

28th September 2026

Productivity Commission
Canberra ACT

Dear Commissioners,

We welcome the opportunity to provide a submission to the Productivity Commission in response to the *Housing Supply Regulation Interim Report*. This letter outlines our recommendations and highlights key evidence that we request the Commission consider in preparing its final report.

As urban planning and public health researchers, we are supportive of increasing residential densities in Australia, contingent on density being located within close proximity of shops, services and safe and inclusive active and public transport infrastructure, and paired with urban greening initiatives that increase tree canopy and access to high-quality public parks [1].

We also support the recommendation to reduce or remove minimum off-street car parking requirements for new housing. Our research related to this, cited in the Interim Report on page 47, found ~20% of apartment households had an oversupply of parking [2]. Other research undertaken at RMIT University also supports reducing or removing minimum off-street car parking requirements for new housing [3, 4].

However, the interim report recommends **the removal of restrictions on minimum dwelling and balcony sizes and storage requirements for apartments**, noting that these standards force some residents to pay for attributes they do not value and that governments **should only regulate housing design attributes that are integral to basic habitability and health**.

We submit that minimum space standards and storage provisions are essential to the habitability of apartments and health of apartment residents. Our evidence shows that space and storage requirements are positively associated with residents' mental wellbeing, housing satisfaction, and residential stability.

These findings are from The High Life Study which examined associations between the implementation of design requirements and residents' health and wellbeing (n~1300 participants) in residential apartment buildings (n=172) built between 2006 and 2016 in Melbourne, Sydney and Perth [5]. Key findings are outlined below:

- **Residents living in undersized apartments reported poorer mental wellbeing than those in apartments that met or exceeded the minimum size standards.** Analyses used government strata plan information to assess whether apartments met the size requirements for their apartment type, based on standards from the NSW Apartment Design Guidelines and WA R-Codes Volume 2. Results were independent of socio-



economic status, number of people in the household, and having a long-term mental health condition. The effect size was greater when the sample was limited to residents in one-bedroom apartments (−2.50 points, $p < 0.001$) suggesting size standards may have an important protective role for the wellbeing of residents in smaller apartment types, where space is more constrained [6].

- **Residents in ‘high policy performance buildings’ had significantly higher positive mental wellbeing than those in low policy performance buildings.** We measured the implementation of 96 design requirements from the NSW, WA and VIC policies that could plausibly impact health, and used cluster analysis to identify two distinct ‘types’ of buildings based on their implementation of minimum requirements: ‘high policy performance buildings’ and ‘low policy performance buildings’. In high performing buildings, more apartments met the minimum requirements relating to the size of indoor space, balconies and bedrooms, and provision of external storage. The findings suggested that more holistic implementation of the policy requirements could help promote wellbeing [7]. Findings summarised in a report and infographic [8].
- **Higher quality apartments were associated with residential stability, which could have numerous social, health and economic benefits.** We examined whether apartment design attributes contributed to residential stability using a prospective cohort study design. Residents completed a survey on apartment design (2017-2019) and a follow-up survey (2024) about whether they still lived in their apartment. Objective measures of apartment quality including apartment size and external storage, and baseline perceptions of natural ventilation, thermal comfort, adequate parking and communal area quality, were positively associated with remaining in place (all $p < 0.05$). While residents were more likely to stay in higher quality apartments, this was largely explained by the capacity of mid-age adults and homeowners to self-select into better quality apartments. The study provides longitudinal evidence linking apartment design attributes to residential stability but also raises questions about whether many contemporary apartments in Australia are designed to be suitable longer-term homes [9].
- **Perceptions of space and layout were significantly associated positive mental wellbeing [10] and housing satisfaction [11] and were protective against declines in housing satisfaction after the COVID-19 national lockdown [12].** Further, in apartments that met more of the minimum requirements relating to space (including indoor size requirements, bedroom and living room sizes and dimensions, ceiling heights and external storage, among others), residents also perceived their apartment had better space and layout. In our study, **apartment size and spaciousness ranked second only to affordability when residents chose their apartment [11].**

As the state-level apartment design policies are performance-based, it is already possible for apartments to fall short of the prescribed standards, provided they achieve the overarching policy objectives via design innovation. Such provisions ensure that, where undersized apartments have been approved, there is some consideration of how its design can offset the limitations of living in a smaller dwelling.

We acknowledge that undersized apartments may have a role in shorter term transitional housing, however in terms of built-to-sell apartments, which were the focus of our study, **we found consistently better population-level outcomes for residents in apartments that met the minimum size requirements.** Our evidence suggests there are likely to be indirect economic

costs that stem from undersized apartments, including health-related costs and lost productivity, with impacts for the Australian economy. **We strongly recommend that the minimum space and storage standards for new apartments be preserved.**

Yours sincerely,

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<https://www.rmit.edu.au/research/centres-collaborations/centre-for-urban-research/current-projects/the-high-life>

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References

1. Foster, S., et al., *Designing for Density - Delivering healthy, higher-density neighbourhoods in Australia*, in *Evidence review 2025*, National Heart Foundation of Australia: Australia.
2. De Gruyter, C., P. Hooper, and S. Foster, *Do apartment residents have enough car parking? An empirical assessment of car parking adequacy in Australian cities*. *Journal of Transport Geography*, 2023. **107**: p. 103542.
3. De Gruyter, C., L. Davies, and L.T. Truong, *Examining spatial variations in minimum residential parking requirements in Melbourne*. *Journal of transport geography*, 2021. **94**: p. 103096.
4. De Gruyter, C., et al., *Determinants of zero-car and car-owning apartment households*. *Transportation (Dordrecht)*, 2025. **52**(4): p. 1593-1620.
5. Foster, S., et al., *High Life Study protocol: a cross-sectional investigation of the influence of apartment building design policy on resident health and well-being*. *BMJ Open*, 2019. **9**(8): p. e029220.
6. Foster S, et al., *When size matters: Associations between minimum apartment size standards and residents' mental wellbeing*. *Journal of Environmental Psychology*, accepted 23 September 2026.
7. Hooper, P., et al., *The architecture of mental health: identifying the combination of apartment building design requirements for positive mental health outcomes*. *The Lancet Regional Health – Western Pacific*, 2023. **37**.
8. Foster, S., P. Hooper, and A. Kleeman, *Designing the High Life: The impact of apartment design policy on residents' experience of apartment living and wellbeing*. 2023, RMIT University, Centre for Urban Research & The University of Western Australia, Australian Urban Design Research Centre: Melbourne.
9. Foster, S., A. Kleeman, and M. Lowe, *Designed for life: A prospective cohort study examining the relationship between apartment design and residential stability*. *Cities*, 2026. **170**: p. 106649.
10. Foster, S., et al., *Grand designs for design policy: Associations between apartment policy standards, perceptions of good design and mental wellbeing*. *SSM - Population Health*, 2022. **20**: p. 101301.
11. Kleeman, A., et al., *A new Australian dream? Exploring associations between apartment design attributes and housing satisfaction in three Australian cities*. *Cities*, 2022. **131**: p. 104043.
12. Kleeman, A. and S. Foster, *'It feels smaller now': The impact of the COVID-19 lockdown on apartment residents and their living environment – A longitudinal study*. *Journal of Environmental Psychology*, 2023. **89**.