



Walking and Cycling Plan 2022-27

THE CITY of

Unley

VERSION 1

Contents

Introduction	1
Strategic alignment	2
Benefits of walking and cycling.....	6
Walking network	8
Cycling network.....	9
How many people walk and cycle?	11
Walking and cycling achievements 2016-2021	14
Walking and cycling directions	17
Walking and cycling priority actions	24
Appendix - Priority infrastructure projects.....	39



Prepared by the City Design Team for the City of Unley

DOCUMENT HISTORY AND STATUS

REVISION	DATE	AUTHOR	REVIEW	DETAILS
V1	22/06/2022	T Bacic	B Willsmore	Draft for Council Report

Kaurna Acknowledgment

We acknowledge the City of Unley is part of the traditional lands of the Kaurna people and we respect their spiritual relationship with their country.

We acknowledge the Kaurna people as the traditional custodians of the Adelaide region and that their cultural and heritage beliefs are still as important to the living Kaurna people today.

Introduction

City of Unley's vision for walking and cycling:

“More people of all ages and abilities bike riding and walking for transport and recreation purposes”

In the City of Unley, 4.5% of residents ride a bike to work and 4.4% of residents walk to work (based on 2016 Census). Our uptake of active travel already exceeds that of Greater Adelaide (1.1% and 2.2% respectively) and is the highest of all metropolitan councils in Adelaide.

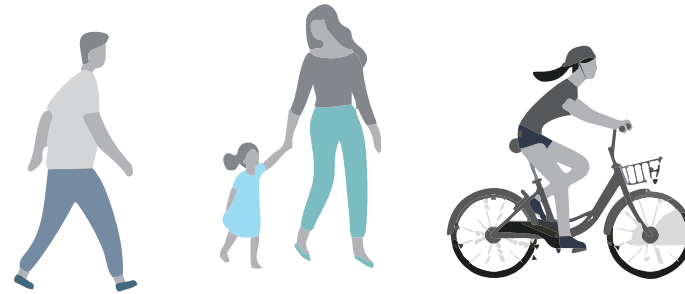
However, this is still well below the percentage of more bicycle friendly cities such as City of Yarra (which is directly adjacent the Melbourne City, similar to Unley) with 8.6% of residents riding a bike to work and 12.4% of residents walking to work. We need to continue making improvements to walking and cycling infrastructure to support the adoption of sustainable transport.

The Unley Integrated Transport Strategy also sets ambitious targets:

- ▶ **to double the amount of active transport journeys to work by Unley residents (target of 7.4% cycling and 9.4% walking), and**
- ▶ **to record the highest number (percentage of population) of sustainable transport journeys undertaken by our local community, when compared to the rest of metropolitan Adelaide.**

The 2021 Census will be used to assess our progress towards this target.

A study undertaken in 2017 found that the most effective action that an individual can take to reduce greenhouse gas emissions within its cities is to live



car free. A more recent European study showed that by choosing to walk or ride a bike over a car just once a day would reduce an average citizen's carbon emissions from transport by 67%¹. This demonstrates that even if not all car trips can be substituted by walking or bike riding, the potential for decreasing emissions is still very high.

In Australia, transport related emissions were responsible for more than 17.6 per cent of Australia's greenhouse gas emissions in 2020, representing the third largest source of emissions². As greater focus is placed on limiting the impacts on climate change, supporting residents to make the daily choice to walk or ride, in particular for short trips within the City of Unley, will become an increasingly important factor towards achieving net zero emission.

This Walking and Cycling Plan 2022-2027 provides a review on the progress made over the last five years, and consolidates lessons learnt based on community feedback received and emerging best practice guidance.

It promotes a more robust planning, design and delivery approach to new infrastructure, as well as highlighting the important role behaviour change activities can play to engage our local community over the next five years.

The Plan identifies and prioritises key initiatives that Council will focus on in the next five-year period. It builds upon an already established network of on-road bicycle routes and off-road shared paths in the Unley area, making existing routes safer, more efficient, more legible, and better connected.

The Plan also links with, and complements, the City of Unley's Community Plan 2033 and Four Year Delivery Plan 2021-2025, advancing the strategic key objectives for our community to be active, healthy and feel safe, and our City to be connected and accessible.

¹ The climate change mitigation effects of daily active travel in cities' (Brand, Dons, Bolg & Avila-Palencia), April 2021

² National Greenhouse Gas Inventory Quarterly Update: December 2020

Strategic Alignment

The Walking and Cycling Plan 2022-2027 responds to a range of current strategic directions across a suite of Council strategies and plans.

The following is a summary of key strategic Council documents that promote and advocate for walking and cycling.

City of Unley Community Plan 2033



The Community Plan is the Council's leading strategic document and identifies priorities for the City to 2033. The Plan is underpinned by a shared vision for the City, which is 'recognised for its enviable lifestyle, environment, business strength and civic leadership.' The Community Plan provides the vision, strategies, and framework for the future of the City of Unley.

Two objectives in the Plan's Community Living theme that relate to walking and cycling (1.1 and 1.5) are:

Our community is active, healthy and feels safe

Our City is connected and accessible

City of Unley Four Year Delivery Plan 2021-2025



The Four Year Delivery Plan outlines how Council will deliver the vision, strategies and framework set-out in the City of Unley Community Plan 2033.

To achieve the key objective (1.5) 'our city is connected and accessible' it identifies as a key initiative/project:

The continued implementation of the Walking and Cycling Plan.

Unley Integrated Transport Strategy



Unley's Integrated Transport Strategy aims for a transport system that is safe, accessible, sustainable, and effective. A key focus area is 'Active Transport' with the following two targets:

Double the amount of active transport journeys to work by Unley residents (target of 9.4% walking and 7.4% cycling).

Record the highest number (percentage of population) of sustainable transport journeys undertaken by our local community, when compared to the rest of metropolitan Adelaide.

City of Unley Walking and Cycling Plan 2016-2021



The Walking and Cycling Plan 2016–2020 was the City of Unley’s strategy for walking and cycling infrastructure and programs to make the City safer and more attractive for current and future users.

This Walking and Cycling Plan Update 2022-2027 is an update to this plan, and builds on the work undertaken over the last 5 years.

The Living City - Open Space Strategy



The Living City Open Space Strategy is an aspirational document that aims to maintain and enhance the quality of the City’s open space network, recognising the changing needs of a growing residential and worker population, and changing climate.

The Strategy considers the role that local streets, public spaces and shared spaces can play in the expansion of the open space network, and can add to the quality of life of our residents. The Strategy seeks to respond to Council’s forecast demands, including:

High proportion of residents are active with a projected need for walking, bike tracks, BMX and skate facilities, fitness-based activities, and spaces for dog exercise.

Economic Development Growth Strategy 2021-2025

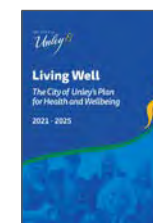


The Economic Development Growth Strategy 2021–25 sets out a whole-of-city approach to economic growth to influence a vibrant and successful local economy that reflects the quality of life, environmental principles and values of the community.

A key focus for the strategy is a holistic approach to increase the population and number of jobs within the City and to support sustainable business growth. One of the key objectives of the strategy is:

Objective 5 - Connected and activated precincts.

Living Well, The City of Unley’s Plan for Health and Wellbeing 2021-2025



Living Well is a key Council document that guides Council’s work to maintain and improve the health and wellbeing of our community.

The Plan has four key focus areas:

1. An engaged and purposeful community
2. A healthy and active community inside and out
3. A safe community
4. An inclusive and connected community.

A key objective for focus area ‘2’ is: **encourage the use of walking and cycling as regular modes of transport in the City of Unley.**

Disability Access and Inclusion Plan 2022-2026



The Disability Access and Inclusion Plan 2022–26 has been developed to ensure improved access and inclusion for citizens of all ages who are living with disability. The City of Unley will lead the way in creating a community that is accessible and inclusive for all who live, work, and visit the City of Unley.

