



NSW Housing Pattern Book

LARGE LOT APARTMENTS 03

by Andrew Burges Architects

Revision A

A competition winning large lot development around a garden courtyard featuring one and two storey homes with dual aspects

April 2026



GOVERNMENT
ARCHITECT
NEW SOUTH WALES

About this document

This document explains the specific requirements for the pattern called **Large Lot Apartments 03 by Andrew Burges Architects**. This pattern is part of the NSW Housing Pattern Book as referred to in the State Environmental Planning Policy (Housing) Amendment (Mid-rise housing patterns) 2025.

The document provides an overview of what this pattern offers. It explains where housing based on this pattern can be located and how the design can be adjusted to suit user preferences and site requirements within the development standards defined for this pattern.

The technical drawings describe the pattern design in detail. Once you have selected a suitable pattern and paid the administrative fee, you can download the digital drawing package in DWG format for use by your architect or accredited designer to prepare your development application.

Using the pattern book

- 1

You are here:
Explore patterns and engage a designer

Explore the patterns available on the NSW Housing Pattern Book website and identify which ones might be suitable to your site and requirements. If you decide to proceed, engage an architect or building designer who will be able to support you through the pattern book development process.
- 2

Select a pattern and adapt it to your site and preferences
- 3

Prepare drawings and information for a planning application
- 4

Understand the streamlined development application pathway
- 5

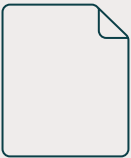
Lodge your application through the streamlined development application process

Related documents and supporting information

NSW Housing
Pattern Book website

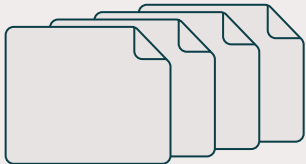


Website

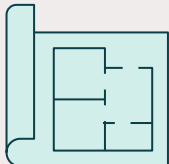


Legislation

Mid-rise pattern packs



Mid-rise pattern packs



Mid-rise pattern
DWG drawings

Supporting documents



Design
verification
statement



NSW Housing
Pattern Book Landscape
design guide



Terms and
conditions



Mid-rise pattern
technical guide

Highlighted content is available after purchase

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				Renders and materials		Solar studies	
				Material palettes	A-380 series	Typical joinery and wet areas	
				Render illustrations	A-390 series	Typical wall types	

Note: When you pay the fee you will receive technical drawings in PDF and DWG formats, technical guidance, an editable design verification statement and your unique identification number.

**Drawing will be available in DWG format.*

LARGE LOT APARTMENTS 03

by Andrew Burges Architects

Revision A

The architects designed:

Corner apartments and terrace-like row homes around a garden courtyard that can be easily resized to fit different sites

Clear block hierarchy: ground-floor apartment entries activate primary streets, while secondary streets provide service access and driveways

A diverse mix of studio, 1-bedroom, 2-bedroom, 3-bedroom and 4-bedroom dwellings in 1-storey or 2-storey layouts with at least 2 orientations and good cross-ventilation

Smart 2-storey apartments with living and sleeping spaces on different levels and a linear ‘compactus’ containing internal stairs, kitchens and bathrooms for efficient construction

Communal courtyard with a sculptural landscape that encourages social interaction, enhances green outlook and provides privacy

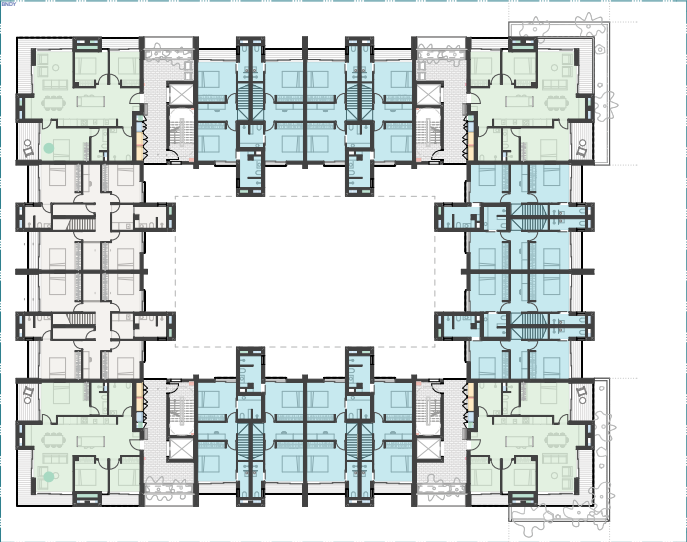
Integrated sustainability features such as solar access, cross-ventilation, rainwater harvesting and rooftop solar panels

Designed in line with the NSW Apartment Design Guide to support high-quality living for future residents

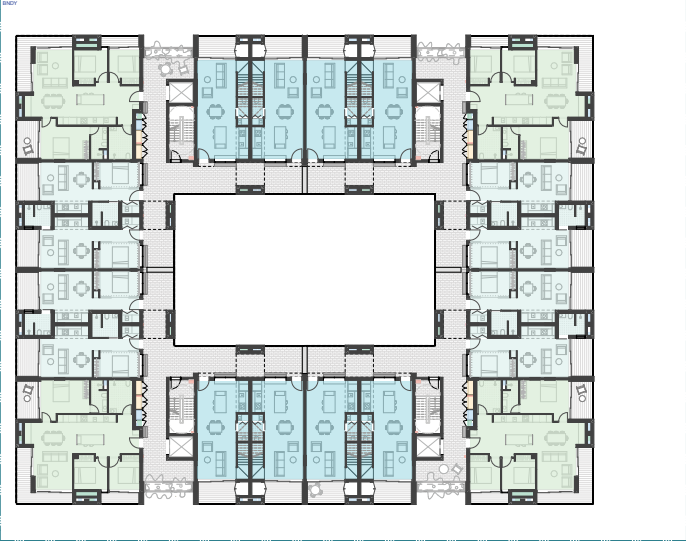
About this pattern

Site suitability – Suits a brownfield or greenfield site	No. of storeys – 4 to 6
Optimal orientation – Designed to adapt to a range of orientations	No. of dwellings – 58-140
Development type – Residential flat building	Mix of dwelling types – Studio to 4-bedrooms
Permissibility – across NSW where this type of development is permitted	Site width – Suits a minimum lot width between 67-127.5m
Ownership – Suitable for strata, company title or build to rent	Site length – Suits a minimum lot length between 51.5m – 53m
	Site area – Suits lot areas between 3,551 – 6,566 m ²

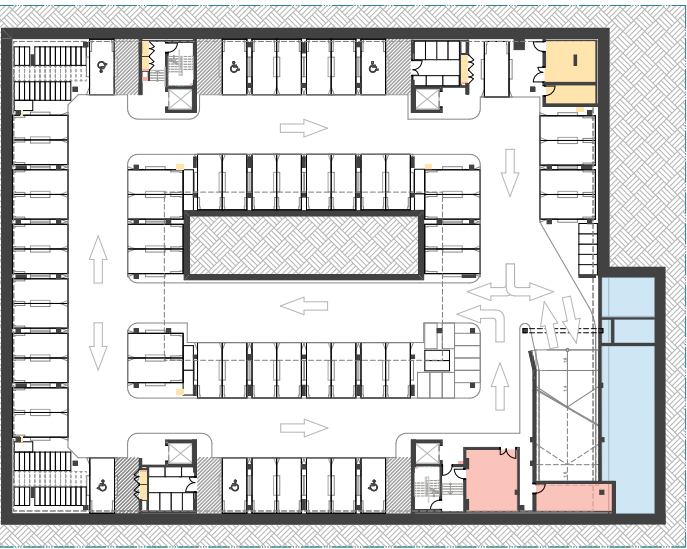
First floor



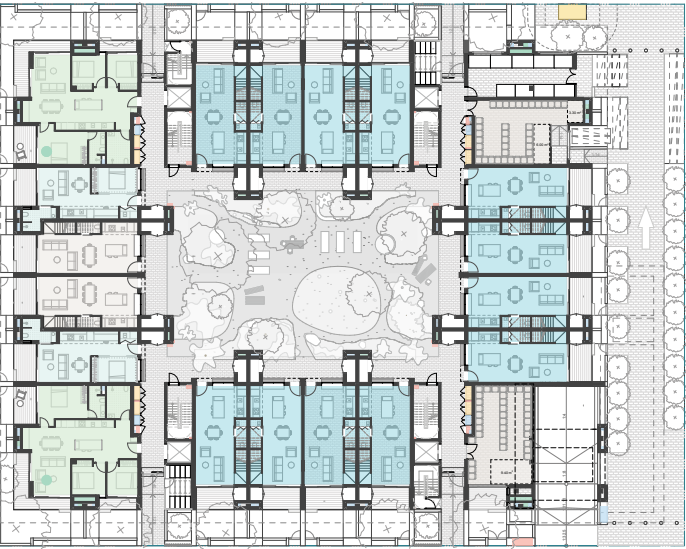
Fourth floor



Basement



Ground floor



- Studio
 - One bedroom
 - Two bedroom
 - Three bedroom
 - Four bedroom
- Not to scale



