Submission to the Planning and Environment Committee of the Legislative Assembly - Inquiry into Action Buses

The Conservation Council is the peak non-government environment organisation for the Canberra Region. We represent the interests of community and conservation organisations in the region as well as the broader environmental interests of all the citizens of the ACT.

The Conservation Council is active in a number of campaign areas, our current focus includes biodiversity protection, action on climate change, improved public transport and wise use of water.

1. Summary and Recommendations

Public transport patronage increases when significant effort and investment is made to improve services for commuters. This fact has been proven in many cities around the world including Australian cities such as Melbourne (1980s) and Perth (1990s) and Brisbane (2000s).

Over the past 12 months Canberrans like other Australians have felt the penny drop on climate change. They are extremely concerned about this issue and want their elected representatives to show leadership and deliver solutions. Transport is a significant source of greenhouse emissions, in total transport makes up about a quarter of the ACT's emissions. It is therefore very disappointing that just as the public attention turns to climate change the ACT government cuts funding of and therefore the services of public transport.

A good public transport system would add substantially to the ACT's ability to cut greenhouse emissions to the level that the science says is needed to avoid dangerous climate change: 30% by 2020 and 80% by 2050.

Canberra is a wealthy city and if it wishes to remain a wealthy city capable of attracting a professional workforce and providing a high level of liveability or quality of life, then it must address its public transport system. Public transport is an opportunity to shape the future of our city, especially the city shaping forces inherent in rail based transport.

We can learn from the experts about how to turn around the public transport system in Canberra and get in moving in the right direction.

"Good public transport systems have certain features in common:[1]

- An integrated route structure which maximises opportunities for interchange and reduces duplication and overlap
- Fast, frequent, reliable service on the trunk
- High service levels on all routes throughout the day and evening
- Convenient, attractive and safe interchange facilities
- Matching hours of operation on the different routes serving interchanges and either co-ordinated timetables or very frequent services

[1] Paul Mees *A Tale of Two Cities*

- Multi-modal fares (free interchanges)
- Easy to obtain, well presented route and timetable information covering the whole multi-model network"

Patronage increases with the frequency of the service

Frequency of service should be given a high priority when designing public transport systems.

"The most important factor making public transport attractive relative to car travel is the total journey time. There is no law of nature that says public transport has to be twice as slow as driving. There are many sides to the problem of reducing journey times, and so a package of solutions is required. However, each part of the solution is quite simple in itself. The most important components are *high service frequency, traffic priority* and *timetable coordination*." [2]

In an August 2005 survey of bus commuters in Canberra conducted by the Canberra Times, 60% of respondents said that improving frequency was their number one priority to improving the public transport service.

"Transport experts have observed that, commuters perceive that time spent waiting, to have up to six times the value of the time spent inside the vehicle." [3]

Extend the peak

Modern work hours have changes and many people work longer hours. In recognition of this the ALP made an election commitment to review the timetable and provide more services earlier in the morning and later in the evening. Whether a late evening at work is a regular or uncommon occurrence commuters need to know that they can rely on the bus system to get them home from work.

Convenient, attractive and safe interchanges and stops

Research in Australia has identified concerns about personal safety as a key barrier to use of non car based transport. A package of measures should be introduced to improve safety for walkers, bikers and public transport users to increase the attractiveness of these modes of transport. Improved lighting for key bike paths, walkways and bus shelters, relocation of bus stops to safer places where more people are moving about (eg. at intersections), improved safety of bus shelters.

Easy to obtain, well presented route and timetable information

Too many suburban bus shelters in Canberra provide little or no information to the prospective commuter. Every bus stop should be supplied with timetables so that commuters know if/when and what service will come.

Fringe Benefit Tax rules create an incentive to drive more kilometres

Addressing the imbalance in the application of tax incentives to the private car use versus other transport options will make a substantial contribution to changing people's transport choices. The ACT Legislative Assembly should take up the issue with their Commonwealth colleagues of the Fringe Benefit Tax incentive to drive more kilometres to minimise tax.

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[2] Public Transport Users Association (PTUA) *Time to Move* Summary

[3] PTUA 2002

In 2007-2008 $1.22 billion will be spent on subsidising car use through salary-sacrificing and fringe benefit tax (FBT) concessions.[4]

Tax arrangements that allow the cost of a car lease to be salary sacrificed and the rate of taxation to decline (to as low as 7%) as vehicle kilometres increase encourage car use

The statutory percentage of FBT declines as kilometres travelled increase, providing a tax incentive to maximise kilometres travelled.

This form of tax concession is not available to other forms of transport, such as public transport or bicycle riding. A House of Representatives Standing Committee report in 2005recommended the current regulations regrading salary packaging of cars and FBT concessions be reviewed with a view to removing incentives for greater car use and extending incentives to other modes of transport. [5]

Conclusion

We can learn from other cities that are using an investment in public transport to reduce car dependency, reduce congestion and improve the liveability of their city.