Theme 3 'Accessible Communities' aims to increase accessibility to public and community infrastructure, transport, services, information, sport and recreation and the greater community.

All new Council streetscape infrastructure is designed using Universal Design Principles.

Transport Asset Management Plan



The Transport Asset Management Plan covers the transport assets serving Council's transportation needs by providing an effective transport network to support safe and efficient movement, and connect people and places.

Aligning new walking and cycling projects with asset renewal will deliver better value for money and lead to higher quality design outcomes.

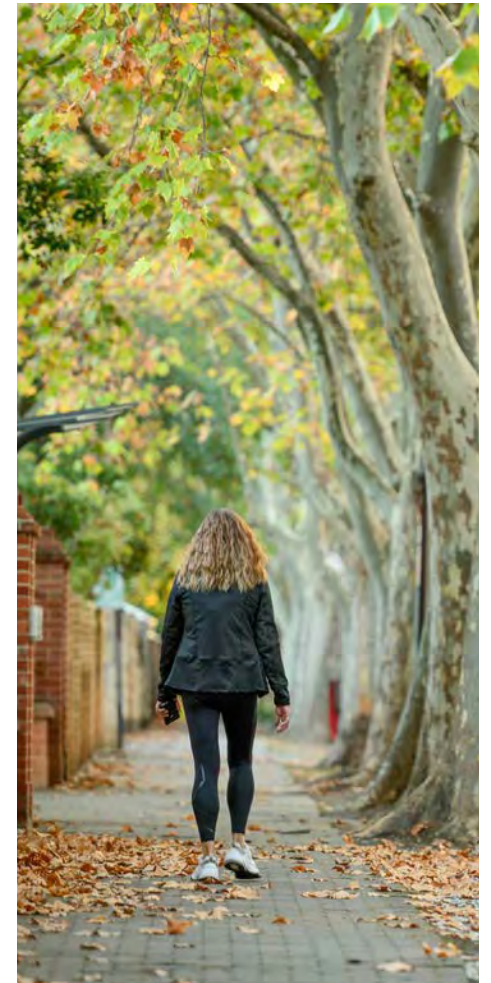
Active Ageing Strategy



The Active Ageing Strategy guides Council's approach in all of its activities to promote active ageing by becoming an Age-friendly City and to meet the changing needs of our population throughout their lifetime.

Focus Area 2 'Transportation' has a goal:

'Our residents are able to easily move about the city to participate in the community and have access to services'.




RUGBY PORTER
BIKEWAY

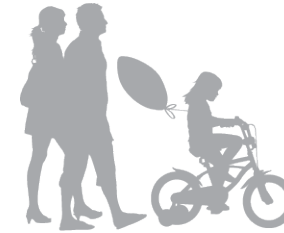
↑ Unley
Central
300m 1 min

← Unley Oval

Bicycle Route
Upgrade



Benefits of Walking and Cycling



Walking and cycling have extensive benefits to individuals, communities and places where we live. ³



Health and wellbeing

- ▶ Offer active and healthier lifestyle through incidental exercise
- ▶ Tackle chronic disease and obesity
- ▶ Improve mental wellbeing
- ▶ Improve our mood and happiness.

Placemaking

- ▶ Increase street vibrancy and sense of place
- ▶ Strengthen street identity by creating opportunities for social exchange
- ▶ Promote street art and culture.



Social equity

- ▶ Provide free (or almost free in the case of cycling) way of moving
- ▶ Accessible and inclusive means of movement
- ▶ Offer independence to all, from young to old
- ▶ Provide opportunities for public life (meeting, sharing, communicating)
- ▶ Build stronger communities.

Safety and security

- ▶ Increase passive surveillance i.e. more eyes on the street
- ▶ Improve street safety by encouraging slower speeds.



Economy

- ▶ Stimulate local economy
- ▶ Lead to higher number of visitations to local businesses
- ▶ Spend disposal income on the local economy from health and transport savings
- ▶ Stimulate higher levels of productivity and creative inspiration
- ▶ Strengthen resilience in cities.

Successful places

- ▶ Attract investment and reinvestment
- ▶ Promote tourism
- ▶ Attract talent and creative individuals.

³Based on 'Cities Alive: Towards a walking world', ARUP, 2016



Urban regeneration

- ▶ Increase business, land, and property values
- ▶ Decrease vacancy rates for shops, and promote active street frontages
- ▶ Increase local economic activity by actively engaging with the street.

Cost savings

- ▶ Reduce transport congestion
- ▶ Reduce road construction costs
- ▶ Reduce asset maintenance costs
- ▶ Reduce healthcare costs
- ▶ Reduce vehicle running costs
- ▶ Reduce the need for multiple vehicle ownership.

Virtuous cycles

- ▶ Decrease dependency on non-renewable resources
- ▶ Create more sustainable communities
- ▶ Promote an endless feedback loop of health, economy and environment benefits.

Environment

- ▶ Improve air quality with less pollution
- ▶ Reduce noise pollution
- ▶ Reduce the need for paved surfaces, leading to improved microclimate
- ▶ Encourage investment in landscaping, leading to ecology and biodiversity outcomes.

Transport efficiency

- ▶ Use land more efficiently (less space needed to walk or cycle than to drive)
- ▶ Create opportunities for better use of road space due to higher transport efficiency and lesser need for car parking
- ▶ Decrease car ownership
- ▶ Require less infrastructure, barriers, signals, line markings, etc.

Liveability

- ▶ Give rise to better public spaces
- ▶ Encourage recreational activities
- ▶ Encourage greater aesthetics of streets and neighbourhoods.

Leadership

- ▶ Encourage civic pride
- ▶ Encourage civic responsibility and pride in local neighbourhoods
- ▶ Create opportunities for engagement and decision-making.

Sustainability

- ▶ Promote sustainable behaviour
- ▶ Reduce global emissions
- ▶ Become less carbon dependent
- ▶ Provide reliable and independent forms of transport.

Walking Network



Footpaths and street crossings are essential infrastructure to enable people to walk from one destination to another.

Unley's historic street network is well established to support efficient and enjoyable walking activities.

Council manages more than 307 kilometres of footpaths of all types. Council regularly assesses footpath conditions to ensure they are meeting an appropriate level of service and Disability Discrimination Act (DDA) requirements.

The ongoing delivery of footpath improvements is critical to enhancing the safety and amenity of walking in Unley and creating a pedestrian-orientated environment that caters for people of all ages and abilities.

The walking network comprises of all the footpaths, kerb ramps and shared use paths in the Unley area. Designated pedestrian and/or shared crossing points have also been implemented across Unley to improve safety and connectivity, with a key focus on improving the walking network in mixed use retail and business

precincts, main streets, open space and community facilities, parks and around schools.

The types of pedestrian and shared crossings that have been applied in the Unley area include:

- ▶ Signalised Pedestrian Actuated Crossings (PAC) - where traffic is controlled by traffic signals and a pedestrian presses a button and waits for the green walk symbol before crossing
- ▶ Pedestrian protuberances and refuges
- ▶ Zebra crossing (at grade priority pedestrian crossing)
- ▶ Wombat crossing (raised priority pedestrian crossing with two alternating flashing yellow signals)
- ▶ Rail crossings (mazes)
- ▶ Children's crossings located within 25km/h school zones, including
 - ▶ Emu crossing - red and whites posts with orange 'children crossing' flags displayed and crosswalk lines, monitored at peak times
 - ▶ Koala crossing - red and white posts with two alternating flashing yellow signals and crosswalk lines.

Council is also committed to improving the walking experience through the continued introduction of street trees, creating shade, cooling and protection on inclement and extreme heat days.

As the Council's existing street infrastructure and street trees age, their replacement will consider opportunities to reposition new infrastructure or new trees, to improve accessibility along footpaths and remove of 'pinch points' as part of the Council's ongoing renewal programs.



