LIVING STREETS Canberra

www.tinyurl/WalkACT

To: budgetconsultation@act.gov.au

ACT Budget Submission 2017-18
Paths to the Future

Paths to the Future is a nine year, $200 million dollar strategic investment in cost-effective transport infrastructure for walking, cycling, ride sharing and public transport, comprising:

Footpath network upgrades: Upgrade footpath networks in established suburbs to the level of footpath networks in new suburbs ($20 million per year for nine years).

Walkable nature strips: Safe walking on streets that don't have footpaths ($0.1 million per year).

Paths for the community: Twenty cost-effective community paths ($3 million per year for three years).

These investments will improve mobility, access and health, and will measurably reduce the costs of health care, traffic congestion, air pollution and greenhouse emissions. They will cost less than two years of subsidy to ACTION buses.

They will help to make Canberra the walking and cycling capital of Australia, complement $2 billion in public transport commitments, and support the Government's commitment to increasing the public transport share of all work trips to 16% by 2026, and its 2026 targets of 7% each for walking and cycling.

Based on the current ACT population and the travel mode shares from the 2011 Census and *Census at School*, they will benefit the following Canberrans:

- 307,000 voters and their 89,000 children, who walk;
- 130,000 voters who will benefit from reduced congestion as they drive to work;
- 90,000 Canberrans and their 30,000 children, who will be more able to walk, cycle or use public transport when they have a footpath to their local shops, schools and bus or light rail stops;
- 16,000 children who walk to school bus stops, and 14,000 adult commuters who walk to bus stops;
- 12,000 children and 9,000 voters who walk to school or to work; and
- 5,000 voters and 3,000 children who cycle to school or to work.

The following attachments provide more information on *Paths to the Future*

Yours Faithfully

Leon Arundell

Leon Arundell B Sc Hons, M Env St, Grad Dipl Appl Econ.
Chair, Living Streets Canberra
21 December, 2016

Attachments

A1. Budget impacts summary

	2017-18 Budget $'000	2018-19 Budget $'000	2019-20 Estimate $'000	2020-21 Estimate $'000	4-year TOTAL Estimate $'000
Paths to the Future					
Footpath network upgrades	20,000	20,000	20,000	20,000	80,000
Walkable nature strips	100	100	100	100	400
Paths for the community	3,000	3,000	3,000	-	9,000
TOTAL	**23,100**	**23,100**	**23,100**	**20,100**	**89,400**

A2. Footpath network upgrades

- Increase the rate of footpath construction from 30 km per year to 110 km per year for nine years, so that by 2026 every Canberra street will have a footpath.

We estimate that Canberra has a thousand kilometres of streets that have no footpaths. Suburbs built since 2014 must have a footpath along at least one side of every street.

At $180,000 per kilometre, 1,000 km of footpaths will cost $180 million.

A footpath provides a safe, level, unobstructed, all-weather surface for walking and for mobility scooters, with a low rolling resistance that encourages cycling. It encourages people to walk or cycle to local shops, services, schools and bus stops.

A recent Australia research paper on the cost-effectiveness of installing sidewalks to increase levels of transport-walking and health found that building footpaths is a worthwhile investment that increases the probability of walking, and that building the first footpath on a street provides greater benefits than building a second footpath on a street that already has a footpath.

Another recent research paper found that Canberra suburbs with high walkability had significantly lower rates of hospitalisation due to heart attack.

A3. Walkable nature strips

- Ensure safe walking on 1.000 km of streets without footpaths, by enforcing the rule that a strip of grass or stable surface must be maintained at a minimum of 1.2 metres wide from the back of the kerb to facilitate … pedestrian access.

It will cost about $100,000 per year to employ an additional City Ranger to enforce this rule by issuing warnings to offending properties, and to follow up with residents who continue to offend. It will take about two person-years to cover the whole of Canberra. The need for this action will decline as more footpaths are built.

Providing unobstructed nature strips will encourage walking to local shops, schools and bus stops.

