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Submission on 'Transport for a sustainable city'

1. Introduction

Thank you for the opportunity to comment on the *Transport for a sustainable city* draft policy. My comments relate to chapter 2, Public Transport. I am a long term (long suffering...) ACTION user and also use a bicycle for transport, and when all else fails, the family car. I have an interest in transport matters generally, particularly railways and have used and observed a range of transit systems overseas. I am now retired.

There is much concern with the ineffectiveness of ACTION with relatively low ridership and consequent low farebox recovery rate. The network is currently characterised by long, indirect slow routes, often poor connections accentuated by poor timekeeping. For instance, I attended the *Transport for a sustainable city* display at the ACT Legislative Assembly on Saturday 28th October (poorly advertised but that is another story), I changed buses at Woden coming and going, and in both cases the 'connecting' bus had already left! Plainly, the present system does not work and radical change is needed.

Transport for a sustainable city is heading in the right direction in building a frequent network. However, the indicative network for 2031 looks quite sparse and unambitious. It would seem possible to largely complete the proposals within **five** years or so and they appear quite inadequate for 2031.

The proposals seem to be from the supplier's point of view and not from the passenger point of view. As described below, my main conclusion is that **short trip times across the network** are critical for significantly increasing patronage on Canberra's public transport. In particular, a **much higher speed transit system** than conventional buses is needed for the Rapid routes to reduce network trip times.

2. The one hour trip

Canberra comprises a number of town centres which need to be linked by express trunk routes fed by local feeder routes for an effective public transport system.

As a passenger, for public transport to be competitive with private cars, **I expect to be able to get from any suburb to any major centre in an hour or less.**

This is a very demanding requirement but it is what is needed. An hour's travel has defined the size of cities. In mediaeval times, this was around 5km, the walking distance in an hour. Railways, trams, buses and then motor cars expanded the span of what could be travelled in

an hour, and cities expanded accordingly. An hour coming and an hour going is the travel time budget most of the population can tolerate.

Most people attempt to take up residence close to their work place. However, over time, their work place moves because of promotions, re-organisations, secondments or whatever. Hence the need to be able to get to any major centre.

Life is more than work and includes recreation, shopping, education, health and other service appointments. Frequently a number of trips need to be chained together – go shopping, health appointment, hair appointment and so on.

For public transport to be more than a commute option, and be useful for general living, then major centres include:

- Town Centres
- Major office centres – eg. Russell, Barton, Parkes
- Group centres – Manuka, Kingston, Southlands, Dickson, Jamison
- Hospitals and other medical centres
- Trades areas – Fyshwick, Mitchell and maybe Hume
- Sports Stadiums – Bruce, Manuka
- Airport
- Railway Station
- Universities and other large education campuses.

The proposed strategy of 40km/h Rapid services supplemented by express commuter services does not meet the one hour objective. I do not believe it will achieve high patronage levels.

3. Impacts of the one hour trip on public transport

For most passengers, the trip will include a trip on a coverage or local service and then on one or more rapid lines to reach the major centre. Thus typically the maximum trip time of an hour would be:

- 15 minutes on the local service
- 5 minutes interchange wait time
- 40 minutes on the rapid service(s).

Most existing coverage service routes are lengthy and go to the nearest town centre and the trip frequently exceeds 15 minutes. Rather than run to the town centre, the local service should go to the nearest station on a rapid route (which may be a town centre). Some routes could readily connect a number of stations on rapid routes increasing options for passengers.

The Blue Rapid route is the longest Rapid route. The present journey time on the 319 service from near Lanyon to Belconnen is about 70 minutes, thirty minutes too long for competitive service. The proposed routing from Tuggeranong through Erindale will add another 10 minutes. The rapid routes are not nearly rapid enough!

It is not just that Rapid routes are too slow. Connectivity between routes is poor – for

example, Barton and Manuka can only be reached from Woden by long, slow coverage routes.

Timekeeping is also poor. ACTION recommends being at bus stops five minutes before departure time (and occasionally buses run earlier than that). More often buses run up to 10 minutes late. So if my trip is scheduled for 20 minutes, I have to allow 35 minutes for the journey. For many passengers, this padding changes an acceptable trip time into an unacceptable one.