We can learn from local commuters and would-be commuters about how to design a system that works not just from a budgetary point of view but for the commuters.

The following submission addresses the issue of liveability, provides examples of cities that have improved their public transport services and then addresses specific issues with the current system and Canberra and makes recommendations for improvement. In compiling the comments are recommendations in section four we have drawn on the experience of a number of regular ACTION bus users who are keen to see the system improved – to improve the liveability of their city.

2. Liveable city

The experience of Australian cities and other key international cities suggests that Canberra will need to invest in transport alternatives if it wants to attract and retain highly mobile professional workers and maintain a competitive edge.

Liveability has assumed prime importance in determining the competitive strengths of cities.[6] Each year studies published by groups such as the *Economist* Intelligence Unit (EIU) rank the world's cities according to liveability. While the cities are rated on a wide range of factors including climate, business environment, crime, and public services, factors such as public transport quality, air pollution and traffic congestion are among the key indicators in determining a city's liveability.[7] These liveability rankings are used to provide businesses with strategic information to guide investment decisions. Quality of life and environmental sustainability, rather than location or low taxes, are now the major contributors to economic growth, by making a city more attractive to investors and professionals.[8]

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[4] Commonwealth Of Australia *Tax Expenditures Statement* 2005

[5] The House of Representatives Standing Committee on Environment and Heritage report *Sustainable Cities* August 2005

[6] "Transport shifts the broadband equation" *The Age* 10 April 2007, p1.

[7] "Myth: More freeways will promote economic growth" Public Transport Users Association, p6.

[8] "Transport shifts the broadband equation" *The Age* 10 April 2007,p1.

Various cities in Australia, including Melbourne which always ranks very highly in the world rankings of liveable cities, have realised that public transport systems are critical to sustaining their liveability and prosperity, and that under-spending on these systems will cause the cities to be less competitive. Indeed, policy makers and planners in Melbourne have recently recognised the city is sliding in liveability and economic stakes with its focus on roads at the expense of public transport. For example, in the 2005 EIU ranking of liveable cities, Melbourne finally lost the top spot to Vancouver, a city which stopped building freeways 40 years ago and which relies instead on superior public transport with low fares and high cost recovery.[9]

Traffic congestion is one of the most significant problems affecting liveability. Inadequate public transport systems contribute to congestion and social exclusion by increasing car dependence. Congestion in turn reduces personal mobility and increases freight costs. Even those with car availability in the outer areas of cities are now realising the need for improved public transport services to provide travel choices and to help ease congestion pressures.[10]

Congestion also causes substantial declines in peak hour travel speeds, which is another indicator of a deterioration in urban amenity and liveability.[11] A small reduction in road traffic volumes can produce major reductions in traffic congestion, as can be seen even on Canberra's roads during school holidays when traffic flows more easily given the slight reduction in road-user numbers.

In safety terms, increased car dependence due to poor public transport alternatives continues to result in high casualty accident rates, which in turn cost the community approximately $2 billion annually.[12]

To overcome these negative influences on cities' liveability due to poor public transport systems, cities such as Melbourne have realised it is time to raise the profile of their public transport systems and to lift their service standards across the city.[13]

The liveability of Melbourne is an issue attracting considerable discussion in the Melbourne based media.

Bracks missing the train to liveability The Age April 11 2007

http://www.theage.com.au/news/business/bracks-missing-the-train-to-liveability/2007/04/10/1175971097822.html

> IN THE future, cities will prosper or wither according to how they deal with the issue of liveability. In Victoria, the Bracks Government has been in power for close to a decade. The evidence of those years is that far from doing anything to improve Melbourne's liveability, the Bracks Government is actively undermining it.
>
> The thrust of Melbourne 2030 (M2030) was to protect Melbourne's liveability in the context of a population expected to grow by a million people, by concentrating major change in growth centres built on an expanded and upgraded rail network.
>
> Under Labor, the roads lobby has been successful in getting more road space per head of population. Its main effect has been to increase congestion, and support the urban sprawl and the development of shopping malls that can only be accessed by car.

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[9] "Myth: More freeways will promote economic growth" Public Transport Users Association, p5.
[10] The Committee for Melbourne's submission to the Victorian Competition and Efficiency Commission's Inquiry into Transport Congestion, p13.

[11] The Committee for Melbourne's submission, op.cit, p10.
[12] The Committee for Melbourne's submission, op.cit, p10
[13] *Ibid*, pp13-14.

"Myth: More freeways will promote economic growth" PTUA http://www.ptua.org.au/myths/growth.shtml

> "In short, trying to attract investment through freeways and dirty industries is a 1950s-style approach. Modern investors are attracted to livable cities, with clean air, attractive environments and educated workforces. Although freeway construction does create employment for road builders, most of the work is performed by machines. International reviews have found that public investment in hospitals, schools or public transport creates many more jobs than investing the same amount in roads."

