

**Urban Design For
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The design of apartments has a significant impact on the quality of life of more than 250,000 Victorians. It is time to refocus our efforts to reflect the function of apartments as homes for people, and not investment vehicles.

We live, work and play on the traditional lands of the Wurundjeri people of the Kulin nation. We acknowledge that sovereignty was never ceded and pay our respects to elders past, present and emerging and extend this respect to all Indigenous Australians.



Attn:
Legislative Assembly
Environment and
Planning Committee

Re:
Inquiry into Apartment
Design Standards

Dated:
LATE SUBMISSION
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From:
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Australia
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Urban Design Forum Australia welcomes the opportunity to make a submission to this important initiative, and commend the Committee for bringing this matter to attention outside of the normal operation of the planning framework. This is a significant matter of interest for all Victorians and an opportunity to refocus our efforts on livable compact homes, that underwrite the quality of life and attractiveness of a Victoria as a place to live.

Urban Design Forum Australia is an independent non-profit industry organisation that supports public interest outcomes in cities. We believe that well-designed and effectively governed cities are essential to solving the major challenges of our time. Our members come from private consultancy, state and local government as well as the development industry. Our members are urban designers, architects, landscape architects and planners with immense experience in the regulation, design and development of mixed use and multiple residential development, including market, affordable and social housing.

Setting the scene

The imperative to deliver well-designed apartments is not just about addressing housing challenges, but has more wide reaching societal impacts. An increasing number of people are living in apartments in Victoria, with dramatic growth expected in the 2021 census above the 250,000 figure recorded in 2016. This includes an increasingly diverse mix of people, particularly notable is the growth of families with children. At the last census, one in five households living in apartments in Australia were families with children, irrespective of whether they were designed or marketed with this intention. Apartments are no longer concentrated to the traditionally dense centre of Melbourne, and can be found in locations as diverse as Noble Park, Boronia, Point Cook, Caroline Springs, Bundoora, Geelong and even Bendigo and Ballarat.

If we are to successfully transition our energy and mobility systems, protect our valuable agricultural land and environmentally significant landscapes then a more compact city is non-negotiable. Apartment living is a significant component of achieving a compact city that balances increased density, with increased livability through access to shared public amenity and urban infrastructure. Yet we find ourselves at a turning point in the wake of Covid-19 enforced lockdowns where the poor experience of many apartment dwellers has contributed a minor exodus to the suburbs and regions. Too many Victorians have a story about sub-standard apartments such as defects from poor building practice, cramped living quarters for families, or a lack of outdoor amenity or access to green open space.

Since the 2016 adoption of the Better Apartment Design Standards Victoria has been able to weed out some of the worst practices of apartment design, from borrowed light bedrooms to living rooms too small to fit furniture or comfortably open a door. However we still have a long way to go to shift the dial from bare minimums to a uniformly good quality of apartment living that provides an attractive option for a broad cross section of Australians.

Victoria has a recent history of whittling away globally ambitious standards, in response to short-term development industry pressure. The question is: Do we want to continue to lag behind our interstate and international neighbours or do we want to be global leaders in setting the standards for compact apartment living? And importantly, how can we bring both the industry and the public along on this journey?

Summary of recommendations

Rather than focus on the full gamut of possible changes to Victoria's apartment standards, this submission is focused on what Urban Design Forum Australia suggests are the most critical deficiencies warranting urgent address. Our key recommendations can be summarised as follows:

- There is a need to improve the regulatory standards in apartment quality in Victoria with specific emphasis on:
 - Introduction of density controls in areas undergoing transformation to support the effective operation of apartment standards
 - Introduction of robust spatial separation requirements to inform building siting and design
 - Elevation of standards for passive design to improve environmental quality including cross ventilation, daylight and sunlight to support wellbeing, and occupant thermal comfort
 - Improved function of open space standards
 - Introduction of standards which regulate the scale of building communities to support social sustainability
- There is a need to more actively support those who are already leading the way in the ethical development sector, to facilitate prototypes that catalyse industry uptake.
- Commit to an ongoing program of improving apartment standards through supporting non regulatory means, including the use of demonstration projects, partnerships with industry, along with post-occupancy evaluation in partnerships with Universities.

