SEPP 65 Design Statement

35-43 Belgrave Street,
Manly NSW 2095

Prepared for
Time & Place

Issued
29 June 2023

Gadigal Country
Level 2, 490 Crown Street
Surry Hills NSW 2010

T 61 2 9380 9911
E sydney@sjb.com.au
W sjb.com.au

SJB acknowledge the Traditional Custodians of the land on which we live, practice, and visit, and pay our respects to Elders past and present. We recognise the continuous engagement and caring of the lands, waters, and skies by First Nations peoples for time immemorial.

We support the Uluru Statement from the Heart and accept its invitation to walk with Aboriginal and Torres Strait Islander people in a movement of the Australian people toward a better future.

Issued		
V01	Draft	28/06/2023

CERTIFICATION #NC423
NO CO2
WWW.NOCO2.COM.AU

Certified Management Systems

ISO 9001:2015 Quality Management System
ISO 45001:2018 Occupational Health & Safety Management System
ISO 14001:2015 Environmental Management System

Version: 01

Prepared by: EQ
Checked by:NH

Gadigal Country
Level 2, 490 Crown Street
Surry Hills NSW 2010

T 61 2 9380 9911
E sydney@sjb.com.au
W sjb.com.au

SJB Architecture (NSW) Pty Ltd
ABN 20 310 373 425
ACN 081 094 724

Nominated Architects
Adam Haddow 7188
John Pradel 7004

Contents

1 Design Verification Statement

The purpose of this statement is to outline the design rationale and process that was adopted to prepare the application scheme.

Design Verification Statement

Prepared to accompany the Development Application submitted to Council

03 July 2023

35-43 Belgrave Street, Manly, NSW 2095

Prepared on behalf:
Time & Place

Prepared by:
SJB Architects NSW

Verification of Qualifications

John Pradel and Adam Haddow are registered as Architects in New South Wales and are enrolled in the Division of Chartered Architects in the register of Architects pursuant to the Architect Act 1921.

Their registration Numbers are 7004 and 7188.

Statement of Design

SJB have been responsible for the design of the project since its inception and have worked with related professionals and experts in respect of the matter. The project has been designed to provide a development that is respectful of local planning and design controls and responds to the nine design quality principles of SEPP No. 65.

SJB verify that as required by the Clause 50 (1AB) of the Environmental Planning and Assessment Regulation 2000 the design quality principles set out in Schedule 1, design quality principles of the State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development and the objectives in Part 3 and Part 4 of the Apartment Design Guide have been achieved for the proposed development as described in the following document.

Adam Haddow
Director
Registered Architect NSW, No. 7188

2

SEPP65 Design Quality Principles

The following content outlines the architectural scheme against the nine Principles of Design.

2.1 Principle 1: Context and Neighbourhood Character

Site location

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character.

Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Site aerial

Planning controls

Manly LEP 2013

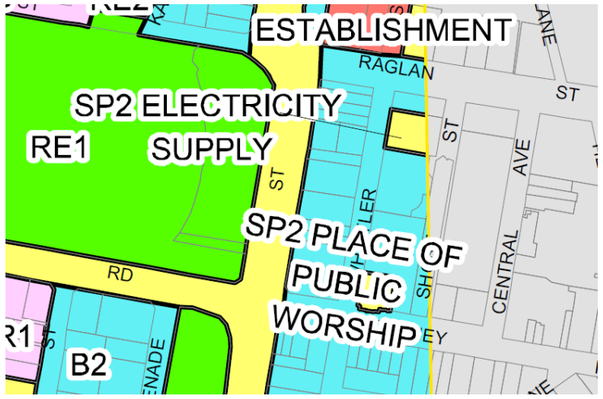
- Zoned B2 - only residential uses which are permitted are shop-top housing, boarding houses and hostels;
- Active street frontage;
- FSR - 3:1;
- Height - 15m;
- Within “scenic foreshore protection area”;
- Not heritage listed or within Con Area, but item in vicinity opposite Whistler Street - Electricity Substation, 34A-36 Whistler Street;
- Acid Sulphate Class 4 - investigation required where water table is lowered below 2m.

SEPP 65: Design principles - parking, ceilings heights, unit sizes

Manly DCP

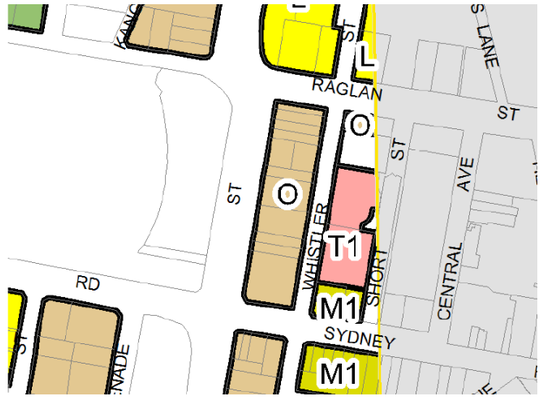
- Triggers “design excellence” provisions in accordance LEP clause 6.13 (4)
- Located in Manly centre, existing setbacks may be retained. Northern elevation of 40 Belgrave Street identified as “Important Corner” where the DCP requires: “Important corner sites shall be maintained, including strongly defined corner buildings. Ensure corner development has strong height and facade elements with building along the street frontage being set by these corner heights. Construct to boundary. Maintain and re-use existing development if it achieves objectives for these corner sites.”
- Parking - exception available based on site context and vehicle and pedestrian safety. May be offset against contributions.
- Shop top housing parking:
    - 0.6 resident parking space for each Studio or one bedroom dwelling, plus
    - 1 resident parking space for each 2 bedroom dwelling, plus
    - 2 resident parking spaces for each 3 or more bedroom dwelling, and plus
    - 0.16 visitor parking space for each dwelling (irrespective of number of bedrooms).
    - Commercial Parking - 1 parking space for every 40sqm of gross floor area.
- The northern edge of the building, based on this initial assessment, may be a critical assessment issue.
- ADG - building separations, common open space, landscaping, solar access, ventilation.

Zoning



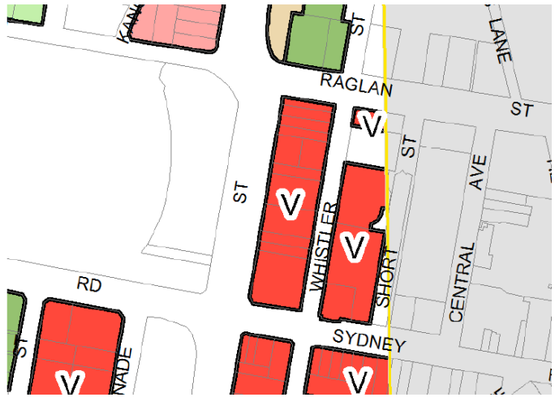
B2 local centre

Building height



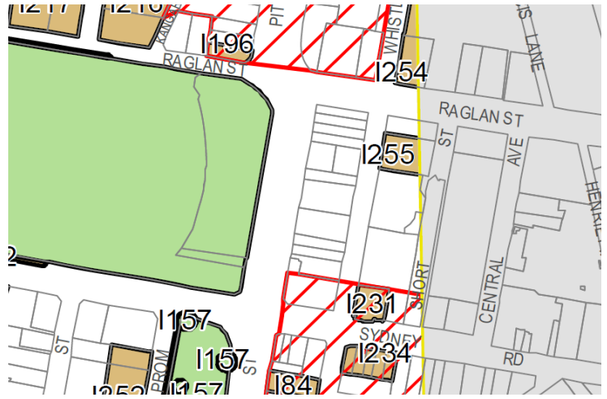
O 15

Floor space ratio



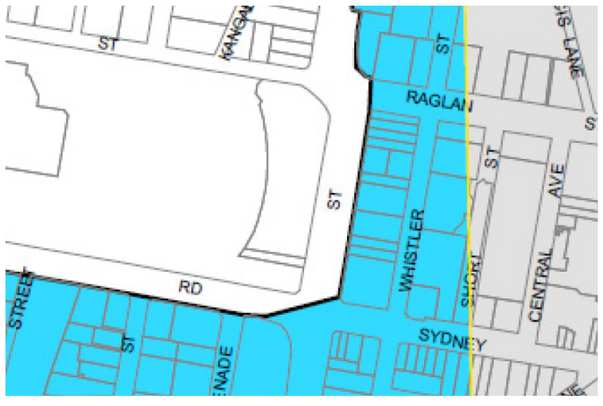
V 3.00

Heritage



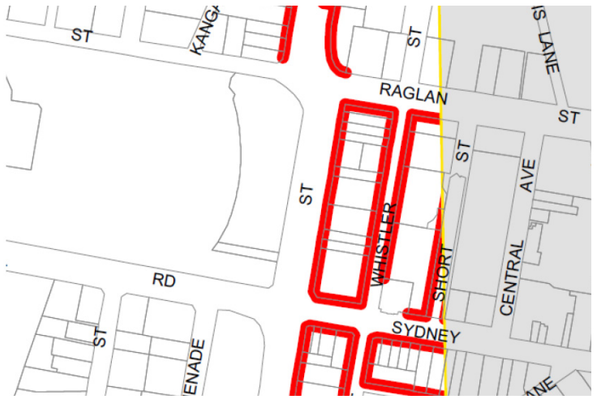
- General conservation
- Archaeological
- General
- Landscape

