

CITY OF MELBOURNE WALKING PLAN 2014-2017

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ABSTRACT

Walkability is one of Melbourne's key assets. If walking connectivity in the CBD grid was increased by 10 percent, the value of the economy of the Melbourne CBD would increase by \$2.1 billion per year. The economic benefits of people being able to easily access other people, services and jobs pay dividends for the city. The City of Melbourne's Walking Plan sets out actions to support Melbourne's walkability. The actions help accommodate the growth in walking, address crowding and delay on footpaths and ensure the walking network is well-connected, accessible, safe, comfortable, convenient and attractive. The plan has been developed to support walking as a legitimate transport mode. One aspect is to recognise the importance of walking in decisions on street management and operation. The plan also outlines actions relating to the Melbourne Planning Scheme as well as capital works projects. Key government partners and stakeholders were engaged throughout the development of the plan in order to ensure that it can be implemented in a real and coordinated way along with other changes in the city, particularly in relation to public transport improvements. A foundation of the economic case for the plan has been the development of the pedestrian network in GIS and current and future accessibility scenario modelling.

Introduction

“A connected city – We manage movement in and around our growing city to help people trade, meet, participate and move about safely and easily. This enables our community to access all the services and opportunities the municipality offers”.

The City of Melbourne Walking Plan

The City of Melbourne’s Walking Plan sets out priorities and actions to support walking as a priority transport mode. Walking is the most common form of transport within the municipality. The plan sets out actions to prioritise walking as a legitimate and important part of transport planning.

The Walking Plan has been recognised for its innovative and daring approach to transport planning.

This practice paper presents a summary of the Walking Plan.

Executive Summary

Walking is the most important mode of transport for the City of Melbourne. It accounts for 66 per cent of all trips within the municipality and is part of trips for most other modes.

The purpose of the Walking Plan is to highlight the contribution that walking makes to the municipality, while laying out a practical plan to improve the city’s walking network and encourage more walking.

The walking plan aims to increase the number of walking trips in 2030 by 63 per cent from 2009 levels.

It establishes principles for planning for walking in the city. This includes priority access, safety, access for all abilities, planning for future growth, creating attractive walking environments, permeability (ability to cross streets) and reducing delay to pedestrians.

The plan will help the City of Melbourne to work with the State Government to achieve the Plan Melbourne goal of transforming the transport system to support a more productive central city. In particular it supports improving pedestrian crossing times and reducing speed limits to improve pedestrian safety.

The actions in the plan are grouped in three streams.

Planning:

- amend the Melbourne Planning Scheme to improve the walking environment.

Street management:

- change traffic signal operation to reduce delays to pedestrians;
- increase the number of pedestrian streets and shared zones; and
- improve legibility and way finding.

Capital works:

- extensive master planning;
- access around tram and bus stops; and
- increase the number of road crossings.

The Walking City

The Role of Walking

Walking is our most fundamental mode of transport; almost everyone walks, and walking makes up part of every journey in the city. Walking accounts for 66 per cent of all trips within the municipality. Council has a target for this to grow to 69 per cent by 2030 (CoM, 2012, p. 17). There will be many more people visiting and living in the City of Melbourne by 2030. The number of daily weekday city users is predicted to increase from around 840,000 today to over 1,200,000 (CoM, 2013a, p. 14). The number of walking trips is forecast to increase by 64 per cent over this same period (CoM, 2012, p. 15).

Commuting to Work in Melbourne

Virtually every public transport trip begins and ends with a walking trip. The share of people commuting to work in Melbourne by public transport has increased by 11 per cent since 2001 (ABS 2001; 2011a). Over the same period, the share of individuals walking to work has increased by 76 per cent. Melbourne's public transport patronage grew at an average of 3.9 per cent a year from 2002 to 2012, and at 6.6 per cent a year between 2004 and 2008 (PTV, 2013, p. 4). Projections indicate that 2011 patronage will double by 2029, meaning that there will also be many more people walking to tram stops and train stations in Melbourne.

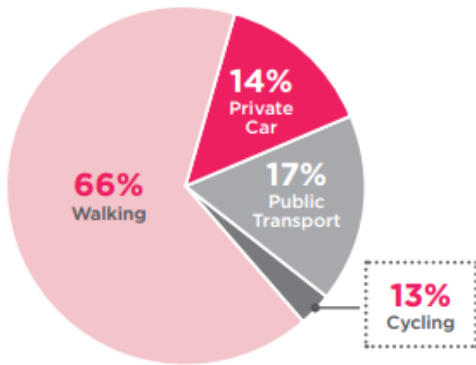


Figure 1: Trips within the City of Melbourne by mode, average weekday, 2009/10. (Source: DoT, 2010)

