

Fishermans Bend Planning Review Panel

Draft Amendment GC81 in the Fishermans Bend Urban Renewal Area

Prepared for
Various Parties on instruction by Norton Rose

March, 2018
24408A#1 (Final)

STATEMENT TO THE PLANNING PANEL APPOINTED BY THE MINISTER FOR PLANNING FOR
AMENDMENT GC81 IN THE FISHERMANS BEND URBAN RENEWAL AREA BY CHARMAINE DUNSTAN,
TRAFFIC ENGINEER

Fishermans Bend Planning Review Panel

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Our Reference: 24408A#1 (Final)

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24408A#1 (Final)

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Executive Summary

Draft Amendment GC81 has been prepared to implement the Vision for Fishermans Bend through a suite of permanent controls including amendments to the Melbourne and Port Phillip Planning Schemes and a new Fishermans Bend Framework.

I have been instructed by Norton Rose, on behalf of multiple land owners within Fishermans Bend to provide expert evidence in relation to the transport engineering issues related to the implementation of GC81.

This report specifically reviews the matters relating to my area of expertise and assesses the implications of introducing Amendment GC81 in its current form.

Fundamentally my view is that the Framework and supporting controls fail to deliver the level of public transport certainly that is required for this area.

The most critical issue being the metro rail alignment and station locations that would be necessary to support the employment and residential, and mode share aspirations of the Framework. To date, the transport requirements for an additional 20,000 jobs in the employment precinct has not been modelled in so far as I can see.

This clearly needs to be reviewed and resolved, so that the area can be effectively planned around the feasible station locations and associated bus and light rail connections also planned for.

In my view, a critical issue is whether both Wirraway and the Employment Precinct can be served by a metro rail alignment or whether it is one or the other (as is currently suggested but not explicitly stated). This clearly has significant implications to station locations, and additional public transport services that may be required.

I have formed the view that the parking overlay needs a complete review for many reasons.

The parking rates and expectations should not be more onerous that would apply to other Capital City Zones. There are some sensible components to the controls relating to unbundling parking and adaptable floor plates, although there needs to be flexibility as there will always be practical exceptions.

The same applies to the mandatory road locations and the need for more flexibility where existing uses continue.

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1 Introduction

Draft Amendment GC81 has been prepared to implement the Vision for Fishermans Bend through a suite of permanent controls including amendments to the Melbourne and Port Phillip Planning Schemes and a new Fishermans Bend Framework.

The Minister has appointed an Advisory Committee pursuant to Part 7, section 151 of the Act to report on the “appropriateness” of the draft Amendment GC81 and is to be known as the ‘Fishermans Bend Planning Review Panel’ (Review Panel). The Terms of Reference have been established by the Minister for the Review Panel.

Amendment GC81, translates elements in the draft Framework by identifying:

- the preferred land use, form and intensity of urban development in each of the four mixed use precincts, including new floor area ratios and maximum height and setback controls; and
- potential key transport alignments and services and the preferred locations for public open space and community infrastructure.

Amendment GC81 seeks to make the following changes to the Melbourne Planning Scheme:

- introduce new Planning Scheme Map No. 7AEO requiring land within the Lorimer precinct to be remediated before a sensitive use commences;
- amend clauses 21.02, 21.04, 21.08, 21.13, 21.16 and 21.17 which relate to the Municipal Strategic Statement;
- replace Clause 22.27 with a new Clause 22.27 Fishermans Bend Urban Renewal Area Local Policy;
- replace Schedule 4 to Clause 37.04 CCZ with a new Schedule 4 which outlines land use and development outcomes for the Fishermans Bend Area;
- replace Schedule 67 to Clause 43.02 DDO with a new Schedule 67 which outlines built form controls;
- replace Schedule 13 to Clause 45.09 (PO) with a new Schedule 13 which sets maximum car parking rates to foster sustainable transport outcomes; and
- amend Schedules to Clause 61.03 and 81.01 which are consequential changes to the Amendment.

Amendment GC81 seeks to make the following changes to the Port Phillip Planning Scheme:

- introduce new Planning Scheme Map Nos. 2DPO, and 3DPO to protect areas of strategic importance to ensure development achieves defined outcomes;
- introduce new Planning Scheme Map No. 1AEO and amend Planning Scheme Map Nos. 2EAO and 3EAO, requiring land within the Lorimer precinct to be remediated before a sensitive use commences;
- amend Planning Scheme Map No IEAO which provides guidance on development within the Port Melbourne interface;
- amend clauses 21.01, 21.02, 21.03, 21.04, 21.05 and 21.06 which relate to the Municipal Strategic Statement;

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- replace Clause 22.15 with a new Clause 22.15 Fishermans Bend Urban Renewal Area Local Policy;
- replace Schedule 1 to Clause 37.04 CCZ with a new Schedule 1 which outlines land use and development outcomes for the Fishermans Bend Area;
- replace Schedule 30 to Clause 43.02 DDO with a new Schedule 30 which outlines built form controls;
- replace Schedule 1 to Clause 45.09 (PO) with a new Schedule 1 which sets maximum car parking rates to foster sustainable transport outcomes;
- introduce a new Schedule 2 to Clause 43.04 DPO to protect areas of strategic importance to ensure development achieves defined outcomes; and
- amend Schedules to Clause 61.03 and 81.01 which are consequential changes to the Amendment.

I have been instructed by Norton Rose, on behalf of multiple land owners within Fishermans Bend to provide expert evidence in relation to the transport engineering issues related to the implementation of GC81.

2 Statement of Witness

2.1 Qualifications and Experience

My name is Charmaine Chalmers Dunstan. I am a Director of Traffix Group Pty Ltd practicing from Suite 8, 431 Burke Road, Glen Iris.

My qualifications and membership of professional associations are as follows:

- Bachelor of Civil Engineering (honours), Monash University, Clayton
- Masters of Traffic, Monash University
- Member, Engineers Australia (IEAUST)
- Fellow, Victorian Planning & Environmental Law Association

I have over 20 years' experience as a Traffic Engineering and Transport Planning consultant with Traffix Group Pty Ltd and formerly Turnbull Fenner Pty Ltd. My experience also includes a number of local government appointments which involved acting in the role of Council's Transport Co-ordinator or Senior Traffic Engineer.

I have experience and expertise in traffic management, transportation planning, road safety planning and engineering, parking management and strategy development, and development impact assessment of a broad range of land-use developments within established metropolitan, regional and growth areas.

2.2 Project Team

Leigh Furness (Senior Associate, Traffix Group) assisted with the review of the preparation of this statement.

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I have also been assisted by William McDougal, a transport planner and economist, with expertise in public transport and highway strategy development, planning and feasibility studies; transport modelling and appraisal with an emphasis on sustainable transport modes.

2.3 Scope of Work

This report specifically reviews the traffic and transport engineering implications of the introduction of Amendment GC81.

2.3.1 Key Tasks

Based on the exhibited documents and planning history of the site, the scope of my engagement has included the following tasks:

- review of the Fishermans Bend Precinct and the surrounding transportation network,
- review of Amendment documentation,
- review the supporting and background reports as they have become available,
- review of third party submissions by my clients, and
- preparation and giving of Expert Evidence in accordance with Planning Panels Victoria – Guide to Expert Evidence.

2.3.2 Experiments

I have visited the site to observe traffic and parking activity within the nearby area.

2.3.3 Reference Documents

The following key documents have been relied upon in preparing this report:

- Various Amendment GC81 documentation, including:
 - Various changes to the Melbourne and Port Phillip Planning Schemes.
 - The Fishermans Bend Framework (the Framework).
- Various Background documents provided by DELWP in relation to Fishermans Bend, with particular reference to the following:
 - Fishermans Bend Integrated Transport Plan Final.
 - Metro Alignment and Feasibility by Aurecon, 2017 (partially redacted).
 - Precinct Car Parking Opportunities by GTA Consultants, 2016.
 - Road Network Peer Review by GTA Consultants, 2016.
- The Minsters Part A Submission
- The Minsters Part B Submission
- Evidence presented by the Minister, in particular evidence provided in relation to transport engineering matters by:
 - Mr Will Fooks of GTA
 - Mr John Kiriakidis of GTA
- Relevant sections of the Melbourne and Port Phillip Planning Schemes.

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- Third party submissions – in particular submissions by my clients:
 - CitiPower in relation to 90-96 Johnson Street, South Melbourne;
 - Costa Fox Developments Pty Ltd in relation to 99-111 Lorimer Street, Docklands;
 - Goodman Limited in relation to multiple landholdings in the FBURA;
 - Lie Properties Pty Ltd in relation to 187-197 Normanby Road, South Melbourne;
 - Normanby Road Developments Pty Ltd in relation to 235-243 Normanby Road, South Melbourne;
 - Perpetual Normanby Pty Ltd in relation to 228-232 & 234-238 Normanby Road, South Melbourne;
 - Salvo Property Group in relation to 60-82 Johnson Street, South Melbourne
 - Springbank Properties Pty Ltd in relation to 162-188 Turner Street, Port Melbourne; and
 - Third Street Pty Ltd in relation to 320 Plummer Street, 365-391 Plummer Street and 17 Rocklea Drive, Port Melbourne.
 - Belsize Nominees Pty Ltd in relation to 351-387 Ingles Street, Port Melbourne

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3 Background, Proposal and Assessment

The Framework describes Fishermans Bend as *an unparalleled opportunity for urban renewal on the doorstep of Melbourne's famously liveable and economically productive central city. At 480 hectares and more than twice the size of the current CBD, Fishermans Bend is Australia's largest urban renewal site, and will play a key role in the further evolution of central Melbourne as a world leading place to live, work, visit and invest.*

Draft Amendment GC81 has been prepared to implement the Vision for Fishermans Bend through a suite of permanent controls including amendments to the Melbourne and Port Phillip Planning Schemes and a new Fishermans Bend Framework.

As part of my instructions, I have been requested to review the following key transport engineering questions arising from the Amendment:

1. *Is the layout and future planning for public transport appropriate for the target of 80,000 and 80,000?*
2. *Is the layout and planning for future transport appropriate for a higher population?*
3. *Is the road network appropriate for the target population or a higher population?*
4. *Are there any transport related infrastructure constraints that would prevent a higher population being established in FB?*
5. *Would higher population densities cause traffic congestion, given a target of 80% of trips on public transport?*
6. *Is the parking overlay provision of (para 257) of:*
 - a. *0.5 spaces to each dwelling;*
 - b. *1 space per 100m² of gross floor area of offices and retail premises*
 - i. *Reasonable;*
 - ii. *Good traffic planning?*
7. *Are parking precinct stations:*
 - a. *Likely to occur;*
 - b. *Good traffic planning?*

My evidence reviews these key questions amongst others that I have identified in my own review of the proposed controls and supporting documents.

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3.1 Issues with Supporting Documentation

The originally exhibited documents only included one key transport document – the Fishermans Bend Integrated Transport Plan, 2017 (Transport for Victoria). While it is not clearly stated in the document¹, the key background reports informing the ITP were principally completed in 2016. The DEWP website previously provided background documents mainly dated from 2013. The 2013 documents do not include the ‘employment precinct’ north of the West Gate and generally include lower employment targets than adopted in the Framework.

Transport for Victoria only released the following documents at the request of the panel on 13th March, 2018:

- Fishermans Bend Public Transport and Active Mode Link Report Stages 1, 2 and 3 by Jacobs, 2016-2017 (Stage 1 only)
- Port Junction Microsimulation Modelling by GTA Consultants, 2016
- Freight Corridor Advisory Report by Jacobs, 2016 (partially redacted)
- Metro Alignment and Feasibility by Aurecon, 2017 (partially redacted)
- Fishermans Bend Tram Extension – VITM Modelling by SGS 2016
- Microsimulation Modelling of Port Junction and Spencer/Clarendon Corridor by GTA, 2017
- Precinct Car Parking Opportunities by GTA Consultants, 2016
- Road Network Peer Review by GTA Consultants, 2016
- Water Transport Feasibility Study by WSP Parsons Brinckerhoff, 2016
- Improving Connectivity in Fishermans Bend Jacobs, 2017
- Yarra’s Edge Marina - Movement and Berthing Analysis by ARUP, 2016
- Draft Integrated Transport Plan for Fishermans Bend Urban Renewal Area by Department of Transport Planning and Local Infrastructure, 18 June 2013
- Fishermans Bend Land Use Scenarios for VITM by SGS, October 2016.

The key source documents that I have reviewed are:

- Draft Fishermans Bend Framework (the Framework)
- Fishermans Bend Integrated Transport Plan by Transport for Victoria (ITP)
- The two evidence statements prepared on behalf of the Fishermans Bend Taskforce by GTA
- Metro Alignment and Feasibility by Aurecon, 2017
- Precinct Car Parking Opportunities by GTA Consultants, 2016

My secondary source of documents is the various transport studies undertaken in 2013.

Significantly, most of the recently released 2016/17 reports are based on a lower employment target of 60,000 jobs, not 80,000 jobs. That is, they proceeded on an assumption of 20,000 jobs in the employment precinct (and increase of only 7,000 jobs above the 13,000 existing jobs within the

¹ There is no section of the report that lists all reference documents and studies, references to individual background reports are spread throughout the document.

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precinct). This higher target of 40,000 jobs (an increase of 27,000 and a refocus on the type of jobs) relates to the announcement of the area being designated as a National Employment and Innovation Cluster (NEIC) under Plan Melbourne.

There is also a challenge that is identified in the evidence of Mr Kiriakidis – some of the background reports from 2016 already have limitations. As set out on page 16 of this statement:

It is noted that the above modelling and background studies completed on behalf of Transport for Victoria (TfV) and the Fishermans Bend Taskforce generally reflect superseded aspirations for employment in the precinct (i.e. 60,000 jobs). The Framework and Integrated Transport Plan envisage 80,000 jobs.

The following table notes some of the identified limitations of the background reports relied on by John Kiriakidis, with many of the limitations acknowledged in his evidence.

Table 1: Limitations with background documentation

Document	Prepared	Limitation with Report
RELEVANT BACKGROUND REPORTS FOR DRAFT FRAMEWORK		
Documents which informed the preparation of the Framework		
Fishermans Bend Population and Demographics Study	DELWP & Taskforce (2017)	Appears to be current.
Fishermans Bend Economic and Employment Study	SGS Economics and Planning (2016)	Does not include the additional 20k jobs added to the employment precinct.
Fishermans Bend Waste and Resource Recovery Strategy	Metropolitan Waste & Resource Recovery Group (2017)	Not especially relevant to my evidence.
RELEVANT PRECINCT-RELATED STUDIES (TfV)		
Documents prepared on behalf of Transport for Victoria (TfV) which informed the preparation of the Framework		
Fishermans Bend Public Transport and Active Mode Link Report Stage 1	Jacobs (2016-17)	Does not include traffic impacts of the West Gate Tunnel at the city end of this connection.
Fishermans Bend Freight Corridor Advisory Report	Jacobs (2016)	Unknown.
Metro Alignment & Feasibility	Aurecon (2017)	Options assessment for station locations did not include the additional 20,000 jobs added to the employment precinct or recent announcement to accommodate a university campus.
Fishermans Bend Tram Extension – VITM Modelling	WSP/PB (2016)	Base case was only 72k residents, 54k jobs and no West Gate Tunnel. None of the project cases included the additional 20k jobs added to the employment precinct.
Microsimulation Modelling of Port Junction and Spencer/Clarendon Corridor	GTA Consultants (2017)	Unknown.
Precinct Car Parking Opportunities	GTA Consultants (2016)	Unknown.
Road Network Peer Review (Strategic Transport Peer Review)	GTA Consultants (2016)	Only reviews studies from prior to 2016 and these studies do not reflect the 80k/80k targets and possibly do not include the employment precinct at all.
Water Transport Feasibility Study	WSP/PB (2016)	Does not reflect the 80k residents/80k jobs target.
Yarra's Edge Marina – Movement & Berthing Analysis	Arup (2016)	Report not especially relevant to my evidence.
Draft Integrated Transport Plan for Fishermans Bend Urban Renewal Area	DTPLI (2013)	
Fishermans Bend Land Use Scenarios for VITM	SGS Economics & Planning (2016)	Does not reflect the 80k residents/80k jobs target.