Cycling Network



The City of Unley's bicycle network is shown on the map on the following page. The bicycle network is divided into several route types including:

- ▶ **Designated bikeways** that provide regional connections to neighbouring Councils, as well as local connections within Unley. These bikeway routes are typically designed to a higher design standard and comprise either separated bicycle facilities (for example shared use paths), or are along local streets with traffic calming measures to create a safe mixed traffic environment.
- ▶ **Neighbourhood bicycle routes** that provide connections across Unley to key destinations and precincts including designated bikeway routes. These bicycle routes are typically located on local streets with local area traffic calming measures to create a safe mixed traffic environment.

- ▶ **Secondary on-road bicycle routes** that are located on Unley's Major Collector Traffic Routes and provide a more direct alternative route for more confident bike riders. These bicycle routes typically comprise on-road bicycle lanes, with buffers where space permits.
- ▶ **Main on-road bicycle routes** that are located on the Department for Infrastructure and Transport arterial roads. These bicycle routes are typically used only by confident bike riders and often comprise part time 'commuter peak' on-road bicycle lanes, meaning that the bicycle lane is only available during the AM and PM peak hours, and at times only in the direction of the commuter peak.

The key designated bicycle routes in the Unley area are listed below. The planning and delivery of these routes have been prioritised over the last 5 to 10 years and form the backbone of Unley's bicycle network.

- ▶ **Mike Turtur Bikeway**
- ▶ **Marino Rocks Greenway**
- ▶ **Glen Osmond Trail (Charles Walk / Windsor Street)**
- ▶ **Rugby-Porter Bikeway**
- ▶ **Wood-Weller Bikeway**
- ▶ **Wilberforce Walk**
- ▶ **Greenhill Road Bikeway (proposed)**

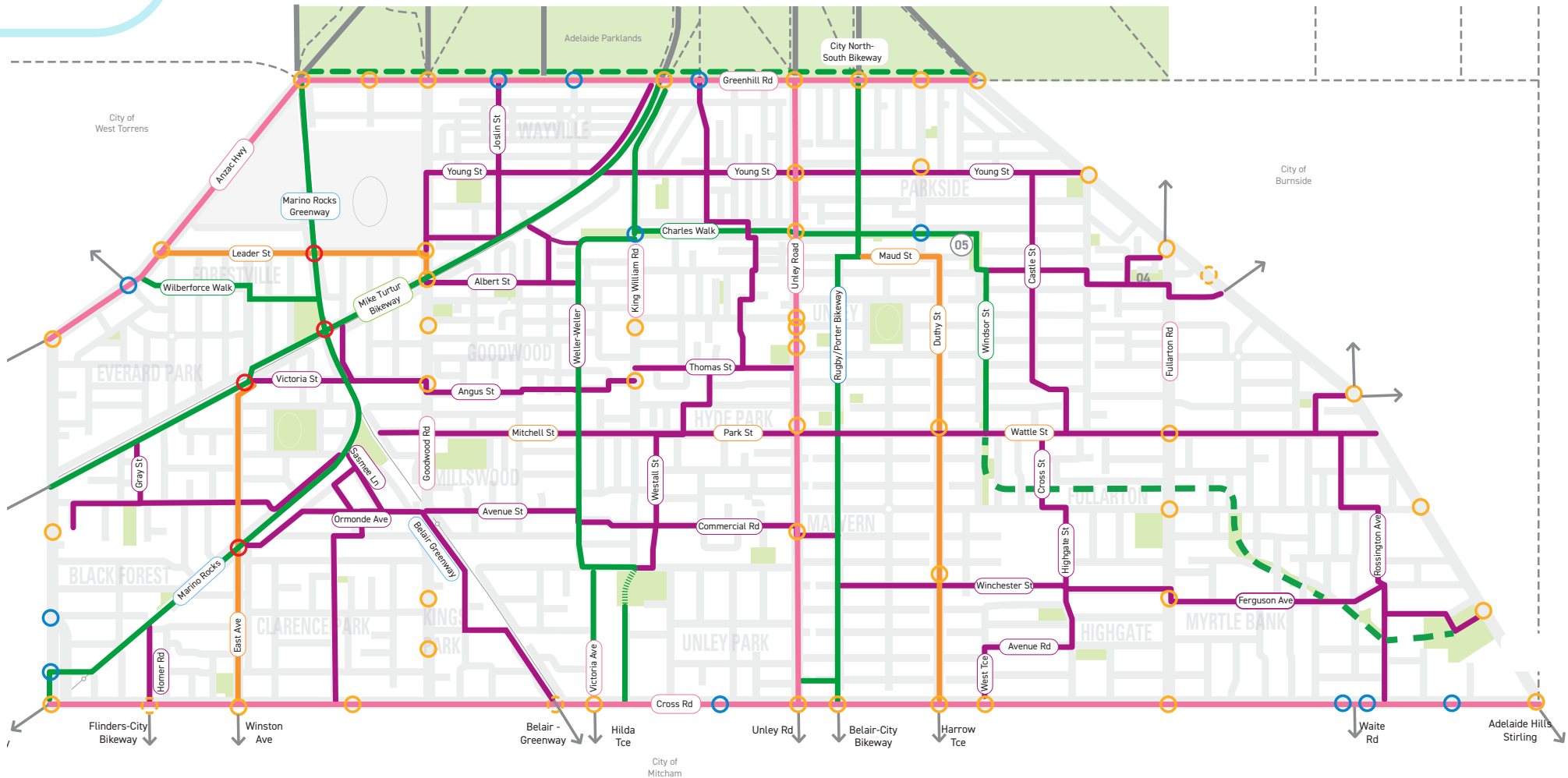
The overall walking and cycling network plan from 2016 has been updated to reflect the following strategic changes:

- ▶ **South Road:** removal of South Road main on-road bicycle route due to the lack of existing or planned future facilities.
- ▶ **Churchill Avenue:** extension of Churchill Avenue neighbourhood bicycle route linking to Marino Rocks Bikeway.
- ▶ **Forest Avenue:** addition of the Forest Avenue neighbourhood bicycle route linking to East Avenue secondary on-

road bicycle route, Marino Rocks and Mike Turtur bikeways, Black Forest Primary School, and the proposed new pedestrian and bicycle overpass on South Road forming part the South Road Torrens to Darlington project.

- ▶ **Homer Road:** change of street from Gordon Road to Homer Road to improve the connection with City of Mitcham's proposed Flinders-City Bikeway.
- ▶ **Wood-Weller Bikeway:** reclassification from low traffic bikeway to designated bikeway linking between City of Mitcham and the City of Adelaide. This reclassification supports the removal of King William Road between Simpson Parade and Northgate Street as a main on-road bicycle route.
- ▶ **Young Street:** reclassification and extension of Young Street from local cycling link to neighbourhood bicycle route extending between Glen Osmond Road and Mike Turtur Bikeway.
- ▶ **Wattle/Park/Mitchell Street:** reclassification and extension of Wattle, Park and Mitchell streets from higher traffic cycle corridor to neighbourhood bicycle route and extension up to Marino Rocks Bikeway.

Unley Walking and Cycling Network



Legend

- Designated bikeways
- Neighbourhood bicycle routes
- Main on-road bicycle routes
- Secondary on-road bicycle routes
- Median refuge
- Rail crossing
- Pedestrian crossing
- * Dashed lines means proposed bicycle routes



How many people walk and cycle?



Super Tuesday Bike Counts

Pedestrian and cyclist count data is an essential tool to justify projects and related budget needs.

In order to make evidence based decisions about where to strategically improve walking and bicycle infrastructure, data about how people get around by foot and bike, as well as data on barriers to walking and bike riding is needed.

Council's main source of pedestrian and cyclist count data is the Super Tuesday count, which is undertaken each 4 to 5 year period, with additional project specific counts undertaken throughout the year.

Council aims to improve its approach to data collection by considering opportunities to standardise the method for conducting counts, use of smart technology, and the implementation of permanent counters.