For these reasons the upgrading of Canberra's bus system is critical to sustaining its liveability and prosperity. Failing to improve public transport services will mean increasing traffic congestion and in a competitive job market the possible loss of jobs and skilled professionals to other more liveable cities in Australia and overseas.

Health

In 2005 the death toll on the roads in the ACT was 26. In 2004, nine people died (ATSB Dec 2005).

A recently released study into health effects of ambient air pollution from Australian motor vehicles found that in the year 2000 it caused between 900 – 4500 morbidity (ill health) cases and between 900 and 2000 early deaths (BTRE 2005).

The associated cost calculated from the same report was between $0.4 billion to $1.2 billion for morbidity cases and $1.1 billion to $26 billion for mortality. This equates to a combined range for both morbidity and mortality, of $24.9 million to $63.1 million for Canberra per annum, calculated as a ratio of relative population sizes.

Public transport encourages a more active commuter, helping to combat the growing obesity of our sedentary lifestyles. Lack of physical activity has been linked to Type 2 Diabetes, coronary heart disease, osteoporosis and some cancers.

Simply walking 1km to public transport can meet a significant amount of an individual's daily exercise requirements, while reducing exposure to air pollutants to half that of car travellers (VicHealth 2005).

Equity and Rights

Provision of adequate access to a high standard of public transport should be the right of everyone and the goal of every Australian government.

Adequate public transport is necessary for people who don't own a car: children, low income, people with disabilities, and the elderly. It is vital to a vibrant, growing, living city.

City dwellers without a car, including children, people on low incomes, people with disabilities, the environmentally conscious and the elderly, also have reduced opportunities to engage in the range of pursuits and relationships that are commonly available in liveable cities. Thus the poor availability of public transport services becomes a significant constraining factor on the capacity for social engagement of people without access to a private car.[14]

Economics

The cost of the impact of road crashes on Australian society was calculated for 1996 as $14.98 billion. These costs include loss of life, injury, and property and vehicle damage (BTRE 2002).

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[14] *Ibid*, p13.

For households who are driving around 15,000 km each year, each car is costing them somewhere between $108 and $300+ every week.

Source: http://www.openroad.com.au/motoring_inthemarket_costofownership.asp

Car dependency can have a significant impact on a household budget, especially as the price of petrol rises along with other costs of living. At present Australian motorists are being warned to expect petrol prices to rise to $1.50 or more and at the same time that the price of fruit and vegetables could rise by 15% or more due to prolonged drought.

3. Examples of cities that work

Even as far back as 1991, mass transit (in the form of light rail) was considered to be viable for a city the size of Canberra. A parliamentary committee which was formed to consider Gungahlin's transport links reported[15] that:

> *In both the United States and countries in Europe, there are many examples of cities with population levels and densities similar to those of Canberra that already have or are planning light rail systems. Issues such as population dispersal and densities, residential, employment and travel patterns and the ability of light rail to attract a greater than usual share of the travel market are arguably more significant issues than absolute population levels.*

That neither absolute population levels nor population density levels are the main determinant of the viability of good public transport is the position from which CCSERAC would like to argue for improvements to Action bus services.

What follows is some salient points from a study of improvements to public transport in Perth, the Gold Coast (proposed) and mass transit in smaller European cities.

Perth case study

Perth has a very similar population density to Canberra (around 20 persons per ha at the census collector district level).[16] Improvements to the rail system initiated by a Labor government in the early 1980's and then continued with bilateral support has seen Perth invest $400 million dollars in its rail network and increased patronage from 8 million to 31 million between 1991 and 2001. The service features fast, clean services that are so frequent there is no need for passengers to keep timetables.

Perth has also invested in TravelSmart (a travel demand management program) that has seen annual outcomes (from 8 projects involving 143,000 population) which include:

- 10 million fewer car trips
- 100 million reduction in vehicle kilometres
- 30,000 tonnes reduction in greenhouse gas (equivalent 6,000 fewer cars)
- 1.6 million extra hours of physical activity
- 1.4 million extra public transport trips.[17]

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[15] *Gungahlin's Transport Links: A report of the Parliamentary Joint Committee on the ACT,* May, 1991

[16] Fig 10 in *The Sustainable Transport Plan for the ACT, ACTPLA, April, 2004,* http://apps.actpla.act.gov.au/transportplan/2_Background/accessibility.htm

[17] Department for Planning and Infrastructure Working Paper, TravelSmart Household program: Frequently Asked Questions in travel demand management and

Key points from a study[18] of Perth that are relevant to Canberra included:

- while a lane of freeway can carry a maximum of only 2,500 people per hour, a busway can carry around 7,000 and a railway some 50,000 people per hour. A mass transit system helps resolve traffic congestion issues;
- as a result of the popularity of the renewal of the Perth Rail system and under pressure from rising oil prices, further improvements were initiated by a Liberal government i.e. support for mass transit in Perth had become bipartisan urban public policy. Likewise, support for public transport in Canberra would be high: people here know that their lives would be easier and they would spend less on transport if they could leave their cars at home more often. Support for public transport seems to be generally underestimated by politicians[19,20];
- cities with good mass transit systems have much lower transport costs than cities based on cars;
- improvements to public transport should be conducted as joint public-private ventures so that proper use of land development around stations can be fully integrated.