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Document	Prepared	Limitation with Report
RELEVANT HISTORICAL DOCUMENTS		
Preceded the release of the draft Vision for Fishermans Bend in 2013 and do not necessarily reflect the views of the Victorian Government		
Principal Bicycle Network, Fishermans Bend, Route Assessment	GTA Consultants (2013)	Outdated and not especially relevant to my evidence.
OTHER DOCUMENTS		
Broader studies and reports referenced in technical material and considered relevant to the review.		
Review of Options for Container Handling for the Port of Melbourne: Preliminary Findings	Parsons Brinckerhoff (2009)	Outdated and not especially relevant to my evidence.

It is evident that the transport planning of Fishermans requires additional work to better integrate the employment precinct into the planning of the Fishermans Bend Urban Renewal Area, given its importance in delivering jobs, and the implications for the planning of public transport and active modes. This is critically important for the large infrastructure projects of the metro rail tunnel and tram extensions, but also for north-south connections over the Westgate Freeway, which will cater for all modes. This is examined in detail below.

3.2 What does the NEIC means for transport planning in the FBURA?

One of the most significant changes in the current Framework and ITP relates the nomination of the Fishermans Bend Employment Precinct as a National Employment and Innovation Cluster (NEIC) in Plan Melbourne and the increase in the number and type of jobs to be delivered in area by 20,000 and the inclusion of a university engineering/research campus for the City of Melbourne (set to open in 2020 on the General Motors Holden (GMH) site).

The Framework describes this shift as follows:

The Employment Precinct is currently home to 13,000 employees, and initial projections for the precinct estimated 20,000 jobs by 2050. However, with Victorian Government investment in the General Motors Holden site; a proposed tram connection along Turner Street; and, in the long term, a potential underground rail station within the precinct, the jobs projection to 2050 has been upwardly revised to 40,000 jobs. When combined with the 40,000 jobs projected across the balance of the precincts, Fishermans Bend is anticipated to be host to 80,000 jobs in 2050, reflecting its prime location within the metropolitan Melbourne economy. (page 21, The Framework)

Accordingly, the overall projected increase in jobs by 2050 in this area is 27,000 jobs, rather than 7,000 included in the modelling for the precinct.

The implications of this change have largely not been considered in the background material, including reports relating to traffic modelling, public transport provision, the potential Metro Rail alignment and preferred routes.

The GMH site was purchased by the Government in 2016 and has since been nominated as a NEIC. It is not always clear from the background material the extent to which a potential ramp up in activity as a consequence of this decision (which is now clear from the recent announcements) was considered in most recent studies. This is especially the case given that these studies are conducted over a

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reasonably long duration, iteratively proceed on a base set of assumptions and generally rely on inputs of earlier work (which is often completed by others).

In my view, one of the most critical questions is what are the implications of this change in the planning for FBURA, and does this shift the priorities for public transport, active transport and car parking?

Broadly speaking, the NEIC aims to attract international investment and companies producing world-leading research, engineering, technology and products (i.e. knowledge-based industries). The inclusion of an engineering/research campus will only enhance this role, leading to research-industry collaboration and innovation.

Plan Melbourne describes NEICs as:

The national employment and innovation clusters are focused on knowledge based businesses that locate close to each other for knowledge and resource sharing. The clusters are distributed throughout Melbourne and along high-capacity transport networks to provide greater access to high-productivity jobs.

Plan Melbourne also identifies the common requirements of NEICs as:

Each cluster will need high levels of amenity to attract businesses and workers—including public transport, and walking and cycling paths.

Each cluster needs to be investment-ready for knowledge-intensive firms and jobs. To support the development of clusters, effective governance arrangements—including key stakeholders and landowners—are required.

There is clearly logical agreement that the delivery a high level of public transport is critical to the success of both the FBURA and the governments aspirations for the NEIC. The early delivery of public transport is particularly important to influence travel demands of residents, businesses (and their employees) before travel behaviours are entrenched. This relates to ground level public transport options with buses and light rail, and ultimately fixed rail before capacity is reached, which would be provided as an underground rail system (Metro Rail).

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4 Provision of Alternative Transport Modes

4.1 Review of Public Transport Provision

The Framework includes the following diagram of the indicative future public transportation network.

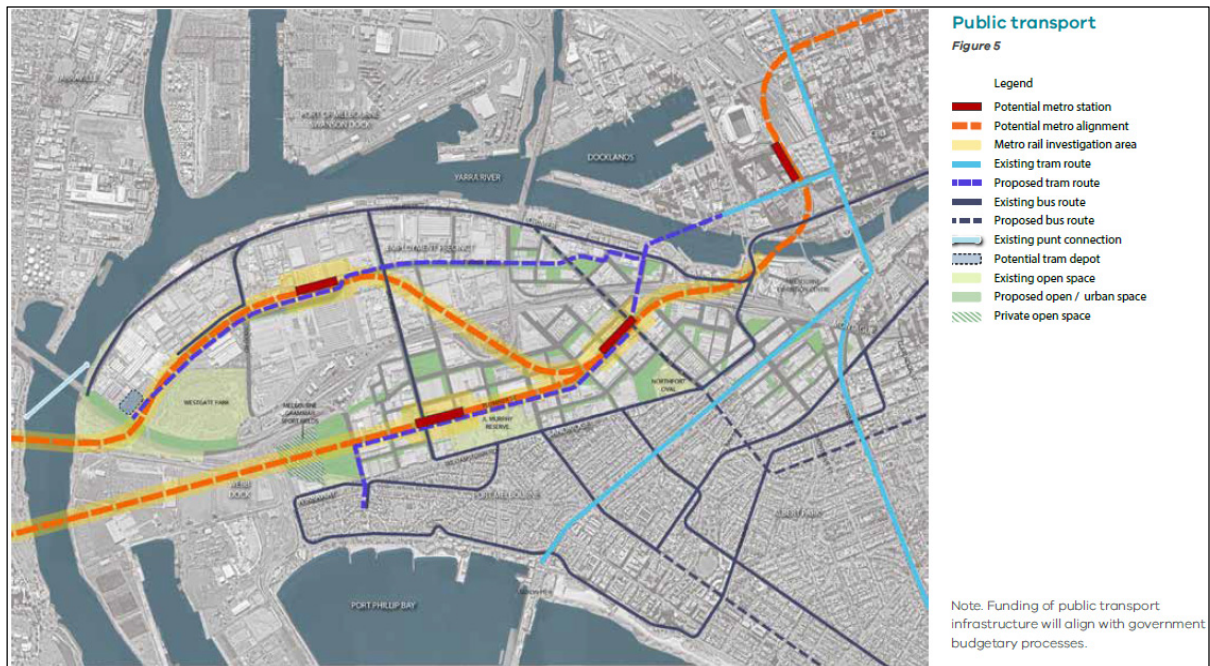


Figure 1: Proposed Public Transport Network - Framework

In terms of timeframes and key projects, the evidence of Mr Kiriakidis provides the following concise summary of projects and expected timeframes. This is replicated in the following table.

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Table 2: Proposed Transport Projects and Timeframes (Source: Expert Evidence by Mr Kiriakidis)

Precinct	Timeframe	Description
Montague	Short 2018-2020	City Road/Ferrars Street intersection upgrade
		Route 96 (Stop 126) & 109 (Stop 125A) tram stop upgrades
		Railway Place/Ferrars Street streetscape upgrade
	Medium 2020-2025	Bay Street to City bike connection
		Johnston Street road closure
		Buckhurst/Montague Streets intersection upgrade
Long 2025+	Montague Street route 109 (Stop 126) tram stop upgrade	
Lorimer	Medium 2020-2025	Northern corridor tram
	Long 2025+	Graham/Bridge Street pedestrian bridge
Sandridge	Medium 2020-2025	Johnson Street road closure/open space
		New tram, pedestrian and cycle bridge over freeway
		Southern corridor tram/boulevard
		Redevelopment of Fennell/Plummer/Bridge St intersection
		Opening of pop-up outdoor public space on future potential Sandridge Rail Station site
		White Street road closure and temporary pop-up
	Long 2025+	White Street open space
		Ingles Street Bridge widening
		Graham/Bridge Street pedestrian bridge
		Potential rail (including station and associated infrastructure such as transport interchange and public square) Wirraway
Wirraway	Long 2025+	Southern Tram Corridor
		Salmon Street Bridge Widening
		Rocklea Drive Walk and Cycle Bridge
		Thackray Street Walk and Cycle Bridge
		Potential underground rail
Employment Precinct	Medium 2020-2025	Northern tram corridor
		Upgrade of the Westgate Punt
	Long 2025+	Potential underground rail

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There are three key areas of uncertainty:

- The long timeframe projects are anywhere between 2025 and 2050 are between 7 and 32 years away.
- The provision of metro rail has not been committed to. There is no commitment to station locations or an alignment.
- The publicly available work completed to date for metro rail in this area, does not consider the higher employment numbers now forecast for the employment precinct.

In my view the sustainable transport objectives of Fishermans Bend will not be achieved without a metro rail connection. This is important in two respects:

- Residents do not have adequate access metropolitan scale public transport without a journey into the CBD.
- Businesses within Fishermans Bend will not have a metropolitan scale catchment – which is a critical consideration for the employment precinct (designated NEIC under Plan Melbourne).

4.2 Potential Metro Line and Proposed Station Locations

The following section reviews the issues surrounding metro rail services.

The Framework includes the following strategy:

1.1.2 *Investigate potential metro stations that may be incorporated in a future underground rail line*

The ITP includes the following recommendations in regard to a metro rail line:

Recommendations:

- *Should a new cross city underground rail line be prioritised, it is recommended that the potential Fishermans Bend station sites identified in this plan be assessed as part of investigation, assessment and development recommendations.*
- *Planning safeguards for the potential rail and station alignments are preserved via the Fishermans Bend Framework Plan, individual Precinct Plans and Melbourne and Port Phillip Planning Schemes (2017).*

The metro line would form a future ‘Melbourne Metro 2’ connecting the Mernda and Werribee lines, as identified by the ITP.

I agree that as part of the controls for Fishermans Bend, future metro routes should be protected.

In my view, the provision of metro rail services is critical to the success of Fishermans Bend and determination of a route and commitment to its provision are essential to the planning of Fishermans Bend, including housing/employment densities and locations. A metro service is fundamentally required to support the high levels of population and jobs proposed. It is not possible to cater for the trips of 160,000 residents/jobs in Fishermans Bend without a quantum leap in public transport capacity offered by a metro rail service.

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The Framework and ITP propose two routes for a future metro line. One station in Sandridge is common to both routes, with stations in the employment precinct and in Wirraway being located on the northern and southern lines, respectively. Although not explicitly stated (and not assisted by the animation video that promotes the plan erroneously showing 2 rail routes crossing to Newport), I understand that these routes are mutually exclusive – that is, one route would be selected that runs through either the employment precinct or through Wirraway.

Fishermans Bend circa 2013 did not include the employment precinct – areas north of the Westgate Freeway were not considered part of early studies.

The inclusion of the employment precinct in 2016 led to a reassessment of possible future metro routes and the possibility of a metro station within the employment precinct.

The *Fishermans Bend Metro Alignment and Feasibility Options* report by Aurecon (Feb, 2017) investigated multiple routes for a future metro line. The routes investigated are shown in the figure below.

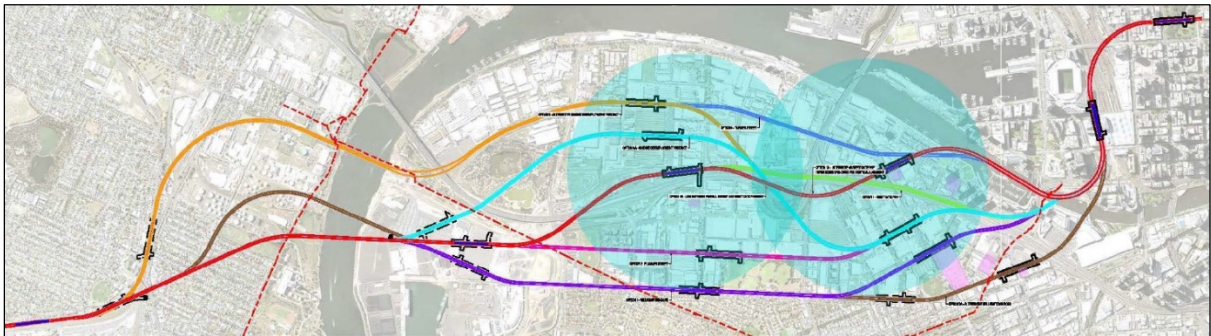


Figure 2: Aurecon investigation routes (Source: Figure 1 of Fishermans Bend Metro Alignment and Feasibility Options report by Aurecon)

Part B of the ITP included the following figure identifying metro route options.

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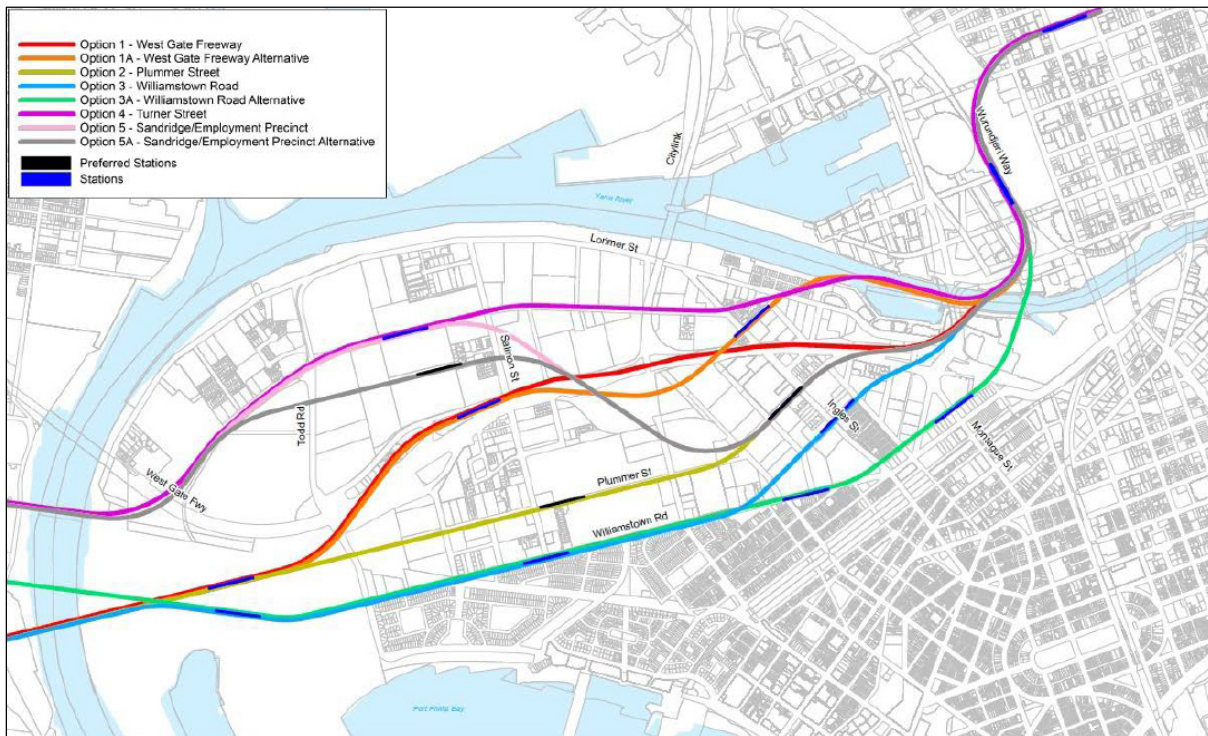


Figure 3: Metro Route Options summarised in the ITP (Source: Fig 9 of the ITP)

The premise of this study however was to effectively assess 2 predetermined routes, one with a station in the employment precinct and one with a station in Wirraway.