Foreshore scenic protection



Foreshore scenic protection area

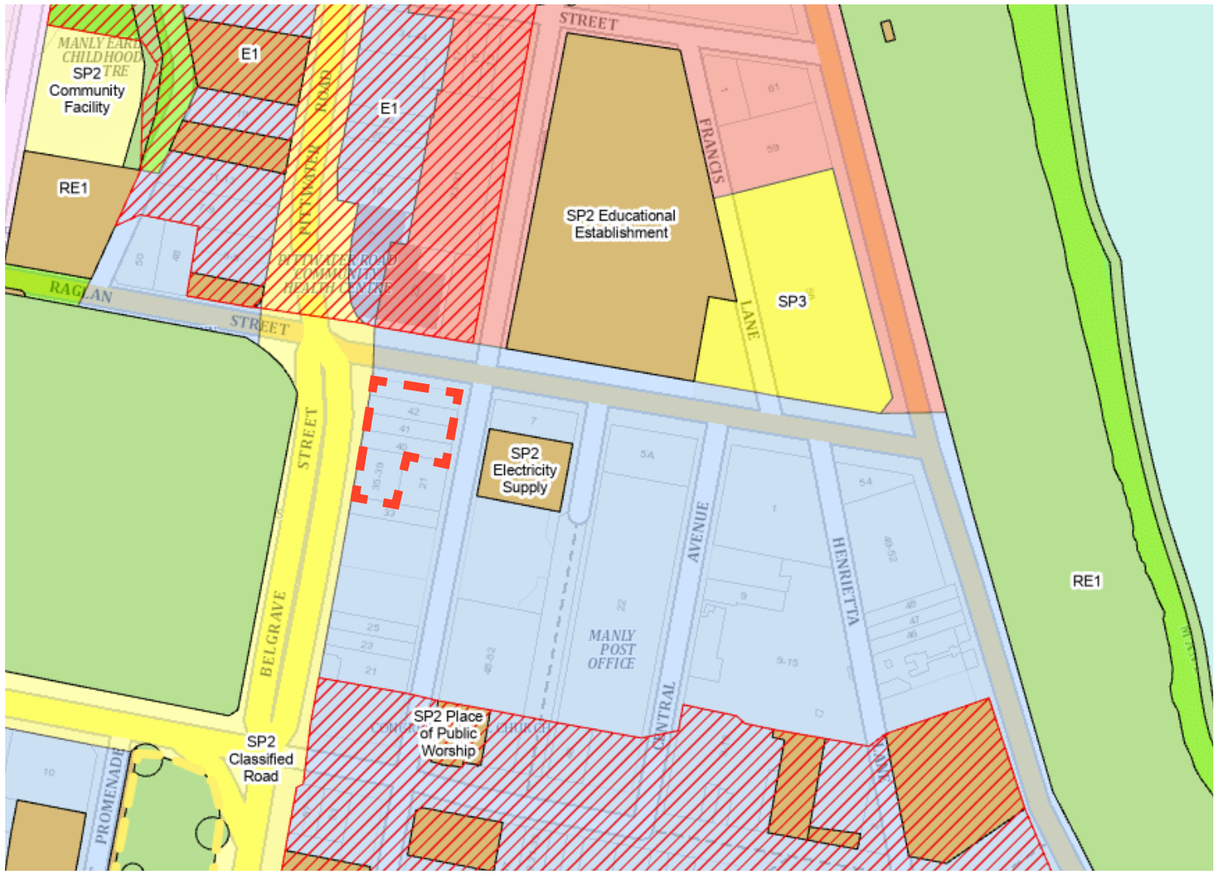
Active street frontage



Active street frontages

Heritage character

- The site is located opposite the General Conservation area and is in the vicinity of several heritage listed items as pictured to the right.
- The built heritage character of the area consists of masonry and stone buildings with finely detailed openings and parapet elements.



Manly Court House and Police Station

Congregational Church

Electricity Substation, 34A-36 Whistler Street

St Mary's Catholic Primary School

Belgrave Street flats

Raglan street flats

Site photos

- The site in its current condition contains four existing low-scale buildings of various ages. They vary between 2-3 storeys.
- The individual buildings are considered low-quality and are inflexible given their indivual scales and typologies.
- The site is surrounded by buildings of varying scales and given its prominent corner position will benefit from a new, high-quality development.

Add captions

Corner of Raglan and Whistler Streets looking south-west

Corner of Raglan and Belgrave Streets looking south-east

Corner of Raglan and Belgrave Streets east

Belgrave Street looking east towards the site

Belgrave Street looking north-east towards the site

Pre-colonial landscape

- Manly is located on land of the Cameragal People.
- Kai'ymay - Manly - named by Governor Philip due to the stature and character of the Aboriginal men that lived in the area.
- Manly is a place of very early encounters with aboriginal people, and the first interaction with aboriginal women who were usually protected from encounters with early settlers.
- Manly consisted of a harsh, highly exposed coastal environment but was an import food source. It was the site of many middens, camps and caves used for shelter.
- The natural beauty and microclimatic conditions of Manly should be understood in the design reposnse through appropriate material and plant selections that are local to this place and ensure that environments for non-human life are also created.
- The development will utilise passive and active design principles to ensure its longevity, comfort and sustainability.
- Opportunities for planting to land on horizontal surfaces as it does naturally in this context will be maximised to assist with slowing of water, to reduce the heat island affect and to provide habitat for local flora and fauna.

North Head, Manly

Local rock engravings

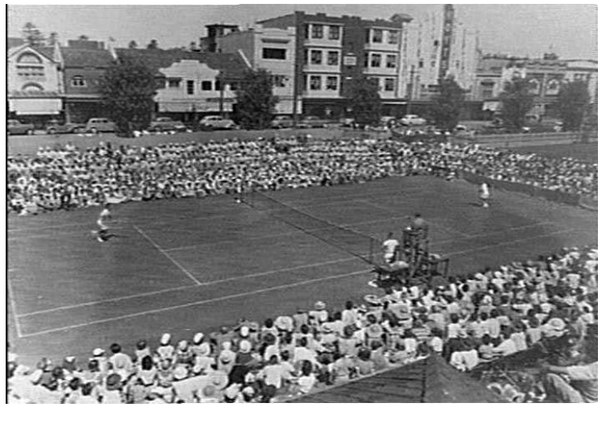
Taking of Colebee, Manly Cove, 1788

Belgrave Street, Manly, 1926

Built history

- The historic lot patterns of Manly were fine-grained and rythmic.
- The buildings on this portion of Belgrave Street in particular held their street edges and defined a consistent street wall which bordered the oval and tennis club.
- The verticality and fine-grained nature of the historic lot boundaries will help to inform the level of articulation of the new development.

Site Aerial 1943



Context character

Playful parapets and colour

- Many of the historic buildings in Manly filled their site's edge-to-edge and relied on a finely detailed frontage, often with playful, ornate parapets.
- The detailed parapets would assist in giving a distinct identity to the different buildings and ensure buildings would touch the sky in an interesting manner.
- The new proposed building will draw upon the articulated parapets of Manly and seek to touch the sky in an interesting and sculptural manner as opposed to a continuous flat roof.

Arched spaces

- Arches and sculptural facade openings are prevelant in the historic buildings of Manly, particularly the Spanish Mission stlye and era.
- Arches will be used in the proposed development to create variety and interest in the facade design as well as in the roof form which will frame and define special spaces at the upper level of the building.

Simple palette, fine details

- There are many architectural styles present in Manly, the most special ones have a consistent, durable matieral palette with fine detailing.
- Well crafted buildings become loved and cared for and stand the test of time.
- The new building will draw upon the principles of a simple palette of materials with high-quality detailing and playful elements at key moments of the building - such as awnings, entries and upper level balconies.