Demystifying the relationship between design standards and development viability

Planning and design standards are most effective when they create a fair playing field in the competition for land and development opportunity. Discretionary guidelines and policies are less effective where they create a 'margin for speculation' between compliance and the potential for increased profit. This can promote what is described as a 'cowboy culture' whereby developers pay a high value for land on a calculated risk that a more aggressive development might be approved. This disincentivises innovation and promotes a high-risk, high-reward culture, and has in Victoria fostered distrust of both developers and planners within the broader community.

This process creates significant economic wastage for developers, for local government and the community, and results in volatility in land values. It would not be unusual for a small scale developer to spend between \$300-500,000 on an appeal at the Victorian Civil and Administrative Tribunal (VCAT), yet the achievement of one additional storey in height may easily cover this cost. Conversely, the City of Yarra (as just one example) spent 1.4m of public money on VCAT appeals in the financial year 2019-2020. This system is not generating outcomes in the public interest, or a fair distribution of public resources.

Clear planning standards for apartments assist in providing certainty in development feasibility at the point of land acquisition. When new controls ratchet up design expectations, reduce yield or necessitate additional construction costs, these have a downward influence on what a developer is willing to pay for land. The impact of new regulation only impacts developers who have already acquired land based on a certain development feasibility expectation. The key challenge in any planning reform is to balance the impact during this transitional phase, without allowing these short-term impacts to derail what is a necessary, long-term reform. Within one transaction following the implementation of new regulation, the land value should adjust to reflect the altered development feasibility, ensuring a healthy profit for the intending developer.

It is a popular misconception that additional regulation in the medium to long-term affects the price paid by purchasers. It is critical that this dynamic relationship between progressive regulation and development feasibility is understood when evaluating public benefits against development industry impact. Urban Design Forum Australia would be happy to articulate this in more detail with the Committee if required, through the use of case studies.

Exemplar apartment standards around the world

The introduction of Victoria's Better Apartment Design Standards in 2016 set a desperately needed minimum bar for design quality in Victoria, at the time tackling significant design issues such as lack of windows to bedrooms and unsafe and unusable kitchens and bathrooms. This lifted Victoria from the 19th to the 20th century, but a number of key aspects were removed between the draft and final version in response to effective development industry lobbying. In 2021 we are facing the impacts of social isolation, climate change and a loss of biodiversity. This means we need to ensure that apartment developments perform well to adequately meet these challenges.

Apartment standards evolved in tandem with the first modern planning regulations, in response to the slum housing conditions of the industrial revolution. Minimum distances between buildings, natural light and ventilation requirements were key tools of the sanitation movement, establishing the minimum standards on which our cities were built. A quantum leap in standards occurred in the post-war era with post-occupancy evaluation and the Parker-Morris Committee (1961) report in the UK. This evaluation of completed housing projects compared the design intention of apartments with resident use and feedback. This study set the foundations for an 'occupant-centric' approach to standards in the UK, ensuring that homes responded to user needs, rather than simply minimum standards. How much space does a family need? How do people use balconies, how much storage or bench space is needed for a functional kitchen? The best guidelines continue this tradition of starting with the household needs, with requirements scaling from the individual home, to the front, door, the common corridor, the lobby and to the street and neighbourhood beyond.

Effective, design standards for Apartments are a staple of any sophisticated planning framework, and have increasingly been adopted across Australian Cities since 2002 with the pioneering NSW Residential Flat Design Code. Subsequently Western Australia and Victoria have implemented similar controls, while the most recent amendments to the Design and Place SEPP again propel NSW forward of any other Australian State. Interestingly, in recent years standards have been adopted both by planning authorities as well as developers and community housing providers to elevate their own standards, both in terms of construction quality but also spatial and environmental standards.

