Overview of 'Transporting Melbourne'

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Abstract:

This paper presents an overview of *Transporting Melbourne*, the transport strategy for Melbourne for the remainder of the decade and into the next century. It addresses two topics, firstly the context within which the strategy has been prepared, namely: objectives, vision for transport (in the context of Melbourne's future), strategic planning, brief overview of Melbourne and the variance of travel patterns and needs across a metropolitan area depending (amongst other things) on the provision of infrastructure related to stages of urban development. Secondly, a range of the specific actions and initiatives developed will be presented, including: the components of the strategy and how it is planned to work, the significance and importance of developing transport strategies in co-ordination with metropolitan land use strategies and in particular with the development of the Government's Living Suburbs strategy, public transport reforms networks and services, road networks, management of the transport system as an integrated whole, environmental sustainability and demand management, and structural and institutional reform.

Disclaimer: the views expressed in the presentation are those of the authors and do not represent the views of either the RACV or the Department of Infrastructure.

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Introduction

This paper presents an overview of *Transporting Melbourne* (Department of Transport 1996), the transport strategy for Melbourne for the remainder of the decade and on into the next century.

It addresses two topics. Firstly, it reviews the context within which the strategy has been prepared, looking at:

- the objectives of the strategy,
- the vision which is presented for transport, in the context of the role of transport in Melbourne's future,
- the strategic planning context, that is, what sort of futures we need to accommodate,
- a brief overview of travel in Melbourne, so we know what it is we are planning for, and
- building on the overview, to show that travel patterns and needs vary across the metropolitan area, depending, among other things, on the provision of transport infrastructure related to stages of urban development.

Secondly, it will present a range of the specific actions and initiatives developed in *Transporting Melbourne* including:

- the components of the strategy, and how it is planned to work,
- the significance and importance of developing transport strategies hand in glove with metropolitan land use strategies, and in particular with the development of *Living Suburbs*, the Government's metropolitan strategy (Victorian Government 1995),
- public transport reforms, networks and services,
- road networks,
- management of the transport system as an integrated whole,
- environmental sustainability and demand management, and
- structural and institutional reform.

What is *Transporting Melbourne*?

Transporting Melbourne sets out the future directions for the development of Melbourne's transport network, and importantly also for the management of transport as an integrated multi-modal transport system. It is concerned with the movement of both people and goods, across all modes of transport (including non-motorised modes like walking and cycling). Importantly, it is integrated with land use planning in a way that is a significant advance on what has been the case to date in Melbourne.

It introduces, as one of its key features, the concept that transport planning is more than a 'shopping list' of investment proposals. Rather, it is based on the notion that future strategic development must consider three essential elements.

In addition to *investment*, these are the *operations and management* of the system, and the *institutional* structure which delivers those transport services. Joint consideration of these three inter-related elements is a fundamental feature of the strategy, yet a radical departure from past transport planning

Objectives

Any strategy must have clear objectives. And a transport strategy must be built upon a larger vision for Melbourne.

"Living Suburbs", the metropolitan development policy, identified five main strategic directions:

- provide a business environment conducive to sustainable long term growth,
- build upon Melbourne's strengths as an international transport and production hub,
- strengthen links to regional Victoria,
- enhance Melbourne's environment and livability, and
- manage our infrastructure better.

Transporting Melbourne is built upon these objectives. The vision for the Melbourne of the future which it sees is that of Melbourne as a vibrant, sustainable, exciting metropolis. People will be and feel safe and secure. They will enjoy a rich cultural, social and recreational life, in an advanced 21st century city

Our manufacturing and service industries will be efficient and competitive. They will be linked to the world by instant telecommunications and a seamless transport system, for both freight and people

Melburnians and visitors will have a high level of access to all urban services including jobs, recreation, shops, schools, services and cultural and social pursuits.

Transport is an essential part of this vision, and will contribute by:

- maximising the benefits form the existing system, remembering that the great bulk of the future transport network in, say 20 years, already exists,
- enhancing it where necessary to achieve the above aims,
- integrating the transport system with urban development, and
- ensuring that it operates in an efficient, effective, and environmentally friendly way.