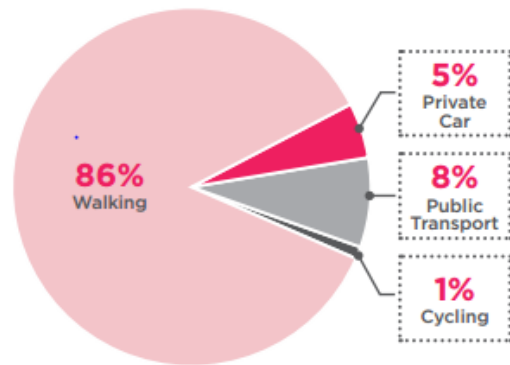


Figure 2: Trips within the Hoddle Grid and Docklands by mode, average weekday, 2009/10. (Source: DoT, 2010)

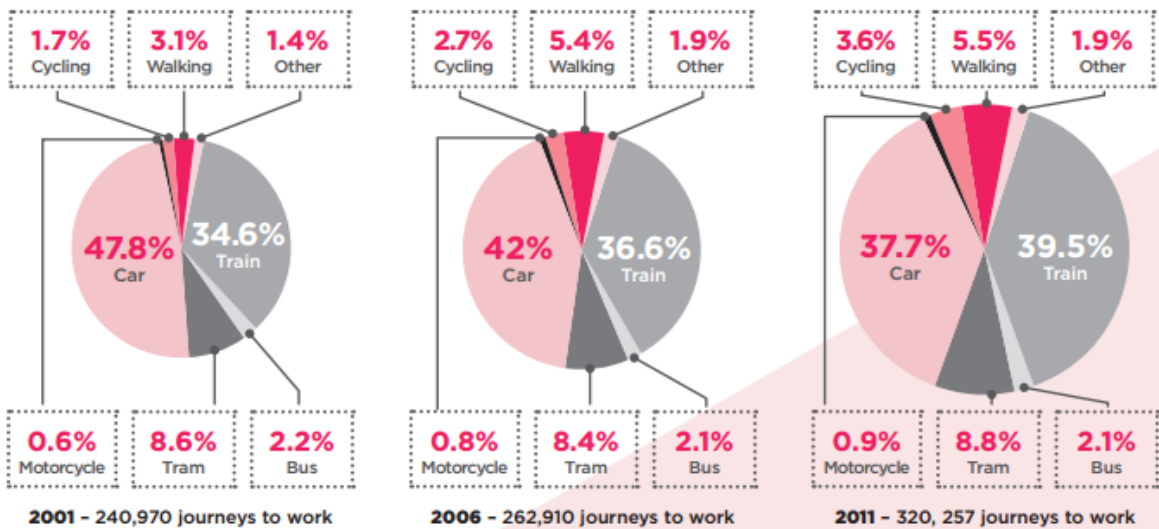


Figure 3: Method of travel to work in the City of Melbourne, 2001, 2006, 2011 (Source: ABS, 2011a; 2006; 2001)

Pedestrian accessibility provided by the walking network



Figure 4: Pedestrian accessibility provided by the walking network.

This map shows how well each property is connected to other areas via the walking network based on walking time. Areas with greater permeability - more streets - laneways - smaller block sizes and parkland - result in higher levels of pedestrian accessibility.

The Walking Economy

Walking trips are important for the economy. About 63 per cent of trips made within the City of Melbourne for a work purpose are on foot (DoT, 2010). Walking is the primary mode for shopping, tourism and city visitors (DoT, 2010). Walking has also grown as more people have come to live in the municipality - 35 per cent of residents of the Hoddle Grid and 34 per cent of Southbank residents walk to work (ABS, 2011b).

Walking and Agglomeration

Central business and retail precincts in large cities, such as in the Hoddle Grid and the expanded central city in Docklands and Southbank, foster connections within the central city community.

These connections generate knowledge which circulates through both formal and informal links, and from this knowledge income is generated. Much of this knowledge transfer takes place face to face and is often the result of a walking trip within the central city. This is why dense city centres are so important to the economic prosperity of cities and nations. The large number of people located in close proximity to each other allows ideas to be quickly generated, refined into knowledge and put to work solving complex problems. There is a strong relationship between connectivity and productivity. This relationship is referred to as agglomeration economies.

Analysis of the impact of walking on agglomeration has found that if the walking connectivity within the Hoddle Grid was increased by 10 per cent, the value of the economy of the Hoddle Grid would be increased by up to \$2.1 billion per annum. This represents a 6.6 per cent increase in the value of the current economy (SGS, 2013, p. 2).