2.2 Principle 2: Built form and scale

Massing diagrams

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

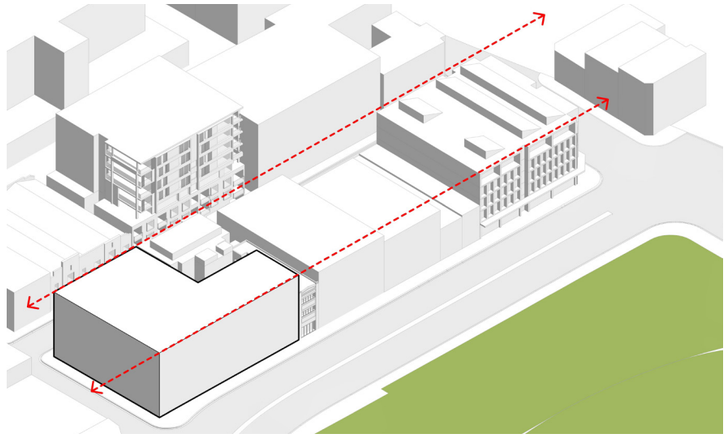
Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

The proposed massing

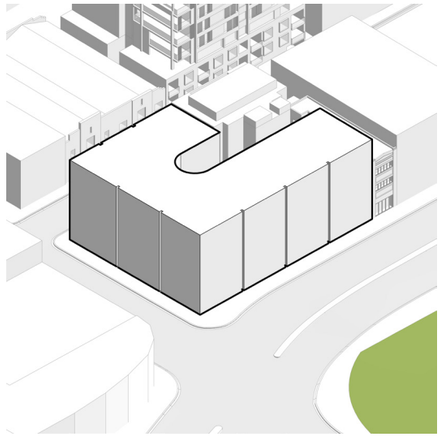
The proposal responds to the scale of surrounding developments and is appropriate to its prominent corner position.

The building holds the site's edges and protects and activates the public domain with new, high-quality retail spaces as well as greening and amenity of the streetscape through the proposed awning structures.

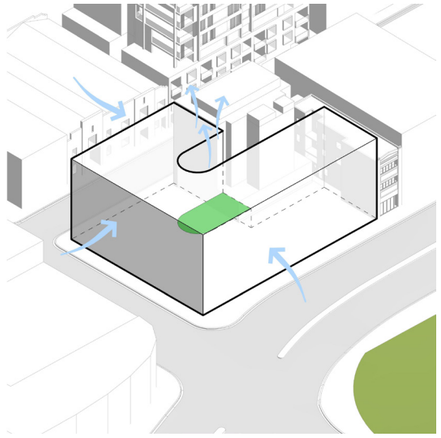
The design of the facade protects the lower level apartments for privacy and acoustics whilst maintaining and orienting views towards the beach and the surrounding parklands.



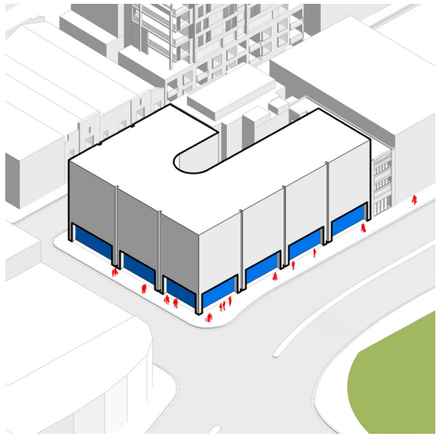
Street wall responds to existing street wall heights estabished on Belgrave and Whistler Streets



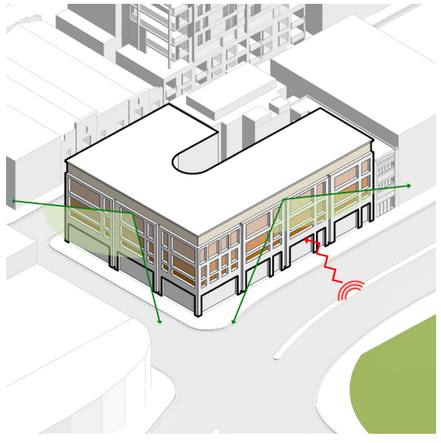
Vertical facade articulation in response to rhythm of surrounding and historic character



Breezeways circulate garden at heart of site for residential amenity

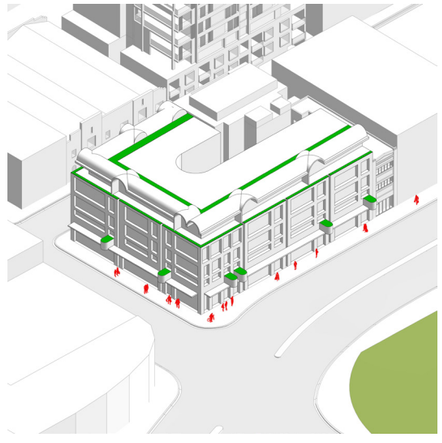


Fine-grained, ground level retail activation to all street frontages



Transitions to less solid towards top of building where away from noise and privacy interfaces

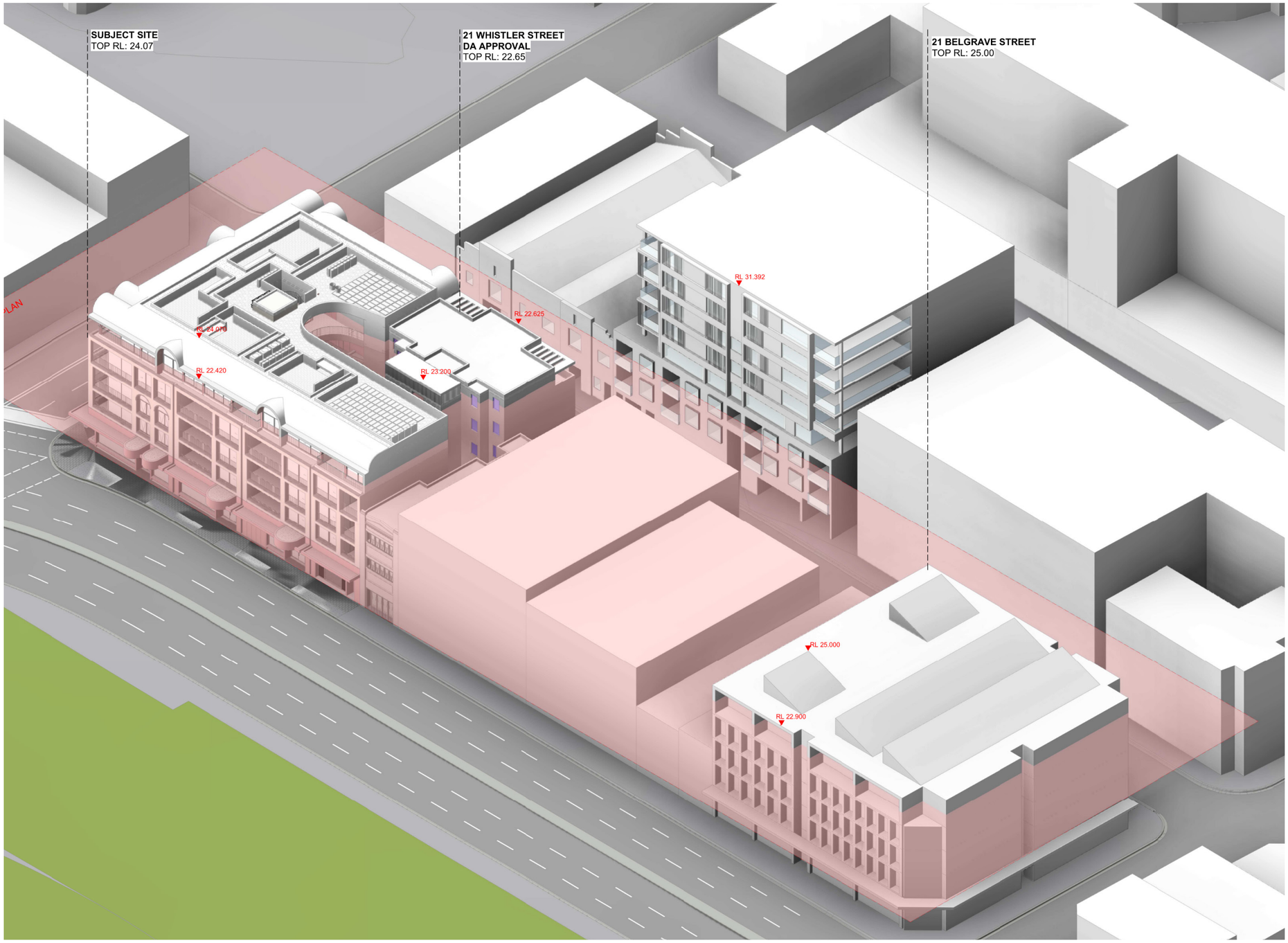
Articulated roof form creates interest at skyline as well as unique spacaes with generous volume for the apartments