Strategic Planning Context

This then is the vision. but it is also necessary to consider the <u>future</u> context in which it will be applied.

It is important to note that transport is not an end in itself. Transport provides for the access and mobility needs of the community, that is, it allows people to partake of what the city has to offer.

An efficient and comprehensive transport system is intrinsic to Melbourne's future. Melbourne is a major trading city operating in a global economic system which is increasingly characterised by competition between production and transport management centres. Our future viability is fundamentally dependent upon an efficient transport system which allows for the rapid and reliable movement of goods and people within the city, to export markets, and for business and commercial travel.

However, motorised travel can have adverse environmental and social impacts on the community, and a challenge for transport planning in all cities is to achieve the personal and business benefits of travel while maximising the environmental benefits achievable from integrating transport and land use planning and making maximum use of environmentally-friendly technologies.

Overview of Travel in Melbourne

Any discussion of the future of Melbourne's transport must start with an understanding of the present.

Fortunately, some results of a personal travel survey being conducted by the Transport Research Centre at RMIT University (Transport Research Centre 1996) became available during the preparation of *Transporting Melbourne*.

The last comprehensive travel survey in Melbourne was in 1964, and in a way, our thinking about travel was conditioned by what we thought we knew, which is what we had gleaned from that 30 year old survey. Things are much different today, and if you think that most travel is based on the central city, that most travel is in radial directions, that the work trip dominates, and that trips are all based on the home, then you're wrong on every count!

Melburnians make about 9 million trips per day, or 2.9 trips per person - about the same as Americans and a bit more than Europeans. We spend an average 53 minutes a day travelling, and travel on average, nearly 20 kilometres.

About 17 per cent of trips are work-related, and 23% are for shopping. Two-thirds of trips begin or end at home. But one-third of all trips are for purposes not related to work, school or shopping, indicating the extreme diversity of travel purposes.

One of the big changes that has occurred is that travel is much more complex. If we consider the number of activities on home-based journeys, we find that over 40% of departures from the home involve a visit to more than one destination. This poses special challenges for conventional modes of public transport, which are good at serving a single destination but not so good at serving multiple destinations.

Across Melbourne as a whole, public transport accounts for 5.6% of trips, and 6.7% of motorised trips (ie. including walking and cycling). Because public transport trips are longer, these modes in fact account for 9% of trip km and 8% of trip minutes.

Road based transport (car, bus, most tram, taxis) account for 96% of motorised trips.

One of Melbourne's great strengths is its very comprehensive public transport network especially for travel to and from the central city. For travel to the CBD, about half of all motorised trips are taken on public transport - a very high figure on world standards, not many low density cities can claim that half of their CBD trips are taken on public transport.

For trips outside the CBD, public transport's share is much lower - about 4% of all trips. So we can conclude that public transport serves well the market to which it is best suited.

A big difference between public and private transport is that use of the former is still dominated by the two daily peak periods. By contrast, car use is much more uniform throughout the working day.

Turning to freight, about 230 million tonnes of freight are moved to, from and within Melbourne each year. Within Melbourne, almost all of this is on the road network.

Although this summary has been brief, it has been enough to show that travel is complex, that each mode has a vital role to play, and that people's needs have to be satisfied by a flexible and customer-focussed transport system.

Regional variations

There is another dimension to this, and that is that different parts of Melbourne have different transport assets and different travel needs. These are largely the products of our history and the transport systems provided in each stage of development. It is

interesting to finish this discussion of travel patterns by looking at how travel demand varies by region.

About 13% of all trips have destinations in the central region (Cities of Melbourne, Port Phillip and Yarra), with about 3% in the CBD and 7% in the City of Melbourne.

About 21% of trips have destinations in the inner suburbs, so that the total demand generated within the area roughly equal to that served by the tram system generates about 34% of Melbourne's trip destinations. It is an area which is public transport infrastructure "rich" and has an above average public transport mode share.

About 41% of trips end in the band of middle suburbs, ie. those that grew after World War 2, based on access by the motor car, and it is not surprising that 95% of travel in this region is road based (including buses, walking and cycling).

Further out, Melbourne's fringe areas, including the growth areas, generate about 25% of trip origins and destinations, most of which is again road-based. Demand is growing rapidly in this region.

