



BACKGROUND PAPER 13: Transport and mobility

What was said during Time to Talk Canberra 2030

An effective transport system for Canberra was a major concern for the community. Mobility choices are basic to a prosperous, fair and healthy community and a liveable and vibrant city.

Canberrans recognise the relationship between Canberra evolving as a more compact city and its development as a more accessible city. People value that Canberra is easy to get around and want to keep this in the future. They understand the convenience of having a car but the need to reduce their reliance on private vehicles. A general preference is a shift to more sustainable transport options including bus shuttle services, light rail, and building on safe walking and cycling options. People indicated support for infill development along transport corridors and around centres to achieve this shift to more sustainable transport options and more convenient, affordable public transport.

Affordable transport was also a strong consideration:

We have people with low incomes who live on the fringe and need a car – what happens for them when fuel prices go up?
Older people – what do they do when they can't drive?

The future scenario of the community outlined the following:¹

There will be a shift from [Canberra's] current dependency on the motor vehicle to more sustainable options. Electric cars, walking and cycling and the newly built light rail/sustainable public transport system will make Canberra a city less dependent on motor vehicles. By 2030 new development will create a more compact city. ... Increased density will help support more efficient public transport as well as vibrant neighbourhood centres. There will be more opportunity to work close to home and to access community services and amenities.

Definition of issue

Canberra's transport system comprises networks of roads and parking areas for private, freight and public vehicles, as well as bicycle and pedestrian networks and facilities. The transfer from one mode to another (mode shift) is an important issue for accessibility.

The transport system is a key component of the urban infrastructure. It determines how everyone can access employment and services and participate in community activities. Efficient freight transport systems are essential to exchange commodities and connect with regional, national and global markets.

Transport planning deals with assessment, design and siting of transport facilities such as freight corridors, roads and parking, public transport, footpaths, bike lanes and other supporting infrastructure.

A good transport system achieves urban objectives relating to mobility and accessibility, prosperity and reduced environmental impacts. Transport systems affect the physical character of cities as well as the cohesiveness of communities and the level of greenhouse gas emissions.

Transport planning has to be well integrated with land use planning. The national urban policy² states that appropriate intensification of land use around specific transport corridors and activity centres would locate more people within walking distance of public transport and help achieve sustainable outcomes.

A sustainable transport system is low in emissions and is healthy, safe, convenient, accessible and affordable for everyone in the community. Investing in urban passenger transport is one priority of the national urban policy³ to improve connections between land uses within cities. One approach is a transit-oriented development (TOD). A TOD is a mixed-use (residential and commercial) area designed to maximise access to public transport, and often incorporates features of rapid transit services. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop or bus stop), surrounded by higher density development with progressively lower-density development spreading outward from the centre. TODs generally are located within 400 to 800 m of a transit stop as this is considered appropriate for pedestrians.





Role of strategic land use planning

Although Canberra's initial planning was based on public transport corridors, most growth occurred in the 1960s and 1970s around a car based transport system.

Our metropolitan layout with individual towns, predominantly low density urban form and a generous road system has meant cars are the most convenient mode of travel for most Canberrans.

To meet the community objectives from Time to Talk, strategic and statutory planning needs to:

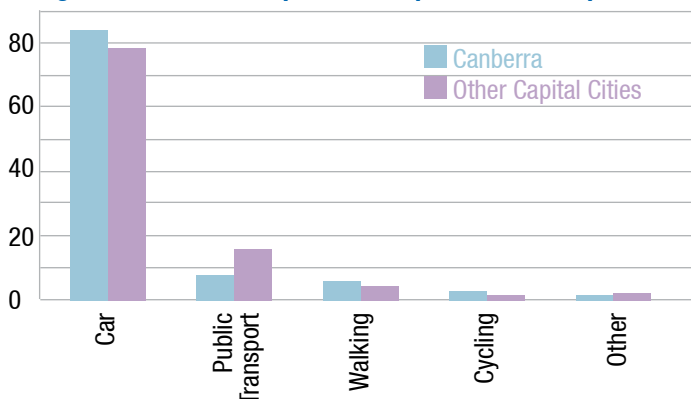
- offer transport options for all the diverse segments of the population
- facilitate new development close to high speed public transport services (transit oriented development)
- make housing, jobs and daily needed services more accessible to more people who can't or don't want to rely on a car
- make mode shift to active travel (walking and cycling) a viable choice for more people
- contribute to the vibrancy of public areas by making them easy to get to without using a car
- support regional economies with appropriate transport infrastructure.

