

WHAT ARE THE FEATURES OF GOOD PUBLIC TRANSPORT

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SECTION 1 - PUBLIC TRANSPORT - MODE OF CHOICE

People for Public Transport rejects the proposition that public transport is a last-resort option for central city commuters, school children, pensioners and the disadvantaged. Rather, we believe that public transport must provide a genuine alternative to car travel for everybody. This means that service quality must compete with the car on fundamental measures like speed and convenience. The challenge facing our decision makers today is to attract additional passengers to public transport and thereby realise many social, economic and environmental benefits.

SECTION 2 – PUBLIC TRANSPORT IS AVAILABLE DAY AND NIGHT

Time is of the Essence

People will not use public transport unless it offers door-to-door travel times that are competitive with those offered by the car. Total journey time on public transport has two major components: waiting time and travelling time. Both can, and must, be reduced if public transport is to succeed.

Shorter Waiting Times

Shorter waiting times are a function of the level of service frequency. Higher service frequencies have three positive effects.

Firstly, with high enough frequencies passengers do not require timetables. By this means, public transport can match the spontaneity of car travel. Every rail and bus service in Adelaide requires passengers to rely on a timetable to plan their journey. Services should run at least every ten minutes at most times of day and night to overcome the timetable problem.

Secondly, high frequencies reduce the "waiting time" component of your total travel time.

Thirdly, higher frequencies make connections easier. One of the most difficult aspects of cross-suburban travel is not the journey from Point A to Point B, but the 45 minute wait for the connecting service from Point B to Point C. Hence a journey that otherwise take 40 minutes in all could readily become an odyssey of 1 hour and 25 minutes – each way. High frequency of services may reduce this intermediate wait to a few minutes only.

Even modest improvements, such as with the Current "Go Zones", most with weekday frequencies of ten to fifteen minutes, have demonstrated how higher frequencies, if advertised, can increase patronage.

Shorter Travelling Times

The average speed of public transport vehicles must be increased. Buses and trams must receive real priority over other traffic, through an effective and enforced "dedicated corridors" system and absolute preference at traffic signals. Railways, by their nature, create their own priority access and this goes some way to explaining why some commentators prefer rail to buses.

SECTION 3 – PUBLIC TRANSPORT GOES TO ALL PARTS OF THE CITY

Extending the Network

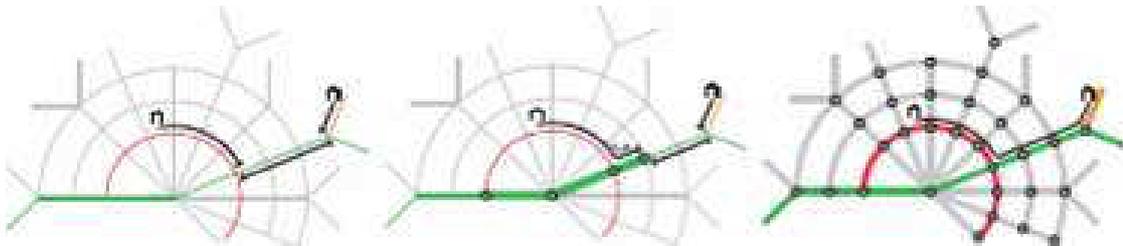
Adelaide already has a very extensive public transport network for a city of its size. This network is far from perfect, however, and requires some extension to provide better coverage of trip origins (people's homes) and destinations (workplaces, shopping centres, etc.).

Integrating Buses, Trains, Trams and Places

You can't always predict where people will want to go – the travel destinations of fifty years ago are not those of today and will not be those of tomorrow. Today's public transport, with some exceptions, is fossilised into arterial transport routes representing the past pre-eminence of the CBD. New investment could readily fall into a similar trap and become the subject of regret in fifty years.

A major tool exists to overcome this longer-term lack of predictability – design public transport around the network effect.

The Network Effect



An unlinked collection of low frequency routes (a non-network)

Some high-frequency services

The full network effect

An unlinked collection of low frequency routes (a non-network) The area you can reach by a simple journey is restricted to walking distance from your closest line. Users need to have detailed information about timetables. Transferring is difficult and crossing points have little value.

Some high-frequency services Good service along high frequency lines makes some transfers more attractive, but only in the direction of the high-frequency service. Increased frequencies on the best sections will do little to improve general conditions.

The full network effect Many lines operating at high frequencies, or with coordinated timetables, create a network.

In a car you can “start anywhere, go anywhere, go anytime.” The network effect describes a public transport system that matches that capacity.

