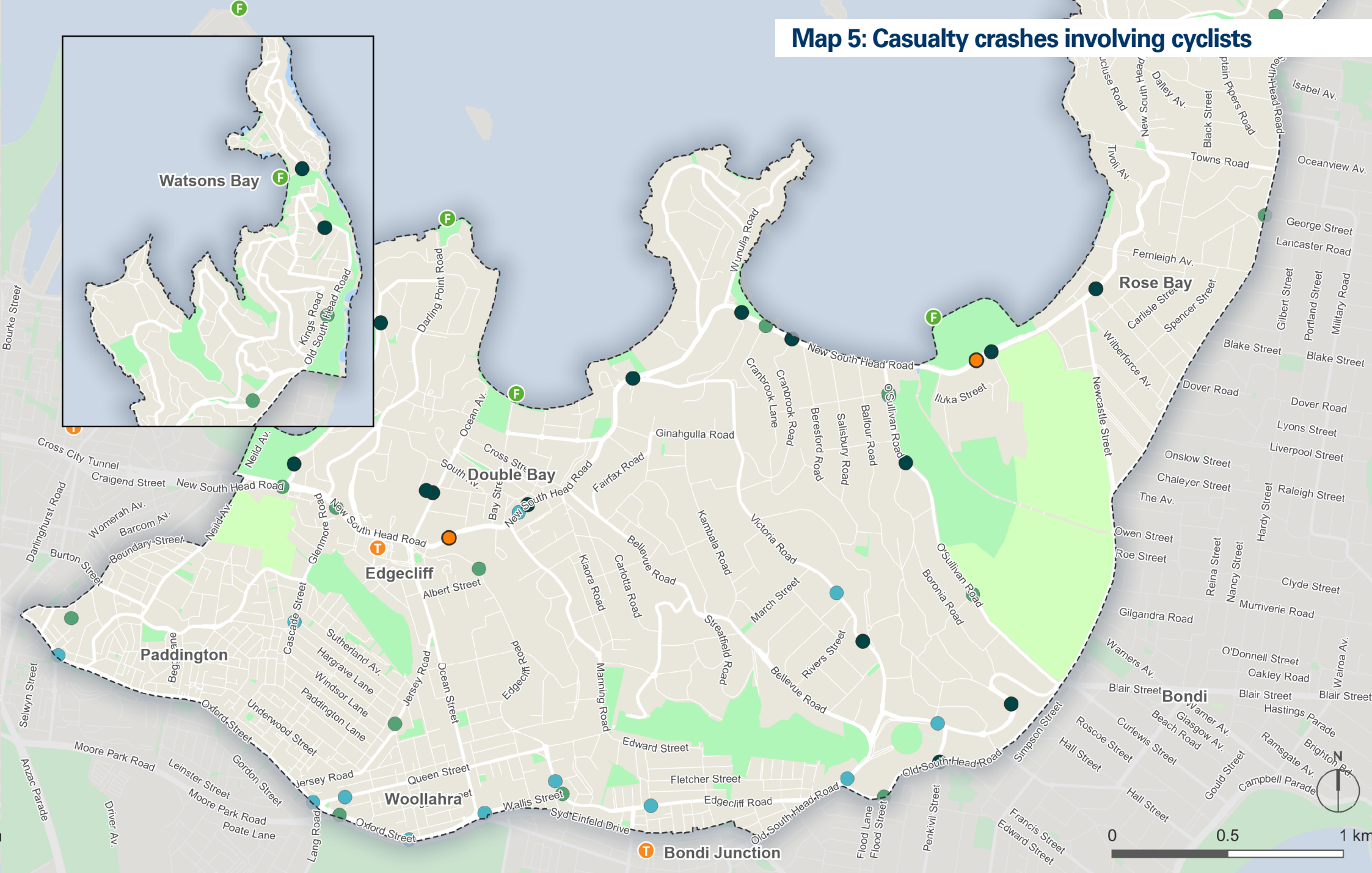
Fatal

Serious Injury

Moderate Injury

Minor/Other injury

Map 5: Casualty crashes involving cyclists



Fatal

Serious Injury

Moderate Injury

Minor/Other injury



Rushcutters Bay

Our plan for walking

Giving walking the attention it deserves

Everybody in Woollahra is a pedestrian. Whether you walk to work or school, or you simply walk to the bus stop or to your car – everybody uses public footpaths to get around. Walking is the oldest, cheapest, and most universal way to get around.

In the past, walking has not been given the same attention as cycling. Before this Active Transport Plan, Woollahra Municipal Council had a plan for cycling (the 2009 Woollahra Bicycle Strategy), but no specific plan for walking. The new Active Transport Plan will give walking the attention it deserves.

We want to make walking an obvious, enjoyable choice for all short trips: especially in and around centres, to and from schools, and on our recreational routes. In all cases, we want to create an attractive public realm – our streets should be places where people want to spend time, as well as get from A to B.

Designing our centres for walking

Woollahra's Municipality centres – including Paddington, Edgecliff, Double Bay, Rose Bay, Watsons Bay and Woollahra, plus various smaller local centres throughout the LGA – are our busiest pedestrian areas, and the focal point of civic life in Woollahra. Our footpaths, squares, and other public spaces do not just facilitate movement – they are places where people meet, shop, eat, drink, and enjoy themselves.

Many of our centres already have fantastic pedestrian assets – for example, the transformed public space on Kiaora Lane in Double Bay, the busy shops along Oxford Street, and the harbour promenade in Rose Bay. However, several of our centres could benefit from further investment in a better public realm.

In our centres, we want to create inviting streets that encourage the community to actively make more journeys by walking. We will use the highest standards of design to attract people who currently feel deterred from walking. We will make streets

safer and more inclusive by introducing better crossing facilities – including continuous raised footpaths (Figure 7) across minor intersections. We will also slow down traffic where needed, and work with Transport for NSW to reduce speed limits in our busiest centres.

Improving the standard of lighting across the LGA, especially along key routes, will increase general safety and accessibility of walking.

Figure 7: We will implement continuous raised footpaths across minor intersections



Healthy Streets: London's plan for creating more enjoyable streets

London (UK) uses its 'Healthy Streets' approach to create streets that are pleasant, safe and attractive. The Healthy Streets approach is based on 10 indicators, covering all five human senses. For example, if the street is very noisy, then people do not feel relaxed and they may choose not to walk or cycle.



Source: Transport for London

Equitable access for the community

Promoting equitable access is an important principle for the Woollahra ATP, particularly with regard to promoting walking in Woollahra. The ATP aims to reflect the vision and actions identified in the Woollahra Disability Inclusion Action Plan 2022, principally through the aim of Creating Liveable Communities. Equitable access has been an important consideration in the design of the Priority Projects, including:

- Ensuring that the designs consider the needs of disabled and elderly members of the community, as well as pram users.
- Promoting walking as a key mode of transport.
- Ensuring that relevant design standards including AS1428, Austroads Guides and TfNSW Cycleway Design Toolbox are followed, as well as consideration of international best practice.
- Minimising conflicts between pedestrians and other modes, especially vehicles and cyclists.
- Providing clear paths of travel for pedestrians with adequate widths and separation from other modes of transport, resting points, shade and amenity.
- Providing well-located and safe crossing points.

Designing our school zones for walking

Parents recognise walking for its benefits to children: not only is walking good for their physical and mental health, but walking helps them gain the skills needed to become independently mobile. We want as many children as possible to be able to walk to school in Woollahra, so they can access the benefits that walking brings.

The number one concern parents have with walking to school is the safety of their children on the road. Any parent would be reluctant to let their children walk to school, especially on their own, unless they are confident that the journey is safe. We want to work with all schools in Woollahra – including public and private schools – to identify and address any physical barriers to walking, such as missing or inadequate crossings around the school.

As far as possible, we will look to keep students walking to school separated from cars that are dropping off and picking up. Where needed, we will slow cars down to improve safety – with physical measures such as speed bumps and rumble strips, and with 40 km/h School Zones if a lower speed limit is needed.

Appendix A provides a more detailed example of the typical changes we will look to implement around our schools.

Designing our recreational routes for walking

Woollahra is fortunate to have some of Sydney's best recreational walking routes within its boundaries: ranging from the bustling Rose Bay promenade along New South Head Road, to scenic walks such as the Hermitage Foreshore Walk in Vaucluse and the trails along the ocean cliffs in Watsons Bay. These recreational walking routes are a fantastic asset, and as we heard during our consultation, they are highly valued by our community. We will maintain these routes to the highest possible standard for our residents and visitors from elsewhere in Sydney to enjoy.

As we heard during community consultation, a common issue on our recreational routes is that footpaths can have trip hazards, for example due to cracks or tree roots. We will work with Council, as well as the NSW National Parks and Wildlife Service, to improve our maintenance of recreational paths and ensure everyone can enjoy our great natural assets.

Designing our residential streets for walking

Finally, we want to make sure that Woollahra's residential streets – which make up most of our road network – encourage residents to walk. All our residential streets should meet minimum standards of accessibility, and should have footpaths on both sides (except for very narrow streets and laneways in heritage conservation areas such as Paddington). These will be regularly maintained as a priority in Council's maintenance works program. Improving the feel of our residential streets and better connecting them to our centres will be key to boosting the number of people walking throughout Woollahra.

Pedestrian focused design treatments

In addition to the designs presented in the Active Transport Plan, we have been implementing the best-practice Australian pedestrian treatments throughout the LGA. The following can be identified throughout Woollahra's centres and surrounding street networks.

30 km/h safer speed zones

30 km/h speed zones are used in busy pedestrian areas throughout the world, but until recently, NSW was an outlier with 40 km/h the only option in High Pedestrian Activity Areas.

That changed in 2020, when Transport for NSW introduced the first 30 km/h speed limits in Liverpool and Manly. 30 km/h speed limits have clear safety benefits: pedestrians have a 40 per cent risk of dying in a crash with an impact speed of 40 km/h, but this falls to 10 per cent when the impact speed is 30 km/h.

Source: Transport for NSW



These treatments are helping people cross busy roads and slowing down car speeds:

- Raised pedestrian crossings and refuge islands
- Continuous footpath treatments
- 10km/h Shared Zones
- Longer crossings times and audio cues at signalised crossings
- Accessible ramps for prams and people with mobility aids, and
- Tactile indicators on steps and ramps.

Street design typologies

To illustrate how these design principles for a more attractive walking and cycling network could be applied to different types of streets in Woollahra, we have developed a palette of street typologies.

These typologies show what an ideal street could look like once we have implemented this Active Transport Plan. The typologies form the starting point for the design decisions we will make on individual walking and cycling projects – including the

short-term priority projects in **Appendix A** (walking) and **Appendix B** (cycling). They represent ideal designs – in practice, we will sometimes have to make compromises to work within the road space available.

The street typologies include:

- Figure 8: an ideal **movement corridor** – that is, a busy road typically used by over 10,000 vehicles per day. The road has multiple lanes in each direction; depending on volumes, the kerbside lanes can be used flexibly for parking during off-peak periods. There are wide buffers between cars, cyclists and pedestrians, maximising the safety of each in a high-speed environment.
- Figure 9: an ideal **wide high street**, for example in one of our major commercial centres. Here, there are permanent parking lanes serving retail along the street, and traffic speeds are lower (40 km/h). The footpath is wider than along the movement corridor, because pedestrian volumes are much higher. There is continuous separation between the cyclists and parked cars for safety, and a ‘flexi zone’ between the footpath and the

cycleway, which can accommodate uses such as cycle parking or seating. This reflects that the street is not just a way to get from A to B, but a ‘place’ where people can meet and enjoy themselves.

- Figure 10: an ideal **narrow high street**. This shows how the ‘ideal’ high street typology shown in Figure 10 could be adapted if there is less space available. Parking is provided on one side of the road and, with no risk of ‘dooring’ from parked cars, the cycleway on the right is now an on-street lane rather than a separated cycle path. Importantly, the ‘flexi zone’ is maintained to cater for pedestrians and cyclists who stop and use the high street.
- Figure 11: an ideal **chicane road treatment**, a form of traffic calming. This typology bends the road alignment and changes the road surface to slow drivers down. The space along the chicane is used for people using destinations nearby, with planting, seating and cycle parking. Traffic volumes and speeds are low, so cyclists can safely mix with cars. This type of treatment could be used within school zones, or at the boundaries of some of our centres.