Components of the strategy

As mentioned earlier, one of the important things about the strategy is that it comprises three components, each related to each other. These are:
- investment in infrastructure,
- enhancement of services and management, and
- structural and regulatory reform, especially as it involves implementation of the National Competition Policy.

Investment

Firstly, it is important to emphasise that the proposals in *Transporting Melbourne* are not commitments to action, but proposals put up initially for public comment, and in due course, for rigorous appraisal.

To this end, an important action in the strategy is to establish an integrated transport investment appraisal framework. This process will apply consistent and rigorous evaluation across all modes of transport, aimed at giving guidance to Government on what investments should proceed, and in what priority.

It will incorporate broad-ranging criteria, including economic, financial, environmental and social criteria, and will consider non-investment options, such as management and

operational alternatives (eg. traffic management as an alternative to investment), different modes (eg. bus instead of rail), and regulatory options. Where relevant, funding options will be considered also.

This framework will ensure that transport investment decisions are treated from now on as an integrated whole, not as a set of semi-related or unrelated modes and actions.

Integration with Metropolitan Development Policy

Another of the underlying foundations of *Transporting Melbourne* is that transport and land use are recognised as being closely related in reality, and therefore need to be closely related in policy. It could be argued to be the first time since 1929 that a land use and transport strategy for Melbourne have been developed hand in glove!

These aspects are especially evident in relation to a number of specific corridors, where there is both considerable redevelopment potential, and scope for significant enhancement of the transport system.

The specific corridors are the Metropolitan Orbital Transport Corridor, the CityLink Corridor, the Upfield Corridor, the Doncaster corridor, the Scoresby Corridor, the Airport Corridor, and the Geelong Corridor

Each corridor offers significant opportunity for integrated transport/land use actions:
- major investment - road or rail, or both,
- enhancements to public transport services or network expansions,
- planning policies to promote urban development in harmony with the transport system,
- traffic management on the road and street network,
- improvements to the amenity of the area for residents (eg. good urban design), and
- value added services for travellers (eg. better information systems).

Already, studies have been initiated in several of these corridors, as joint ventures between the Government and local government - a bus priority and urban planning package for the Eastern Corridor, public transport and pedestrian access measures for the CityLink corridor (and of course the CityLink project itself), traffic management, tram, rail and land use planning in the Upfield corridor, and an integrated land use and multi-modal Environment Effects Statement for the Scoresby corridor.

Transport interchanges are a key feature of an integrated transport system. *Living Suburbs* promotes urban activity centre development at key shopping and commercial centres, at suburban university campuses, and along rail lines and major tram routes

The Department of Infrastructure, formed during 1996, includes a Strategic Planning and Economic Services Division which has among its specific responsibilities the strategic planning of land use and transport as one single task, in concert of course with local government.

Public transport reforms, networks and services

The overall approach for public transport is to:
- build upon the strengths of Melbourne's extensive train and tram networks,
- maintain the multi-modal fare structure which is so popular with users,
- introduce automated ticketing,
- enhance customer service including more frequent services wherever possible, and more comprehensive, real time user information, and
- ensure that individual service providers furnish services which are fully integrated with each other as a condition of their contracts.

As noted before, a feature of *Transporting Melbourne* is that it recognises that there are regional differences. Thus, it seeks to capitalise on the very rich public transport network in the inner suburbs, and radial services to the central city with policies that are appropriate to this area, and have different policies for cross-town and intra-suburban services areas further out.

The package for the inner suburbs and central city is aimed at making public transport **the mode of choice** for services within the inner suburbs and to the central city. This is a major statement, and although a bold one, with vision and commitment it can be achieved.

This package will involve:
- higher frequency services (including "timetable free" tram services - ie services so frequent that a timetable is unnecessary),
- extend hours of operation, into the evening and at weekends,
- contract incentives for providers of train, tram and bus services to grow their markets and raise the quality and reliability of their product,
- upgraded interchanges, especially the redevelopment of Flinders Street and Spencer Street stations.

In the car-dominated middle and fringe suburbs, the emphasis on public transport (except for radial travel, which is included in the strategies just mentioned) will focus on major reform of the bus sector (see below).