Agglomeration can be measured using Effective Job Density (EJD). Figure 5 shows the EJD provided by the walking network; that connectivity across the walking network contributes to the economy of the City of Melbourne. Areas with darker colours represent both a richer walking network and a higher concentration of employment and economic activity. This measure of EJD is based on the number of jobs (working people) that can be reached within 30 minutes by walking on the pedestrian network (scaled by the time it takes to reach them).

Walking connectivity contributes to EJD by supporting knowledge transfer. The connectivity of the walking network across the City of Melbourne is shown in Figure 4, demonstrating how well each land parcel is connected to other land parcels. It shows the amount of land that can be reached by a 30-minute walk, divided by how long it takes to reach each of the land parcels within the 30-minute catchment.

Attractive streetscapes enhance the city experience

A high-quality walking environment is key to delivering on the vision of the city's retail and hospitality strategies. Walking is low cost, environmentally sustainable and promotes physical and mental health. As a mode of transport, walking is also the main mode of transport for tourists and visitors for events. However, one of the main problems reported by visitors to Melbourne is the difficulty of walking around the city due to narrow footpaths or delays at signals (Destination Melbourne, 2010, p. 60).

Economic impact of the walking network



Figure 5: Effective Job Density (EJD) provided by the walking network

This map shows the connectivity across the walking network and its contribution to the economy of the City of Melbourne. Areas with darker colours represent both a richer walking network and a higher concentration of employment and economic activity. This measure of EJD is based on the number of jobs (working people) that can be reached within 30 minutes by walking on the pedestrian network (scaled by the time it takes to reach them).

Achievements to Date

Walking environment

For more than 30 years the City of Melbourne has been transforming the municipality's walking environment. Melbourne's iconic Bourke Street Mall opened officially in 1983. Guided by the Places for People studies in 1994 and 2005, the City of Melbourne has widened footpaths, laid high quality pavements, encouraged outdoor dining and reduced traffic signal cycle times to support improvements to public transport to make Melbourne a more attractive place to be.

The city has increased pedestrian safety and level of service with:

- Widened footpaths, especially in areas of high pedestrian use, such as approaching train stations;
- Creation of Bourke Street Mall and transformation of Swanston Street into a pre-eminent civic space;
- High-quality pedestrian environments including bluestone paving, trees and street furniture;
- Level access trams stops;
- Signalised pedestrian and zebra crossings;
- Safe staging points for pedestrians to cross busy roads;
- Reductions in traffic signal waiting times especially in the central city;
- Extending the time that walk signals are displayed to give pedestrians a longer window in which to cross at signals;
- Shared zones with speed limits reduced to 10 km/h, which allow pedestrians and drivers to share the road and make more efficient use of space;
- 30 km/h and 40 km/h speed limits in key pedestrian streets;
- A speed limit in the central city of 40 km/h;
- Conversion of laneways to active uses including retail and hospitality;
- Negotiating laneways to be built in new developments;
- Conversion of underused road space to pedestrian use, such as removing slip lanes;
- Enhancement of existing public spaces, such as City Square in 2000 and the creation of new spaces such as Queensbridge Square in 2006;
- Signal cycle time reductions at Spencer and King streets to reduce pedestrian wait times and crowding;
- Painted pedestrian medians on Toorak Road, Errol Street and Victoria Street; and
- Expanding the amount of footpath space by 160,000 square metres or nearly 15 per cent since 2007, from 1,107,627 square metres to 1,270,793 square metres in 2012.

Walk 21 Charter

In 2008 the City of Melbourne became a signatory to the Walk21 International Charter for Walking. This requires the city to 'work with others to create a culture where people choose to walk' (Walk21, 2006) through the following strategic principles:

- increased inclusive mobility;
- well-designed and well-managed spaces and places for people;
- improved integration of networks;
- supportive land-use and spatial planning;
- reduced road danger;
- less crime and fear of crime;
- more supportive authorities; and
- a culture of walking.

Challenges to Date

Growth

Some key footpaths in the city are already routinely overcrowded with people forced to walk on the roadway. The volume of pedestrian traffic in Melbourne will rise as the city grows from about 844,000 daily visitors in 2012 to 1.256 million per day in 2030 (CoM, 2013a, p. 14). The central city is expanding into urban renewal areas including Southbank, Docklands, Fishermans Bend, City North and Arden-Macaulay. Figure 7 shows where growth will be concentrated. These areas need to be designed to offer similar levels of walkability to that currently experienced in the central city