Front view of the design from the street



Ground floor living room connecting to the central courtyard

Easy to live in

The pattern is designed to suit different household types including:

Singles and couples—well-proportioned studios and 1-bedroom apartments

Co-living or share houses—separation between bedrooms in many of the dwellings

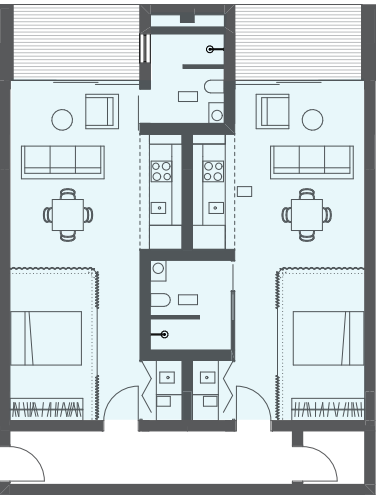
Families—well-designed 2-bedroom and 3-bedroom apartments with generous balconies

Downsizers—several apartments are designed for easy adaptation to support mobility, access and aging in place

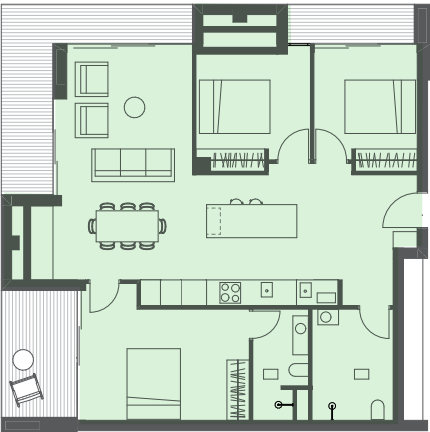
► Refer to A-370 series for full range of apartment types

Base pattern mix	Studio	1-bed	2-bed	3-bed	4-bed
Number of dwellings	0	12	24	18	4
Bedrooms per dwelling	0	1	2	3	4
Bathrooms per dwelling	1	1	2.5	2.5	2.5
Floor area per dwelling	49m ²	49m ²	96m ²	105m ²	144m ²

Two example studio apartments



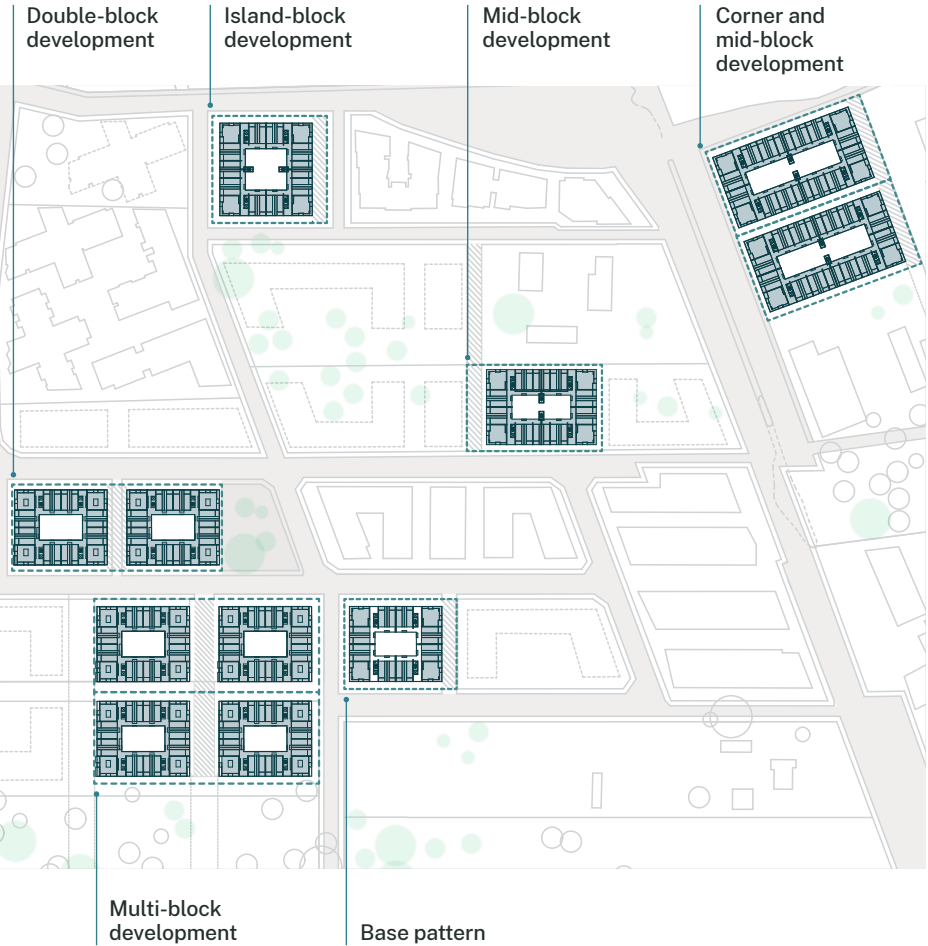
Example 3-bed apartment (adaptable)



Not to scale

For everyone and every place

Siting



Would work well as greenfield development in new residential neighbourhoods

Logical block hierarchy with apartments addressing primary streets, and services and driveways on secondary streets

Rhythm of the facade and the natural colour palette respond well to the existing or desired future character

Native planting of the courtyard creates a biodiverse natural habitat and haven for residents and local wildlife

Select from 2 material palettes to suit the local character:
— terracotta brick with matching cement sheeting
— pale clay brick with sage cement sheeting

Brickwork and painted fibre cement board



Awnings in matching tones are optional (top), metal balustrades and painted cladding in matching colour (bottom)



Sustainable and energy efficient

Passive solar design keeps homes comfortable and lowers energy bills

Daylight and cross-ventilation create healthy homes

The roof area allows for extensive solar panel installation

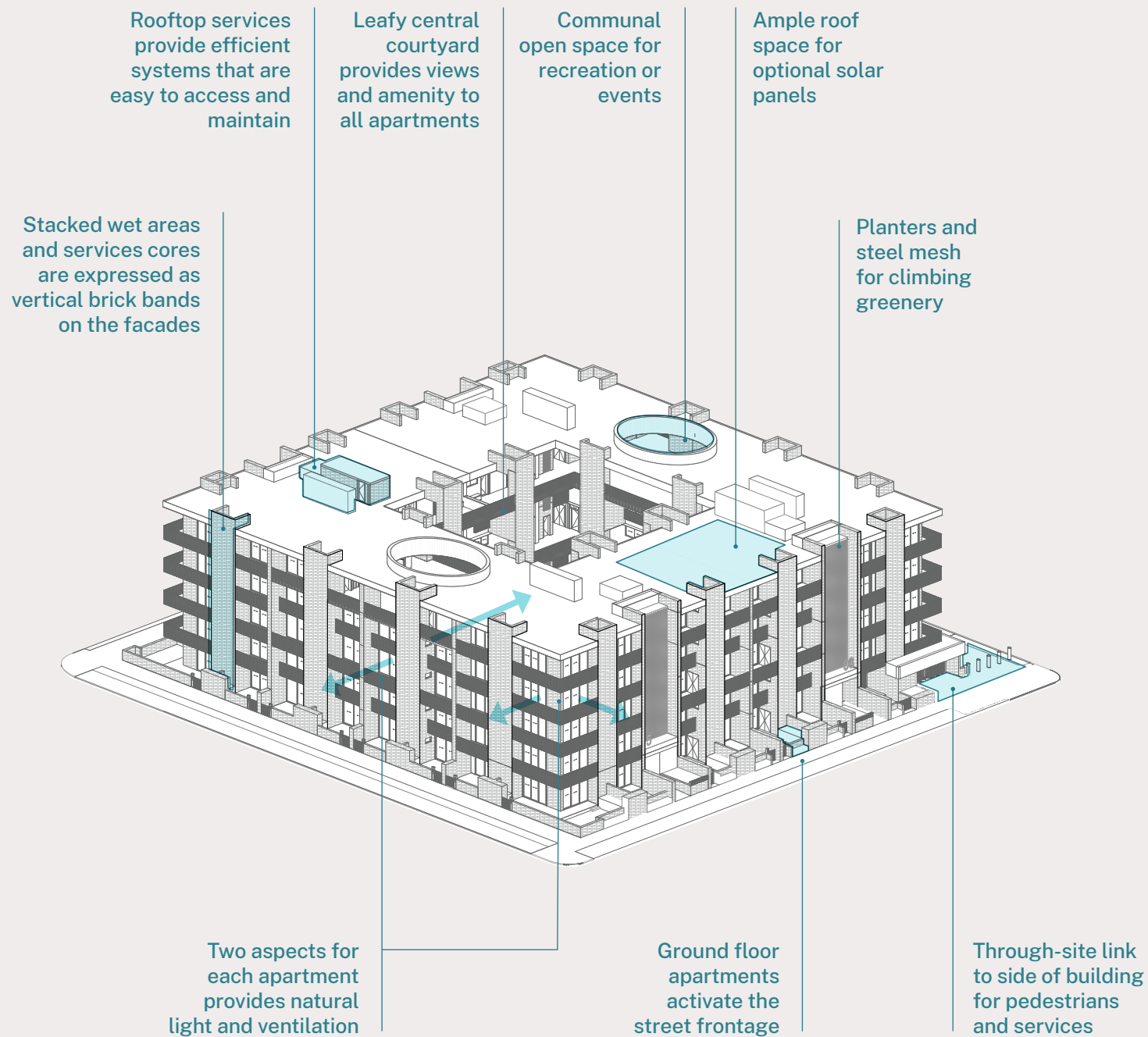
External materials have longevity for an enduring and low-maintenance home