The Gold Coast[21]

With a population of only 450,000, the Gold Coast is a linear city with many aspects comparable to Canberra. It is moving ahead with plans to build a light rail system. Currently across the Gold Coast only 3.2% of all trips are on public transport. The Queensland Government's and Gold Coast City Council's target is 7% by 2011.

The economic analysis in support of light rail as mass transit has showed travel and access benefits produce a project benefit–cost ratio (BCR) of 1.7 and net present value (NPV) of $230m. Additional benefits include:

- environmental benefits (valued at around $5m per year which, if added to the travel and access benefits, would increase the BCR to 1.9 and NPV to $310m)
- reduced road damage (valued at around $2m per year)
- potential tourism benefits (over $100m per year in additional visitor spending and around 1,000 permanent jobs in 2005)
- around 3,500 person-years of employment generated by light rail construction

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dialogue marketing, *Colin Ashton-Graham and Gary John, April 2006,* http://www.dpi.wa.gov.au/mediaFiles/ts_householdfaqs.pdf

[18] Sourced unless otherwise noted from *Passenger Rail in Perth: the story of an urban public policy turn-around,* by Peter Newman, Professor of City Policy, Murdoch University, undated, available from the author on request.

[19] *Community Values Research Report 2001*, part of the Sustainable Transport in Sustainable Cities Project by the Warren Centre for Advanced Engineering at Sydney University. www.warren.usyd.edu.au/transport

[20] *PUBLIC TRANSPORT IN MELBOURNE'S NORTH - A joint statement of priorities by the Cities of Darebin, Hume, Moreland & Whittlesea*, undated, http://www.moreland.vic.gov.au/pdfs/publictransportmelbournesnorth.pdf

[21] Information in this section is all sourced from Gold Coast Light Rail Feasibility Study: Summary Report: DRAFT, undated, Queensland Government, http://www.pb.com.au/gclightrail/GCLR_Report/PDF%27s/Draft_Summary_Report.pdf

- 90 new permanent jobs and around $12m per annum injected into the Gold Coast economy in wages and payments for goods and services during the operating phase of the light rail

- international experience suggests land values within walking distance of the light rail route are likely to increase.

Other cities

While Perth and the Gold Coast both have larger population bases than Canberra, there are many cities around the world with populations similar to that of Canberra that maintain mass transit systems, including Saarbruecken (200,000) in Germany, Nottingham (284,000) in the UK, and Saint-Étienne (c.320,000) and Grenoble (378,000) in France.

That these would all be denser cities than Canberra does not mean mass transit can't exist in Canberra, but rather that populations of Canberra's size can support mass transit. This submission argues that the correlation between public transport use and either the size of the city or the density of the city is not so strong that it would rule out the use of mass transit in Canberra.

As an example, Zurich in Switzerland has a population of 437,145 and population density of about 45 persons per ha. However, it has a level of public transport usage (around 20% of all trips[22]) that is far beyond any correlation with its density.[23] The explanation for Zurich's high PT usage is more in the high quality, diversity and management of the service and the general policy commitment to sustainable modes (PT, walking and cycling).

Planners often get mesmerised by the need for "size" or “density” in order to initiate mass transit. What is more significant is the internal urban structuring and local densities and Canberra has a rational sub-centre structure based on what can be regarded as two main corridors that is amenable to public transport. Canberra can outperform its density and size because it is a truly planned city and has well identified sub-centres and the ability to create really dense nodes of activity.

4. Designing a good system – recommendations for improving Canberra bus system

This section of the submission focuses on how well or not ACTION services meet the needs of different segments of Canberra’s community. In particular it highlights aspects of the current system that serve to discourage its use by a specific cross-section of the community: those commuters who are able to choose to travel to work or other destinations in a private motor vehicle rather than on buses. As these ‘non-captured’ public transport users can make a real difference by opting for an environmentally and community friendly way of getting around Canberra, the particular features of the current bus system that discourage such users warrant examination. Moreover, rather than focus on areas of Canberra that are typically considered to

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[22] *Most Liveable and Best Connected? Part A Melbourne's Public Transport System: Is it World Class?* Metropolitan Transport Forum, undated http://www.mtf.org.au/binary.php/resources_reports/most_liveable_and_best_connected/mtf_report_7-13.pdf

[23] Personal communication, Professor Jeff Kenworth, Institute for Sustainability and Technology Policy at Murdoch University in Western Australia

have low service levels such as Gungahlin, this section will instead concentrate on travel between Belconnen, the Inner North and the Kingston area as experienced by actual and regular bus users, in order to show that the public transport needs of even these well established, and ostensibly well provided for, areas are too often not met by the current ACTION bus system. Finally, this section will consider how well ACTION's services support other forms of public transport in Canberra such as the interstate train service between Canberra and Sydney.

