SWANSTON STREET DEVELOPMENT CONSULTATION

SUBMISSION BY THE
PUBLIC TRANSPORT USERS ASSOCIATION INC.
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Summary

The Public Transport Users Association welcomes the opportunity to participate in the public consultation on the possible redevelopment of Swanston Street.

Swanston Street currently functions as the tram, bicycle and pedestrian spine of Melbourne. From an urban design perspective it is very successful (though far from perfect) in this role, which promotes the liveability and amenity of the City of Melbourne and also reflects the street's historical uses. Hence any future development of the street must reflect this contemporary function. In past times the street also functioned as an artery for motor vehicle traffic, much of it from one side of the city to the other. However, road network developments since the 1960s have provided ample alternative routes for through traffic, and a resumption of this role for Swanston Street would not appear to fulfil any identifiable liveability, amenity or transport system objective.

Of the options proposed for development, there is only one that is fully consistent with the prevailing uses of the street and with Council's liveability objectives, and that is *Option 6: Decreased motor vehicle access*. This option is endorsed by the PTUA as it would overcome 18 years' worth of flawed design compromises to fulfil the original purpose of the 1991 Council decision: to create a 'transit mall' following the example of notable European boulevards such as Zurich's *Bahnhofstrasse* or Göteborg's *Avenyn*.

If Option 6 does not ultimately receive Council support, the only other option the PTUA can support is the *status quo*, which while not perfect at least still achieves a high degree of mobility for pedestrians, cyclists and trams. Consideration would still need to be given to the construction of fully accessible tram stops, which might follow an 'easy access' design such as that seen in Danks Street, Middle Park (a design which is also endorsed by Bicycle Victoria).

Regardless of Council's decision on redevelopment of Swanston Street, there is an urgent need to revisit the scheduling of traffic signals on Swanston Street and in the City of Melbourne more widely, to help prioritise the movement of trams and buses. This does not require the scheduling of additional green time for trams, so much as the intelligent control of signals to detect tram movements and schedule green signals at the right time—a concept that has already operated successfully for many years in Zurich, Switzerland.

Urban Design Context

In 1985 the block of Bourke Street between Elizabeth and Swanston Streets was permanently closed to motor vehicles other than trams. The Bourke Street Mall was Melbourne's first experiment with the European 'transit mall' concept, where motor vehicles are excluded from city streets with high levels of pedestrian activity, while existing tram services are retained to provide access, mobility and 'eyes on the street'. The Bourke Street Mall proved that the concept translates successfully to the Melbourne urban environment; there are few today who yearn for a time when admirers of the Myer windows were squeezed onto a narrow footpath next to moving cars and exhaust fumes.

At around the same time as the Bourke Street Mall came into being, Swanston Street was closed to cars for a week and laid with turf to commemorate 150 years since the founding of Melbourne. The positive reaction to that experiment ultimately led to Council's decision to permanently close Swanston Street to general motor traffic in 1991, and the design changes in 1992 to give effect to the closure, including the widening of footpaths and planting of trees in some of the former car lanes.

Unfortunately, the redesign of Swanston Street did not fully replicate the successful example in Bourke Street. Instead of replacing the bitumen wholesale with stone paving to suggest a transit mall environment, two lanes of bitumen were retained and delineated with kerbing. This conveyed the impression that Swanston Street,

unlike the Bourke Street Mall, was still an ordinary road that cars ought to be entitled to drive on. The ambiguity inherent in this design was a factor in the campaign that emerged in the late 1990s to 'reopen' Swanston Street (to cars).

That campaign resulted in 1999 in cars being able to access Swanston Street between 7pm and 7am, the significance of which has been more theoretical than practical. Of more importance were the subtle measures by which the transit mall concept was further diluted from that time onward, including the unrestricted access for taxis, and the gradual establishment of a *de facto* tour coach terminal in Swanston Street after the demolition of the Southern Cross Hotel. Tour coaches in particular have proved to be an impediment to tram movement in Swanston Street and a hazard to cyclists. It is to Council's credit that the coaches are finally to be relocated out of Swanston Street to new terminals at Federation Square.

The present redevelopment initiative provides Council with the opportunity to finally give Swanston Street an unambiguous identity. At present it occupies a grey area somewhere between a road and a transit mall. We can at least agree with Lord Mayor Robert Doyle that it is time it unequivocally became one or the other.