Rainwater tanks collect roof water for reuse

Ceiling fans improve comfort and energy efficiency

All-electric dwellings provide healthier indoor environments, lower energy bills, and a smaller carbon footprint

The landscaped courtyard and integrated greenery create a calm environment



Smart and flexible

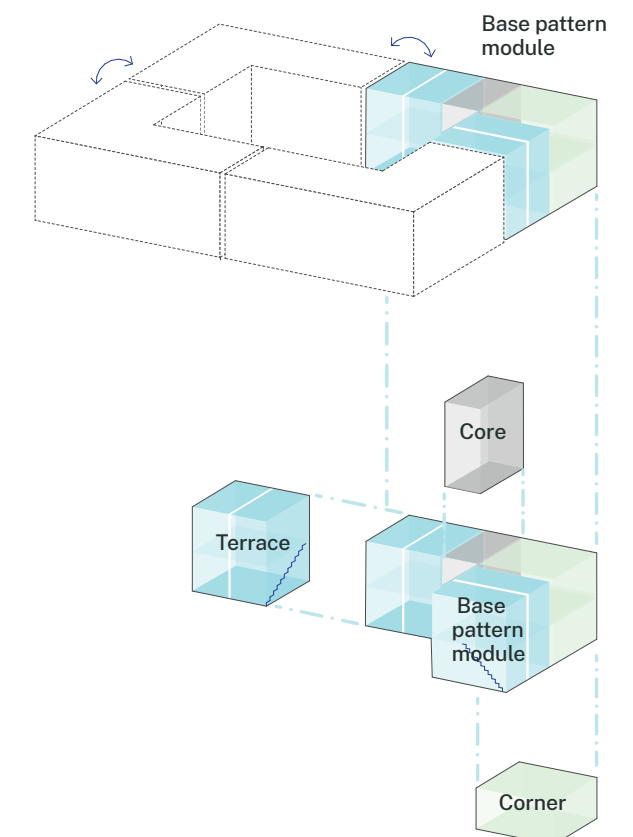
The pattern can be delivered as a 4-storey or 6-storey apartment building within the same site footprint

Expandable layout and structural grid make this pattern easy to adjust to different site sizes, including with a double building for larger lots

Parking options include basement parking or on-grade parking, with the central courtyard on the ground or first floor level depending on the parking arrangement

The pattern can adapt to several lot sizes between 67m–134m wide and 53m–63m long and to 0–0.5m downslope and 0–2.1m upslope.

Selected apartments can be adapted to meet *Australian Standard 4299-1995 – Adaptable housing*



LARGE LOT APARTMENTS 03

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Revision A

Requirements
and
adaptations



Planning overview

Planning pathways for pattern book developments

Developments using the mid-rise housing patterns must be submitted under Chapter 7 Pattern book development in State Environmental Planning Policy (Housing) 2021 (the Housing SEPP). This chapter includes provisions for mid-rise housing pattern development to be eligible for a reduced assessment period for development application (DA).

Excluded land

The proposed SEPP does not apply to land affected by certain hazards and constraints that have been identified by the Department as unsuitable for the policy. This land includes: bushfire-prone and certain flood-prone land in high risk locations, State heritage items, local heritage items and heritage conservation areas. To understand the full list of exclusions refer to Chapter 7 Pattern book development in the Housing SEPP.

Design verification statement

Pattern book development applications must include a written statement known as the NSW Housing Pattern Book design verification statement mid-rise (DVS mid-rise) completed by a qualified designer (i.e. an architect) in accordance with *Environmental Planning and Assessment Regulation 2021*. A template of this statement can be found on the NSW Housing Pattern Book website and is included in the download package when purchasing a pattern.

The DVS mid-rise must confirm the proposed development will comply with the development standards, location requirements, technical drawing set and technical information specific to the proposed pattern. The architect must confirm that all fixed and adaptable design features required by the pattern are evident in the submitted development application.

The statement will help the consent authority to determine whether a proposed development complies with the original pattern design and is eligible to be considered pattern book development.

Qualified designer

The design verification statement (mid-rise housing patterns) must be completed by a qualified designer which is defined as an architect registered by the NSW Architects Registration Board under the *Architects Act 2003*. They must include their professional registration details in the statement.

Note to assessors

To be considered pattern book development, a development application using a mid-rise housing pattern must meet the required planning obligations. This includes complying with development standards, location requirements, and technical drawing set and technical information included in the pattern, as verified in the design verification statement (mid-rise housing patterns).

Design integrity

The design integrity of the pattern must be reflected in the submitted design. The submitted design should not be modified beyond the defined adaptations and parameters of the pattern.

Apartment Design Guide

This pattern design has been developed with reference to the Apartment Design Guide (ADG) and having undergone rigorous review has been endorsed as having considered the ADG. The development standards and pattern requirements in this document ensure that developments using this pattern can achieve the 9 design quality principles identified in Schedule 9 of the housing SEPP. Further assessment against Schedule 9 or the ADG is therefore not required for pattern developments.

Landscape and significant trees

As well as meeting landscape-related development standards set out below, pattern book developments must show how they have considered the NSW Housing Pattern Book *Landscape design guide* which provides advice on creating a landscape plan for the patterns and includes suggested planting lists. This includes consideration of tree canopy requirements.

Sites requiring change or removal or pruning of significant trees or vegetation must seek any necessary approvals from the relevant council in accordance with their requirements.

The NSW Housing Pattern Book Landscape design guide can be downloaded from the NSW Housing Pattern Book website for additional information.

Privacy

Privacy has been addressed within the pattern designs with solutions provided including fixed and optional screening and required setbacks to accommodate appropriate building separation.

Cross-ventilation

All apartments achieve cross-ventilation in accordance with guidance in the ADG.

Sustainability

Consistent with all residential developments in NSW, pattern book developments must demonstrate how they meet Building Sustainability Index (BASIX) and Nationwide House Energy Ratings Scheme (NatHERs) targets and compliance. Each pattern includes guidance on how to achieve these requirements, along with optional sustainability features such as solar panels and upgraded performance features.

► [Refer to the Mid-rise pattern book technical guide for details.](#)

Height and density bonuses under environmental planning instruments

Any application of height or density bonuses under an environmental planning instrument, such as the Affordable Housing Bonus (State Environmental Planning Policy (Housing) 2021), must be accommodated within the maximum height variation of this pattern.

Development standards and planning information for Large Lot Apartments 03 by Andrew Burges Architects

Planning requirements

Developments applying this design from the pattern book must adhere to the planning requirements specified below to be eligible to be assessed as mid-rise housing pattern development under Chapter 7 Pattern Book development in the Housing SEPP. The development standards and location requirements for this pattern prevail in the case of any inconsistency with equivalent development standards in other relevant environmental planning instruments (i.e. a State Environmental Planning Policy [SEPP] or Local Environmental Plan [LEP]) or equivalent requirements in a Development Control Plan (DCP).

Development type

Residential flat building

Applicability

Permitted in low and mid-rise (LMR) housing areas under section 163 of the Housing SEPP and transport-oriented development (TOD) housing areas under Chapter 5 of the Housing SEPP where this type of development is permissible with consent.