Based on the documents available to me, it does not appear that a three-station option was investigated, specifically one that included a station in the Sandridge area, and a station in both Wirraway and the Employment Precinct. I understand from various background documents that only one crossing of the Yarra is likely to be economically feasible.

The ITP reports that modelling found that the southern route through Wirraway was slightly preferred over the northern route through the employment precinct. However, the basis of the modelling within the ITP did not include the additional 20,000 jobs (total 40,000 jobs) added to the employment precinct in late 2017. That is, instead of only catering for an additional 7,000 jobs by 2050, the area will now accommodate 27,000 new jobs and a university campus. In contrast, by 2050 Wirraway is forecast to accommodate 17,600 residents and 4,000 jobs under the Framework.

The employment precinct has also since been nominated as a National Innovation and Employment Cluster (NEIC) under Plan Melbourne and the Framework. This is shown in the following figure from Plan Melbourne.

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Figure 4: Fishermans Bend NEIC (Source: Plan Melbourne)

Plan Melbourne includes the following definition and requirements for NEICs:

The national employment and innovation clusters are focused on knowledge based businesses that locate close to each other for knowledge and resource sharing. The clusters are distributed throughout Melbourne and along high-capacity transport networks to provide greater access to high-productivity jobs.

Each cluster will need high levels of amenity to attract businesses and workers—including public transport, and walking and cycling paths. Each cluster needs to be investment-ready for knowledge-intensive firms and jobs.

In my view, this fundamentally changes the direction of public transport planning for the FBURA from all earlier work and predetermines the northern route through the employment precinct as the preferred rail alignment route, consistent with a NEIC classification that calls for high capacity public transport services.

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In my view, it is critical that the employment precinct be provided with metro rail services for a number of key reasons:

- As an NEIC focusing on research and development industries (particularly STEM workers – scientist, technology, engineering and maths) will have a broad employment catchment. Naturally, this means the potential workforce already represents a smaller proportion of the general population (i.e. those in these fields, and then a subset seeking jobs in these specific areas), who will be drawn from a large metropolitan catchment. Workers in these specialised industries will be drawn from across Melbourne and it is not reasonable to expect that most of these workers would also live in Fishermans Bend.
- The Fishermans Bend NEIC may not be competitive without metro rail services when compared other NEICs or other urban renewal areas around the CBD, particularly in terms of worker accessibility. The employment precinct would continue to have a lower level of access to public transport (particularly metro rail) than Parkville, Arden, Docklands or E-Gate. Without a metro rail connection, I am of the view the employment precinct would not be ‘investment ready’, a key requirement set out by Plan Melbourne.

This is also reflected in the Fishermans Bend Economic and Employment Study (Nov, 2016), which states that *“The construction of the MMRP (Melbourne Metro Rail Project) will impact the accessibility and relative attractiveness of a number of burgeoning commercial precincts across inner Melbourne including Arden and Parkville. Without further investment in public transport infrastructure at Fishermans Bend, the MMRP will reduce the relative attractiveness of Fishermans Bend for both businesses and households.”*

- The Fishermans Bend Economic and Employment Study also notes that without effective and early public transport provision, the highest and best land use of Fishermans Bend is likely be residential. The report states that the timely and efficient provision of transport infrastructure is a critical barrier to overcome in order to provide a genuine mixed use precinct. The study concludes that *“Without significant investment in transport infrastructure that improves accessibility of the area, the vision of a mixed use precinct is jeopardised.”*
- In my opinion, the northern tram route is not an effective substitute for metro rail services in terms of capacity, travel times and convenience for work-based trips to and from the precinct. Based on a distance of around 3-3.5km for a light rail service from Southern Cross and the centre of employment precinct and typical tram operating speeds, a journey time of around 12-15 minutes could be expected, which is a significant barrier to travel (given an employee has already travelled to Southern Cross from their home). A tram service running up to 10 services per hour can only deliver up to around 2,000 passengers per hour, compared to 40,000 jobs within the employment precinct.
- The 40,000 jobs in the employment precinct will generate a far greater number of hour trips (by public transport) than the 17,600 residents and 4,000 jobs in Wirraway (especially when considering not all residents will be of working age or work on any given day and some may be self-contained in the FBURA and use active modes). Additionally, as a journey to work trip, these trips will be from further afield and spend longer on the transport network than residents of Wirraway. See Section 4.5.1 for more detail regarding travel behaviour of workers compared to residents.

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- The Framework rightly includes numerous strategies and objectives aimed at reducing travel by private vehicle. Workers travelling by single car during peak hour have the most significant impact on the road network. Employment of nearly any type generates high number of vehicle trips per car space during the commuter peak hours compared to residential uses. That is, a car space in the precinct that is used by employees is likely to generate 0.5 to 0.6 vehicle trips in the peak hour (i.e. 50-60% arrive or depart a space) whereas residential vehicle trip generates rates can be expected to be in the order of 0.15 vehicle trips per car space (as residents mainly use alternative modes for work trips in inner areas or travel outside of peak hours if needing to use their car).

Accordingly, it is far more important to address employee based private-car travel than to address residential demands in this context. The provision of 80,000 jobs (40,000 in the employment precinct) is a far more critical issue to address when you consider the potential travel demands during peak hour and the importance of public transport.

Furthermore, the high numbers of jobs need high numbers of residents living locally to attract workers arriving by active modes. While it may only be feasible that 20-25% of residents would work locally, these residents would more likely use active modes (walking and cycling) or a short public transport trip to access these jobs as a first preference. This means that the greater the residential population, the greater the number of actually jobs that are matched locally. At 80,000 residents (assuming 50% are actively employed and 25% of jobs are matched locally), this equates to 10,000 jobs being taken up by locals. If the population is higher, say 150,000 residents and assuming the same distribution and number of jobs, then 18,750 jobs would be taken by locals using mostly active modes followed by short public transport trips.

- Without a high level of public transport access, workers will likely drive to work on an already congested Freeway network. Furthermore, under the proposed controls the entire employment precinct is not presently part of the Parking Overlays and is not subject to the stringent car parking limitation of 1 car space per 100m² for most employment uses.
- A station in Wirraway in my view does not provide an attractive or effective connection to the employment precinct. The expert evidence of Mr Kiriakidis included the following figure in relation to walk distances between a Station in Wirraway and the walking distance for employees working in the employment precinct. In my view, a station in Wirraway does not effectively support the employment precinct, unless the expectation is that they transfer to buses along Salmon Street.

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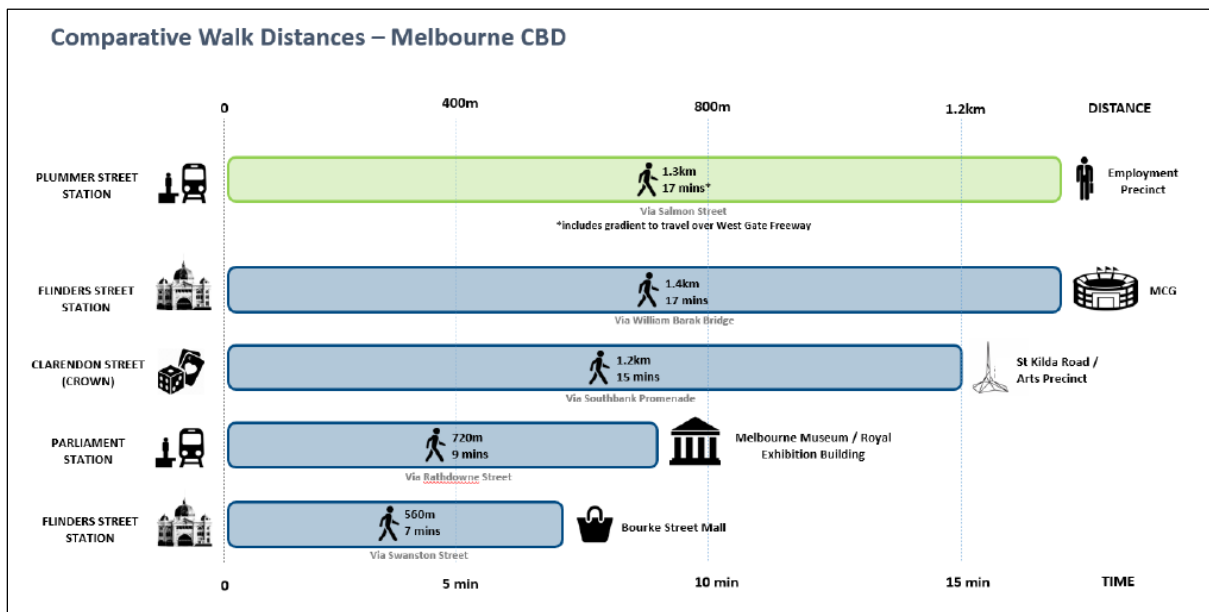


Figure 5: Comparative Walk Distances - Melbourne CBD (Source: Expert Evidence by Mr Kiriakidis)

- If only one of the stations either in Wirraway or the Employment Precinct can be provided, further work is required to review the transport connections between Wirraway or the Employment Precinct to take advantage of this station. Particular attention needs to be spent reviewing the suitability of:
 - Whether the surface public transport links need to be upgraded or improved. For instance, Salmon Street is nominated as a bus route, but should this route be serviced as a ‘SmartBus’ route, with high frequencies and high capacity vehicles? Or should this route be replaced by a tram service (rather than having distinct northern and southern tram routes, should the tram routes form a loop connecting across the Westgate Freeway).
 - Are the pedestrian routes appropriate and is the walk distances involved acceptable? This is particularly in the context of the barrier formed by the Westgate Freeway. Are the grades these conducive to walking trips for all users.
 - Are the north-south cycling connections appropriate (design and number as all need to crossover the Westgate)?

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In summary, my opinion regarding metro rail services is that:

- Whether a 3-station option (servicing Sandridge, Wirraway and the Employment Precinct) is feasible needs to be investigated as a matter of urgency.
- One metro rail alignment needs to be committed to as soon as practical to provide certainty in planning and development. ‘Locking down’ the metro alignment allows:
 - the rest of the surface transportation system to be planned around the highest capacity transport mode,
 - allows residential and employment densities to be appropriately located,
 - the urban fabric around the stations to be integrated with the stations, and
 - minimises the barriers to its implementation that occurs in an unplanned scenario.
- In order for the Fishermans Bend and the Employment Precinct NEIC to be successful, metro rail services are a priority and should be committed to with a narrower timeframe. For example, the current Metro Tunnel Project was a decade in planning, with many iterations in station locations, is now taking 7 to 8 years to build.

4.3 Capacity of the proposed Transport Network

My instructions are to review the question of whether the transport network as proposed under the Framework could accommodate more than the target 80,000 residents and 80,000 jobs by 2050.

I do not have the resources to undertake independent modelling of the Fishermans Bend Precinct. As previously noted and acknowledged by Mr Kiriakidis’s statement, further modelling work is required in Fishermans Bend to incorporate the effect of 20,000 additional jobs in the employment precinct (amongst other issues), and to reflect the planned road network changes.² The locations of metro rail stations is fundamental to this review in my view.

Notwithstanding this, I make the following general observations regarding the capacity of the proposed transport network:

- The provision of Metro rail services to Fishermans Bend provides a quantum leap in transport capacity. A metro rail service is capable of moving upwards of 38,000 passengers over 2 hours in each direction (assuming a single track).

While not all of this capacity will be available to Fishermans Bend residents/workers, if this connection forms part of a metro line connecting the Werribee/Mernda lines, this is a significant capacity boost to the precinct and is essential to realise high population and employment densities in Fishermans Bend.

For employment trips, a greater proportion of the capacity would be available into the precinct (in the AM) and out of the precinct (in the PM) towards the CBD as these are counter peak directions on the rail network.

² The modelling already undertaken in this regard is contained in a number reports, each of which is highly detailed and extensive. Most of these documents are out of date in any event.

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For resident trips, a lesser proportion of the capacity would be available for residents heading towards the CBD (as the trains may be full), but these residents would effectively interchange with workers arriving to the new jobs created in the FBURA from the west.

- The grid transport network proposed under the Framework has inherent flexibility. As the area evolves, the proposed road network can be modified or repurposed to accommodate additional public transport services or space for active transport, if required, to accommodate additional trips.
- At a high level, the walking and cycling networks proposed are sensible and well connected. These modes are afforded significant priority in the planning controls over other modes. I am satisfied that these networks are not fundamentally limited to 80,000 residents and 80,000 jobs.
- Between now and 2050 (32 years), transportation as we know it will be revolutionised by autonomous vehicles. I am satisfied that the advent of autonomous vehicles is a certainty within this timeframe. How these vehicles will change people's travel patterns, car usage and ownership rates is less certain. They are also likely to significantly impact on public transport services and are likely to blur the distinction between public, private and communal transportation.
- However, it is entirely reasonable to expect the capacity of the road network to move additional people/vehicles will only increase as a result of autonomous vehicles and car sharing.
- Disruptive transport changes are already occurring with Uber, and expected to occur further with Uber Pool and other similar peer to peer ride sharing and car sharing applications. These types of services have the ability to rapidly expand as there are fewer barriers to implementation and expectations of financial returns.

I am satisfied that if an appropriate public transport response is committed to and delivered within a reasonable timeframe, that the transport networks would be able to service significantly more than the targets of 80,000 residents and 80,000 jobs by 2050. In many respects, additional densities provide the impetus for a significant public transport response and a commitment to metro rail. This can be further supplemented by additional bus and light rail connections as demand require.

4.4 Consistency of Transport Network Plans

I have not undertaken a forensic review of every road and transport link proposed and compared the various transport documents and the Framework for consistency. I do note that there are some inconsistencies and these have been raised by various parties.

The most significant from a network perspective is where the northern tram route transitions from the Yarra River to Turner Street in Lorimer. A number of the plans in various reports include different routes for the tram line in this location. The final route for the tram particularly impacts the Costa Fox and Subaru sites in Lorimer.

For instance, in the Framework plan for Lorimer indicates the tram route running along the south side of Lorimer Street. This area is indicated as a landscaping setback on Map 2 of Clause 37.04 – Schedule 4 (i.e. not road widening).

It is my view that the Framework Plan and controls need to be definitive about this key transport link, particularly as this is an important public transport link and identified for early delivery.

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4.5 Are the Sustainable Transport Targets Achievable?