The Super Tuesday bike count is Australia's biggest visual bike count and originated in Melbourne in 2007.

The count takes place from 7am to 9am on the first Tuesday in March where volunteers count people bike riding at particular locations.

Nationally, the survey provides reliable, annual figures on bicycle commuters and their movements during morning peak-hours, how many riders there are, and which routes they use.

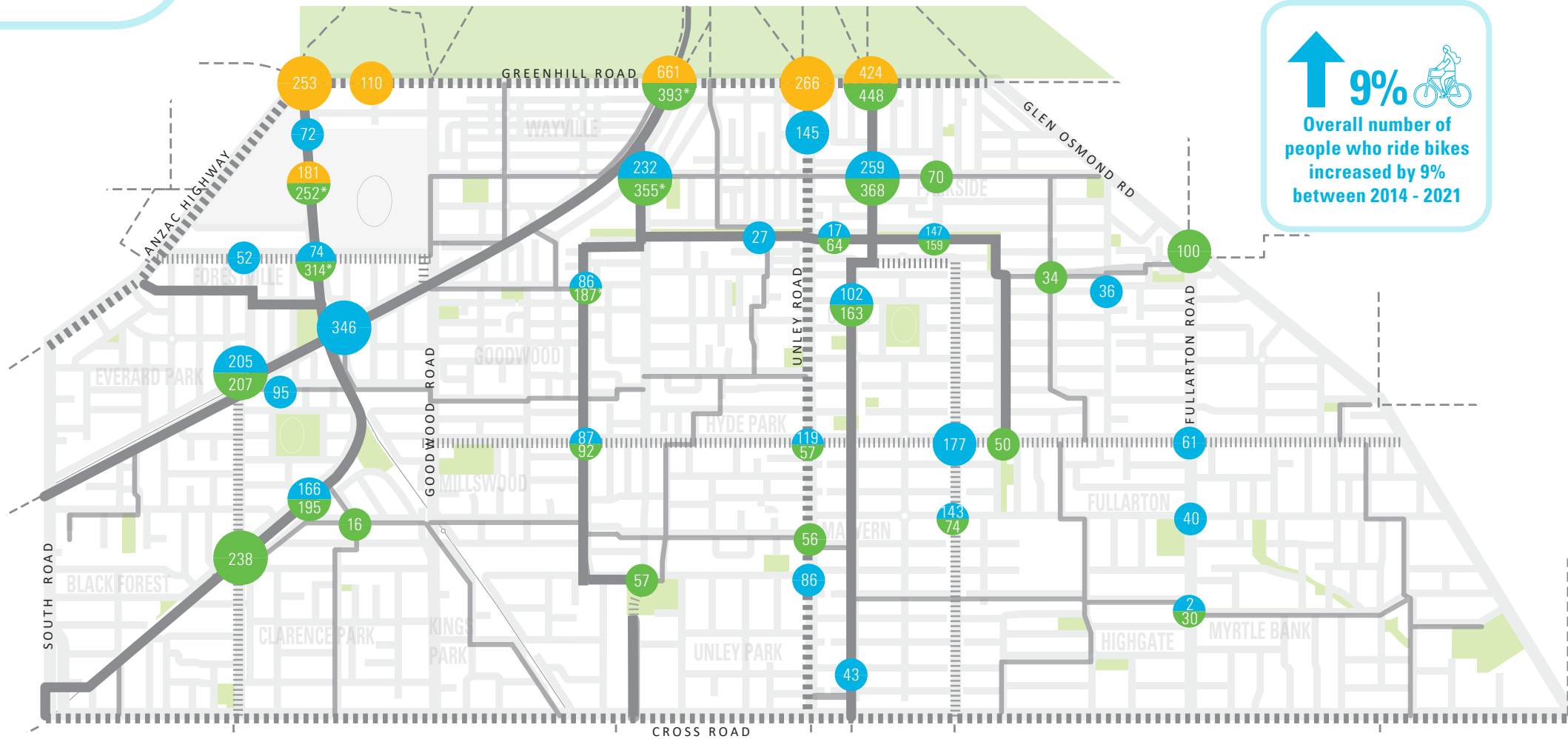
The Super Tuesday bike count helps track long-term patterns and identifies tangible results from network improvements. The count was undertaken in the Unley area in 2014 and was recounted in 2021. The results of the count are shown on the map on the following page.

Key observations from the count include:

- There has been a 9% increase in bike riders from 2014 to 2021 (based on total number of bike riders per site, as well as a direct comparison of individual sites from 2014 and 2021).
- Increases have been experienced on routes that have not been upgraded, suggesting that bike riding in general has increased, and that routes that have been upgraded have experienced larger increases.

- Sites along Rugby-Porter Bikeway increased by 40-60%, which coincided with a decrease of about 50% on both Unley Road and Duthy Street. This suggests that more confident riders will choose a safer bike route if efficiency of the route is improved.
- The volumes at the King William Road/ Greenhill Road intersection have decreased significantly, but this is a result of the improved crossing of Greenhill Road at the Marino Rocks Greenway, and at the time of count, the Mike Turtur Bikeway being closed between Musgrave Street and King William Road due to upgrade works.

Cycling Count Data 2014, 2015 and 2021



Legend

- 2014 Super Tuesday data 7-9am
- 2015 City of Adelaide data 7-9am
- 2021 Super Tuesday data 7-9am

* Affected by Mike Turtur Bikeway closure - bike riders detoured through these sites



ABS Census Data

The Australian Bureau of Statistics (ABS) Census collects data on mode choice for journeys to work. The last census was published in 2016. A census survey was undertaken in August 2021, however the results will not be published until late 2022.

The Unley Integrated Transport Strategy sets an ambitious target to double the amount of active transport journeys to work by Unley residents (target of 7.4% cycling and 9.4% walking).

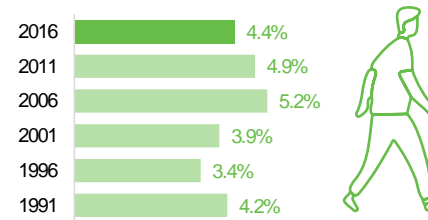
The 2021 Census will be used to assess our progress towards this target. This target should be achievable, if Council continues to deliver safe and connected walking and cycling facilities both within Council and to its neighbouring Councils, particularly noting that based on 2016 census data, of the 18,441 working residents, 22% worked in the Unley area and 35% worked in Adelaide (i.e. within 5km area).

On the day of the last published 2016 census, 805 people (or 4.4%) walked to work (as a single mode of transport) in the Council area. A slightly higher number of people, 841 people (or 4.5%), rode a bike to work (as a single mode of transport), with 34% comprising of females, which is reflective of Unley's continued investment in safe streets and improved bicycle facilities/ connections, as well as its proximity to the City of Adelaide.

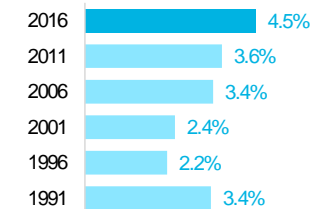
The proportions of people bike riding (4.5%) and walking (4.4%) to work in the City of Unley in 2016 were both higher than the Greater Adelaide averages of 1.1% and 2.2% respectively. The City of Unley has the highest bike riding journey to work mode share of all Adelaide Metropolitan Councils including the City of Adelaide, which is 3.7%. The City of Norwood, Payneham and St Peters (5.1%) and the City of Adelaide (26.9%) both have higher proportions of people walking to work than the City of Unley.