Landscape establishes on horizontalsurfaces of awnings and upper POS

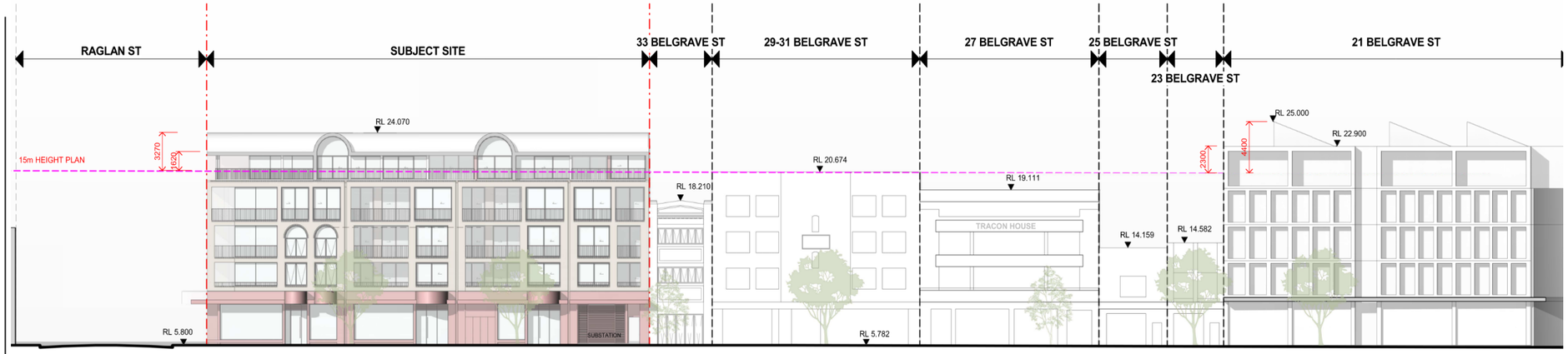
Existing building heights and levels

- The proposed building exceeds the 15m height limit but is consistent with the surrounding context including a recent approval at the adjacent site 21 Whistler Street as well as the bookend corner site at 21 Belgrave Street.
- The upper-most level partially exceeds the height as represented in the diagram to the right.

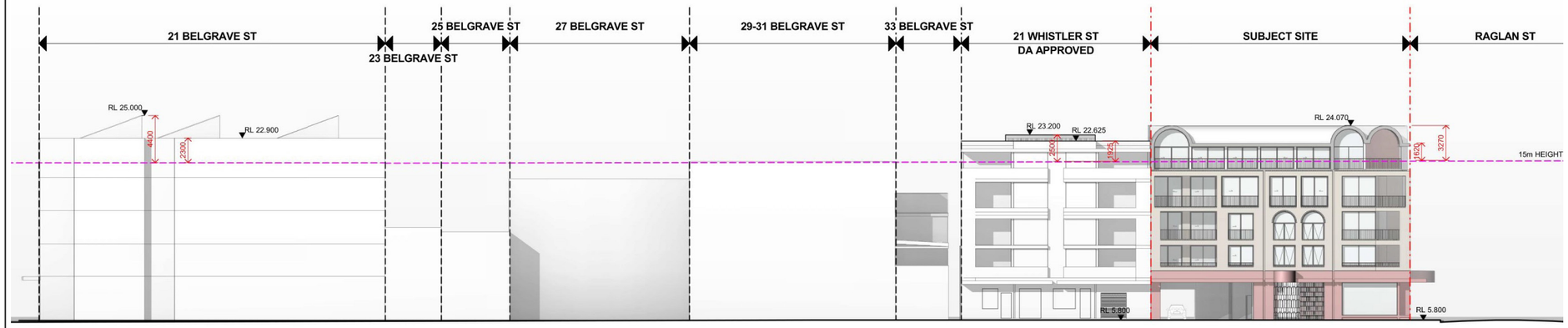


Height analysis

- The street elevations put the proposed heights in context with the surrounding historic buildings as well as the recent developments at 21 Whistler St and 21 Belgrave Street.
- The parapet height and leading edge of the roof defines the height of the building as perceived from the public domain, represented in the 3D images to the right.
- The main bulk of the roof form is not visible from the surrounding streets given its vaulted form.
- Rooftop plant and balustrading is concealed by the vaulted roof which curves away from the building edge and provides visual protection to roof services in a way that is integral to the architecture.



Streetscape elevation - Belgrave Street



Streetscape elevation - Whistler Street

View on corner of Raglan and Belgrave Street

View on corner of Raglan and Whistler Street

View from opposite 21 Belgrave Street looking north towards site

2.3 Principle 3: Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Appropriate density

The proposal has a floor space ratio of 3.0:1, responsive to the Council control of 3.0:1 and consistent with recently approved developments nearby. All apartments experience a high level of amenity, with both views and generous private open space as well as volume at the upper levels.

Proximity to transport

The proposal is well served by public transport, given proximity to bus stops.

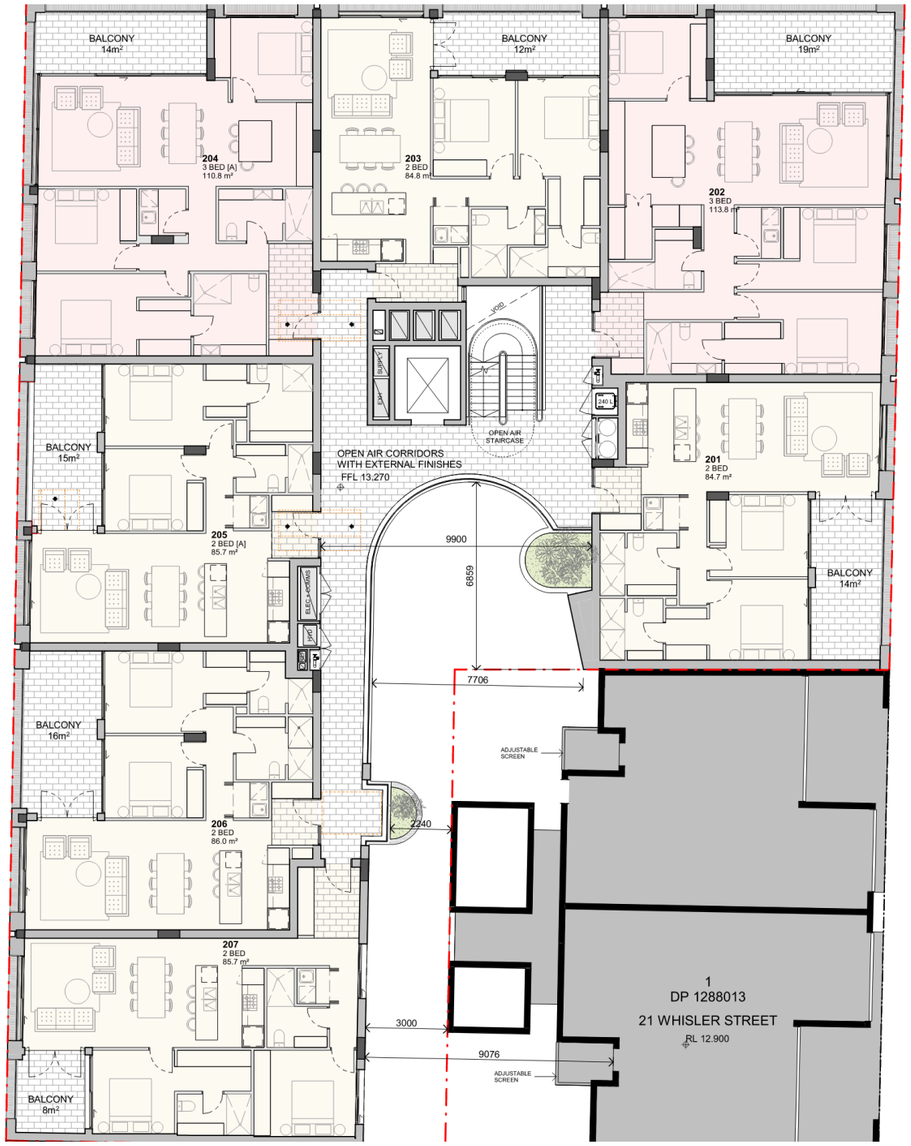
The proposal is also within walking distance of Manly Wharf, with frequent ferry services to the CBD. All apartments are provided with a carspace.

Apartment mix:

— Studio Apartments	0%
— 1 Bedroom Apartments	0%
— 2 Bedroom Apartments	60% (84 - 86 sqm)
— 3+ Bedroom Apartments	40% (110 - 185 sqm

Artist impression, view along Belgrave Street looking North

Artist impression, view from the corner of Belgrave Street and Raglan Street looking South



Typical floor plan layout and connected external spaces,

2.4 Principle 4: Sustainability

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.

