

# Pedestrian Access and Mobility Plan

City of Campbelltown

August 2014



**CAMPBELLTOWN**  
CITY COUNCIL



**a better approach**

# **Pedestrian Access and Mobility Plan**

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**Final**

**City of Campbelltown**

August 2014

Ref No. 20131344

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# Introduction

Walking is the most fundamental form of human transport. Every journey made by car, bike, motorcycle or public transport involves walking at some point in the trip.

But walking is not just a means of transport and is not always associated with getting to or from somewhere. It can be the very reason for the journey itself – to simply go for a walk.

***‘Walking is the first thing an infant wants to do and the last thing an old person wants to give up. Walking is convenient, it needs no special equipment, is self-regulating and inherently safe. Walking is as natural as breathing’. (John Butcher, Founder Walk21).***

Yet despite the fundamental necessity of walking as part of the overall transport jigsaw it is often overlooked by planners, designers and regulators alike.

At the international level, walking is increasingly being recognised as a barometer for and driver of the health of a community.

The City of Campbelltown (Council) has signed the **Walk21 International Charter for Walking** that provides a strategic framework to help create a culture where people choose to walk, using eight key principles:



1	Increased inclusive mobility
2	Well designed and managed spaces and places for people
3	Improved integration of networks
4	Supportive land use and spatial planning
5	Reduced road danger
6	Less crime and fear of crime
7	More supportive authorities
8	A culture of walking

Council seeks to redress this lack of consideration to walking through this **Pedestrian Access and Mobility Plan (PAMP)** which focuses on the needs of pedestrians.

The PAMP will provide a local context for the International Charter for Walking, with particular regard to local opportunities, barriers and walking infrastructure.

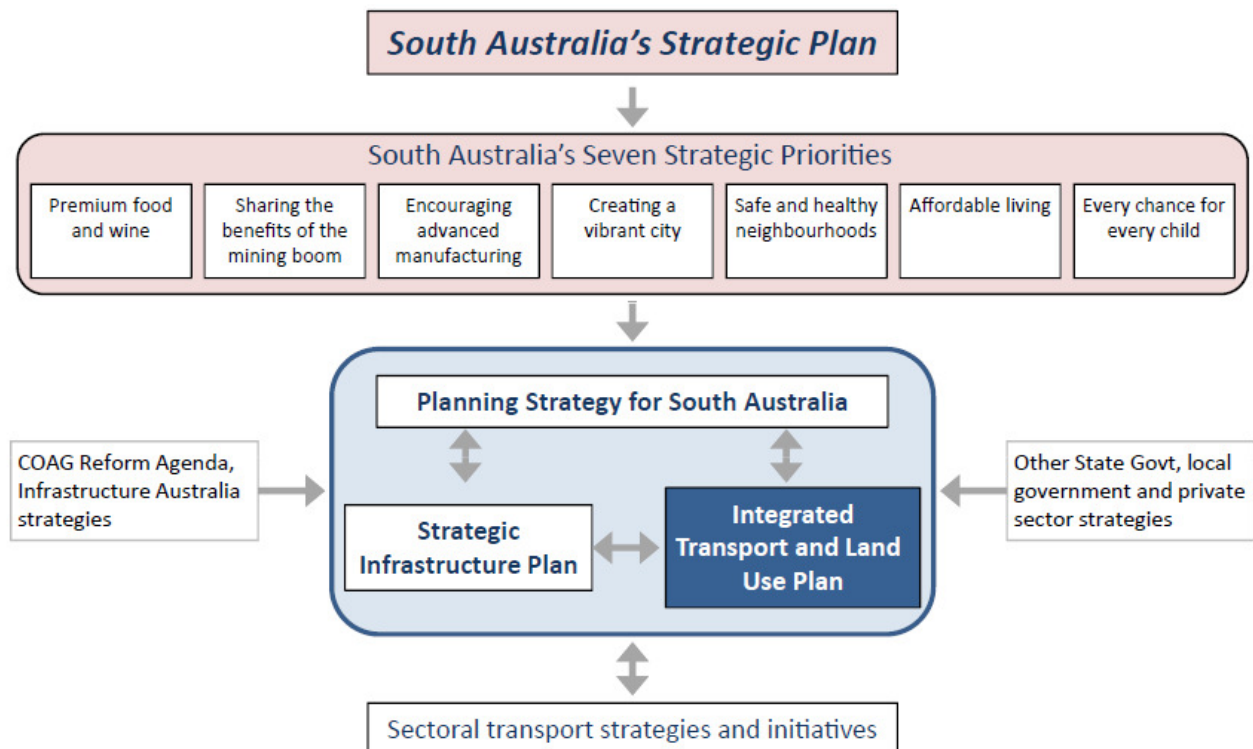
The PAMP is structured as follows:

Setting the scene	<ul style="list-style-type: none"> <li>State Government Context</li> <li>Local Government Context</li> <li>Observations and Opportunities</li> </ul>
PAMP – Walking 21 Charter	<ul style="list-style-type: none"> <li>Strategies</li> <li>Actions</li> </ul>
Walking Infrastructure Plan	<ul style="list-style-type: none"> <li>Functional hierarchy</li> <li>The walking network</li> <li>Performance standards</li> </ul>
Way finding signage	<ul style="list-style-type: none"> <li>Overview</li> <li>Types of signs</li> <li>Siting of signs</li> </ul>

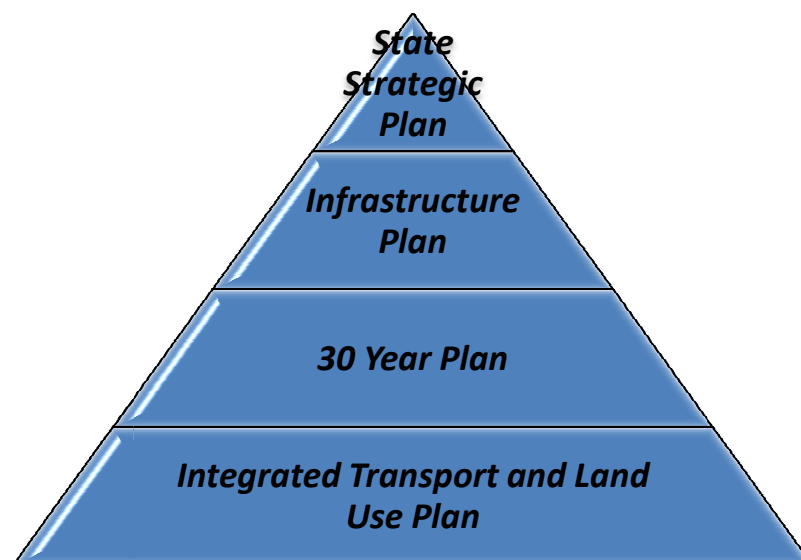
# Setting the Scene

## State Government Context

The overarching context for policy and strategy in South Australia is *South Australia's Strategic Plan*, adopted 2004 and updated 2011. This established six priority areas: community, environment, education, prosperity, health and ideas (innovation). These have now been translated into seven strategic priorities to focus and drive the efforts of the State government as shown below.



**Figure 1** State Strategic Plan and Associated Strategies



**Figure 2** Hierarchy of State Strategies

The SASP led to the development of the Strategic Infrastructure Plan for SA 2004/5 - 2014/15, which has guided development in the state since its release in 2005.

This was followed by the Planning Strategy for South Australia, which comprises the 30-Year Plan for Greater Adelaide ("30-Year Plan", released in 2010) and plans for regional South Australia. For locations within Greater Adelaide, the 30-Year Plan is functionally the equivalent of the Planning Strategy for South Australia.

The 30-Year Plan has a vision of creating a more compact city in the future, in order to fulfil three overlapping objectives: liveability, competitiveness, and sustainability and climate change resilience.

The *30-Year Plan* defined inner, middle and outer suburbs, with the City of Campbelltown a middle suburb as shown below.



**Figure 3** 30 Year Plan – Middle Adelaide



The State government has now turned its attention to inner Adelaide, recognising that more and more people now want to live in or near the central city.

The (draft) *Integrated Transport and Land Use Plan (ITLUP)*, released in 2013, has as its core aims to enhance Greater Adelaide's liveability, create a more vibrant city and support growth in the city's successful industries.

ITLUP aims to support these aims by continuing with strategic investments into public transport that will boost the central city as a lively, creative, dynamic and safe district that appeals to residents and businesses.

ITLUP envisages:

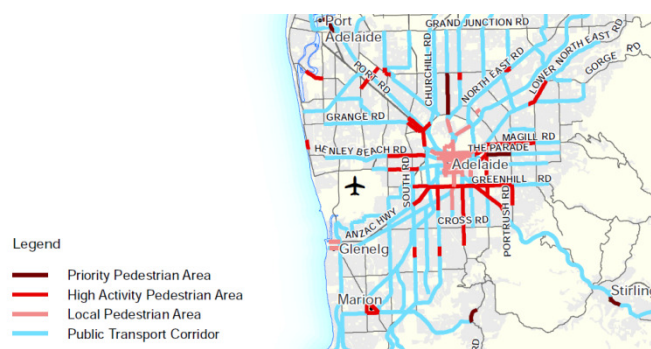
- improving cycling and walking connections to public transport stations and stops and expanding the catchment of these stations for walking and cycling
- designing and developing local street networks that are conducive to cycling and walking and that offer direct, safe and attractive routes to public transport services
- investing in better facilities for walkers and cyclists at public transport stations, such as secure bike parking, lockers, bike sharing opportunities, signage and wayfinding
- introducing initiatives to expand walking and cycling catchments around key destinations such as shopping and service centres, main streets and schools, to increase the vibrancy and liveability of these places
- effectively planning, design and implementation processes to ensure value for money and timely delivery of projects.

In support of the ITLUP, the state government has also released *A Functional Hierarchy for South Australia's Land Transport Network*.

This identifies which of the state's transport corridors are important for different transport modes (freight, public transport, etc). By recognising the different roles of corridors, the hierarchy is intended to shape the development and use of land along each corridor and flag what kind of land use policy is needed to support the function of the corridor.

While there are few Pedestrian Access areas outside the City centre, the functional road hierarchy specifies that any arterial road that provides for public transport should facilitate safe

and regularly spaced crossings for pedestrians. Hence combining public transport corridors with designated pedestrian access areas gives overall pedestrian access priority in the functional hierarchy as shown below.



**Figure 4 Functional Hierarchy**

It is hoped that commitment to the ITLUP will assist addressing the current mismatch between much of the State Government's strategic transport planning and its operational activities. For example:

- The State Government's draft road management plan for Penfolds Road, St Bernard's Road, Newton Road and Darley Road has some acknowledgement of the needs of non-motorised modes. However, in the assessment of proposed works, improvements to traffic flow are clearly the highest priority.
- Calls to reduce the speed limit on Magill Road<sup>1</sup> in order to improve pedestrian safety have been rejected on the basis that for reasons of consistency, arterial road speed limits should be maintained at 60km/h.
- A call for an additional pedestrian actuated crossing on Magill Road<sup>2</sup> (an arterial road with four lanes, no median and a Go-Zone bus route) was rejected because of its impact on traffic flow. This is on a stretch of Magill Road that has no pedestrian signals or refuges for over 1km.

<sup>1</sup> See [www.adelaidecyclists.com/forum/topics/eastern-councils-push-for](http://www.adelaidecyclists.com/forum/topics/eastern-councils-push-for)

<sup>2</sup> As reported in [www.stevenmarshall.com.au/Portals/0/PDF/norwood-newsletters/Norwood\\_News\\_Spring\\_2011\\_-\\_lowres.pdf](http://www.stevenmarshall.com.au/Portals/0/PDF/norwood-newsletters/Norwood_News_Spring_2011_-_lowres.pdf)



## Local government context

As a local government area, the key drivers for Council in preparing and implementing a PAMP are at the local and community level.

