

Car Parking Provision for Residential Apartments

Practice Brief

This RMIT practice brief, informed by a collaboration between RMIT planning researchers, the Planning Institute of Australia (Victoria) and planning practitioners, draws on research evidence to inform decision-making on car parking provision in residential apartments.

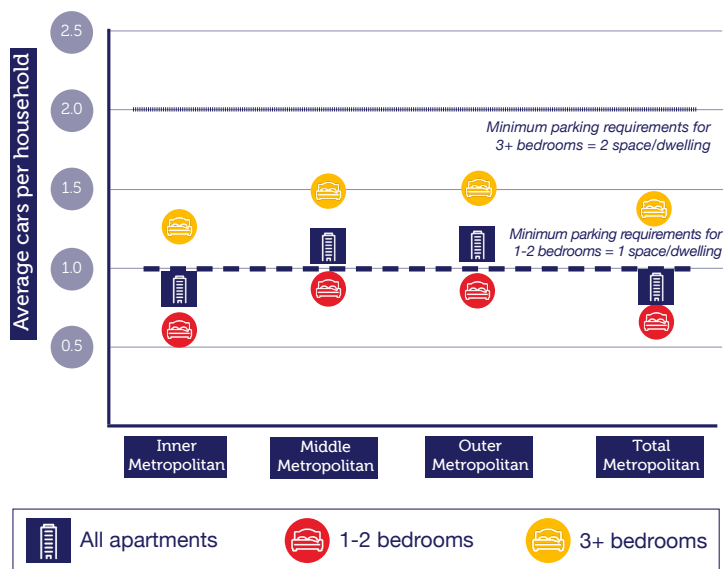
Victorian standards for provision of car parking spaces in apartment buildings have led to supply of car parking spaces that exceeds resident need. This impacts on residents' transport choices, local road congestion, apartment development costs and housing affordability. Research evidence signals the factors that influence resident demand for car parking spaces and this can better inform decision-making on optimal car parking provision that minimises impact on the local community.

Overview

Apartment development is central to policy aspirations to increase urban density, representing around 40% of new residential building approvals in Melbourne over the past 5 years.¹ In areas experiencing increased development of higher-density housing, car parking provision is a common cause of local disputes and appeals against planning proposals, often related to concerns about the impact on on-street parking spaces and disturbance to local residents.² To address these concerns, the Victoria Planning Provisions (VPP) set minimum requirements for provision of car parks within residential apartment buildings of one parking space for every one or two bedroom apartment, and two spaces for each apartment with three or more bedrooms. In addition, one visitor space is required for every five apartments.

The general application of VPP standards without consideration of localised car ownership and transport

Figure 1: Average car ownership by apartment size and region in metropolitan Melbourne (Rose et al., 2017)



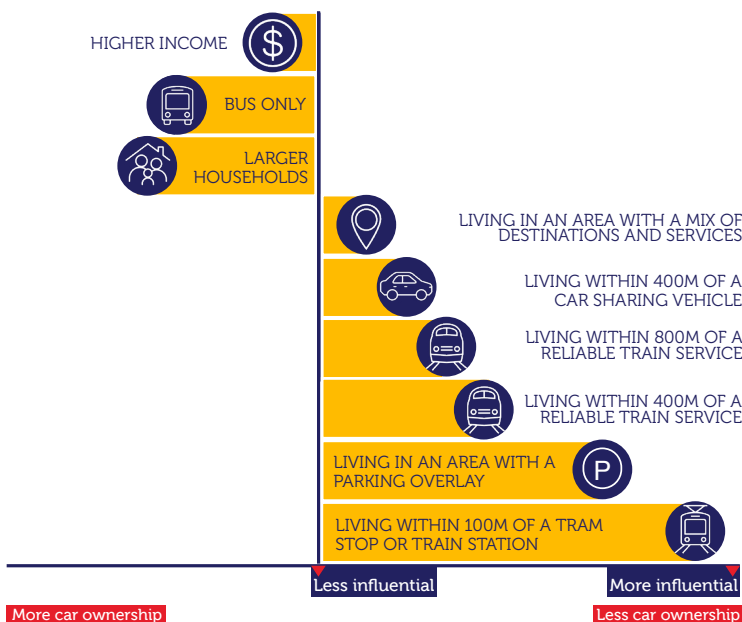
demand has resulted in an over-supply of on-site car parking in residential apartments (see Figure 1).³ Over-provision of car parking spaces makes inefficient use of residential apartment space and unnecessarily adds to development costs, which impacts upon apartment affordability. It also misses the opportunity to reduce car dependency in areas where there are good transport alternatives. Some Councils have imposed maximum car parking requirements where demonstrated demand is lower and appropriate transport alternatives exist. For example, the City of Melbourne applies a Parking Overlay in residential areas to better align car parking provision with anticipated demand, as more commonly occurs in key retail precincts in other local government areas, though this approach has not extended to many other municipalities.⁴