List of incentives

The proposal incorporates a number of principles of sustainability:

- Extensive landscaping to minimise stormwater run-off
- On-site rainwater detention and re-use
- Natural ventilation to breezeway corridors and the majority of apartments (100% of apartments are cross-ventilated)
- Maximising direct sun to apartments while utilising facade depth and solid to glazed ratio to control summer heat gain (92% of apartments receive a minimum of 2 hours direct sunlight in mid-winter)
- Predominantly constructed from locally produced, sustainable materials chosen favouring longevity and minimising maintenance.
- Energy-efficient lighting and appliances
- Water-efficient fixtures
- Proximity to public transport and local shops
- On-site energy generation through a major solar PV array on the roof to reduce operational energy and GHG emissions associated with the site;
- Water Sensitive Urban Design Principals being upheld;
- Water recycling through rainwater storage for irrigation on site;
- A minimum 90% diversion of waste from landfill target during demolition and construction;
- Creating and following a Green Travel Plan to reduce emissions from transport;
- Providing parking capacity for electric vehicles to prepare for a decarbonised future;
- Urban heat island effect mitigation strategies, including planted greenery and light-coloured roofs; and
- Following a range of sustainability initiatives across the site spanning energy efficiency, thermal performance, indoor environment quality, waste management, and comfort.
- Exceeding BASIX Energy by 5%
- Maintaining a 7 Star NatHERS Average across the development

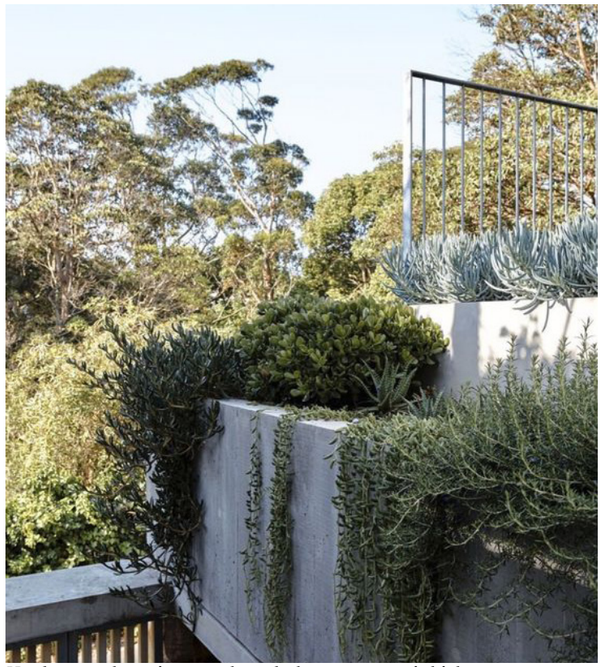
2.5 Principle 5: Landscape

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character.

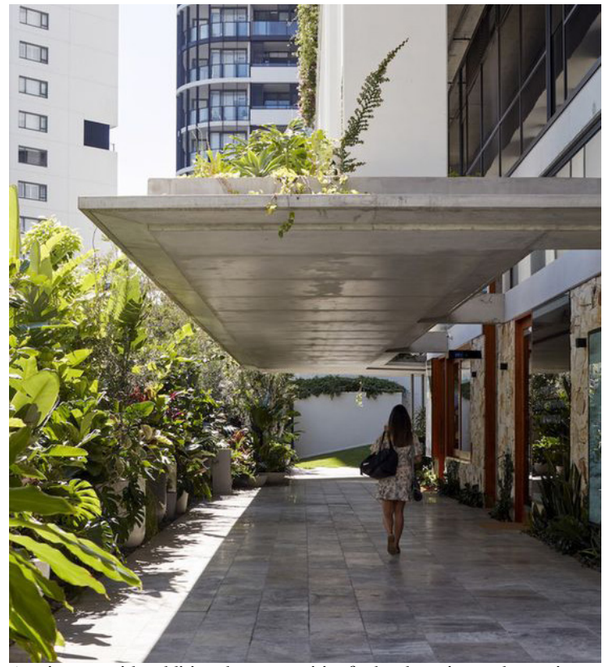
Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Landscape Concepts

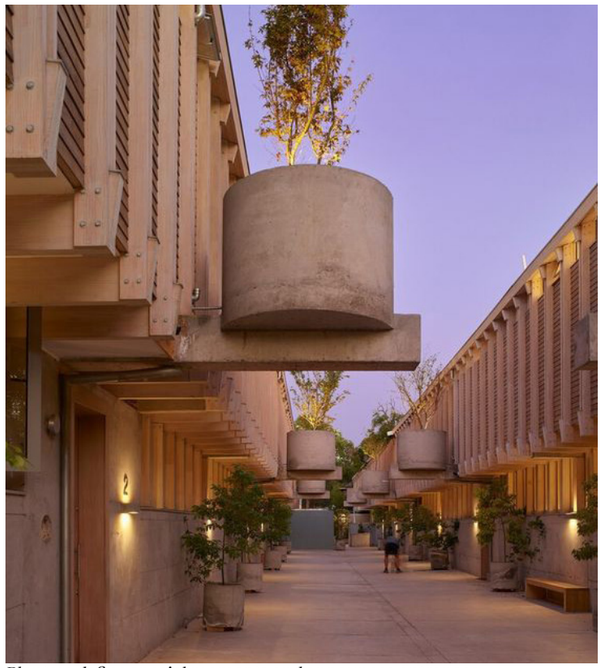
- Embedding the built-form in a strong coastal landscaped setting.
- Maximising green amenity through lower ground pockets, awnings & terraces & rooftop landscaping.
- Creating a fine-grain & connected community
- Creating small and special moments for residents to connect as neighbours in a boutique environment.
- Promoting a personal connection with nature and improving mental health & well-being.
- Promoting visual connections to nature at all times to
- allow nurturing and healing through landscape and
- provide residents with their own high quality garden
- experience.



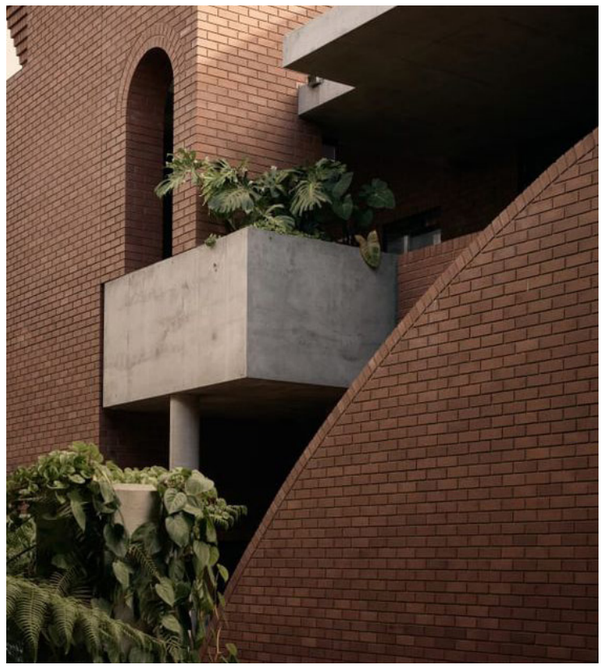
Hardy coastal species are selected where exposure is high

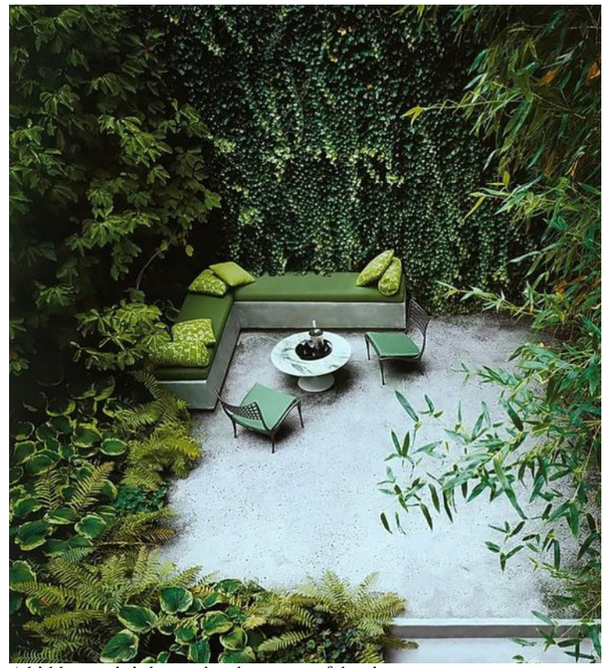


Awnings provide additional opportunities for landscaping and greening



Planters define special moments and announces entrances





A hidden oasis is located at the centre of the site

Extent of landscaping

- Horizontal surfaces provide opportunites for hardy native plants to land - providing habitat for local flor and fauna in an increasingly urbanised context, including at awning and rooftop levels;
- Garden oasis located at the heart of the building.
- The proposal incorporates landscaping at a number of levels including to street interfaces and on awnings. Also at ground level and level 1 where communal open space is provided with landscaping and seating areas.
- Top floor apartments are provided with roof top terraces, incorporating raised planters and roof gardens.
- The high proportion of soft landscaping to roof areas effectively minimises stormwater runoff.
- Excess stormwater is captured and used to water the ground level landscaping.
- Plant species have been selected to suit the location and climate, maximising the use of native species.