Walking has been identified by Council in having relevance to a wide range of its local government responsibilities:

Infrastructure development and maintenance	<ul style="list-style-type: none"> <li>• Programming and prioritising footpaths/ shared use paths</li> <li>• Type, location and maintenance of ancillary infrastructure (e.g. dog bowls, seating, trees)</li> <li>• Legislated requirements regarding access for people with disabilities (Disability Discrimination Act, Disability Standards for Accessible Public Transport)</li> <li>• Alignment of capital works policies with residents' needs and expectations (e.g. policy for developing new footpaths)</li> </ul>
Community health and safety	<ul style="list-style-type: none"> <li>• Healthy communities and programs supporting this (e.g. TravelSmart SA, Way2Go, OPAL (Obesity Prevention and Lifestyle))</li> <li>• Inclusive mobility (e.g. dignity of access for people with disabilities, ageing in place, support for parents and carers)</li> <li>• Independent mobility for youths (e.g. connection between the Paradise skate park and O-Bahn stop)</li> <li>• Mental health</li> </ul>
Urban planning	<ul style="list-style-type: none"> <li>• Master planning of major sites (e.g. Magill Campus, Paradise Interchange)</li> <li>• Streetscape upgrades (e.g. Jan Street)</li> <li>• Recreational facilities and access to these (e.g. trails, libraries, sports centres, Open Space Strategy)</li> <li>• Design requirements for new developments (e.g. shopping centres, Transit Oriented Development)</li> </ul>
Economic vitality	<ul style="list-style-type: none"> <li>• Access for tourism assets (e.g. connection of parking, toilets and facilities; way finding signage)</li> <li>• Access at major events (e.g. trip hazards, connection of parking to event locations)</li> <li>• Development of new tourism opportunities (e.g. Food Trail, long distance walking/ cycling based on the River Torrens Linear Path)</li> <li>• Development of commercial precincts (e.g. Jan Street)</li> <li>• Cost of providing car parking on developers, shoppers, residents and commercial operators</li> <li>• Impacts of congestion</li> </ul>
Transport planning	<ul style="list-style-type: none"> <li>• Alignment between state government road management plans and local government needs</li> <li>• Transport plans to match the state government's new Integrated Transport Land Use Plan (discussed below)</li> <li>• Improving road safety (e.g. risk to pedestrians at major roundabouts)</li> <li>• Walking as part of the public transport system (e.g. location of crossing points)</li> <li>• Related transport policies and instruments (e.g. A-frames by-law)</li> <li>• Supporting a range of transport options (e.g. children's travel to school).</li> </ul>

This PAMP will assist Council to adopt a coordinated response to addressing these responsibilities and in using its budgets to the best effect.

## Consultation

Council undertook broad consultation into pedestrian issues and the potential development of this PAMP in January 2014. The following extract summarises the key outcomes of the consultation:

- Linear Park and parts of Montacute Road were most frequently mentioned as examples of where there are good pedestrian facilities.
- Montacute Road was also one of three locations most frequently mentioned as having poor pedestrian footpaths (though far fewer in number than those who considered it had good pedestrian facilities), with the other two locations most commonly named as having poor footpaths being Darley Road and Gorge Road.
- Key issues with pedestrian access and mobility along existing footpaths included obstructions (plantings, building rubble), poorly maintained uneven paving and other trip hazards, and the slope of the footpath and/or crossovers.
- Many locations were identified where there are missing paths, with most relating to streets with no footpath or on only one side of the street; or footpaths required to connect existing pathways such as along the three Creek trails and from these to Linear Park.
- Key routes were considered to be those going to shopping centres, schools or public park/reserves, as well as those around bus stops and parking nodes, along main roads and along the three Creek walking trails through to Linear park.
- “Wayfinding” and directional signage along key routes, particularly nature walking trails such as along the three Creek walking trails, showing connections to other paths, toilets, nearby food outlets and key places was considered a good idea.

In July 2014 Council consulted with the community a second time seeking feedback on the draft PAMP. Feedback was considered in finalising the PAMP.

## Observations

### Challenges

The City of Campbelltown exhibits a general uniformity in its urban form that is characteristic of mid to late twentieth century transport/ land use planning. Broadly, the approach was based on the premise that cars were the best and preferred mode for daily travel.

What does this mean for walking?

- Traffic management is generally focussed on moving vehicles (particularly on larger roads) with pedestrian features being a secondary consideration. Large multi-lane roundabouts, for example, are relatively common and a good way of managing motor vehicles but are not safe for pedestrians.
- The most established routes for pedestrians are often not the shortest. These routes use the traffic collectors, distributors and arterials roads, and safety and amenity of walking trips suffers as a result.
- Public transport is limited to the major traffic routes, which form the only practical way of servicing residential areas. For bus users, stops for drop off and pick up are opposite each other across these trafficked routes, despite which pedestrian crossing opportunities are constrained by the focus on maintaining traffic flow.
- Footpaths are not provided consistently in all streets. Some have a path on two sides of the street, others only on one side of the street, and some not at all.
  - Verge treatments are informal. Haphazard tree plantings in verges, typically by residents undermine the ability to retrofit footpaths within verges, as now-established trees provide valuable shade and amenity.
  - Footpath widths are set at minimum standards. This is exacerbated where vegetation intrudes into footpath width, stobie poles and street lights are located within the footpath, or on higher-use routes where more people could be expected to be sharing the footpath.

Other trends that might be observed include:

- Reduction in walking and cycling to/from school and after school activities for a variety of social and safety concerns
- Use of residential streets by cars during peak hours
- The number of retirement villages and aged accommodation has increased with the aging population. To address personal security fears, these typically do not have good connection to the surrounding street network.

### River Torrens Linear Path

The River Torrens Linear Path has been constructed of concrete, with a very long lifespan. It is nominally 3m wide, suitable for shared walking/cycle use.

The gradient of the path is not always suited to access for people with disabilities, while the crossfall does not meet pedestrian footpath standards. There will be challenges in increasing the capacity of the River Torrens Linear Path with gradients and crossfalls to meet modern walking requirements.

A large amount of signage has been installed in the form of standard fingerpost signs and specific River Torrens Linear Path 'bollards'.

However, signage is not always located at decision points, and the use of 'standard' signage does not support development of a unique identity for (say) the creek trails. River Torrens Linear Path mapping is intricate and difficult to quickly comprehend.

'No through road' signs are not complemented with 'pedestrians (and bicycles) excepted' where access through road closures is possible.

Signage often assumes familiarity with a system.

- A simplified signage should be adopted for wayfinding along the River Torrens Linear Path, using a schematic format (i.e. similar to public transport maps). Other walking trails, centres, etc should be indicated on the schematic and matched with directional signage.
- A way finding strategy should be investigated with logos used to create trail and destination identities as relevant. This will require consultation with stakeholders in these identities.

- Where the River Torrens Linear Path connects to the street network, street names and a directional arrow should be stencilled in large letters on the path at 30m before the turn-off to that street. Similarly, line-marking should indicate footbridge locations.
- Where other paths have connections to the street network, stencilling of street names should also be used. This could be smaller than for the River Torrens Linear Path.
- The walking distance to facilities should be indicated with the symbol of a walking person and indicated in minutes.
- Consideration could be given to methods of highlighting the presence of bus stops, e.g. painting the bottom of stobie poles either side of the stop, possibly with an arrow pointing to the inward (CBD) direction.

### Crossing of Arterial Roads

Crossing of main roads under the control of DPTI is a major issue in maintaining continuity of routes and providing safe and pleasant places for walking.

Striking a balance between the role of main roads in moving traffic and the safe needs of pedestrians will remain a challenge. However, it is imperative that safe crossings are provided at key locations to maintain continuity of paths.

### Opportunities

There are also a number of positive elements for walking throughout Campbelltown that can be used as a foundation for increasing pedestrian activity:

- The O-Bahn provides a high-frequency bus service more similar to mass transit than a traditional suburban bus system.
- The River Torrens Linear Path provides a pleasant, high-quality route through the City.
- Council has retained ownership of creek lines and has been developing walking routes along these routes (eg Chain of Trails along 3rd 4th and 5th Creeks).

- There is an opportunity to improve the walking experience and incentive to walk by connecting the Linear Path and creek trails to surrounding schools, shops and other facilities.
- Council has been active in upgrading bus stops and kerb ramps to meet accessibility requirements.
- Council has widened most footpaths along arterial roads to full verge width.
- UniSA's Magill Campus is a major educational establishment, attracting student housing as well as study. Students create vitality and economic benefit.
- There is an opportunity to protect the connection between the UniSA Magill Campus and the Magill Village by ensuring pedestrian access is maintained through the Windsor Theatre site.
- Major recreation assets are distributed throughout the Council area.
- Many smaller shopping centres have survived and provide some services to locals.
- While an aging population presents many challenges, elderly populations are living longer, healthier, with more leisure time. This translates to a large potential for older people to access local facilities by foot.
- The State Government ITLUP discussed earlier provides a basis for cultural change away from car ownership and use, increasing traffic congestion and greater realisation of the benefits of walking.
- The success of Campbelltown's Food Trail and its commitment to other local tourism opportunities reflect the maturation of Campbelltown as an area, and the potential for walking to assist in Campbelltown's economic prosperity.



## Collision data

Crash data for the period 2007-2013 is presented in Appendix B.

The majority of collisions involving pedestrians have occurred along the arterial roads, particularly:

- Lower North East Road
- Gorge Road
- Darley Road
- St Bernard's Road
- Magill Road.

Locations that appear to have clusters of 'hit pedestrian' collisions include:

- Darley Road – Lower NE Road to River Torrens
- Montacute Road and Stradbroke Road in vicinity of Newton Shopping Centre
- Magill Road – west of St Bernard's Road (local shops).

The draft Road Management Plan for Penfold Road, St Bernard's Road, Newton Road and Darley Road identified St Bernard's Road at its junction with Moules Road, Arthur Street and Murray Avenue as a notable pedestrian crash location. In the five years to 2011, five collisions had occurred in this location despite the presence of pedestrian actuated signals.

These were not the only pedestrians to be involved in crashes at or near signalised pedestrian crossings (being traffic signals or pedestrian actuated signals). This may indicate a need to review signal operation in regard to pedestrian delay, crossing time and level of service.

# PAMP Strategies and Actions

## Vision

*Council's vision is to create a community culture of walking and increase the amount of walking undertaken throughout the City, by making walking a safe and pleasurable experience for everyone.*

**In March 2014 Council signed the International Walking Charter 21 (refer Appendix A).**

The Charter provides a basis for developing a broad range of strategies and actions to encourage and support walking throughout Campbelltown.

## Increased inclusive mobility

*People in communities have the right to accessible streets, squares, buildings and public transport systems regardless of their age, ability, gender, income level, language, ethnic, cultural or religious background, strengthening the freedom and autonomy of all people, and contributing to social inclusion, solidarity and democracy.*

- Council will ensure safe and convenient independent mobility for all by providing access on foot for as many people as possible to as many places as possible particularly to public transport and public buildings.
- Ensure walking and mobility needs are considered in all future development applications and planning processes (eg DPAs).
- Ensure walking and mobility needs are considered in all future Master Plans and redevelopment opportunities.
- Ensure that as far as practical the construction and maintenance of paths and trails provide acceptable cross fall, grades and other design standards to suit disability requirements.

## Well designed and managed spaces and places for people

*Communities have the right to live in a healthy, convenient and attractive environment tailored to their needs, and to freely enjoy the amenities of public areas in comfort and safety away from intrusive noise and pollution*

- Ensure pedestrian needs are promoted as part of future road reconstructions (as part of Council's ongoing commitment to asset management):
  - Are suitable footpaths provided (in accordance with the route hierarchy)?
  - Can the roads be redesigned as streets for people and not only for cars?
- Ensure future footpath and road reconstruction works provide continuous design standards for footpaths over driveways and minor streets.
- Continue to maintain the River Torrens Linear Park as a valuable recreational path.
- Develop and implement an integrated Wayfinding strategy to guide the implementation of directional signage throughout the City of Campbelltown.
- Community events coordinated by Council will provide access for pedestrians and people with reduced accessibility.

## Improved integration of networks

*Communities have the right to a network of connected, direct and easy to follow walking routes which are safe, comfortable, attractive and well maintained, linking their homes, shops, schools, parks, public transport interchanges, green spaces and other important destinations.*

- Adopt the pedestrian hierarchy path plan as shown in Appendix C.
- Integrate the pedestrian hierarchy and minimum performance standards within Council asset management programs and systems.
- Continue to ensure all bus stops are compliant with the requirements for disability access.



## Supportive land-use and spatial planning

*Communities have the right to expect land-use and spatial planning policies which allow them to walk to the majority of everyday services and facilities, maximising the opportunities for walking, reducing car-dependency and contributing to community life.*

- Improve land-use and spatial planning, ensuring that new housing, shops, business parks and public transport stops are located and designed so that people can reach them easily on foot.