To these region-specific strategies, must be added some mode specific strategies, which will apply across the urban area. For rail, these proposals include the following - again all subject to appraisal:

- extension of electrified train services to committed growth areas,
- track and signal work to remove bottlenecks and hence allow a more reliable service,
- rationalisation of the rail corridor through Flinders Street station as part of the Federation Square project, to increase train reliability and to allow land for the development of Melbourne Park - yet another example of how transport and land use interact,
- replacement in due course of the Hitachi trains when they reach the end of their useful life, as part of a package which looks also at fixed infrastructure services, operations, management, and funding. There is no better example of why the "tripod" approach combining investment, operations, and institutions is so important, and
- protection of a potential route for a future private enterprise heavy rail link to Melbourne Airport.

For the light rail/tram network, *Transporting Melbourne* proposes:

- extending some lines to more logical destinations and to serve major modal interchanges, and
- extensions as part of major redevelopment projects, such as at Southbank and Docklands.

Bus services have been the Cinderella mode in Melbourne for decades, and there is a major role which they can and must play as part of an overall integrated transport system.

This will involve, subject to the investment appraisal framework:

- infrastructure including on-road bus priority (bus lanes, traffic signal priority), bus park-and-ride and real-time passenger information),
- development of bus facilities as part of the strategic modal interchange strategy outlined earlier,
- development of trunk and long distance bus services using Melbourne's arterial road network,
- fostering of innovative bus services, especially demand responsive services,
- extension of Nightrider services, and
- early provision of buses in growth areas, to reduce the need for families to purchase a second or third car.

Also as part of the public transport package, the following are proposed:

- implementation of national guidelines in respect of accessible transport,
- continuation of taxi reforms, and

- development of heritage and tourism markets for public transport, especially related to the City Circle tram route.

These proposals form a package which, building upon the significant achievements of recent years, will give Melbourne an excellent, user-friendly and affordable public transport system. Realistically, if these initiatives are implemented, *Transporting Melbourne* envisages a patronage growth of up to 50% over 15-20 years. This represents a significant break from past long term trends, but is not unrealistic in the light of the future urban form envisaged in *Living Suburbs* It is supported by recent patronage growth resulting from service enhancements and improved reliability

Metropolitan Orbital Transport Corridor

A Metropolitan Orbital Transport Corridor is proposed encompassing:
- a continuous orbital transport route, catering for non-radial and inter-suburban travel,
- development of a continuous set of road links for freight and person travel, as well as public transport services either on those roads, or in the broader corridor,
- complementary urban development, in the sense that the corridor extends some distance either side of the transport route, and corridor-related land development would be encouraged within that broader band, and
- a transport route which would circle the metropolitan area, allowing access to any part of it from any other part or from regional Victoria

Its purpose would be to:
- enhance access between most of Melbourne's industrial areas, connecting them to each other, and linking them to the ports, airports, and rail terminals,
- provide direct connections to all routes serving regional Victoria, and national transport routes, and
- maximise use of existing or committed routes

Most of the transport route is already in place or committed In the east, the Scoresby Corridor is currently under examination as a multi-modal transport/land use corridor, entirely consistent with the Orbital concept, and this would link to the Eastern Freeway

Road networks

Turning to the road component of *Transporting Melbourne*, the first aspect is the enhancement of regional and national routes linking Melbourne to regional Victoria, and serving growth corridors Specifically, these include:
- the Hume corridor,

- Gippsland corridor,
- Westernport corridor,
- Western corridor,
- Geelong corridor, and
- road freight corridors as identified in the *Freightway Melbourne* study (Department of Transport 1995)

There are several gaps and bottlenecks in Melbourne's arterial road network. It is vitally important that we go on developing a continuous principal road network in Melbourne - along with complementary regional road networks - to support Melbourne's trading role and urban development in accordance with the *Linking Melbourne* road strategy (VicRoads 1994).

There are numerous regionally important network deficiencies, especially where we are still using old two-lane roads for urban arterials. These need to be duplicated, for both safety and capacity reasons.

Added to this is the need to develop the road network as an integral part of the development of growth area infrastructure provision.

