

LAND AND HOUSING CORPORATION

DWELLING REQUIREMENTS

The Land and Housing Corporation (LAHC) Dwelling Requirements inform the design and development of the LAHC social housing property portfolio. These requirements apply to all new LAHC dwellings and are driven by design quality, environmental performance, operational effectiveness and tenant well-being within cost parameters. This document identifies where LAHC practices differ from market standards. It is a benchmark tool to standardise decision-making and enable project specific innovation. It may be used by LAHC staff, consultant architects, project managers and developers.

Legislative + Code Reference

Acts, policies, codes and guidelines considered in preparation of the Dwelling Requirements that take precedent are:	Environmental Planning and Assessment Act 1979, Housing Act 2001 (NSW), and Residential Tenancies Act 2010	SEPP Housing for Seniors or People with a Disability 2004 or ARH SEPP Affordable Rental Housing 2009 or SEPP 65 Design Quality of Residential Apartments 2002 or Local LEP and DCP	National Construction Code	Australian Standards including but not limited to: AS1428 Mobility, AS 2890 Parking, AS 4299 Adaptable Housing	Livable Housing Design Guideline and Seniors Living Urban Design Guidelines 2004 and/or NSW Apartment Design Guide 2015	BASIX NatHERS
Documents and tools that inform any LAHC development, in order of precedence, are:	Good Design for Social Housing Development Brief (project specific) Dwelling Requirements (this document) LAHC Component Requirements		

Universal Design Principles

To support diverse tenants, LAHC aims for best practice in access and liveability to all new supply programs. The development brief defines the mix of liveable and adaptable dwellings (AS4299). Unless otherwise stated, apply the following:	Liveability rating	Silver standard – baseline	Apply minimum Silver rating to all new LAHC dwellings where level access is available (including ground level and dwellings serviced by a lift). For upper level dwellings without a lift, apply Silver equivalent rating to the interior.
		Gold standard – project specific	Each development may require a percentage of Gold standard dwellings as per the development brief. When improved liveable standards are sought but a Gold rating is prohibitive, apply Gold equivalent to the shower, bathroom and wet areas, and Platinum equivalent to switches / general power outlets and to tap and door hardware.
	Adaptable Dwellings	Gold standard – future adaptation	LAHC may opt to provide a percentage of 'adaptable' dwellings, to be specified in the development brief. These are designed for cost effective future conversion to Gold Standard. Apply AS 4299 Class C to adaptable dwellings.

Reference Dimensions (Minimum)

These dimensions and room combinations are a minimum. Projects should balance spatial efficiency with best practice for tenant comfort and flexible furniture layout. For boarding house projects refer to the ARH SEPP and consider that rooms will accommodate long term tenancies so should be sized above the minimum where possible.	HOUSE TYPE	STUDIO	1 BED	2 BED	3 BED	4 BED	
	Internal area	35 sqm	50 sqm	70 sqm	90 sqm	110 sqm	
	Liveable and dual key areas	For liveable dwellings allow additional area as required for improved mobility.					
		For dual key dwellings floor area should be the sum of standard areas plus any shared entry area.					
	Room combination	Combo din/liv/bed Galley Kitchen Single bathroom including laundry	Combo kit/din/liv Single bathroom including laundry	Combo kit/din/liv Single bathroom including laundry	Combo kit/din Separate living Full bathroom, WC Separate laundry	Combo kit/din Separate living Full bathroom, WC Separate laundry	
	Corridor (skirting to skirting)	1000 mm clear	1000 mm clear	1000 mm clear	1000 mm clear	1000 mm clear	
	Door opening width	850 mm clear	850 mm clear	850 mm clear	850 mm clear	850 mm clear	
	Minimum ceiling height (bed, kitchen, living)	2700 mm	2700 mm	2700 mm	2700 mm	2700 mm	2700 mm
		Specified ceiling heights enable ceiling fans to be installed in living rooms and bedrooms.					
	Room widths	Minimum room widths to support flexible furniture layout: 3.6m (living) and 3m (bedroom) excl robe.					
Minimum balcony space or minimum Private Open Space	8 sqm	8 sqm	10 sqm	12 sqm	14 sqm		
	Balcony must fit patio furniture (min 2m deep). Two balconies preferred for 2-3 bed dwellings. For ground level dwellings, an enclosed yard would exceed these minimum dimensions.						