## Reduced road danger

*Communities have the right for their streets to be designed to prevent accidents and to be enjoyable, safe and convenient for people walking – especially children, the elderly and people with limited abilities*

- Promote lower travel speeds in residential streets, shopping precincts and around schools.
- Ensure pedestrian safety is prioritised as an outcome from all future Local Area Traffic Management (LATM) investigations.
- Undertake pedestrian road safety audits along the arterial roads and locations with clusters of pedestrian crashes and identify opportunities to provide safe crossing points through consultation with Department of Planning and Transport Infrastructure (DPTI).
- Ensure pedestrian issues are considered as priority issues in the development of arterial Road Management Plans by DPTI.
- Undertake pedestrian safety audits at all roundabouts throughout the City of Campbelltown and develop a coordinated improvement program.

## Less crime and fear of crime

*Communities have the right to expect an urban environment designed, maintained and policed to reduce crime and the fear of crime.*

- Design of walking spaces follows the principles of Crime Prevention Through Environmental Design (CPTED).
- Review lighting along paths and trial new technologies to improve delineation.

## More supportive authorities

*Communities have the right to expect authorities to provide for, support and safeguard their ability and choice to walk.*

- Promote pedestrian needs throughout the whole of Campbelltown Council service deliveries, to recognise the importance of supporting and encouraging walking and to encourage complementary policies and actions.
- Work in partnership with relevant agencies including DPTI, schools, Police, health care, and allied stakeholders to develop and implement appropriate programs.
- Continue to support the OPAL program.
- Work with adjoining Councils to develop appropriate regional / intercity pedestrian networks.

## A culture of walking

*Communities have a right to up-to-date, good quality, accessible information on where they can walk and the quality of the experience. People should be given opportunities to celebrate and enjoy walking as part of their everyday social, cultural and political life.*

- Develop and promote the local food trail
- Develop and promote local tourist attractions / points of interest.



# Developing a Pedestrian Infrastructure Plan

## The Functional Road Hierarchy

### Overview

Road managers use a system of hierarchy to assist in their management of streets. A hierarchy can be used to define how to manage aspects such as:

- Geometric considerations (number of lanes, etc)
- Appropriate policy (setting speed limits, clearways, etc).

In Australia, the historic form of road classification has been in terms of traffic volumes and speeds and is usually termed a 'classical' road hierarchy. The typical levels of the classical road hierarchy are, in order of increasing traffic volume/ speed:

- Local street
- Collector road
- Distributor road
- Sub-arterial road
- Arterial road.

As a classical road hierarchy is based only on the general traffic function, other needs – those of buses, pedestrians, cyclists, etc – are not incorporated into the hierarchy in any formal way. If there is any conflict between these 'invisible' road users and the road users acknowledged through the hierarchy, it is likely that the latter will be given higher priority.

Typical outcomes for pedestrians include pedestrian crossings not being installed because they might disrupt traffic, or signal phasing based on car needs, not those of pedestrians.

In contrast, a functional road hierarchy is based on the idea that different types of vehicles have different operating requirements. As these may be reflected in geometric considerations, comparable metrics, etc, the function of the route in the classification will reflect the vehicle – albeit that levels within the classification may mirror some of those in a classical road hierarchy.

## State Government Road Hierarchy

A functional hierarchy approach has recently been adopted by the State Government in support of the ITLUP and as defined by *A Functional Hierarchy for South Australia's Land Transport Network*. This document (which covers both metropolitan and rural transport networks) defines its hierarchy based on the following functions:

- Public transport corridors
- Cycling routes
- Pedestrian access areas
- Major traffic routes
- Freight routes
- Peak hour routes
- Tourist routes
- Key outback routes.

A particular benefit of this approach is that the different functions are formally acknowledged.



## City of Campbelltown Road Hierarchy

The City of Campbelltown adopted a road classification system in 1999.

Functions	Traffic Volume	Speed Limit	Max 85th %ile speed	Max Mean Speed	Primary Function
Arterial Road (TSD)	Main roads controlled by the state government's transport department				
Arterial Road (Council)	< 10,000 vpd	60 km/h	<65 km/h	<60 km/h	Traffic movement with controlled property access
Secondary Arterial Road	< 10,000 vpd	50 km/h	<55 km/h	<50 km/h	Traffic movement with property access
Major Collector Road	<6,000 vpd	50 km/h	<55 km/h	<50 km/h	Property access with through movement
Minor Collector Road	<2,000 vpd	50 km/h	<50 km/h	<45 km/h	Property access with minor through movement
Local Road	<750 vpd	50 km/h	<45 km/h	<40 km/h	Property access only

**Figure Road hierarchy, taken from the Transport Plan 2006-2016**

While this is termed a functional road hierarchy in Council's current transport plan, the 'function' is purely in terms of general traffic and the result is what would normally be considered a classical road hierarchy. As such, no formal regard is given in the hierarchy to non-motorised road users.

**An important component of this PAMP is to define a functional path hierarchy for the City of Campbelltown.**

This has two main purposes:

- By acknowledging walking at the same level as traffic, it enables its road managers (and other staff) to more formally balance the needs of pedestrians against general traffic
- Like motorised traffic, different types of walking activity will have different needs. A functional pedestrian hierarchy allows different walking routes to be managed appropriately to their main uses.

Hence the pedestrian hierarchy will assist Council to provide for the different types of walking that occur in the local government area.

## Council Existing Footpath Policy

Council has an adopted 'Footpath Development and Maintenance Policy (Policy reference 17CP), that provides guidance on the provision of footpaths throughout the City of Campbelltown. Key aspects of the policy include:

- Footpaths will be regularly assessed for condition and maintained in a condition rating of 3 or better
- Where possible, concrete or asphalt footpaths will be replaced with block pavers
- The nominal width of paved footpaths in residential areas is 1.5m – with the potential to increase on arterial roads or high pedestrian areas
- Footpaths will be provided on at least one side of the street, with footpaths being constructed on both sides:
  - For safety and accessibility reasons
  - Roads with volumes in excess of 3000vpd
  - Bus routes
  - Roads with central medians or carriageways wider than 12m
  - Commercial precincts
  - In the vicinity of schools, retirement villages, sports grounds and other pedestrian generators.

## Campbelltown City Council Pedestrian Hierarchy

The approach of this PAMP is to formalise and extend the basic pedestrian hierarchy by:

- Specifically including bus routes on local streets on the same basis as those on arterial roads
- Including all local streets as a base level for walking (this is similar to local streets being the base level for car travel in a classical road hierarchy)
- Acknowledging the pedestrian demand associated with land uses in the designation and management of transport corridors
- Incorporating opportunities to walk for pleasure and health, in addition to walking as transport.

The following is the extended hierarchy of pedestrian routes for Campbelltown Council. A major difference to the existing footpath policy is that the pedestrian hierarchy will provide a formal designation to all streets and walking paths in the Council area.



A network of path hierarchy is presented in Appendix C.

### Primary pedestrian zones

#### Characterisation

These are locations adjacent to high-intensity land uses, where large numbers of pedestrians can be expected at peak times or throughout the day.

- Pedestrian activity may be concentrated at one or more frontages of the land use.
- Other activities – people alighting from public transport or cars, children on bicycles – may affect the capacity of the footpath and cause interactions with pedestrians.
- Peak pedestrian volumes will drop relatively quickly with distance from the land use, at a rate dependent on that land use, and will often extend over transport corridors (for direct access, access to parking, access to public transport or access to other land uses).

#### Key considerations

Accessibility, capacity, safety, personal security and ancillary infrastructure as appropriate – seating, lighting, shade, wayfinding signage, etc. Signalized access across transport corridors.

Future development of walking facilities in these zones as part of new development, redevelopment, streetscape upgrades and integrated transport/ land use planning. This includes establishing/ improving formal through-site links.

Types of areas that would be considered primary pedestrian zones:

- Schools
- Shopping centres/ main streets
- Major community/ sports/ tourism/ recreation facilities
- Paradise (O-Bahn) interchange.

## Primary pedestrian routes

### Characterisation

These are major walking routes linking primary pedestrian zones along arterial roads. As well as being alongside high speed, high volume traffic corridors that are difficult to cross safely, these routes follow important public transport corridors.

- Pedestrians use primary pedestrian routes despite poor amenity created by traffic and related kerbside street furniture (signal boxes, light poles, signs, etc, located in footpaths) because of the high access values of the routes. Many users would consider that there is little alternative to using these routes.
- Pedestrian activity is relatively high and occurs both during the day and at night.

### Key considerations

Accessibility, capacity, personal security, ancillary infrastructure as appropriate □ seating, lighting, shade, wayfinding signage, bus stop shelters, etc. Signalized access across major transport corridors.

## Primary recreation routes

### Characterisations

These are major urban walking routes, having significant capacity, recreational priority and regional value. Currently, the only primary recreation route within the City of Campbelltown would be the River Torrens Linear Path (RTLP). In terms of regional value, it has been proposed that the RTLP could form a walking/cycling tourist resource from the Adelaide City to regional South Australia as a multi-day route similarly to such European routes as the Pennine Way.

Primary recreation routes are destinations as well as routes. This has implications for wayfinding, in terms of signage that uniquely identifies the route as a destination, signage from the route to other destinations and wayfinding along the route as a linear destination.

While prioritised for recreational travel, primary level regional routes also provide important utility access for shorter sections of their length. This can extend to commuter use, particularly as part of public transport systems.

The duality of this nature can be understood in terms of people who need to travel somewhere but choose to do so by a healthy mode, in an enjoyable environment.

### Key considerations

Accessibility, capacity, personal security, ancillary infrastructure as appropriate – seating, lighting, shade, wayfinding signage, etc. Connection to the street network. Signalized and non-signalized access across transport corridors.

## Secondary routes

### Characterisation

These are important walking corridors, either featuring lower-intensity land uses along their length or providing access to high-intensity land uses. Along with general City streets, these form the bulk of the walking network.

- Pedestrian activity is likely to be less peaked than at primary pedestrian zones.
- Routes are not necessarily walking destinations in themselves. Pedestrians are likely to funnel into secondary routes from lower order walkways, on their way to primary pedestrian zones. Nonetheless, some secondary routes may be used for recreational activity.
- While principally considered as having a utility role, these routes will be used for recreational activity by local residents and/or at least sometimes. Indeed, choosing to walk when undertaking utility trips is a way of incorporating recreation into daily activity for many people.

### Key considerations

Accessibility, capacity (at a lower level than primary pedestrian zones), safety and ancillary infrastructure as appropriate. Signalized and non-signalized access across transport corridors.

Types of areas that would be considered as secondary routes:

- Bus routes and long, straight streets running between arterial roads
- Streets surrounding and providing access to schools and other primary pedestrian zones
- Streets fronting kindergartens/ child care, retirement villages/ aged accommodation, local shops and other lower intensity community/ sports/ tourism/ recreation facilities.

## Secondary recreation routes

### Characterisations

These are urban recreation routes having a local rather than regional value, including those along the Third, Fourth and Fifth Creek systems. They are less likely to support shared use, certainly at the same levels as the River Torrens Linear Path. At the time of preparing this PAMP, Council had also initiated a separate review of these trails: Chain of Trails Review.

These also include walking trails that are less urban in form, having unsealed surfaces, which may function as destinations as much as routes.

### Key considerations

These are expected to be identified by the Chain of Trails Review, however are assumed to be: personal security, ancillary infrastructure – seating, lighting, shade, wayfinding signage, etc. Connection to the street network. Signalized and non-signalized access across transport corridors.

## General City streets

### Characterisations

The pedestrian network is intended to enable people to walk safely from their residences to other destinations in the City (and return). It's most basic level is, therefore, the footpath in the local street outside every house.

Where adopted as a strategy (and supported by adequate infrastructure, as appropriate), this is included in the classification of 'General City street'. Conversely, additional pedestrian walkways exist that are provided for functional reasons rather than as recreational routes (e.g. cut-throughs linking cul-de-sacs to other streets). These are also included in this classification.

However, other forms of infrastructure are also included in this classification. In low traffic situations, walking within a carriageway may afford greater pedestrian comfort than being confined to (especially inadequate) footpaths.

