



Spatial Planning under the Livable Housing Design Standard



INTRODUCTION

The Livable Housing Design Standard (LHDS) provides a set of technical provisions intended to ensure residential dwellings are better able to meet the needs of the community, including older people and people with mobility limitations.ⁱ

Although it originated as a voluntary guidelineⁱⁱ, in 2022 LHDS was incorporated as a Standard into the National Construction Code (NCC). As such, architects must approach livable housing design not as an optional consideration, but as a mandatory design requirement in specific residential projects where the applicable jurisdiction has adopted this Standard.

As it stands, however, a lot of architects run into friction when attempting to do so. They find themselves, for example, with bathroom layouts that almost comply but fail in terms of circulation or clearances; with the need to undertake late-stage redesigns to meet LHDS requirements; or with difficulty integrating compliance without compromising design intent or apartment efficiency.

This whitepaper is intended to address the gap between what the code requires and how to actually deliver it in built form. Explaining how resolving compliance issues early in the design process can help avoid redesigns, it outlines how fixture choices impact compliance and identifies practical pathways to residential buildings that are livable and meet the evolving needs of all members of the community.



WHAT IS LIVABLE HOUSING DESIGN?

‘Livable Housing Design’ refers to a set of design principles and technical requirements intended to make housing easier to access, navigate and adapt over time, particularly for people with mobility limitations, ageing residents, young families, and people with temporary injuries.

From its origins in 2009 as part of the National Dialogue on Universal Housing Designⁱⁱⁱ, the notion

was formalised and published by Livable Housing Australia as the ‘Livable Housing Design Guidelines’.

A voluntary guide developed to provide best-practice design guidance to make homes easier to live in over time, these guidelines included a rating system of Silver, Gold, and Platinum performance levels.

THE EMERGENCE OF THE LHDS

Following public consultation between 2020 and 2021, building ministers across Australia intended to incorporate minimum accessibility provisions into the NCC 2022, making Livable Housing Design mandatory rather than voluntary for new residential construction. As referenced in the Deemed-to-Satisfy Provisions of Part G7 of NCC Volume 1 and Part H8 of NCC Volume 2, the LHDS is now an Australian Building Codes Board (ABCB) Standard.^{iv}

The key differences between the Guidelines and the Standards can be summarised under legal status, issuing body, purpose, and scope. The Guidelines are essentially a voluntary benchmark or supplement, while the standards are intentionally limited to basic, nationally consistent, mandatory features.

WHERE DOES LHDS APPLY?

Subject to the NCC as adopted and varied in the relevant jurisdiction, the LHDS applies to new Class 1a buildings (houses, townhouses, terraces, and villas) and to the internal areas of Class 2 sole-occupancy units (apartments). In Class 2 buildings, the LHDS requirements apply inside individual apartments, but not to common areas.

Within dwellings of these types, LHDS provisions cover the following six parts.^v

Part 1: Dwelling Access – The LHDS requires a continuous step-free access path from the allotment boundary or a parking space to at least one step-free entrance into the dwelling.

Part 2: Dwelling Entrance – The LHDS requires minimum doorway clearances and circulation space at the entrance to the dwelling, as a means of supporting accessibility and future adaptability. In the case of Class 2 apartments, the LHDS applies to the sole-occupancy unit internally, with common areas addressed separately under the NCC.

Part 3: Internal Doors and Corridors – According to the LHDS, internal doors located on the path of travel to key spaces (including habitable rooms, bathrooms, laundries and garages) must feature a minimum clear opening width, corridors must meet minimum widths to allow comfortable and unimpeded movement, and thresholds must be level or treated to minimise changes in level. These requirements are intended to accommodate people using mobility aids such as walkers or wheelchairs.

Part 4: Sanitary Compartment – The LHDS requires at least one accessible sanitary compartment, with sufficient circulation space to permit easy movement to and use of a toilet, to be included on the entry or ground level of a dwelling.

Part 5: Shower – The LHDS states that showers must be step-free (hobless) and designed to allow safe entry and exit, with suitable floor grading to facilitate drainage.

Part 6: Reinforcement of bathroom and sanitary compartment walls – The LHDS requires walls around toilets, showers, and baths (where provided) to be structurally reinforced, and able to support the future installation of grabrails without the need for renovation.

Importantly, the implementation of these Standards varies by jurisdiction. While the ABCB Standard for Livable Housing Design is an integral part of NCC 2022 and is referenced by the NCC's livable housing

provisions, individual jurisdictions may adopt the NCC subject to their own variations, additions, deletions or transitional arrangements. Therefore, the applicable requirements for a project must be confirmed against the relevant legislation and NCC provisions in the State or Territory where the project is located.