Figure 8: Ideal street lay-out – movement corridor

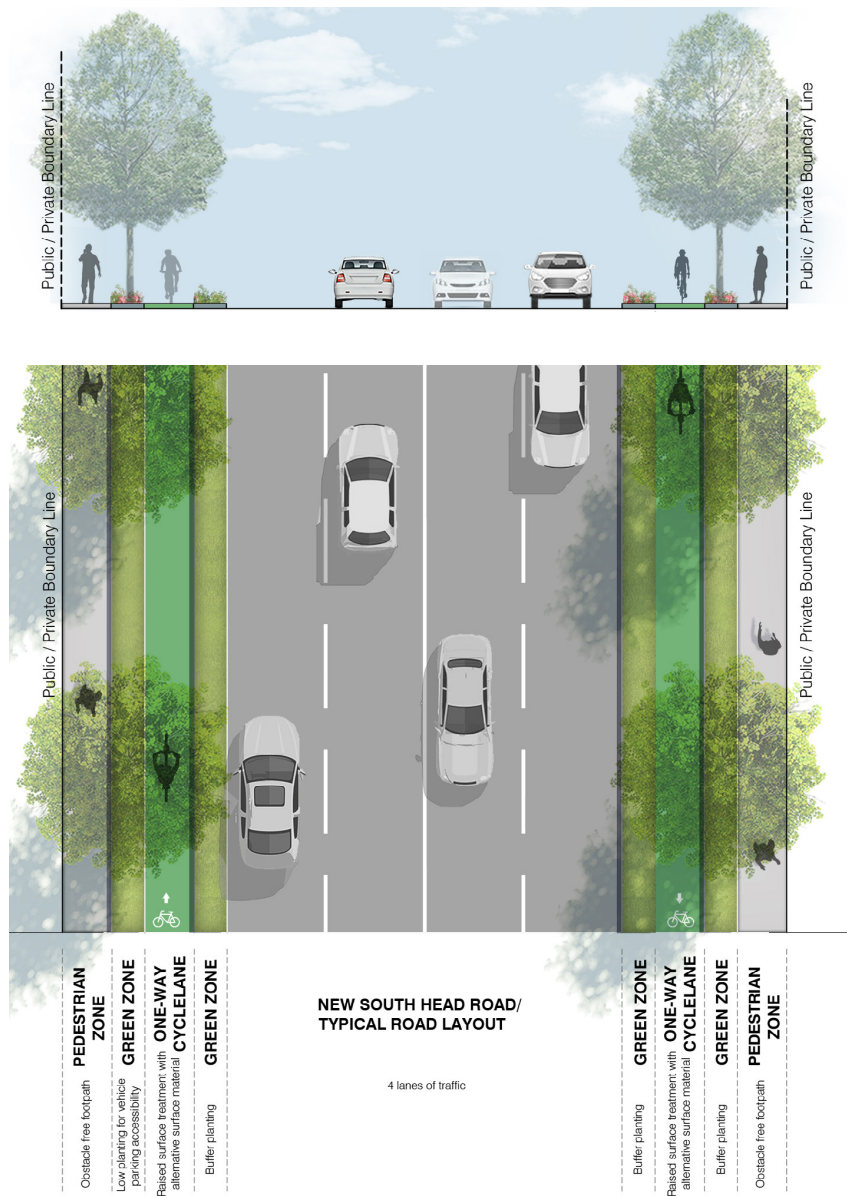


Figure 9: Ideal street lay-out – wide high street

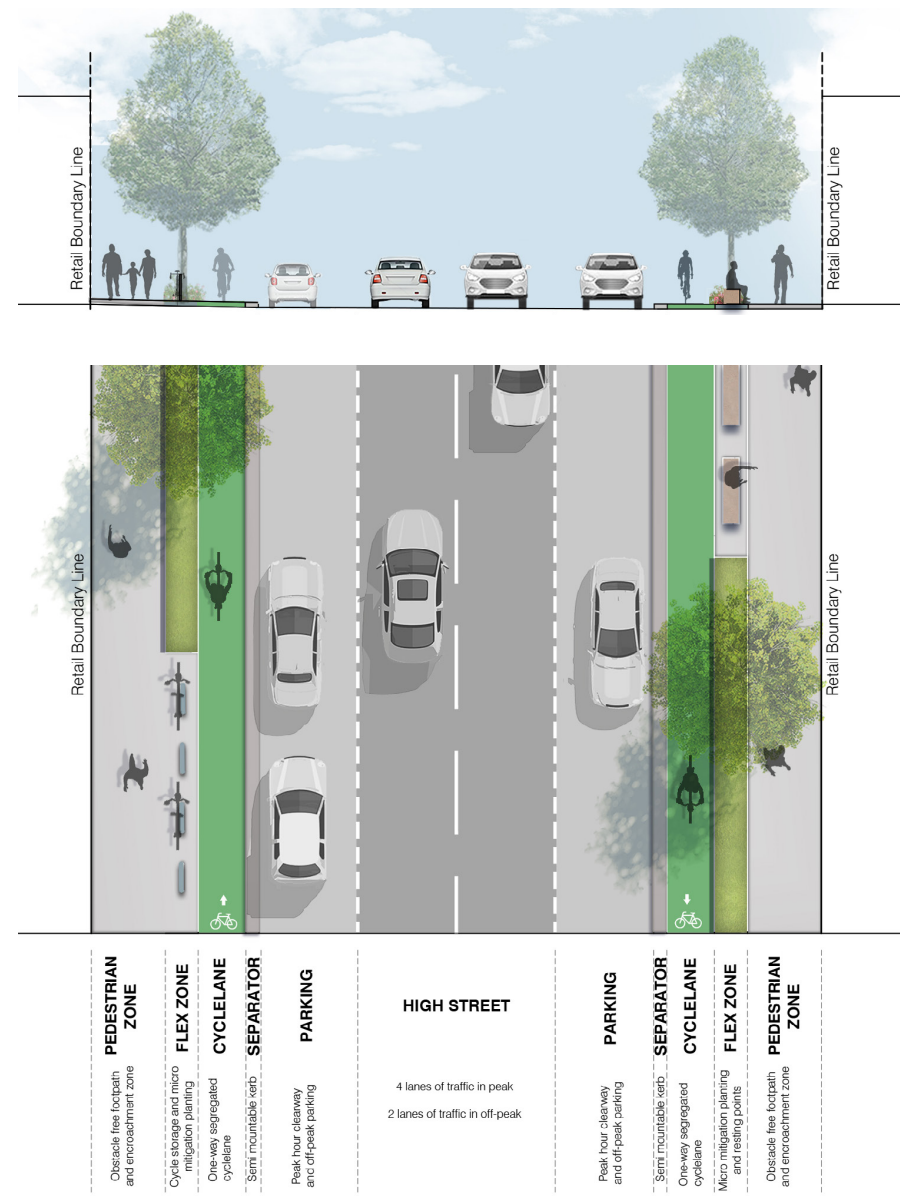


Figure 10: Ideal street lay-out – narrow high street

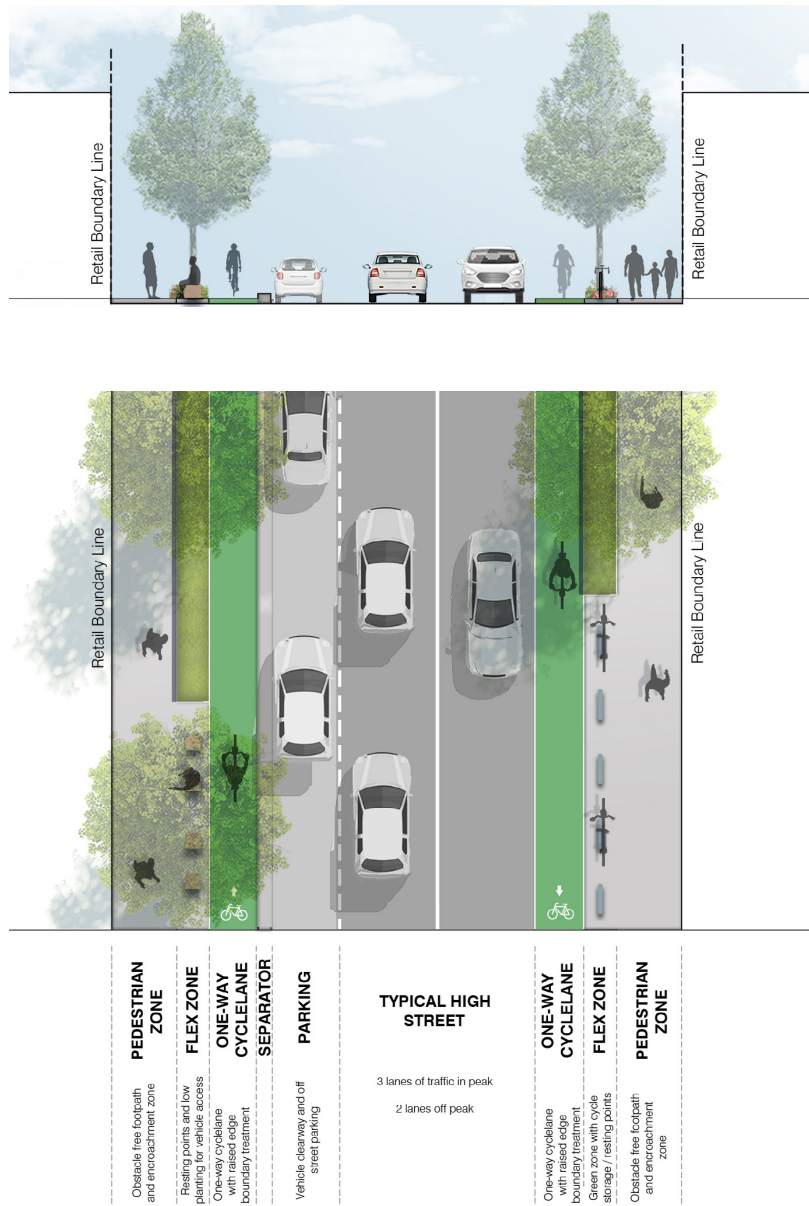
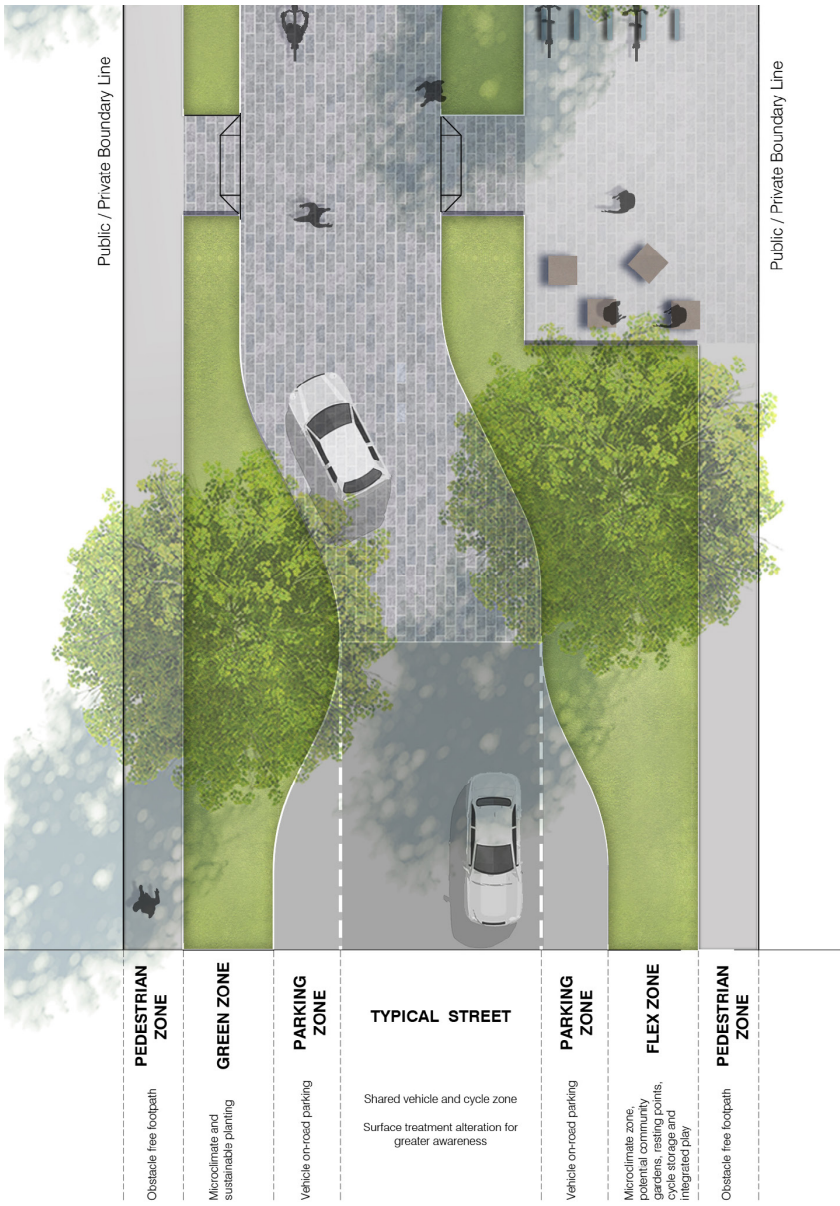


Figure 11: Ideal street lay-out – chicane road treatment



Our future walking projects

Our goal is to deliver walking projects that both enhance and compliment Woollahra's centres and surrounding street network. These projects will improve pedestrian safety, accessibility and inclusivity, reinforcing Woollahra's unique sense of place, and support further economic vitality and activation around the LGA.

Developing this network will take many years, and significant investment from Council and, where applicable, our partners such as Transport for NSW.

Map 6 shows our plan for Woollahra's future walking projects, based on the evidence discussed in Section 2 and the design principles in this section. Our plan divides the long-term future network into three phases:

- **High priority:** these are walking projects we want to have a strong focus on delivering within the next 5 years. These projects will be Council's priority projects to deliver (subject to feasibility,

funding, and community consultation and resolutions of Council when appropriate), and are discussed in more detail in **Appendix A** of this Active Transport Plan.

- **Medium priority:** these are projects we want to study within the next 5 years, with a view to delivering them within the next 10 years.
- **Low priority:** these are projects we want to study after the next 5 years. They are typically located on sections where pedestrian activity is modest, or where we may not easily be able to achieve the design quality we want without compromising space for other user groups.

Our approach to choosing the walking projects

The prioritisation of routes into these three categories was based on an extensive multi-criteria analysis. The analysis considered how factors such as expected demand and costs can deliver on issues such as gradients, road safety, accessibility,

inclusivity and pedestrian comfort. This can include for example, ensuring we are providing clear paths of travel for pedestrians with adequate widths and separation from other modes of transport, resting points, lighting, shade and amenity.

All project recommendations from the public consultation were considered and weighted against the multi-criteria analysis. We are confident that the routes we have prioritized for short-term delivery will represent the best return on Council's initial investment.