A 2015 survey of the suburb of Campbell found 150 places where there were no footpaths and where nature strips were obstructed by gardens, landscaping or parked vehicles. Such obstructions discourage walking because they force people to walk on the roadway, into the face of oncoming cars.

TAMS reported at a verge workshop on 25 May 2015 that a blitz of about 200 construction sites had found that every site was in breach of the rules for managing of nature strips.

A4. Paths for the community

- Build the remaining twenty community paths, of the forty most cost-effective trunk cycling and walking infrastructure projects that were identified in 2011, and evaluate the outcomes.
- The project comprises three stages:
    1. Compile baseline numbers of people who walk and cycle on or near these paths
    2. Complete the projects
    3. Measure the new rates of walking and cycling, and use the information to identify factors that most influence rates of walking and cycling, and to improve the priority ranking method.

Cost: $9 million over three years.

Rationale

- The Labor-Greens Parliamentary Agreement commits to "*Adopt the World Health Organisation's HEAT model for Budget assessment of active travel projects*."
    - This method will be usable for only a few of the potential projects, due to unavailability of the requisite information.
    - Other potential projects can be prioritised, using readily available information, by Multi Criteria Analysis methods such as:
        1. the ACT's established MCA method, which inherently favours small numbers of expensive projects over larger numbers of smaller projects that would collectively produce superior results;
        2. the Living Streets Canberra MCA method which divides each project's benefit score by its cost; or
        3. other methods, such as multiplying benefit per user by number of users, and dividing the result by the project's cost.
- Walking and cycling counts on Wentworth Avenue, the Knox St to Simpson St off road path and the City Cycle Loop indicate that the Living Streets Canberra MCA method produces better outcomes, per dollar invested, than the ACT's established MCA method.
- The *Community Paths* project will use before-and-after walking and cycling counts to quantify the per-dollar impacts of 20 shared community path projects, and will compare their impacts with those of other projects that were prioritised using Multi Criteria Analysis.

- The twenty remaining cost-effective community path projects are, in alphabetical order:
    1. Adelaide Ave (Novar St/Kent St to State Circle/Flynn Dr)
    2. Athllon Drive (Underpass near Jenke Cct to Fincham Cr (north side))
    3. Belconnen to Florey S1 (Cohen St to Ginninderra Dr at John Cleland Cres)
    4. Cantamessa Avenue (Anthony Rolfe Drive to The Valley Ave)
    5. Constitution Ave
    6. Coulter Drive to Florey
       (former Belconnen busway to Ginninderra Dr/John Cleland Cr)
    7. Easty Street link
    8. Erindale Centre south link (Erindale Drive: Harricks Cr to Ashley Drive)
    9. Fisher (Kalgoorlie Cres/Ballarat St to Tuggeranong Parkway off-road path)
    10. Ginninderra Drive (UoC to Lake Ginninderra)
    11. Giralang (William Slim Dr/Baldwin Dr to Ginninderra Ck footbridge)
    12. Improvement of off-road path crossing at Miller Street between Macarthur and Quandong Streets
    13. Kent Street (Groom St to Denison St)
    14. Lake to War Memorial Links (Lake Burley Griffin to War Memorial)
    15. Lawson Shoreline (Ginninderra Dr to Baldwin Dr)
    16. Mawson Shops bypass (Mawson Dr to Heard St)
    17. Menindee Drive
    18. Thesiger Court Link
    19. University avenue
    20. Weston to Tuggeranong (Nemarang Cres from Damala St to Badimara St)

Walking and cycling projects have since 2005 been prioritised using Multi Criteria Analysis methods that favour small numbers of large projects ahead of larger numbers of smaller projects that would provide greater total benefits from the same financial outlays.

Multi Criteria Analyses (MCA) for ACT walking and cycling projects have allocated at least 80% of the available points to measures of benefits, and at most 20% to costs.

Example: Projects A and B each score 30 points on benefits and score the maximum of 20 cost points because they cost only $1 million each.