Issues that influence a person's choice to use Canberra's buses typically fall into two broad categories: pre-journey factors such as frequency of services, and journey-time factors such as indirect routes, bad connections and overcrowded services. If we take a closer look at these issues as they affect non-captured bus users in the sample areas, we can see that some of the disincentives for travel by bus in and around these areas have significantly increased with the recent time-table changes introduced on 4 December 2006, while others have long been a feature of bus use in Canberra.

Pre-journey issues

One of the main factors discouraging bus use in Canberra is the infrequency of its suburban services. An obvious cause of infrequent services is where an area is served by a single bus which runs at overly long intervals (eg hourly). This is exacerbated by a feature known as bus 'clumping', where a particular route is served by more than one service, yet the buses run together leaving a long wait til the next bus and wasting the potential increase in frequency. In this way clumping not only discourages users by contributing to an infrequent, irregular service, but it also represents a highly inefficient use of ACTION's existing resources.

A 'peak hour' example from our sample area is the weekday morning and evening services between the Inner North suburb of O'Connor and Belconnen (services #34 and #48). The #48 is the more appealing service as its route is far more direct than the #34. Yet the two #48 services that travel through O'Connor to Belconnen before 9am run on average within 4 minutes of the #34 travelling on the same route and in the same direction, creating a half-hour gap between allegedly 'peak hour' buses. Returning to O'Connor from Belconnen in the evening, the two services leave within 2-5 minutes of each other, again leaving half-hourly gaps between buses.

Another example of clumping is the weekday service between Civic and the Australian War Memorial (AWM). Between 10am and 3.30pm (ie key visiting hours), the only two services (#33 and #40) that travel between Civic and the AWM are both hourly and leave 1 minute apart, leaving a gap of 59 minutes until the next bus from the city centre to what is arguably the leading tourist attraction in the country.

Similarly, the only two weekend services (#38 and #935) between Civic and Manuka leave Civic within 8 minutes of each other and arrive in Manuka within 3 minutes of each other, leaving a gap of over 50 minutes until the next service

Suggested Immediate Solution

ACTION could dramatically increase the frequency of its services, and therefore its overall appeal, **with existing resources** by ensuring that different services that run along the same route are staggered so as to avoid running at the same time (especially in peak hour) and leaving long gaps until the next bus.

Problem: Reduced off-peak services

Nowhere is the deterioration in service more evident than in the severe reductions in off-peak service brought in with the timetable changes on 4 December 2006.

In many instances a single service has been replaced by an unwieldy package of peak hour and heavily curtailed off-peak services, requiring as many as four timetables for a route that previously only required one. For example, the #35 service between the Inner North and Manuka has been replaced by the #35 service during weekdays, and the #935, #936 and #937 services during the evenings and weekends. In other cases, services have simply been abolished during off-peak hours. An example in our sample area is the #33 servicing Dickson, O'Connor, Civic, the AWM, Campbell, etc, which no longer runs on week nights or weekends and has not been replaced by any off-peak services on over half its route. The consequences of these reduced or abolished services can be severe:

- Fractured #35 off-peak services

  In 2003 the #35 ran off-peak hourly through-services from the Inner North to Manuka, a popular destination for movie and restaurant goers. The trip took c.25 minutes, which compared relatively favourably to the 10-15 minute car trip.

  In 2007, however, former #35 users must now change buses at Civic and the trip takes twice as long (c.50 minutes), and almost 5 times as long as the equivalent car trip.

- Abolished #33 off-peak service (Inner North – Civic)

  In 2003 the #33 service ran from Dickson through O'Connor to Civic and beyond at maximum 40-minute intervals during the day, to hourly intervals on weekday evenings and weekends. As such the #33 represented a viable public-transport option to the city for O'Connor residents, taking only 8 minutes to reach Civic, or 17 minutes to reach the AWM.

  Now, however, the #33 has been reduced to an hourly service during week days, and has been abolished altogether on evenings and the weekends. Its nearest alternative is the #34 service, which takes 19 minutes between O'Connor and Civic (i.e. longer than a brisk walk between these destinations). There is no alternative for former #33 patrons who used the service to do grocery shopping in Dickson.

- Fractured #33 off-peak services (Inner North – AWM/Campbell)

  To illustrate the decline in ACTION services over the last two years, weekend trips during the day from O'Connor shops to the steps of the AWM can be compared.

  Under the 2005 timetable the trip consisted of an hourly direct #33 service on a single bus route and took 17 minutes.

  Under the current timetable, the trip requires taking the hourly #34 service from O'Connor shops to Civic, then transferring to the 2-hourly #931 (or #930 in the other direction) service from Civic to Limestone Ave (near but not at the AWM), and takes between 68 - 128 minutes depending on bus connections in Civic with the 2-hourly #931 service.