Development standards

The below development standards are specific to Large Lot Apartments 03 by Andrew Burges Architects. They apply where this pattern is proposed as pattern book development under Chapter 7 Pattern Book Development in the Housing SEPP.

Location requirements (site response)

Solar access

All pattern book developments need to demonstrate that adequate solar access to 70% of residential apartments (2 hours of direct sunlight to living spaces between 8am to 4pm) can be achieved in response to site conditions. This pattern can achieve at least 70% solar access between 8am to 4pm and has been tested under a common set of conditions which are explained in siting and technical information sections of this document.

Overshadowing

All pattern book developments need to minimise overshadowing impacts to neighbouring sites. Neighbouring sites should receive a minimum 3 hours of sunlight to at least 50% of private open space areas between 9am and 3pm on 21 June. Overshadowing impacts must be evidenced in the DA submission through sun shadow diagrams.

Setbacks may need to be increased to maximise solar access and to minimise overshadowing from adjoining buildings.

Site

This pattern can be used in mid-block, end-block, half block and whole block conditions.

Development standards

Maximum no of storeys 6 storeys

Maximum building height (m) from ground level (existing) 22 m
See exclusions in notes (on right)
Pattern development must also comply with maximum building height requirements of the relevant EPI
See exclusions in notes (on right)

4-6 storeys

Minimum lot size 3,551 m²

Minimum lot width 67 m

Minimum street setback (front and rear streets relative to lobby entry) 3.5 m

Minimum side setback (including through site link) 9 m

Minimum street setback (tertiary street) 1.5 m

Minimum side setback (boundary) 6.0 m

Minimum floor to ceiling height in dwellings 2.7 m (habitable areas)
2.4 m (non-habitable)

Minimum deep soil area 7% = <650 m² site area
10% = 650 – 1,500 m² site area
15% = >1,500 m² site area

Waste collection (minimum requirement) Mode: on-site
Frequency: weekly

Notes on development standards for this pattern

Storeys The maximum number of storeys for this pattern refers to habitable storeys and does not include rooftop facilities.

Height For the purposes of this pattern the maximum building height does not apply to lift overruns or plant and services equipment. These exclusions from maximum height of building will require additional 2.26 m of height. These are designed to have no overlooking or overshadowing impact on neighbouring amenity. The maximum building height for the pattern development standards includes allowance for adaptation to slope on the subject site.

Minimum lot size and adaptations The pattern adaptations and technical drawings section provide guidance on adapting the base plan for different site positions (block, corner), orientations and inclusions.

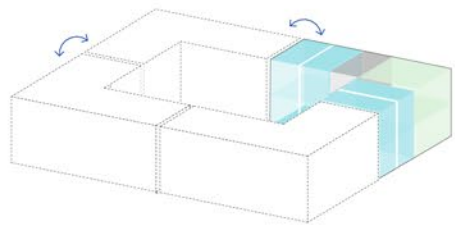
Irregular lot adaptations Patterns can be adapted to irregular shaped sites, excluding battle-axe lots, subject to meeting the minimum setback requirements.

Minimum lot width The minimum lot width is measured at the front of the building line.

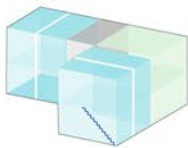
Waste The pattern requires weekly on-site collection with wheel-out wheel-in by building management to collection area as shown in the technical drawings section. The base pattern accommodates residential bin and bulky waste room areas in accordance with the calculation rates provided in this document.

Pattern module

Base pattern



Base pattern module



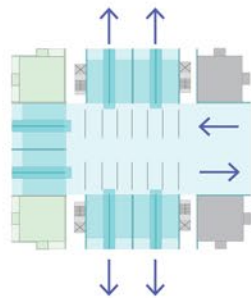
Base pattern components



Urban layout

Block heirarchy

Retain continuity of street engagement on long side of block, services and parking to enter site from short side of block.



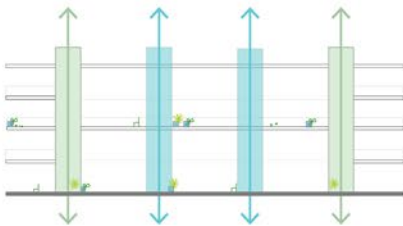
Organic landscape

Ground level courtyard landscape to contrast with orthogonal nature of architecture by providing organic geometries for pathways and landscape to create separation and privacy from adjacent apartments.



Terrace rhythm

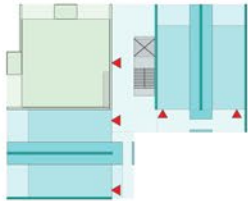
Express vertical rhythm of linear compactus as main expression of facade, creating scale and modulation to the streetscape. Lightweight expression and deep shadows to form the language between vertical cores.



Circulation

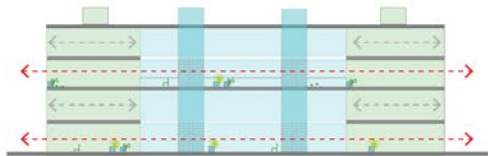
Circulation neighbourhoods

Circulation from stair to individual apartments servicing a maximum of 5-8 apartments to create 'neighbourhoods' of circulation and social engagement through groupings where all neighbours can know each other.



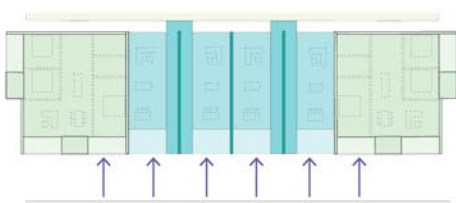
Double height circulation

Circulation servicing the terrace typology has entries at every second level, creating more efficiency in circulation, a generous double height space for the circulation 'neighbourhoods', and ensuring privacy and separation from circulation for all the bedrooms.



Street entry

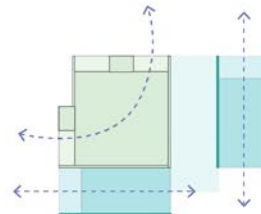
All ground floor apartments have direct street entries to activate the street edge and reinforce the tight grain character of terrace house typologies.



Apartment

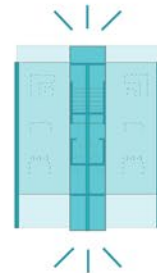
Dual orientation

All apartments have a minimum 2 orientations for light and cross ventilation.



Compactus core

All services/wet areas are located within the linear compactus to support an open and flexible living with generous dual orientations.



Room with a view

Circulation and outlook has been designed to ensure all bedrooms look to the street or a major internal courtyard –no bedrooms have close side views into other apartments.



Concept design

This page provides an overview of the design concepts that underpin this pattern design and reflects the design intention of the architects.