Exemptions from the VPP minimum requirements can be sought for high density developments in locations that are well serviced by transport alternatives. To assist decision-making for the optimal provision of car parking spaces in site-specific developments this practice brief reflects research that indicates three key determinants of demand for car parking in new residential apartments: proximity to reliable public transport, apartment resident car ownership, and future provision of local destinations and transport services. These three factors inter-relate in their influence on car ownership at the local level, and need to be considered collectively when determining appropriate car parking provision.

Proximity to Reliable Public Transport

Where residents live in close proximity to quality transport alternatives – particularly frequent, high volume public transport – car ownership is likely to be much lower than anticipated in VPP car parking requirements. The VPP allows limited reductions in standard parking requirements in areas within 400m of Melbourne’s Principal Public Transport Network, though for residential uses this is only applied to visitor parking requirements. For apartments in areas close to reliable, quality public transport, research indicates that lower car ownership is evident at distances beyond 400m and up to 800m.⁵

Figure 2: Factors influencing car ownership in Melbourne’s residential apartments⁶



Apartment Resident Car Ownership

While the guidelines for car park planning focus on local surveys of current use and demand⁷, research suggests that the actual level of car ownership, and hence demand, within new apartments is a better indication of demand for off-site parking around these developments. This data can be gathered from ABS census results, and suggests much lower rates of car ownership than in lower density residential developments and less demand for parking spaces than the planning standards require (see Figure 1).

Future Provision of Local Destinations and Transport Services

Changing patterns of land use and new residential development processes can significantly influence future levels of demand for various transport options, especially with the implementation of the “20-minute neighbourhood” concept which aims that the majority of residents’ daily needs be serviceable within 20 minute walk, cycling or public transport journey from home.⁸ Such changes may include plans for future high quality public transport provision,

¹Australian Bureau of Statistics, Building Approvals, August 2019. Canberra, Australia.

² Taylor, E. J. (2020). Parking policy: The politics and uneven use of residential parking space in Melbourne. *Land Use Policy*, 91

³ Rose, D., De Gruyter, C., Pollard, G. & Richter, K. (2017). Car ownership versus parking supply in residential apartments: A case study of Melbourne Australia. *World Symposium on Transport and Land Use Research (WSTLUR)*, Brisbane, 2017; Taylor, E. J. (2020). Parking policy: The politics and uneven use of residential parking space in Melbourne. *Land Use Policy*, 91

⁴ Moreland City Council has similarly advocated for this approach - see Planning Panels Victoria (2020), Moreland Planning Scheme Amendment C183 Moreland Integrated Transport Strategy, Panel Report, 1 April 2020

⁵ De Gruyter, C., Truong, L. T., & Taylor, E. J. (2020). Can high quality public transport support

or the development of new “destinations” for local work and community facilities that residents can readily access without reliance on car travel.

Application to Planning Practice

The three major determinants of apartment car parking demand outlined above can be used to assess location-specific, longer-term demand for car parking provision in higher density developments. To assist decision-making, Figure 2 indicates the degree to which proximity to public transport services and household factors can influence car ownership. This seeks to both better inform decision-making on the basis of current research evidence, and to provide a means of communicating the basis for decisions on car parking provision to the community. A decision checklist is provided that indicates relevant evidence sources to inform assessment of local car parking demand.

Apartment Car Park Provision Data Checklist

- ✔
 Understanding route distance to transport options
Data Source: Vicmap
- ✔
 Understanding quality and frequency of public transport
Data Source: PTV Timetables
- ✔
 Understanding parking demand in apartments
Data Source: ABS Census
- ✔
 Assessing walkability and access to other facilities and jobs
Data Source: Australian Urban Observatory, ABS Census
- ✔
 Surveys of car parking use and capacity in local apartment developments

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⁶Informed by De Gruyter, C., Truong, L. T., & Taylor, E. J. (2020). Can high quality public transport support reduced car parking requirements for new residential apartments?. *Journal of Transport Geography*, 82, 102627

⁷ DPCD (2013) Planning Practice Note 57: Car Parking Overlay, Department of Planning and Community Development State of Victoria, Melbourne

⁸ Lowe, M., Arundel, J., Hooper, P., Rozek, J., Higgs, C., Roberts, R., & Giles-Corti, B. (2020). Liveability aspirations and realities: Implementation of urban policies designed to create healthy cities in Australia. *Social Science & Medicine*, 245, 112713