Suggested Immediate Solutions

* Abolished services such as the #33 should be reinstated on weeknights and weekends, and staggered so as to avoid clumping with other services (eg #34) on the same route.[24]

* Through-services such as the #33 from the Inner North to Campbell should be reinstated at least to 2003 services, and staggered so as to avoid clumping with other services on the same route.

These measures would improve services from current levels, while only requiring the same resources as under the 2003/2005 timetables.

Addendum: shift workers lose out by reduced Civic - Gungahlin services

Many casual weekend staff travel to Gungahlin from other parts of Canberra for the 8am shift in the growing number of shops in the new town centre. These off-peak commuters were previously able to reach Gungahlin at 7.46am on the #53 service.

Now, however, no ACTION service arrives at Gungahlin from Civic before 8am. Once again such a reduction in services can only serve to turn people away from using public transport to travel in and around Canberra.

Journey-to-work times on ACTION services

The time it takes to get to work by bus is a significant factor in determining whether people choose to use the bus system to travel to work. In Canberra, the crucial issue is often the time it takes in the bus compared to the equivalent trip in a private motor vehicle. If the overall journey in the bus takes significantly longer than in a car, it seems that people who can chose to use either will inevitably chose to use their car.

A number of features of the current ACTION system that unduly lengthen journeys to work across the sample areas will therefore be examined. These features include:

- Indirect routes
- Infrequent connecting Intertown services, and
- ACTION's 'no-back-door-between-Interchanges' policy

Problem: Indirect or 'milk-run' routes

Many cross-town-centre bus services discourage residents in Canberra's suburbs from using the buses to get to work because the routes involve too many deviations to be a viable commuter service.

The relatively common journey to work from the Kingston area to Belconnen illustrates this point. While the #80 service provides a single bus journey between these destinations, the trip takes almost 50 minutes each way as the route takes in the AIS, the University of Canberra and Bruce. A peak-hour car trip between Kingston and Belconnen takes approximately 20 minutes.

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[24] On weekends the #33 ran 5 minutes after the #34 in 2003 and 2005, and 1 minute before it under the 2002 timetable, leaving gaps of 55-59 minutes to the next bus servicing the overlapped area.

Similarly, the #34 service is the main 'commuter' service between O'Connor and Belconnen, with five services before 9am. While travelling between these destinations in peak hour takes approximately 10 minutes, the #34 service often takes almost 30 minutes as it detours via Calvary Hospital, the Bruce CIT, Fernhill Technology Park and the University of Canberra. Unfortunately the only alternative to the #34 service for commuters is the #48 service which only runs twice before 9am and the last service of which leaves Belconnen in the evenings at 5.30pm.

The conundrum with these 'milk-run' routes is that by trying to cater for everyone, they end up catering for no one. A balance needs to be found whereby all segments of the community are catered for, but not at the expense of the overall useability of the service.

Problem: Unreliable and overcrowded Intertown services

Trying to use a combination of buses such as a suburban 'feeder' route then an Intertown service to shorten journey-to-work times is no longer a viable alternative as the Intertown service has deteriorated considerably with the timetable changes implemented on 4 December 2006. There are now long waits for Intertown buses at interchanges such as Civic and Belconnen. As there are fewer Intertown services the buses themselves are regularly overcrowded, which further slows the service as boarding and disembarking takes longer.

Delays on peak-hour Intertowns are further exacerbated as they try to cater for both the main core commuter groups of workers and students. By the time the Intertown services stop at the many university stops along their routes, they cease to function as 'direct' services and therefore as a viable option for commuting to work or for travelling quickly between town centres. The deterioration in the Intertown service, which was renowned for being so frequent a timetable was not even required, is a cause for much regret as it was truly ACTION's flagship service.

Problem: the outmoded 'no back door' policy

As overcrowding on buses increases as the number of services declines, ACTION's policy not to use the back doors in buses, especially on Intertown services, other than at interchanges is unjustifiable.

Using rear doors in buses allows passengers to disembark quickly rather than having to fight their way to the front of the bus where they clog the front doors and prevent waiting passengers from boarding. Not using back doors on the relatively small and manageable bus system in Canberra is especially perplexing considering they are used on the perennially crowded buses in Sydney. Sydney Buses operate on a similar pay-at-the-front system as on ACTION buses, and yet passengers are able to disembark via the back door at any stop.

Suggested Immediate Solutions

** Provide more 'express' direct suburban commuter routes to reduce journey-to-work times.*

** Increase the number of Intertown services with more services that travel directly between town centres.*

** Allow passengers to disembark from buses via the back door – if it's doable in Sydney, it can work on any Australian bus system!*

BUSES – Routes 40, 41 &42

Timetable changes:-

1. November 2003
2. April 2005
3. December 2006
4. April 2007

The change in April 2005 reduced some services, and the cuts in December 2006 were disastrous, but the changes in April 2007 essentially reinstated the original 2003 timetable.