Swanston Street's Future Role

Council background documents for this consultation state that Swanston Street now plays host to nearly 100,000 tram passengers and well over 50,000 pedestrians each day. (The number of pedestrians is likely to far exceed this figure given that reported figures are based on counts at single locations, and very few people walk the entire length of Swanston Street.) This follows a well-established historical pattern: even when Swanston Street was a major thoroughfare for car traffic, the number of tram passengers easily exceeded the number travelling in cars. A newer function for Swanston Street is its role as Melbourne's number one bicycle route, with over 2,500 cyclists a day.

By comparison, Vicroads' Traffic System Performance Monitoring data indicates that the number of people carried in cars on a typical inner-city arterial road with tram tracks and two car lanes is around 28,000 per day. It follows that even with full reinstatement of motor traffic comparable to the pre-1991 situation, Swanston Street's role of moving people in cars would remain a marginal one, relative to its role as a tram and pedestrian artery.

Prior to the 1990s, Swanston Street had a significant role in conveying motor traffic through the CBD, much of which had origins and destinations outside the City of Melbourne. On maps, Swanston Street was designated as part of State Highway 3. From this history it is sometimes argued that a return to this past situation is logical and desirable. This however neglects the past 20 years of evolution of activities and travel patterns in the City of Melbourne, documented by the Council in its strategic plans.

In the 1970s and 1980s the Melbourne CBD was a very different place: it was declining in relevance to the metropolitan area as a whole, it was dominated by nine-to-five workers with very little after-hours activity, and the residential population appeared to be in terminal decline. Since the 1990s each of these trends has reversed, and with them the place of Swanston Street in the urban fabric. The street has evolved from a commuter highway with a focus on shifting peak-hour traffic, to a civic spine whose day-to-day focus is on the more laneway-oriented work, shopping and leisure activities of a growing residential, worker, student and visitor population.

Already with the extension of Kingsway in the 1960s and the Charles Grimes Bridge in the 1970s, alternatives to Swanston Street for through traffic had been created. In the early 1990s King Street was officially designated a 'City Bypass' route, as was Lansdowne Street to the east. These traffic arrangements, now in place for nearly 20 years, were augmented in 2000 with the opening of CityLink and the Exhibition Street extension. As a result, motorists travelling to or around the CBD now have the benefit of both a freeway bypass and a CBD access route that were not in existence when cars last used Swanston Street. The traffic landscape around the city centre is radically changed as a result, so that according to contemporary press reports, even the RACV and the Victorian Department of Transport deem Swanston Street to be superfluous to the Melbourne road transport task. As RACV public policy manager and former Vicroads executive Brian Negus told *The Age* in December 2008, "That street is about pedestrians and trams. From a traffic viewpoint, Swanston Street is not required."

Of workers and visitors to the CBD itself, Central City Users Surveys from 2004 onwards consistently show that on weekdays around 70% arrive by public transport and around 20% to 25% by car, with most of the remainder on foot or by bicycle. Within the CBD, half of all travel takes place on public transport, one-third on foot and some 10% by car according to these same surveys. The 'car' share increases slightly on

weekends when overall travel volumes are lower, but never exceeds one-third of travel to the CBD. This is a marked contrast from the 1990s when survey data suggested that the number of people accessing the CBD by car equalled or even exceeded the number on public transport. This increase in travel to and within the CBD by 'sustainable' modes and corresponding decrease in share of travel by car is consistent with Council's transport planning objectives as well as with broader environmental and social imperatives, and ought to be supported and encouraged by Council.

All of this suggests that the tangible benefits of returning cars to Swanston Street are marginal, if they exist at all, while the strategic value in a 2009 context is nil. The costs on the other hand are tangible and measurable. As the design options for this consultation make clear, reinstating full time car lanes can only come at the expense of footpath space, cycling space, street trees or access to trams, and thus imposes a significant cost to urban amenity however achieved. It would also likely reverse the good safety record of Swanston Street post-1991, where pedestrian accidents fell by 40% after removal of motor traffic.

The alternative to restoring motor vehicle access is the full realisation of Council's 1991 vision for a transit mall, following the successful example set in Bourke Street. Of the options presented for this consultation, Option 6 comes closest to realising this goal: indeed it is the only option that in our view makes any progress toward it while supporting the current uses. Under this option we believe Swanston Street can complete its transformation to a European-style high-activity boulevard befitting the civic heart of a liveable city.