Growth in the City of Melbourne, 2012 - 2031

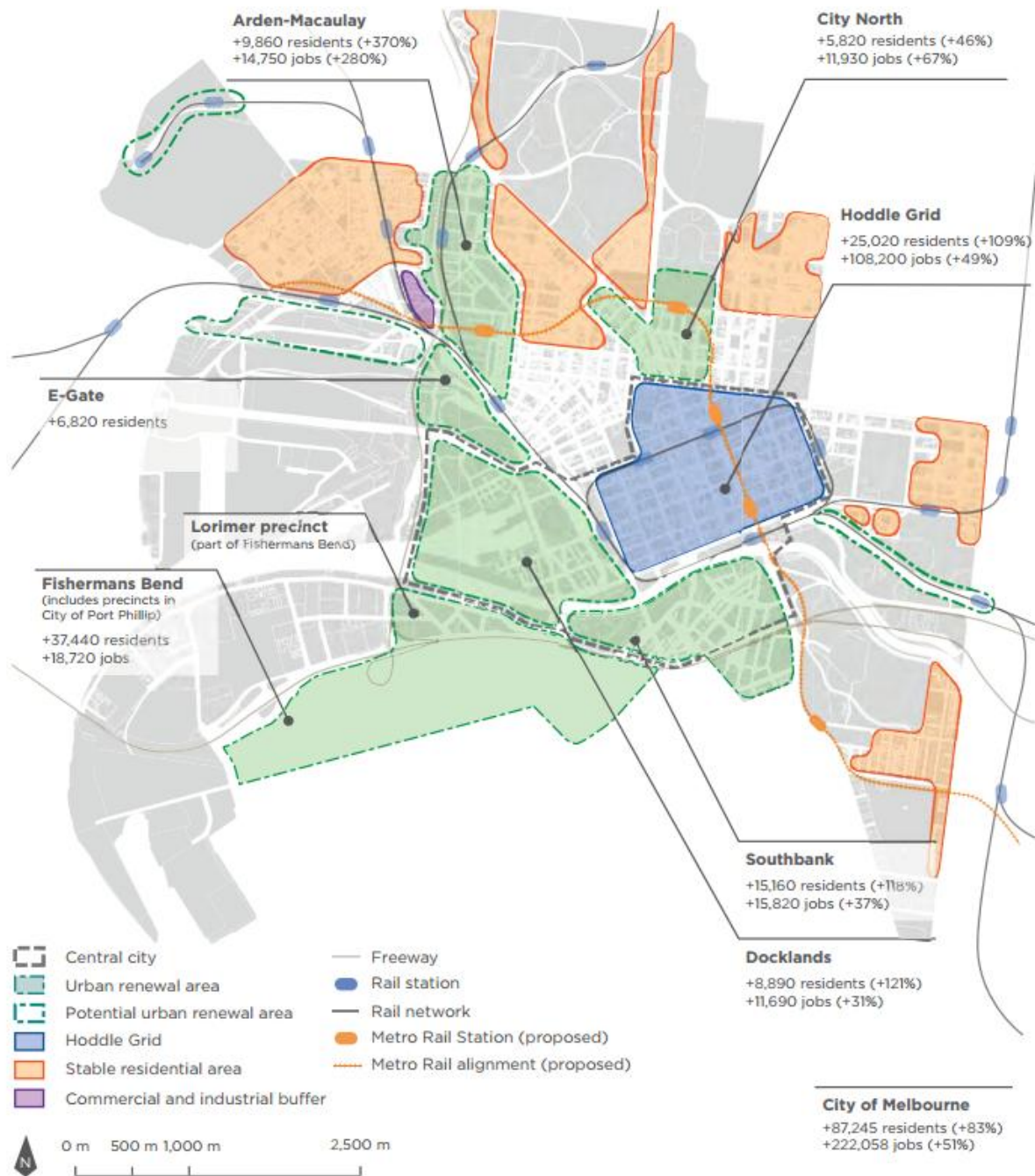


Figure 7: City of Melbourne growth 2012 - 2031

Crowding

Crowding is already a significant issue for the walking network in Melbourne and city growth will exacerbate this. Locations where crowding occurs include in and around public transport stops and stations and in areas of the retail core of the city, such as Swanston Street.

Crowding discourages people from walking, creates delays which waste time and money and undermines Melbourne’s international reputation for liveability. It can ‘squeeze out’ other normal functions of a footpath, such as socialising, window shopping or enjoying a space, and it can undermine retail and hospitality experiences. Overcrowding and delays that result from waiting at intersections can cause annoyance and discourage people from returning to the city.

Traffic congestion in Melbourne costs the city's economy \$3 billion a year. This is projected to rise to \$6 billion by 2020 (BTRE, 2007, p. 13). A significant amount of traffic congestion experienced in Melbourne is suffered by people walking, especially through delays at traffic lights or other crossings.

Connecting to Public Transport

Public transport nodes attract the largest and most concentrated walking activity in the city. For example, 171,160 people use Flinders Street Station each weekday, 111,290 use Southern Cross and 47,360 use the Federation Square tram stop (PTV, 2011a, 2011b).

Public transport use has grown strongly in recent years and is expected to continue to grow based on central city job growth and new rail infrastructure.