The *Freightway Melbourne* study, conducted in 1994-95, was concerned with enhancing the role of Melbourne as a national production, trading and transport hub. Its major recommendations have been picked up by *Transporting Melbourne*, including a network of major freight hubs and corridors, development of land-sea and land-air interfaces, aimed at providing the environment for private sector investment in the Port Phillip region. It also saw the vital need to develop Melbourne's role as a major electronic trading centre, with significant value-adding potential.

The need for enhanced management, focussed on the needs of trucks and the role of freight movement in the development of Melbourne's industry, was also identified as a priority. This would include the possibility of on-road priority for freight vehicles at selected locations, improving the environmental performance of trucks, and truck fleet management using advanced technology.

Management of the transport system

We turn now to the second component of the "tripod", namely management of the transport system.

The first aspect integral to this component is the integration between transport and land use, which we have already explored. The second is perhaps one of the most important

changes which we will see in our urban transport systems over the coming decades, and that is the development of what has become known as intelligent transport systems.

This will involve the development of VicRoads' traffic and road use management program. Consideration will be given where appropriate to priority for public transport vehicles and perhaps freight vehicles at signal controlled intersections, as mentioned above.

Melbourne already has one of the world's most advanced traffic signal control systems, but this will need ongoing improvement. Expanded quick-response systems to clear the road after accidents and vehicle breakdowns (so-called incident management) will be developed.

A major change in coming years will be expanded information systems. The introduction of the "Drive Time" displays on the South Eastern Freeway (M1) will be extended to other freeways. Before long, there will be other real-time information systems delivered through roadside and in-vehicle displays, advising of road conditions, delays, parking availability, etc.

Similarly, with public transport service, Melburnians will see upgraded tram and train control systems using more modern technology, and the provision of a much-expanded real-time information system to advise travellers about arrival times, delays, connecting services, etc.

Thirdly, to achieve easy transfers from one part of the system to another, it is proposed to develop a network of major transport interchanges. These would be linked by major public transport services, and feature the best in terms of physical facilities and information services. Importantly, local government, as well as the provider and the Government, must be involved in the development of these interchanges.

Cycling and walking are an integral part of a comprehensive transport strategy. The program developed as part of the 1994 *Victoria for Bikes* package (State Bicycle Committee 1994) is endorsed. This involved a network of major bicycle routes, both on-road and off-road, on a connected grid at about 1.5 km spacing. It also advocated the development of improved bicycle facilities at railway stations.

Walking forms part of almost all trips, but more could be done to encourage walking. *Transporting Melbourne* proposes the preparation of a good design guide, which would include security guidelines and hints on good urban design, as well as space guidelines.

Also, safety and security are key community concerns. *Transporting Melbourne* endorses the continuation of current road safety programs, and envisages the further development of a public transport safety and security strategy. This would see additional emphasis on Premium Stations, installation of closed circuit television, use of

duress alarms, improved passenger information systems, and would also be a factor in the design of new generation trams and trains.

Environmental sustainability and demand management

A key component of the strategy is the direction it gives for maximising the environmental benefit which can flow from Melbourne's transport system. Transport produces about 12% of Australia's greenhouse gas emissions, and in Melbourne, cars and trucks produce about 50% of hydrocarbons, 80% of nitrogen oxides and 30% of fine particles.
Transporting Melbourne proposes action in five key areas related to the environment.

First, the emphasis throughout on the integration of transport and land use will itself be a major factor. Few other cities in the world are as well placed as Melbourne to encourage development in ways which are harmonious with the transport system including the use of public transport to serve higher density developments.

Second, a number of steps are included in the strategy which will moderate the rate of growth of car travel. These include:

- pricing of transport to move to a regime which sends clearer signals to the traveller about the costs of travel,
- encouragement of public transport as a mode of first choice throughout the inner area,
- early provision of public transport in new areas to reduce car dependency,
- encouragement of walking and cycling, and
- encouragement of higher vehicle occupancy.

Thirdly, *Transporting Melbourne* supports the adoption of national fuel economy targets for new vehicles (7.2 litres per 100 km by 2005). For vehicles already on the road, it supports the notion of national targets for fuel economy and emissions, achieved through improved maintenance and testing.