### Key considerations

Given that the City of Campbelltown has a large number of streets with no footpaths or footpaths on only one side of the street, the key consideration is whether a footpath (or other recognised arrangement) is present. Subsequent key considerations are condition,

accessibility (particularly the need to retrofit kerb ramps) and adjacent vegetation (clearance, overhang and amenity).

## The pedestrian network

Given the large overhang in footpath construction needs, the PAMP application of the hierarchy is intended to focus resources into creating a network that services the most people as possible, in a way that best meets their walking needs.

The walking network is shown in Appendix C.

Local footpaths servicing small numbers of people will attract a low priority. The needs of these people for long-term infrastructure development are addressed by an action plan that includes a minimum amount of 'low priority' footpath construction each year.

At a higher level than general City streets, the secondary routes are the 'workhorse' of the pedestrian network. The performance standards provide alignment of infrastructure along these routes with different local conditions.

## Number of footpaths required

Numerous studies have been undertaken into the relationship between walking levels and the presence of footpaths in residential streets, including whether a single footpath on one side of a street adequately services pedestrians rather than footpaths provided on both sides of the street. (This is a consideration given the cost and, often, difficulty of constructing two footpaths in a street.) There are sufficient complicating factors that it is unclear whether walking activity is generated by a footpath's presence or whether the footpath is a proxy for other relevant factors: demographics, urban morphology, etc.

As such, the priority for general City streets will be for at least one footpath to be provided in every street servicing over 25 properties. (This assumes general City streets as servicing only residential areas, and 'servicing' includes side streets that may access the street, not just properties along the street.) At a trip generation rate of 7 to 10 car trips/ day/ property, these streets will have around 200 or more car movements a day. For any secondary route (which includes bus routes), two footpaths should be provided in the street.



Where new footpaths are proposed, consultation with local residents may identify that the amenity of a verge has a higher priority than provision of formal footpaths. In such cases, options include:

- A non-footpath option: narrowing the road and using width to enable a section of bitumen to be designated for pedestrian use; slowing traffic to below 30km/h and sharing the carriageway.
- A non-traditional footpath option: a firm, level area of the verge that can be traversed but is not constructed as a bitumen or concrete footpath. The impact during construction may be similar to footpath construction; maintenance (particularly mowing, if grassed) needs to be considered; gravel or other unsealed options can cater to people with disabilities, but not necessarily at the same level of comfort as sealed options.

Streets servicing fewer than 25 properties will have very low levels of car traffic as well as pedestrian use and will generally comprise cul-de-sacs or very short crescents. For these streets, sharing the carriageway would be a safe option to providing footpaths.

In such streets, a continuous footpath treatment across the mouth of the street would:

- Ensure that traffic speeds are maintained at low levels
- Enable access for people with disabilities onto the carriageway
- Provide pedestrian priority over traffic across the minor street.

From a technical standpoint, continuous footpath treatments are simply a footpath. They are supported by the Australian Road Rules and Australian Standards and are within Council's Ministerial delegation to use. (The Ministerial delegation is the legal instrument whereby the authority of the Road Traffic Act is devolved to local government level in South Australia). The NSW Transport, Road and Maritime Services have issued an updated technical direction regarding the use of continuous footpath treatments<sup>3</sup> which traffic engineers may find useful. The cost and desirability of the application may well be affected by drainage issues.

<sup>3</sup> See [www.rms.nsw.gov.au/trafficinformation/downloads/td13\\_05.pdf](http://www.rms.nsw.gov.au/trafficinformation/downloads/td13_05.pdf), published 2013.

Where streets servicing fewer than 25 properties comprise a long street (100m or more), a single footpath should be provided.

## Performance standards

In general, Australian Standards and guidelines such as Austroads' *Guide to Road Design*, *Guide to Road Safety* and *Guide to Traffic Management* provide principles and technical details regarding the various treatments that may be used to provide for pedestrians and cyclists.

Performance criteria has been developed as a guide for pedestrian treatments, as additional to the application of minimum relevant standards and guidelines. Refer Appendix D.

## Verge Planting

A complicating factor for network development is the current practice of verge planting by some residents. It is proposed that the impact of this be addressed by "grand-fathering out" the existing verge plantings. The proposal is that Council identifies properties that have verge plantings that prevent footpath development and flags these in its property register, similarly to an easement of access.

- This enables Council's right over the verge to be asserted when the property is sold. In this way, existing householders retain their enjoyment of verge plantings but the verge is not passed on to purchasers as a de facto part of the property. Indeed, it may be prudent for Council to remove (obstructive) verge plantings immediately after property transfer, so that no expectation arises regarding the continued presence of such plantings.
- Council could also consider providing landscaping adjacent to the affected property or along streets, to restore any amenity that will be lost by the removal of verge plantings. This is particularly the case where plantings comprise mature trees.
- Plantings creating shade and amenity may well be considered as assets by the local community. Where the street is short and the value of plantings high but the plantings themselves constrained, there may be the possibility of constructing a kerb build-out (or protuberance) to enable footpath construction around the planting. In this case, it would still be desirable for Council to demarcate the verge as separate to the property, to enable Council to treat the planting as a formal landscaping area.



# Wayfinding signage



## Overview

The development of a full wayfinding signage strategy is outside the scope of this PAMP. However, the basic principles of wayfinding can be applied to identify locations for signage. Walking in Heidelberg<sup>4</sup> summarises these principles as follows:

"A signing strategy should be based on locating signs at 'decision points' on the pedestrian network, specifically:

- trip origins, that is, where people join the pedestrian network such as transport interchanges/stops, car parks and park and ride sites
- pedestrian trip destinations - once the visit has been made to that location, it will become a trip origin either to another destination or back to the original origin (e.g. the public transport stop). Examples include tourist attractions, community facilities, sporting venues and retail areas
- locations where there is possible ambiguity in the route, including major junctions and open areas
- on long routes where the pedestrian may be uncertain that they have chosen the correct direction and confirmation is required."

"The strategy should include all major destinations to which a pedestrian might wish to walk. Once a destination appears on a sign, it must continue to be signed at every subsequent decision point until the destination is reached. Selecting destinations can be contentious, and so community involvement in the process is strongly recommended."

"Signs should only be installed where they fulfil a need based upon a judgement of pedestrians' expectations. These locations may lie outside the normal road corridor due to the flexibility and diversity of pedestrian routes."

These principles have informed the assessment of wayfinding needs presented in this PAMP.

Wayfinding needs to be understood as both a process and system, governed by technical details relating to cognition and readability, which tends to be graphically packaged to enhance amenity and marketability. A balance of all of these factors is required to give a good result; effective wayfinding is best achieved as a multi-disciplinary exercise.

Wayfinding is intended to give clear direction, but too much signage leads to visual 'clutter'. It also needs to be funded, both in initial outlay and ongoing maintenance.

In this context, a hierarchy of signs provides different layers of information. For example, the draft Devonport Signage Strategy<sup>5</sup> identifies five levels of signage:

- Major destination signs - for naming precincts, entry/exit points to the city and regional attractions
- Minor designation signs - for places of importance, local attractions
- Information signs - details facilities and services available (at both pedestrian and motorist scales)
- Directional signs - located at turning points and thoroughfares for pedestrians and vehicles

<sup>4</sup> JA Grant and Associates, 2006.

<sup>5</sup> See <http://speakupdevonport.com.au/document/show/60>. No author or date provided, but circa 2012-13.

- Interpretive signs - used to interpret natural, cultural and historic features for places, events and venues.

The draft Devonport Signage Strategy also acknowledges that regulatory signage is another important class that lies outside of wayfinding per se.

To this family, remote information or portable signage can be added, comprising on-line information, hardcopy brochures, etc, used to identify walking opportunities or facilities that meet pre-determined needs. This can include accessibility maps, tourism information, downloadable GPS-based maps, etc.

For the City of Campbelltown, the Food Trail brochure is one example.

In this sense, it should be noted that the term 'signage' includes a family of devices.

- Line-marking can provide good local level information, e.g. on paths
- Banners can be appropriate for indicating information that may be temporary in nature, e.g. that a service such as a library is open or that a business is part of the Food Trail.

In this context, the treatment of urban elements can provide support for more formal wayfinding. Consistent or hierarchical treatments of path surface types, street furniture and, more broadly, street management can create an implicit sense of location. Indeed, this is the basis of street hierarchy in a traffic engineering sense – that correct traffic behaviour should be instinctive – and, in matching traffic with land use, the Link and Place methodology.

## Types of Signs

### Fingerpost/Independent Directional Signs

These are thin, directional signs bearing the name of the major trip destinations and pointing in the direction in which to walk to reach it.

- Fingerposts to different destinations can be clustered together
- Additional destinations can easily be added subsequently
- Provides positive directions
- Intuitive for users
- Can be seen over 360 degrees
- Confirmatory signs can be of identical type.

### Information Board

These are upright 'monoliths' that list key destinations each with associated arrows showing the way to walk.

- Greater physical area allows for more destinations and use of symbols
- Information can be displayed at head height, in the 'natural' line of vision
- More vandal resistant
- Can incorporate 'real time' information
- Easily lit.



## Maps

Maps include those used independently or those on information boards. An 'overhead' view of the immediate area showing the pedestrians' location and possible destination:

- Provides the greatest amount of information
- Can be combined with information boards and fingerposts
- Can be used either upright, or flat
- Paper maps behind transparent protection can be updated quickly, easily and cheaply – but the transparent layer may be subject to vandalism
- Key destinations and landmarks can be shown as graphical representations, assisting direction-finding
- Maps can (and should) be orientated according to the pedestrians' location. "Where you are is what you see" is a key principle of the mapping system.

## Siting Signs

Sign faces should be sited within the normal field of vision for their proposed user. For signs which are intended to be viewed at a close distance, mounting them between 0.9 and 1.5m above the ground provides the most appropriate compromise for those seated and standing. This may be done through mounting them on walls or other structures.

Other important issues to consider for siting signs are that:

- Sign faces are most easily read if they are perpendicular to the direction of travel. Where this is not possible the approach angle should be within 30 degrees
- the immediate area around each sign should be level, even, well-lit and accessible for those with mobility impairments
- signs should not themselves become an obstacle or hazard for pedestrians so they comply with the criteria for protrusions. Free-standing signs should not be placed in the through route

- pedestrians reading the sign should not become an obstruction for other pedestrians, or inadvertently place themselves or other road users in danger.

In common with other signs, a regular programme of maintenance is needed to ensure that signs for pedestrians remain in good condition, free from graffiti, unobscured by vegetation and continue to serve a purpose.

In developing a more formal signage strategy, it should be noted that wayfinding is a multi-disciplinary field, requiring the combined efforts of experts from different areas to give a good result.

Existing signage used elsewhere in Adelaide can mainly be characterised as "form (or design) over function" issues. Common weaknesses include:

- poor location e.g. River Torrens Linear Path signage is not located at decision points
- fonts and maps that are too small to read from a distance (particularly relevant to shared paths, where users include cyclists)
- colours that are difficult to see/ distinguish (e.g. Mawson Trail signage uses the colours of the Australian bush in which it is located)
- focus on only a few types of signage e.g. omission of regulatory signage and line-marking
- a patchy understanding of pedestrian needs e.g. signage that is not designed to be "heads up", a lack of travel time information
- the appearance of the signage over its cost and long-term serviceability e.g. River Torrens Linear Path signage is laser cut.



# Implementation Plan

The following actions have been identified to guide the implementation of the PAMP. Some actions are 'stand alone' and will require specific funding allocations, whereas other actions are integral to works and programs already undertaken by Council (ie with existing budget provisions).

## Stand Alone Projects (PAMP Specific)

### High Priority

1. Develop and implement an integrated Wayfinding strategy to guide the implementation of directional signage throughout the Council.
2. Undertake pedestrian road safety audits along the arterial roads to identify opportunities to provide improved or additional crossing points (through consultation with DPTI).
3. Undertake pedestrian safety audits at all roundabouts throughout Council and develop a coordinated improvement program.

### Moderate Priority

4. Review lighting standards and consider opportunities to trial new technologies to improve delineation.

## Synergy with Existing Council Programs

### High Priority

5. Integrate the pedestrian hierarchy and minimum performance standards with Council asset management program (Footpath Renewal and Replacement).
6. Undertake a desk top 'Gap Analysis' between the proposed network and performance standards with existing conditions, and prioritise the upgrade of any existing deficiencies in the network.
7. Continue to ensure all bus stops are compliant with the requirements for disability access.
8. Continue to support the OPAL program.