Increases in tram patronage and crowding at tram stops will also require the conversion of some high-intensity tram stops to new designs that provide more space for people waiting, more permeable access from footpaths and potentially low-speed road space to increase opportunities for pedestrians to cross roads.

Permeability

Increasing the number of pedestrian connections and ensuring new developments are permeable is a challenge for the future.

A rich walking network with many routes, links, crossings and connections provides more walking choices, spreads the pedestrian load, stimulates more walking, reduces walking times, creates more economic activity by bringing people into new spaces and reduces walking distances.

New developments must be able to provide new connections whilst remaining viable both in their own right and in order to deliver a net community benefit through the viability of the development yield and the pedestrian network overall.

Links may be footpaths, lanes, shared zones and formal or informal pedestrian crossings. They also include part-time links through arcades and other public connections through private property.

The walking network in the Hoddle Grid is relatively rich with many through-block connections, mid-block pedestrian crossings, laneways and little streets. There are still opportunities to add connections to this network. In urban renewal areas, however, the walking network is relatively less rich and will require significant improvement to achieve its development goals.

Safety

In the City of Melbourne, a pedestrian is killed or sustains a serious or other injury every two days. There were 956 pedestrians **injured or killed in the five years** to 2011 (VicRoads, 2011, p. 7). The City of Melbourne has the highest rates of pedestrian death and injury in the state.

The road safety approach in a people city is to reduce death and injury by addressing the road danger posed by vehicles while supporting the growth of walking and the expansion of the walking network. City of Melbourne's Road Safety Plan 2013–2017, approved in July 2013, seeks to deliver an environment in which pedestrians are prioritised and supported by a safe, attractive and engaging urban environment.

Priority

Walking is the most fundamental mode of travel in the City of Melbourne and decisions about the transport network and land use should reflect this priority. The walking network in Melbourne should be planned and managed to increase the priority given to walking to reduce delay and avoid overcrowding.

Access for all

Providing access for people of all abilities and ages is a key component of developing the walking network in Melbourne.

Attractive walking environments

The City of Melbourne will continue to strive to create attractive walking environments. This includes creating walking environments that encourage a variety of uses: places to pause or window-shop, space for kerbside dining, art, seating and expansion of the urban forest.

Goals

Expand the pedestrian network

The City of Melbourne Council Plan 2013–17 has a four-year priority of expanding and prioritising a connected, safe and easy to access pedestrian network. The City of Melbourne will create an excellent and safe walking environment for residents, workers and visitors, with seamless high-priority links between the city’s public spaces and the public transport system.

Plan for future growth

A key goal of this plan is to accommodate increasing amounts of walking in Melbourne. The city is experiencing significant growth. Figure 9 shows that walking will account for 30 per cent of all trips to, within and from the City of Melbourne in 2030, corresponding to over one million walking-only trips (on top of walking connections to public transport trips) on an average weekday. Decisions about the transport network and land use that affect pedestrians should take into account the likely future growth in numbers of people walking in Melbourne and plan accordingly.

Reduce delay

This plan will reduce delays to pedestrians through changes to the walking network, footpaths, intersections and traffic signals.

Improve safety

The safety of people walking in the City of Melbourne is very important. This includes personal safety and road safety. The City of Melbourne faces a significant challenge addressing the high numbers of people injured by vehicles while walking.