Concrete awning planting

Internal courtyard

Seating areas off common circulation

Porposed landscape concepts (Land & Form Architects) - Level 1

Central garden oasis

- The communal dwelling and circulation spaces are defined by the garden oasis created at the heart of the site.
- The central oasis will be a cool space with a unique planting character that responds to its specific sunlight conditions year round.
- This space is protected yet open to the elements, adding to the experience and amenity of this building for residents and visitors alike, changing with the seasons and each visit.

Artist impression, Level 1 garden view looking south from the residential lift lobby

2.6 Principle 6: Amenity

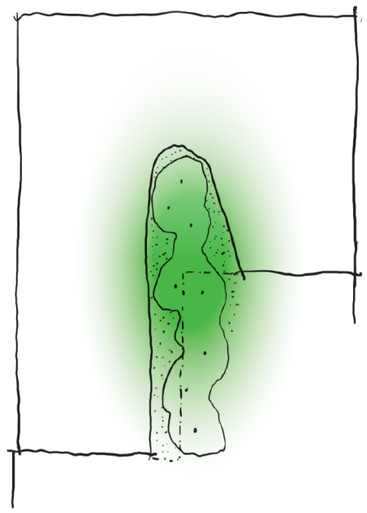
Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

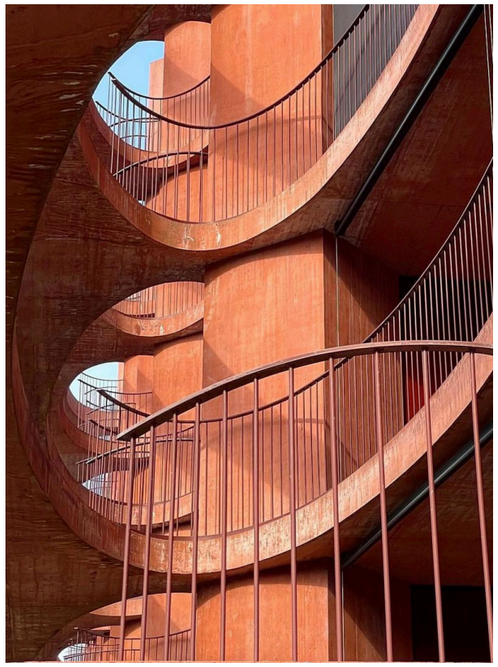
Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, and ease of access for all age groups and degrees of mobility.

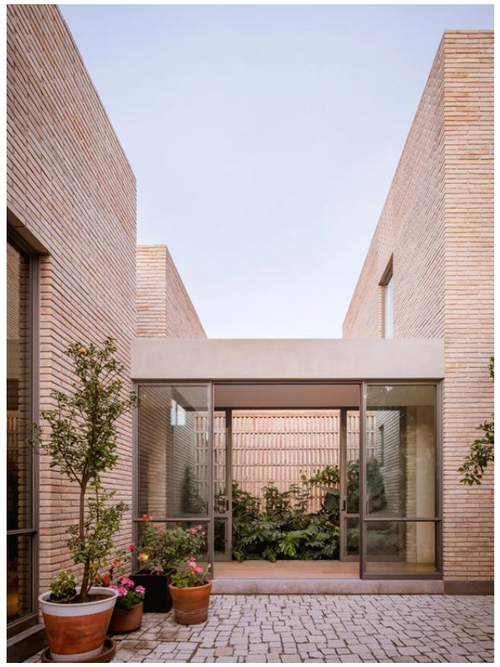
Internal character

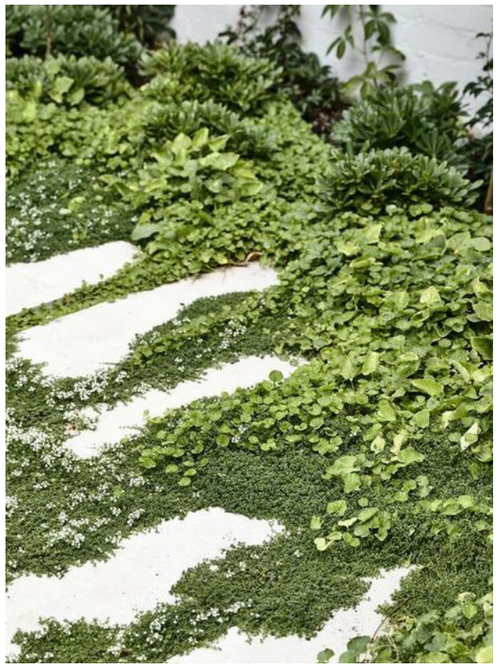
Through the development of the scheme design the following issues were considered:

- Communal landscaped spaces have been provided for the residents which contribute to the experience of circulating through the development.
- Access to daylight for the general amenity of all apartments. While driven by the existing street orientations, the location and design of the apartments maximises daylight access, minimising apartment depth
- The development contributes to the general public amenity at ground floor level through the activation of frontages via retail, residential entry and balcony orientation
- Views from private apartments are optimised through the site planning and orientation.

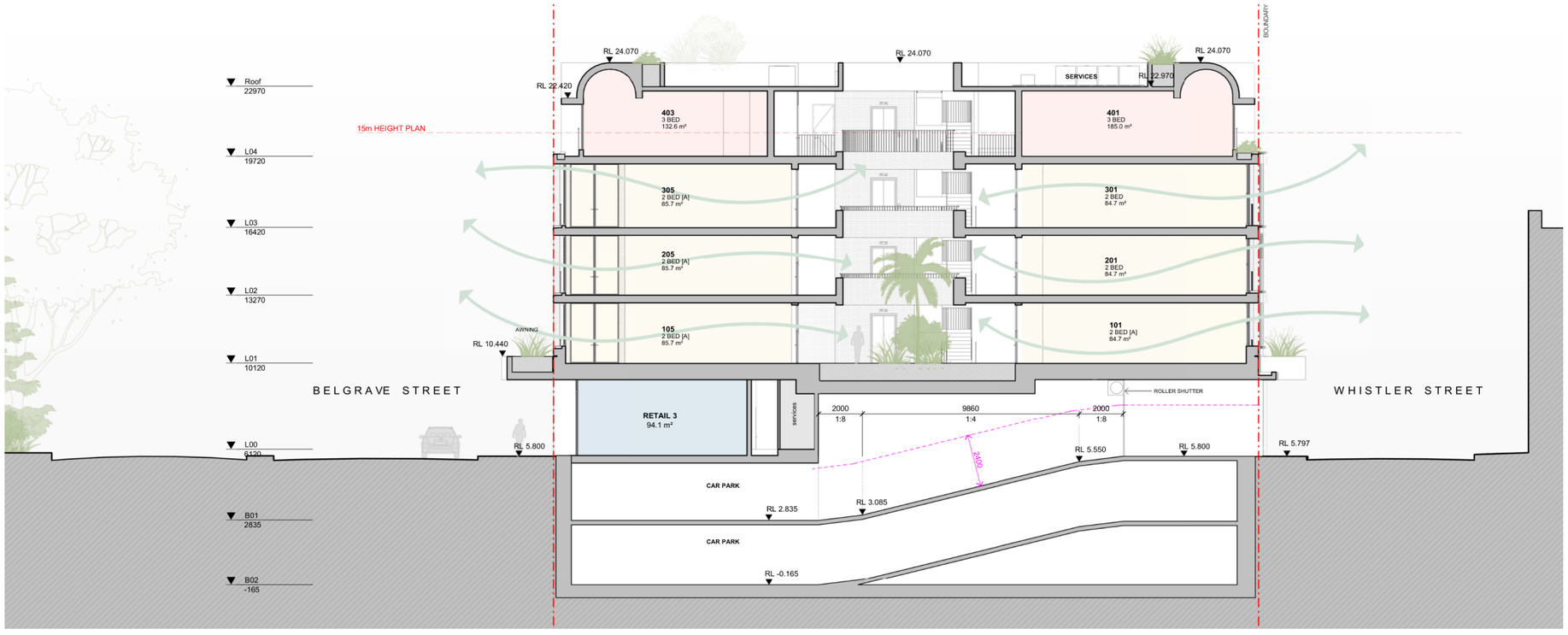








- Generous volume has been provided for in the upper level apartments as the vaults at roof level extend into interior spaces;
- All common residential circulation areas are outdoor breezeways;
- The garden oasis located at the heart of the building creates views from circulation breezeways at all levels and defines the experience of moving through the building
- The height of the building means that the open stairway is likely to be regularly used, encouraging active circulation and opportunities for building community within the building.