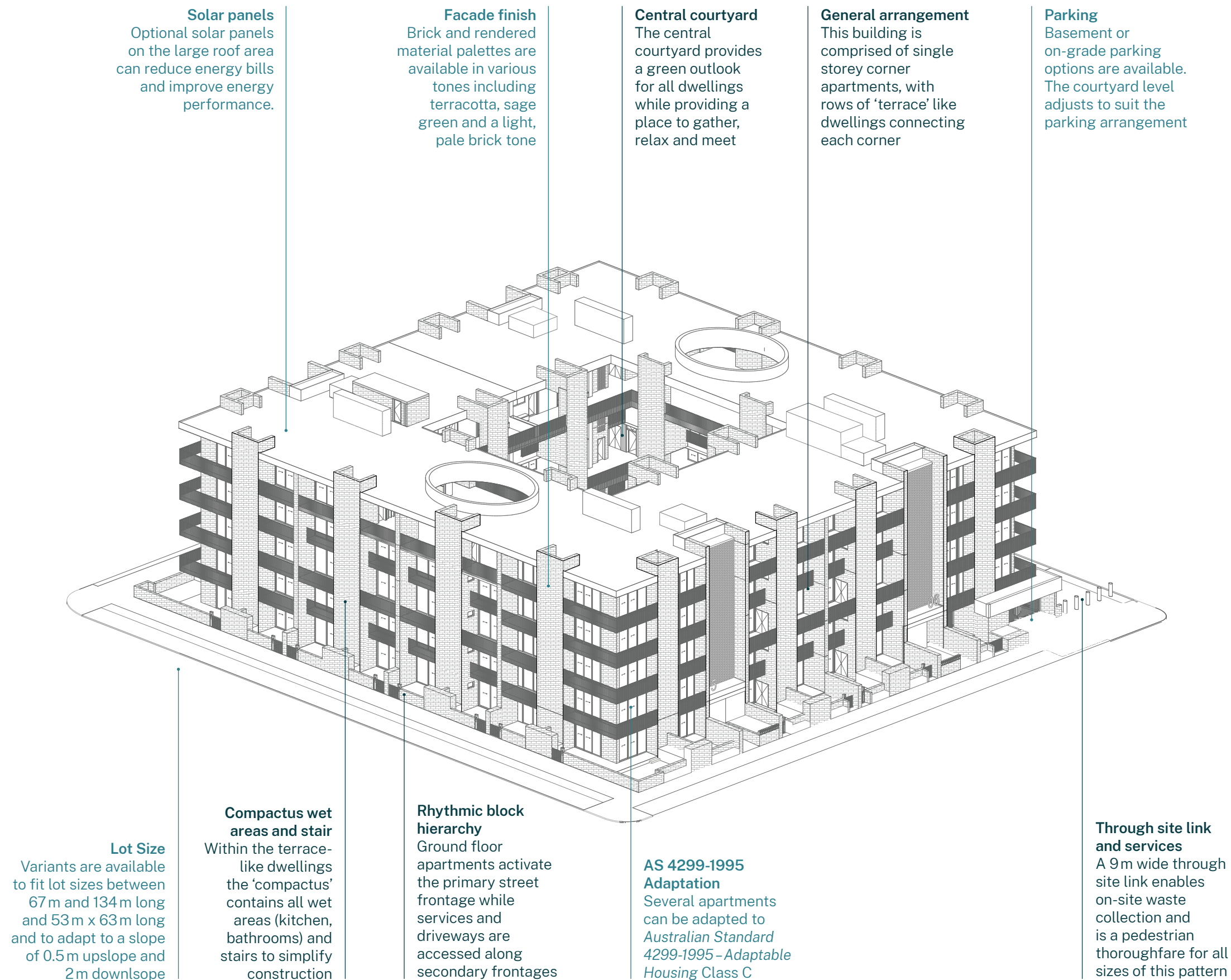
Design features

This page shows key features of the pattern including form and structure, services, communal space, sustainable features and any other matters highlighted by the architects.

The features on this page are coloured to show the following:

- **Fixed features** – these must be strictly retained in the planning application.
- **Flexible features** – these items can be modified within the agreed parameters shown in the drawings.

Any changes to the pattern design, including flexible features, must be declared in the design verification statement as part of the planning application.



Siting

This drawing demonstrates the various urban arrangements that are available for this pattern. Pattern sites must:

- meet suitable lot type requirements (e.g. mid-block, corner, rear lane)
- meet suitable solar orientation requirements.

Refer to the planning pages of this document for further detail on the development standards of this pattern.

Find the urban arrangement that is most relevant to your site and select a suitable pattern adaptation for the site size and solar orientation.

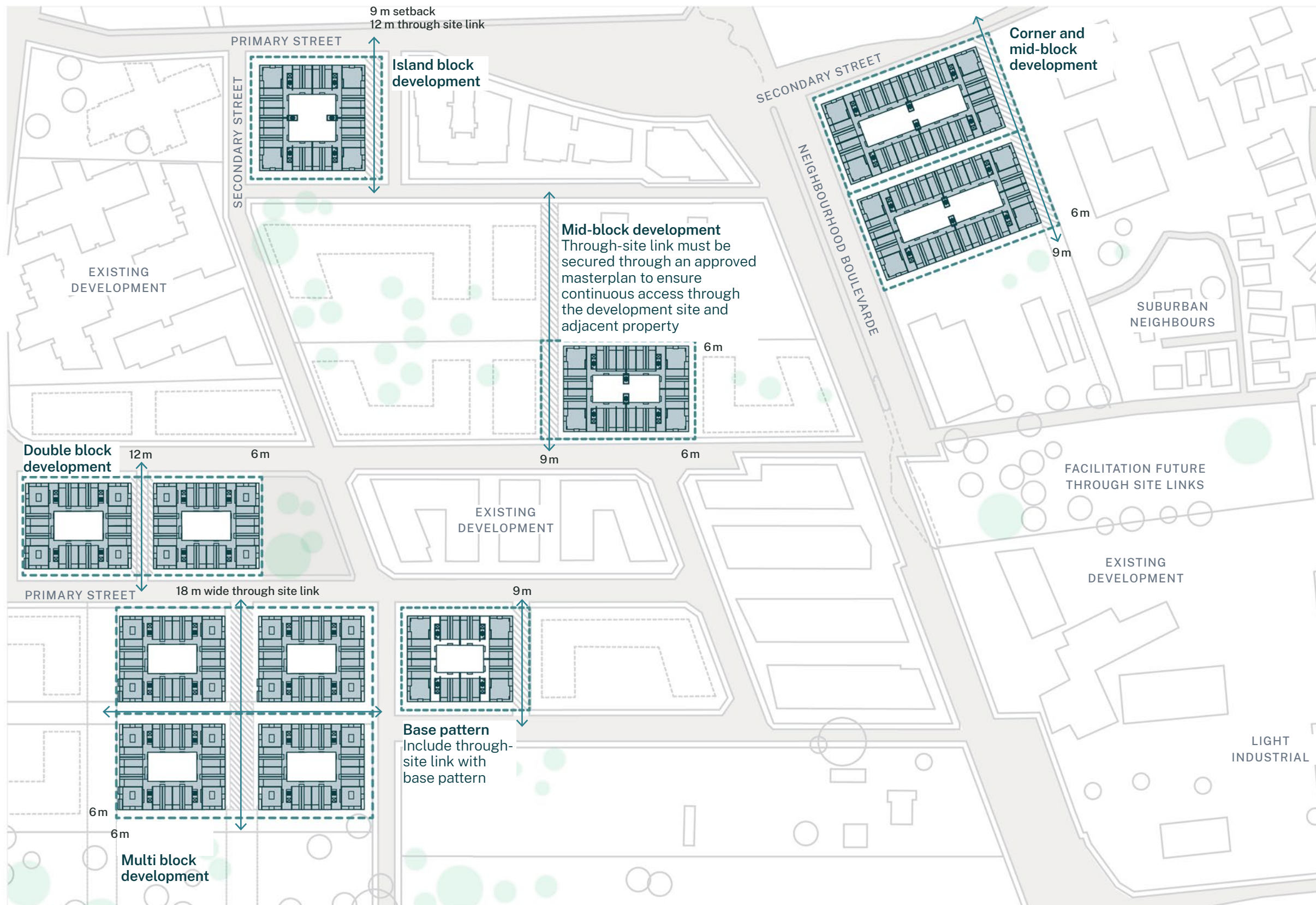
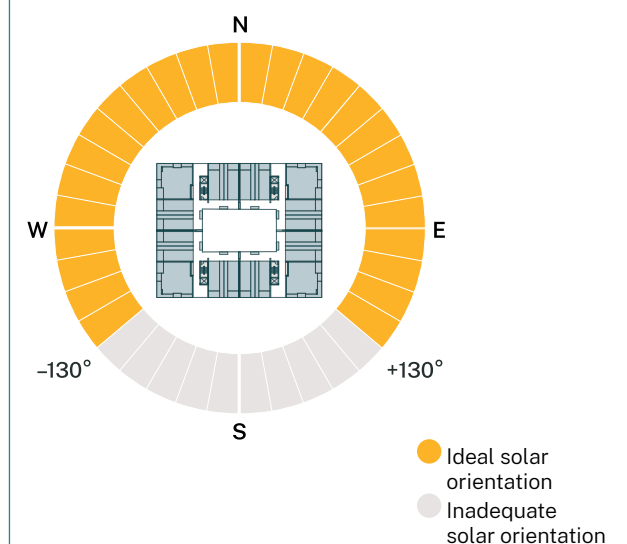
► [Refer to A-200 series for siting variants](#)

Urban arrangements and orientation

This drawing shows the orientations and block types that can use the pattern. It also indicates what a replicated pattern would look like across an urban block.