A number of key benchmarks for government regulation include:

- London Housing Design Guide (UK)
- Design WA State Planning Policy 7.3 - Residential Design Codes Volume 2 Apartments (WA)
- NSW Apartment Design Guide (NSW)
- Design and Place SEPP (NSW)

Examples of non-government of regulation intended to elevate standards above minimum regulatory requirements include:

- Peabody Design Guide (UK)
- Assemble Design Guide (AUS)
- Housing Choices Australia Design Guide (AUS)
- Wintringham Housing Design Guide (AUS)

Effective density controls

Density controls are the most commonly adopted and effective instrument used throughout the developed world to determine the maximum quantum of development that can be permitted on a given site. These controls effectively guide both the physical form of development as well as the local area infrastructural capacity to handle population increase, whether through transport planning, community infrastructure needs and open space provision. Density controls used in concert with effective design requirements make it easier to realise a broad range of other apartment design objectives. Limiting the total amount of building on a site gives significant flexibility for a broad range of design options to respond to specific site circumstances. No developer sets out to build a poor project, rather they are pushed to their limits to compete for land, by filling as much of the site as possible. In the absence of effective density controls, planning promotes a kind of arms race which has a direct impact on the quality of apartments.

Density controls empower the design community to use their intelligence and creativity to test and find the best design solutions, while avoiding the worst excesses of high site coverage, limited setbacks, and significant anomalies in building height and density in areas that have not been adequately planned for this outcome. Density controls make it easier to achieve building separation, site permeability, canopy tree planting, and courtyards for communal use, because this 'front line' tool has already dictated the maximum quantum of development, which can be shaped in a number of potential ways to meet these objectives without further penalising the developer. They provide the ultimate 'leveling' tool for development certainty for developer, local government and the community, on which an effective planning system can be established.

Siting and separation

The position of a building on a site, its site coverage, relationship to the street and neighbouring buildings, has a critical impact on the quality of life for occupants as well as on the local context. While requirements relating to the streetscape, height and density should be determined on a 'place basis' through strategic planning work at a local government level, the distance between neighbours should be uniform and state-wide.

The key drivers for building separation are the need to achieve privacy, a future proofed outlook, access to daylight, sunlight and ventilation. These are universal human needs, not locally specific drivers that vary across Melbourne, yet significant time and expense is currently wasted as each local government seeks to introduce their own separation standards through individual local planning scheme amendments, often having to repeat this process multiple times within each municipality. The introduction of building separation guidelines that apply across the state will provide clarity for developers, Councils and the community.

This current deficiency in standards can result in apartments facing blank walls on neighbouring sites at near range, being plunged into darkness by a neighbouring development, or facing one another through a prison-bar veil of privacy screens. Instead of conceiving of outlook as an important consideration, whether to a courtyard or a street, apartment outlook in Victoria can often be into leftover, poorly considered and inadequate dimensioned spaces between the sides of buildings.

Without addressing separation, each of the other performance requirements for apartment design becomes less effective in totality. A functional, well-proportioned living area and balcony is of little value if it is positioned a few metres from a blank wall on a neighbouring property or veiled with an opaque screen that obstructs your visual connection to the outside world.

The challenge at present is that the introduction of building separation requirements are viewed as a specific penalty on development, rather than a means to achieve the composite objectives of deep soil for canopy tree planting, privacy, outlook and communal open space. In NSW these objectives (in concert with effective density controls) work together to achieve a consistent courtyard building typology of notably high amenity, which is not the case in Melbourne.

We recommend that any revised apartment design standards include an effective building separation requirement to determine the minimum distance between windows and balconies both within and on adjoining properties.

Internal Environmental Quality

As we face increasingly hostile climatic conditions as a result of climate change, our apartments will be faced with additional challenges to provide a safe, comfortable environment for occupants. In the warmer months this relies on the provision of cross ventilation to admit cooling breezes, sufficient clearance for effective ceiling fans, and in areas with compromised acoustic or pollutant levels (adjacent to a busy road, rail corridor or factory) low energy active ventilation systems. Cross ventilation is a standard achieved to every single home in Victoria, yet is viewed as a luxury in apartment development.

