



Five years closer to 2020 A plan to get transport back on track



Public Transport Users Association
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1. Introduction

The Victorian government has set a goal of shifting 20 per cent of motorised journeys within Melbourne onto public transport by 2020 (otherwise known as “20/2020”). In this plan, we have taken the merits of public transport as a given¹ and therefore welcome the government's goal as a worthy objective.

The 20/2020 goal is both ambitious and achievable - given sufficient commitment. A mode share of 20 per cent effectively represents a doubling of public transport's current patronage. Furthermore, the population of Melbourne is projected to increase by around half a million people by 2020, and many of these new residents will live in outer growth areas that are currently under-served by public transport. Together, these factors are expected to increase the number of passengers on Melbourne's public transport system from the current 1 million per day to 3 million each day in 2030.

The government has outlined what it believes will be required to achieve its goal in the Melbourne Transport Plan (MTP). The PTUA does not believe the MTP can be rightly called a “plan”. While many of the proposals it contains are laudable, in the absence of timelines and committed funding for public transport, it can only be considered a summary of potential improvements. Perversely, the MTP does provide timelines and funding for road expansion which is completely at odds with the government's 20/2020 goal and is likely to be unnecessary if the 20/2020 mode shift goal is achieved.

Given the scale of mode shift required to achieve 20/2020 and the lead times required to implement transport infrastructure projects, the time to act is now. If the government is serious about 20/2020, it cannot afford any further delays before implementing a program of public transport enhancements. This task is given added urgency by rising oil prices that are hurting Melbourne households, and projections of a peak in global oil production within the next decade.

Five years closer to 2020 lays out a five year plan of improvements that the government must immediately begin to implement before car-dependent land-use and transport practices are entrenched in growth areas. We stress that this is not everything that will need to be done by 2020, but this plan makes up for lost decades since the last major addition to the rail network – the Glen Waverley line - was built in 1930 and lays a foundation for more modest improvements over the remaining period.

2. Guiding Principles

Public transport should be considered as an integrated network of complementary services providing good mobility that is competitive with private cars in terms of speed, convenience and cost. Such a network is founded upon an extensive backbone

¹For discussion of the merits of public transport, see *Most liveable and best connected: The economic benefits of investing in public transport in Melbourne*, by Jan Scheurer, Jeff Kenworthy & Peter Newman; and *Submission to the Productivity Commission Inquiry into Energy Efficiency*, by the Public Transport Users Association.

of fast, high capacity train services that are interlinked and fed by coordinated tram and bus services which receive priority over other road users. All of these services should be frequent and full-time.

The system should be made user-friendly for people of all ages so that it becomes an accessible mode of choice for families, elderly people and people with disabilities.

A network that is built on these principles will enable patronage to grow beyond its current bias towards peak hour radial journeys. A coordinated, integrated public transport network would offer a viable alternative to the private motor car for travel anywhere, any time across greater Melbourne.

3. Route map to 20/2020

The guiding principles given above provide a framework for public transport that could see the 20 per cent target reached with comparative ease. Unfortunately Melbourne's public transport system has a long way to go to reach this ideal.

To reach the 20/2020 goal and realise all of the social, environmental and economic benefits it entails, three main features of the public transport system must be addressed:

- Coverage
- Integration
- Speed

3.1 Coverage

Melbourne's train network only reaches about one third of Melbourne's residents, leaving the majority of Melburnians reliant on buses for public transport. Bus services in Melbourne are arguably the worst of any capital city, with very low frequencies, limited hours of operation and complete lack of service on Sundays on most routes. A public transport system with such poor geographic coverage and limited operation cannot be regarded as a convenient alternative to the private motor car or likely to attract anything close to 20 per cent of motorised journeys. Given these limitations, most people will opt to drive if they have the choice, further adding to congestion, pollution and oil consumption.

Increased patronage of public transport, particularly in outer growth areas, can only be achieved by extending the coverage of the rail network and providing more frequent services for more of the time for trains, trams and buses. For these reasons, we propose the following enhancements to Melbourne's public transport system:



(High-resolution version available at: www.ptua.org.au/news/2005/five-year-plan-map.jpg)

3.1.1 Train extensions

- *Extension of Epping line to South Morang*
Fulfil Labour election promise to serve identified *Melbourne 2030* growth areas that are currently transport-poor.
Stage 1 - Mill Park extension
Stage 2 - Mernda extension
- *Train line along Eastern Freeway and onto East Doncaster*
A high capacity transit link to an area that is currently transport-poor and that hence generates many journeys on Eastern freeway corridor. The line will also serve Doncaster Shoppingtown which is a Principal Activity Centre and major trip generator. Heavy rail provides a more effective means of diverting car trips from the Eastern Freeway and North Central City Corridor than bus or light rail and will provide significant speed and capacity advantages.
- *Electrification to Baxter*
This extension provides improved mobility south of Frankston, and enables improved access to Monash University campus at Leawarra.