Project C scores 56 points on benefits, and zero on costs because it costs $2 million.

Projects A and B each offer 30 points worth of benefits per million dollars.

Project C offers lower value for money – only 28 points per million dollars.

But the MCA prioritises Project C because its total score of 56 (56 plus zero) is greater than the total score of either Project A or Project B (30 plus 20 equals 50).

If Projects A and B are redefined as a single project D, with a cost of $2 million and total benefits worth 60% of the available points, then Project D scores 60 (30 plus 30 plus zero).

Project D is exactly the same as Projects A and B, but it scores more highly because it is a larger project.

A5. Bibliography

How the built environment influences walking and cycling

"*Across culturally and geographically different countries and cities, our study underscores the importance of density, land-use mix, parks and street connectivity for supporting active travel in adults. The study adds some interesting new findings. First, a threshold effect of residential density on walking for transport was found, where no additional benefits were found above 12,000 dwellings/km 2 ; residential density did not have a significant effect on cycling for transport; and built environment attributes may be more important in cities located in developed countries. Second, both land-use mix and street connectivity were important for both walking and cycling for transport. Third, there was variation across sites how parks were related to active transport, and especially for cycling local policies and cultures of park use seem to play an important role for the potential positive effect."*

That is the conclusion of *International comparisons of the associations between objective measures of the built environment and transport-related walking and cycling*: IPEN adult study, L.B. Christiansen et al. / Journal of Transport & Health 3 (2016) 467–478.

Shifting from car to active transport: A systematic review of the effectiveness of interventions

This study reviewed the effectiveness of interventions designed to stimulate a shift from car use to cycling or walking and to obtain insight into the intervention tools that have been used.

A promising way to stimulate physical activity is to promote the choice for active modes of transport (walking and cycling). Over the past years, several interventions and policies have been implemented to stimulate this mode shift. However, information concerning the effectiveness of these interventions and policies is still limited. The aim of the present study was to systematically review the effectiveness of interventions designed to stimulate a shift from car use to cycling or walking and to obtain insight into the intervention tools that have been used to promote and/or implement these interventions.

Five databases were searched and articles published in English, Dutch, German, Danish, Norwegian and Swedish were included. Only studies that focussed on a mode shift from car use towards active transport in a general adult population, which were published in peer reviewed journals and which investigated effectiveness were included. Intervention tools used were categorized by using the model of Hoogerwerf & Herweijer, as either legal, economic (subsidy, reward system, penalty), communicative (written materials, behavioural tools) and physical tools (providing bicycles, providing better bicycle facilities at work, adjustment of the environment).

Nineteen studies met our inclusion criteria. Studies included described work-place-based interventions, architectural and urbanistic adjustments, population-wide interventions, and bicycle-renting systems. Nearly all studies (except three) showed positive effects concerning a mode shift.

Nearly all studies showed results in a positive direction. However, the quality of the included studies was mostly low and intervention characteristics were poorly described.

Best ways to reduce congestion

The 2003 ACT Transport Demand Elasticities Study is a mine of valuable information for anyone who wants to reduce traffic congestion and traffic pollution.

Click to read more

Walk Score associated with reduced hospital admissions from chronic diseases

Walk Score associated with hospital admissions from chronic diseases? Evidence from a cross-sectional study in a high socioeconomic status Australian city-state, Soumya Mazumdar, Vincent Learnihan, Thomas Cochrane, Hai Phung, Bridget O'Connor, Rachel Davey.

Results Geographic clusters with significant high and low risks of NCDs were found that displayed an overall geographic pattern of high risk in the outlying suburbs of the territory. Significant relationships between neighbourhood walkability as measured by Walk Score and the likelihood of hospitalisation with a primary diagnosis of myocardial infarction (heart attack) were found. A possible relationship was also found with the likelihood of being hospitalised with 4 major lifestyle-related cancers.

Conclusions Our research augments the growing literature underscoring the relationships between the built environment and health outcomes. In addition, it supports the importance of walkable neighbourhoods, as measured by Walk Score, for improved health.