The implications for designing a public transport system based on the network effect include:

- Do not expect every journey to be entirely on one bus, train or tram. Cross-suburban travel in particular may require at least one change of bus or perhaps a change from tram to bus or bus to train etc.
- Changes of vehicle should take place at interchanges. Many interchanges will be needed and the interchanges need to be well designed – safe, comfortable and

friendly. As PTUA¹ points out “15 minutes seated comfortably under cover...will be perceived much more favourably than 15 minutes spent at an isolated stop on a cold wet night with nagging doubts over the likelihood of the next service appearing as scheduled or the ability to squeeze onboard when it does turn up.”

- Bus routes in particular need to be straightened out. On some routes buses may wander around a suburb in the hope of capturing more patronage. Given that Adelaide is mostly built on a grid, bus/tram routes should go in straight lines. Allow the use of interchanges for passengers engaged in cross-suburban travel.
- Last but not least, we repeat that all modes of public transport need to operate a high frequency of service. Every route on the system (effectively the entire city) should be a Go Zone – preferably with ten-minute frequency between services.

Many of the potential Transit Oriented Developments around railway stations can assist to achieve the network effect. However many interchanges may need to be constructed at major road intersections e.g. at the meeting of Main North Road, Port Wakefield Road and Grand Junction Road.

A detailed examination of the network effect concept is available in the book by Paul Mees, “A Very Public Solution”.

SECTION 4 – PUBLIC TRANSPORT INTEGRATES ALL TRANSPORT MODES

Pedestrians and Public Transport

Since every public transport user is also a pedestrian, the creation of a better quality environment for pedestrians has to be seen as a necessary adjunct to improving the public transport service.

Though public transport can never provide a complete door-to-door service, PPT advocates a standard of service that ensures that nobody in Adelaide is located more than a few minutes walk from a frequent, full-time public transport route. Passengers must then be able to walk in relative ease and safety if they are not to be deterred from using the service.

At present, unfortunately, too many users (and potential users) of public transport find barriers placed in their way that impair their access to public transport. Such barriers range from busy roads with inadequate crossing facilities and traffic signals unfavourable to pedestrians, to the sense of danger that hangs over lonely streets at night. Many of these barriers can be overcome.

Access to Trams

We recommend for the current Glenelg tram and for future tram-lines that:

- Where trams go down the centre of a street stops should be next to traffic lights with pedestrian crossing facilities (intersections as on King William Street or special pedestrian crossings)
- Adequate width reserves for street trams
- Low traffic speeds and other pedestrian friendly measures for short sections of street tram routes
- On narrow routes consider tramways adjacent to kerb (but protect pedestrians and cyclists with fences or bollards).

¹ Page 33, Public Transport Users Association of Victoria, “Climate Policy at the Junction” (see Attachment B).

The PPT sees the conflict between tram passengers, cars and trucks as part of the problem of road danger in general. We favour traffic calming initiatives (such as lower speed limits, footpath widening, and tree planting) on all tram corridors to place public transport users and motorists on a more equal footing.

Cyclists and Public Transport

People for Public Transport are in favour of improved conditions for cyclists. Like public transport and walking, cycling offers a healthy and benign alternative to travelling by car. Particularly for inner-city travel, it can offer a level of convenience that surpasses even that of the car. Our public transport should aim to provide just such convenience, without the disadvantages of vulnerability to traffic and exposure to the elements.

The Bike-Train Combination

The usefulness of a bicycle is greatly enhanced when coupled with a well-functioning rail system. The ability to carry one's bicycle on a train makes possible journeys that would otherwise be infeasible, and also provides a welcome emergency service for cyclists in the event of rain or other unforeseen difficulties.

It is therefore important that improvements to the public transport service take into account facilities for carriage of bicycles on trains. Bicycles should continue to be carried free on all suburban train services in off-peak times, and should also be carried free on 'counter-flow' services during peak periods. Bicycle facilities should be provided on at least some country train services, and we support the efforts of BISA in this regard.

The Bike-Bus Combination

Cyclists should have equivalent access of their bikes to buses and trams to that available on trains.

PPT recommends an investigation into the feasibility and safety of carrying bikes on buses, using modern bus designs which provide such capacity.

Bicycle Parking

Cycling can also provide an environmentally friendly alternative to the park-and-ride approach frequently advocated by transport planners. Adequate facilities should be provided for commuters and others who have no need for a bike at their destination to park their bike securely at a railway station and travel the rest of the way by train.