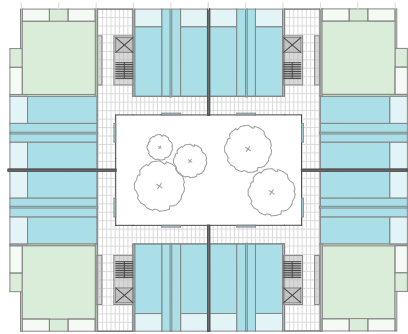
Solar orientation

Orientations where the pattern will achieve appropriate solar compliance:

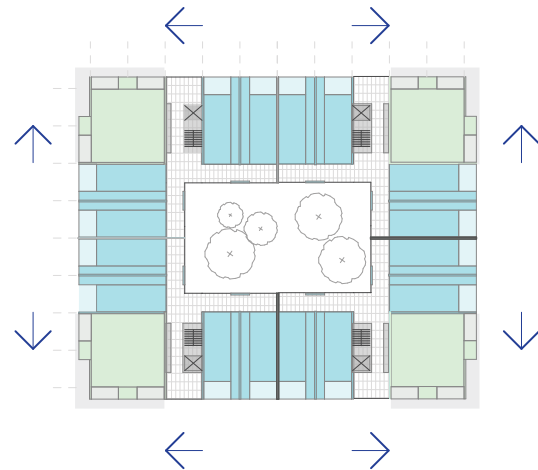


Pattern adaptations

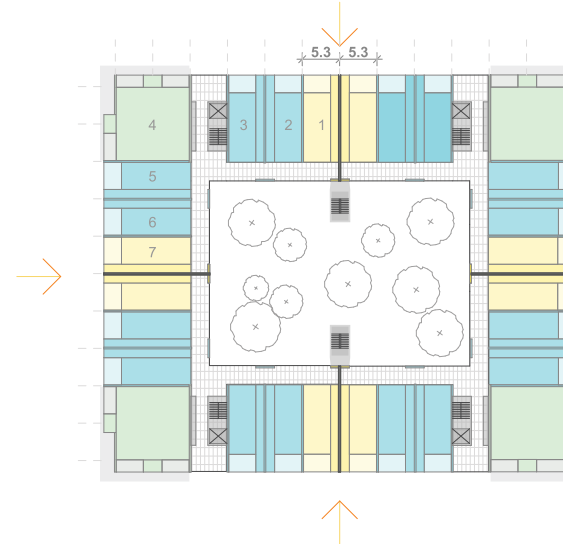
Base pattern



Expand by adding apartment modules



Add apartment module
Add additional stair



Lot size and minimum setbacks

These plans demonstrate the various lot size adaptations that are available for this pattern. Pattern sites must:

- meet minimum lot width, lot depth and total minimum lot area
- meet minimum setbacks (e.g. front, side, rear).

Refer to the planning pages of this document for further detail on the development standards of this pattern.

Analyse the drawing to find the most relevant example for your site, which shows required lot sizes and setbacks. Using this guidance, refer to the site plan to begin adaptation to your site.

► [Refer to A-200 series for pattern adaptations](#)

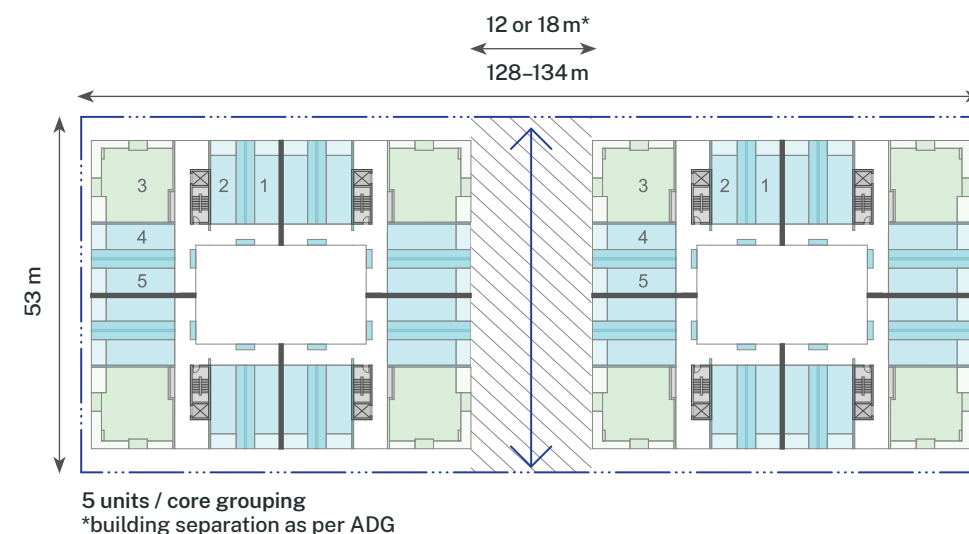
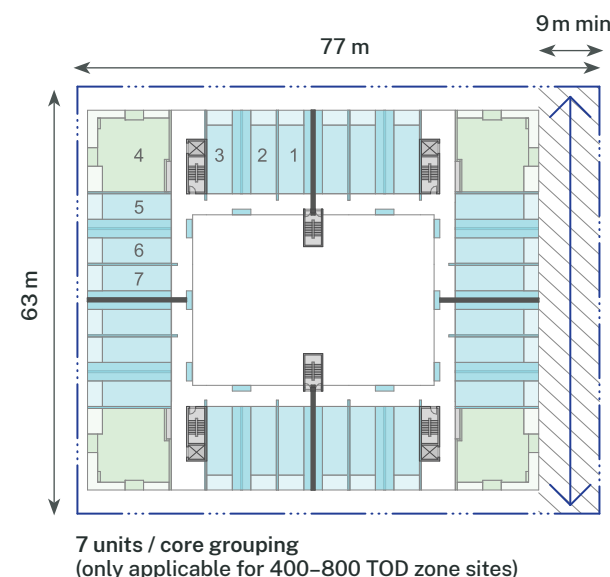
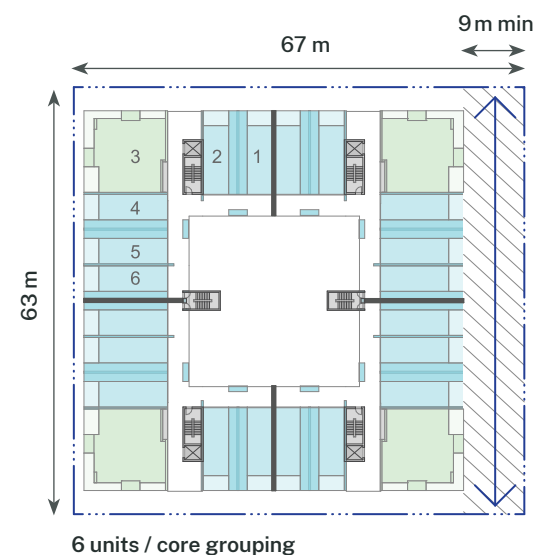
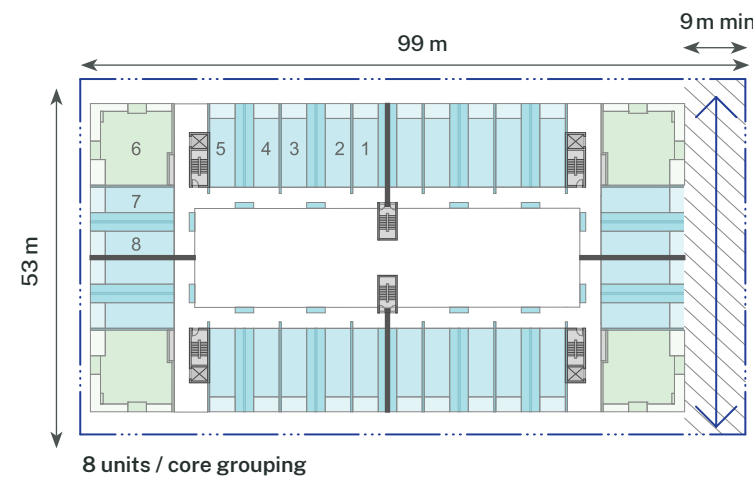
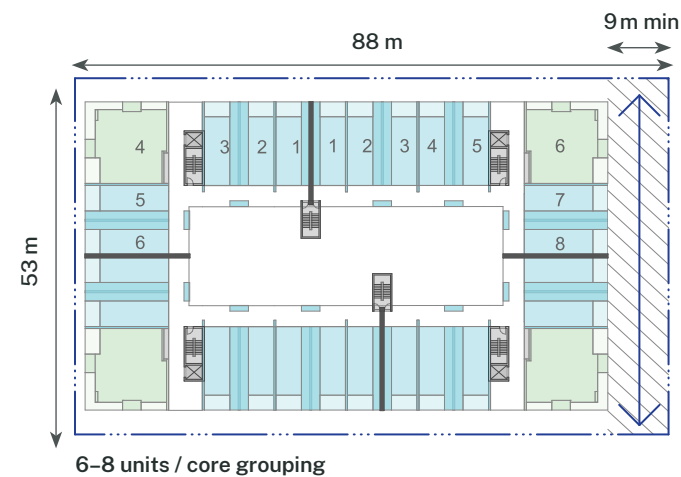
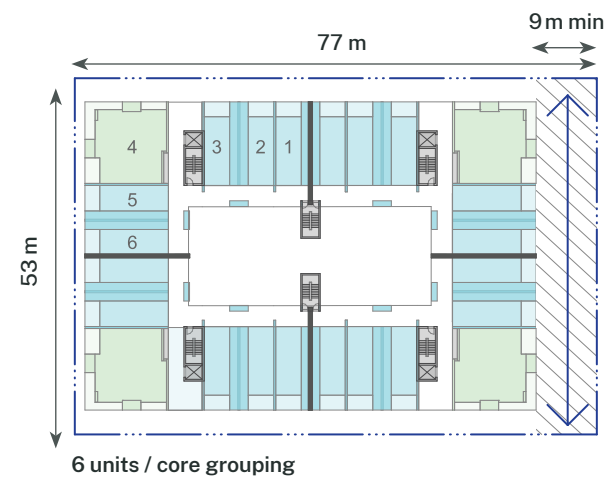
Maximum expansion

This pattern can increase in length and width by adding apartment modules to the central terrace component. The maximum expansion is 8 apartments per core to comply with fire egress distances.