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ENVIRONMENTAL PERFORMANCE

LAHC developments integrate passive design with contemporary design to ensure tenant comfort, reduce ongoing operational costs and improve environmental performance across the portfolio. This section outlines where LAHC exceeds BASIX targets and applies to all dwellings.

Performance Targets

These targets acknowledge that many LAHC tenants are frequently at home during the day and so benefit from well lit, healthy interiors.	NatHERS targets	All new dwellings should target a minimum 6 star NatHERS rating. Higher NatHERS ratings are encouraged where cost effective. BASIX and best practice Apartment Design Guide (ADG) daylighting continue to apply.
	Healthy Home targets	LAHC dwellings should provide long-term healthy homes for tenants. Targets include: low-allergy materials, adequate air flow to limit mould, waterproofing and damp reduction, natural outlook, noise attenuation.
	Acoustic targets	Attenuate noise from: exterior sources (heavy traffic, trains), interior transfer (bed/bath partitions), between multi-residential dwellings (walls, ceilings/floors). Refer National Construction Code and Australian Building Codes Board (ABCB) Sound Transmission & Insulation in Buildings.
	Daylighting targets	Interiors: Varied, quality daylighting is essential in all dwellings as LAHC tenants spend significant time at home during the day. Target three hours solar access in mid-winter and exceed best practice ADG guidelines where possible. Refer solar targets in Seniors Living Urban Design Guidelines. For common areas: Ensure adequate daylighting to eliminate costs of artificial lighting during the day.

Passive Design Principles

Passive design principles significantly impact overall thermal comfort and reduce artificial heating and cooling loads. This section outlines passive design principles for LAHC dwellings and aligns these to the six climate zones occurring in NSW (zones 2, 4, 5, 6, 7, 8).	Passive design principles	Tactics include: maximise northern orientation to living spaces, calibrate eaves and shading on eastern, western and northern facades, relate glazing specification to orientation, deciduous trees as shading devices, position windows to improve airflow and capture prevailing breezes.				
	Climate specific principles to achieve thermal comfort	Adapt tactics for thermal comfort to specific climate zones to consider these principles:				
		NSW climate zones:	2. Warm humid summer, mild winter	4. Hot dry summer cool winter	5. Warm temperate 6. Mild temperate	7. Cool temperate 8. Alpine
		Summer comfort:	Natural ventilation high priority	Thermal mass and night purging	Ventilation, controlled shading	–
		Winter comfort:	–	Orientation for passive heating	Orientation for passive heating	Passive design, add supplementary heat
	Natural ventilation:	Cross ventilate all dwellings, ceiling fans throughout	High level vents for night purging, ceiling fans	Cross ventilate min 75% dwellings, ceiling fans – all	Cross ventilate but seal openings to prevent heat loss	
	Insulation:	Take extra care for mould reduction	High-performance for summer coolth	Seal openings to prevent heat loss	High-performance for winter warmth	

Utilities + Operational Targets

This section describes utilities and operations required for LAHC dwellings, with an aim to providing systems that anticipate future maintenance, reduce operational costs for LAHC tenants and support clean, sustainable and operational dwellings.	Solar panels	LAHC solar initiatives are subject to funding and dwelling location and include powering common areas to reduce operating costs and grant-funded solar panels to reduce tenant electricity bills. The development brief will confirm the following: if solar will be used; if batteries are required; the method for utility refunds; metering technology; grid connection.
	Utilities	Refer development brief for site specific utility requirements. Generally, ensure discrete locations and integrated appearance for substations, power poles, distribution boxes, sewer vents and other utilities. Externally mounted fittings that require service access should be tamper proof. Electricity and potable water to be individually metered.
	Waste management	Ensure waste provisions meet council requirements, minimise visual impact to street, control odour, and reduce distance to kerbside (for tenants with mobility issues). Use garbage rooms when required by code, otherwise integrate bin store into fence or carport design. Separate recycling from waste. Enable organic waste recycling. Consider waste management for each floor in apartment buildings; waste chutes are discouraged.
	Water management	Stormwater retention: where required by LEP allow for underground stormwater detention within the development. Rainwater tanks: Refer to development brief for direction and consider maintenance concerns. Garden taps: Provide garden tap(s) in both private and common garden areas.