Current Victorian standards require only 40% of apartments to achieve cross ventilation, and the method of achieving this lacks scientific rigour to determine whether theoretical or actual cross ventilation is achieved. For reference, in NSW this standard is 60%, and increasingly sophisticated modelling is being used to assist designers in realising effective cross ventilation in apartment design. Cross ventilation both has benefits for cooling, but also a significant impact on internal air quality, promoting the removal of stale air, Volatile Organic Compounds (VOC) from surfaces and furniture and reducing the breeding conditions for toxic mold. The impacts of black mold in poorly ventilated housing is emerging as a significant health issue in a number of countries around the world.

The next key standard which is currently absent is the requirement for a minimum proportion of apartments to provide sunlight access to balconies and living areas. Sunlight has a significant benefit for occupant amenity and wellbeing, but also on thermal comfort in the cooler months. Again we highlight that this is a typical expectation in a detached home which is not viewed as a compulsory requirement for apartments, perpetuating the 'subordinate' status of apartments.

Green Space

Green space is crucial to ensuring the livability of dense apartments, providing communal amenity that offsets the limitations of small private balconies. Green space also assists in the cooling of the urban environment, management of stormwater and flooding, and providing a biophilic connection that promotes wellbeing. Standards for green space currently are based on minimum standards for compliance but lack clarity in their purpose or function to support building communities. There is a specific need for greater design guidance for the role of green space in development in particular to support space for families living in apartments. In Berlin for example, developments beyond a threshold scale are mandated to provide play facilities within courtyards to support family living. The Australian research and advocacy organisation [Cities for Play](#) provides valuable guidance around how to provide green space that supports families in apartments and more specifically children's development.

A significant challenge in densifying areas is the availability of larger green open spaces within convenient walking distance to support a growing population. One of the key challenges is the pacing of public investment with private development and method of development contributions occurring at the point of subdivision, when a development is completed. This means the funding (albeit limited) for open space contributions in the local area only becomes available after the residents have moved in, resulting in a significant delay in the provision of this important infrastructure to support apartment living. A case study researched by our members in Brunswick ([Foreground, 2020](#)) revealed a time delay between significant apartment construction and open space investment of over a decade, which is not an uncommon occurrence.

While our apartment standards need to improve the clarity of function of green space in private development to cater to broader user needs including families, perhaps the bigger challenge in Victoria is the availability of state government funding to enable preemptive investment in green public spaces to support dense apartment neighbourhoods. This would include spot purchases of land, street conversion to open space and refurbishment of tired municipal assets. This could readily be achieved through a system of bonds or open space loans, which address the time gap between strategic planning, development completions and open space completions.

Building Community

While the requirements for communal open spaces and rooftops have improved in recent years, there is little sociological evidence to support the success of these spaces in forming strong communities in developments that exceed certain threshold scales. A common roof terrace in a building of 500 residents functions more like a hotel amenity than a space of community formation and does little to promote neighbourly encounter on a daily basis.

The functional scale of community is a well studied foundation for building social sustainability. While humans are herd animals conditioned to a social existence, we have a propensity to switch off in dense or anonymous environments as a coping mechanism described as 'civil inattention'. Smaller building communities, whether at the scale of a communal corridor, shared building entry or communal space have a significant impact on community formation, reduced transience and the establishment of a sense of place.

At present in Victoria it is entirely possible to arrange as many as 30 apartments off a single lift lobby and corridor, creating an environment more akin to a hotel corridor, than a space to foster meaningful social interaction. These corridors can then be stacked in buildings with as many as 500 apartments (in the case of Elizabeth Street North) sharing a single lobby, which takes on the anonymity of an office foyer rather than a domestic front door. If a rate of transience of a 1-2 bedroom rental apartment (11-12 months) in Victoria is taken into account, then the turnover in a building of this scale could be 10 households per week, which is extraordinarily disruptive to community formation and quality of life.