The cost-effectiveness of installing sidewalks to increase levels of transport-walking and health

Source: Preventative Medicine 2014 via AusPANet

Authors: L.D. Gunn, Y. Lee, E. Geelhoed, A. Shiell, B. Giles-Corti

Commentary: Bethany Walker, National Heart Foundation

The installation of sidewalks is known to facilitate and increase the levels of walking within a community both directly and indirectly through street connectivity, aesthetics and safety. This paper determines the cost effectiveness of installing sidewalks to increase walking for transport.

Western Australian data (n=1342) was used from 1995-2000 and calculated two variables, those who achieved the recommended 150min/week of walking and those who achieved 60 min/week of walking in recognition that they meet the full recommendation in combination with other forms of physical activity. Logistic regression analysis was used to determine the relationship between presence of sidewalks and transport-related walking. Minimum, moderate and maximum interventions were examined according to the presence of one sidewalk, at least one sidewalk (the addition of a new sidewalk in presence of a pre-existing sidewalk) and two sidewalks. Costs and average and incremental cost-effectiveness ratios were calculated for each intervention.

The results indicated all interventions were a worthwhile investment as the probability of walking increased with the presence and amount of sidewalks. However, the most cost-effective option was to install one sidewalk. For the transport-walking threshold of 150 min/week (60 min/week), the minimum sidewalk intervention had the best average cost-effectiveness ratio (ACER) at $2330/person ($674/person) for the 150 and 60 min/week transport-walking thresholds respectively. Density and proportion of the population walking have the most influence on the cost-effectiveness of sidewalks and increasing both of these variables would increase the cost-effectiveness of the interventions.

Although the findings show it is more cost-effective to install one sidewalk, particularly in areas of low density, it may be more beneficial to install two sidewalks in highly populated areas e.g. schools and shopping centres to encourage active transport to local destinations. The results of this study should ideally be disseminated to developers, planners and policy-

makers to influence future policy and practice. This study provides a solid foundation to further explore the impact of the built environment on physical activity and how it can help prevent burden of disease.

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The true cost of unwalkable streets

Atlantic Cities Place Matters: Why don't Americans walk more? Because, as Dr. Howard Frumkin, another of our leading experts on environmental health, puts it in a fantastic presentation, "we have engineered walking and bicycling out of our communities" with community design oriented almost exclusively to driving ...

Improving the cost–benefit analysis of integrated public transport

A research project has developed a framework for estimating the cost–benefit analysis of integrating public transport with walking and cycling.

The project examined the available national and international evidence on interventions that could improve the integration between public transport and walking and cycling, in order to provide decision makers with a tool for appraising the value of potential interventions, using cost-benefit analysis.

Improving the cost–benefit analysis of integrated public transport, walking and cycling, NZ Transport Agency research report 537

Available online at www.nzta.govt.nz/resources/research/reports/537

Prioritising Walking and cycling infrastructure: how to factor in costs.

A Canberra Pedestrian Forum Discussion Paper shows that Canberra can get up to 80% more value-for-money, by changing the way it ranks prospective walking and cycling projects.

Cost Effectiveness Ranking of ACT Walking & Cycling Infrastructure Projects

Living Streets' revised analysis of data for 201 ACT walking and cycling infrastructure projects identifies the Top 45 projects.

Community Path Priority list and Policy for Footpath Maintenance

The Community Path Priority List contains information about how active travel facilities are requested, assessed and delivered in the ACT, including the current program of capital upgrade works and a prioritised listing of requested improvements.

Requests to repair community paths are received from the public through Canberra Connect on 13 22 81 or via the ACT Government's online 'Fix My Street' service. Requests are forwarded to Roads ACT who endeavour to inspect the path within three working days of receiving the request. Once the path has been assessed it is entered into Roads ACT's asset management database system for repair and or replacement.

More information: http://www.tams.act.gov.au/roads-transport/cycling