What issues does the ACT Planning Strategy need to consider?

Transport modes and uses

ABS 2006 census data records that over recent decades, 81% of Canberrans go to work by car (either as drivers or passengers) compared to the Australian average of 69.7%.⁴ Nationally, Canberra has the second lowest usage of public transport (after Hobart), but the highest cycling rate and second-highest walking rate (with Sydney, after Hobart).

Figure 1: Canberra transport use compared to other capital cities



Travel distance impacts on how people travel to work, with those living closer to the city most likely to walk or cycle, followed by those living close to town centres. The average travel distance for Canberrans to get to City is estimated around 15 km and to their town centre is around 6 km. However, with over 50% of Canberra's work places located in central Canberra (City), many people are travelling a lot further than 15 km. Recent redevelopment in inner-city locations such as Turner and Braddon saw more workers walking to the work.

Transport for Canberra policy

A draft Transport for Canberra policy was released for public comment in early October 2011. It will replace the 2004 Sustainable Transport Plan and will sit alongside the updated ACT Planning Strategy.

Transport for Canberra will set a new policy direction for transport from now to 2031 around:

- transport and land use integration through the Frequent Network of public transport corridors
- social inclusion and transport disadvantage, including a draft minimum coverage standard to ensure public transport services reach those with the highest social need for transport
- active travel policy to make walking and cycling the easiest travel options
- strategic management of the road network, parking, motorised vehicles and freight to create an efficient transport system
- travel demand management across all modes (pedestrians, cyclists, motorcyclists, cars, public transport, freight), including transport pricing
- transport system performance measurement and reporting, including new mode share targets for 2016 and an annual transport report card
- an action plan detailing the 32 proposed policy actions.

The following six principles guide the new transport policies and the 32 draft actions for implementing the policy. Transport for Canberra:

- is integrated with land use planning
- makes active travel like walking and cycling the easy way to get around
- provides sustainable travel options and reduces transport emissions
- is safe for moving people however they get around
- is accessible for everybody whatever their level of mobility at any time or place
- is efficient and cost effective, providing value for money for the government, business and the community by managing travel demand across the whole transport system.



Transport for Canberra has been prepared in conjunction with the ACT Planning Strategy so important relationships between land use and transport can be used to support a shift to more sustainable transport options

An integrated and sustainable transport system

Canberra’s transport system is built upon our dispersed but well planned urban structure. Its high quality road system allows people to drive to most places reasonably easily, even during peak hour. While our lower density structure and potentially long travel distances make the car an attractive and convenient travel option, the Y-Plan established Canberra’s town centre nodes and a well-developed arterial road network that provide a solid base for public transport corridors.

There are, however, a number of challenges; for example, an increasing number of cars on our roads, rising fuel costs, health and environmental concerns, and concern for the threat and severity of transport accidents.

Socially inclusive transport

Low density housing combined with lack of access to good transport options can lead to social isolation, which correlates with higher risks of social disadvantage. Recent transport disadvantage mapping shows Canberra performs better than the national average, though parts of our city need better transport. This can be difficult to deliver due to circuitous road networks and very low density housing.

As Canberra’s population ages, senior citizens who can no longer drive will expect alternative modes of transport. Our transport system needs to provide options for everyone; but it won’t always be that transport will come to those who need it. We need to design our city so people can live where public transport is.