Cross building section

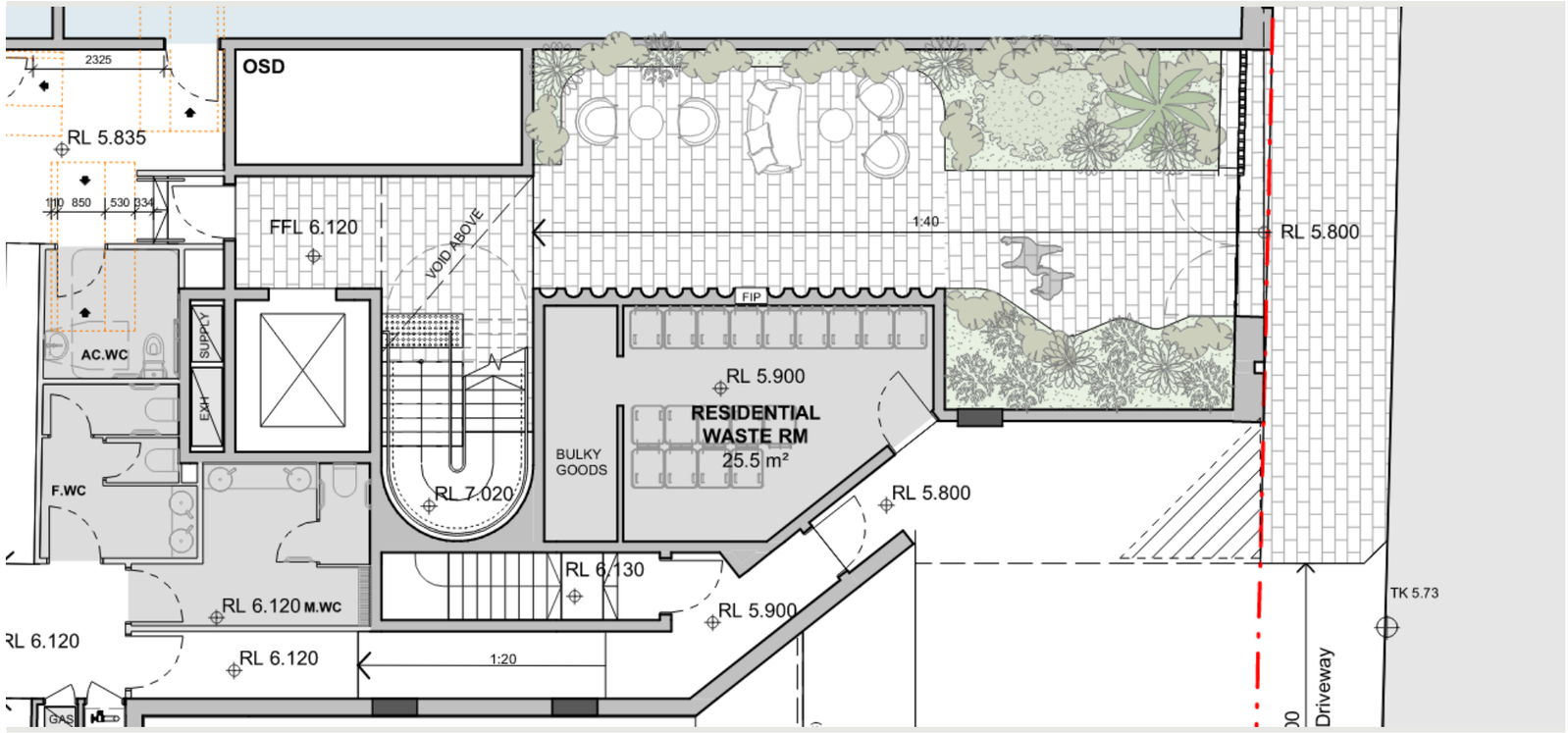
2.7 Principle 7: Safety

Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

Design initiatives which have been incorporated into the design are:

- Principle building entrances are clearly identifiable and allow for passive surveillance;
- Building entrances have secure access points with video intercom
- Car park layouts are designed to minimise opportunities for alcoves. Columns or walls do not obstruct sight lines and the car parks are generally open. Security access in the form of swipe cards and remote controllers will be provided;
- Entries are well lit;
- Passive surveillance improved along site link along northern boundary with the inclusion of ground floor apartment
- Increased pedestrian traffic will be a result of this development.



Residential entrance

Artist impression, residential entrance on Whistler Street

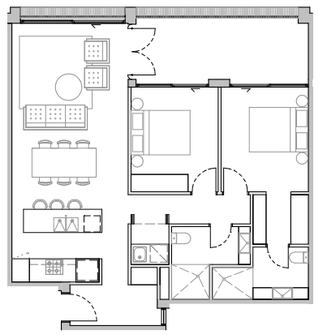
Artist impression, residential entrance open gate

2.8 Principle 8: Housing Diversity and Social Interaction

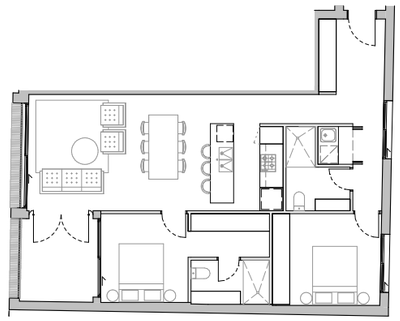
Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

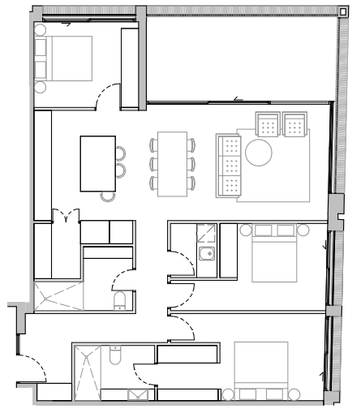
- A range of high-amenity apartments are planned for this building. They are generous in scale and allow for flexible use of the interiors including furniture configurations and living arrangements - functioning well for families, share-house situations as well down sizers or professional couples.
- The communal spaces of the building ensure a good level of interaction especially through the introduction of a beautiful central garden and open stair which traverses all levels.
- Generous breezeways and lobbies allow for a washdown area and include gardens and access to natural light and air meaning that people are more liekely to dwell in them.



