

Background

Inadequate and delayed delivery of transport options is a major challenge in new and developing greenfield suburbs. It is also the focus of a partnership research project being conducted at RMIT University that aims to identify new ways to increase local transport options and improved mobility for residents in new suburbs. The research also aims to develop and test new early delivery transport models based on the most efficient and equitable use of public and private funding.

Precinct Structure Planning (PSP) is the master planning framework for the development of new greenfield suburbs in Victoria which includes transport as an important factor. Initial review of this framework investigated the role of transport for Melbourne's growth areas. This included how current Precinct Structure Planning addressed important urban form elements that support walking, cycling and the use of public transport. Findings from this research are also relevant to the current review of PSP Guidelines in Victoria.

Policy Recommendations

- Projected average densities in the PSP Guidelines should be increased because research has found that higher densities are
 needed to support walking and cycling and a viable public transport network. The development of high quality public transport
 networks and activity centres would also support higher densities in growth areas.
- PSP Guidelines could comment on the importance of direct public transport routes which are a crucial element in planning high quality public transport networks.
- Public transport route planning should begin earlier in the planning process and be incorporated in the PSP process.
- Walking and cycling is encouraged by the objective that 80-90% of households should be "within 1km of a town centre of sufficient size to allow for provision of a supermarket". However, we recommend smaller distances of within 800 metres which is associated with increased likelihood of walking to supermarkets.
- Earlier completion of town centres is needed to provide local destinations for the first residents of an area. Destinations are central to the walkability of an area and innovative solutions should be considered to overcome concerns about viability.
- Supporting active transport requires more than the provision of walking and cycling infrastructure such as footpaths and bike
 lanes. For example, residents need something to walk or ride to (destinations), supported by safe pedestrian access and bike
 parking facilities.
- Further clarification is required on the notion of "safe movement" of pedestrians and cyclists in PSP Guidelines to clarify how actual or perceived safety related to walking and cycling is planned for.

Key Findings

A number of urban design features have a positive influence on walking, cycling and the use of public transport. These include: local destinations; mixed land uses; dwelling density; and street connectivity. All of these factors should be considered when planning for urban development that supports and encourages multiple transport options.

Research has found that providing relevant infrastructure such as footpaths and cycling paths has a positive influence on walking and cycling for transport. Perceived and actual safety, traffic calming, the design of road intersections, green and open spaces, and a pleasant local environment also have positive influences on walking and cycling.

Integrating public transport, walking and cycling is associated with increased likelihood of cycling and walking for transport. People are also more likely to walk when they live close to public transport stops with easy transfers – key requirements for a high quality public transport network. High quality transport networks provide well connected and frequent services using direct routes.

Many of these urban design elements are addressed in the Relevant Standards, Design Responses and Planning Permit Considerations within the PSP Guidelines. The current review suggests that clearer definitions or stronger specifications would further support the availability of multiple transport options in the development of new suburbs.

State government decision making processes for financing and planning transport and other key infrastructure are often beyond control of the PSP process but necessary to support transport options and the early delivery of key infrastructure. Future research will examine opportunities to link built form of new suburbs to transport network planning and financing; and to better understand the transport expectations and experiences of residents in growth suburbs with new results shared as they become available.

Methods

This research has been based on:

- a literature review on the influence of urban form on walking, cycling and the use of public transport and public transport network planning principles; and
- a document analysis of the PSP Guidelines in their current form.

Key limitations

- Basis for this policy brief was a a document analysis of the PSP Guidelines. Actual outcomes on the ground in the growth areas have not been analysed so far.
- The PSP Guidelines are currently under review. Some of the weaknesses that have been identified, may already be considered in this review.



Arundel, J.; Lowe, M.; Hooper, P.; Roberts, R.; Rozek, J.; et al. (2017) Creating liveable cities in Australia. Mapping urban policy implementation and evidence-based national liveability indicators. Centre for Urban Research. Melbourne.

Badland, H.; Mavoa, S.; Boulangé, S.; Eagleson, S.; Gunn, L.; Stewart, J.; David, S.; Giles-Corti, B. (2017a) Identifying, creating, and testing urban planning measures for transport walking: Findings from the Australian national liveability study Journal of Transport & Health 5 (2017) 151–162.

Badland, H.M.; Rachele, J.N.; Roberts, R.; Giles-Corti, B. (2017b) Creating and applying public transport indicators to test pathways of behaviours and health through an urban transport framework. Journal of Transport & Health 4 (2017) 208–215.

Boulange, C.; Gunn, L.; Giles-Corti, B.; Mavoa, S.; Pettit, C.; Badland, H. (2017): "Examining associations between urban design attributes and

transport mode choice for walking, cycling, public transport and private motor vehicle trips". Journal of Transport & Health 6: 155–166.

Gunn, L. D.; King, T. L.; Mavoa, S.; Lamb, K. E.; Giles-Corti, B.; Kavanagh, A. (2017a) Identifying destination distances that support walking trips in local neighborhoods. Journal of Transport & Health, 5, 133-141.

Gunn, L.; Mavoa, S.; Boulange, C.; Hooper, P.; Kavanagh, A.; Giles-Corti, B. (2017b) Designing healthy communities: Creating evidence on metrics for built environment features associated with walkable neighbourhood activity centres. International Journal of Behavioral Nutrition and Physical Activity, vol. 14, no. 1, 164-12.

Kroen, A.; Taylor, E.; Goodman, R. (2018), Precinct Structure Planning in Melbourne's Growth Areas: Initial Thoughts on Processes and Trade-offs – RMIT Briefing Paper