The provision of bicycle parking is a relatively simple and inexpensive measure that is also very economical on space: around twenty bicycles can be parked in the space required by a single car. There is no requirement in Adelaide for the expensive high-tech measures such as Tokyo-style automated parking garages. Most stations have sufficient space for a number of low-cost bicycle lockers.

Free, sheltered bicycle parking should be provided at all suburban railway stations, on a scale at least comparable with the number of car parking spaces provided. In addition, rentable bicycle lockers should be provided for those who require more secure facilities.

Bicycle parking should be provided at O-Bahn stations and interchanges and major bus and tram termini.

SECTION 5 – PUBLIC TRANSPORT IS AFFORDABLE

The Economics of Transport Provision

Transport services, like any other services, have two components to their ongoing costs: a fixed component, and a component that varies with usage. The relative size of these components is of great importance when assessing the economic viability of different types of transport service.

When an arterial road system is provided for private cars and trucks, most of the cost falls into the variable category due to the wear and tear of vehicles on the road, the more road accidents, the more pollution etc. Thus the more road users the more the cost increases. More and more needs to be spent to accommodate increasing traffic levels. This is the "law of diminishing returns".

In largely rail-based public transport systems, on the other hand, a far greater proportion of the costs are fixed. It costs more or less the same amount to run trains or trams regardless of how many passengers are actually carried. Thus, with each additional user the effective cost per passenger decreases, and we have what economists call "returns to scale". Since public transport revenue increases with more passengers, it is clearly economic to encourage more passengers onto public transport, while it is distinctly uneconomic to encourage more road users.

Why is our public transport so costly?

Public transport in Adelaide has poor cost recovery because patronage is largely confined to peak periods. This means high costs to provide staff and equipment most of which are not used for the rest of the day. In addition, the high proportion of concessionary passengers during the inter-peak period means that fare receipts stay low.

Our proposals aim to spread the use of public transport throughout the day and night and also to attract more persons paying full fares. Both sets of measures will improve revenue.

The more people are enticed to use their cars and away from any potential public transport the more the large fixed cost of public transport is distributed between all passengers. Such benefits will not accrue whilst Adelaide's public transport operators are unable to make headway in taking market share from cars and only such measures from the State Government as the increased number of Go Zones will assist.

Recovering the Costs

As should be clear from the above, the key to improving the economic performance of our public transport is to increase patronage. High quality public transport attracts more full-fare-paying and off-peak passengers, which leads to better cost recovery. This way a "virtuous spiral" can be set up to counteract the vicious spiral of falling patronage and higher costs.

To create a truly world-class public transport system will require an initial injection of funds, to help "kick start" public transport's economic recovery. Better public transport is a real money saver for the community, since it allows us to avoid literally billions of dollars of expenditure on new roads.

See also Attachment C – Using the Tax System

SECTION 6 – PUBLIC TRANSPORT IS SAFE TO USE

Danger: Perception or Reality?

Statistics show that the death rate from road trauma is substantially lower for public transport passengers than for car occupants. The chief hazards for public transport users lie in waiting at deserted railway stations and bus stops at night and in the journey on foot to and from the stop or station, including crossing the road or railway line. Assaults on passengers on trains without attendants also occur. In the case of buses the driver is more easily alerted to problems of this kind. It must be remembered that car users may also be subject to assaults in or on the way to car parks and people have even been assaulted in their cars.

Public transport users themselves frequently report that they do not use the system in certain instances (such as late at night, or at certain stations) because of safety concerns. People may have formed these opinions from personal experience as public transport users, from hearsay or from fear of the unknown.

While the number of public users transport suffering assaults is low, the problem of safety on public transport is real, and requires real solutions. People need to know and feel that the system is safe, not just statistically but in reality.

Pedestrian Safety

Personal safety of pedestrians is a major barrier to greater public transport use. We support encouraging pedestrians onto streets with more pedestrian-friendly land use/road design.

Quick response pedestrian lights should be provided every few hundred metres on metropolitan main roads where traffic signals are not present, especially near shops, community facilities and public transport stops.

"Unforgiving" walk signals (where a pedestrian presses the button a few seconds after the light turns and cannot legally cross until the next cycle) should, where feasible, be abolished, as should "three cornered intersections" where a pedestrian has to cross three roads to get to the other side.

Pedestrian gates being used at Salisbury and Woodville rail stations, should, if successful, be used at all pedestrian rail crossings and off-road tram crossings.

While it is important to allow flow of vehicular traffic, and to allow cars time to stop, pedestrian crossings should not keep pedestrians waiting for an unreasonable length of time.