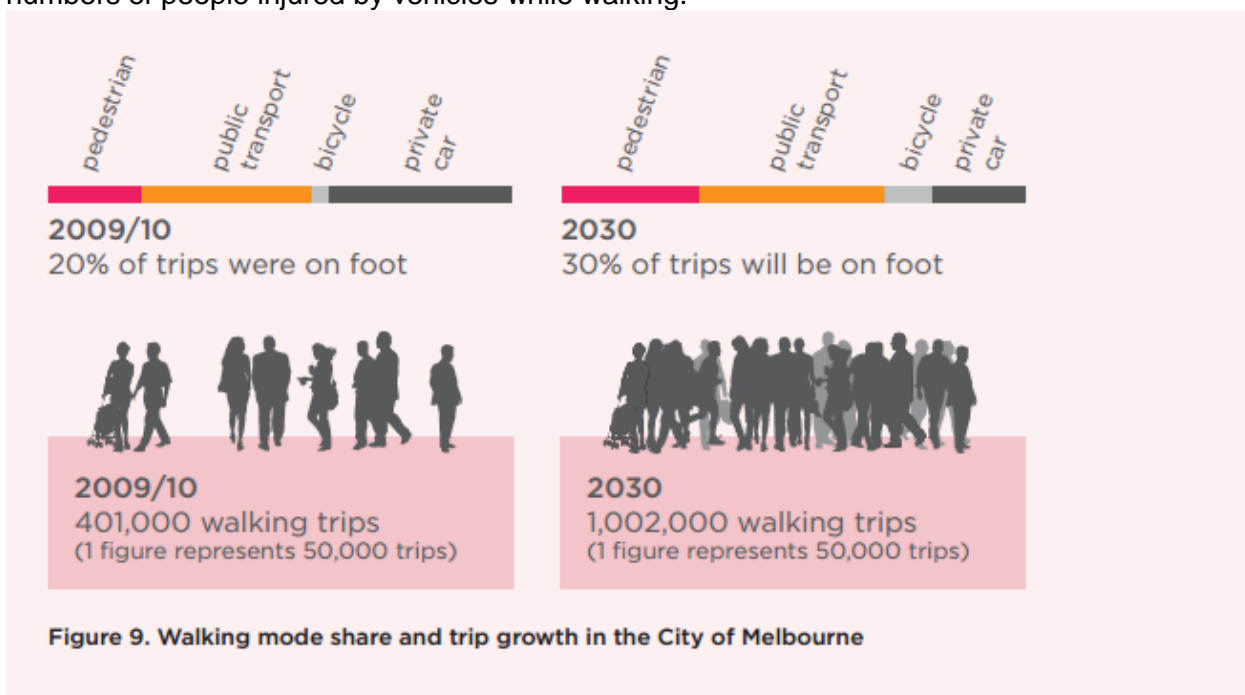


Figure 9. Walking mode share and trip growth in the City of Melbourne

Actions

Actions in this plan have been framed within the existing structure of the operations of the City of Melbourne and its stakeholders. This will ensure the effective implementation of these actions to achieve the strategy vision. The actions have short, medium and long term timeframes.

Planning

- 1.1 A central city subregion walking plan
- 1.2 Using the planning scheme to improve the walking network
- 1.3 Principal Pedestrian Networks

Street Management and Operation

- 2.1 SmartRoads
- 2.2 Signal operation
- 2.3 Pedestrian street hierarchy
- 2.4 Investigate streets as places
- 2.5 Investigate new Walking Streets
- 2.6 Investigate High-Mobility Walking Streets
- 2.7 Create new shared zones
- 2.8 Making roads safer for pedestrians
- 2.9 Walking navigation
- 2.10 Stop lines
- 2.11 Travel behaviour change
- 2.12 Promoting health

Capital Works

- 3.1 Addressing pedestrian crowding
- 3.2 Pedestrian crossings at intersections
- 3.3 Master plans
- 3.4 Access around stations
- 3.5 Tram and bus stops
- 3.6 Increasing the number of formal crossings
- 3.7 Making streets easier to cross
- 3.8 Technical notes

1 Planning

- 1.1 Work with the Metropolitan Planning Authority, the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) and Inner Melbourne Action Plan councils to deliver improvements to walking in Melbourne.
- 1.2 Establish a future fine-grained pedestrian network for the City of Melbourne for implementation in the Melbourne Planning Scheme.
- 1.3 Define a principal pedestrian network in the Planning Policy Framework and SmartRoads to complement the fine-grained pedestrian network.

2 Street Management and Operation

- 2.1 Use SmartRoads to assess road space allocation in the City of Melbourne.
- 2.2 Assess pedestrian delay at intersections across the City of Melbourne and develop a prioritised list of projects to reduce pedestrian delay.
- 2.3 Adopt a pedestrian street hierarchy to provide direction for the operation of streets.
- 2.4 Investigate the suitability of the proposed Streets as Places. (MAYBE EXPLAIN?)
- 2.5 Investigate the suitability of the proposed Walking Streets.
- 2.6 Investigate the suitability of the proposed High-Mobility Walking Streets.

- 2.7 Extend the program of converting laneways, roads and other spaces into shared zones in line with VicRoads' guidelines and the City of Melbourne Pedestrian Street Hierarchy.
- 2.8 Review existing lower speed limits and implement more on local and arterial roads where appropriate.
- 2.9 Install a 'heads-up' mapping system in high-pedestrian areas and work to implement this system across Melbourne.
- 2.10 Progressively install stop lines on laneways at the building line rather than the intersection line along Bourke, Collins, Elizabeth and Flinders streets.
- 2.11 Continue to deliver the Share Our Streets multi-modal behaviour change program to improve safety and harmony amongst all road users.
- 2.12 Investigate the potential for encouraging walking to deliver health benefits in Melbourne including through the new Active Melbourne Strategy to be developed by the City of Melbourne.

3 Capital Works

- 3.1 Develop a tool to assess and identify current and future crowding and develop measures to address these locations through a range of interventions.
- 3.2 Progressively widen, de-clutter, extend and protect pedestrian crossings through engineering, enforcement and design interventions.