A fire stair can be added when the number of apartments per core exceeds 8. This stair would project into the central courtyard as shown.

When the site length exceeds 99 metres, then a second structure can be introduced, with a through site link of 12 or 18 m between the two structures. These can be connected by a shared basement carpark.

Adapting to lot sizes



- Studio
- One bedroom
- Two bedroom
- Three bedroom
- Four bedroom

Not to scale

Material summary

Material selections

The patterns are available in a variety of material finishes, allowing flexibility to suit both user preferences and the unique character of each location. When selecting a material palette from these variants, consider how it complements the existing streetscape.

► [Refer to A-380 series for material palette information](#)



Common palette



Glass brick



Concrete



Mesh screen

Material palette 1

Brickwork and painted fibre cement board

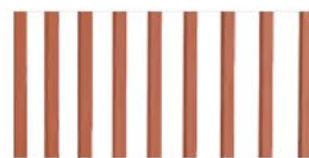
Terracotta palette



Brick



FC board

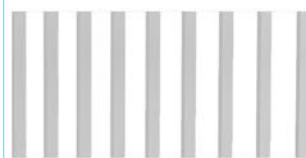


Aluminium frame and balustrade

Sage palette



Neutral palette



Material palette 2

Render and painted fibre cement board

Terracotta palette



Render

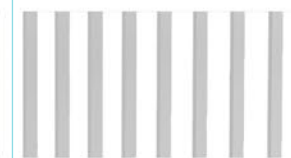


Aluminium balustrade

Sage palette



Neutral palette



Pattern selections

Using this guide, users can map how this pattern will be adapted to suit the specific site and meet the needs of future occupants.

Use this page to:

- Confirm the site meets the lot type, minimum frontage and area requirements of this pattern.
- Consider the parking adaptations and ground floor layouts.
- Consider the height adaptations.
- Review the lot features such as orientation and slope to inform which pattern adaptations need to be used.
- Consider the dwelling mix.
- Consider the material palette and character options available.

Siting location	Lot size	Adapt for suitability	Lot features	Building character
Lot type ☐ Greenfield sites ☐ Brownfield sites ☐ LMR or TOD housing areas ☐ Other locations	Lot dimensions ☐ 53–67 m ☐ 53–77 m ☐ 53–88 m ☐ 53–99 m ☐ 53–128 m ☐ 63–67 m ☐ 63–77 m Minimum lot size 3 m setback ☐ 53 to 128 m (double building variant) ☐ 3.5 m front and rear street ☐ 1.5 m tertiary street ☐ 9 m (through site link)			

*ABCB Voluntary Standard for Livable Housing Design: Beyond Minimum adapted from 'Gold Level' Livable Housing Design Guidelines, ABCB Livable Housing Design Standard adapted from 'Silver Level' Livable Housing De-sign Guidelines

Technical considerations

Engaging a design team

To prepare a mid-rise pattern for a site-specific planning application, the user must engage a design team to adapt the pattern drawings and prepare information required for the application. The team may include architects, engineers, quantity surveyors and other specialists.

It is the responsibility of the developer to investigate and understand the legal, financial, environmental and planning matters and risks of undertaking pattern book development on a chosen site.

Units and measurement

The pattern designs have been drafted to standard drawing scales. Site measurements are generally identified as a minimum, allowing users to make site specific adjustments. Should discrepancies exist, refer to the development standards table. Measurements for sites have been rounded to the nearest 0.1m. Areas have been rounded up or down to the nearest 5m².

NCC compliance

The mid-rise patterns are capable of compliance with the National Construction Code (NCC) 2022 subject to final technical specifications and details. Additional compliance measures and reporting are required for Class 2 under the *Design and Building Practitioners Act 2020*. For Class 2 development, the proponent is required to engage a practitioner registered with the NSW Design and Building Practitioners (DBP) Scheme.

Universal design

Mid-rise pattern book dwellings must comply with the Australian Building Codes Board (ABCB) Livable Housing Design Standard, which has been adapted from the ‘silver’ level requirements of the Livable Housing Association (LHA) Livable Housing Design Guidelines.

Several of the patterns include options of adapting one of all of the dwellings in the development to achieve the ABCB ‘voluntary standard’ (‘beyond minimum’) set out in the ABCB Voluntary Standard for Livable Housing Design: Beyond Minimum. The ABCB voluntary standard has been adapted from the LHA ‘gold’ level requirements.

Site slope

The pattern designs can be modified to suit gently sloping sites. The scope for this is documented in Requirements and Adaptations > Siting and Pattern adaptations.

As patterns are adjusted to meet specific site conditions, design considerations include:

- maintaining paths of travel to front doors according to the ABCB Livable Housing Design Standard
- potential for and locations of retaining walls
- stormwater management and drainage systems.

► [Refer to A-200 series for site slope adaptations](#)

Driveways and crossings

The location of the driveway and driveway crossing is shown on the plans. Proponents must ensure the design meets the requirements of relevant Australian Standards.

Driveways should not be affected by existing structures such as street trees, earth mounds, bus shelters, power poles or other physical features. Removal of such features may be permitted subject to council approval.

A description of parking and traffic approach and assumptions for the development of pattern designs is included in the technical guide to support the further design development of your pattern project for a specific site.

Construction and materials

The construction system for pattern designs provides efficient and coordinated planning, aligning load paths, wet areas and service risers where practical. Specific materials have been selected for the external elevations and character as shown on the materials pages.

Structural design

The pattern designs have been developed with input from structural engineers. A description of their assumptions and advice for the further development of a pattern for a specific site is included in Technical summary.

Facade design

The facade design of the mid-rise patterns designs have been developed with input from specialist consultants. A description of their assumptions and advice for the further development of a pattern for a specific site is included in the technical guide.

Entries

The location of entries into the building, into individual apartments and onto balconies, roof terraces and the like are all set by the pattern and cannot be changed.

Interior layouts

Any changes to apartment interiors must be declared in the design verification statement and cannot exceed the flexibility listed above. The position of all rooms must be in accordance with the apartment layouts provided in the pattern, this can include mirrored layouts where the pattern provides for this.

Fixture and fittings may be selected and positioned at the discretion of the applicant, except for robes and storage sizes and bathroom dimensions and clearances, as these are set by the pattern. Specification of bathroom fixtures (toilets, baths, sinks) are at discretion of the applicant provided that there is no reduction in clearances, including but not limited to those associated with liveability and adaptable apartments.

Services provision

The pattern designs have been developed with input from specialist consultants. A description for each of these disciplines and their assumptions is included in the technical guide to support the development of your pattern project for a specific site.

Fire performance

Fire risks have been discussed with Fire and Rescue NSW (FRNSW). Examples of typical fire performance solutions have been developed to assist project teams in completing fire performance documentation for their development. To ensure the safety and compliance of the development, seek expert advice from a fire consultant and consult with FRNSW as required by relevant legislation.

Services assumptions

Mechanical	1 condenser/apartment; exhausts avoid fire compartments
Electrical	Load <1000 kVA; photovoltaics (PV) roof allocation 20–100%; switchroom 20m ²
Hydraulic	2000 L grease traps; dual pump sets; risers near fixtures
Fire	1–2 hydrants based on area; 215m ² tank room; full smoke detection
Civil	On-site stormwater detention (OSD) 0–470m ³ /ha; 10kL rainwater tanks; 3.5mm/m ² /day irrigation
Rooftop condensers and risers	Per apartment
Substations	External kiosk
Kitchen / bathroom	Risers stacked for efficiency All electric appliances Clearances retained
Fire systems	Coordinated with spatial layouts
Rainwater tanks	Upstream or combined with OSD

► [Refer to Mid-rise pattern book technical guide > Services for details.](#)

Waste

A consistent approach to waste management has been applied to the pattern to support practical and adaptable waste solutions across NSW. The approach has been derived from the NSW Environment Protection Authority (EPA) *Better practice guide for resource recovery in residential developments* and relevant legislation. It has also been informed by a review of 30 council waste guidelines, and spatial assessment of kerbside, wheel-in wheel-out (WIWO) and on-site collection options across all patterns.