EXTERNAL CHARACTER

All LAHC dwellings should integrate with the neighbourhood character and provide consistent amenity across the portfolio. Siting should balance a sense of community and arrival with individual privacy and equitable access for all tenants. Dwellings often set a neighbourhood precedent so should sustain a neat, contemporary appearance over time.

Exterior Finishes

As LAHC retains assets for 20 years or more, exterior wall and roof finishes should strive for long-term durability and low maintenance, while contributing to a dignified, contemporary appearance.	Roof finishes	Permitted roof falls range from 3-25 degrees and depend on dwelling type, local character and technical specification of the roofing material. For pitched roofs: Use prefinished metal roof sheeting, gutters (with leaf guard), rainwater heads and downpipes, unless a tiled roof is required for local character (refer development brief). For flat roofs: Provide roof planning, waterproofing and material details for review. Do not build roof gardens off the membrane. Box gutters are not permitted. Consider climbing and heavy object throwing deterrence strategies.
	Exterior wall finishes	Hardwearing and low maintenance exterior finishes should be specified to ensure longevity. Use self-finishing materials such as face brick, integral finished metals or precast concrete. Minimise all painted or rendered finishes that would require scaffolding to maintain or repair in the future. Bird nesting, efflorescence, graffiti and other sources of staining should be designed out.

Site Access and Entry

External site and gardens should enable passive surveillance for security, while providing an accessible and safe outdoor environment. The front entry should be a well designed, welcoming arrival point.	Topography and ramps	Minimise retaining walls or steps; provide site benching with 1:10 slopes to turf + gardens. Any ramp should optimise topography to reduce visible rails; 1:20 gradient preferred to 1:14.
	Entry	Provide minimum 1000mm wide concrete footpath from street to front door; ensure path is well-lit. Permeable paving is not permitted on access paths or above inground tanks. Provide rain protection to front and rear entry doors.
	Fences and boundaries	Rear and side boundary fencing and rear gate to be within 1500–1800mm to ensure privacy. Use garden in lieu of front fencing unless otherwise specified.
	Letterbox	Integrate a letterbox with keyed lock for each dwelling into front fence for low rise or in foyer for apartments.

Common Gardens

Integrate native gardens to create a peaceful environment, natural outlook for dwellings and improve bird habitat.	Planting strategy	All landscaping to be drought tolerant, low maintenance. Use native species to contribute to bird habitat and neighbourhood amenity. Allow 400mm minimum topsoil in new gardens and group together plants with similar water needs. Avoid placing garden beds against buildings as these may cause ongoing damp issues.
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Vehicle Access

Parking design should meet code and aim for best practice liveability, enhanced pedestrian safety and reduce parking related conflict. Best practice may differ by location, especially between regional towns and more dense urban areas.	Parking	Refer to the development brief for project specific parking requirements. Refer AS2890.1 2009 Parking Facilities Off Street Parking, any Council requirements and the relevant codes.
	Driveways	Minimise the length of on-site driveways. Separate pedestrian access from the driveway.
	Open parking	Integrate landscape design into on site open car parking. Where possible provide landscaped break(s) between parking spaces or rows.
	Carparks, garages and underground carparks	For single dwellings and townhouses: Use garage doors if contextually appropriate, with lightweight manual (not automatic) operating function. For multiple seniors living dwellings in the same development, 1:5 dwellings should have covered parking as per the Liveable Housing Guidelines. For apartments: Underground carparking is dependent on cost and viability. Refer development brief for site specific requirements.
	 Scooter parking	Covered space for parking mobility scooters may be incorporated into balcony or entry areas of ground floor dwellings when feasible. Refer development brief.

Private Outdoor Space

All LAHC dwellings should have a useable, sheltered balcony or private outdoor area with direct access by tenant.	Private outdoor space	For ground floor dwellings provide second maintenance access to private open space. Landscaping in private space should equal common garden areas unless otherwise specified.
	Balconies	For balconies, ensure visual privacy, weather protection, drain away from interior, nominal grade 1:100. All balconies require full upturn bunding and a floor drain to prevent water overrun. Solid balustrades preferred, no pool fencing. Screen all visible utilities and clothes drying.
	Clothesline	Add individual clotheslines on balcony or in private outdoor space; common clotheslines not permitted.