- *Train line to Rowville*

A high capacity transit link to an area that is currently transport-poor and that hence generates many journeys on Monash Freeway corridor. This line will also improve access to the Stud Park Major Activity Centre and to Monash University which is a major trip generator and Specialised Activity Centre.



- *Sunbury electrification and interchanges*

Improves mobility in a rapidly growing area that is currently transport-poor and generates a growing number of journeys on the Calder and Tullamarine corridors. Will improve access to Principal Activity Centre at Sydenham and Major Activity Centre at Sunbury.

3.1.2 New stations

- *Southland train station and bus interchange*

Obvious means of integrating a Principal Activity Centre and major trip generator with the Principal Public Transport Network (PPTN) and enables sensible modal interchange with many bus routes.

- *Newport West train station*

Enables access to existing rail services in an area that has poor access to train services despite Werribee line running through the area. Would also serve a Victoria University campus.

- *Werribee line stations*

Two new stations to improve access to existing Werribee line train services in identified *Melbourne 2030* growth areas. Suggested locations include Derrimut Rd and Forsyth Rd, subject to community consultation.

- *Lyndhurst Park train station*

Enables access to existing rail services in a growth area that has poor access to train services despite the Cranbourne line running through the area.

- *Coolaroo train station*

Enables access to rail services in an area that has poor access to train services despite the Craigieburn line running through the area.

- *Campbellfield train station*

Enables access to rail services in an area that has poor access to train services despite the Upfield line running through the area. Also enables connection to a future orbital Smartbus route.

3.1.3 Extended service operation

While many parts of Melbourne theoretically have bus services nearby, in practice many of these services are useless because they cease operation before many commuters finish work or don't operate at all on Saturday afternoons and Sundays.

- *Evening and weekend bus services to cover more of the day and week*
Immediate introduction of Sunday bus services and evening services through to 10pm on all bus routes. This will provide full-time public transport services for the first time to the two thirds of Melbourne beyond the current rail network.

3.2 Integration - a public transport network, not a jumble of routes

Melbourne has a very low proportion of linked public transport trips compared to other cities. Most journeys involving public transport in Melbourne include only one boarding with no use of connecting services. By contrast, trips in a number of cities worldwide involved twice as many boardings, reflecting much higher use of connecting services. This is exemplified by the majority of Melbourne's train passengers who access the station by walking or cycling compared to only 9 per cent who reach the station by bus. In Toronto, over three quarters of train passengers reach the station by feeder bus.

The disparity in linked trips is symptomatic of the lack of integration that exists between modes in Melbourne. The effects include ludicrous examples such as feeder buses arriving with passengers moments after the departure of a train, or leaving empty moments before the arrival of passengers on an incoming train. Another prime example of lack of integration is the multitude of tram routes that terminate in unremarkable locations several hundred metres short of a train station.

The effectiveness and attractiveness of public transport could be improved by orders of magnitude by making it work as an integrated network rather than a jumble of unrelated routes. Better integration of routes could boost both patronage and the effective capacity of the network by offering alternatives to crowded routes.

3.2.1 Tram extensions

For the most part, the following extensions are relatively minor and do not involve expansion of the tram network *per se*, but simply improve connections between trams, train and buses.

- *Extend Route 3 to East Malvern station, and then onto Chadstone*
A modest extension that provides a more logical terminus for the No. 3 tram, linking it with the Glen Waverley train line and providing an improved link to the PPTN for Chadstone which is a Principal Activity Centre and major trip generator.