The Framework articulates the following transport targets:

- *80% of trips are made via sustainable transport*
- *90% of school related trips are made via sustainable transport*
- *A walkability score of 90% is achieved from homes and workplaces*

The ITP states that:

- *The target is for 80 per cent of transport movements to be made by public transport, walking or cycling.*

The following sections reviews these targets, the likelihood that they will be achieved and consequences of not achieving these targets.

4.5.1 Target for 80% of all trips made via sustainable transport modes

For 80% of journey to work trips to be undertaken by sustainable transport, it is essential that public transport services be provided at a CBD like scale.

In my view, we need to demand and assume that this occurs.

It is not sensible for the Framework to describe Fishermans Bend as *“an unparalleled opportunity for urban renewal on the doorstep of Melbourne’s famously liveable and economically productive central city. At 480 hectares and more than twice the size of the current CBD, Fishermans Bend is Australia’s largest urban renewal site, and will play a key role in the further evolution of central Melbourne as a world leading place to live, work, visit and invest”* and then not deliver the single most critical component to achieving this – a CBD like public transport system.

As a key background document, I have attached at Appendix A a summary of the VISTA 2013 travel survey results for Melbourne. It provides a brief but concise snapshot of how Melbournians currently travel around Melbourne. From this source, I note the following key points:

- The VISTA 2013 data indicates that Melbournians make an average 2.9 trips per person per day (across all modes). The ITP assumes residents for the FBURA will generate 3.25 trips per person per day across all modes, which is 260,000 trips for 80,000 residents. This is a reasonable assumption, if the area accommodates families.
- The most popular trip type is ‘journey to work’, with 26% of all trips related to travel to and from work. This is illustrated at Figure 6 extracted from the VISTA summary document.
- Residents of Melbourne travel further for work than for other purposes. The average work journey is 17km long and takes 44 minutes. (When compared to all trips, it is almost twice the average trip distance of 8.9km and double the average trip time of 22 minutes).

Journey to work trips are critical from two perspectives, they often take place during the commuter peak hours (i.e. have the greatest transport impact) and are significantly longer than other trips (spending more time on the transport network). This impacts on both the road network and public transport network.

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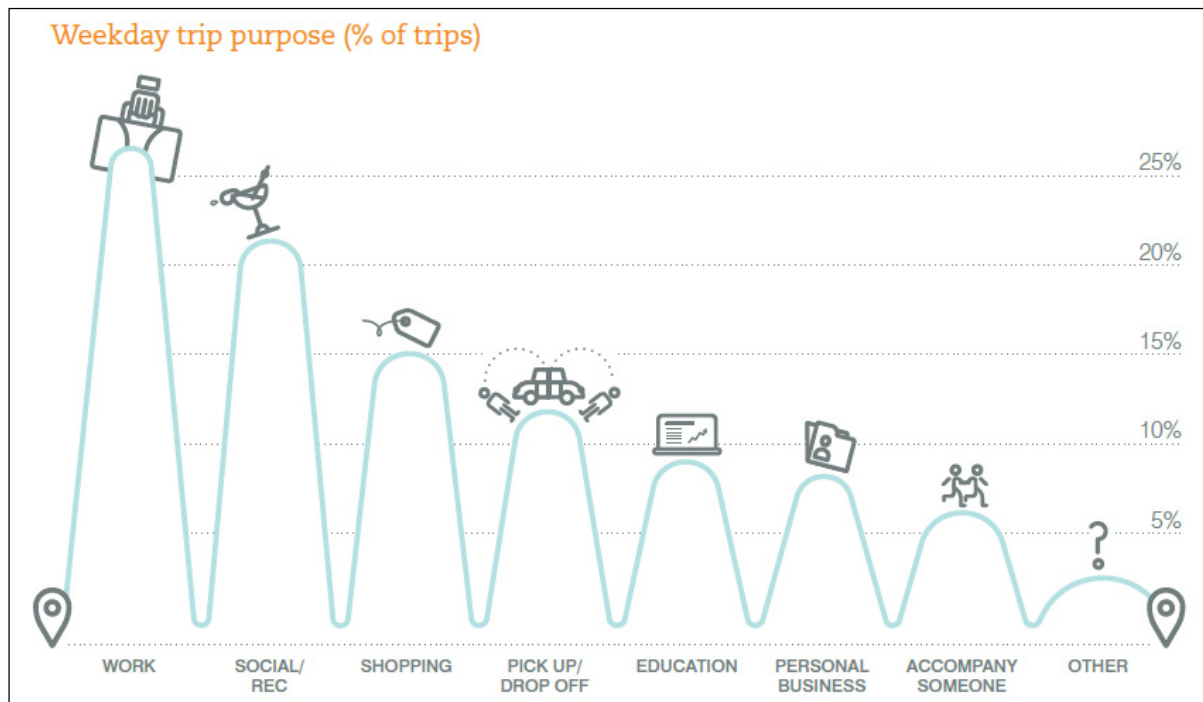


Figure 6: Weekday trip purposes (VISTA 2013)

The table below reviews the journey to work statistics for Melbourne (CBD), Docklands and Southbank over the last 10 years.

Table 3: Review of historical journey to work statistics for residents (ABS)

Location	Journey to Work by Car (driver or passenger)		
	2006	2011	2016
Place of Residence			
Melbourne (CBD) SA2	17.2%	19.5%	11.0%
Melbourne - Docklands SA2	38.2%	30.0%	27.6%
Melbourne – Southbank SA2		28.0%	25.3%
Place of Employment			
Melbourne (CBD) SA2	27.9%	21.9%	18.3%
Melbourne - Docklands SA2	50.1%	31.7%	23.5%
Melbourne – Southbank SA2		43.0%	37.0%

It is evident that driving to work as a mode is significantly falling within central Melbourne. I am

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confident that drive by car as a mode proportion in both Southbank and Docklands will over time both drop below 20%. Fundamentally, a 20% mode share by car in Fishermans Bend is also achievable.

However, it is critical to achieving this objective that suitable public transport services are provided. These services need to have high capacity and be well located spatially. This is a key challenge of Fishermans Bend and will only be possible with a metro rail connection in my view.

Southbank and Docklands are readily accessible by train services via City Loop stations. Fishermans Bend must achieve close to this level of public service in order to realise the sustainable transport targets set.

Given the mix of local services proposed and the target for 10min neighbourhoods³, I expect that social/rec activities, shopping, education, personal business trips could largely be undertaken in a short distance of future resident's dwellings and could easily be catered for by sustainable transport modes in preference to private car use. These categories together account for up to 75% of all trips. Accordingly, most trip types undertaken by residents would not require a private car and assist in making the target of 80% of all trips by sustainable transport achievable from a resident's perspective.

4.5.2 90% of School trips by Sustainable Transport Modes

My interpretation of this target is that any trip between school and home is a school trip. Extracurricular activities are not counted to this target.

This goal is achievable if the target was specified as only for schools internal to Fishermans Bend. If a number of well-located schools are provided within Fishermans Bend, this would mean that trips to school for most children would be under 2km in length and readily made by walking/cycling. If a well-designed, connected and walkable street network is provided (as envisioned by the Framework), I see no reason why this target could not be achieved for internal trips.

The most significant challenge to this target in my view is trips outside the municipality to non-government or religious schools (i.e. private schools). If these trips are included in the 90% target, I doubt the target can be achieved in the foreseeable future, even if some are linked with parent's work trips.

The key to minimising external trips by car (particularly secondary and tertiary students) is the provision of high quality public transport services that service nearby schools or to areas which have a number of key private schools.

4.5.3 Walkscore

The key to achieving a high walk score is providing walkable access to local services and to public transport.

The figure below presents the current Walkscore Map of Melbourne. Dark Green areas represent areas with Walkscores over 90. These areas include the Melbourne CBD, Southbank, South Melbourne, Richmond, Fitzroy, Collingwood and St Kilda. All of these areas meet these two criteria.

³ A 10 minute neighbourhood is reference in the ITP (Plan Melbourne aims for 20 minute neighbourhoods).

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Fishermans Bend as envisioned in the Framework is very likely to satisfy these criteria and meet this target.

I am satisfied that a Walkscore of 90 for Fishermans Bend is realistic, achievable and a worthwhile target.

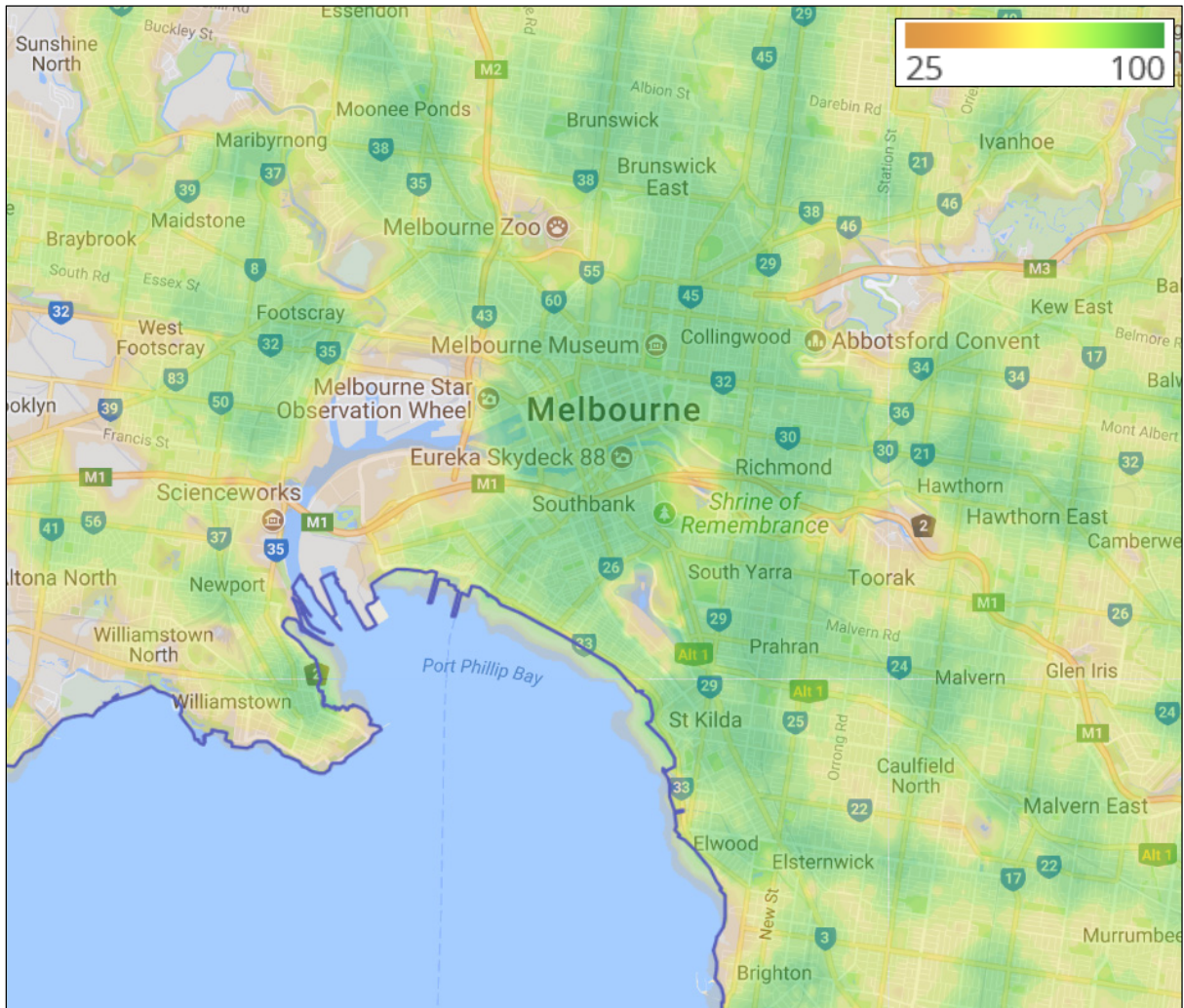


Figure 7: Current Walkscore Map of Melbourne

4.5.4 Summary

The targets set out in the Framework in my view are achievable and worthwhile targets. These targets would not need to be achieved initially and are likely to be met over time. It should be emphasised that these targets are only achievable with a well-designed public transport network and this network must be provided as early as possible to foster sustainable transport patterns.

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5 Review of Parking Controls

The following section reviews the car parking controls proposed under the controls exhibited as part of GC81. The key points to note regarding the proposed Parking Overlays are:

- A substantially revised Parking Overlay is proposed, this includes:
 - Changes to car parking rates
 - Changes to decision guidelines for car parking provision
 - New design requirements for car parking
 - Introduction of new requirements for car share vehicles, motorcycle parking and bicycle parking and decision guidelines for the non-provision of these parking forms.
- There is no change to the extent of the Overlays, the Overlays apply to Montague, Sandridge, Lorimer and Wirraway. The employment precinct has not been included in the Overlay at this stage.

5.1 Changes to the Parking Overlay

The following table reviews each section of the proposed Parking Overlay in detail. This includes a comparison between the existing controls and the proposed controls and my interpretation of the intent of the controls.

Fundamentally, I find that the controls as exhibited to be unclear and/or contradictory, poorly worded and structured, open to wide interpretation and highly confusing.

The controls need to be substantially re-worked in my view to have any chance of a consistent interpretation.

I have presented my interpretation of the controls and provided comment on key changes/issues based on my interpretation of the intent of the controls.

In regard to the interpretation of the intent of the controls, I have principally reviewed the controls against the objectives and strategies of the Framework, key recommendations of the ITP and relied on the Ministers Part A submission in response to key questions raised by the Panel. In a large part, I have assumed that the Minister's Part A response was informed by an author of the controls.