Map 6: Our future walking projects



High priority

Medium priority

Low priority

Our future walking projects

Map Ref.	Priority	Project
1	High	Rose Bay Centre 40km/h High Pedestrian Activity Area
2		Queen Street 40km/h High Pedestrian Activity Area
3		Paddington 40km/h High Pedestrian Activity Area
4		Watsons Bay 40km/h High Pedestrian Activity Areas
5		School Zone Design Improvements
6		Edgecliff Public Domain Strategy / Edgecliff
7		Bay Street pedestrian upgrades
8	Medium	Fiveways Walking Improvements
9		Rose Bay South Walking Improvements
10		Rose Bay North Walking Improvements
11		Shared Zone on Albemarle Lane
12		Walking improvements at ferry wharves
13		Double Bay Pedestrianisation (Knox Street)
14	Low	Bellevue Park perimeter pedestrian route
15		Double Bay Foreshore and Darling Point Link
16		Moncur Street to Centennial Park Link
17		Rose Bay and Point Piper foreshore boardwalk
18		Vaucluse House Walking Improvements
19		Parsley Bay Walking Improvements
20		Gap Park to Christinson Park coastal walk improvements

Refer to Appendix A for an overview of Council's current walking projects in delivery



Fiveways, Paddington

Pedestrian wayfinding and signage

A comprehensive pedestrian wayfinding sign system provides pedestrians with support to navigate safely and intuitively. By providing wayfinding information to the public domain, the system can connect recreational routes with the everyday routes around the suburbs, benefiting residents and visitors alike.

A consistent system of wayfinding components will provide information to direct people to their desired destinations and encourage people to walk with comfort and confidence.

The signs themselves will be elements that provide dual functions; both to inform and to aid placemaking.

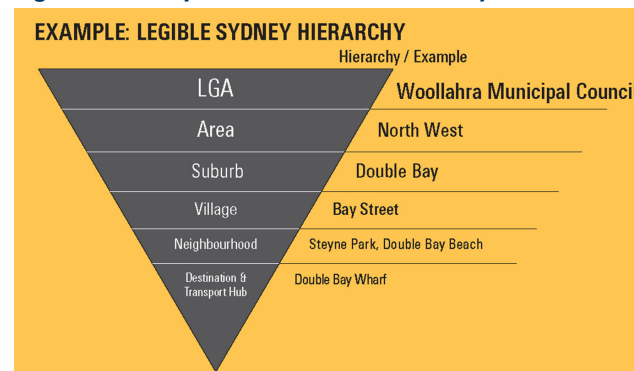
The wayfinding and signage system will offer benefits for public health, the environment, economy, public transport system and tourism within the Woollahra LGA.

Wayfinding principles

Hierarchy of destinations – a clear hierarchy of destinations within the Council area will form the basis of a pedestrian wayfinding system that is relevant and informative for residents and visitors alike. An example is provided in Figure 12.

Progressive disclosure – provides the right amount of information at the right time in a journey, listing destinations from macro to micro- allowing for the simplification of directional information, providing detail when it's needed.

Figure 12: Example of a destination hierarchy



Wayfinding sign elements

Legibility and accessibility – wayfinding signs must be legible to the widest range of users, in line with universal design principles. Careful selection of font, colour and material as well as a method to access digital channels will provide information that is legible to the widest section of society.

Time based distance indicators – time as a measurement of journey length provides a simple and widely understood method of communicating travel distance. This will help encourage walking journeys that may have otherwise been taken by a car.

Heads-up mapping – mapping that aligns with the direction the reader is facing provides a clearer method of orientation than North up mapping. Mapping will provide the heart of the wayfinding system, placed within major destinations and entry points into the Council area.

Inclusivity -We have committed to investigating how braille can be incorporated into wayfinding signage, and how the use of plain English can improve the messages Council wants to communicate to all its residents.

Ensuring Equitable Access

Council's Disability Inclusion Action Plan (2022) outlines strategies, key priorities and actions to improve accessibility and inclusivity across the municipality, encouraging and assisting people with disabilities to stay active in the local community and enjoy everything Woollahra has to offer.

A key way to achieve this is by improving accessibility throughout the LGA. One key priority is for a program of works to increase accessibility across the public domain. Actions include access audits, as well as increasing the number of accessible pram ramps and tactile indicators within the public domain.



William Street, Paddington



Rose Bay Foreshore

Our plan for cycling

Designing our cycling network

Cycling trips in Woollahra

Our vision is to make cycling, alongside walking, the most convenient, comfortable and safe choice for short trips in Woollahra (and to neighbouring areas including the City of Sydney and Waverley).

The key to achieving this vision is creating a physical street environment that makes cycling a realistic and natural choice. Our current cycling network is highly fragmented and of mixed quality, and often lacks separation from cars where traffic volumes are high (see Section 2) as well as a lack of bike racks and storage facilities. We want to create streets that break down barriers to cycling, especially for inexperienced cyclists.

As we build our cycling network, we will make sure we make cycling, including those who experience mobility issues, accessible for all residents, not just experienced cyclists. We want to cater for the trip to school and leisurely rides along the harbour, as much

as the cycling commute into the CBD. We want to see more beginner cyclists on our roads – especially from under-represented user groups including young people, older people, mobility impaired and women.

Our design principles for a comprehensive cycling network

Our plan for Woollahra's cycling network is based on Transport for NSW's new Cycleway Design Toolbox (Figure 13). The Toolbox is part of NSW Government's Movement and Place framework for planning and managing street space and provides design guidance and standards for cycling design in NSW.

Transport for NSW's Cycleway Design Toolbox provides recommended design typologies for a wide range of cycling infrastructure, including one-way paths, two-way paths, shared paths, and shared zones. Our cycling network will be based on these Sydney-wide design standards, enabling seamless integration with the future cycling networks in neighbouring Waverley and the City of Sydney.

Figure 13: TfNSW's Cycleway Design Toolbox will set the standards for the design of our future cycling network



Source: Transport for NSW

In addition to the NSW-wide design standards, we will also use the following principles to design our network, based on the unique characteristics of Woollahra and the feedback we heard during community consultation:

- We will focus on delivering much better separation between cyclists and pedestrians. Historically, many of Woollahra's cycling paths have been delivered as shared pedestrian/cyclist paths – for example on Neild Avenue, Newcastle Street / Old South Head Road and parts of Oxford Street. During consultation, we heard that many residents feel these are unsafe and unsuitable on Woollahra's busy streets.

TfNSW's new Cycleway Design Toolbox already makes clear that shared paths provide a lower level of service and are not suitable in locations with high bicycle or pedestrian activity. Other than on quiet recreational routes and on short sections where there is no alternative, we therefore will attempt to provide dedicated facilities, where feasible. We'll also work to

improve separation between cyclists and pedestrians on existing shared paths where possible.

- We will reflect Woollahra's hilly topography with different uphill and downhill treatments. On uphill sections, cyclists are slower, so providing greater separation from motorised traffic is critical. On downhill sections, cyclists are faster, so some traffic mixing may be acceptable depending on speeds and volumes. Clear separation between pedestrians and cyclists heading downhill is critical for safety.

Ideal cycling infrastructure on different street types is shown in Figure 8 to Figure 11 in **Section 3**. Ideal intersection treatments are shown in Figure 14 and Figure 15 below – in practice, we will sometimes have to compromise to work within the road space available.

What encourages people to cycle?

Creating an attractive, safe cycling network isn't rocket science. For decades, countries such as the Netherlands and Denmark have shown what works and what encourages people to actually cycle:

- The first, and most important component is **safety**. In most cities, the number one factor that stops people cycling is a fear of collisions. As we heard during our public consultation for the Draft Active Transport Plan, Woollahra is no different. Our cycling infrastructure should be safe to use, and should not require bravery. To make cycleways safe, they should be **wide** enough (to allow for overtaking); and they should have **sufficient separation from traffic** (depending on traffic speeds and volumes), **from parked cars** and **from pedestrians**. Improving the standard of **lighting** across the LGA, especially along key routes will increase general safety.
- The second component of a successful cycling network is **connectivity**. Cycle routes should be part of a network that is **continuous and inclusive** – that is, cyclists are able to reach their destinations by connecting from one route to another and is accessible. Routes should not end abruptly, and especially not at challenging traffic environments such as major signalised intersections. Routes should also be as **direct** as possible, avoiding circuitous routes that are uncompetitive compared to other modes.
- The third component is **comfort**. Cycleways should be low stress for less confident riders. This includes safety, but also the **smoothness** and **gradient** of the cycleway. The wider streetscape should also be **well lit** and pleasant to ride in after dark. During summer, **shade** from trees and other landscaping should provide protection from Sydney's hot climate.



Figure 14: Ideal intersection design with off-road cycle paths

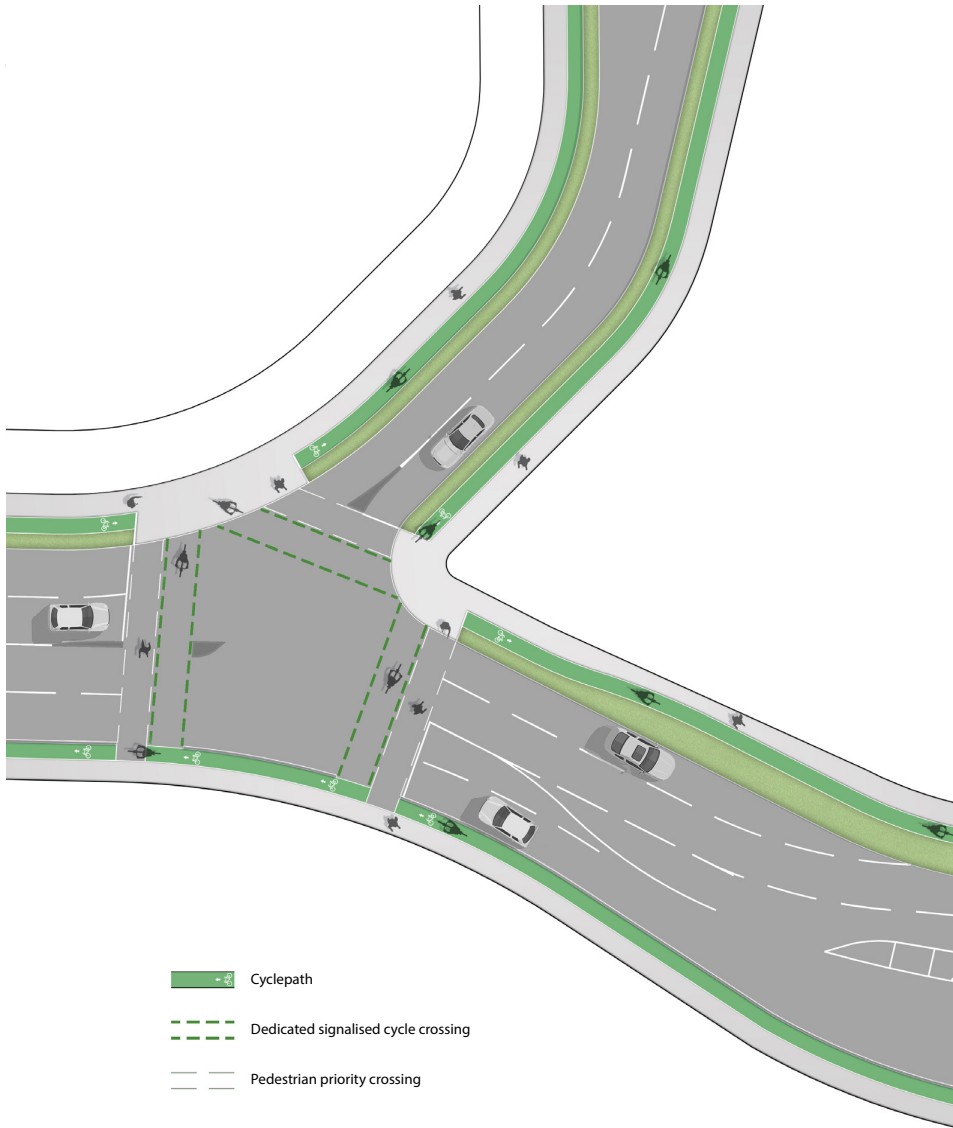
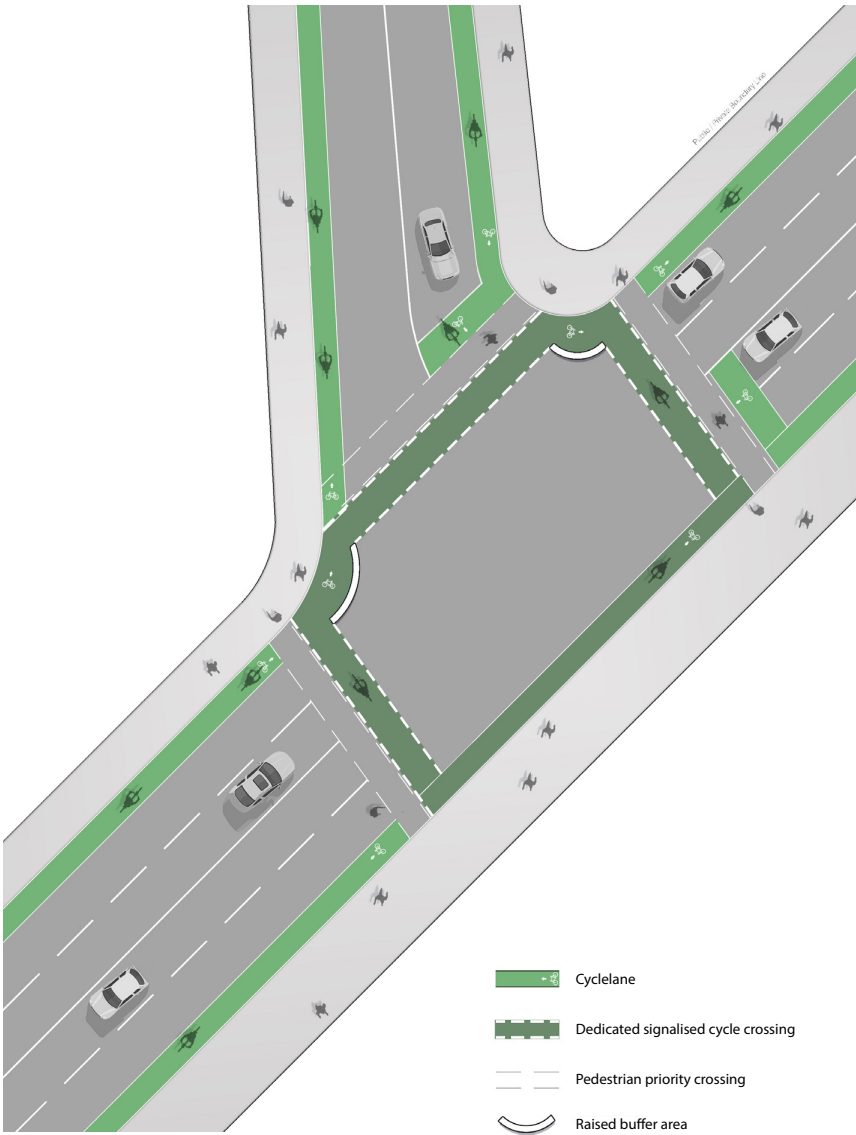


Figure 15: Ideal intersection design with on-road cycle lanes



Our future cycling network

Our goal is to deliver a safe, comfortable, inclusive and continuous network of cycle routes that connect all major destinations in Woollahra, including our centres, public transport interchanges, and natural attractions. The network should also link to cycle routes in Waverley and the City of Sydney, connecting to major destinations such as the CBD, Bondi Junction and Bondi Beach.