### Ongoing

9. Promote pedestrian needs throughout the whole of Council service deliveries.
10. Ensure walking and mobility needs are considered in all future develop applications and planning processes, including Master Planning and major redevelopment opportunities.
11. Review construction and maintenance practices of paths and trails to ensure acceptable design requirements and 'continuous' footpaths over driveways and minor roads where practical.
12. Continue to develop and promote the local food trail, and local tourist attractions/points of interest throughout the Council.
13. Continue to maintain the River Torrens Linear Park.
14. Promote lower travel speeds in residential streets, around schools and shopping precincts.
15. Ensure speed management and pedestrian safety is prioritised in all future LATM investigations.

## Appendix A

# International Charter for Walking



# International Charter for Walking

**Creating healthy, efficient and sustainable communities  
where people choose to walk**

I/We, the undersigned recognise the benefits of walking as a key indicator of healthy, efficient, socially inclusive and sustainable communities and acknowledge the universal rights of people to be able to walk safely and to enjoy high quality public spaces anywhere and at anytime. We are committed to reducing the physical, social and institutional barriers that limit walking activity. We will work with others to help create a culture where people choose to walk through our commitment to this charter and its strategic principles:

1. ***Increased inclusive mobility***
2. ***Well designed and managed spaces and places for people***
3. ***Improved integration of networks***
4. ***Supportive land-use and spatial planning***
5. ***Reduced road danger***
6. ***Less crime and fear of crime***
7. ***More supportive authorities***
8. ***A culture of walking***

**Signed** .....

**Name** .....

**Position** .....

**Date** .....



# International Charter for Walking

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*Walking is the first thing an infant wants to do and the last thing an old person wants to give up.*

*Walking is the exercise that does not need a gym. It is the prescription without medicine, the weight control without diet, and the cosmetic that can't be found in a chemist. It is the tranquilliser without a pill, the therapy without a psychoanalyst, and the holiday that does not cost a penny. What's more, it does not pollute, consumes few natural resources and is highly efficient. Walking is convenient, it needs no special equipment, is self-regulating and inherently safe. Walking is as natural as breathing.*

John Butcher, Founder Walk21, 1999

## Introduction

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We, the people of the world, are facing a series of inter-related, complex problems. We are becoming less healthy, we have inefficient transport systems and our environments are under increasing pressure to accommodate our needs. The quality and amount of walking as an everyday activity, in any given area, is an established and unique primary indicator of the quality of life. Authorities keen to create healthier and more efficient communities and places can make significant advancements by simply encouraging more walking.

Built on extensive discussions with experts throughout the world this Charter shows how to create a culture where people choose to walk. The Charter may be signed by any individual, organisation, authority or neighbourhood group who support its vision and strategic principles regardless of their formal position and ability to independently progress their implementation.

Please support this Charter by signing it and encouraging friends, colleagues, government bodies, and national and local organisations to work with you to help create healthy, efficient and sustainable walking communities throughout the world.

## Background

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Commuters scurry; shoppers meander; bush-walkers trek; lovers stroll; tourists promenade... but we all walk. Walking is a fundamental and universal right whatever our ability or motivation and continues to be a major part of our lives, yet in many countries people have been walking less and less. Why walk when you can ride? Walking has stopped being a necessity in many parts of the world and become a luxury. Walking seems too easy, too commonplace, too obvious and indeed too inexpensive an activity to pursue as a way of getting to places and staying healthy. We choose not to walk because we have forgotten how easy, pleasurable and beneficial it is. We are living in some of the most favoured environments man, as a species, has ever known, yet we respond by taking the ability to walk for granted.

As a direct result of our inactivity we are suffering from record levels of obesity, depression, heart disease, road rage, anxiety, and social isolation.

Walking offers health, happiness and an escape. It has the ability to restore and preserve muscular, nervous, and emotional health while at the same time giving a sense of independence and self-confidence. The more a person walks the better they feel, the more relaxed they become, the more they sense and the less mental clutter they accumulate. Walking is good for everyone.



## Vision

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***To create a world where people choose and are able to walk as a way to travel, to be healthy and to relax, a world where authorities, organisations and individuals have:***

- ***recognised the value of walking;***
- ***made a commitment to healthy, efficient and sustainable communities; and***
- ***worked together to overcome the physical, social and institutional barriers which often limit people's choice to walk.***

## Principles and Actions

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This International Charter identifies the needs of people on foot and provides a common framework to help authorities refocus their existing policies, activities and relationships to create a culture where people choose to walk.

Under each strategic principle, the actions listed provide a practical list of improvements that can be made in most communities. These may need adding to in response to local need and this is encouraged.

## **1. Increased inclusive mobility**

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*People in communities have the right to accessible streets, squares, buildings and public transport systems regardless of their age, ability, gender, income level, language, ethnic, cultural or religious background, strengthening the freedom and autonomy of all people, and contributing to social inclusion, solidarity and democracy.*

### **ACTIONS**

- Ensure safe and convenient independent mobility for all by providing access on foot for as many people as possible to as many places as possible particularly to public transport and public buildings
- Integrate the needs of people with limited abilities by building and maintaining high-quality services and facilities that are socially inclusive

## **2. Well designed and managed spaces and places for people**

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*Communities have the right to live in a healthy, convenient and attractive environment tailored to their needs, and to freely enjoy the amenities of public areas in comfort and safety away from intrusive noise and pollution.*

### **ACTIONS**

- Design streets for people and not only for cars, recognising that streets are a social as well as a transport space and therefore, need a social design as well as engineering measures. This can include reallocating road space, implementing pedestrian priority areas and creating car-free environments to be enjoyed by all, supporting social interaction, play and recreation for both adults and children
- Provide clean, well-lit streets and paths, free from obstruction, wide enough for their busiest use, and with sufficient opportunities to cross roads safely and directly, without changing levels or diversion
- Ensure seating and toilets are provided in quantities and locations that meet the needs of all users
- Address the impact of climate through appropriate design and facilities, for example shade (trees) or shelter
- Design legible streets with clear signing and on-site information to encourage specific journey planning and exploration on foot
- Value, develop and maintain high quality and fully accessible urban green spaces and waterways

### **3. Improved integration of networks**

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*Communities have the right to a network of connected, direct and easy to follow walking routes which are safe, comfortable, attractive and well maintained, linking their homes, shops, schools, parks, public transport interchanges, green spaces and other important destinations.*

#### **ACTIONS**

- Build and maintain high-quality networks of connected, functional and safe walking routes between homes and local destinations that meet community needs
- Provide an integrated, extensive and well-equipped public transport service with vehicles which are fully accessible to all potential users
- Design public transport stops and interchanges with easy, safe and convenient pedestrian access and supportive information

### **4. Supportive land-use and spatial planning**

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*Communities have the right to expect land-use and spatial planning policies which allow them to walk to the majority of everyday services and facilities, maximising the opportunities for walking, reducing car-dependency and contributing to community life.*

#### **ACTIONS**

- Put people on foot at the heart of urban planning. Give slow transport modes such as walking and cycling priority over fast modes, and local traffic precedence over long-distance travel
- Improve land-use and spatial planning, ensuring that new housing, shops, business parks and public transport stops are located and designed so that people can reach them easily on foot
- Reduce the conditions for car-dependent lifestyles (for example, reduce urban sprawl), re-allocate road space to pedestrians and close the missing links in existing walking routes to create priority networks

## **5. Reduced road danger**

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*Communities have the right for their streets to be designed to prevent accidents and to be enjoyable, safe and convenient for people walking – especially children, the elderly and people with limited abilities*

### **ACTIONS**

- Reduce the danger that vehicles present to pedestrians by managing traffic, (for example, by implementing slower speeds), rather than segregating pedestrians or restricting their movements
- Encourage a pedestrian-friendly driving culture with targeted campaigns and enforce road traffic laws
- Reduce vehicle speeds in residential districts, shopping streets and around schools
- Reduce the impact of busy roads by installing sufficient safe crossing points, ensuring minimal waiting times and enough time to cross for the slowest pedestrians
- Ensure that facilities designed for cyclists and other non-motorised modes do not compromise pedestrian safety or convenience

## **6. Less crime and fear of crime**

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*Communities have the right to expect an urban environment designed, maintained and policed to reduce crime and the fear of crime.*

### **ACTIONS**

- Ensure buildings provide views onto and activity at street level to encourage a sense of surveillance and deterrence to crime
- Conduct pedestrian audits by day and after dark to identify concerns for personal security and then target areas for improvements (for example, with brighter lighting and clearer sightlines)
- Provide training and information for transport professionals to increase awareness of the concerns of pedestrians for their personal security and the impact of such concerns on their decisions to walk

## **7. More supportive authorities**

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*Communities have the right to expect authorities to provide for, support and safeguard their ability and choice to walk.*

### **ACTIONS**

- Commit to a clear, concise and comprehensive action plan for walking, to set targets, secure stakeholder support and guide investment and includes the following actions:
- Involve all relevant agencies (especially transport, planning, health, education and police), at all levels, to recognise the importance of supporting and encouraging walking and to encourage complementary policies and actions
- Consult, on a regular basis, local organisations representing people on foot and other relevant groups including young people, the elderly and those with limited ability
- Collect quantitative and qualitative data about walking (including the motivations and purpose of trips, the number of trips, trip stages, time and distance walked, time spent in public spaces and levels of satisfaction)
- Integrate walking into the training and on-going staff professional development for transport and road safety officers, health practitioners, urban planners and designers
- Provide the necessary ongoing resources to implement the adopted action plan
- Implement pilot-projects to advance best-practice and support research by offering to be a case study and promoting local experience widely
- Measure the success of programmes by surveying and comparing data collected before, during and after implementation

## **8. A culture of walking**

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*Communities have a right to up-to-date, good quality, accessible information on where they can walk and the quality of the experience. People should be given opportunities to celebrate and enjoy walking as part of their everyday social, cultural and political life.*

### **ACTIONS**

- Actively encourage all members of the community to walk whenever and wherever they can as a part of their daily lives by developing regular creative, targeted information, in a way that responds to their personal needs and engages personal support
- Create a positive image of walking by celebrating walking as part of cultural heritage and as a cultural event, for example, in architecture, art-exhibitions, theatres, literature readings, photography and street animation
- Provide coherent and consistent information and signage systems to support exploration and discovery on foot including links to public transport
- Financially reward people who walk more, through local businesses, workplaces and government incentives

## ***ADDITIONAL ACTIONS***

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Please write actions for your local needs or circumstances in the space below.