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Table 4: Review of Proposed Car Parking Overlays

Current Controls	Proposed Control Changes	Comment	Proposed Rewording of Controls
1.0 Parking Objectives			
<p><i>To identify appropriate car parking rates for various uses within the Capital City Zone – Fishermans Bend Urban Renewal Area.</i></p>	<p><i>To support long term sustainable transport patterns and minimise road congestion in the Fishermans Bend urban renewal area.</i></p> <p><i>To create a liveable and connected community that uses active transport options in preference to private motor vehicles.</i></p> <p><i>To provide for the future adaptation of car parking to other uses, the evolution of transport share schemes and innovations in transport technology.</i></p> <p><i>To ensure the design of car parking areas within developments deliver a high quality public realm by minimising the impact of car parking on the streetscape and maintaining active street frontages.</i></p>	<p>The objectives of the Parking Overlay have been significantly broadened. I am satisfied that these objectives are generally appropriate.</p> <p>Achieving these objectives forms the background to my opinions on the specific controls.</p>	None
2.0 Permit Requirements			
<p><i>A permit is required to provide car parking spaces in excess of the car parking rates specified in Table 1 of this schedule.</i></p>	<p><i>A permit is not required under Clause 52.06-3 to reduce (including to zero) the number of car parking spaces required under Clause 52.06-5 or in this schedule provided alternative parking, as set out in Clause 6.0 of this schedule, forms part of a car parking plan approved in accordance with Clause 52.06 – 8, unless no car parking spaces are proposed to be provided in which case a car parking plan is not required.</i></p> <p><i>A permit must not be granted to provide more than the maximum parking provisions specified in this schedule, unless alternative parking, as set out in Clause 6.0 of this schedule, forms part</i></p>	<p>The current control is very clear when a permit is required.</p> <p>The new control is now very challenging to clearly interpret.</p> <p>The key change is that a permit <i>must not be granted</i> to provide more car spaces than the maximum rate <u>unless</u> alternative car parking is provided – as per Section 6.0 (which requires additional sustainable transport options be provided).</p> <p>It is counter-intuitive that a site does not have to provide any of the Section 6.0 sustainable</p>	<p>In my view, this section of the Clause needs to be reworded and broken down into dot points for clarity (this part of Clause is all one sentence). I recommend the following change:</p> <p><i>A permit is not required to reduce car parking provision, including to zero, provided alternative car parking is provided as per Clause 6.0.</i></p> <p><i>A permit is required to:</i></p> <ul style="list-style-type: none"> • <i>Exceed the maximum parking rates specified in Table 1 of this schedule.</i>

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Current Controls	Proposed Control Changes	Comment	Proposed Rewording of Controls
	<i>of a car parking plan approved in accordance with Clause 52.06-8.</i>	transport options if zero car parking is proposed.	<ul style="list-style-type: none"> <i>If the requirements of Clause 6.0 are not satisfied.</i> <p><i>Where an application seeks to exceed the maximum requirements of this schedule, the requirements of Clause 6.0 must be satisfied.</i></p>
3.0 Number of car parking spaces required			
Maximum of 1 space per dwelling	Maximum of 0.5 spaces per dwelling, retirement village, residential village.	<p>Reduction of the maximum parking for dwellings from 1 to 0.5 car spaces per dwelling and inclusion of retirement village and residential village.</p> <p>My views on the appropriateness of the reduction from a maximum of 1 space/dwelling to 0.5 spaces/dwelling is detailed in the following sections of this report.</p>	<p>In my view, this control should be maintained at 1 space per dwelling, retirement village, or residential village.</p> <p>See further discussion at Section 5.4.</p>
Maximum of 1 space per 100m ² GFA for Office, place of assembly, restricted retail premises, retail premises.	No change		
Maximum of 1 space per 150m ² GFA for Industry	No change		
Maximum of 2 spaces per 100m ² GFA for Supermarket	No change		
For uses not listed in Table 1, a car parking rate is not explicitly stated – defaults to Column A parking rates of Clause 52.06-5	For all other uses listed in Table 1 of Clause 52.06-5, the Rate in Column B of Table 1 in Clause 52.06-5 applies.	<p>The preamble to the car parking table states that:</p> <p><i>If a use is specified in the Table below, the <u>maximum</u> number of car parking spaces required for the use is calculated by multiplying the Rate specified for the use by the accompanying Measure.</i></p>	<p>Whether the Column B rates are intended to be maximum rather than minimum rates needs to be clearly stated within the Overlay.</p> <p>The Overlay should replace:</p> <p><i>For all other uses listed in Table 1 of Clause 52.06-5, the Rate in Column B of Table 1 in Clause 52.06-5 applies.</i></p>

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Current Controls	Proposed Control Changes	Comment	Proposed Rewording of Controls
		<p>Then outside of the table, the control states:</p> <p><i>For all other uses listed in Table 1 of Clause 52.06-5, the Rate in Column B of Table 1 in Clause 52.06-5 applies.</i></p> <p>Change from Column A to Column B parking rates for all other use. The Column B rates in Clause 52.06-5 are maximum parking rates. Read literally, there is no parking limitation on Column B uses because the cause does not explicitly state that the Column B parking rates are being applied as maximum rates.</p>	<p>With:</p> <p><i>For all other uses listed in Table 1 of Clause 52.06-5, the maximum Rate in Column B of Table 1 in Clause 52.06-5 applies as the maximum car parking rate.</i></p>
Motorcycle Parking			
<p><i>All buildings that provide on-site car parking must provide motor-cycle parking for the use of occupants and visitors, at a minimum rate of one motor-cycle parking space for every 100 car parking spaces, unless the responsible authority is satisfied that a lesser number is sufficient.</i></p>	<p>No requirement specified</p>	<p>Motorcycle parking requirement deleted and moved to Section 6.0 of the Schedule.</p>	<p>Motorcycle parking rates (if they are even allowed to be included under the parking overlay as it only relates to car parking) should be specified in Clause 3 (as they were before).</p>
4.0 Application requirements and decision guidelines for permit applications			
<p><i>Before deciding on an application to increase the maximum number of car parking spaces, the responsible authority must consider as appropriate:</i></p> <ul style="list-style-type: none"> <i>Any effect on vehicle and pedestrian traffic in the area.</i> <i>Any empirical analysis which supports a variation in the number of car parking spaces that should be provided.</i> 	<p><i>The following decision guidelines apply to an application for a permit under Clause 45.09, in addition to those specified in Clause 45.09 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:</i></p> <ul style="list-style-type: none"> <i>Any effect on designated principal freight routes within or immediately adjacent to Fishermans Bend.</i> 	<p>The new controls are completely different from the original controls.</p> <p><u>The wording of which decision guidelines apply is very confusing and could be much clearer.</u></p> <p>I have changed my mind about what this means several times. My current interpretation is that new controls require consideration of:</p> <ul style="list-style-type: none"> the decision factors listed at Section 4.0 of the Schedule 	<p>In my view, this Clause should be reworded to state that:</p> <p><i>The following decision guidelines apply to any application to exceed the maximum parking rates specified in Section 3.0 of this schedule:</i></p> <ul style="list-style-type: none"> <i>the decision factors of Clause 52.06-7</i> <i>the decision factors listed at Clause 45.09-5, and</i>

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Current Controls	Proposed Control Changes	Comment	Proposed Rewording of Controls
<ul style="list-style-type: none"> <i>The particular characteristics of the proposed use with regard to the likely car parking demands generated.</i> <i>The safety and convenience of pedestrians moving to, from and within the car parking facility, including lighting levels, surveillance systems, signage, ease of orientation and visibility.</i> <i>The availability of car parking in the locality.</i> <i>The likely contribution of public transport in mitigating car parking demands.</i> <i>Whether the development includes bicycle and motorcycle parking.</i> 	<ul style="list-style-type: none"> <i>Whether car parking is to be provided in a stand-alone building used for precinct car parking.</i> <i>Whether the provision of car parking negatively impacts the creation of a high quality, active public realm.</i> <i>The future adaptability of the car parking areas and ability to transition to future uses over time.</i> <i>Whether the proposal includes alternate parking requirements required under Clause 6 of this schedule.</i> <i>The suitability of the car parking plan as set out in Clause 6.0 of this schedule, which forms part of a car parking plan approved in accordance with Clause 52.06-8.</i> <i>Impacts the proposed car parking rates will have on creating sustainable transport patterns, which preference walking, cycling and public transport use.</i> 	<ul style="list-style-type: none"> the decision factors listed at Section 45.09-5 – specifically <ul style="list-style-type: none"> <i>The parking objectives of the relevant schedule to this overlay.</i> <i>Any application requirements and decision guidelines specified in a schedule to this overlay.</i> Any other decision guidelines considered appropriate by the Responsible Authority. <p>The last point appears to mean that original decision guidelines of Clause 52.06-7 can be considered. However, this is to the discretion of the Responsible Authority.</p> <p>The Ministers Part A response included the following explanation (para 262):</p> <p><i>“Any application to exceed the maximum car parking requirement (and provide alternative parking) under Clause 52.06-3 will be assessed on its merits against all relevant decision guidelines in the planning scheme including those in Clause 4 of the draft schedule...”</i></p> <p>In my view, whether a decision guideline is included or excluded from consideration should not be at the discretion of the Responsible Authority.</p> <p>I do not support the inclusion of Parking Precinct Structures as a decision guideline, nor the impact on freight routes.</p> <p>See below for my detailed review of PPS.</p> <p>It is not practically possible or reasonable to quantify the impact of additional car parking on freight routes through Fishermans Bend</p>	<ul style="list-style-type: none"> <i>the following additional decision guidelines:</i> <ul style="list-style-type: none"> <i>The objectives listed at Section 1.0 of this Schedule.</i> <i>Whether the provision of car parking negatively impacts the creation of a high quality, active public realm.</i> <i>The future adaptability of the car parking areas and ability to transition to future uses over time.</i> <i>Whether the proposal includes alternate parking requirements required under Clause 6 of this schedule.</i> <i>The suitability of the car parking plan as set out in Clause 6.0 of this schedule, which forms part of a car parking plan approved in accordance with Clause 52.06-8.</i> <i>Impacts the proposed car parking rates will have on creating sustainable transport patterns, which preference walking, cycling and public transport use.</i> <p>Assuming the above is what was intended.</p>

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Current Controls	Proposed Control Changes	Comment	Proposed Rewording of Controls
		and the industrial area of 'adjacent to Fishermans Bend'.	
6.0 Requirements for a Car Parking Plan			
<p>There are no additional requirements for a Car Parking Plan specified in the Overlay, i.e. the regular Clause 52.06-8 requirements apply:</p> <p><i>Plans must be prepared to the satisfaction of the responsible authority before any of the following occurs:</i></p> <ul style="list-style-type: none"> • a new use commences; or • the floor area or site area of an existing use is increased; or • an existing use is increased by the measure specified in Column C of Table 1 in Clause 52.06-5 for that use. <p><i>The plans must show, as appropriate:</i></p> <ul style="list-style-type: none"> • All car parking spaces that are proposed to be provided (whether on the land or on other land). • Access lanes, driveways and associated works. • Allocation of car parking spaces to different uses or tenancies, if applicable. • Any landscaping and water sensitive urban design treatments. • Finished levels, if required by the responsible authority. • Any other matter specified in a schedule to the Parking Overlay. 	<p>The following additional requirements have been included in the Overlay:</p> <p><i>The following requirements must be shown on a car parking plan, in addition to the matters that must be shown on plans prepared under Clause 52.06-8:</i></p> <ul style="list-style-type: none"> • Car parking spaces allocated to car share parking provided at a rate of 1 space per 60 car parking spaces or 1 space per 90 dwellings whichever is higher unless the responsible authority is satisfied that a lesser number is sufficient. • Spaces allocated for motor-cycles at a minimum rate of one motor-cycle parking space for every 100 car parking spaces or 1 per 50 dwellings, whichever is higher, unless the responsible authority is satisfied that a lesser number is sufficient. • Spaces are allocated for bicycles at the following rates, unless the responsible authority is satisfied that a lesser number is sufficient: <ul style="list-style-type: none"> ○ For residential development – a minimum of 1 bicycle parking space per dwelling and 1 visitor bicycle space per 10 dwellings. ○ For non-residential development – a minimum of 1 bicycle parking space per 50 square metres of net non-residential floor area, and 1 visitor bicycle space per 	<p>These requirements must be included on any plans prepared under Clause 52.06-8. Any time a car parking plan is required to be produced, these requirements must be included.</p> <p>Every development that provides car parking must therefore include car share, motorcycle parking, bicycle parking and if a Green Travel Plan is required, that information must be shown on the plans as well.</p> <p>If a development provides no car parking, none of these requirements apply.</p> <p>I am generally satisfied that the provision rates specified of car share, motorcycle parking and bicycle parking are appropriate.</p> <p>It unusual that Section 6.0 includes parking requirements. Clause 52.06-8 is used to specify what design features related to car parking must be included on plans. It is not used to specify car parking rates, motorcycle parking or bicycle parking rates.</p> <p>I find it unusual that these requirements do not apply if no car parking is provided. This is clearly an artefact of Clause 52.06-8, where a car parking plan is not required if no car parking is provided (which is sensible).</p> <p>I am not sure that Section 6.0 of the Parking Overlay is the appropriate location to require motorcycle parking, car share vehicles and additional bicycle parking. The requirements</p>	<p>This needs to be completely re-thought as we are now going well beyond saying you need to have a few motorcycle spaces, even though the parking overlay doesn't have the flexibility to allow that.</p> <p>Decide what do you seek to achieve, then place it is the most appropriate location. A reference back to that appropriate location as a decision guideline would be acceptable, but you shouldn't put something in the parking overlay if the control does not have the flexibility to allow it.</p> <p>However, for simplicity, I recommend a rewording of this Clause, rather than a restructuring of the whole draft Parking Overlay.</p> <p>For clarity, I recommend that this paragraph;</p> <p><i>The following requirements must be shown on a car parking plan, in addition to the matters that must be shown on plans prepared under Clause 52.06-8:</i></p> <p>Is substituted with the following:</p> <p><i>The following sustainable transport opportunities must be included within a car parking plan, in addition to the matters that must be shown on plans prepared under Clause 52.06-8:</i></p>

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Current Controls	Proposed Control Changes	Comment	Proposed Rewording of Controls
<p><i>Plans must be provided to the responsible authority under Clause 52.06-8 wherever Clause 52.06 applies, whether or not a permit application is being made under Clause 52.06-3 or any other provision of the planning scheme.</i></p> <p><i>Where an application is being made for a permit under Clause 52.06-3 or another provision of the planning scheme, the information required under Clause 52.06-8 may be included in other plans submitted with the application.</i></p> <p><i>Clause 52.06-8 does not apply where no car parking spaces are proposed to be provided.</i></p>	<p><i>1,000 square metres of net non-residential floor area.</i></p> <ul style="list-style-type: none"> <i>If a green travel plan is provided under another provision of the scheme, any relevant information specified in the green travel plan.</i> 	<p>for a car parking plan under Clause 52.06-8, only relate to plan detail, not providing additional parking options.</p> <p>The Parking Overlay Clause 45.09 does not include any references types of parking other than car parking. Clause 45.09-7 states that:</p> <p><i>A schedule to this overlay may specify additional matters that must be shown on plans prepared under Clause 52.06-8.</i></p> <p>It is not clear that this clause therefore allows specification of additional types of parking.</p>	
7.0 Design Standards for Car Parking			
<p>There are no design standards for car parking under the existing Overlay</p>	<p>The draft Overlay includes substantial additional design requirements for car parking areas.</p>	<p>These requirements are reviewed in detail below.</p>	<p>See sections below.</p>
8.0 Decision Guidelines for car parking plans			
<p>There are no decision guidelines for car parking plans under the current Overlay.</p> <p>The 'standard' guidelines of Clause 52.06-10 apply, which only relate to the design of the carpark (not car parking provision).</p>	<p><i>The following decision guidelines apply for car parking plans under Clause 45.09, in addition to those specified in Clause 45.09 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:</i></p> <ul style="list-style-type: none"> <i>Whether the car parking plan encourages sustainable transport patterns, which preference walking, cycling and public transport use.</i> <i>The extent to which the car parking areas (not located within a basement) are</i> 	<p>These decision guidelines are sensible in my view when considering the provision (or non-provision) of these sustainable transport modes.</p> <p>I find it counter-intuitive that sustainable transport options are mandated in a separate section from car parking requirements and there is a second set of decision guidelines for these.</p> <p>It is also unusual that a set of decision guidelines used to assess technical design aspects of a car parking layout are also not proposed to consider whether it is acceptable</p>	<p>Apart from the issue that that location of these guidelines appears to be misplaced, I am generally satisfied with the wording of this Section, except that is should specifically reference the Clause 52.06-10 decision guidelines.</p>

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Current Controls	Proposed Control Changes	Comment	Proposed Rewording of Controls
	<p><i>designed for future adaptation and repurposing.</i></p> <ul style="list-style-type: none"> • <i>Any impacts car parking areas have on creating high amenity active streets.</i> • <i>The availability of car share vehicles and facilities in the surrounding area.</i> • <i>The rates of motor-cycle and bicycle spaces provided.</i> • <i>If a green travel plan is required under another provision, any recommendations of the green travel plan.</i> • <i>Whether alternative access to the site is constrained and no other access is possible.</i> 	<p>to provide or not provide sustainable parking options.</p>	

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5.2 Review of Design Standards for Car Parking

The following table concisely reviews the proposed additional design standards for car parking which are proposed under Section 7.0 of the Parking Overlay.