Problems:-

- At off peak times the buses generally run at hourly intervals, which is too infrequent to be a useful service. It would be better to run the 42 every half hour than both the 40 & 41 every hour – this way everyone on both routes would have a half hourly service rather than an hourly service.
- This would also help those on the 41 route who want to go to Jamison during the day, as they are currently forced to use their car to do this.
- The weekend and public holiday services run hourly and this is simply too infrequent to be useful compared to a ten or fifteen minute car trip.
- 'Clumping' – This occurs where the 40 & 41 traveling to the City cover common ground in Aranda – eg during the day each bus runs hourly, but about 15 minutes apart. Instead of a ½ hourly service there is a 45 minute gap. In the evening the 40 and 41 often leave 5 or 10 minutes apart, leaving a gap of 50-55 minutes.

ACTION in General

General timetable problem areas –

- Any trip requiring more than one bus takes much longer than a car trip to the same destination due to the extra distance (start –> interchange –> destination), but also due to the connection time at the interchange. (The 300 series that continue through the interchanges are a good idea.)

- Priority destinations – such as major health centres – (Calvary, Canberra Hospital, Deakin) – Buses to these places are long circuitous trips through the suburbs. Being major popular destinations there should be direct services from the interchanges, which then continue on through the suburbs.
- In general any service that runs hourly becomes impractical and unattractive because the potential wait if you miss a bus is too long, particularly if it is a connection with another bus.

Other comments:-

1. All the buses should have their number displayed on the back of the bus. Every day people run up to the buses at the interchanges because they don't know what number the bus is until they get to the door. This is very frustrating.
2. When focusing on the economics of the bus system, consideration needs to be given to the indirect costs due to the reduction in car journeys, such as reduced pollution (hence reduced health costs), reduced need for road infrastructure and parking spaces, etc.
3. Although the bus tickets are not expensive, making the buses a free service would probably encourage more people to use them, and remove the cost of collecting fares (ie cost of the machines and their maintenance, cost of the tickets, their distribution and the commission received by the vendors).
4. Bus fumes are a big problem, particularly at interchanges and when the buses are not tuned well.
5. The bus drivers are great.
6. The standard of the buses is good (even the older ones are fine), except when they are out of tune and blow smoke
7. Many people don't use buses out of ignorance – they have never used them, but have definite negative opinions of them. This is a major barrier to bus usage.
8. People will use buses if the service is functional ie there is a regular and frequent service.

Mutual reinforcement of public transport systems: ACTION buses and Countrylink trains

Unlike the major coach station at Jolimont, the train station is disadvantaged because it is not located in or near Canberra's city centre. Passengers wishing to reach the station must therefore use either public transport or motor vehicles. To see how well ACTION caters for such interstate travellers, the ACTION services between the station and our sample areas should be examined.

To get to the 12.05pm Sydney train from O'Connor on weekdays, public transport users must catch the #34 service at O'Connor shops at 10.23am to connect with the #80 service to the station at 10.59am, a full hour and a half before the train leaves the station, and for a journey that would take approximately 15 minutes in a car. To reach the midday train on Sundays, passengers would need to leave O'Connor at 10am, almost 2 hours before the train's scheduled departure (11.55am), and almost 2/3 of the time it would take to travel between the two capital cities by car.

Naturally such extraordinarily long 'connecting' journey times seriously discourage the use of public transport for either (or both) the bus or train section of the overall journey between Canberra and Sydney. Moreover the alternative modes for travelling to the station such as taxis are not really viable as the cost of the taxi is often as much as the train ticket to Sydney,

especially considering that for families or groups of five or more, two taxis would be needed to reach the station.

As a final indication of ACTION's failure to properly support this other public transport system, it should be noted that there is a complete absence of tourist information at the ACTION bus stop at Kingston Station advising visitors to the city, or those unfamiliar with the buses in that area, which services go to the city centre or other major destinations.

Conclusion

Even with the best will in the world, it is difficult to rely in any sustained way on the ACTION bus system. Services are infrequent and fractured, routes are too long and indirect, and buses are overcrowded and inefficiently utilised when in use. The above analysis has not even touched on many of the other deterrents which discourage use of the ACTION system, such as the lack of wheel-chair and pram accessible buses, car-parking fees that are too low to compel commuters or shoppers to take the bus, the infuriating habit of ACTION drivers leaving interchanges and timing points earlier than the advertised time, non-existent stops on timetables, not being able to tell even at interchanges whether one's hourly bus has come or gone, and so on. Such disincentives are regrettable, when many residents of and visitors to Canberra would prefer to use public transport rather than a private motor vehicle. This lamentable situation can perhaps best be summarised by a Kingston resident who recently came to Canberra from Sydney to work in a large Commonwealth Department in Belconnen, and who made the following comments about trying to use public transport in Canberra[25]:

> 'I was happy to use the public transport initially, as I had been doing in Sydney for years even with a car. However, as it took between 1 hour to 1 hour 30 minutes to get to work each way I had to buy a car. The drive is now 20 minutes. I wanted to support the public transport system but I could not spend nearly three hours commuting to work everyday when with a car, my commute is reduced by over two hours. I know of a number of other environmentally conscious people who have abandoned the public transport system for cars as the bus service is so appalling. With so many environmental problems, the government should encourage use of public transport rather then having such a poor service that people are forced away from it.
>
> ... as the nation's capital, Canberra should be leading the way in public transport and environmental issues. I read recently ... that Canberra's public transport system has been rated the worst of all the nation's capitals. Something needs to be done very soon!'