Connections are often missing. There are many instances where a bus is scheduled into an interchange a minute or two after possible connections have left. This is a particular problem on weekends where an hourly service is general. Again, it is trip times across the network that count.

4. What is needed for Rapid Routes

Lanyon Markets to Belconnen Community Bus station is approximately 36km via Tuggeranong and Erindale (the scales shown on Maps 1 and 2 in *Transport for a sustainable city* are wrong). To achieve the trip in 40 minutes requires an average speed of 54km/h, considerably faster than the 40km/h assumed in *Transport for a sustainable city*. It is unlikely conventional buses on roads can achieve this, and neither can most light rail systems.

An implication of this approach is that trips to intermediate major centres will be much shorter than an hour.

I was recently in Perth and rode on the new Mandurah line. Trains do the 70km journey in 50 minutes with all stops. This achieves an average speed of 84km/h with a top speed of 130km/h and this on a narrow gauge line. Every station is served by feeder buses. The route is already approaching capacity in rush hours. In comparison, aiming for 54km/h does not appear overly ambitious.

Even achieving 40km/h averages will require greater use of dedicated bus lanes, traffic light priority and the like. High rise development in Woden most likely will cause increased congestion on Callam St and Launceston St. As well as increased car and truck traffic, there will be greatly increased pedestrian traffic crossing Callam St from Woden Green and other developments. Transit times will increase. The situation is likely to be similar in Civic. Dedicated transit routes (perhaps in tunnels) may be needed to maintain Blue Rapid performance.

I remember many years ago when the XPT train service was being introduced on the Canberra-Sydney service, the Countrylink marketing manager stated that for every 1% reduction in trip time they could achieve would result in an extra 1% increase in patronage. I am sure a similar outcome would apply to ACTION services.

My conclusion is that some form of fast rapid transit system will be required on the Rapid Routes to build a competitive network. Conventional buses are useful for establishing the routes but cannot achieve adequate performance. They are limited by interference by other traffic, sequential loading as passengers tag on/off, and bunching – it is common for 2-3 buses to bunch together on the Blue Rapid route, which means some passengers endure 15 minute waits on a supposedly 5 minute frequency route. Trip times are too long. The Blue

Rapid route is already on a 5 minute frequency throughout the day and a major increase in patronage would stretch the system – a higher capacity system will eventually be needed.

The fast rapid transit system could be implemented with articulated buses on dedicated bus ways (the Adelaide O-Bahn is an example) or by a tram-train (fast light rail) system or a metro type rail system. Rail systems have the benefit of being electric powered while bus systems would require fossil fuels. Capacity increases can readily be achieved by coupling multiple vehicles – not possible with buses. A fully automatic rail system should be considered as it would readily support high frequency services in the evenings and weekends.

There are significant hills between Tuggeranong and Woden, and over O'Connor Ridge which will influence which technologies are feasible. Some characteristics for achieving adequate performance:

- Separate right of way, particularly through town centres to eliminate slow running
- Top speed of 100km/h or higher.
- Faster loading through gated stations, platforms at vehicle floor height, multiple wide doors, and a distinct compartment for wheelchairs, bikes, prams and tourists with heavy luggage (these compartments can have perimeter tip-up seats for flexibility).
- Close integration with local buses at stations.

5. The proposed Rapid network

The proposed Rapid routes are fairly obvious and are set by the structure of the ACT's towns. It is good to see an extension of the Red Rapid route to Queanbeyan and I support the moves to more closely coordinate fares and timetables across the border. A few issues:

A major fault with the Blue Rapid route is that it bypasses Parliament House, probably the largest single employment centre in the ACT. Access to Barton and Parkes is also very slow and poor from Woden and Tuggeranong. A proposal for a simple diversion to Parliament House is described later – it would establish an interchange between the Blue and Gold Routes.

The proposal to make Erindale the main station for Tuggeranong makes sense as it is more central in Tuggeranong – for historical reasons, the Town Centre is out on the western edge. Continuing the Blue Rapid route westwards from Erindale to Tuggeranong Town Centre, then backtracking and finally going south to Lanyon is indirect and cumbersome.

It would appear better to split the Blue Rapid route with one branch to Tuggeranong and on to Lanyon, and the other to Erindale and onwards along Ashley Drive to Calwell. This puts much more of the Tuggeranong valley in reach of a rapid transit route to produce shorter trip times.