Table 5: Review of Proposed Design Standards

Control	Comment
<i>The following design standards for car parking and other requirements for the design and management of car parking must be met, in addition to the matters that must be shown on plans prepared under Clause 52.06-9:</i>	
<i>Car parking areas should be provided within a building, fronted with active uses and not visible from the street, with a floor to floor height of not less than 3.8 metres.</i>	See my commentary on Adaptable Floor Areas – See Section 5.3.
<i>If any parking is proposed to be provided off-site, the recipient site should be located within convenient walking distance (200 metres) of the subject site, and should be a part of a precinct parking facility.</i>	Any reference to Precinct Parking should be removed from the Overlay. See my review of PPS in Section 5.5.
<i>Vehicle access ways, crossovers and car park entries should be provided from secondary streets or side or rear laneways where available. If crossovers are provided on primary street frontages they must be:</i> <ul style="list-style-type: none"> ▪ Consolidated to provide shared access to multiple buildings. ▪ Designed to give priority to pedestrian movement. ▪ Include intermediate pedestrian refuges if the vehicle access or crossover is more than 6 metres. 	This control should reference the controls at Clause 37.04 – Schedule 4 in the MPS and Clause 37.04 – Schedule 1 in the PPPS and Map 2 of this Clause: <i>A permit must not be granted to construct a building or construct or carry out works where the vehicle access points and crossovers are located along roads designated as ‘no cross overs permitted’ in the Map 2, except where a new street or laneway is being created in accordance with that plan, or no other access is possible.</i>
<i>Unless no other vehicle access point is available, vehicle access ways and crossovers and vehicle loading/unloading areas must not be located on:</i> <ul style="list-style-type: none"> ▪ Roads designated as public transport routes. ▪ Active street frontages. ▪ Existing or proposed on-road or off-road cycling paths or strategic cycling corridor. 	Agree generally, but this does not mention the no crossover streets. It also needs to be clear what the order of preference is because some sites abut no crossover streets, and have primary and secondary active frontages.
<i>Car parking for sites facing a laneway, streets and adjoining sites should be sleeved with active uses.</i>	Agree.

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Control	Comment
<p><i>The design and layout of car parking areas should:</i></p> <ul style="list-style-type: none"> ▪ <i>Ensure the layout and design of car parking areas encourages sharing of car parking spaces between different uses with different peak demand patterns.</i> ▪ <i>Include provision for future conversion of car parking areas to alternative employment generating uses.</i> ▪ <i>Allow natural ventilation, without compromising the provision of activated frontages</i> ▪ <i>Ensure the use of car lifts, turntables and stackers do not result in cars queueing on the street.</i> ▪ <i>Include the provision for internal queuing and minimise the need for cars to queue on the street.</i> ▪ <i>Provide dedicated parking for car share and car charging stations.</i> ▪ <i>Make provision for easily accessible short term temporary parking and dropoff/pick up zones.</i> 	<p>Agree.</p> <p>See my commentary on Adaptable Floor Areas – See Section 5.3.</p> <p>Agree.</p> <p>Agree.</p> <p>Agree.</p> <p>Agree.</p> <p>For most land uses, this is design standard is not warranted and the wording should be modified to reflect this.</p>

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5.3 Adaptable Car Parking Areas

There are a number of references in the controls to adaptable parking areas, including:

- Overlays – Clause 45.09 – Schedule 13 of the MPS and Schedule 1 in the PPS. Section 7.0:
 - *Car parking areas should be provided within a building, fronted with active uses and not visible from the street, with a floor to floor height of not less than 3.8 metres.*
 - *Include provision for future conversion of car parking areas to alternative employment generating uses.*
- Overlays – Clause 43.02 – Schedule 67 of the MPS and Schedule 3 in the PPS. Section 7.0:

Car parking areas not within a basement should have level floors and a floor-to-floor height not less than 3.8 metres (except for ramps) and should make provision for future conversion of car parking areas to alternative uses over time.

Buildings should be designed with:

 - *Whether parking areas are of a size and dimension that they can adapt to other uses over time.*

I generally support the inclusion of controls that encourage adaptable parking areas for non-basement car parking. However, there are a number of practical impacts or questions that arise from these controls:

- Certain carpark layouts are not possible under a directive to provide adaptable floor plates. Any carpark with a sloping floor parking area would not be an adaptable space. In these carparks, car parking levels are continuously sloped to provide the ramping gradient required and this would not be an easily convertible space. An example is 520 Flinders Street, behind the VCAT building in Flinders Lane.
- Is an automatic parking system an unacceptable outcome in terms of adaptability? Automatic systems often do not have traditional floor plates and often have headroom clearances less than 3m. It would require internal works to construct new building floors when converted. This is a question of whether such expensive car parking systems would be removed from a building once installed.
- There is a significant impact on small sites where ramping is a challenge. The steepest possible ramp to accommodate an RL change of 3.8m is 17.4m long⁴. This is 4m longer than a more traditional level change of 2.8m and a significant impact on small sites based on my experience.
- The vertical space taken up by car parking is approximately 35% greater per car parking level (with a 3.8m headroom clearance). Another way to think of this is a building would only yield 3 car parking levels for every 4 levels of traditional parking.

⁴ With grades of 2m @ 1:8, 13m @ 1:4 and 2.4m @ 1:8

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In my view, the Overlay as proposed misses an opportunity to grant flexibility in car parking provision while maintaining the key objective the Framework (Objective 1.6⁵) and Strategy 1.6.2⁶. It may be more appropriate for the Overlay to offer more flexibility where the maximum parking rate is not exceeded, but only additional car parking above the maximum rates to be part of an adaptable floor plate as a requirement.

5.4 Are the Car Parking Rates proposed in the Overlay Appropriate?

There are a number of key changes proposed to the car parking provisions of the Parking Overlays to apply within Fishermans Bend. Specifically:

- A reduction of the maximum parking for dwellings from 1 to 0.5 car spaces per dwelling and inclusion of retirement village and residential village in this limitation.
- Change from Column A to Column B parking rates for all other uses. Note that under the current wording of the Overlay, these are not maximum parking rates.

The issue around whether the Column B rates are intended as maximum or minimum parking rates needs to be urgently clarified and the control appropriately reworded.

The implementation of Column B parking rates as maximum car parking for Fishermans Bend is a sensible outcome. These rates are specifically intended to apply to Activity Centres and are appropriate at this time in my view.

In my view, the most significant change is the reduction in resident parking provisions from a maximum of 1 per dwelling to a maximum of only 0.5 car spaces per dwelling. This is specifically reflected in the Framework as Strategy 1.6.1:

1.6.1 Encourage alternative transport options and smart use of space by limiting private car parking in new developments to 0.5 cars/dwelling and one car/100m² for employment uses

Reducing car parking provision in inner areas and activity centres substantially below the current Clause 52.06 parking rates is supported, including the use of maximum car parking rates.

In my view, the key questions are whether Fishermans Bend should be proposing:

1. Car parking rates substantially lower than the Melbourne CBD for residential uses (maximum of 1 per dwelling), in an area where access to public transport and/or services may never be as high (and take quite some time to reach a high level of service – in particular the provision of Metro Rail services).
2. Low rates for employee parking in a very important employment precinct when there is currently limited public transport and a high level of uncertainty of when public transport services will commence – in particular Metro Rail services.

⁵ 1.6.1 Encourage alternative transport options and smart use of space by limiting private car parking in new developments to 0.5 cars/dwelling and one car/100m² for employment uses.

⁶ 1.6.2 Car parks must be designed to allow for future conversion to alternative uses and subdivided as common property (not individually titled) to be managed by the owners corporation and leased to property owners.

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5.4.1 Existing Parking Overlays

The following map sets out the existing Parking Overlays which apply within in and around the Melbourne CBD.

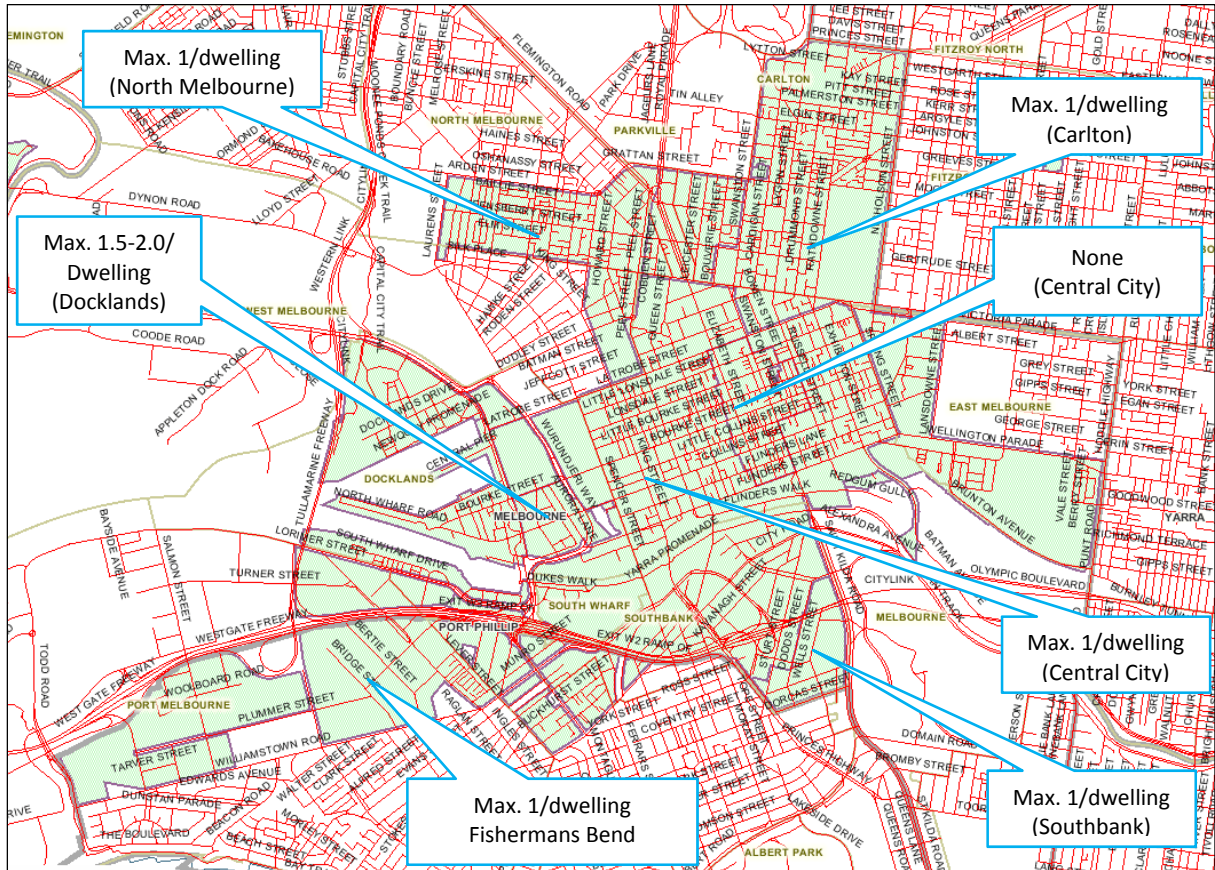


Figure 8: Current Parking Overlays - Inner Melbourne

The parking controls as proposed impose a lower car parking rate than any other Overlay in Inner Melbourne. This is in an area that is not nearly as well serviced by public transport as the CBD and immediate surrounds.

Even assuming that the full public transport network set out in the ITP is provided, Fishermans Bend will not match the CBD in terms of public transport accessibility. In the short-medium term, the sustainable transport options available to Fishermans Bend will be at a level substantially below these comparison areas.

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5.4.2 Current Car Ownership Statistics

The table below sets out the current parking controls within a number of suburbs within or adjacent to the Melbourne CBD. I have specifically reviewed the data relating to apartment style housing, which will be the majority housing type within Fishermans Bend (and within these suburbs).

Table 6: Review of Car Ownership Data (2016 ABS Census)

Housing Type	Characteristic	Melbourne Suburb	Docklands Suburb	Southbank Suburb	Carlton Suburb	West Melbourne Suburb
	Statutory Car Parking Limitation	1/dwelling	1.5-2.0 /dwelling	1/dwelling	1/dwelling	1/dwelling
1 bedroom Flat/Unit/Apartment in one or more storey block	Average no. of cars per dwelling	0.3	0.4	0.5	0.2	0.5
	0 cars	74%	58%	53%	82%	51%
	1 car	23%	39%	44%	16%	44%
	2 or more cars	2%	3%	3%	2%	5%
2 bedroom Flat/Unit/Apartment in one or more storey block	Average no. of cars per dwelling	0.5	0.8	0.8	0.4	0.7
	0 cars	61%	36%	33%	62%	38%
	1 car	33%	50%	57%	31%	53%
	2 or more cars	6%	13%	10%	7%	9%
3 bedroom Flat/Unit/Apartment in one or more storey block	Average no. of cars per dwelling	0.9	1.3	1.1	0.9	0.9
	0 cars	37%	18%	22%	34%	32%
	1 car	38%	45%	47%	45%	46%
	2 cars	21%	30%	27%	17%	17%
	3 or more cars	4%	7%	4%	3%	5%

The data indicates that car ownership levels within all suburbs is generally significantly lower than the statutory maximum rates. Only households occupying larger three-bedroom dwellings own cars at average rates which are close to the statutory car parking rate (around 1 space per dwelling).

This data reveals the strong preference of larger households owning more cars than smaller households.

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5.4.3 Current Mode of Travel Characteristics

The following table presents the journey to work data presented by Mr Kiriakidis. This analysis is notable in that Mr Kiriakidis defines all 'trips' other than 'did not work' as creating a trip. This means that 'worked from home' was included as a 'trip'. His view is that worked from home trips should be included in the definition of a sustainable transport mode.

This is replicated in the table below.

Table 7: Journey to Work data by Place of Residence (Source: Evidence of Mr Kiriakidis)

Suburb	Distance From GPO (approx.)	Public Transport Share	Walk / Cycle Share	Work at Home	Other	Private Vehicle
Docklands	1.5km	39%	29%	5%	3%	24%
Carlton (Vic.)	1.6km	32%	39%	5%	3%	21%
Southbank	1.6km	32%	39%	4%	3%	22%
Fitzroy (Vic.)	1.9km	27%	36%	6%	4%	27%
West Melbourne	2.1km	33%	36%	4%	3%	24%
North Melbourne	2.2km	31%	33%	5%	4%	27%
Parkville (Vic.)	3.1km	30%	36%	4%	3%	31%

Notes: I have reviewed this data against the ABS data collected by my firm and agree that the data is generally consistent.

The evidence reports that the private vehicle trip percentages of these suburbs as being within the 20-30% range and therefore a target of 80% of journey to work trips being undertaken by sustainable transport modes for Fishermans Bend as being achievable and realistic⁷.

In my view the target of 80% of trips by sustainable transport modes is not an unreasonable or unachievable target. However, Fishermans Bend requires a substantial amount of transport infrastructure to provide comparable transport options to these other suburbs.

Importantly, these journey to work mode splits are achieved with car parking limited to no more than 1 car space per dwelling under the current statutory controls and more within Docklands. This is reflected in the following table.