Developing this network will take many years, and significant investment from Council and, where applicable, our partners such as Transport for NSW.

Map 7 shows our plan for the future cycling network, based on the evidence discussed in **Section 2** and the design principles in this section. Our plan divides the long-term future network into three phases:

- **High priority:** these are routes we want to have a strong focus on delivering within the next

5 years. These routes will be Council's priority projects to deliver (subject to feasibility, funding, community consultation and resolutions of Council when appropriate), and are discussed in more detail in **Appendix B** of this Active Transport Plan. These routes typically connect major centres and are most likely to increase cycling activity in Woollahra quickly.

- **Medium priority:** these are routes we want to study within the next 5 years, with a view to delivering them within the next 10 years. They complement the short-term routes, resulting in a continuous network of principal cycle routes by 2033.
- **Low priority:** these are routes we want to study after the next 5 years. They are typically located on sections where demand is currently still expected to be modest, or where we may not easily be able to achieve the design quality, we want without compromising space for other user groups. However, we expect that these routes will become part of our cycling network after 2033, once demand starts to take off.

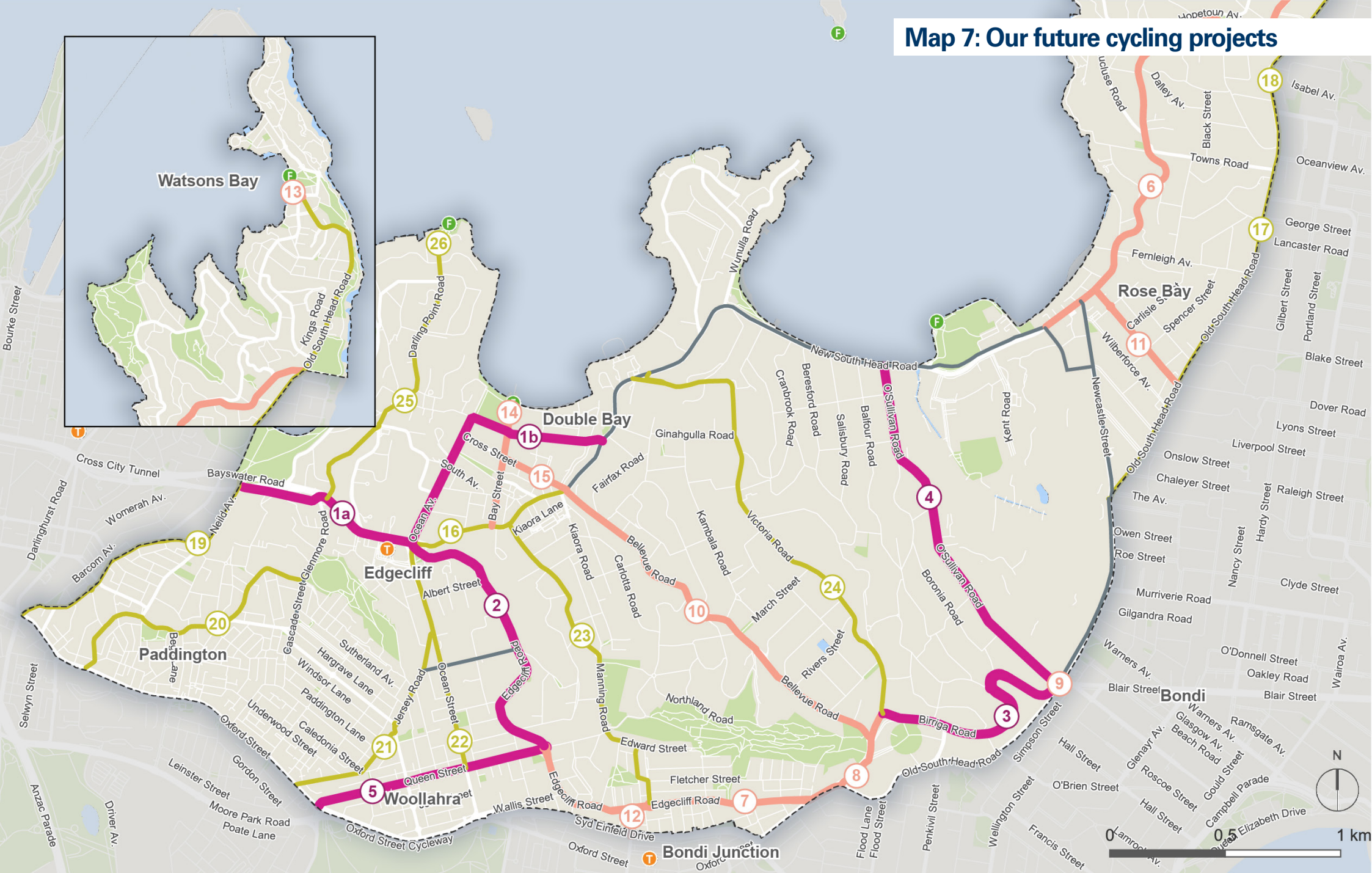
Approach to choosing the cycling projects

An extensive multi-criteria analysis was undertaken to determine a priority ranking for projects. It considered a range of criteria related to demand, road safety, destinations, gradients, accessibility, physical deliverability and expected cost.

The routes have been prioritised to enable investment by Council. This will kick-start the growth in cycling activity outlined within this Active Transport Plan.

All projects have also been designed to cater for emerging mobility trends, such as e-bikes, within the LGA.

Map 7: Our future cycling projects



High priority

Medium priority

Low priority

Existing (no change)

Our future cycling projects

Map Ref.	Priority	Project
1a	High	Cycleway on New South Head Road (City of Sydney boundary to Edgecliff)
1b		Cycleway on Ocean Avenue/William Street (Edgecliff to Double Bay)
2		Cycleway on Edgecliff Road (Edgecliff to Queen Street)
3		Upgrade cycleway on Birriga Road
4		Upgrade cycleway along O'Sullivan Road
5		Cycleway along Queen Street (Oxford Street to Ocean Street)
6	Medium	Cycleway on New South Head Road (Rose Bay to Vaucluse)
7		Cycleway along Edgecliff Road (Queen Street to Victoria Road)
8		Cycleway along Victoria Road (Edgecliff Road to Birriga Road)
9		Upgrade cycle crossing facilities at the Old South Head Road / Birriga Road / O'Sullivan Road / Curlewis Street intersection

Map Ref.	Priority	Project
10	Medium	Upgrade cycleway on Bellevue Road
11		Cycleway between Rose Bay and Rose Bay South (Dover Road or Wilberforce Ave)
12		Cycle link to Bondi Junction station (Newland Street)
13		Cycle link to Watsons Bay Wharf (Robertson Park)
14		Cycle link to Double Bay Wharf (Bay Street)
15		Cycle links within Double Bay centre (Cross Street)
16	Low	Cycleway on New South Head Road (Edgecliff to Double Bay)
17		Cycleway on Old South Head Road (Newcastle Street to Towns Road)
18		Cycleway on Old South Head Road (Towns Road to Watsons Bay)
19		Cycleway on Boundary Street / Neild Avenue
20		Cycleway on Glenmore Road
22		Cycleway on Jersey Road
22		Cycleway on Ocean Street (Edgecliff to Queen Street)
23		Cycleway on Manning Road
24		Upgrade cycleway on Victoria Road
25		Cycleway on Mona Road / Darling Point Road
26		Cycle link to Darling Point Wharf (Darling Point Reserve)

Refer to Appendix B for an overview of Council's current cycling projects in delivery

Cycle wayfinding and signage

The current bicycle wayfinding sign system provides signposting for a network of routes across the Woollahra LGA. To better serve the needs of cyclists, this system will be developed further to provide a wider range of information for its users. This will ensure the cycle wayfinding system better supports cycling connectivity, safety and comfort across a wider range of local and regional journeys. A sign family example is provided in Figure 16.

Wayfinding principles

Hierarchy of destinations – as with the pedestrian system, a hierarchy of destinations will provide a framework for messaging for local destinations such as suburban centres, facilities, and transport hubs as well as for regional cycleways that pass through the Woollahra LGA.

Progressive disclosure – destination information is provided from macro to micro to ensure simplicity of messaging in a consistent manner.

Part of a regional system – cycling allows for journeys to destinations beyond Council boundaries, with several routes being connected to neighbouring cycleways in the City of Sydney and Waverley LGAs.

Figure 16: Example sign family **Randwick Bicycle Wayfinding Strategy / City of Sydney Bicycle Network**

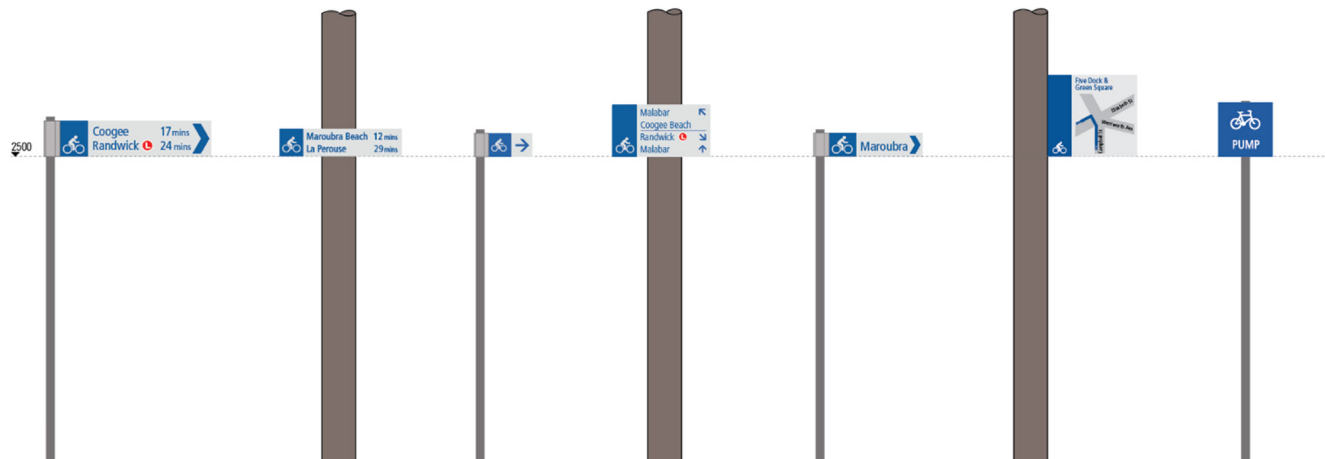


Figure 17: Directional example with time indicator



Wayfinding sign elements

Time indicators – for journeys under 30 minutes, journey time is provided on major directional signs. An example is provided in Figure 17. Local signs – provide simple directional messaging close to a destination.

Reassurance signs and mapping – additional support is provided to explain more complex intersections and intersecting routes.

Facility signs – where additional facilities are provided for the benefit of cyclists such as pumps, water and repair kits, clear identification is provided.

Aesthetics – cycleway signs will maintain the general appearance of the current system and that of neighbouring systems to provide consistency along longer journeys.

Inclusivity -We have committed to investigating how braille can be incorporated into wayfinding signage, and how the use of plain English can improve the messages Council wants to communicate to all its residents.



Rushcutters Bay



Rushcutters Bay

Implementing the plan

Implementing this Active Transport Plan

The plans and projects identified in this Active Transport Plan will all create better streets for walking and cycling, working towards our vision of making active transport the most convenient, comfortable, inclusive and safe choice for short trips in Woollahra.

This plan sets Woollahra Municipal Council's vision for walking and cycling for the next 10-15 years, but the time to press ahead with action on better walking and cycling is now. The Active Transport Plan marks an ambitious change in the way Council plans, designs and delivers infrastructure projects – starting with the short-term priority projects included in **Appendices A and B** of this plan.

The identified projects are in addition to walking and cycling projects currently under investigation and development by Council. An overview of these specific projects is provided in **Appendix C**.

We will also look at reviewing speed limits across Woollahra. Adopting the right speed limits, especially in our centres, can lead to an environment more attractive to walking and cycling while also enhancing the sense of place.