Developed in the framework of the WALK21 international conference series  
October 2006

*Walk21 are grateful to many people for their assistance with the production of this Charter, and to you for your personal commitment to helping create healthy, efficient and sustainable walking communities throughout the world.*

For more information on walking visit [www.walk21.com](http://www.walk21.com)

Or email us at [info@walk21.com](mailto:info@walk21.com)

## Appendix B

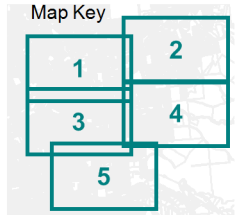
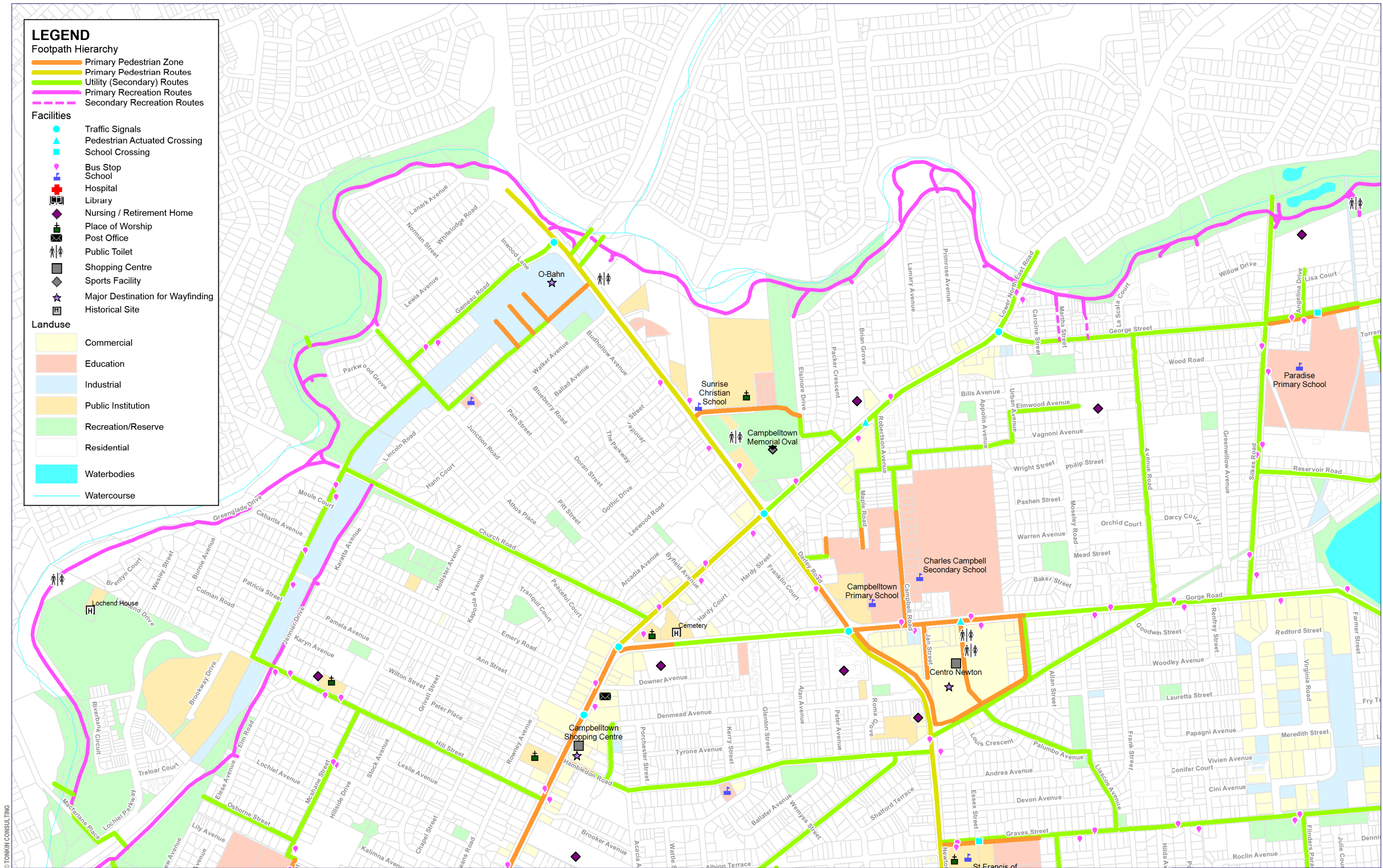
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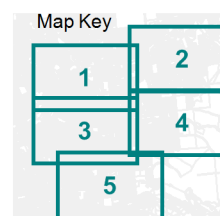
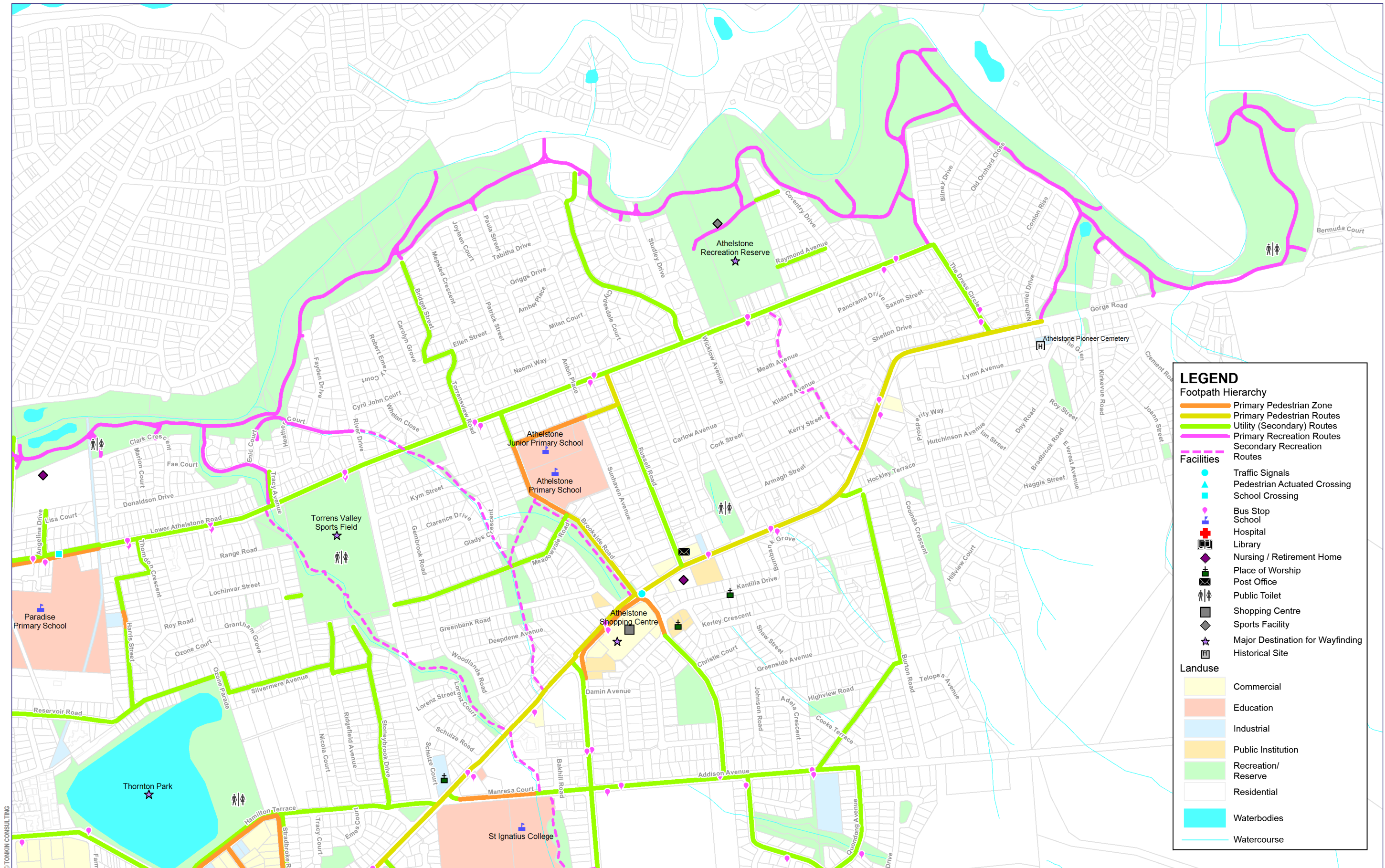


## Appendix C

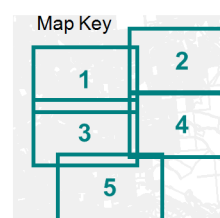
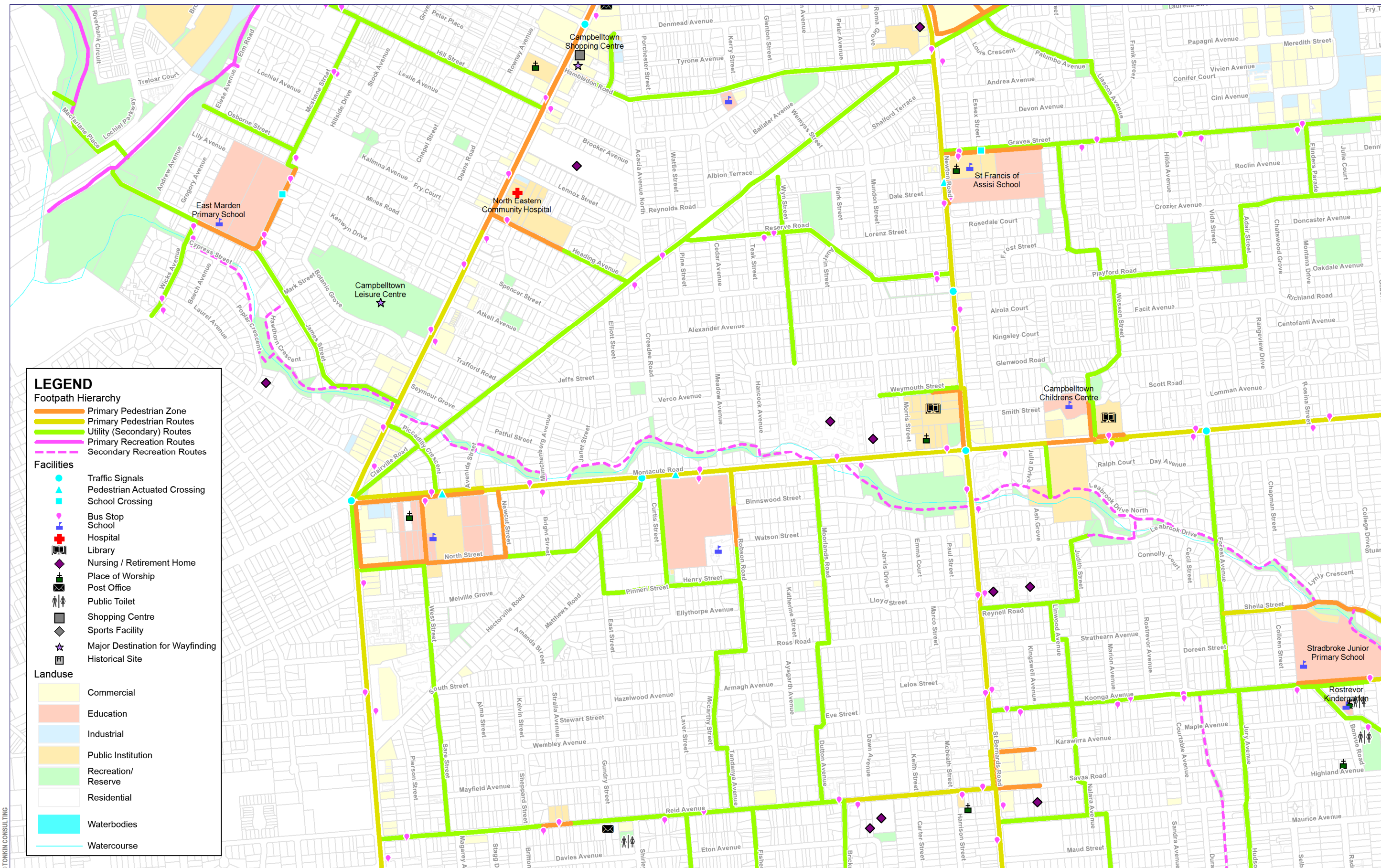
### Pedestrian Route Hierarchy