It can be seen that while Docklands allows car parking up to twice the rate of the central city and average car ownership levels are also higher than surrounding areas, the percentage of people using a private car for work is not significantly different from the comparison suburbs.

⁷ In my view, including 'worked from home' as a trip is possibly misrepresenting the data and is not a common approach when assessing travel mode splits. This method does artificially decrease the proportion of people undertaking a trip by car to work, but this is only a 1-2% variation and not significant in my view.

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Table 8: Comparison of Parking Controls and Journey to Work by Private Car

Parking Overlay	Parking Control - Dwellings	Journey to Work by Car Percentage
Melbourne – PO1 (CBD and Southbank)	Maximum 1 per dwelling	22%
Melbourne – PO6 (Docklands)	Maximum 1.5 or 2 per dwelling	24%
Melbourne – PO12 (Inner areas)	Maximum 1 per dwelling	21-27%

It is my opinion that while car parking limitations are part of a suite of measures necessary to reduce reliance on private car travel, other factors are more important to lowering reliance on private vehicles for journey to work purposes. The most critical area:

- Provision of alternative transport modes, including public transport, cycling and walkability and that these modes are competitive with private vehicles in terms of access to places of work.
- The ability of residents to live and work locally, allowing walking and cycling to be competitive mode choices.

All of the established suburbs reviewed in these sections strongly meet these criteria.

I am satisfied that the Framework Plan and ITP place suitably strong emphasis on these two areas. I am satisfied that public transport active transport modes have been appropriately prioritised under these plans. Residents of Fisherman Bends will have excellent access to jobs either within Fishermans Bend or the CBD and immediate surrounds in the year 2050.

However, I am not satisfied that there is sufficient certainty regarding when public transport services will be extended into Fishermans Bend. This especially applies to metro rail services, which are being planned for, but not committed to under the ITP.

Furthermore, the rate of 0.5 cars per dwellings is substantially too low if there is a desire to have 20-30% of dwellings providing 3 or more bedrooms to accommodate families, depending on the precinct. As set out below, most families will require at least 1 car, even though it may not be used for work or school trips every day to meet their transport needs. Assuming that the 3 bedroom dwellings are allocated one car space, this leave the rest of the remaining 70 to 80% of dwellings be provided at a parking rate of between 0.29 and 0.38 cars per dwelling. This is simply not enough parking for this housing mix prior to high capacity public transport and the full build out of services.

It is my opinion that it is most definitely premature to apply a maximum car parking rate of 0.5 car spaces/dwelling to dwellings within Fishermans Bend at this time. There may be a time in the medium term when such a control is appropriate, however it is not now. That would be the same time that controls in the rest of the inner areas of Melbourne would be reviewed and not Fishermans bend in isolation.

The rate should remain at 1 per dwelling as is the case under the current controls.

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5.4.4 Housing Choice and Flexibility

The Framework includes key objectives in relation to family-friendly housing within Fishermans Bend, specifically:

Objective 1.10

Provide family-friendly housing options across Fishermans Bend, with the highest provision in Wirraway

Strategies

1.10.3 *Encourage the delivery of three bedroom dwellings with large living rooms with the following targets per precinct*

- Wirraway – 30%
- Sandridge – 20%
- Montague – 25%
- Lorimer – 20%

For the purposes of this discussion, I have assumed that “Family Friendly” housing is housing for families with children.

There needs to be recognition that families generally have higher car ownership. In my view, for the foreseeable future, families will generally desire access to at least 1 vehicle. As proposed, the current controls would allow three-bedroom dwellings to provide a car space, at the expense of other dwelling types. In a large apartment building with a range of dwelling types, this can be accommodated. This is at the expense of smaller one and two-bedroom dwellings. A development in Wirraway with 30% of three-bedroom dwellings all allocated 1 car space, would leave 70% of the dwellings at a maximum parking rate of 0.29 cars per dwelling.

The controls in my view do not make sufficient allowance for a development that only includes larger dwellings. There are a number of areas in Fishermans Bend limited to 4 stories in height that could conceivably comprise larger townhouse or terrace housing comprising exclusively three or more-bedroom dwellings. Alternatively, any development could be targeted at the higher end of the market and include a higher proportion of larger dwellings.

In my view, the decision guidelines at Section 4.0 of the Parking Overlay are inadequate, there needs to be specific acknowledgement that the target market for the dwellings (or mix of dwelling types) should be a relevant consideration.

My reading of the Minsters submission indicates that there is some flexibility to grant permits with more than 0.5 car spaces per dwelling, however the controls as written do not clearly express this.

As set out previously, the controls in my view should explicitly include reference to the decision guidelines of Clause 52.06-7. A reference to Clause 52.06-7 would make it clear that decision guidelines such as a Car Parking Demand Assessment and type of housing proposed are included in the decision-making process of the Responsible Authority.

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For these reasons, I do not see any sound basis for a decision to depart from a maximum rate of 1 per dwelling as is the case under the current controls and those that apply to the balance of the Capital City Zones.

5.4.5 Summary of Position

I am satisfied at limitation of 1 car space per dwelling is an appropriately low level of car parking that will substantially assist with the sustainable transport objectives of Fishermans Bend. A target of 80% of trips by sustainable transport modes can still be achieved based on the current transport trends of households in inner Melbourne. It should also be noted that the actual rate of parking provision in practice is likely to be well below 1 space per dwelling overall based on current car ownership levels in the inner city.

Setting the maximum parking rate at 1 space per dwelling in my view allows adequate flexibility in housing types while supporting sustainable transport modes.

In my view, the keys to balancing the need for housing flexibility and short-term transport options against the sustainable transport objectives of Fishermans Bend and supporting infrastructure which will evolve over time are:

- Unbundle car parking so that ownership does not form an impossible constraint to the conversion of car parking to other uses. This requirement is required under Schedule 4 to Clause 37.04 Capital City Zone in the City of Melbourne and Schedule 4 to Clause 37.04 for the City of Port Phillip. In my view, this requirement should also be included in the Parking Overlays. I acknowledge that there may be some developments where it makes sense to leave the spaces on title, but these would be the exception to the rule.
- Require adaptable car parking levels – to allow the reuse of these spaces if car parking demand drops significantly in future. The question remains whether all above ground parking should be in this form or only a proportion of it.

I am satisfied that there is sufficient encouragement of sustainable transport modes in accordance with Strategy 1.6.1 with car parking limited to 1 space/dwelling and employment limited to 1 space/100m², unless a permit is granted to exceed these rates.

Fundamentally, it is my view that it is far more important that high quality public transport is delivered early to Fishermans Bend than limiting car parking provision to a level well below what is currently required of other inner city locations that are already far more accessible by alternative transport.

5.4.6 Other Parking Overlay Issues

The exhibited planning controls do not include maps for the Parking Overlays and on this basis, the existing extent of the overlays is not changing. Currently the Overlays apply to Montague, Sandridge, Lorimer and Wirraway, but not the employment precinct.

Workers travelling in commuter peak hours have the most impact on the transport network. On a per car space basis, parking by workers generates significantly more traffic than a resident car space. When a car space is provided for a worker, it is generally always used for that purpose on a daily basis and it generates a trip in the commuter peak periods. A resident has the option to use their car or

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alternative transport modes for journey to work purposes. Based on the Framework targets, 1 in 5 (20%) resident car spaces will generate a trip during the commuter peak hours (80% of trips by sustainable modes). A worker car space will generate 5 times more traffic than a resident car space.

The employment precinct is intended to ultimately accommodate 40,000 jobs and currently there are no parking overlay controls currently proposed. In my view this is a significant shortcoming as not limiting car parking for employees of this area in the medium-term, particularly as this is the location where public transport will be improved first by the light rail. It is important to acknowledge this now, as how this area develops in the short to medium term may compromise the key objective of reducing private vehicle use in Fisherman Bend.

5.5 Parking Precinct Stations

A Parking Precinct Station is not a well-defined term in the Framework or ITP. I have adopted the definition applied by GTA in a report titled 'Fishermans Bend Precinct Car Parking Opportunities (GTA 2016)'.

This study defines Parking Precinct Stations as:

Centralised parking that is provided in lieu of parking within nearby developments.

"Nearby" means that PPS are within easy walking distance (400m) of the development.

Essentially, a Parking Precinct Station (PPS) is a dedicated off-street carpark to serve nearby land uses. In usage, it is similar to any commercial carpark where nearby residents or employees can rent a car space for a fee, or a consolidated off-street carpark servicing a retail district. What is different about a PPS in the context of Fishermans Bend is that the use of these off-site parking locations could be tied into car parking provision rates for new development, allowing off-site car parking to be counted as parking provided within a development.

In regard to Parking Precinct Stations Framework includes the following strategy:

1.6.3 *Support the off-site delivery of precinct car parking stations to provide dedicated car parking in the short term*

The ITP includes the following recommendation:

Undertake further investigations in relation to precinct parking structures to understand market uptake, potential future demands, site placement, capacity and planning policy amendments required for implementation to be successful.

Section 4.0 of the Parking Overlay includes the following decision guideline in the relation to the provision of car parking:

Whether car parking is to be provided in a stand-alone building used for precinct car parking.

I have a number of reservations regarding this proposal.

1. Unbundled or commercial car parking on another site would not be significantly different from current practice for many employees working in central city locations. However, this would be a significant change for residents. There are issues for residents around:

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- a. The practicality of expecting residents to walk 200-250m to their car space, especially in the context of family accommodation and transporting young children or groceries/goods between your car and your apartment.
 - b. Market acceptance by developers, purchasers and tenants.
2. Providing unbundled car parking is sensible in the context of allowing future flexibility to reuse space currently dedicated to car parking. Changes to vehicle technology such as autonomous cars *may* reduce car parking demand at *some point* in the future. Unbundled car parking is the key to reusing car parking spaces in the future, as divided ownership is likely to make this a challenging or practically impossible option. Providing unbundled car parking on another site (a PPS) is not necessary to achieve this objective. The question will be about whether all of the spaces need to be adaptable given the different floor to floor heights (and determining what these should be as 3.8m is nominated in the controls).
 3. The ITP itself outlines significant challenges regarding the use of PPS (at page 50):

Implementing PPS in Fishermans Bend will need to be both directed and encouraged. Simply mandating PPS will slow or stifle development. Subsidising and forward developing PPS to the extent necessary to shift behaviour will be a high burden on the public sector, at least in the short term.

For the market to embrace PPS as a model and take over its roll out across Fishermans Bend, it will be looking for successful precedents, certainty and a level playing field. The public sector response in both the regulatory frameworks and a commitment to facilitate and subsidise PPS will be key to establishing this mode.

The public sector investment to realise the PPS model could be substantial. It may take a long time to get any return and ultimately the financial return alone may not justify the commitment in the first instance. Further work is required to investigate the following:

- *Potential demands associated with future development and therefore likely parking demand (in context of potential expansion of Car Parking Levy).*
 - *Market demand and anticipated acceptance from a passenger/purchaser point of view as well as developer and financiers.*
 - *Identify potential sites and capacity requirements in each precinct.*
 - *Develop a funding strategy based on areas and suitability of precinct parking zones.*
 - *Planning scheme amendments to the Parking Overlay which covers Fishermans Bend.*
4. The ITP acknowledges that: *PPS have been implemented in very few cities around the world, however where implemented they have most commonly been part of pioneering developments and part of a wider sustainability objective.*
 5. I have reservations that Melbourne's largest urban renewal site is the appropriate place to test what appears to be an untried theory. Evidence supporting the use of PPS appears limited and the supporting document for PPS is not definitive on this issue (specifically the supporting document: *Precinct Car Parking Opportunities by GTA Consultants, 2016*).

The evidence of Mr Kiriakidis included the following summary of the GTA study (page 24):

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The study recommends that PPS be promoted through public sector incentives (i.e. decreased/increased parking allowance). In this scenario, developers would not be mandated to deliver PPS; however, incentives are provided to encourage PPS within 'precinct parking zones'. Outside of these zones, the Capital City Zone would apply, meaning that developers can simply provide parking on-site in accordance with the rates specified to under the Parking Overlay.

Further detailed planning was recommended. The report identifies that PPS will need to be underpinned by early provision of public transport infrastructure, a range of new approaches to managing parking and demonstrate commercial viability and 'highest and best use' of land.

In my opinion that it is premature to include PPS in the planning framework for Fishermans Bend at this time. There are simply too many questions regarding the how a PPS scheme would be implemented and function to rely on PPSs to achieve the sustainable transport objectives of Fishermans Bend. PPSs should not be tied to car parking rates at this time or be used to justify the current low parking rates of 0.5 spaces/dwelling or 1 space/100m² of commercial floor space and references to PPS should be removed from Clause 45.09.

The development of PPS in employment areas or the more intense mixed use areas is sensible, but no different than commercial carparks that already develop in many areas of Melbourne, by Councils or by the private sector. When these carparks are no longer the best use of the site, as people use alternative modes they redevelop or are planned initially as integrated developments with a mix of private and public parking.

6 Proposed New Roads and Associated Controls

As stated previously, I am generally satisfied with the proposed road layout for Fishermans Bend and the underlying principles behind the road network.

In my opinion, the controls proposed to implement this network need some flexibility and clarification, and it may be that not all local roads need to be as prescriptive as currently shown. This is particularly the case where they are not continuous routes and there would appear to be more flexibility around their alignment/location.

Schedule 1 to Clause 37.04 of the Port Phillip Planning Scheme⁸ states the following with respect to permit requirements for buildings and works:

A permit must not be granted to construct a building or construct or carry out works where the provision for any new streets, laneways, or public open space generally in accordance with Map 2 and Map 3 is not provided.

Firstly, in my view the above requirement is not clear. It can be read that any application for building and works triggers the requirement to deliver the road detailed on Map 2 of the controls or it could be read that it only applies in the event that building and works are proposed that would affect the part of the land described in Map 2.

Under either scenario, the controls do not provide sufficient flexibility to cater for an existing use that intends to continue on the site for the foreseeable future and would likely apply for building works that enable the site to continue to adapt and accommodate the business requirements of an existing business.

⁸ A similar Clause is proposed in the Melbourne Planning Scheme

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7 Conclusions

This report has provided a high-level review of the impacts of Amendment GC81.

Fundamentally my view is that the Framework and supporting controls fail to deliver the level of public transport certainly that is required for this area.

The most critical issue being the metro rail alignment and station locations that would be necessary to support the employment and residential, and mode share aspirations of the Framework. To date, the transport requirements for an additional 20,000 jobs in the employment precinct has not been modelled in so far as I can see.

This clearly needs to be reviewed and resolved, so that the area can be effectively planned around the feasible station locations and associated bus and light rail connections also planned for.

In my view, a critical issue is whether both Wirraway and the Employment Precinct can be served by a metro rail alignment or whether it is one or the other (as is currently suggested by not explicitly stated). This clearly has significant implications to station locations, and additional public transport services that may be required.

The parking overlay needs a complete review. The parking rates and expectations should not be more onerous that would apply to other Capital City Zones. There are some sensible components to the controls relating to unbundling parking and adaptable floor plates, although there needs to be flexibility as there will always be cased situations where exceptions make good practical sense.

The same applies to the mandatory road locations and the need for more flexibility where existing uses continue.

I have made all inquiries that I believe are desirable and appropriate and there are no matters of significance which I regard as relevant which, to the best of my knowledge, have been withheld from the Panel.