- *Extend Route 48 from North Balwyn to Doncaster Hill*
Provides a more logical terminus for the no. 48 tram, linking the Principal Activity Centre at Doncaster Hill with the light rail network and inner east residential areas. Would also connect with and feed into Eastern Freeway rail services.
- *Extend Route 8 to Hartwell*
Completes tram coverage along Toorak Road, providing a more logical terminus and connection with the Alamein train line. This would serve significant trip generators such as Tooronga Village and the Coles Myer HQ.
- *Extend Route 57 to East Keilor*
Provides access to the Principal Activity Centre at Highpoint from residential areas across the Maribyrnong River, and links each with the proposed Footscray transit city.
- *Complete Route 75 extension from Vermont South to Knox*
Provides a direct east-west link from the major trip generator and Principal Activity Centre at Knox and the Stud Rd Smartbus to residential areas and trip generators to west, including Deakin University Specialised Activity Centre, PLC, Tally Ho Major Activity Centre and through to the CBD.
- *Extend Route 16 to Kew Junction*
A simple extension along Cotham Rd to the Kew Junction Major Activity Centre that would allow connections with High Street buses and route 48 trams and hence greatly facilitate non-radial journeys. This would tie in well with the extension of route 48 to Doncaster.
- *Extend Route 6 to Ashburton Station*
A modest extension that provides better coverage of High Street and offers links to both Alamein and Glen Waverley train lines.
- *Extend Route 109 to Box Hill station*
This minor extension would provide improved integration between heavy and light rail services and the bus interchange.
- *Extend Route 72 north to Doncaster Road*
The is extension would provide more a significant north-south service and allow direct connections with the no. 48 tram.
- *Extend (Route 72) south along Burke Rd to Caulfield*
Provides north-south link between the Frankston, Cranbourne/Pakenham, Glen Waverley and Belgrave/Lilydale train lines improving access to the Caulfield activity centre, racecourse and Monash University campus from the north.
- *Extend Park St South Melbourne track to St Kilda Rd*
A very simple and cheap augmentation to permit creation of a new east-west tram route linking Albert Park, South Melbourne and South Yarra.
- *Extend Route 67 to Carnegie station*
A modest extension that provides a more logical terminus for the No. 67 tram, linking it with Cranbourne/Pakenham line trains.

3.2.2. Alamein line Reconfiguration

Allow improvements to journey times and better connections to other services including Toorak Road trams and potentially Glen Waverley line trains, permitting a broader range of non-radial journeys.

3.2.3 Facilitate active transport

Walking and cycling are integral components of the public transport network. Most journeys involving public transport begin with a walk or ride to the station or bus or tram stop. Urban form should be conducive to walking and riding, with road design accommodating to these active modes and adequate provision of secure bicycle parking at stations.

- *Secure bicycle parking at train stations*
Improve the catchment of existing train infrastructure at minimal expense without wasting large areas of land under car parking. Secure bicycle facilities would promote a non-polluting form of transport with additional benefits for health and fitness for passengers.

3.2.4 Central planning & timetable coordination

Door-to-door journey times could be significantly reduced by minimising the time spent waiting for connecting services. Coordination of connecting services would enable the public transport system to operate as a true network, and relieve parking pressures near railway stations. Models such as the *Verkehrsverbund*, or “Transport Community”, of central Europe or Vancouver's TransLink provide examples that could be followed in Melbourne.

3.2.5 Coherence between land-use planning and transport

The government of Western Australia has successfully integrated its transport and land use planning within a single department. We believe Victoria is ripe for similar reform and recommend that all strategy setting, policy and planning related to land use and transport be consolidated within the one department with all expenditure allocated using comprehensive triple bottom line cost-benefit analysis.

As the Victorian government's Infrastructure Planning Council found, current institutional arrangements hamper the integration of economic, social and environmental objectives in transport planning:

"Transport planning is a subset of the overall broader plan and a coordinated and integrated approach to transport planning is required.... The current institutional arrangements especially the separate budget for road funding and the separation of VicRoads from the other transport functions within the Department of Infrastructure, have not encouraged such a holistic view."
(Infrastructure Planning Council, Final Report, September 2002)

VicRoads should be abolished as a separate entity and its responsibilities brought within the combined planning and infrastructure department proposed above. This reform could ensure greater integration of transport and land-use planning and reduced waste on supporting multiple government agencies.

3.3 Speed

The ability of public transport services to attract passengers is directly related to journey speeds. Universally in cities around the world, the most time-competitive forms of public transport are grade separated rail services. While the government must ensure that the train network extends right throughout metropolitan Melbourne, it must also ensure that trams and buses are given every chance to provide a time-competitive service through wide-spread priority programs, and that speed gains are directed into higher service frequencies that can minimise waiting times.

3.3.1 Priority programs

- *Tram priority program*

Following successful trial implementation on Sydney Road, provide trams with genuine priority on the road through dynamic signal priority enabling faster and more frequent services with the existing rolling stock.



- *Bus priority program*

Provide buses with genuine priority on the road through dynamic signal priority enabling faster and more frequent services with existing rolling stock. This would include for example priority measures within the CBD and HOV lanes throughout major arterial roads (e.g. Springvale and Stud Roads).