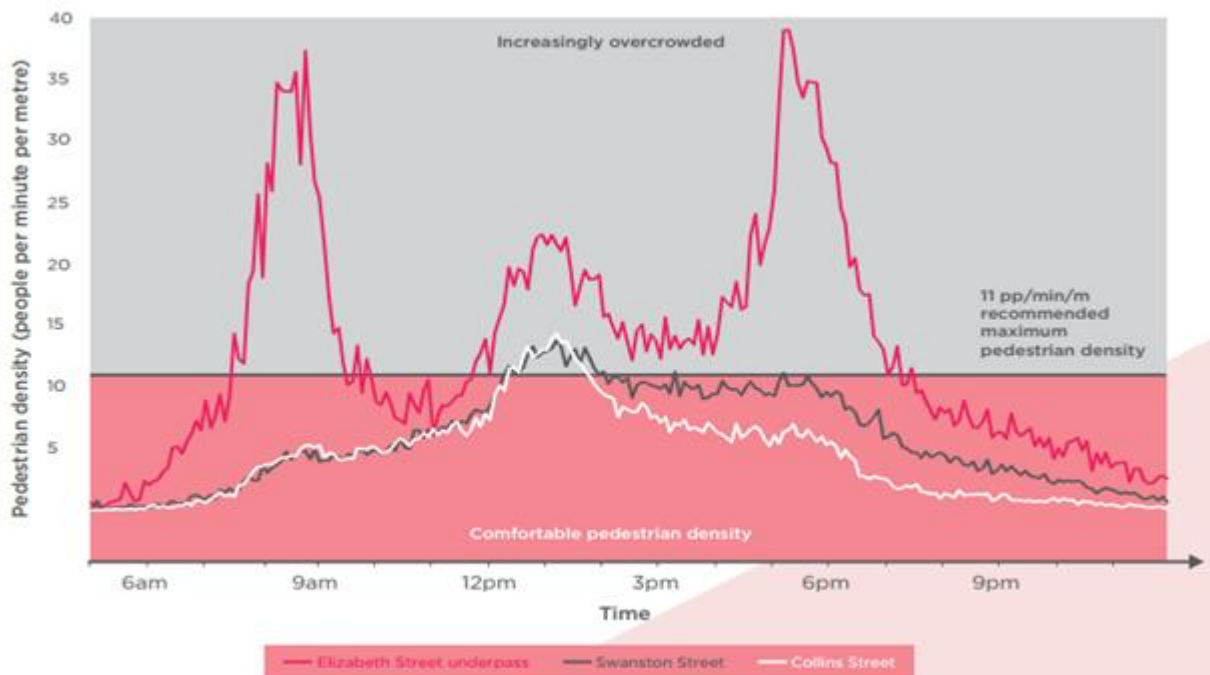


Figure 26: Counted pedestrian volumes on central city footpaths on an average Tuesday, September 2012

- 3.3 Ensure master plans and precinct plans deliver an enhanced pedestrian network consistent with the principles of the Walking Plan.