INTERIOR DETAIL

LAHC interiors should be dignified, healthy, comfortable and suitable for extended daytime occupation by tenants. Dwellings aim to be durable and low maintenance over the asset life while achieving good performance outcomes. Material selection for good environmental performance will include low Volatile Organic Compounds (VOC), recycled content, Forest Stewardship Council (FSC) certification and other sustainability ratings.

Finishes

Interior finishes to be contemporary, easy to clean, non-toxic and allowing safe access throughout.	Interior finishes	Paint all interior walls, ceiling and woodwork; apply semi-gloss paint to all non-wet areas and mould resistant gloss paint to all wet areas. Use low VOC and washable paint for all painted surfaces. Use timber (not Medium Density Fibreboard MDF) for reveals, architraves and skirtings.
	Interior floor finishes	Ceramic tiles or resilient flooring to all living and wet areas; carpet in bedrooms unless otherwise specified. Eliminate all floor level changes at transition points including into bathrooms (use recessed slab to eliminate level change) and at sliding door tracks to balconies.

Wet Areas

Wet area requirements may differ to market practice to ensure waterproofing and reduce maintenance over time.	Water ratings	BASIX: % savings as per region, WELS: 5 star (Tapware), 4 star (Toilet), 4 star (Showerhead).
	Bathrooms wet areas	Extend water-proofing and tiling up full wall height throughout bathroom. Showers to be hob-less with adequate fall and drainage to prevent flooding. Review waterproofing provisions with LAHC.
	Laundry	Add floor waste; allow space and taps for tenant to add front loaded washing machine and dryer.
	Kitchen wet area	Ensure waterproofing is full height behind splashback.

Joinery

Joinery should enable efficient and fit-for-purpose storage that is durable, neat and integrated. Provide adequate storage suitable for long term tenancy and to support a tidy, functional interior.	Kitchen benchtops	Laminate or composite stone with 20 mm overhang. Minimum bench lengths: 2 m (studio), 2.2 m (1 bed), 2.4 m (2 bed), 2.7 m (3 bed). Provide minimum 1.5 kitchen sinks.
	Kitchen cupboards	Provide standard 600mm deep cupboards under bench top. Extend any overhead cupboards to ceiling or bulkhead. Allow space for fridge of minimum 800mm wide (studio / 1 bed) and 900 mm wide (2 bed or more). Provide 600 mm wide space under bench (with cupboard door that can be easily removed) suitable for tenant to install dishwasher. Refer accessible kitchen requirements in Seniors Living Urban Design Guidelines as applicable.
	Bathroom	Provide vanity units with leg support (no cantilevers). Provide bathroom storage in vanity or behind mirror.
	Laundry	For concealed laundries, double swing doors are preferred to bi-fold doors.
	Wardrobes	Built in wardrobes in all bedrooms: main bedroom (600 x 1800 mm), other bedrooms (600 x 1200 mm).
	General storage	Linen cupboard (600 x 450 mm with shelves) and broom cupboard (600 x 450 mm) in all dwellings.

Doors and Windows

Doors and windows must be secure, weathertight, of quality construction and easy to maintain. Refer to LAHC's Key Window Lock Policy.	Doors and windows	Fit metal door frames for front and rear entry doors, with heavy duty screen doors - all keyed alike. Windows to be powder coated (20 year colour fastness) or anodised (20 microns) metal, able to lock open for ventilation, and be adjustable for internal cleaning access. Fit fly screens to all windows that can be removed from inside. Use siting and layout to minimise overlooking between units.
	Window furnishings	Allow for durable horizontal blinds on living and bedroom windows, and vertical blinds on glazed doors. Bathroom windows to provide appropriate levels of privacy.
	Locks and keys	Use dead latches with key operation and release feature for external doors (including garage). Key all windows alike.