If we are serious about promoting familiar, neighbourly encounter that is the basis of community resilience, then it is critical that apartment numbers are limited at each floor of a building, consistent with standards in NSW and the UK. A common number employed as an preferred maximum is 8 dwellings sharing a lobby at each level of a building, while up to 12 might be tolerated if clever design solutions are used to achieve more generous common spaces for residents within the lobby space. It is crucial that we begin to rethink this experience of scale in communal space as an important contributor to the attractiveness of apartment living.

Diverse housing for a diverse society

Any discussion of housing standards must consider the full spectrum of housing types which are needed, both to address various affordability needs, as well as life stages, and physical ability. This includes designing for the different needs of multiple generations, complex extended families, shared housing and families with children.

Australia has an excellent track record in recent years of innovation to address the deficiencies of the mainstream apartment development sector, which provide important prototypes to inform regulation. However these models of innovation have often faced great difficulty in accessing land for development in a planning context which promotes a 'cowboy culture' of volatile property values, land speculation and a risk taking culture. Further these models have had difficulty in achieving support from planning authorities due to their unfamiliarity.

Some examples of housing models warranting particular attention include the Community Housing Sector along with examples of market-innovation such as Nightingale, Assemble Communities, Property Collectives, Y-Se Housing. These groups are more likely to actively foster community, push environmental standards and greatly exceed minimum regulatory standards.

We would encourage the creation of a framework for actively promoting and supporting these examples of innovation, so long as they are able to meet and exceed threshold standards of design and environmental quality that meet public policy objectives. Through facilitating these models with procedural or minor density incentives, this can signal to the broader industry the expectations of government while enabling the uptake of innovative housing models without any significant cost. More specifically, government could actively partner with these innovators to pilot mooted regulatory measures to ‘sandbox’ and understand broader implications within a controlled environment.

So how do we get there?

Regulation is vitally important to set minimum thresholds that ensure positive change across the design and development industry. Our submission has outlined the priority design issues that should be urgently addressed through improved design regulation in Victoria.

In addition, it is also critical that we use a broader suite of tools to both encourage the uptake by industry and support consumer education. There are many brilliant individual examples we can learn from across Australia to achieve these outcomes. Of particular interest are:

- Innovative partnerships with private developers to enable prototypes in apartment living, drawing upon the success of innovation in the project home space such as the Mirvac No Bills House, Harmony 9 project and Sociable Weaver’s 10 star home. How could active facilitation, funding for research partnerships, or allocation of public land support industry prototyping?
- Demonstration projects, through active government facilitation, and incentives such as spot rezonings or density bonuses to pilot innovation in a controlled environment. The ACT Demonstration Housing Project is a fantastic example of this, that results in limited capital cost to government, while supporting housing innovation.
- Purchaser advocacy around apartment quality, to influence consumer decisions and maturity, elevating expectations and dissuading investment in low quality building stock.
- Longitudinal support for post-occupancy evaluation and monitoring in partnership with Universities (such as Project Home) to learn and continuously improve from occupant experience and building performance.

A final broader challenge with the industry beyond design standards is the performance of the construction industry in residential development, aided by poor regulatory enforcement and oversight. The 'flammable cladding' phenomena is just the tip of the iceberg of a broader issue of material substitution, reduction in quality and significant defects in apartment buildings.

A survey of completed buildings led by Nicole Johnston of Deakin University Business School revealed that in New South Wales 97 per cent of the buildings had at least one defect in multiple locations, followed by Victoria with 74 per cent and Queensland with 71 per cent. Once we get the design standards to an appropriate level, we need to reform the governance of the building industry, including administration of sub-contractors, and ensure a greater requirement for detailed inspections of building fabric and thermal performance during the construction phase.

As with any area of public policy, regulation is of little value without an effective administrative and enforcement apparatus.

We welcome any opportunity to share our submission and considerable local, interstate and international experience with the Committee, including the provision of further source material which has informed this statement.

Kind regards,

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