CHARMAINE CHALMERS DUNSTAN

B.E. (Civil) Hons., Masters of Traffic, M.IEAust., F.V.P.E.L.A

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Appendix A

VISTA 2013 Travel Summary

Travel in metropolitan Melbourne

VISTA Survey 2013

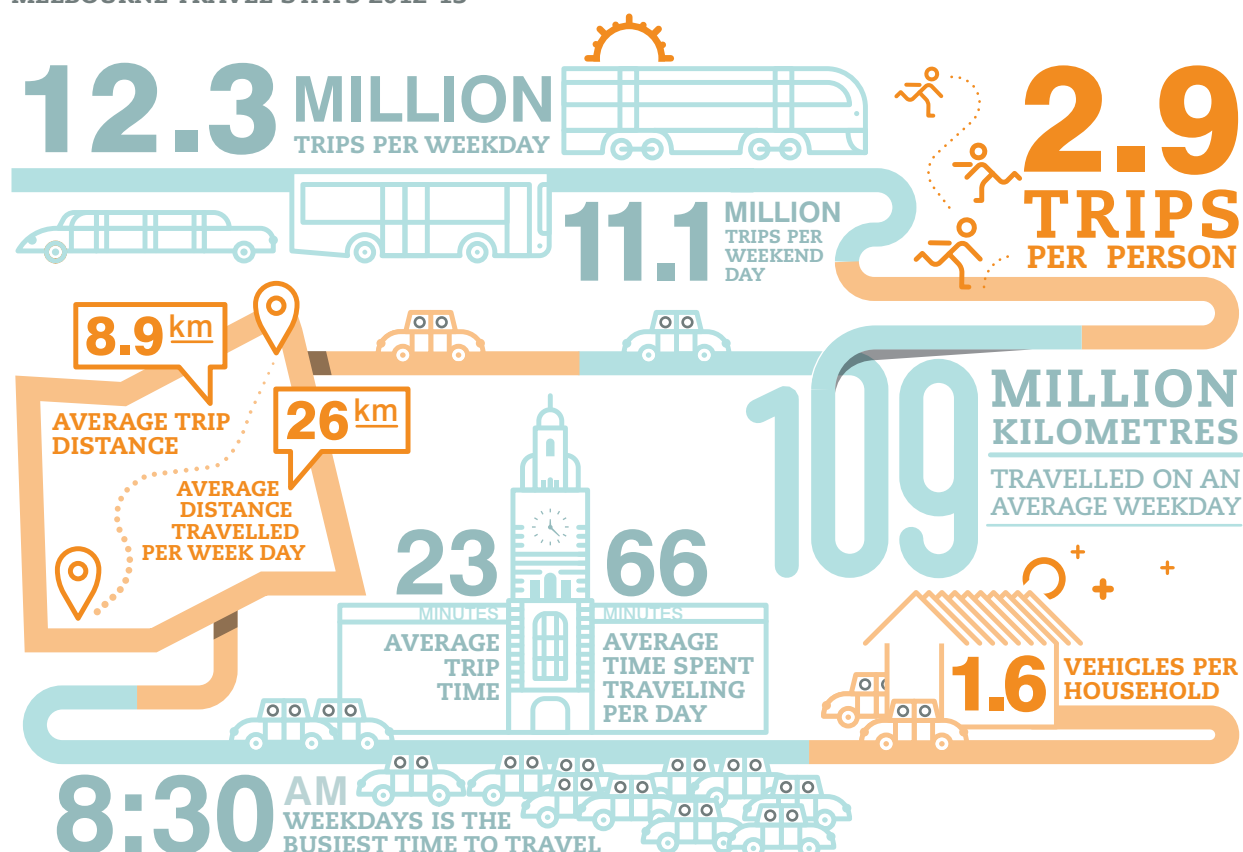
VISTA results for Melbourne

Data from the 2012-13 Victorian Integrated Survey of Travel and Activity (VISTA) provides vital insights into the travel behaviour of Melbourne's residents.

Between 2007 and 2013, travel behaviour across Melbourne did not change significantly, indicating the transport network has largely coped with the 12 per cent increase in population (to 4.2 million residents) over the survey period.

Information from VISTA is used to monitor the metropolitan-wide outcomes of transport planning and investment decisions, and inform the development of a cohesive transport network that can service our growing population.

MELBOURNE TRAVEL STATS 2012-13



Did you know? If you exclude those who did not leave their home on their survey day, the average time spent travelling per person, on a weekday increases to 88 minutes. Time spent travelling also varies with demographics. For example, people of working age travel the longest, at 98 minutes a day. This reflects the long trip times for commuting compared to other purposes.

Key travel facts

- Residents of Metropolitan Melbourne made 12.3 million trips on an average weekday in 2012-13, up from 11.6 million trips in 2007-08.
- Public transport use across Melbourne accounts for 9 per cent of all weekday trips taken compared to 72 per cent of trips taken by private vehicle.
- The typical Melburnian makes 2.9 trips per day, slightly less than the 3.1 trips recorded during the 2007-08 VISTA survey.
- At 8.9km, the average trip distance for Melbourne residents has remained constant from 2007-08 to 2012-13. Half of all trips are less than 4.2km; this has also remained stable.
- For weekdays trips, it takes Melburnians an average of 23 minutes to reach their destination. Half of all trips are less than 15 minutes. This self-reported travel time has been constant across the survey periods.
- Melburnians travel most often for work related purposes (26 per cent of all trips). Work travel also accounts for the greatest share of distance (43 per cent of total distance travelled).
- When traveling to the CBD, residents of Melbourne use public transport for 57 per cent of all trips.

When do Melburnians travel?

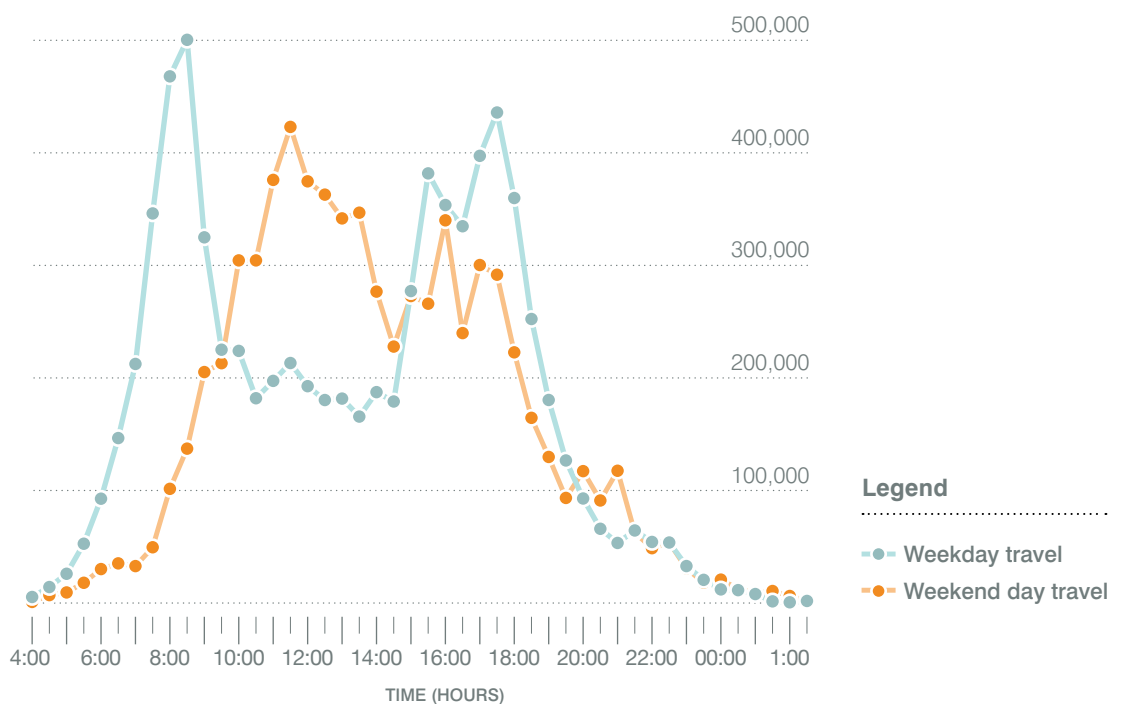
Melbourne's transport network experiences significant peaks in demand during different times of day and different days of the week. Collecting data about when people travel is vital to ensuring the network is managed efficiently and can respond to greatly fluctuating levels of demand.

VISTA 2013 data indicates that the busiest time for Melbourne's transport network across all motorised modes is 8:30am on weekdays, when around 500,000 people are travelling.

Melbourne residents are more likely to travel by public transport during peak periods, and use other modes of transport during quieter periods. Significantly, weekday public transport mode share rises to 20 per cent at 8:30am compared to 9 per cent of trips when averaged across all time periods.

Weekend travel is placing more demand on the transport system than ever before, with the midday peak around 11am approaching similar levels as the weekday afternoon peak in both magnitude and duration.

Number of people travelling (motorised modes)



Weekday trip purpose (% of trips)



Why do Melburnians travel?

On weekdays in 2012-13, Melburnians made the most trips for work related purposes (26 per cent of all trips) and also travelled the greatest distance for work (43 per cent of total distance travelled).

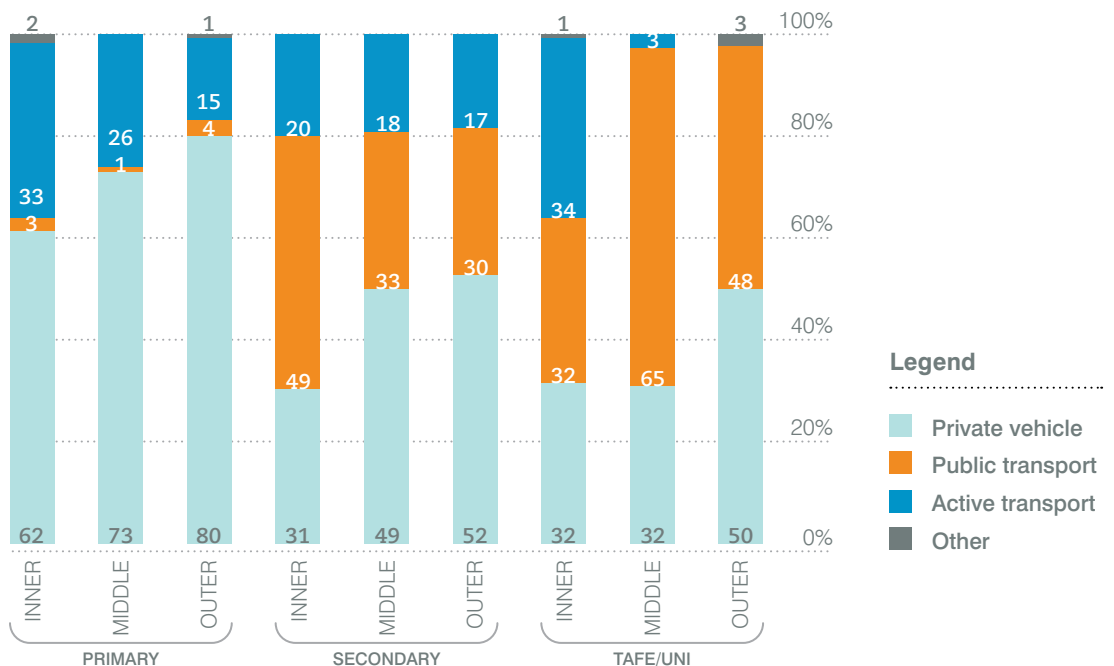
Residents of Melbourne travel further for work than for other purposes. The average work journey is 17km long and takes 44 minutes. This is almost twice the average trip distance of 8.9km and double the average trip time of 22 minutes.

Melburnians make 326,000 work journeys to the City of Melbourne each weekday, representing 24 per cent of all weekday work journeys in Melbourne.

For education purposes, the higher the level of education, the further the average distance of travel. The average distance for primary school journeys is 4km, increasing to 7km for secondary school travel and 19km for tertiary travel.

Of all travel for education, tertiary students make the most journeys by public transport (48 per cent). Primary school students make the most journeys by private vehicle (74 per cent) but also have the highest rate of active transport (22 per cent).

Education journey mode share



How do Melburnians get around?

Most Melbourne residents have access to a variety of options when travelling both around their local area and further from home. These include driving or being driven, walking, cycling, catching a train, tram or bus, motorbikes, scooters and taxis.

Unlike other surveys, VISTA collects travel on all these modes of transport and others, including aeroplane, mobility scooters and even skateboard.

The 2013 VISTA results show that transport by private vehicle remains the most popular way to travel in Melbourne. On an average weekday 72 per cent of all trips, and 82 per cent of all kilometres travelled, are taken by private vehicle.

The share of public transport trips (9 per cent) has remained stable across the period, as has the distance travelled by public transport (approximately 13 per cent of all kilometres).

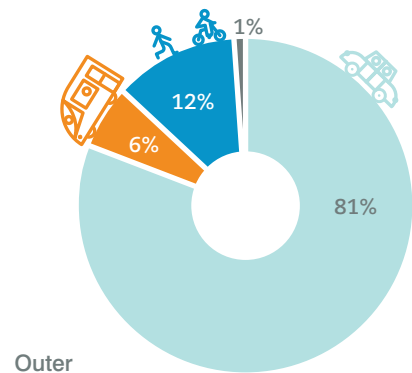
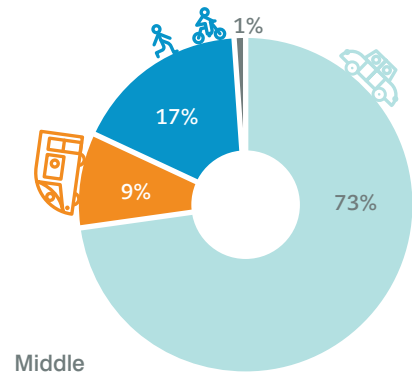
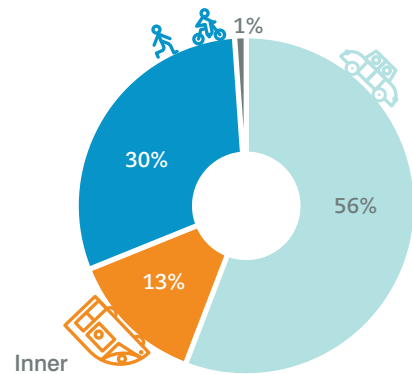
Where people live in Melbourne greatly influences the way they travel. For example, the further a person lives from the CBD, the more likely they are to use private transport to get around. Inner Melbourne residents are more than twice as likely to use active modes of transport than those who live in the outer suburbs. In the five years from 2007-08 there has been a slight shift from private vehicle to active modes.

Note: In each region, 'other' methods of travel accounts for 1 per cent of all journeys

Public transport modes are also used more often in inner Melbourne compared to outer Melbourne. Factors influencing this may include greater availability, higher levels of service, travel time and cost.

Public transport use has related health benefits, as people who use public transport are likely to obtain their daily exercise needs through transport related walking. On average, public transport users walk for 38 minutes per day, substantially higher than the population average of 11 minutes.

Weekday trip mode share



Legend

- Private vehicle
- Public transport
- Active transport
- Other

More information

Data summarised in this report was collected in the 2012-13 financial year. For comparison, previous VISTA surveys were conducted in the 2007-08 and 2009-10 financial years.

Summary data from the earlier surveys, along with further information about VISTA, can be found on the Department of Economic Development, Jobs, Transport and Resources website at: <http://economicdevelopment.vic.gov.au/vista>

Authorised by the Victorian Government, 1 Treasury Place, Melbourne.