³Data source: ABS statistics 2021

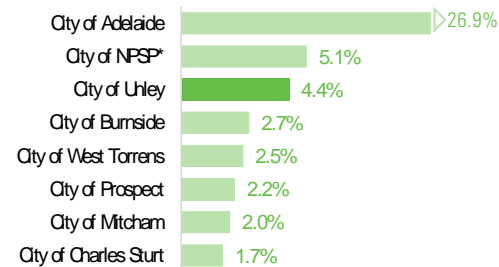
Annual trend for proportion of people who walked to work in the City of Unley



Annual trend for proportion of people who cycled to work in the City of Unley

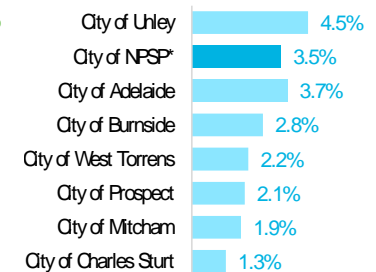


Proportions of people who walked to work in 2016 in Inner Rim Councils



*City of NSPS = City of Norwood, Payneham and St Peters

Proportions of people who cycled to work in 2016 in Inner Rim Councils



Walking and Cycling Achievements 2016 - 2021

The Walking and Cycling Plan 2016-2021 contained a 5-year Action Plan that proposed a range of infrastructure and advocacy/education walking and cycling projects.

The Action Plan proposed projects based on a delivery timescale of 1-5 years (2016-2021) and 5+ years.

Starting from the 2015/2016 financial year, Council has committed on average about \$200K each year to deliver these projects, and where possible have aligned projects with asset renewal projects.

Council also successfully bid for funds from the State Government programs including:

- ▶ **State Bicycle Fund** - generally to be used for implementation of bicycle infrastructure, bike parking and promotion and education of bicycle routes.
- ▶ **Greenway Fund** - generally to be used for delivery and/or improvement of Greenways.
- ▶ **Way2Go Fund** - a partnership program promoting safer, greener and more active travel for primary school students and their communities.

The combined funding from Council and State Government has facilitated the delivery of 19 projects (as shown on the map overleaf) between 2016 and 2021.

Approximately 50% of year 1-5 projects in the Action Plan have been completed with a further 10% in progress.

Some Year 5+ projects have been completed or commenced (such as the Mike Turtur Bikeway). The balance of projects yet to be completed inform this Walking and Cycling Plan 2022 -2027.

Project highlights include:

- ▶ Approximately 6.5km of bikeways established or improved (including Mike Turtur Bikeway and Marino Rocks Greenway).
- ▶ Ongoing transformation of Rugby-Porter Bikeway with upgrade of seven intersections that changed 'give way' priority to bike riders and other traffic moving along this north-south route.
- ▶ Construction of slow points along Wood/Weller Street to facilitate safer facilities for bike riders.
- ▶ Nine new pedestrian crossings / refuges built with a focus on sites adjacent primary schools or other highly used crossing points.

- ▶ City-wide implementation of wayfinding signs and sharrows to establish a low-traffic bicycle route network across the council.
- ▶ Preparation of bicycle route maps to promote community knowledge of city-wide cycling opportunities.

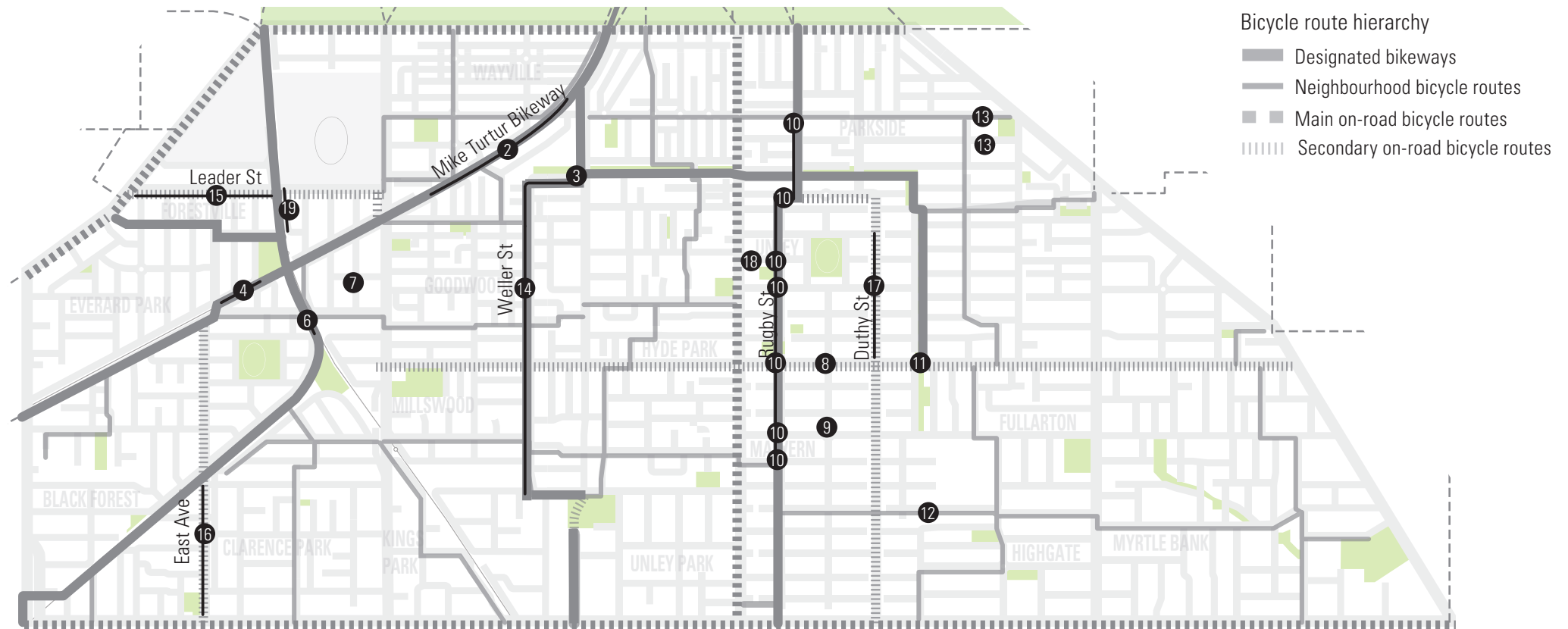
During this period, Council also partnered with the Department for Infrastructure and Transport on seven Way2Go school programs with local schools (the most recent including Highgate, Glen Osmond and St Thomas primary schools).

Work has been aimed at promoting safer, greener, and more active travel for primary school students and their communities.

Council has also purchased four electric bikes for its staff to undertake site visits, and over the last two years has clocked up over 2,500km in trips, that previously would have been by car.



Completed projects 2016-2021



Projects completed between 2016 and 2021 listed on the map

1	Wayfinding signs and sharrows to establish low-traffic bicycle routes (city-wide)	10	Rugby-Porter Stage 1 and 2 - Upgrade of seven intersections
2	Mike Turtur Bikeway - Bike path upgrade to 3-4m width and lighting improvements (section Musgrave to King William)	11	Wattle St / Windsor St - Refuge Crossing
3	King William / Simpson Pde/ Glen Osmond Creek Path - Refuge to facilitate safe cyclist and pedestrian crossings of King William Road	12	Concordia College Emu Crossing
4	Norman Terrace shared street	13	Parkside Primary School Koala Crossings
5	Prepare map of bikeways network (hard copy and on-line)	14	Wood/Weller Street - Slow points with bicycle bypass (Simpson Pde to occur 2022)
6	Arundel Ave / Railway - Improve pedestrian access	15	Leader Street bike lanes
7	Goodwood Primary Emu Crossing	16	East Avenue - Upgrade to buffered bicycle lanes
8	Wattle St / Cambridge St - Modify roundabout to radial design	17	Dutty Street - Upgrade to buffered bicycle lanes
9	Fisher St / Cambridge St - Modify roundabout to radial design	18	Oxford Terrace - Pedestrian crossing point
		19	Richards Terrace shared street



ON
M

ROB'S

Macheta
the Mexican Hair Spa

Macheta
Cafe Restaurant

Gastronomy
BREAD, BEER & CHEESE



P

WALKWAY

WALKWAY

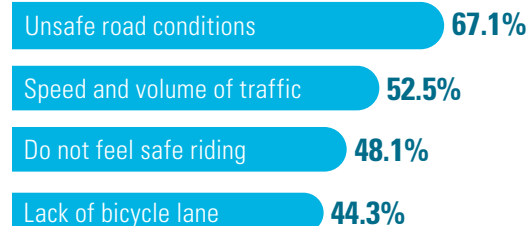
Walking and Cycling Directions

Over the last 5 years Council staff have continuously improved its approach to the planning, design and delivery of walking and bicycle infrastructure, and based on these learnings have identified a number of new directions that will form part of the Walking and Cycling Plan 2022-27.