Working together with our community

To achieve the vision, objectives and targets of this plan, commitment, ambition, and action will be required from Council, but also from our partners throughout Woollahra, such as schools, local businesses, residents' associations and active transport user groups.

We need to work together to achieve the vision set out in this Active Transport Plan, and we all have a part to play in the step-change in ambition that this Active Transport Plan provides.

Working together with Transport for NSW and neighbouring LGAs

Like other forms of transport, walking and cycling are not a solely local government responsibility. While Council is responsible for managing and maintaining our network of local roads, Transport for NSW manages the state road network, which includes New South Head Road and Oxford Street / Old South Head Road. Planning the future of our walking and cycling network is a joint responsibility, with Council leading on local elements and Transport for NSW leading on more strategic, long-distance routes.

We will need support, action and commitment from Transport for NSW, as well as from our neighbours including the City of Sydney and Waverley Council, to deliver the integrated walking and cycling network that we seek.



For example, we will continue to work with Transport for NSW to ensure that our plan for Woollahra's future cycle network (**Map 7**) aligns with and complements Sydney's Principal Bicycle Network, which Transport for NSW is currently developing. We will also continue to work closely with our neighbouring Councils to ensure that there are no gaps or sudden changes in design across our boundaries.

Funding, financing, and delivery

This Active Transport Plan represents a major financial commitment from Council to invest in walking and cycling infrastructure. For example, the total cost of delivering the short-term priority walking and cycling projects (included in **Appendices A and B**) is estimated at \$38.1m*.

Through Council's budgeting process that forms part of the annual Operation Plan, funding will be made available from its own sources where possible (subject to appropriate resolutions of Council), to

implement the Active Transport Plan, however the total financial cost of delivering the plan exceeds the financial resources Council has or is likely to have into the future.

As a result, the prioritisation of the walking and cycling projects, and the projects in **Appendix C**, will be subject to both detailed construction and costing feasibility study and design.

For many of the projects in this Active Transport Plan, Council will therefore seek to obtain funding from NSW Government, for example from the Get NSW Active Program and the NSW Public Spaces Legacy Program. Council was already successful in obtaining \$4.75m of funding from the NSW Public Spaces Legacy Program for the pedestrian upgrades in Bay Street, Double Bay.

* Opportunity for part of the cost of the Oxford Street Junction improvement scheme to be covered by TfNSW

Community Consultation

Community participation is vital to support transparent and appropriate planning outcomes. Council values the local knowledge of our community and actively seeks feedback and input to inform planning processes.

Public exhibition

The Draft ATP was placed on public exhibition from 7 November 2022 to 16 December 2022. All submissions from the exhibition were considered prior to finalising the ATP.

What we heard

Of the 94 submissions received during the exhibition period, 74 showed general support of the plan and 20 submissions raised some concerns. The overall responses received identified common interests with the following topics:

- Separated/Bidirectional Cycleways;
- Protected Intersections;
- Safety; and
- Improved public domain and traffic calming measures (including safety of footpaths, more bike parking).

In addition, we placed an online “Your Say Woollahra” survey during the exhibition period, which consisted of a key question to identify whether a 30 or 40km/h speed zone was preferred by the community for High Pedestrian Activity Areas (HPAAs) in the Woollahra Municipality, including Rose Bay Centre; Queen Street, Woollahra; Paddington; and Watsons Bay.

Following the exhibition period, 40km/hr speed zone for the High Pedestrian Activity Areas was adopted by Council. High Pedestrian Activity Areas will have speed limits set at 40km/hr, with additional traffic calming measures which will improve pedestrian safety.



Kiaora Lane, Double Bay

WOOLLAHRA MUNICIPAL COUNCIL

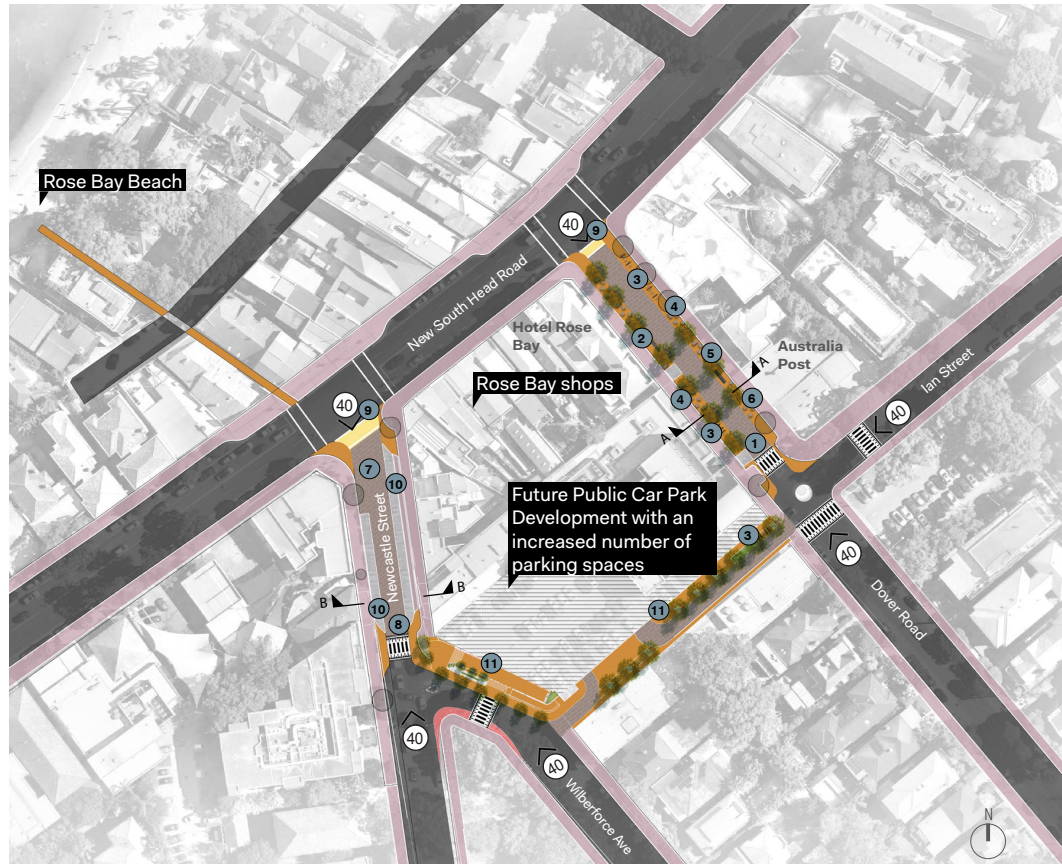


Monitoring and reviews

Council will continually monitor and review the Active Transport Plan after 5 years to report on progress with the delivery of our priority projects, and to check whether we are on track to meet our targets (as shown in Section 1).

Appendix A: Walking Priority Projects

Walking Priority Project 1: Rose Bay Centre 40km/h High Pedestrian Activity Area

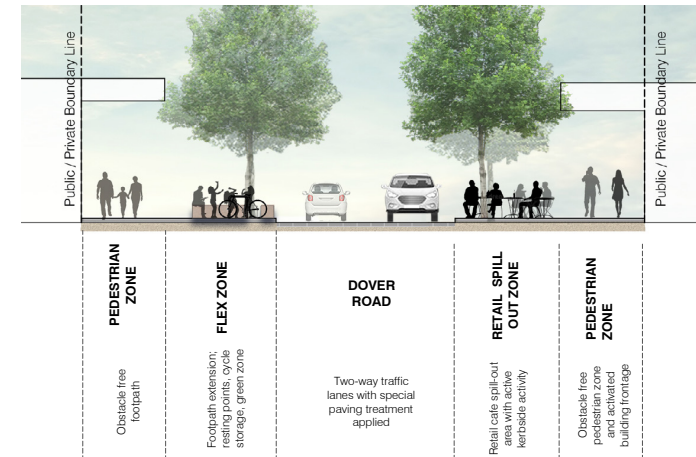


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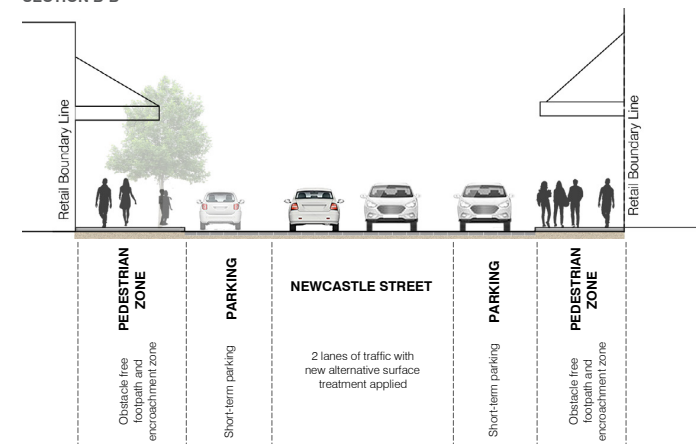
- | | | |
|--|---|--|
| Existing footpath to be retained | 1 Dover Road two-way street with 40km/h speed zone. Parking removed. | 7 Newcastle Street 40km/h speed zone |
| Proposed footpath extension works | 2 Existing northbound bus stop retained | 8 Paving surface treatment extended to road for greater driver awareness of high pedestrian activity |
| Existing footpath to be removed | 3 Cycle storage | 9 Existing signalised crossing to be retained |
| Alternative road surface treatment | 4 Extended footpath with public seating, tree planting and bike parking | 10 Short-term parking |
| Existing road treatment to be retained | 5 Existing southbound bus stop retained | 11 Future Development with pedestrian priority link from Wilberforce Avenue to Dover Road |
| Proposed raised pedestrian crossing | 6 Extended footpath with increased activation & cafe spill-out area | |
| Proposed 40km/h speed zone | | |
| Existing street tree | | |
| Proposed street tree | | |

Rose Bay Centre design interventions seek to improve the existing precinct to create a pedestrian friendly environment. The proposal provides the opportunity to extend the retail spill-out-zone along Dover Road and provide obstacle free pedestrian movement corridors along the building frontages. Traffic calming measures have been implemented to increase pedestrian safety and create greater driver awareness of high pedestrian activity along Dover Road and Newcastle Street.

SECTION A-A

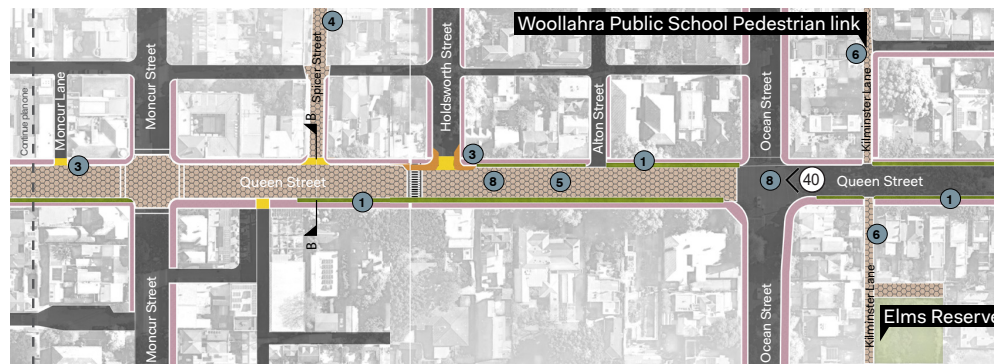


SECTION B-B



Walking Priority Project 2: Queen Street 40km/h High Pedestrian Activity Area

The walking improvements for Queen Street provide the opportunity to offer a safer and more appealing environment on a street level for pedestrians. Positive changes to the character of the street aim to reduce the perception of vehicle dominance. Pedestrian safety measures such as continuous footpaths and raised surface treatments provide a seamlessly connected walking route. The proposal celebrates Queen Street as a destination for retail and its importance as a movement corridor between Edgecliff Road and Oxford Street interchange. A shared cycle and vehicle route is integrated along Queen Street through a paved road surface treatment to create greater pedestrian awareness for drivers.