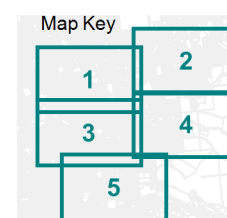
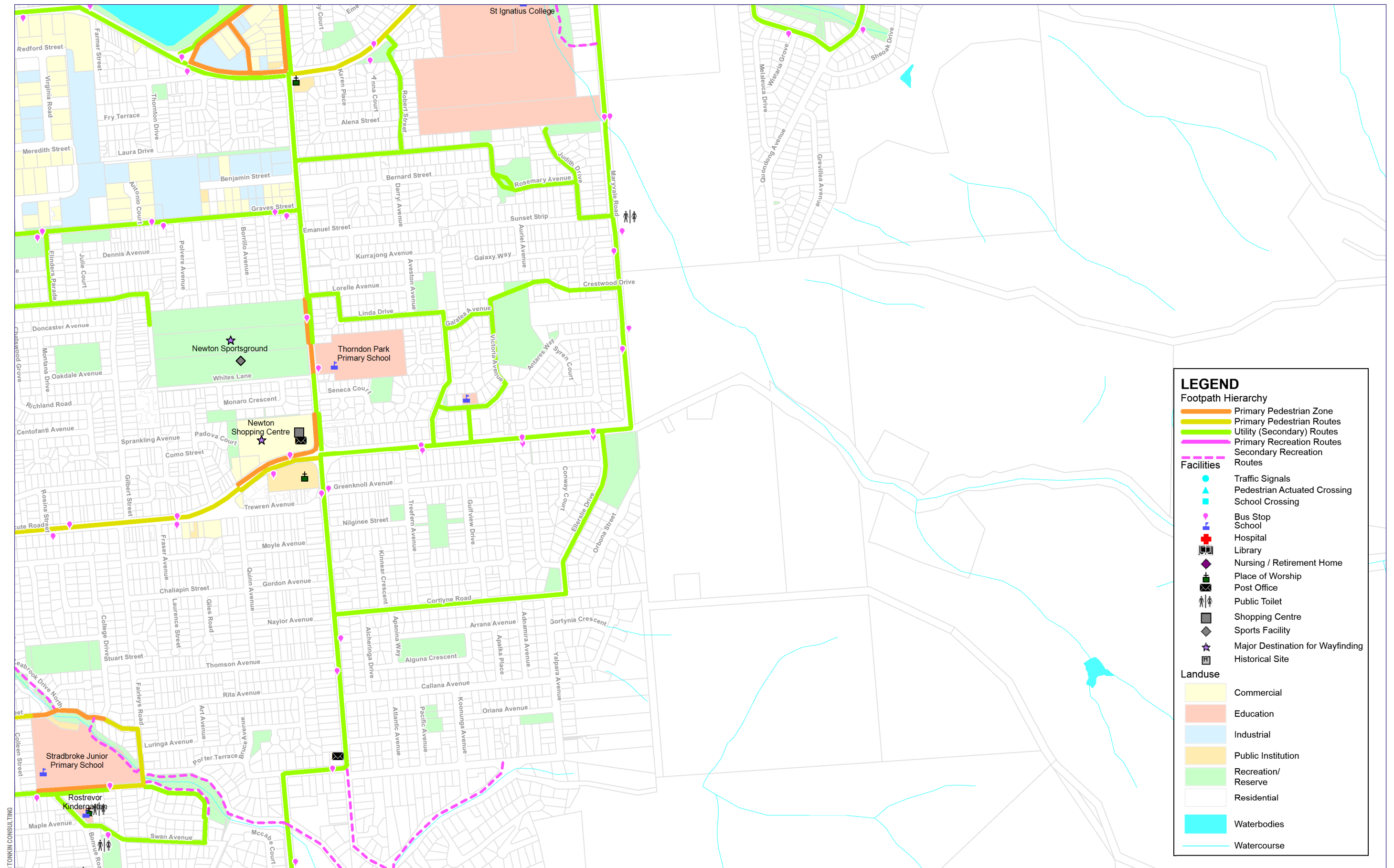


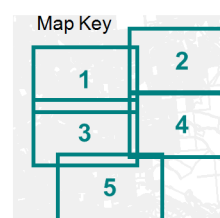
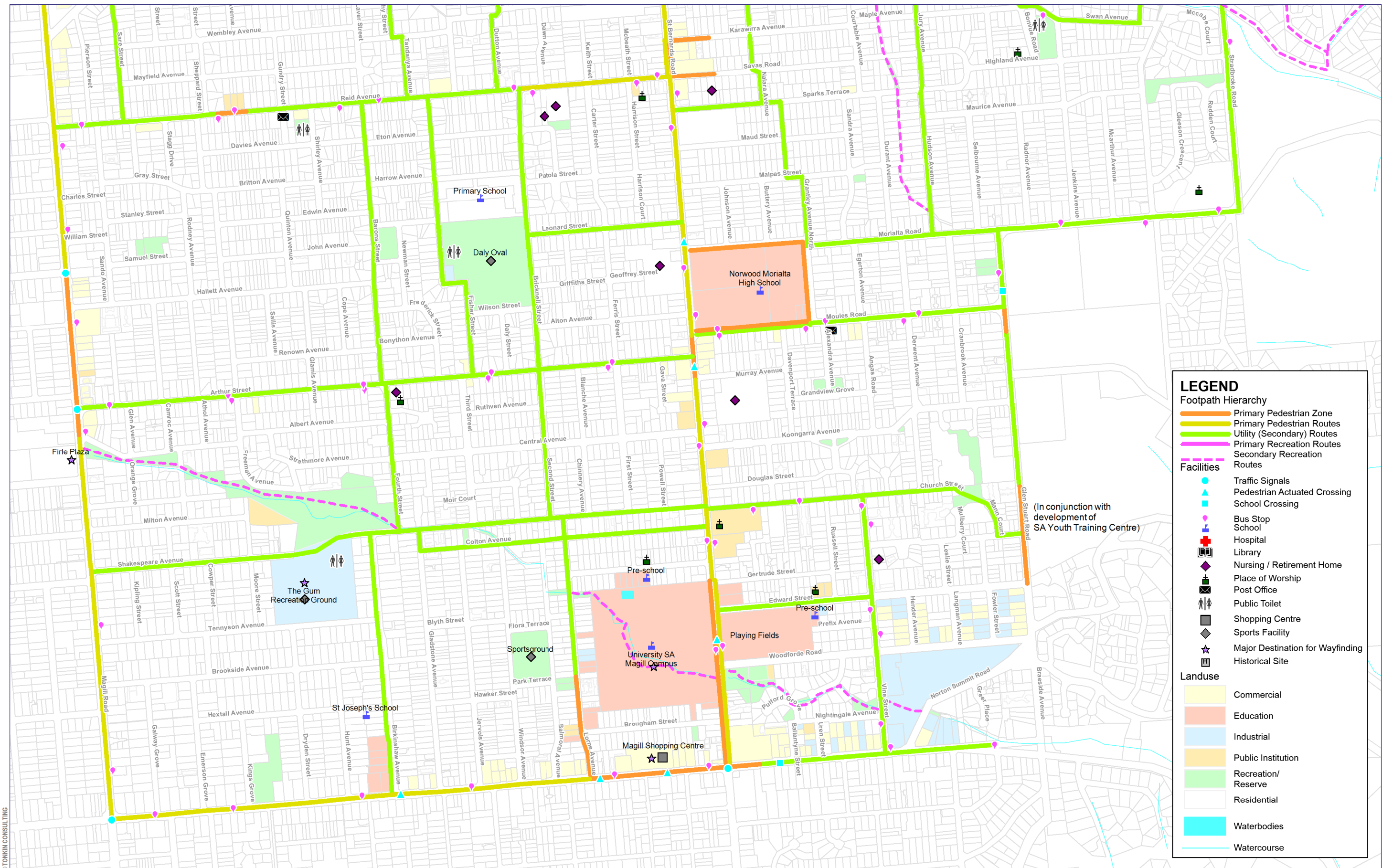














## Appendix D

### Performance Criteria

	Primary pedestrian zones (high use zones)	Primary routes (arterial roads)	Secondary routes (arterial roads, bus routes, access)	General City streets (local streets)	Primary recreation routes (River Torrens Linear Path)	Secondary recreation routes
<b>Path requirements</b>						
General	active frontage	both sides, between active frontages of primary pedestrian zones	both sides	one side; or non-footpath option for streets servicing fewer than 25 houses and less than 100m in length	one or both sides, or shared zone, depending on site	one or both sides, or shared zone, depending on site
Other route requirements	through car parking areas, road closures, across creek lines and bridges					
Desirable general width	3.0m or as required to provide level of service "C"	3.0m or as required to provide level of service "B"	1.8m; 2.1m for streets of 1,000m or more in length	1.2m; 1.5m for streets of 500m or more in length	4.0m shared use, 3.0m pedestrian only	3.0m for shared use, 2.5m for pedestrian only
Minimum general width for clear path of travel	1.8m	1.8m	1.5m; 1.8m for streets of 1,000m or more in length; with passing bays	1.0m; 1.2m for streets of 500m or more in length; with passing bays	2.5m shared use, 2.0m pedestrian only	2.0m or to Standard
Minimum widths, for short distances (passing bays required)						
• Desirable minimum	1.5m	1.5m	1.5m	1.5m	1.8m	1.5m
• Absolute minimum	1.5m	1.5m	1.5m	1.5m	1.5m	Same as desirable minimum
• Minimum passing bay size (including footpath width)	2.1m wide, 3.0m long	1.8m wide, 3.0m long	1.8m wide, 2.0m long	1.8m wide, 2.0m long	shared use: 2.5m wide, 5.0m long; pedestrian only: 1.8m wide, 3.0m long	shared use: 2.0m wide, 5.0m long; pedestrian only: 1.8m wide, 2.0m long
• Approximate intervals at which to provide passing bays (if minimum widths are used)	8m; 4m otherwise; and at bus stops	15m; 8m otherwise; and at bus stops	30m and at bus stops if width is 1.5m or greater; 20m and at bus stops otherwise	50m if width is 1.5m or greater; 30m otherwise	20m and at bus stops	30m and at bus stops
• Minimum width at squeeze points	1.5m	1.5m	1.0m	0.9m	1.2m	0.9m
• Maximum length of squeeze point	1.0m	1.0m	2.0m	3.0m	1.0m	1.0m
Desirable width at intersections and crossing points (otherwise minimum general width)	2.4m	2.4m	2.1m	1.8m desirable, 1.5m minimum	3.0m	2.5m
Setback of clear path of travel from carriageway (desirable)	0.7m (to allow for poles, car doors, street furniture)	1.0m (to allow for poles, car doors, street furniture)	2.0m with street trees; 0.7m otherwise	0.6m (to allow for poles, car doors)	2.0m to carriageway, unless trees provided in protuberances (or if no trees); 1.2m to carriageway otherwise	1.2m to carriageway, unless trees provided in protuberances (or if no trees); 1.0m to carriageway otherwise
Setback of clear path of travel from other obstacles	0.6m to property line and bus shelters (minimum)	0.6m (desirable), 0.3m (minimum) to property line and bus shelters	0.6m (desirable), 0.3m (minimum) to property line and bus shelters	0.3m (desirable) to property line; no minimum	1.2m desirable to fences, batters, creeks, property line, etc; minimum to these dependent on site	1.2m desirable to fences, batters, creeks, property line, etc; minimum to these dependent on site
<b>Pedestrian actuated crossings</b>						
General requirement	as required to cater to demand and ensure safety	at activity nodes, intersections with other arterial and sub arterial roads and to provide regular, safe crossing opportunities: 500m (desirable), 1,000m (maximum)	at activity nodes and intersections with other arterial and sub arterial roads and, on arterial roads, to provide regular, safe crossing opportunities: 1,000m (maximum)	at intersections with arterial and sub arterial roads; as required for safety reasons at other locations	at crossings of arterial and sub arterial roads and higher volume local streets	at crossings of arterial and sub arterial roads and higher volume local streets
Call/ activation						
• If linked to other signals	dependent on phasing	dependent on phasing	dependent on phasing	do not link along local street	see type of road being crossed	
• If not linked to other signals	on demand	on demand	on demand	on demand		
Crossing width	extra width	standard	standard	standard	standard	standard
Scramble crossing alternative	Y	Y	on merit	N	on merit	N
Above minimum phase time	Y	if within 0.5km of primary school/ housing for seniors/ medical facility			Y	if within 0.5km of primary school/ housing for seniors/ medical facility
Phase linking with other signals	Y	Y, on merit	Y, on merit	N	N	N