Exemptions and transitional measures

Exemptions, variations and transitional arrangements are not necessarily the same across Australia. Each State and Territory has its own legislative framework for adopting and applying the NCC, and has jurisdiction-specific provisions. When Queensland's livable housing requirements commenced on 1 October 2023, the following practical transitional measures were included:

- An exemption where it is not practical or reasonable to apply the new standards to toilet and bathroom renovations.
- An exemption for general repairs and maintenance.
- Greater flexibility in meeting the step-down shower and grading to floor waste performance requirements.
- An exemption from installing an accessible toilet on entry level if that level does not have a habitable room. In such cases, an accessible toilet would instead need to be installed on the first level with a habitable room.
- Exemptions from the step-free access path requirements in specified circumstances, including certain steep sites and high-set or Queenslander-style homes.

It is important to note that exemptions and transitional arrangements are not necessarily permanent and may be amended or extended over time. For example, some of these Queensland-specific exemptions that were initially due to expire have been extended. It is important to confirm that the NCC, applicable State or Territory legislation, and any relevant exemptions or transitional provisions are current at the time of design and assessment.



LHDS CHALLENGES AND HOW TO ADDRESS THEM

Independent of LHDS requirements, specifiers often encounter challenges when faced with tight apartment layouts and shapes, complex level changes and late design changes that limit space for circulation and bathrooms. Such difficulties are often exacerbated when LHDS requirements are considered late in the design process, and there is a need to redesign floor plans, plumbing layouts, or structural elements to meet dimensional or reinforcement requirements.

To overcome these challenges, it is necessary to consider factors like the flow and function of spaces and how they connect with each other. It is advisable, in other words, for specifiers to think from the inside out and acknowledge the fact that larger footprints aren't necessarily better because if they are not designed well, the result is dead or un-activated space.

Moreover, specifiers should note that knowing what is required early in the design process ensures they can more easily identify compliant circulation routes, bathroom layouts and wall reinforcement zones upfront. In turn, this helps avoid costly later revisions.

Provided the fixtures in question allow the required circulation spaces and do not obstruct clearances, fixture selection can influence spatial efficiency and compliance. For example, a compact wall-hung pan paired with an in-wall cistern can support more efficient bathroom planning, provided all required circulation spaces, clearances and installation requirements are maintained.

Guidance from the ABCB indicates that livable housing outcomes are best achieved when circulation efficiency, bathroom geometry and structural planning are considered together from the outset. Favourable outcomes are more likely where LHDS requirements (when applicable) are costed in from early in the design process and stakeholders are made aware that accessibility requirements are not extensive or difficult to achieve. The requirements form a defined and manageable set of provisions that can support more sustainable design and an improved end-user experience.



ABOUT GEBERIT

An organisation with over 150 years of experience, Geberit is a European leader in the manufacture and supply of high-quality plumbing and sanitary systems. Headquartered in Switzerland, the company employs around 11,000 people and operates in more than 50 countries, including Australia.

Beyond the standard of its products, which are manufactured with quality and reliability at the front of mind, Geberit is committed to innovation and to supporting specifiers in designing for compliance with relevant regulatory requirements.

In line with this, the company has become best known for in-wall cisterns and flush buttons, as well as drainage and piping solutions that allow fixtures to be visually reduced which can support efficient spatial planning and accessible bathroom design. By placing an emphasis on systems that sit behind the wall rather than on visible fittings alone, Geberit supports longevity of design, achieving more adaptable layouts and technically coordinated bathrooms that perform reliably over the life of both buildings and people.

In addition, and as a cornerstone of its operations, the company is always ready to lend its support and expertise to its clients. The Geberit team is dedicated to assisting with the planning, logistics, installation, onsite training, and product maintenance.



REFERENCES

- i ABCB, 'Livable Housing Design Standard', <https://ncc.abcb.gov.au/sites/default/files/resources/2023/Livable-Housing-Design-Standard-2022-1.3.pdf>
- ii ABCB, 'Livable Housing Design Standard', <https://ncc.abcb.gov.au/sites/default/files/resources/2023/Livable-Housing-Design-Standard-2022-1.3.pdf>
- iii Parliament of Australia, 'National Dialogue on Universal Housing Design', 2020.
- iv ABCB, 'Livable Housing Design Standard', <https://ncc.abcb.gov.au/sites/default/files/resources/2023/Livable-Housing-Design-Standard-2022-1.3.pdf>
- v ABCB, 'Livable Housing Design Standard', <https://ncc.abcb.gov.au/sites/default/files/resources/2023/Livable-Housing-Design-Standard-2022-1.3.pdf>

All information provided correct as of September 2026

This whitepaper is provided for general information only and does not constitute building, legal, accessibility or compliance advice. Project teams should refer to the current NCC, LHDS, applicable State or Territory legislation and seek professional advice where necessary. Compliance remains the responsibility of the relevant project stakeholders.