Safety on Public Transport

For road users, improving safety means reducing danger and trauma resulting from the presence of large numbers of high-speed vehicles, driven by similarly large numbers of people whose psychological condition varies widely. For public transport users, on the other hand, the principal safety problem has to be seen as one of *personal* safety, that of reducing both the perceived and actual threat posed, particularly to women on public transport vehicles, on station platforms and on the way to or from one's stop.

PPT believes that preventative solutions to the problem of personal safety on public transport will be more effective, cheaper, and of greater community benefit than a campaign focussing on convictions and penalties. Preventative solutions include:

- Continuous staff presence on the system;
- Increasing patronage, especially in off-peak and night time; and
- Development of activities on and around public transport facilities.
- And some use of technological measures eg. emergency buttons

Traffic Calming

There is a clear demand from communities across Adelaide for quieter, safer residential streets, suggesting that the time for traffic calming - or slowing down traffic in the interests of pedestrians, cyclists and public transport - has come. Improved facilities for pedestrians will bring about an increase in public transport patronage, as people find it easier to walk to the nearest bus or tram stop than to hunt for space in a busy car park.

In Adelaide, traffic calming has been limited so far to residential streets, while main roads have received the opposite treatment to facilitate greater traffic flows. This has been done to encourage motorists to keep to arterial roads rather than using minor residential streets, but it has resulted in a worsening of conditions on the main roads, particularly for residents, pedestrians and cyclists. To achieve the full benefits of traffic calming, it should be applied on an area-wide basis, including main roads as well as the adjoining side streets.

However, traffic calming devices should not be allowed to impede or seriously slow public transport.

SECTION 7 – PUBLIC TRANSPORT IS COMFORTABLE AND EASY TO USE

Access to Facilities

The development of activity areas, such as convenience stores, video stores and restaurants, around public transport facilities will also help to make these facilities less isolated during off-peak periods.

Making Ticketing Work for Everybody

PPT supports the sale of tickets at retail outlets like newsagents, in addition to but **not** instead of sale on vehicles and at stations. A full range of tickets should be available for purchase at all railway stations and a wide range including dailies on all trains, trams and buses. Periodical tickets could be introduced.

Use of periodical tickets helps cut fare evasion and transaction costs, and build passenger loyalty. These should be promoted through schemes where yearly tickets are paid for with salary deductions. Discounts should be increased to make periodical tickets more attractive, and date-to-date tickets be made available for any period the passenger chooses.

We also propose the use of pre-validation systems where tickets are validated on entry to an interchange, not on the bus or train – subject to such systems not causing problems with people assisting the elderly, disabled and children to board public transport, and possibly the farewelling of friends. Provision needs to be made for these cases.

Staff on the System

There has of recent years been an increase in staff on trains, following years of cutback and removal. Increases in train staff presence will almost certainly increase patronage and revenue, and decrease fare evasion.

There should be passenger attendants on every train. Women who are surveyed particularly mention the need for a stronger staff presence in order to feel secure at stations and on vehicles.

Women and Public Transport

The two most important issues women in particular face with public transport are safety and convenience.

Many women will not commute to work by public transport because they perceive the system as being too unsafe after dark, and do not leave work, let alone reach home, before dark in the winter months. This is a particular problem with trains, as stations are often un-staffed and poorly lit, but also applies to trams and buses. Although the vehicle may be perceived as safe, the stops, and travel to and from them, may not.

The safety of children is another issue of concern to women. Many parents are reluctant to let their children travel alone, either on foot, or by bicycle or public transport, as they perceive the roads and public transport system as too unsafe. This means parents feel obliged to drive their children to school, sports and other activities, where fifty years ago the children would have - in relative safety - walked, cycled or taken public transport, often not least because there was no car available! PPT supports the "Walking School Bus" initiative.

Physical Access

The physical ability to access public transport is issue facing several groups of potential users including:

- Women with young children. Even where there is a reasonable service many women will not use public transport for such trips because it is too inconvenient to board and alight from vehicles with a child in a stroller or a lot of shopping, as any regular tram or bus traveller will have seen, if not experienced.
- People with restricted mobility - for example those in wheelchairs and the elderly.

Although many improvements have been made, this issue continues to be a burden to many users. Modern bus designs which allow for easy access for prams and shopping trolleys (and bikes) need to be introduced.

The siting of schools, kindergartens and child care centres at public transport nodes, Transport Oriented Developments (and near major employment centres) would make it more feasible for parents to use public transport to drop off children and continue to work by public transport. An alternative to this would be a large number of smaller facilities within walking distance of people's homes and close to public transport routes. Probably a combination of both would best serve the community.