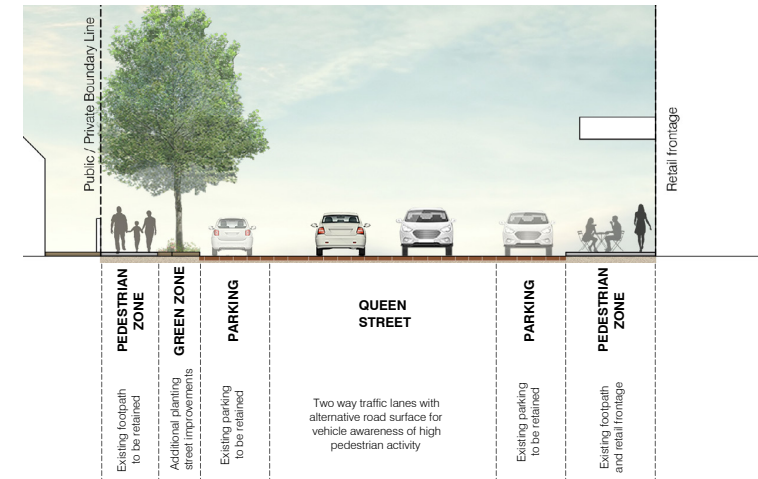


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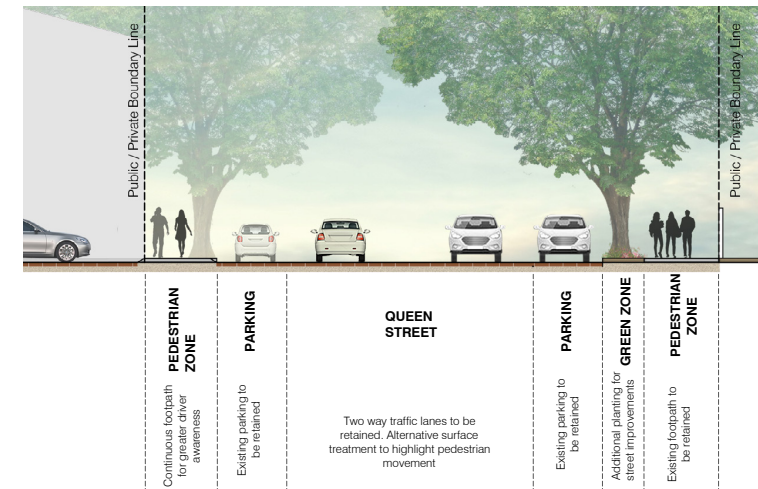
- Existing footpath
 - Proposed footpath extension works
 - Continuous footpath over road
 - Alternative road surface
 - Existing road treatment
 - Existing pedestrian crossing
 - Proposed raised pedestrian crossing
 - Improvement to street planting
 - Proposed 40km/h speed zone
- 1** Street planting improvements. Limited to tree pit locations and should not obstruct pedestrian and vehicle movement
 - 2** Raised intersection treatment
 - 3** Continuous footpath. Paving treatment extended to road for greater driver awareness of high pedestrian activity
 - 4** Future pedestrian link to Moncur Reserve. Potential extension of the alternative road surface treatment to signify high pedestrian activity.
 - 5** Alternative road surface treatment to highlight

- high pedestrian activity and emphasis a shared cycle and vehicle movement corridor
- 6** Alternative road surface treatment to create pedestrian priority routes to points of interest such as schools and open space
- 7** Connection to proposed Oxford Street cycleway, refer cycling priority project 6
- 8** Proposed 40km/h speed zone
- 9** Extend alternative road surface treatment along Halls Lane to Jersey Street to signify high pedestrian activity around Hall's Reserve

SECTION A-A



SECTION B-B



Walking Priority Project 3: Paddington 40km/h High Pedestrian Activity Area and 10km/h Shared Zone

The character of the intimate streets of Paddington have established themselves as being largely vehicle dominant. The proposal aims to provide a pedestrian priority zone which encourages and enables people to walk more comfortably. This is achieved by highlighting pedestrian activity to vehicles through alternative road surface treatments and providing continuous footpaths over roads. A new 10km/h shared zone is included as part of the design along William Street between Oxford Street and Paddington Street. This space can be utilised as a programmed or spontaneous space for pop-up venues and community-focused programs. During pop-up events traffic flow will be managed so that William Street can be closed to vehicles in isolation between either Oxford Street and Victoria Street or Victoria Street and Underwood Street.

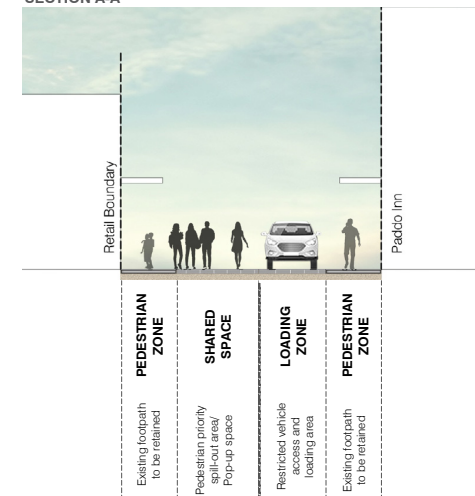


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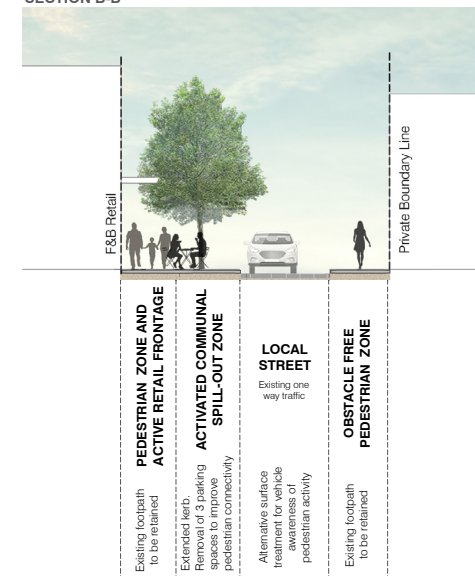
- Existing footpath
- Proposed footpath extension works
- Continuous footpath over road
- Proposed removal of road island
- Alternative road surface
- Existing road treatment
- Existing pedestrian crossing
- Proposed raised pedestrian crossing
- Improvement to street planting
- Proposed 40km/h speed zone
- Proposed 10km/h speed zone

- 1 Alternative surface treatment along William Street between Oxford Street and Paddington Street with proposed 10km/h Speed zone.
- 2 Flexibility to close portions of William Street between Oxford Street and Victoria Street or Victoria Street and Underwood Street at dedicated times to allow for community focused pop-up events. Traffic flow to be managed during special events
- 3 Existing junction treatment to be retained
- 4 Continuous footpath. Paving treatment extended to road for driver awareness of high pedestrian activity
- 5 Extension of existing footpath to retail frontage, incurring loss of 3 parking spaces to have outdoor dining and promote street vibrancy
- 6 Raised junction treatment to match William Street and Underwood Street intersection
- 7 Potential extended street planting improvements
- 8 Proposed 10km/h speed zone
- 9 Proposed 40km/h speed zone

SECTION A-A

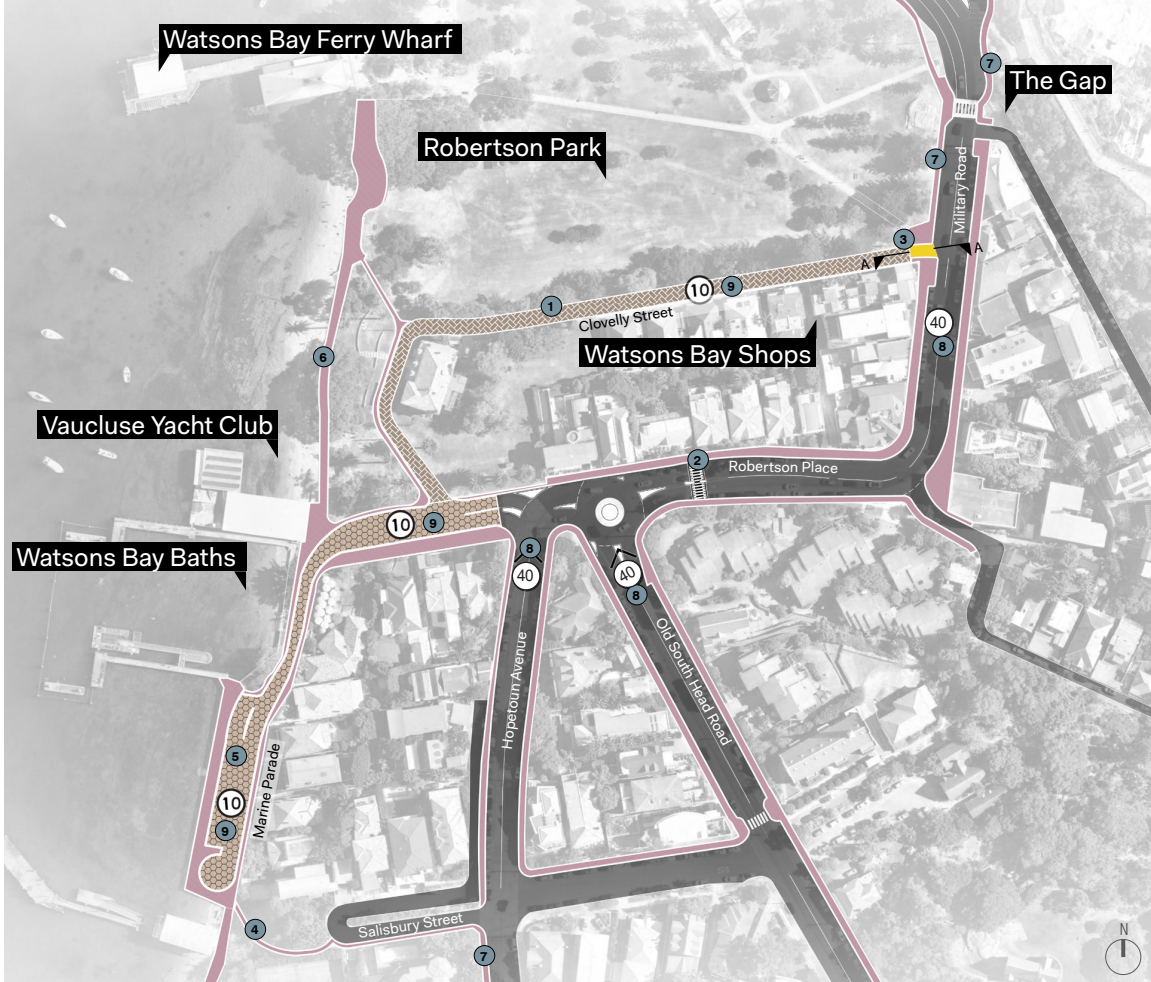


SECTION B-B

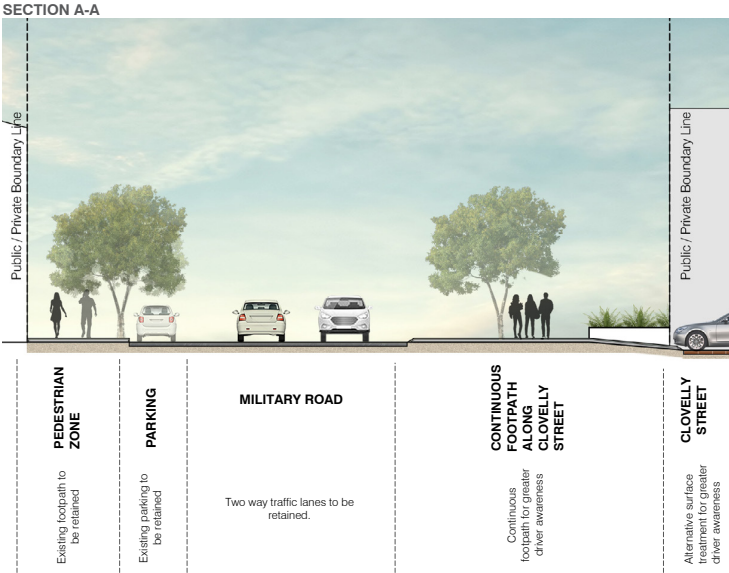


Walking Priority Project 4: Watsons Bay 40km/h High Pedestrian Activity Area and 10km/h Shared Zone

Watsons Bay is a key destination for Sydney harbourside activity. The main waterfront promenade has developed into a vibrant pedestrian access route from transport networks towards public open space and food and beverage outlets. Marine Parade and Clovelly Street have established themselves as a movement corridor from bus and ferry interchange areas towards public accessible points of interest. At present, pedestrians use the existing road to maintain a connection from Gibson Beach and Hopetoun Avenue transport network towards Robertson Park, the waterfront promenade and Military Road Cliff scenic area. This walking project offers the opportunity to create a pedestrian friendly environment by changing the fabric of the road surface to create awareness of shared pedestrian activity for motorists. In addition to this, a 40km/h speed limit has been proposed across the precinct, with a 10km/h speed limit across shared zones.



- LEGEND**
- Existing footpath
 - Proposed footpath extension works
 - Continuous footpath over road
 - Proposed removal of road island
 - Alternative road surface
 - Existing road treatment
 - Existing pedestrian crossing
 - Proposed raised pedestrian crossing
 - Improvement to street planting
 - Proposed 40km/h speed zone
 - Proposed 10km/h speed zone
- 1 Clovelly Street alternate road surface treatment to highlight an area of pedestrian movement.
 - 2 New raised crossing on Robertson Place
 - 3 Continuous Footpath extended over Clovelly Street for pedestrian priority
 - 4 Existing pedestrian link from Salisbury Street to Marine Parade
 - 5 Alternate road surface treatment along Marine Parade to highlight pedestrian activity
 - 6 Existing waterfront connection
 - 7 Existing bus stop
 - 8 Proposed 40km/h speed zone
 - 9 Proposed 10km/h speed zone



Walking Priority Project 5: Schools Zone Design Improvements

Typical design treatment for School Zones across the municipality

The Woollahra Public School walking improvement project provides an example of how pedestrian priority design principles can be strategically implemented within school zones. Traffic calming and pedestrian safety measures have been proposed within Woollahra Public School vicinity to create greater driver awareness of high pedestrian activity. This approach provides best practice guidelines on how to deliver pedestrian safe streets for students.