These five key directions include:

- ▶ Designing for the target users
- ▶ Applying best practice design principles
- ▶ Enhancing neighbourhood character
- ▶ Staged project approach
- ▶ Reviewing projects on completion.

Reasons people who do ride, don't more often

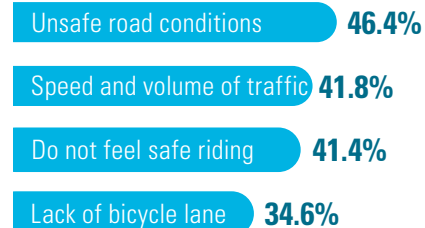


Designing for the target users

There is a generally an adopted set of four categories of bike rider or potential bike rider within an average community profile.

These were originally based on a report by the Portland Office of Transportation (USA) which categorised types of bike riders based on their perception of bike riding for transport (as opposed to recreation). These proportions vary from country to country, and to a lesser extent city to city.

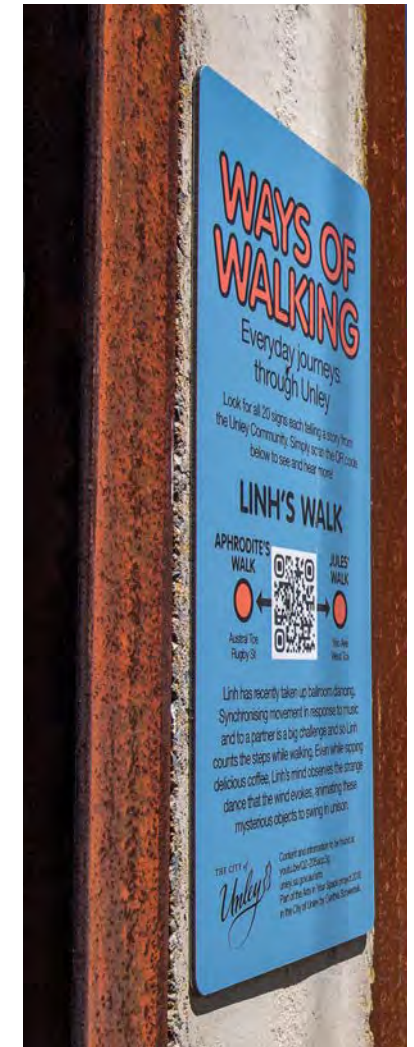
Reasons people do not ride



However, it represents a useful continuum to consider when planning for bicycle infrastructure to ensure that we focus on meeting the needs of the 60% 'Interested but concerned' bike riders, where there is the most potential for growth.

A cycling perception survey undertaken by We Ride Australia (2011) indicated that unsafe road conditions, speed / volume and driver behaviour are key factors as to why 60% of people surveyed do not ride more often for transport.

Engaging with the 60% 'Interested but concerned' bike riders, and creating safe street environments and improving driver behaviours will be the primary focus for the planning and delivery of new bicycle infrastructure to better enable a significant proportion of our community to ride more often.





Strong and Fearless (<1% of riders)

Confident in traffic on all types of streets

Improving bicycle facilities at intersections (signalised and unsignalised) and road surface.

- ▶ Unley Road
- ▶ Greenhill Road

Enthusied and Confident (7% of riders)

Confident riders, recreational and sometimes to work, shops etc.

Preference for more separated bicycle facilities and comfortable riding in on-road bike lanes.

- ▶ Duthy Street
- ▶ East Avenue

Interested but concerned (60% of riders)

Weekend riders to the Park Lands, but generally do not feel safe riding in traffic or on-road bike lanes.

Preference for off-street or separated bicycle facilities or quiet traffic calmed residential streets.

- ▶ Rugby/ Porter Street
- ▶ Mike Turtur Bikeway

No way, no how (33% of drivers)

Would not consider riding a bike under any circumstances.

Unlikely to use any bicycle facilities and prefer no bikes on the road to improve vehicular movement.

Traffic speeds and volumes are very important factors in deciding the appropriate design approach for implementing bicycle infrastructure, especially for the 60% of people who are 'Interested, but concerned'. The grid tool on this page, first established by the Walking and Cycling Plan 2016-2021, will continue to be applied in the delivery of new bicycle infrastructure.

This tool is also aligned with the Safe System approach that recommends that people bike riding should be separated from traffic when a street carries more than 3,000 vehicles per day with a speed more than 30 km/h. Although the tool does indicate less than 40 km/h for mixed traffic environments, 30km/h will be our targeted design speed.

Designing for a 30 km/h mixed traffic environment will improve the liveability of streets, improve the streets amenity and more importantly will significantly improve safety for all street users. Research shows that a fatal injury to a pedestrian or bike rider is at least five times as likely at 50km/h and twice as likely to occur at 40 km/h than at 30 km/h⁴.

Facts about the risk of death if pedestrians hit by a car

Based on World Health Organisation 'Speed Management Manual'

at 30 km/h 1 in 10 will die



at 40 km/h 4 in 10 will die



at 50 km/h 8 in 10 will die



at 60 km/h 10 in 10 will die



Guide for establishing suitability of cycling infrastructure based on traffic speed and volume

Cyclist facility	Traffic volume (vehicles per day)			85th percentile traffic speed		
	<3,000	3,000-5,000	>5,000	<40 km/h	50-50 km/h	>50 km/h
Mixed traffic	✓			✓		
Consider separation		✓			✓	
Separation			✓			✓

⁴ Safe-Street Neighbourhoods: the role of lower speed limits - 2019 Update WA & NSW (Dick van der Dool, Paul Tranter, Adrian Boss)

Applying Best Practice Design Principles

The CROW Design Manual for Bicycle Traffic, which has incrementally been developed since the 1970s in the Netherlands, sets out a series of bike friendly design principles: cohesion, directness, safety, comfort and amenity.

These principles will be used when designing our walking and bicycle network and are important if we are to capture our target 'Interested but concerned' bike rider category and get more people walking for recreation and transport.

Cohesion



- ▶ Connecting origins and destinations, bike riding from anywhere to everywhere.
- ▶ A cohesive network linking together bicycle routes that are easy and safe to navigate.
- ▶ A bicycle route may entail a separated bike path, a shared use path, a quiet street and somewhere to park your bike at the end of your journey.

Directness



- ▶ Creating short and fast routes, minimising detours and effort.
- ▶ Directness for a bike rider means less detours and reducing distance and time.

Safety



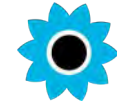
- ▶ Provide safe bicycle infrastructure that avoids differences in speeds and obstacles, and where possible segregate different movement types.
- ▶ Ensure passive visibility both day and night with adequate lighting and clear of blind spots.
- ▶ Safe road crossings at intersections and directional signage.

Comfort



- ▶ Provides a pleasant bike riding experience with minimal stops or nuisances and caters for people of all abilities.
- ▶ Provides smooth surfaces to reduce vibrations, reducing traffic and exposure to pollutants/noise.

Attractiveness



- ▶ Aesthetics of the street are green, open, well maintained and provides a quality built environment.
- ▶ Good amenity for bike riders includes elements such as landscaping, street trees, lighting, areas for rest, water fountains and street art to make the route interesting.