The potential Rapid route from Woden to Fyshwick is useful but other than Canberra Hospital, there is little to service along the route. It improves connectivity from Woden and Tuggeranong to Queanbeyan and to Kingston to a degree. Access to Manuka remains poor.

It would be far more useful if the route was extended to the Airport. At present, I find it

easier, cheaper and often quicker to drive to Sydney Airport rather than endure the hassles of getting to Canberra Airport. If the railway station is moved to Fyshwick (not a good idea in my opinion), then it must be on this Rapid route as well as the Red Rapid route.

6. Phasing in fast rapid transport

The Blue Rapid is the obvious candidate for the first fast rapid transport implementation – distances are longest and traffic is heaviest and will increase as denser development occurs along the route. It can be introduced in stages starting with the core of Belconnen–Civic–Woden and maintaining conventional bus service on the outer ends. The fast rapid transit system can be extended as demand grows and funds permit.

The Red Rapid route is the next obvious candidate for fast rapid transit. Civic to EPIC appears the obvious first stage.

Extending fast rapid transit to other Rapid routes will follow on depending on the success achieved on the Blue and Red Rapid routes and if demand warrants it. The underlying objective is to reduce trip times across the whole network and this must be a key factor in applying fast rapid transit.

Different technologies could be used on each route if traffic levels vary significantly.

There is much talk about Light Rail. I do not think it is the right technology for the Rapid routes but it may be the right solution for Frequent Local routes in the denser areas. East Lake–Kingston–Manuka–National Circuit–Parliamentary Triangle–Civic is a strong candidate. Route 6 needs a major upgrade – the current hourly service is pathetic for a route with such potential – commute/tourist/recreational.

7. More Frequent Local services needed

The proposed southside frequent local service is quite sparse. The present slow and indirect ‘coverage’ services and long distances from central Canberra have resulted in poor patronage. While there is limited potential for population growth on the southside, there is great potential for increased patronage from effective public transport services. The following are worth considering:

- **East Woden service:** from Woden, south on Yamba Drive past Canberra Hospital to Erindale, and with 2-3 new stops south of Hindmarsh Drive to service Swinger Hill, Mawson, Isaacs and Farrer.
Map 5 indicates this is an area of transport disadvantage. It would open opportunities for east Woden to better access Tuggeranong, and for Tuggeranong to access Canberra Hospital.
The route could be continued along Erindale Drive to Tuggeranong Town Centre if the Erindale/Tuggeranong dog leg is eliminated as above; or instead along Ashley Drive to Calwell.
- **Tuggeranong Town Centre–Kambah Village–Coolamon Court:** Map 2 shows a potential frequent local line from Tuggeranong to Kambah Village. This would be vastly more effective if it was continued along Namitjara Drive (or maybe Streecon Drive) to Coolamon Court in Weston Creek. This would be a useful link between

Weston Creek/Molonglo and Tuggeranong, and improve access from southern Weston Creek into Coolamon Court.

Many of the proposed Frequent Local services on Map 2 appear to continue to be lengthy and indirect – and slow. They need to be designed to minimise trip times and have a high connectivity with the Rapid routes to achieve short trip times across the network.

8. Feeder services rather than coverage services

The traditional approach of wandering, slow coverage routes with an hourly or half-hourly frequency does not work. The near empty buses are testament to this – definitely not sustainable! They are somewhat useful for reaching the nearest town centre but are generally uncompetitive for passengers going any further.

A better approach would be to convert many of them to be feeder routes to the Rapid network stations (or to the Frequent Local network where relevant). If the feeder routes are kept short – 10-20 minutes in length, they could be operated as one way loops (improving coverage) with a frequency of at least 20 minutes from 7am to 7pm. If the Rapid or Frequent Local service operates on a basic 15 minute frequency, then these feeder routes also need to operate on a 15 minute frequency and be scheduled to connect. Frequency matters.

This approach could work well in areas such as Woden and Weston Creek where short loops can be constructed. It is harder to achieve in areas such as eastern Tuggeranong or north-western Belconnen where the road network winds around.

I suggest a couple of areas should be selected for route design as above, and if successful, extend it to other areas. Again, the design objective is to reduce trip times across the network.