In relation to noise, Melbourne already has world's best practice technology for noise levels for new and upgraded freeways, and noise barriers have been retro-fitted to some existing freeeways. For on-road vehicles, greater enforcement of noise through more targetted enforcement is envisaged.

Structural and institutional reform

The third leg of the tripod is structural reform: getting the rules right. As mentioned earlier, this is one of the significant innovations in *Transporting Melbourne* The biggest investments and the best laid plans for service delivery amount to little if there is no

incentive for those providing the services at the interface with the customer to do so efficiently and effectively. The strategy therefore faces the critical issue of reforming the rules, regulations, and institutional structure for transport in order to ensure that the customer comes first.

The National Competition Policy adopted by all Australian governments aims to lift the performance of public utilities by exposing them to competition. A central feature of these reforms is that there must be clear separation between the regulators and purchasers of transport services on one hand, and the providers of transport on the other.

This is now happening in Victoria with the formation of the Department of Infrastructure and the progressive disbanding of the Public Transport Corporation to create separate tram and train business which, like other operators, will be under contract to the Department.

Some bus contracts have already been written to give a clear customer focus through the development of franchise agreements. *Transporting Melbourne* envisages that all providers of public transport services will have commercial incentives to be proactive - to understand their markets, develop their services, and get more customers. In short, to behave like a commercial business

The strategy also envisages the establishment of performance requirements which will ensure that the customer sees an integrated transport system. These requirements would ensure that providers furnish at least a minimum level of service, that services are integrated between providers, and would oversight fares policy, and guarantee access to infrastructure.

Correct pricing of road use and fare levels for public transport are important to achieve efficiency goals, and to provide the right price and demand signals for investment analysis. In relation to the former, most analysts agree that car users often underestimate the true cost of their travel, especially when environmental costs and congestion are factored in. *Transporting Melbourne* proposes an education campaign aimed at making motorists aware of what it really costs them to drive in congested conditions, in order to encourage people to consider alternatives such as public transport, or shifting the time of day of their travel

The strategy proposes a watching brief on overseas developments in real-time congestion pricing - a system that charges according to the amount of congestion that each vehicle causes other vehicles.

With public transport fares, *Transporting Melbourne* envisages the development of single-mode tickets. The strategy assumes that fares will continue to be subsidised, if for no other reason that that car users do not fully pay their way in congested city

traffic Also, there are important community service obligations in the provision of public transport

What has *Transporting Melbourne* achieved?

Transporting Melbourne has provided, for the first time in 25 years, an integrated policy statement setting out future directions for Melbourne's transport system encompassing all modes and both passenger and freight transport. It is a statement of intent by the Government which is endorsed to the extent of being published for the purpose of public comment. In a sense, it is less important that Government give final endorsement to a revised strategy than that it updates its statement of intent, based on the best and most recent information as well as community feedback.

The strategy also establishes a transport agenda by outlining a series of key actions designed to achieve the strategic objectives formulated. It thus provides a focus for action in some cases, and for debate and investigation in some other cases.

It projects an understanding of transport needs and travel patterns, which is based on real and up-to-date information on travel in Melbourne. It thus moves the policy debate onto a much firmer foundation from which the behavior and needs of a range of groups and transport markets can be understood and addressed.

It has started the process of linking the development of transport policy much more closely to land use policy at a number of levels including the setting of goals, the development of urban corridors and regions, and at the micro level (eg. urban activity centre development).

What is yet to be done?

The publication of the strategy is much more a beginning than the end of planning for transport and land use in Melbourne The formation of the Department of Infrastructure has provided the opportunity to implement a rigorous, complementary and comprehensive approach encompassing:
- development of a strong analytical, modelling and information base for transport and land use,
- analysis of public feedback to *Transporting Melbourne*,
- development of definitive strategies for elements of the public transport system including the future shape of the metropolitan rail network,
- studies of key land use and transport issues such as accessibility to urban services and opportunities, and utilisation of urban resources and assets,

- complementary transport and land use planning to be undertaken by the one planning team, and
- the prioritisation of investment options and other actions through a more rigorous and consistent approach to project evaluation.

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