Table 1: Service types in the public transport network

Service type	Frequency	Service span	Stopping pattern and speed standard	Purpose	Example in existing system
Rapid	15 minutes or better	All day and evening, 7 days a week (7am to 7pm in early years, lower frequency at other times)	Widely spaced ‘stations’ or ‘major stops’ (500m – 2000m apart) 40km/hr (including stops)	Public transport corridors for all day, high speed travel across the city along dense corridors. Analogous to a metro or rapid public transport system, and located for future light rail or bus rapid transit. Rapid services carry the majority of passengers, and can help achieve mode shift goals for work trips and associated emissions reductions.	Blue Rapid Red Rapid
Frequent Local	15 minutes or better	All day and evening, 7 days a week (7am to 7pm in early years, lower frequency at other times)	Local stops every 300-400m 20km/hr (including stops)	Local in areas of current or future denser development, including some group centres. A frequent local service can help create more active streets and further develop employment and residential density. This type of service will connect to rapid services at bus stations and town centre nodes for longer trips. Can encourage patronage and help achieve mode shift goals.	Parliamentary Zone Frequent Network: the Gold line and Green line layer routes to create frequency
Peak Express	Depends on demand on the peak between work/ suburbs.	Peak period only, peak direction only.	Long, non-stop segment to/from major employment destinations at peak. Speed is route specific, but routes will use regular arterial roads outside the normal bus network (e.g. Gungahlin Drive, Monaro Highway)	Direct service from residential or park and ride facility to major employment destinations. Supplements but does not compete with rapid services. Can help achieve mode shift goals.	Xpresso routes from suburbs to City and Parliamentary Zone.
Coverage	30 – 60 minutes (see minimum coverage standard in 2.5)	All day, with less frequent service at evenings and weekends.	Local stops every 500m No speed standard.	Local and feeder services in lower density areas away from the Frequent Network. Provides local access during the off-peak and is provided for reasons of access and inclusion rather than patronage potential. Increases to 30 minutes in targeted areas (see Appendix B). Will improve local public transport options.	Local routes across suburban areas.

Rapid + Frequent Local = Frequent Network

The rapid and frequent local services together are called the Frequent Network. This is the backbone of the public transport network.

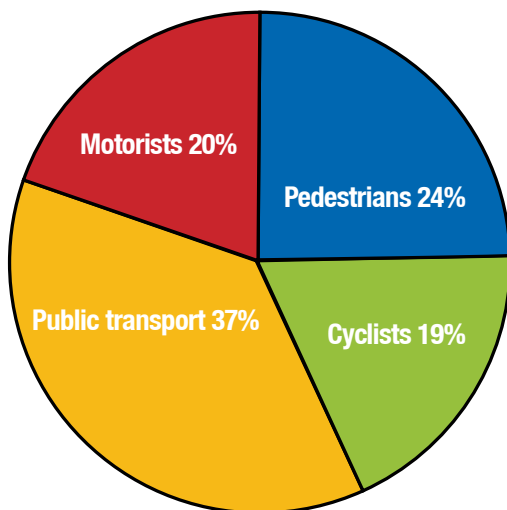


Active travel

Active travel (such as walking and cycling) is increasingly recognised as a key feature of the world's best cities. The incidental exercise from a walk to shops, the social benefits from meeting people on the streets and the economic benefits from slower travel have been demonstrated in other Australian cities.

In the Make Walking Count international walk benchmarking survey conducted in Canberra in 2010, we asked Canberrans how they would allocate \$1m to spend on transport in their local neighbourhood. They told us that active travel should receive 43% of the funds, public transport a further 37% and maintaining a safe road network, 20%.⁵

Figure 2. How would Canberrans divide \$1m on transport in their local neighbourhood?



The location and density of land uses should also support cycling. Canberra's generally flat topography and amenable climate makes Canberra ideal for cycling. The cycling network is already highly regarded and should be protected from encroachment by new development. New areas should be required to establish direct cyclist paths that connect to the existing network and, where possible, housing should overlook bike paths so perceived and real safety is increased.

Unlike the cycling network, Canberra's walking environment is quite poor. Indirect street layouts such as cul-de-sacs and low densities mean prohibitive walking distances. The ACT Planning Strategy needs to reflect the understanding that a walkable city contributes to social equality as, 'walking is convenient, it needs no special equipment, is self-regulating and inherently safe. Walking is as natural as breathing.'⁶ More walkable cities are safer, more liveable and more sustainable.⁷

Encouraging more people to ride bikes or walk is very important. However, planning should also recognise diversity within that population, with some, for example young children, being more vulnerable. Designing for pedestrian and cyclist safety will be integral to achieving a greater mode shift.