SCHOOL ZONE DESIGN PRINCIPLES

Traffic Calming



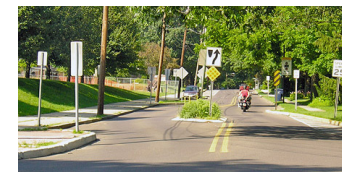
Rumble Strips for speed reduction



Speed bump for speed reduction



Narrow road treatment

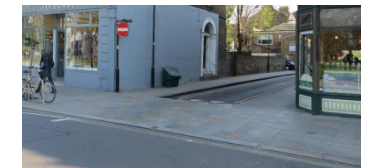


Chicanes road treatment

Pedestrian Priority



Raised pedestrian crossing



Continuous footpath



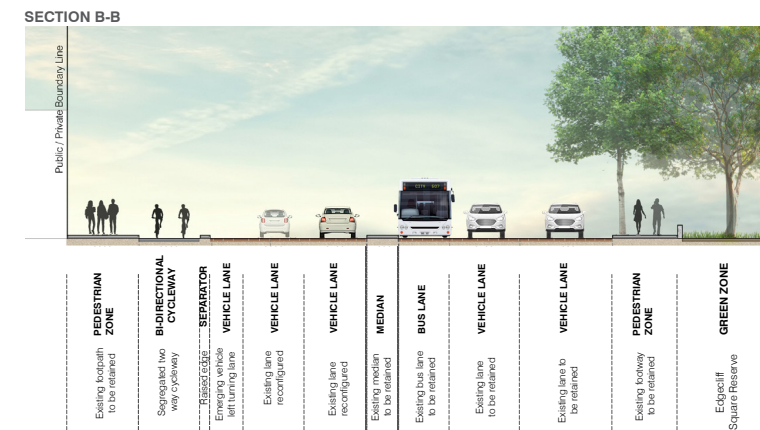
Alternative surface treatment

LEGEND

Existing footpath	Rumble Strips	1 Alternate road surface treatment to highlight school zone and high pedestrian activity
Proposed footpath extension works	Existing road treatment	2 Rumble strips shown as a speed reduction measure
Continuous footpath over road	Existing pedestrian crossing	3 Continuous footpath for greater vehicle awareness of high pedestrian priority
Alternative road surface 1	Proposed raised crossing	4 Proposed 10km/h speed zone
Alternative road surface 2	Proposed 10km/h speed zone	5 Proposed 40km/h speed zone
Alternative road surface 3		

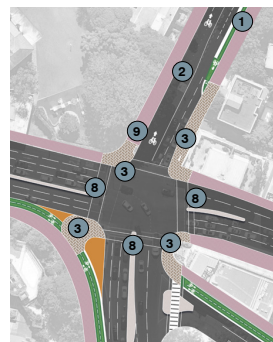
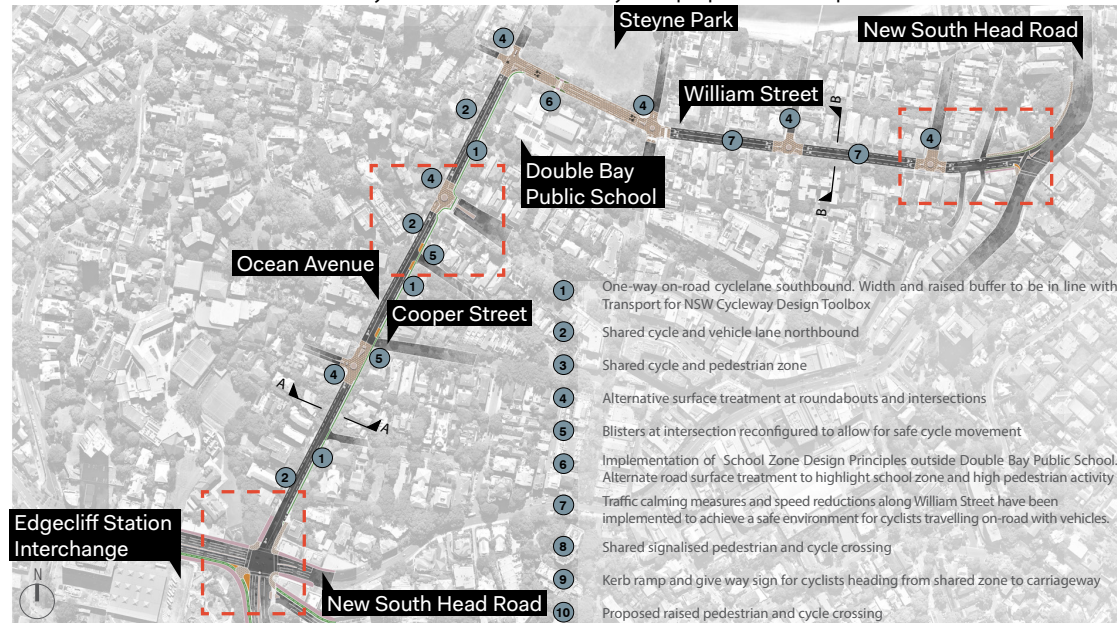
Appendix B: Cycling Priority Projects

The cycleway proposal has been informed in response to fixed elements within the road infrastructure resulting in the cycleway departing New South Head Road in some locations to the ensure safely and comfort of cyclists. A new cycleway is created below the Rail viaduct connecting Kings Cross cycleway to Edgecliff. Existing secondary streets and public accessible building frontages are utilised to provide safe movement corridors. The taxi rank and bus stop 'Stand J' have been relocated to allow for a bi-directional cycleway outside Edgecliff Station Interchange.



Cycling Priority Project 1b: Edgecliff Station Interchange to Double Bay

This cycling improvement scheme implements a cycle connection from Edgecliff Station Interchange to Double Bay via Ocean Avenue and William Street. This route was chosen due to the alignment constraints of New South Head Road which would have compromised the safety of cyclists and pedestrians. The scheme integrates a one-way on-road segregated cyclane southbound on Ocean Avenue to assist with cycle movement uphill towards Edgecliff Station Interchange, and enhanced cycle markings to facilitate a northbound shared vehicle and cycle lane along Ocean Avenue. Along William Street, traffic calming measures and speed reductions have been implemented to achieve a safe environment for cyclists travelling on-road with vehicles in both directions from Ocean Avenue to New South Head Road. At the intersection of William Street and New South Head Road eastbound cyclists continue to Rose Bay via a proposed shared path.



SECTION A-A

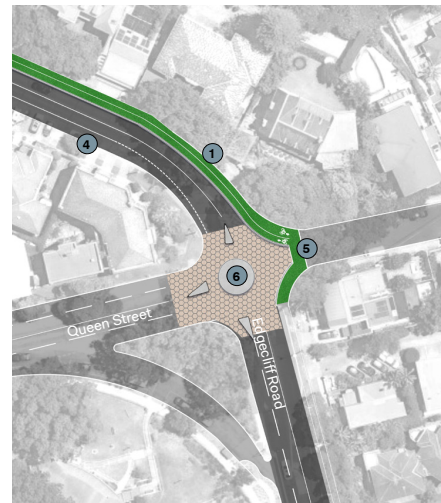
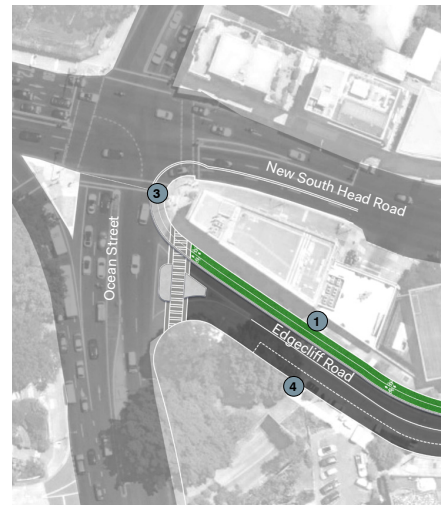
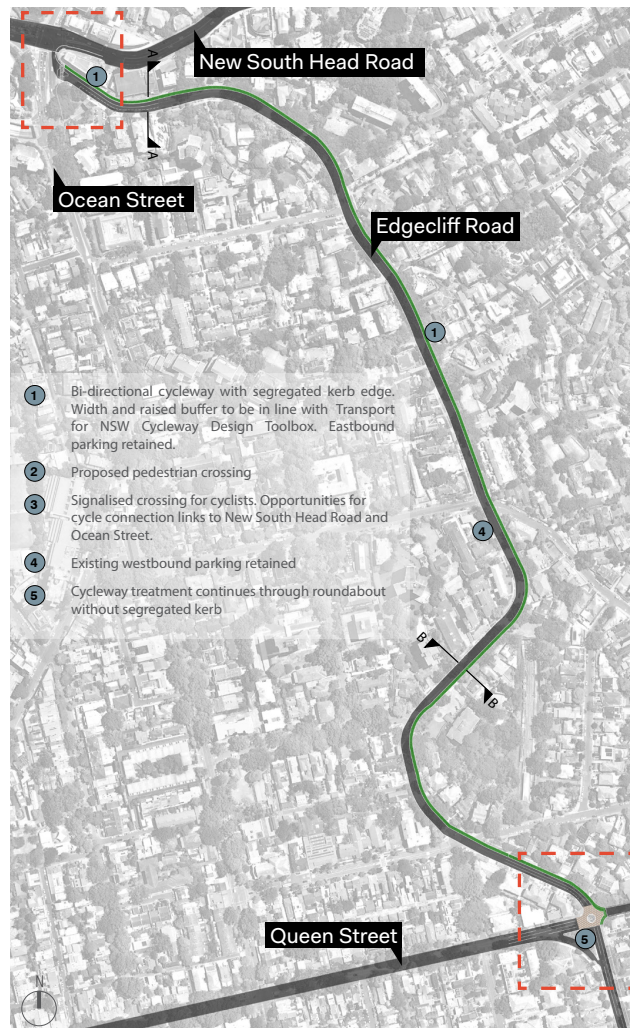


SECTION B-B

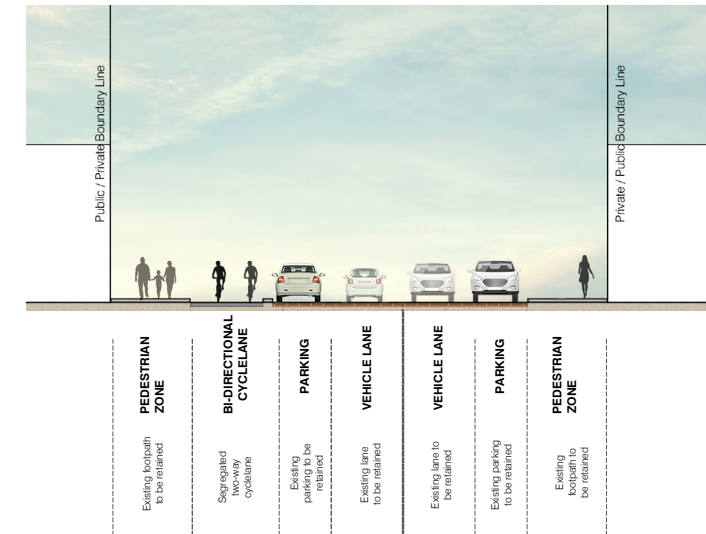


Cycling Priority Project 2: Edgecliff Road (Edgecliff to Queen Street)

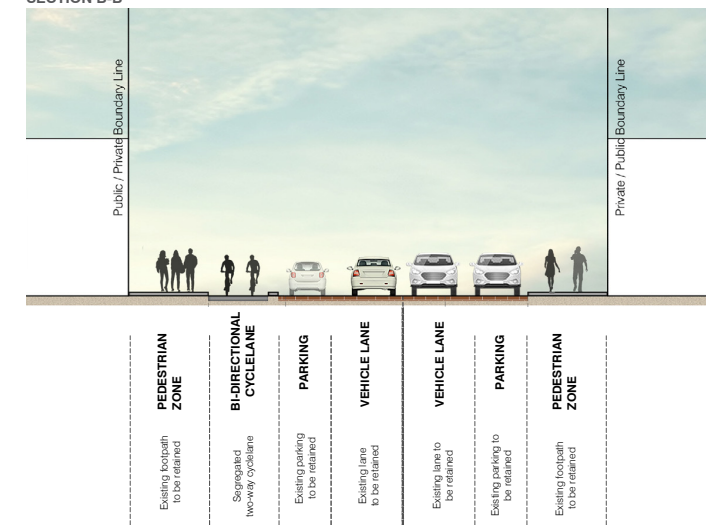
The cycle route along Edgecliff Road is focused on providing a cycle friendly environment while preserving the existing road infrastructure. A bi-directional segregated cycleway along the southbound carriageway has been designed to improve cycle accessibility and safety.



SECTION A-A

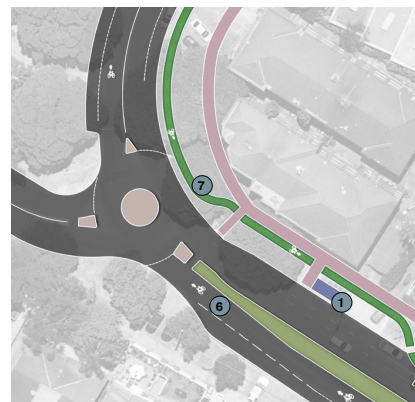
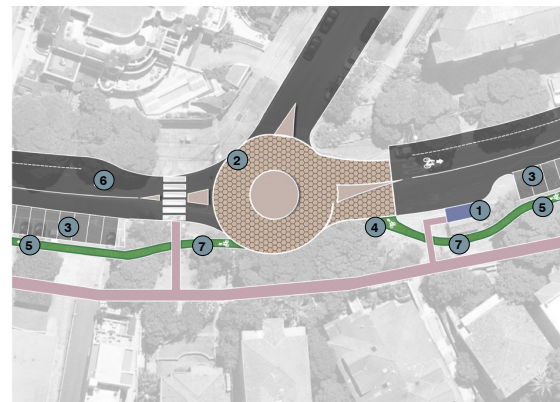
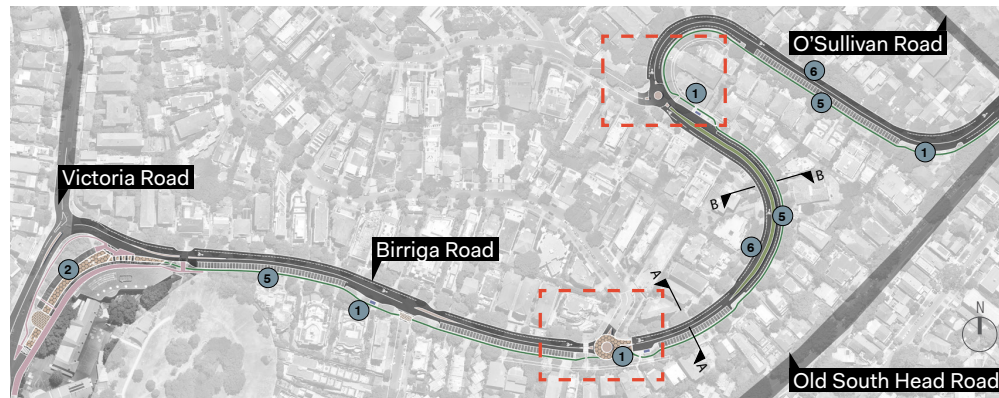