Electrical and Utilities

Operational components of LAHC fit outs should provide high performance environments that are low maintenance and future proof. Preference electric systems to reduce variety of bills and ensure safety through Residual Current Device (RCD) circuit breakers.	Bells & alarms	Provide front entry door bell. All required smoke detectors to be hardwired.
	Light fittings and general power outlets	Light fittings: Allow 1 x light point per room; switch height as per platinum liveability rating. Use energy efficient LED lighting throughout, with warm light and bayonet fittings. General power outlets: Provide 2 x double general-purpose outlets per room; ensure additional outlets in kitchen for all appliances. All: RCD for all circuits. Setout of all electrical to account for typical furniture layout.
	Phone, data, and TV	Allow 1 x phone /data point with aerial to living and main bed. Connect NBN; allow for future NBN if not available. Allow TV points in living area and main bed.
	Appliances	Inset separated stovetop and oven, duct range hood to outside air, all mid-range quality and electric. Appliances provided by tenant (fridge, dishwasher, washing machine) cannot be used for BASIX.
	Hot water	Provide instantaneous gas or heat pump for hot water. Solar hot water is only permitted if it is grant-funded.
	Air conditioning (AC)	In cool temperate climate zones only: Install flued gas or split system AC in living and bedrooms. For all multi-residential: Allow space, services and drainage for future AC installation as per brief.

MULTI RESIDENTIAL SUPPLEMENT

This sheet only applies to LAHC multi residential development with a particular focus on apartments and town house developments. This section should be read alongside the Apartment Design Guide (ADG) and any Environmental Planning Instruments applicable to the development.

Strata Requirements

These typical strata requirements reflect LAHC's recent shift towards strata-ready developments that aim to mitigate the impact of future changes.	Single dwellings	No future strata – whole building operator
	Multi-residential	Assume full strata – prepare all documents but confirm if lodgement is required. Refer to the development brief for project specific direction.
	Dual key apartments	Where dual key apartments are developed, each apartment should be fully self contained and strata ready, ADG compliant and to a minimum silver standard. Typical combinations include studio/studio or 1 bed/studio or 2 bed/1 bed.

Wayfinding + Security

Wayfinding and security strategies should be integrated into the design at an early stage to include both passive and active measures.	Wayfinding + signage	Develop a comprehensive wayfinding strategy that includes spatial cues, lighting and signage. Allow for both statutory and general signage. Allow for A4 notices to be mounted in foyer. Refer to LAHC Component Requirements for material specifications.
	Common security	Incorporate principles of Crime Prevention Through Environmental Design. Allow for passive surveillance of all secure entries and common gardens. Intercom required at building entries. Provide swipe access to enter apartment buildings and key and locks for town houses. Refer development brief for details.

Shared Circulation

Shared circulation should be well-lit, safe and inviting, with adequate width for moving tenant furniture.	Vertical transportation	All staircases must comply with the National Construction Code; ensure any external or breezeway stairs are covered for weather protection. When lifts are required by the development brief, assume minimum 2 commercial grade lifts.
	Foyers + corridors	All foyers and corridors to have hard floor finish and be naturally ventilated. Maximise natural daylighting in common areas. Use energy efficient LED lighting throughout, with warm light and bayonet fittings. Fit all artificial lighting with built in photo sensors to reduce ongoing operating costs. Ensure all common corridor dimensions are suitable for frequent moving of domestic furniture.
	Maintenance access	Ensure provision of façade maintenance zones and procedures, as well as any service access to lifts or other maintenance zones.

Common Rooms

Common rooms should be welcoming and low maintenance to encourage positive social interaction.	Common Rooms	When a common room is required by the brief, allow for kitchenette, lounge, wall mounted TV unit, and adjacent WC. Use resilient floor finish. Ensure natural ventilation is available in all common rooms and orient the room to overlook and open onto a garden or deck area.
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Common Gardens

Common gardens in multi-residential dwellings should be native, accessible and sustained for all tenants to enjoy.	Irrigation	Provide garden maintenance strategy for review. Install drip irrigation system for multi residential dwellings only when specified in development brief. Where rainwater tanks can be reticulated for garden use, install quality pump (minimum 5-year warranty).
	Seating	Provide robust outdoor seating in common garden areas for tenant use and amenity. Consider proximity of seating to other dwellings to ensure tenant privacy. Integrate seating layout with tree and planting strategies.
	Trees	Trees that grow taller than 3m should be planted at least 3m from the building. Deciduous trees may assist with passive solar shading. Native and drought tolerant species preferred.
	Community gardens	Community gardens may be considered for large scale developments.