So while Option 6 is our first preference for Council consideration, our second preference can only be for retention of the *status quo*, which while not perfect does still provide better outcomes for pedestrians, cyclists and tram passengers than a reintroduction of motor vehicles, and leaves open the possibility of more positive change in the future. Consideration would still need to be given to the construction of fully accessible tram stops, which might follow an 'easy access' design such as that seen in Danks Street, Middle Park (a design which is also endorsed by Bicycle Victoria).

Response to Design Options

1. Increased motor vehicle and bicycle access—NOT SUPPORTED

For the reasons given above, the PTUA cannot support any option that results in increased access by motor vehicles to Swanston Street. Under this option the footpath would be narrowed, compromising the amenity and safety of the majority of street users, and actively undermining Council's strategic objectives.

2. Managed service delivery—NOT SUPPORTED

This option offers minimal change to the *status quo*, which stakeholders generally agree is unworkable in the long term. In particular, it does not resolve the ongoing conflict between cyclists, delivery vehicles and tram passengers. It also involves a loss of footpath space, which compromises the amenity of the street.

3. Increased pedestrian movement—NOT SUPPORTED

This option promises superior outcomes for pedestrians and tram passengers, but at the expense of isolating cyclists in the centre of the road between two active tram tracks. The PTUA agrees with the view in the cycling community that this design will result in both greater hazard to cyclists and reduced accessibility due to the intervening tram tracks. This option also incurs a particularly high cost, which we do not believe is justified by the benefit of increased footpath width. For these reasons the PTUA cannot support this option.

4. Increased tram passenger and motor vehicle access—NOT SUPPORTED

This option proposes alternating sections of street with motor vehicle access according to Option 1 with 'transit mall' sections largely according to Option 6. The same criticisms that apply to Option 1 also apply to the vehicle access zones under this option: they compromise the amenity of the vast majority of street users for little or no tangible benefit. To our knowledge none of the world's notable central-city boulevards are configured in this manner: it smacks of a neither-here-nor-there design that is unsure of itself and invites a derisive response. Swanston Street is a civic spine, not a sequence of disjointed shinbones.

5. Alternative option for increased tram passenger and motor vehicle access—NOT SUPPORTED

This is similar to Option 4, but proposes longer sections of transit mall. It is open to exactly the same criticisms as Option 4. The PTUA cannot support a 'curate's egg' option that not only leaves street users

worse off in some sections but is unsure of its design intent into the bargain.

6. Decreased motor vehicle access—SUPPORTED

This option is supported by the PTUA as the only option that in our view makes progress toward achieving the transit mall vision behind the Council's decision in 1991, and achieves superior outcomes for pedestrians, cyclists and tram passengers. There is a slight downside in the restriction of access for delivery vehicles, but a multitude of other cities have addressed this issue as a matter of course, and have not imperilled their street trade in doing so.

While potential security concerns might be raised around the loss of night-time vehicle access under this option, there is ample evidence to suggest that maintaining this vehicle access actually does little to allay these concerns. Firstly, the number of private vehicles using Swanston Street at night since 1999 has been small, and not really sufficient to exercise any passive surveillance role. Second, crime levels in Swanston Street have been and remain lower than in other CBD locations such as King Street and Queens Bridge where motor traffic levels are high, and are reported to have decreased following closure to cars in 1991. Third and most important, the character of Swanston Street at night in 2009 bears little resemblance to that in 1999. In the late 1990s the street was in the midst of its transitional phase, with its adjoining uses still evolving away from a predominance of 'commuter highway' forms with little after-hours activity toward the mixed uses seen today. This evolution is not yet complete but has proceeded to the point where the street is a popular evening destination.

In other words, Swanston Street at night is no longer the deserted wasteland it appeared to some to be in the 1990s, and does not rely for passive surveillance on a small number of passing motor vehicles (which in themselves pose an evident safety hazard).

7. Remove bicycle access—NOT SUPPORTED

This option is essentially identical to Option 6 apart from excluding bicycle access and redirecting bicycle traffic to William Street or Exhibition Street. The PTUA cannot support this modification to Option 6 as it is inconsistent with European transit mall design practice and results in a radically inferior outcome for cyclists. Swanston Street is currently the premier cycling route in Melbourne, and the busiest cycle route in Australia, owing to its favourable gradients and the lower volumes of motor vehicle traffic. There is no inherent disadvantage to this state of affairs other than the existing conflict situation with remaining motor vehicles and with pedestrians, which we believe Option 6 has adequately addressed, through a design which is common and widely accepted in European cities. Accordingly there is no case in our view for removing bicycle access from the design concept of Option 6.