SECTION B-B



Cycling Priority Project 3: Birriga Road

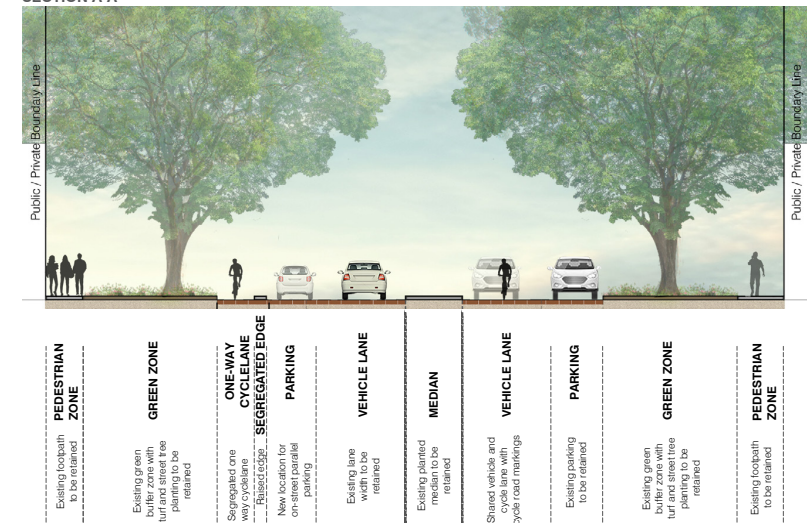
The Birriga Road cycle improvements scheme has adopted two different cycleway designs to ensure people who ride are safe and movement is not compromised for road users. The westbound cyclelane has been developed into a segregated cycleway in response to the uphill topography. This westbound cyclelane is located adjacent to the kerb, with existing parking shifted slightly outwards to make way for a cyclelane and raised buffer. The existing eastbound on-road cyclelane has been retained to make use of the downward sloping topography to retain existing parking.



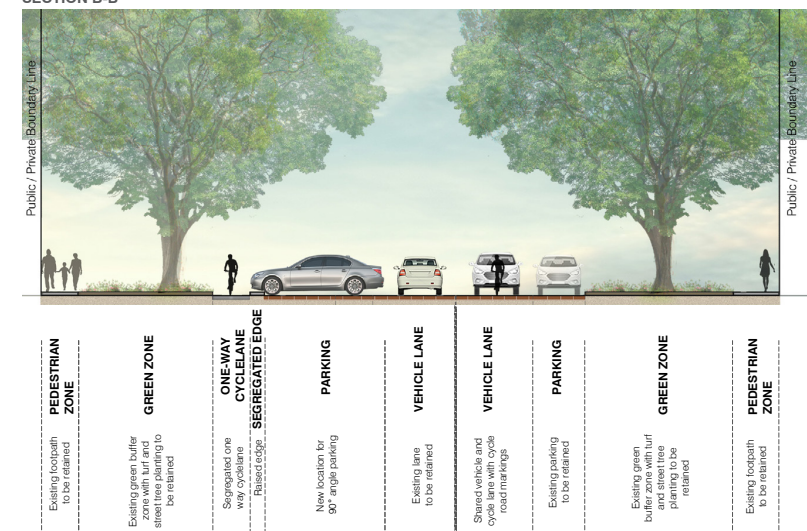
- 1 Bus stop location
- 2 Alternative surface treatment for greater vehicle awareness of on-road cycle activity
- 3 90-degree angle parking
- 4 Cycle stop sign for vehicle and cyclist safety
- 5 One-way on-road cyclelane westbound. Width and raised buffer to be in line with Transport for NSW Cycleway Design Toolbox

- 6 On-road cycle and vehicle lane eastbound
- 7 Segment of off-road cyclelane westbound

SECTION A-A

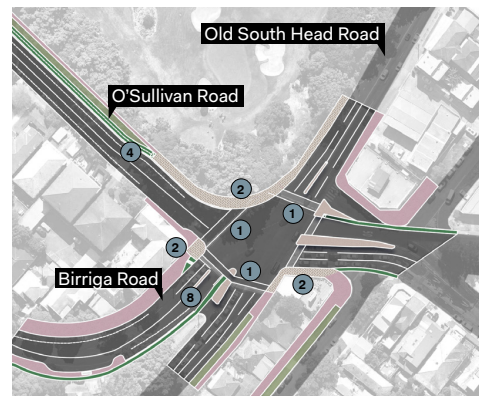
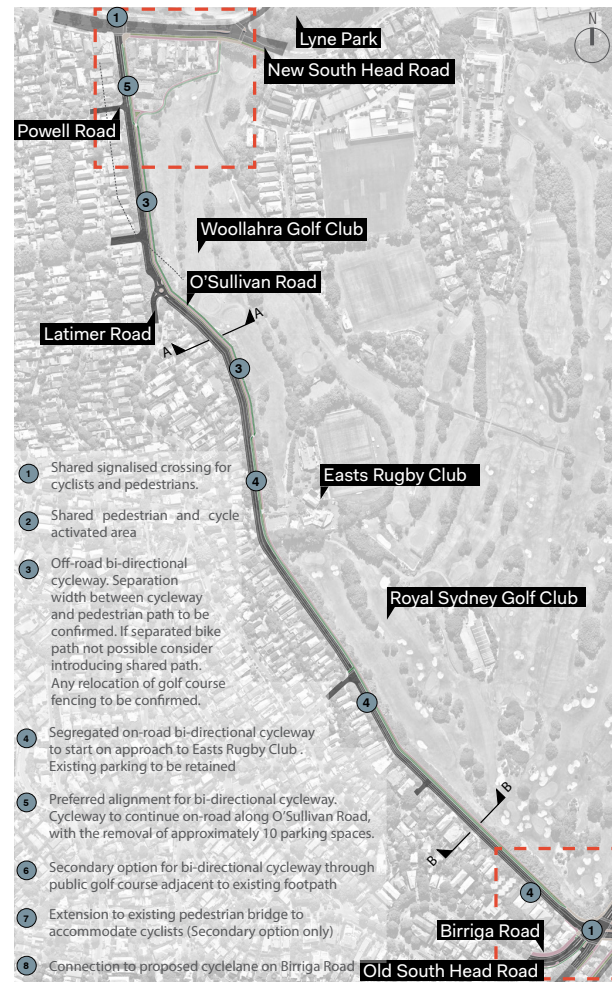


SECTION B-B

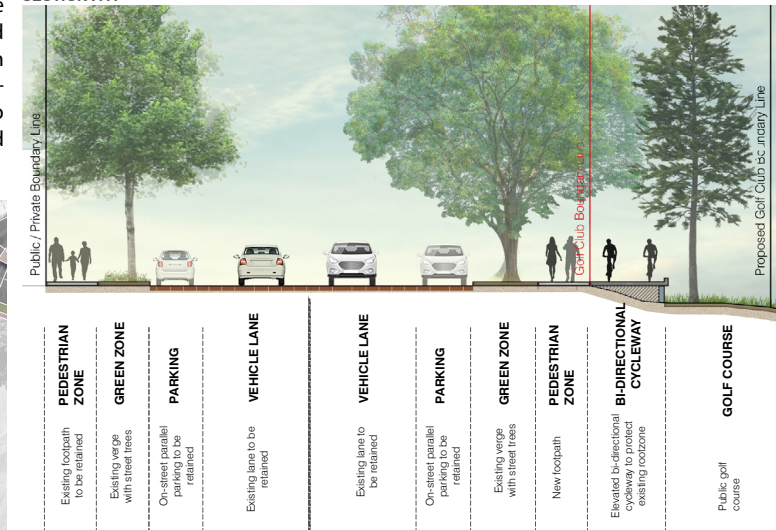


Cycling Priority Project 4: O'Sullivan Road

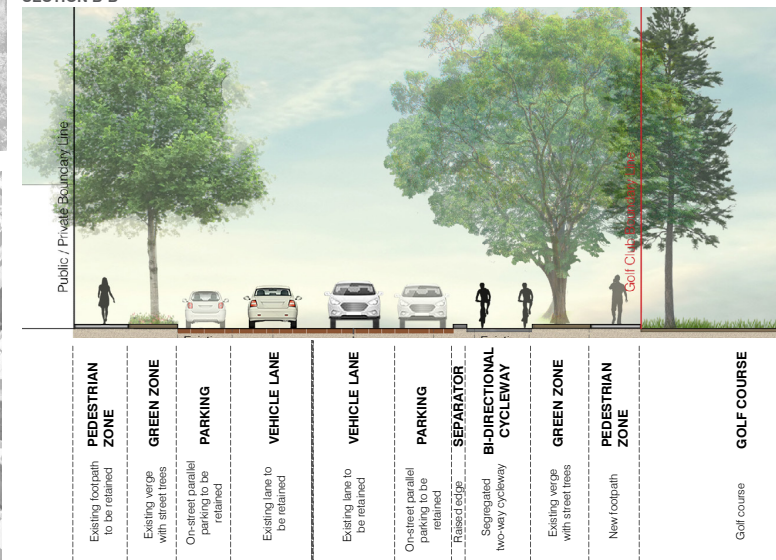
The O'Sullivan Road cycling project has embraced existing movement corridors as part of the cycle network. The scheme has integrated both off-road and on-road bi-directional cycleways, promoting accessibility and movement. The preferred alignment for the northern portion of O'Sullivan Road is to implement an on-road bi-directional cycleway from New South Head road to opposite Powell Road, where it transitions to an off-road cycleway. A secondary option implements an off-road cycleway along the boundary of Woollahra Golf Club, connecting to Lyne Park. From Easts Rugby Club through to the intersection of O'Sullivan Road and Old South Head Road the existing carriageway has been used for an on-road segregated bi-directional cycleway.



SECTION A-A



SECTION B-B



Appendix C: Council project pipeline

Walking and cycling projects already in Council's pipeline

Alongside the Active Transport Plan, we have been proceeding with several other projects which will enhance Woollahra's centres, improve accessibility, and prioritise safety. The following projects are under development.

Draft Edgecliff Commercial Centre Public Domain Plan

The project looks to enhance the character of New South Head Road as a green corridor and provide better connections to green spaces. Through new public domain installations such as street art and a new plaza, Edgecliff will cater for the needs of the residents and growth in commercial premises.

Draft Edgecliff Commercial Centre Planning and Urban Design Strategy

The Strategy establishes a vision for the Edgecliff Commercial Centre (ECC) and provides

recommendations on planning controls, urban design, public domain, and transport to guide future development in the ECC.

Rose Bay Place Plan

The Plan is a guiding document that establishes a shared future vision for the enhancement and improvement of places and spaces in Rose Bay.

We will use the Place Plan to inform the design, delivery and implementation of projects, improvements and services that best respond to the local needs of Rose Bay businesses, residents, and visitors.

Paddington Public Domain Strategies & Technical Manual

This project will establish a public domain strategy and technical standards for the design and placement of individual elements in the public

domain of the Paddington Heritage Conservation Area. This will be based upon the principles and guidelines previously detailed in the Paddington Heritage Conservation Area Development Control Plan 2008 and the Paddington Townscape Study of 1997, and will be prepared in consultation with a project steering group.

Bay Street Pedestrian Upgrades

The Bay Street Pedestrian upgrades is a transport link that creates a safe, direct, and accessible path between Double Bay Ferry Wharf and the Double Bay commercial centre. Along with the Double Bay Ferry Wharf upgrades undertaken by TfNSW, this project will create a leafy and attractive space that enhances the character of the area.

Reduce speeds limits in Rose Bay centre & Queen Street, Woollahra

Reducing vehicle speeds is a key approach we are taking to improving walkability and safety in Rose Bay Centre & Queen Street, Woollahra. Introducing 40km/h High Pedestrian Activity Areas will balance the need for vehicle movement while recognising the importance of pedestrians in these areas.

O'Sullivan Road Cycleway Project

A new bi-directional on-road cycleway along the eastern side of the O'Sullivan Road will provide people who want to ride with a safe, attractive, and direct link between Rose Bay and Bondi Beach. This project also improves pedestrian safety by implementing new crossing facilities which will reduce vehicle speed and collisions between all road users.

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Appendix D: Indicative project costs

Walking priority project

Cost (\$)

WPP 01 - Rose Bay Centre 40km/h High Pedestrian Activity Area	2,900,000
WPP 02 - Queen Street 40km/h High Pedestrian Activity Area	9,600,000
WPP 03 - Paddington 40km/h High Pedestrian Activity Area and 10km/h Shared Zone	3,100,000
WPP 04 -Watsons Bay 40km/h High Pedestrian Activity Area and 10km/h Shared Zone	3,400,000
WPP 05 - Schools Zone Design Improvements	3,800,000
Total	22,800,000

Cycling priority project

Cost (\$)

CPP 01a - Rushcutters Bay to Edgecliff Station Interchange	2,900,000
CPP 01b - Edgecliff Station Interchange to Double Bay	5,000,000
CPP 02 - Edgecliff Road (Edgecliff to Queen Street)	1,200,000
CPP 03 - Birriga Road	2,600,000
CPP 04 - O'Sullivan Road	3,600,000
Total	15,300,000

Note: These are high-level cost estimations as of late 2021 and should be regarded as indicative only. Project costs may change at detailed design phase

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