	Primary pedestrian zones (high use zones)	Primary routes (arterial roads)	Secondary routes (arterial roads, bus routes, access)	General City streets (local streets)	Primary recreation routes (River Torrens Linear Path)	Secondary recreation routes
Maximum acceptable delay	15 seconds peak, 30 seconds out of peak	15 seconds peak, 30 seconds out of peak	30 seconds peak, 45 seconds out of peak	45 seconds	<i>see type of road being crossed</i>	<i>see type of road being crossed</i>
Signalised pedestrian crossings (at traffic signals)						
Call/ activation (Should include a bicycle button to enable cyclists to register a call)	automatic, pedestrian green resting with vehicle green at side streets	automatic, pedestrian green resting with vehicle green at side streets	automatic with vehicle phase	demand	demand	demand
Maximum traffic signal cycle time	desirably less than 120 seconds peak (the DPTI standard), 90 seconds or less out of peak and at weekends			60 to 90 seconds depending on site, unless linked		
Unsignalised pedestrian crossings/ pedestrian refuges						
General requirement	Signalised crossings preferred, but for long zones, to give crossing opportunities at approx. 200m intervals	between signalised crossing opportunities, 200m intervals desirable, 400m intervals acceptable	where the warrant for signalised crossings cannot be met; to service bus stops; at intersections with higher volume local streets; 200m intervals desirable, 400m intervals acceptable	at intersections with higher volume local streets; at wide intersections or those with poor visibility	where the warrant for signalised crossings cannot be met; at wide intersections or those with poor visibility	
Path crossing of side street	streets with volume less than 1,000 vpd: continuous footpaths; kerb ramps in kerb protuberances otherwise	streets with volume less than 1,000 vpd: continuous footpaths; kerb ramps in kerb protuberances otherwise	kerb protuberances with kerb ramps	kerb protuberances desirable if footpath width less than 1.5m; kerb ramps for all widths; continuous footpaths for streets servicing fewer than 25 properties and less than 100m in length	continuous footpath or kerb ramps in kerb protuberances	kerb protuberances with kerb ramps
Kerb ramps	continuous footpaths or with extra width	continuous footpaths or with extra width	standard	standard; continuous footpaths over low volume/ length streets (as above)	continuous footpaths or extra width	standard
Public transport						
Weather protection at stops	building verandas, canopies or special design		bus shelter	n.a.	bus shelter, trees	bus shelter, trees
Seating	at all stops, capacity dependent on stop patronage and whether mainly used for boarding or alighting					
Street furniture (locate outside the path of travel)						
Weather protection (tree spacings 6m, 9m, 12m, 15m depending on local environment)	building verandas, canopies or special design; street trees	building verandas, canopies or street trees	street trees	street trees; can use kerb protuberances to provide, or in parking lane where required	assess on site	assess on site
Street trees (at 6m, 9m, 12m or 15m spacings depending on local environment)	Y	Y	Y	Y, using kerb protuberances or in parking lane where required	Y	Y
Drinking fountains (must be accessible in a sitting position)	N; provided in land use	between primary pedestrian zones	assess on site	assess on site	Y	assess on site
Public or emergency telephones (accessible to those using wheelchairs)	at least one over length, and to suit demand			to suit demand	emergency telephones at O-Bahn stops and as required	
Lighting for: <ul style="list-style-type: none"><li>visibility</li><li>delineation (if not provided for visibility)</li></ul>	along length n.a.	along length n.a.	at intersections/ decision points at wayfinding signage locations	at intersections	at intersections/ wayfinding signage locations along length	consider at intersections at intersections, wayfinding signage locations
Seating (general)	at least one along length; can provide by requiring public access to land use seating	midway between bus stops; at intersections with secondary routes	midway between bus stops; at intersections with primary and secondary routes	as determined to be appropriate	at high amenity locations and intervals of no more than 250m	as determined to be appropriate
Seating (additional)	Within 125m of aged care, aged housing, disability or medical services: at 60m intervals (desirable) More than 125m and less than 500m of aged care, aged housing, disability or medical services: at 120m intervals (desirable)					

## Annotated glossary of terms

### Path width

The path width for pedestrians, clear of street furniture, vegetation or any other objects on the footpath.

For local streets, where a path width cannot be achieved with the existing road profile, options to provide an acceptable path width include removing parking from one side of the street or converting a street to one-way to reduce carriageway width, or using a non-footpath approach with access provided in the carriageway.

It should be noted that the width of 1.2 metres used in the performance criteria is the minimum width that allows for a wheelchair to pass another wheelchair. 1.0m is the minimum width for a wheelchair to pass a pedestrian. These do not provide for electric buggies, also known as gophers or scooters, whose width requirements exceed those of a wheelchair. This has implications for people whose mobility is dependent on such devices.

While this may seem to be an omission given the potential for use of scooters to increase as the population ages, there currently appear to be no guidelines for the design or use of scooters that could allow their use to be incorporated as part of the pedestrian network.

That is, the performance characteristics of scooters vary greatly, with some scooters having performance characteristics more akin to those of a small car in terms of both size and speed than a wheelchair. Currently, such scooters cannot be catered for within a pedestrian network without potentially compromising pedestrian safety.

Further, scooters can be purchased without a medical condition that warrants their use and without training in their safe use. This is not the same case as for people with disabilities, or even motor vehicle drivers, and it is considered undesirable to encourage scooter use in the pedestrian network, given a lack of design standards and guidelines that could cater for their safe use.

The use of electric scooters is acknowledged as an area of increasing concern for pedestrian planning that needs to be better addressed by educators and regulators (at least). In the interim, scooters with similar performance characteristics to wheelchairs will probably use the pedestrian network, but larger scooters may only be able to access some routes and may need to be treated more similarly to motor vehicles, for example by providing scooter parking at destinations.

### Setback

The distance from the path to a hazard.

- A setback from the property line assists motorists reversing from properties in seeing pedestrians using the footpath. It also provides a zone in which garden vegetation can intrude before it affects the clear path of travel.
- Setbacks from creek lines, batters, etc, provide space to potential safety hazards and consideration should be given to railing where these setbacks cannot be achieved.

Setbacks are thus highly desirable, but no minimum is set for local streets on the basis that footpath width may be difficult to achieve and a minimum width footpath with no setback is more desirable than no footpath in the case that a setback cannot be achieved.

### Call/ activation

For all traffic signals, the signals change to a green phase as a result of a "call". For vehicles, this can be automatic or generated by detection of vehicles waiting at the stop line or in turn lanes. The case is similar for pedestrian actuated signals and pedestrian crossings, but the call is usually provided by a pedestrian pushing a button. When linked with other traffic signals, the signal control logs a call and will provide a green phase when the phasing next allows.

- For side streets intersecting with major streets, the traffic signals will often "rest" on a green phase for vehicles until a call is received for the side street. Where this is the case, they should also rest on a pedestrian green, rather than requiring a call to be logged and the pedestrian phase provided in the next phase cycle.

- When at traffic signals, the pedestrian phasing should be provided automatically as part of the cycle and should not need a pedestrian call to activate.
- When at pedestrian actuated signals not linked with other traffic signals, the call should be serviced immediately, requiring only the minimum inter-green to occur, being the time for the green to change to amber and red for traffic.

### Above minimum phase time

For pedestrian actuated crossings, this indicates that the phase time provided for pedestrians to cross the road is above the minimum for a person to cross, as per standard traffic engineering practice.

The assumed average pedestrian speed of 1.2m/s does not cater for elderly people and people with disabilities. This is an increasing consideration given the aging of the population. An assumed speed of 0.9m/s better caters elderly pedestrians and should be used as a matter of course outside retirement villages, hospitals and aged accommodation facilities.

Above minimum phase time should also be allowed where pedestrian volumes are high, as the clearing of queued pedestrians is not included within the standard pedestrian phase time. DPTI enables some pedestrian actuated crossings to provide additional phase time if the pedestrian button is held down, enabling teachers to extend the phase time when groups of children are using the crossing.

This criterion could be satisfied by using pedestrian detection techniques such as video detection. These detect whether a person is still using the crossing at the end of the standard phase time and, if so, extend the pedestrian phase to enable the pedestrian to clear the crossing. In high pedestrian locations, this form of detection may not be feasible as the extended phase time enables further pedestrians to enter the crossing and the crossing may not clear. However, this is well suited to locations subject to occasional (but fairly regular) use by people who require additional phase time.

### Phase linking

Traffic signals are often linked, to enable vehicles to proceed through intersections with minimal delay and thus increase the capacity of the road system. For pedestrians, linking increases delay as signals do not change in

response to the pedestrian call per se, but the combination of the pedestrian call plus programmed phasing. As DPTI's signals operate on a 120 second (2 minute) phase time, this results in delays of up to 120 seconds from the time the call is registered to when it is serviced. This criterion indicates conditions under which phase linking is counter-productive to pedestrian access and should be reconsidered.

In some cases, phase linking of pedestrian actuated crossings to traffic signals may enable pedestrian actuated crossings to be installed, where unlinked signals would be considered too disruptive to traffic. These opportunities need to be assessed on site.

### Reset period

Pedestrian actuated crossings that are not linked with other traffic signals could potentially service a pedestrian call within moments of having completed a pedestrian phase, subject to the minimum safe clearance times. Multiple pedestrian phases one after the other are disruptive to traffic and a reset period is usually provided to regulate the period from the frequency with which pedestrian calls are serviced.

By specifying reduced reset periods outside of peak times, delay to pedestrians is reduced and pedestrian compliance increases. To minimise delay to pedestrians, the reset period should be timed from the last pedestrian phase rather than from the time that a pedestrian call is registered.

### Traffic signal cycle time

DPTI operates all traffic signals on arterial roads with generally a 120 second (2 minute) cycle time in peak periods. This determines the delay time, which is related to the frequency with which phases run, which are in turn dependent on the cycle time.

The 120 second cycle time is based on maximising vehicle throughput, but the effect of reduced cycle times may not necessarily obstruct traffic and should be examined at each location. Any reduction in cycle time is desirable, with 90 seconds considered to provide a reasonable level of service to pedestrians.

Outside of peak periods, vehicle throughput is less important and the cycle time can be reduced to 90 seconds or even 60 seconds.

Where cycle time has not been optimised for pedestrians, the cycle time should be reduced at least outside of peak periods and preferably during peak periods as well.

### Path crossing of side streets

At side streets, footpaths are usually kept in line with the general carriageway width and ramped to carriageway level to allow pedestrians to cross. Although turning vehicles must give way to pedestrians, there is generally low compliance with this requirement.

In areas where pedestrian volumes are high, they may in fact be comparable to traffic volumes using side streets and it is considered that pedestrians should have clear priority over side streets.

One way to provide this is to continue the footpath at the same level over the side street, with the footpath forming a “road hump” for vehicles. This is known in Adelaide as a continuous footpath treatment. As there is no deviation for pedestrians and the footpath remains at a single level, this can be a high quality way of providing a continuous path of travel compatible with requirements providing access for people with disabilities. Other principles applicable to providing access for people with disabilities are necessary to ensure this quality of access is achieved.

This is an appropriate treatment in primary pedestrian zones or crossing low-volume streets.

In other locations, kerb protuberances can usually be provided at the intersection point instead. These use the carriageway width that is elsewhere used for car parking and therefore do not reduce vehicle accessibility. These assist pedestrians by reducing the width of the crossing, improving visibility of crossing pedestrians and encouraging motorists to reduce speed.

In addition to assisting pedestrians, kerb protuberances can be used to overcome technical difficulties related to providing kerb ramps compliant with Australian Standards where large service pits are located in the footpath. At activity nodes, large kerb protuberances can also be used to provide space for footpath uses including outdoor dining, bicycle parking and seating – as long as the access way and sight lines are not compromised.

### Kerb ramps

These are the principle means of facilitating access from footpath level to carriageway level, where a path crosses a street. There have been a number of different standards governing kerb ramp design over the years, leading to an inconsistent footpath network. In particular, kerb ramps on either side of a street that do not line up with each other do not provide adequate guidance for those who require it, and are also inconvenient to use.

The City of Campbelltown has been working to address these inconsistencies and create continuously accessible routes, but as with footpath construction generally, a significant amount of additional construction is required.

Continuous footpath treatments overcome some of the issues relating to use of kerb ramps and are therefore preferable, but are not feasible for all locations.

Wherever work is undertaken affecting footpaths, kerb ramps should be provided to the current standard and for all routes at a location.

While a standard minimum width is set for kerb ramps, additional width should be provided where pedestrian volumes are high or where significant footpath cycling can be expected (primary pedestrian zones), or where the path is designated for shared use (primary recreation routes).

### Street furniture

The generic name given to infrastructure located in city streets, such as seats, telephones and bicycle rails. Street furniture should be designed according to design principles enabling use by people with disabilities and located to preserve access for people with disabilities. For example, drinking fountains should be designed that enable use by people in wheelchairs and bicycle rails should not be of a cantilevered design over the path of travel, which would be a hazard to a person with vision impairment. All street furniture needs to be arranged outside of the vehicle path of travel, including appropriate set backs from the face of kerb.



## Trees

Street trees provide both amenity and shelter from the harsh Australian sun. To preserve the high quality of access envisaged for the pedestrian network, tree varieties should be chosen that will not create damage to footpaths or shared use paths by lifting paving, or street trees should be treated in a way that will minimise the likelihood of such damage, such as by location in kerb protuberances rather than within or immediately adjacent to the path. Use of a permeable pavement should be considered immediately around trunks, to minimise trip hazards created by lifting of pavement/ pavers; where a landscaped tree pit cannot be provided.

Spacing of street trees should also be carefully considered with respect to the adult size of the tree and spacing of lighting.