Enhancing neighbourhood character

Across a range of projects, the Council has found greater community support for local change when the investment isn't limited to hard infrastructure, but include elements which add to the character and amenity of local streets. Recent projects such as Norman Terrace and Richards Terrace Living Streets, Young Street driveway links, Rugby-Porter Bikeway intersection upgrades and Wood-Weller Bikeway slow points have all made positive impacts to create a greener local street, in conjunction with improved local road conditions for people walking, bike riding and driving.

The integration of design features, and where appropriate, the opportunity for the community to influence the final design outcome, help to elevate infrastructure projects that target a reduction in vehicle speed or volume, into more appealing streetscape projects that shape the local neighbourhood.

Design features could include:

- ▶ New tree planting and garden beds
- ▶ Temporary or permanent street art
- ▶ Change in road widths and kerb profile
- ▶ Improved lighting and wayfinding signage
- ▶ Additional street furniture.



Applying a staged project approach

The City of Unley over the last five years has had success delivering walking and cycling projects, such as the Rugby-Porter and Wood-Weller bikeways, when delivered in multiple stages and allowing for adequate time to consult with the community, develop a design and construct.

This staged approach (summarised in the diagram to the right) can extend a project over three to four years from start to finish, but it does assist in achieving better design and community outcomes by spreading expenditure over multiple financial years, improving residents' and/or business acceptance of a project after seeing the outcome of earlier stages, lessons learnt from prior stages can be applied and allows multiple priority projects to be implemented concurrently.

Concept design

- ▶ Pedestrian and bike rider data collection (before)
- ▶ Streetscape conditions assessment (before)
- ▶ Overall corridor master plan
- ▶ Concept design options and assessment (staged)
- ▶ Elected Member endorsement of preferred concept design option(s) for consultation

Consultation

- ▶ Community and key stakeholder consultation
- ▶ Analysis of consultation feedback
- ▶ Elected Member endorsement of preferred concept design option for detailed design
- ▶ 'Close the loop' with Community and key stakeholders

Detailed design

- ▶ 100% detailed design and documentation
- ▶ Prepare traffic impact assessment
- ▶ Prepare cost opinion
- ▶ Align staging with asset management plan renewal program of streetscape elements
- ▶ Prepare budget bid for Elected Member endorsement for construction

Construction

- ▶ Undertake tender to deliver works
- ▶ Community notification of works
- ▶ Construction of works

Project review

- ▶ Pedestrian and bike rider data collection (after)
- ▶ Undertake review of project after minimum 6 months post completion

Reviewing projects on completion

On completion of a project, it is considered important that a review is undertaken. Best practice suggests that a review should not take place until at least 6 to 12 months post project completion to provide adequate time for people to adjust to the new environment.

The aim of the review is to ensure that the project meets the design intent, and to establish a strong evidence base of what works and what doesn't work.

The project review outcomes will also improve residents' and/or businesses' acceptance of a project, and assist the delivery of projects that are staged, by using the evidence base for the consultation and delivery of future project stages and applying lessons learnt/improvements to the design.

Case study: Wood-Weller Bikeway improvements

Background

The Wood-Weller Bikeway (the route) is a key north-south bicycle route with links to the City of Mitcham to the south, Charles Walk/Glen Osmond Trail to the east and the Mike Turtur Bikeway to the north. The route sits between Goodwood Road and King William Road.

The route has been progressively improved since 2016 commencing with Wood Street and most recently with Weller Street in 2020. This case study reviews the improvements made to Weller Street.

Need for improvement

The Council wants to encourage a greater bicycle mode share. Progressive improvement can be achieved with delivery of connected and safe routes where, for example, less confident bike riders and families with young children would feel safer and more comfortable to ride.

Weller Street is a mixed traffic environment with pre-project traffic volumes and speeds that did not meet desired safety goals for the route including traffic speeds up to 47 km/h

and traffic volumes up to 2,300 vehicles per day.

Design

The new design incorporated an upgrade to the Mitchell Street intersection and connection to Wood Street, plus new traffic calming interventions along Weller Street, with the installation of seven single lane slow points set approximately 100 metres apart and new line marking and signage. Each slow point has a bypass for people bike riding.

Community consultation was undertaken with significant feedback received, including a petition opposed to the project. Potential for benefit compared to impact on local residents, on street parking loss (24 spaces) and traffic congestion were key concerns for the community.

Council, despite the mixed local community views, continued with the project as they identified the importance of the bicycle link in the context of Unley's bicycle network, and the need to provide a safer and low stress alternative to King William Road.

Review outcomes

Upgrade works were completed in 2020 and a post-construction review undertaken in 2021. Key review outcomes were:

- ▶ A 22% reduction in traffic speed to below 40km/h and 31% reduction in traffic volumes to below 1,500 vehicles per day (the general threshold points for a safe bicycle route).
- ▶ On street car parking occupancy between 20%-27%, despite the loss of 24 spaces.
- ▶ An average of more than 200 bike riders daily with up to 93% using the bicycle bypasses at the slow points.
- ▶ Observed good behaviour of drivers at slow points giving way to one another.
- ▶ Technical learnings were obtained on the siting of slow points, signage, landscaping and maintenance.

Due to the success of this project, Council will continue with the delivery of the Wood-Weller Bikeway, with the next section on Weller Street (north of Albert Street) and Simpson Parade planned to be delivered in 2022.

Walking and Cycling Priority Actions

To achieve the vision of more people bike riding and walking for transport and recreation purposes for people of all ages and abilities, and to maintain the Council's momentum for change, over the next five years Council will be focusing on three key priority areas:

A. Infrastructure

B. Promotion and education

C. Data collection, monitoring and evaluation

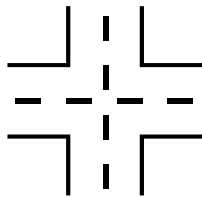
Funding will be sought each financial year through the Annual Business Plan to deliver on these priority areas and associated actions.

Where possible, projects will be aligned with asset renewal to achieve greater funding efficiencies and better design outcomes.

In addition, external funding sources will be pursued with the State and Federal Governments, as appropriate, to assist in offsetting costs to Council.



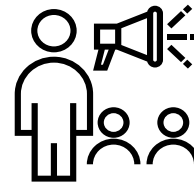
Infrastructure



- A1. Improve and extend the walking and bicycle network
- A2. Improve walking and bicycle facilities
- A3. Improve walking and bicycle infrastructure around schools and support active travel to schools
- A4. Improve walking and bicycle connections to neighbouring councils
- A5. Establish high quality street design standards



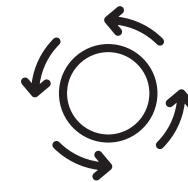
Promotion and Education



- B1. Promote and encourage walking and bike riding
- B2. Develop educational material to support walking and bike riding so that it becomes a daily activity
- B3. Improve navigation of Unley's walking and bicycle network
- B4. Support new emerging micro-mobility technologies



Data Collection, Monitoring and Evaluation



- C1. Invest in data collection
- C2. Invest in project reviews, monitoring, and continuous improvement

A Infrastructure

A1. Improve and extend the walking and bicycle network

Over the last five years the following, primarily north-south bicycle routes, have been improved:

- ▶ Rugby-Porter Bikeway
- ▶ Wood-Weller Bikeway
- ▶ East Avenue (buffered bicycle lanes)
- ▶ Duthy Street (buffered bicycle lanes)
- ▶ Mike Turtur Bikeway between Musgrave Street and King William Road.

These strategic bicycle routes make it safer and easier for people moving through the City of Unley and beyond, and are popular for commuters and recreational bike riders.

The next five-year priority projects will focus on:

- ▶ Delivery of east-west bicycle routes to help achieve a connected city-wide network.

- ▶ Improving connections to existing bicycle routes that have received recent investment.
- ▶ Improving connections and quality of environment to planned bicycle and arterial road intersection upgrade projects led by the Department for Infrastructure and Transport (DIT) and neighbouring councils.