Key actions to achieve a more active travel system are:

- integrating transport and land use planning to develop permeable urban environments that encourage walking and cycling
- encouraging flexible, healthy travel through Bike and Ride
- continuing to expand the on and off road cycle and pedestrian networks and improving active travel infrastructure like lighting and signage.

Reducing greenhouse gas emissions from transport

Our current travel patterns are responsible for 24% of the ACT's total greenhouse gas emissions. Encouraging alternative transport modes such as walking and cycling will help reduce vehicle emissions. Canberra is leading the nation by setting a target of being a carbon neutral city by 2060. As a first step, we have legislated a target to reduce greenhouse gas emissions by 40% of 1990 levels and achieve carbon neutrality in ACT Government operations by 2060.

The new Weathering the Change Action Plan 2 will set out how the ACT Government and community will find a pathway to this ambitious target, including two key approaches to reducing emissions in the transport sector:

- Change the balance of travel towards low-emission transport through mode shift to public transport, walking and cycling and providing associated infrastructure, programs, pricing, policy and promotion.
- Increase the efficiency of transport through encouraging use of greener passenger vehicles (including electric vehicles and best in class purchase incentives), encouraging higher numbers of people per vehicle through carpooling and 3-for-free, and creating strategic road networks for the efficient movement of people and goods.

An efficient and cost-effective transport system

An efficient transport system requires a strong and effective road network to support all modes of transport. It has a clearly defined priority role for public transport, provides value for money and has performance measures. Key aspects are a freight strategy, managing the road network for all users and integrating transport and land use decisions, particularly by investing in the Frequent Network and supportive infrastructure like park and ride, transitways and information systems.

Maintaining transport linkages into the region

Canberra's relationship to its surrounding region and neighbouring capitals is also important. A large number of Canberra's workforce commutes from outside the ACT. There is ongoing talk about the possibility and viability of a very high speed train. The airport is also looking to expand. These factors have important implications for the provision of transport infrastructure in the very long term for Canberra and need to be integrated with the ACT Planning Strategy.



Things to think about

The ACT Planning Strategy proposes to increase density of dwellings and jobs in centres, near transport nodes and along rapid transport routes. This can increase use of the public transport system, which in turn validates further improvements to the system.

Street networks in new developments should be designed to facilitate effective public transport; for example, by minimising the length of travel necessary for a bus to service the area. By focusing major infill developments in centres and along transport corridors, the low density character of the majority of Canberra suburbs will be protected, which many people in the Canberra 2030 consultation said was highly valued.

Increased density areas close to retail centres, employment hubs, key public transport nodes and educational facilities will be more walkable. Mid block links that increase pedestrian permeability should be identified and included as adjoining blocks develop. New developments must:

- provide direct street layouts i.e. grid layout, where not prohibited by topography
- avoid cul-de-sacs or dead ends
- allow for mid-block connections for pedestrians
- ensure 90% of all residential development is within 400m of a bus stop
- have a mix of uses so people can live close to their work place and services.

On road and off road networks in residential areas need to be linked and intersected to facilitate ease of getting around and help to achieve mode shift goals.

An international airport and possible very fast train have important implications for how Canberra and the region develops.

Further reading

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Endnotes

- 1 Time to Talk – Canberra 2030 Outcomes Report, ACT Government 2010
- 2 Our Cities, Our Future – A national urban policy for a productive, sustainable and liveable future, Australian Government 2011
- 3 Our Cities, Our Future – A national urban policy for a productive, sustainable and liveable future, Australian Government 2011, p.29
- 4 More up-to-date information will be available mid-2012 from the 2011 census.
- 5 Walk21 2011, Make Walking Count, Canberra Draft Report
- 6 John Butcher, Founder Walk21, 1999.
- 7 Nilsen, C. 2010. *A Village for Walking Into the Future*. Paper presented at the 11th International Walk21 Conference. The Hague, The Netherlands, November 16-19. Accessed June 1, 2011. http://www.walk21.com/conferences/conference_papers_detail.asp?Paper=617&Conference=The%20Hague