At the same time the PTUA acknowledges the concerns of residents' groups that have led to this option being included. Current concerns focus mainly on illegal footpath riding and on failure of some cyclists to give way to passengers at tram stops. We agree with these concerns but believe they are best addressed through formal mode separation as per Option 6, rather than through a blanket exclusion as this option contemplates. In particular, experience suggests that illegal footpath riding arises primarily as a response to lack of dedicated cycling facilities or inadequate provision for cyclists in urban design, an issue which Option 6 explicitly addresses with a dedicated path for cyclists. Importantly, under Option 6 cyclists will have no reason, good *or* bad, to ride on the footpath rather than in the bike lane. It is our view on the other hand that Option 7, by removing any sort of access by cyclists to Swanston Street, would exacerbate the problem of footpath riding and lead to increased confrontation between cyclists and other users of the street.

The Need For Tram Priority

Alongside the review of the structural design of Swanston Street there is an urgent need to review the operation of traffic signals in the street, and in the City of Melbourne more generally, to prioritise the movement of the trams which serve large and growing numbers of City workers, residents and visitors.

In 2007, a study based on seven months of detailed travel time data confirmed that traffic signals are the single greatest source of delay to Melbourne tram services, and that within the City of Melbourne, traffic signal delays account for fully one-third of average travel time on the Swanston Street route. By comparison, other frequently-mentioned factors such as traffic congestion and 'passenger action' have a significantly smaller effect on travel times. The implication of these findings is that traffic signal priority offers the single most effective measure for the improvement of tram services in Melbourne.

The study report, *Observational Analysis of Tram Delays in Inner Melbourne*, is available electronically from the PTUA website. Observations on this route have continued and now include over two years of data, which confirm and provide added confidence in the study conclusions.

Despite some official statements to the contrary, long traffic signal delays to trams are not a necessary consequence of the need to provide substantial green time to cross traffic in order to manage congestion, or the need to provide adequate green phases for pedestrians. Rather, they are an inadvertent consequence of the manner in which traffic signals are controlled—in other words it is a 'software' problem.

At issue is the fact that, despite great advances in information and control technology, traffic lights in Melbourne are still operated on 'clockwork' principles dating back nearly 100 years. As shown in a landmark research paper by traffic engineers Stefan Lämmer and Dirk Helbing, such a control scheme will in many cases severely underperform even by the traditional criteria of minimising travel times for motorists and optimising vehicle flow through intersections. Lämmer and Helbing's 2008 paper, *Self-Control of Traffic Lights and Vehicle Flows in Urban Road Networks*, proposes an adaptive non-periodic scheme which is shown in numerous simulations to deliver substantial reductions in average travel times. The scheme is readily extended to incorporate priority for public transport vehicles, and further research is currently underway to quantify the resulting performance and address outstanding technical issues.

Meanwhile, the city of Zurich in Switzerland has for many years operated a traffic control system called SESAM which has been highly successful in minimising unnecessary delay to trams. Zurich has even higher shares of foot and bicycle traffic than the Melbourne CBD, and SESAM addresses the concerns that are raised about green time for cross traffic and pedestrians in a tram-priority system by scheduling these phases in the gaps between tram services. Scheduling is the key here: rather than allocating more green time to the tram road in the hope that trams will by chance get a green light more often, SESAM tracks the movement of trams and buses and schedules the green phases to coincide with them—something that is in principle possible in Melbourne, as we already have the infrastructure in place to track trams in real time. The system ensures that in Zurich, 90% of trams and buses are met by a green signal, and 80% of all services run within 30 to 40 seconds of the timetable.

The principal barrier to greater tram priority in Melbourne has related to planning and governance, rather than to infrastructure and technology as is frequently believed. We therefore call on Council to seize the opportunity, provided by the redevelopment of Swanston Street, to revive interest in traffic signal priority for trams and buses at an official level through its consultations with Vicroads and the Department of Transport as well as through its internal planning functions.

Other Submissions

The PTUA is pleased to also support the submissions made by the following community groups and organisations to this consultation, which are in broad agreement with our own. This list is not intended to be exhaustive, as we are not aware of all submissions made; the omission of any group from this list in no way indicates we do not agree with the contents of that group's submission.

Bicycle Victoria
EastEnders
Hardware Street Residents and Tenants Association
Melbourne BUG
Metropolitan Transport Forum
Residents 3000