3.3.2 Frequencies

- *Train frequencies*

Boost frequencies across the network to 15 minutes off-peak and weekends until 9pm, 20 minutes 9pm to midnight and at least 10 minutes peak, thereby cutting waiting times and overall journey times. Increased service levels will ease the pressure on corridors such as the Westgate/Geelong link and Monash/Dandenong corridor, and attract more full-fare passengers thus increasing fare revenues and reducing the net cost of improvements.

3.3.3 SmartBus rollout

SmartBus offers great potential as a fast, user-friendly means of transport for non-radial journeys. Following a small number of tentative pilot routes, the government must now move to full-scale roll-out of SmartBus routes.

- *Orbital bus roll-out*
Implementation of the Red Orbital from Box Hill to Preston (via Doncaster) and implementation of the Green Orbital from Nunawading to Chelsea.
- *Smartbus roll-out*
Implementation of 24 routes, including the Canterbury Road SmartBus from Ringwood to Camberwell (via Box Hill), 733 along Middleborough Road, 406 from Footscray to East Keilor via Highpoint and other routes travelling along major roads, as well as immediate implementation of the Ringwood to Frankston and Wellington Road SmartBuses.
- *Smartbus upgrades*
Upgrade of Blackburn Road and Springvale Road SmartBuses to new SmartBus standards.

3.3.4 Appropriate infrastructure investment and utilisation

Public transport operations in Melbourne fall well short of international best practice. Melbourne's train lines carry far fewer passengers than comparable lines in other international cities and reliability is notoriously poor which harms customer satisfaction and the ability to attract new passengers.

More effective asset utilisation, facilitating higher frequencies and reliability, could be achieved by undertaking the following:

- *Rail infrastructure and operations review*
A study by internationally recognised experts on public transportation systems into the infrastructure and operating practices of the Melbourne rail network, to identify any impediments to increased train frequencies in Melbourne and recommend measures to mitigate such impediments where they exist.
- *Train control system upgrade*
Facilitate better utilisation of existing rail infrastructure and increased reliability of train services.
- *Duplication of single track sections on Epping line*



Facilitate improved frequencies and reliability on Epping line that serves identified *Melbourne 2030* growth areas.

- *Duplication of single track sections on Hurstbridge line*
Facilitate improved frequencies and reliability on the Hurstbridge line.
- *Dandenong line enhancements*
Facilitate increased frequencies on the Cranbourne and Pakenham lines and future Rowville line, with measures such as passing loops and signalling upgrades based on findings of the above rail infrastructure and operations review. Enhancements could improve mobility in growth areas in southeast Melbourne and along length of Dandenong/Monash corridor.

3.3.5 Level crossing eliminations

Whilst Sydney has virtually no level crossings, Melbourne's level crossing elimination program was abandoned in 1969 in favour of freeway expansion. The following level crossings are priorities for elimination in the short to medium term:

- *Springvale Rd, Nunawading level crossing elimination*
Facilitate increased frequencies on Belgrave/Lilydale train lines, Melbourne's busiest route, and ease traffic flow on Springvale Road.
- *Glenferrie Rd, Kooyong level crossing elimination*
Facilitate increased speed and frequencies on Glen Waverley line, which would ease pressure on Monash freeway corridor, and reduce delays for no. 16 tram.
- *Toorak Rd, Malvern level crossing elimination*
Facilitate increased frequencies on Glen Waverley line, which would ease pressure on Monash freeway corridor, and reduce delays for no. 8 tram once extended.
- *Glenhuntly Rd, Glenhuntly level crossing elimination*
Facilitate increased frequencies on Frankston line, which would ease pressure on Nepean Highway corridor, and reduce delays for no. 67 tram.
- *Clayton Rd, Clayton level crossing elimination*
Facilitate increased frequencies on Cranbourne/Pakenham lines, serving growth areas in southeast Melbourne, and ease traffic flow on Clayton Road.
- *Burke Rd, Gardiner level crossing elimination*
Facilitate increased speed and frequencies on Glen Waverley line, which would ease pressure on Monash Freeway corridor, and reduce delays for no. 72 tram.

- *Springvale Rd, Springvale level crossing elimination*
Facilitate increased frequencies on Cranbourne/Pakenham train lines, serving growth areas in southeast Melbourne, and ease traffic flow on Springvale Road.
- *Riversdale Rd, Camberwell level crossing elimination*
Facilitate increased frequencies on Alamein line and reduce delays for no. 70 tram.

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