9. Parliament Interchange

As noted in section 5 above, the Blue Rapid route misses Parliament. A simple diversion on to the western side of Parliament Drive provides access to the biggest single employment site in the ACT and enables an interchange with the Gold Line to service Barton and Parkes.



My proposal is to extend Adelaide Avenue bus lanes to connect to the south western corner of Parliamentary Drive, then along western side of Parliamentary Drive, and down the ramp to Commonwealth Avenue (access for authorised vehicles to the Senate side car parks will need to be maintained).

Bus stops outside the Senate would become an interchange between the Blue and Gold bus lines.

The east side of Parliament Drive would revert to two way operation for other traffic (this may annoy the Parliament House administration as they have recently converted Parliament Drive to one way operation). There are aesthetic problems to be addressed as it detracts somewhat from the symmetry of the road layout, and the diversion is visible from the Lodge gates. It also has an advantage of establishing a busy interchange on the door step of

Parliament and visibly demonstrates the need to fund a fast rapid transit system to federal agencies.

10. Improve timekeeping

As described in section 3, poor timekeeping adds 10-15 minutes to passengers' perceived trip times. It is worse in the evenings where the usual practice of drivers is to start a run a few minutes late (but not always) and then roar around the route. This makes the service extremely unreliable from a passenger's point of view. Again, poor connections exacerbate the situation.

Poor timekeeping is a significant factor in undermining the effectiveness of ACTION as a travel option.

A culture of running on time needs to be developed. Buses now have GPS monitoring and providing a simple display to drivers of how many minutes they are ahead or behind schedule would be a good tool for improving timekeeping.

11. Strengthen marketing

ACTION (or is it Transport for Canberra?) needs to do a lot more marketing of their services. A few suggestions:

- Promote use of lunch time services in the Russell/Parkes/Barton areas to Civic, Barton and Manuka. Advertise in office journals or on their internal internet sites. Lunch time parking is difficult and expensive and this is a great way of getting more people used to catching buses.
- Visit offices and do on the spot MyWay registrations – discount the initial purchase such as \$20 travel for \$15.
- Introduce half-fare MyWay passes – pay an annual fee and can then travel at concession rates. This encourages more frequent ACTION use. Switzerland and Germany make extensive use of this.
- Introduce family concessions on weekends – two children can travel for free with each adult. This offsets the advantage of group travel in cars. The buses are fairly empty anyway.
- Provide better information to tourists. The free bus map is very useful – adding frequency information to the bus index would increase its value. Fare information needs to be clearer and provided in tourist centres and MyWay agencies – if visiting for a day or two, the best option is to buy a cash daily ticket, if longer buy a MyWay card. Tourists are useful off-peak business.

Ideally MyWay type cards should be able to operate throughout the country and even overseas – my MasterCard does! A single public transport smartcard eliminates the hassle of figuring out each systems fare structures.

One obvious point is to get rid of the different weekend timetable – very confusing. The same basic timetable and route structure should apply throughout the week – bolstered by peak hour services Monday to Friday.

12. Summary

Transport for a sustainable city plans for public transport are in the right direction but do not go far enough. The plans do not give enough emphasis to short trip times across the network. I propose a design standard of **being able to get from any suburb to any major centre in an hour or less** for developing the network.

Conventional buses will not be able to achieve this standard. A fast rapid transit system is needed on the Rapid routes with average speeds of at least 54km/h and coupled with frequent feeder services will broadly achieve the standard. It needs to be supported by improved timekeeping and connections.

This is a medium to long term aspiration but is a powerful design principle for developing the network. A number of benefits flow from pursuing this objective:

- Achieve trip times broadly competitive with car transport – particularly as parking and petrol becomes more expensive
- A stronger, more integrated network is of increasing utility for more than just commuting. Chained trips become more attractive – go shopping, health appointment, hair appointment and so on.
- Greater capacity and connectivity in the network enables elimination of many costly school services. In fact, many school excursions should become feasible on the normal network.
- Higher patronage levels will increase the farebox collection rate.

An interchange at Parliament House is useful for greatly improving connectivity into the Parliamentary triangle on the existing network.

This submission has been made both in paper and electronic forms.

Thank you,

(HENRY HATCH)