A lot of recent studies have shown what some ACTION users have known for a long time – that time seems to drag interminably when you are waiting for a bus!

In fact, time spent waiting for a bus is valued as up to three times more 'costly' than actually being on the bus, when making decisions about whether to take public transport. [26] That is, if bus stops are bad, people would rather spend fifteen minutes on the bus than five minutes at the stop! The good news is that this figure can be reduced. By making stops more person-friendly, the 'cost' people perceive from waiting can be cut a lot. Same goes for walking to the stop.

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[25] The (former) bus user was asked on 27/4/07 about how well ACTION services met their needs.

[26] Litman 2007, *Valuing Transit Service Quality improvements.* http://www.vtpi.org/traveltime.pdf

Information at stops

People are risk averse when it comes to commuting (they are sensitive not only to absolute cost but to variance in costs), as they are very keen to not be late - the feeling of control one experiences in a car might explain their popularity (even in traffic jams), and the uncertainty of missing a bus, or not knowing when the next one is coming might be a factor in people avoiding public transport.

Knowing when the bus will come is very important in reducing the fear of being late. While real-time information does this job superbly, it can be expensive and is not always reliable. ACTION should instead install a big, noticeable, easy-to read timetable at every stop. This should also include a map. That way commuters can see where else their regular bus can get them, and occasional users can be confident they have chosen the right service.

Timetables, however, are only as good as real-time info when buses run neither late nor early. ACTION has an acceptable history of not being late, but is terrible at not being early. Running buses early is worse than running buses late, as it punishes those regular users who have a timetable and can time their arrival at the bus stop to minimise waiting. When buses run infrequently, running buses early can strand commuters and leave them with very long waits.
Stop amenity

Bus stops can also be made less stressful and more enjoyable for passengers by making them safer. Well-lit, transparent bus shelters near highly trafficked areas increase feelings of safety. Security cameras at high-risk stops are another good idea. These should be installed not only to increase bus patronage but as a matter of crime reduction and public safety. Again, by reducing waiting times, running buses consistently on time will increase perceptions of safety.

Comfortable seating and rain protection also add to passengers comfort. Transparent bus shelters also mean that passengers can see buses coming and drivers can see passengers waiting. This should mean fewer buses whizzing past a stop with someone waiting.

Street lighting and footpaths

Walking up darkened streets along narrow and uneven footpaths can be a source of distress to many bus users. Lighting is the more important of the two factors, as even a wide flat footpath is un-navigable in the dark. In order to decrease the perceived cost of this essential part of any PT journey, street lighting should be increased (number of lights and their brightness, as well as trimming trees that block the light) and footpaths in urban areas should be improved (widened and installed on both sides of most roads, and on one side of all roads). Any initiative along these lines would of course benefit pedestrians, cyclists and even motorists groups as well as improving public transport.

People choose public transport for a mosaic of reasons, that for them, make public transport better than the alternatives. Making a range of changes to make public transport less ‘costly’ and more enjoyable is likely to increase patronage.

Recommendations.

1. *Bus stops should all have a large, easy-to-read timetable and map.*

2. *ACTION should take measures to ensure buses do not run early.*

3. *Many bus stops should be made safer – by making them well lit, transparent and near to well-trafficked areas, and installing security cameras where necessary.*

4. *Bus stops should be made more comfortable, by installing shelters and seats*

5. *Streets should be made more pedestrian-friendly, primarily by improving lighting, but also by installing and improving footpaths.*

Promotion

After decades of heavy investment in private car infrastructure, the ACT community needs support and encouragement to shift to alternative modes of transport. The long term benefits will be great in terms of reduced air pollution and greenhouse gas emissions, savings on road building and maintenance budgets, reduce obesity and other health implications of an inactive lifestyle, and less urban land consumed by car infrastructure. In the short term the Government needs to invest in an advertising and promotion campaign to encourage Canberrans out of their cars.

A free public transport day could be use as a promotional tool to encourage Canberrans to test the use of public transport and familiarise themselves with their local services. We estimate that about $12,500 in revenue would be forgone for a day of free public transport and an adequate advertising budget would also be necessary. A free public transport day would ensure a high level of public awareness of ACTION and would attract considerable media coverage.