Walking network issues and opportunities in urban renewal areas

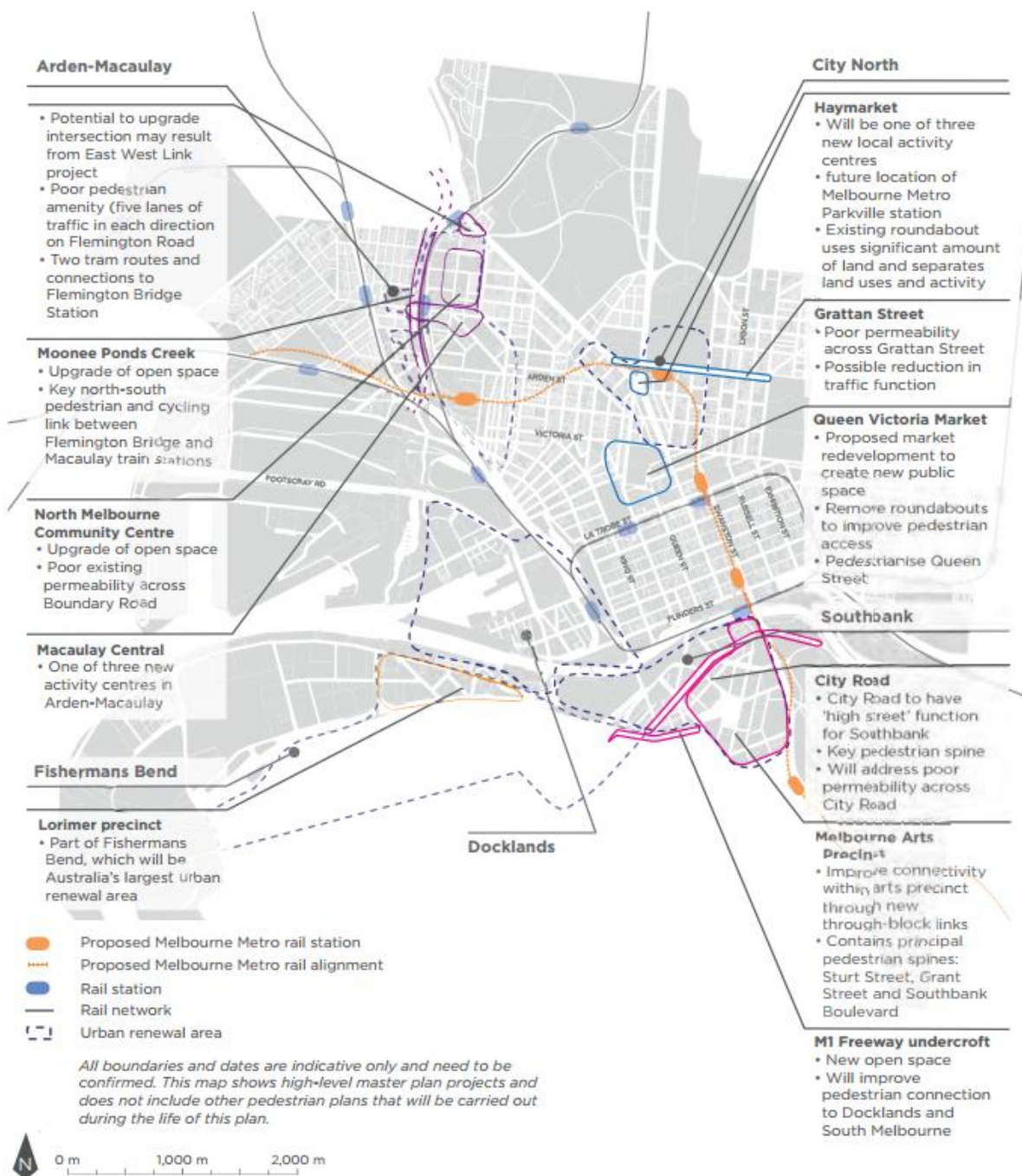


Figure 28: Walking network issues and opportunities in urban renewal areas

- 3.4 Prepare pedestrian accessibility plans for train stations in the Hoddle Grid and in urban renewal areas.
- 3.5 Work with the DEDJTR, PTV and Yarra Trams to review current loadings, forecasts and location changes for tram and bus stops to improve their design, account for better streetscape integration and future pedestrian volumes.
- 3.6 Develop a prioritised list of locations for new or improved pedestrian crossings where demand is high, crossing is difficult, including at roundabouts, and where distances between crossings are long.
- 3.7 Investigate techniques to assist pedestrians to cross streets legally and safely at 'non-crossing' locations.
- 3.8 Review Technical notes to ensure alignment with the Walking Plan.

Policy Background

The Walking Strategy references policy documents from Commonwealth, State and Local levels. These include:

- Plan Melbourne 2014
- SmartRoads Framework
- Transport Integrations Act, 2010
- Transport Strategy 2012
- Council Plan, 2013-2017
- Road Safety Plan, 2013-2017
- Streetscapes Framework, 2011
- Melbourne for All People Strategy, 2014-2017
- Bicycle Plan, 2012-2016

Conclusion

The Walking Plan is recognised as a progressive priority document to support walking as the preferred transport mode in the City of Melbourne. The Actions have short, medium and long term timeframes, and have been included in the corporate workplan within the City of Melbourne to ensure delivery

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These must be referred to in the text. It is recommended they be listed in alphabetical order using the **Harvard** referencing system, summarised here:

<http://libguides.scu.edu.au/content.php?pid=269507&sid=2223205>

Some examples of the **Harvard** system are below:

Book

HOYLE, B.S. and KNOWLES, R.D. (eds.) (2002). *Modern Transport Geography*, Belhaven

Press, London.

Journal

NILSSON, G.K. (2001). Speeds increasing again, *Nordic Road and Transport Research*, 3, p.25.

Conference Paper

O'BRIEN, A. (1992). Safety audit for rural intersections, *Workshop on Road Safety Audit*, 14-16 April 1993, paper 6, Monash Transport Group, Clayton, Victoria.

Internet (example has no specific date)

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Reference in the text should be referred thus:

Nilsson (2001) stated

O'Brien (1992, 1995) has shown.

. speed contributed to over 30% of fatal crashes in New Zealand in 2008 (Safer Journeys, n.d.).

.according to several authors (Nilsson 2001; Smyth & Brown 2007; Walsh 2009).

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