Program objectives

The pattern approach to waste management aims to:

- enable consistent, affordable and practical waste management solutions that can suit unknown future sites
- align with the NSW EPA Better practice guide and relevant legislation
- provide a clear planning pathway for waste collection and storage planning in the patterns that can be applied statewide to address variability in council requirements.

Assumptions

The waste design for patterns assumes that:

- Waste collection is council-managed (not private) and there is a weekly pick-up for all streams.
- Low-tech solutions and manual manoeuvring are allowed for as building managers may not be available to operate complex equipment. If equipment (for example bin lifts, compactors) is needed for large lots, this is shown on the drawings.
- Allowance has been made for general, recycling and organic waste streams, as waste consolidation may be impractical for small-scale developments due to spatial and operational constraints. Bulky waste storage has also been provided.
- Basement waste collection has been limited, due to spatial constraints on small lot sites.
- Waste generation estimates and bin room sizing are designed to accommodate weekly and fortnightly collection.

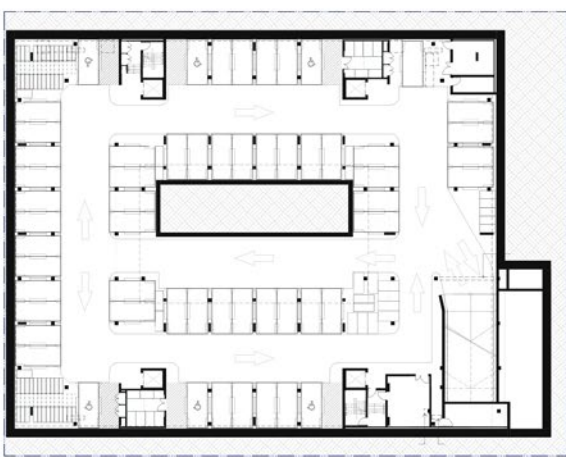
Collection method

— On-site pick-up: all Streams weekly

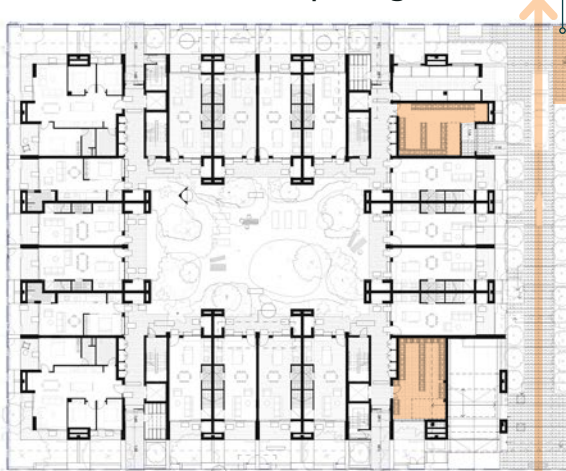
Seek advice

Refer to the NSW EPA Better practice guide early, with advice from a waste consultant as required.

Basement – parking



Ground floor – basement parking



Ground floor – on-grade parking



Bin collection zone

Service access

Service access

Metrics (assumptions)

Waste generation rates per unit

Studio/1-bed	80 L general 80 L recycling 25 L organics/week
2-bed	100 L general 100 L recycling 25 L organics/week
3-bed	120 L general 120 L recycling 50 L organics/week

Bulky waste

Up to 40 dwellings	10 m ²
Per 10 additional dwellings	+2 m ²
Problem/textile waste	Optional 1 m ²

Waste generation rates for the base pattern

Type 4 (25–100 units)	Up to 9,820 L general and recycling 3150 L organics/week
Nominal bin room sizing	24 m ²

Collection requirements

Weekly collection of all streams

Sizing for the base pattern

Maximum number of 240-L bins to be presented every week	75 (on-site)
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Parking and traffic

Approach

There are different options available for off-street parking resulting in varied total parking numbers. The user may choose between the base parking option (basement parking) or at grade parking. Configurations comply with Australian Standards. Basements can be replanned as required but must not alter other pattern requirements outlined in this document.

For this pattern, the parking selection impacts whether the central courtyard is on ground level or level one. When on-grade parking is selected, the central courtyard will be on level one.

Objectives

- Ensure compliance with Australian Standards (AS2890 series).
- Provide spatial planning guidance for residential and service vehicle parking.
- Address site-specific constraints and public domain interfaces.
- Recommend technical solutions for restricted access scenarios.

Assumptions

- Site interfaces with public roads vary across NSW and influence design.
- Residential parking is primarily Class 1A.
- Heavy vehicle access must be forward in/forward out.
- Ramp designs assume a typical 3m level difference.
- Heavy vehicle parking is ideally placed on ground level, outside building structures.

Brief

- Mid-rise pattern book schemes vary in topography and planning context.
- Basement and at-grade parking options are considered.
- Designs for residential off-street parking consider:
 - space dimensions
 - ramp grades
 - driveway access.
- Recommendations for heavy vehicle parking and service bay dimensions are shown.
- Technical solutions are provided for narrow or restricted access corridors.
- Emphasis on compliance and practical implementation across diverse site conditions.

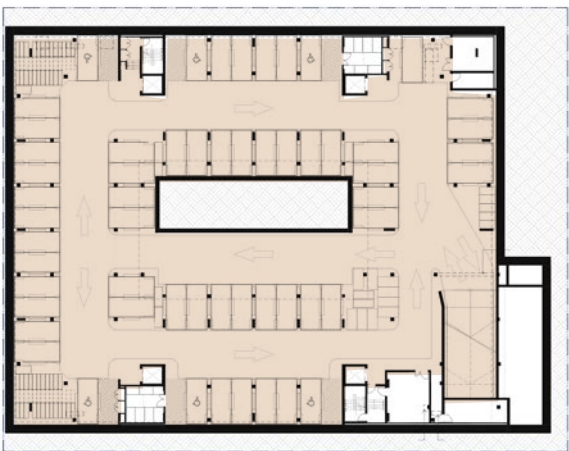
Seek advice

- Further design refinement should consider:
- updated AS2890.1 standards (pending renewal)
 - integration with public domain and pedestrian pathways
 - operational feasibility of vehicle priority systems.

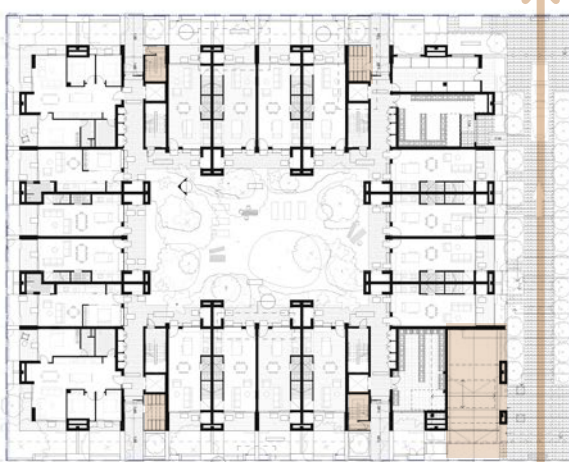
These diagrams demonstrate the two available parking configurations. Analyse the diagrams and user requirements to find the most suitable adaptations for your development.

► Refer to A210, A311 and A-350 series for ground floor and basemen plans and sections

Basement – parking



Ground floor – basement parking



Service access

Ground floor – on-grade parking



Service access

Metrics (assumptions)	
Residential parking dimensions	90° angled: 5.4 m x 2.4 m (aisle: 5.8 m or 6.1 m with obstruction)
Parallel	2.1 m width (2.4 m with obstruction), 5.9–6.3 m length
Ramp grades	2 m @ 12.5%, 11 m @ 25%, 2 m @ 12.5%
Driveway access	6 m section at 1:20 slope for waiting and pedestrian access
Service bay	Max gradient: 1:25 (4%) 4.5 m clear height required
Access ramps acomodated by designs	Single-width Two-way
Vehicle priority systems recommended for safe access	Small sites: traffic lights and convex mirror Larger sites: traffic lights and access control and waiting area