Pedestrian improvements will be included for each project to create safe, accessible and comfortable environments. Improvements to be considered (but not limited to) are:

- ▶ Ease of pedestrian accessibility (universal access for all).
- ▶ Install safe pedestrian priority crossings at key locations and create good public transport connections.
- ▶ Install public seating, drinking fountains, and consistent wayfinding signage.
- ▶ Increase shade tree planting and landscaping (including WSUD opportunities).
- ▶ Identify opportunities for public art.

Improvements will also aim to remove obstacles and pinch points along footpaths, and widen footpaths where possible. This may include reclaiming underutilised street space, as well as alternate placement of street trees.

To support this action Council will advance the following priority infrastructure projects over the next five years (and as shown on the map overleaf):

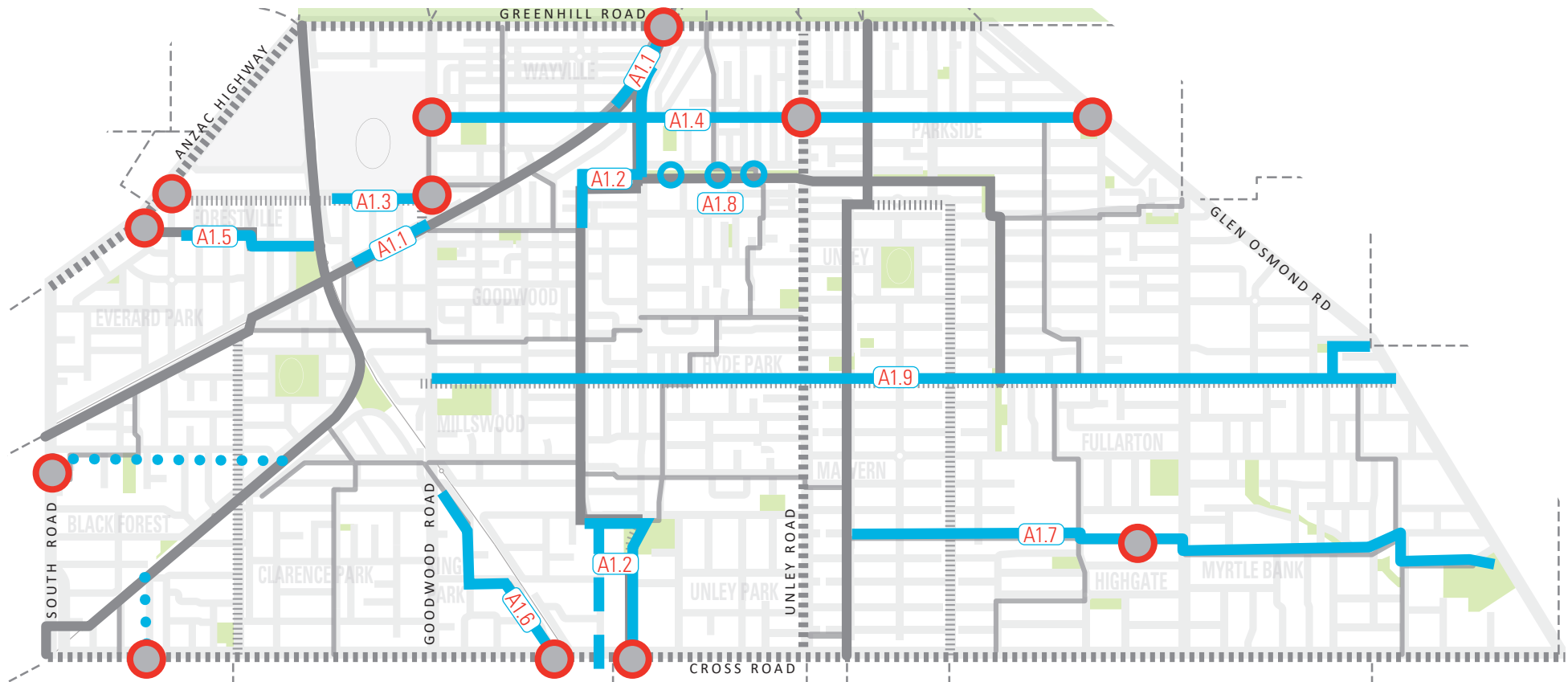
- A1.1 Mike Turtur Bikeway (King William Road and Railway Terrace South)
- A1.2 Wood-Weller Bikeway
- A1.3 Leader Street Secondary On-Road Bicycle Route
- A1.4 Young Street Neighbourhood Bicycle Route
- A1.5 Wilberforce Walk
- A1.6 Jellicoe - Ningana Avenue Neighbourhood Bicycle Route
- A1.7 Unley to Myrtle Bank Neighbourhood Bicycle Route
- A1.8 Charles Walk intersection improvements

A1.9 Wattle - Park - Mitchell Street Neighbourhood Bicycle Route

A more detailed description for these projects is included in the **Appendix**.



Priority walking and cycling projects for 2022-2027



Priority walking and bicycle route upgrade projects

- A1.1 Mike Turtur Bikeway (King William Road, Railway Terrace South)
 - A1.2 Wood-Weller Bikeway (Weller Street-Simpson Parade, King William Road, Wood Street to Cross Road connection)
 - A1.3 Leader Street Secondary On-Road Bicycle Route
 - A1.4 Young Street Neighbourhood Bicycle Route
 - A1.5 Wilberforce Walk Stage 2 and Stage 3
 - A1.6 Jellicoe Ave - Ningana Ave Neighbourhood Bicycle Route
 - A1.7 Unley to Myrtle Bank Neighbourhood Bicycle Route
 - A1.8 Charles Walk Intersection Improvements
 - A1.9 Wattle-Park-Mitchell Street neighbourhood Bicycle Route
- Identified priority arterial road crossing points and inter-regional connections for pedestrian and bicycle improvements
● ● ● ● Possible additional priority projects subject to state government partnership funding opportunities

A2.Improve walking and bicycle facilities

Improving the walking and bicycle network is a key element in increasing mode share, however, it is important to provide suitable facilities to aid comfort and enjoyment for people to help change their travel behaviour. Emerging practice in recent years has seen a greater need to provide mid-journey and end-of-trip facilities including bicycle parking, bicycle repair stations, bicycle pumps, seating/rest areas, and drinking fountains.

To support this action Council will:

A2.1 Develop and implement an annual bicycle parking program to better support key hubs, community facilities, and businesses

Design considerations for bicycle parking comprise:

- Connect to existing and proposed bicycle routes.
- Positioned in areas of high visibility for security and awareness.
- Avoid steep ramps, kerbs, conflict points with vehicle and pedestrians.

- Enough space for movement of bicycles.
- High quality materials, standardised forms and easy installation.
- Reduced footpath clutter.

Council will undertake a review of all of its community facilities, tram and train stops, and open spaces (as depicted in the 2015 City of Unley: Open Space Strategy) to review current provision, quality and condition, and to assess improvements to existing bicycle parks and the need for new bicycle parking facilities.

The Unley Bicycle User Group (Unley BUG) and business precinct groups will be consulted for their views on parking provision and design.

A trial will be considered in higher volume pedestrian areas (such as retail/entertainment/business precincts and/or main streets) with narrow footpaths to replace on-street car parking space(s) with bicycle parking. This was successful in several locations in the City of Adelaide (Pirie Street and Hyde Street) and in the City of Holdfast Bay (Colley Street). It will provide an effective demonstration to local businesses and the local community, like the Parklet Program, previously hosted on King William Road.

A2.2 Develop and implement an annual program for the installation of public seats/rest areas and water fountains

As part of the annual asset renewal/capital works program, a review of existing public seats and water fountains will be undertaken. Opportunities to relocate or provide new public seating and drinking fountains along key walking and bicycle routes will be identified as part of this program, as well as through new projects. A focus for new public seats/rest areas and drinking fountains will be for the priority infrastructure projects A1.1 – A1.9.

Opportunities to partner with SA Water's Bring Your Own Bottle (BYOB) Smart Drinking Water Fountain program will also be identified, to provide bottle refill stations.