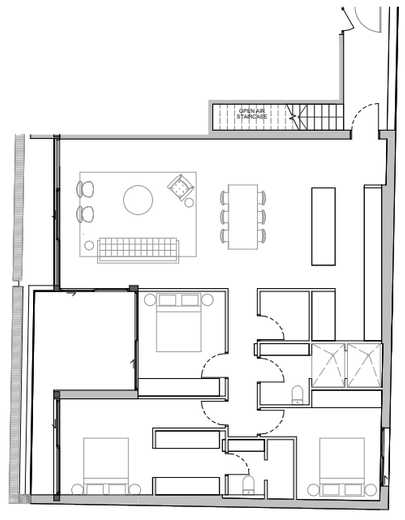
APT Type 1 - 2 bedroom - 85 m²



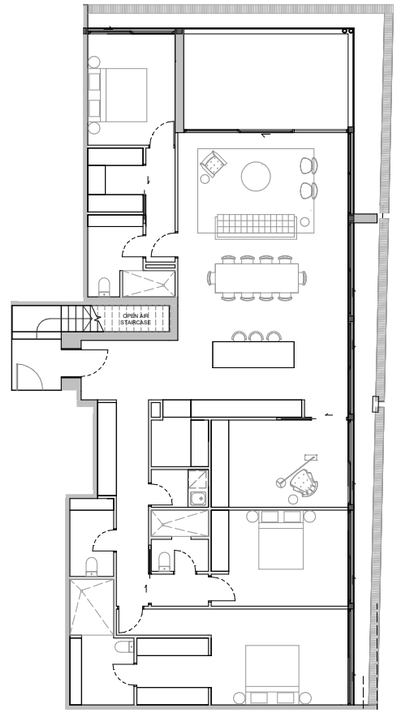
APT Type2 - 2 bedroom - 86 m²



APT Type 3 - 3 bedroom - 113 m²



APT Type 4 - 3 bedroom - 126 m²



APT Type 5 - 3 bedroom - 185 m²

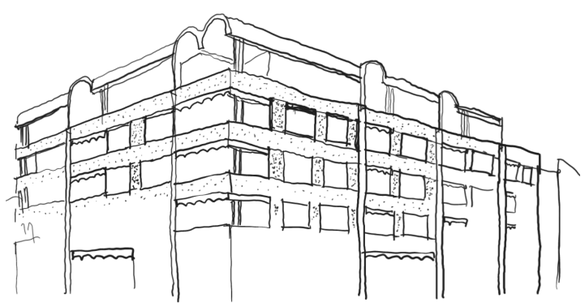
2.9 Principle 9: Aesthetics

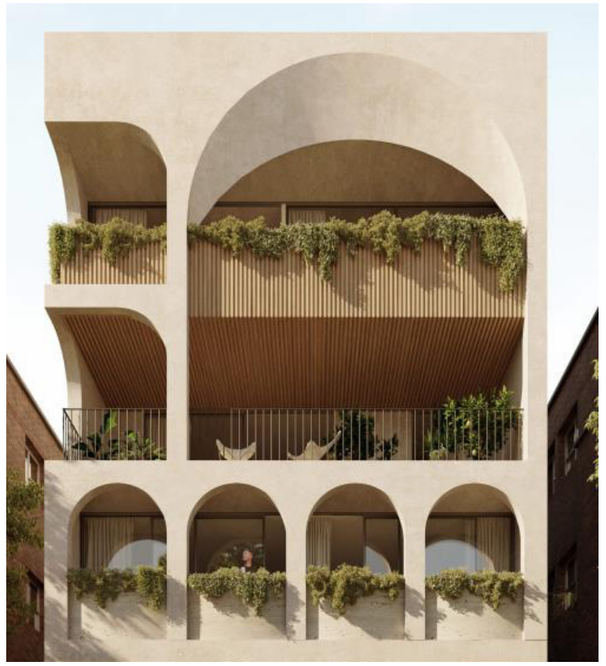
Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

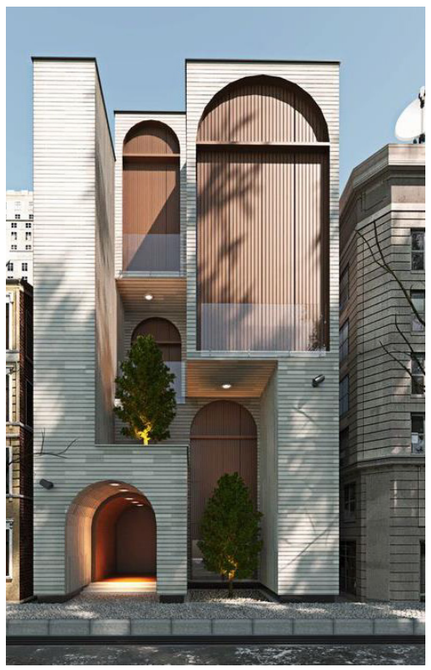
The visual appearance of well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Facade Character

- The facade design draws on the built heritage of Manly with a proposal that seeks to reinforce its beautiful coastal character rather than contrast against it.
- The overall response to this site is appropriate to the existing street pattern and sets a vertical ryhtm that defines fine-grained retail frontages, protected by considered, integrated awnings.
- The facade has a quiet, masonry character with a depth that ensure glazing and openings are protected through integral passive shading and acoustic protection.
- The introduction of colour at the base and soffit of the roof, ties the building together and creates a level of interest when viewed from different vantage points and distances.
- Its warmth and texture is simple and familiar yet finely crafted and detailed to celebrate key moments.
- Vaulted spaces at roof level are expressive, ensuring the building touches the sky in an interesting way whilst also creating unique, volumetric spaces within the apartments.







Materiality

The proposal is carefully considered, with material choices specific and responsive to its location.

Massing and detailing is designed to respond to both the emerging character of the area and the existing surrounding building fabric. The following principles have been observed in the design process:

- Proposed colours are those which are found naturally rather than primary colours, ensuring that the building sits comfortably within the urban scape.
- Careful articulation of the building form has been adopted to reduce the perceived bulk of the building
- The use of 'natural' materials which require minimal maintenance
- Robust materials which are long lasting and weather naturally,
- A building which is scaled sensibly, incorporating a durable masonry character
- Solidity at lower levels to mediate acoustics and privacy to apartments
- Warm, textured material palette with carved indoor/ outdoor spaces within
- Playful skyline

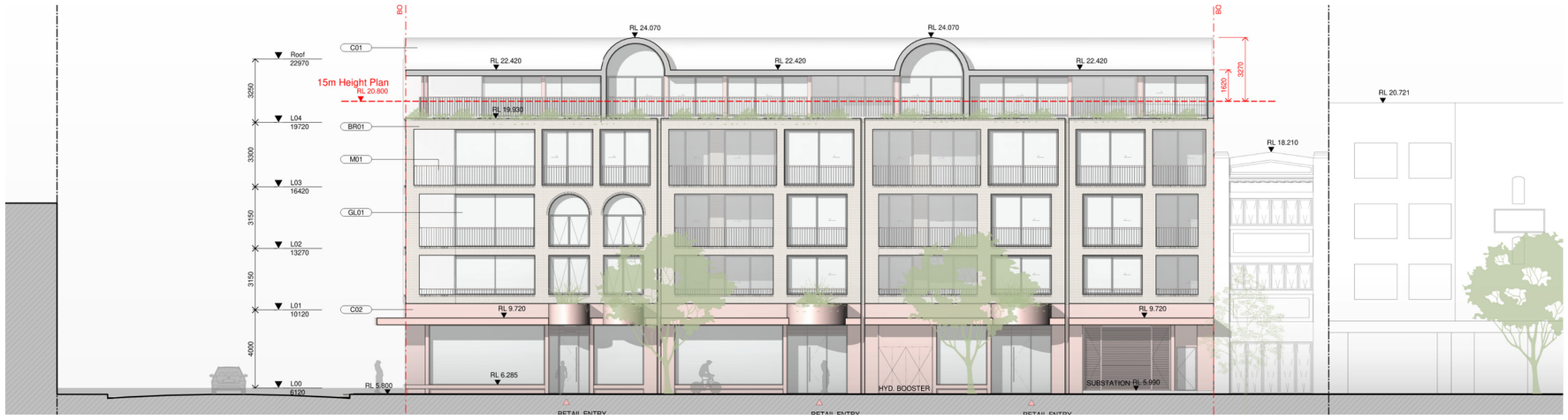
Pink soffits to roof forms

Metal framed glazing system

Warm sandy brick

Fine metal balustrades

Pale pink concrete



West elevation

3

ADG Response Table

The following content outlines the architectural scheme's response to Part 3 & Part 4 of the Apartment Design Guide.

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
3	**Siting the development**				
3A	**Site Analysis**				
	3A-1	**Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context**	•		
		Each element in the Site Analysis Checklist should be addressed (see ADG Appendix 1)			
3B	**Orientation**				
	3B - 1	**Building types and layouts respond to the streetscape and site while optimising solar access within the development**	•		
		Buildings along the street frontage define the street, by facing it and incorporating direct access from the street (see figure 3B.1)	•		
		Where the street frontage is to the east or west, rear buildings should be orientated to the north	•		All frontages face the street maximising north/ west and East orientation. No building facade faces south.
		Where the street frontage is to the north or south, overshadowing to the south should be minimised and buildings behind the street frontage should be orientated to the east and west (see figure 3B.2)	•		
	3B-2	**Overshadowing of neighbouring properties is minimised during midwinter**	•		
		Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access	•		No significant impact on solar access to adjacent properties.
		Solar access to living rooms, balconies and private open spaces of neighbours should be considered	•		
		Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%	•		
		If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy	•		
		Overshadowing should be minimised to the south or downhill by increased upper level setbacks			N/A
		It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development			N/A
		A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings			N/A
3C	**Public Domain Interface**				
	3C-1	**Transition between private and public domain is achieved without compromising safety and security**	•		
		Terraces, balconies and courtyard apartments should have direct street entry, where appropriate			N/A
		Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings (see figure 3C.1)			N/A
		Upper level balconies and windows should overlook the public domain	•		
		Front fences and walls along street frontages should use visually permeable materials and treatments. The height of solid fences or walls should be limited to 1m	•		N/A
		Length of solid walls should be limited along street frontages	•		

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes and in private courtyards adjacent to streets	•		The central courtyard provides opportunities for seating and casual interaction, and external stair case connecting all levels promotes interaction.
		In developments with multiple buildings and/or entries, pedestrian entries and spaces associated with individual buildings/ entries should be differentiated to improve legibility for residents, using a number of the following design solutions: — architectural detailing — changes in materials — plant species — colours	•		
		Opportunities for people to be concealed should be minimised	•		
	3C-2	**Amenity of public domain is retained and enhanced**			
		Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking	•		
		Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	•		Residential entry is from Whistler Street
		The visual prominence of underground car park vents should be minimised and located at a low level where possible	•		
		Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view	•		Services where possible are providied in the basement, due to small footrint and access requirements Substation is located along Belgrave street. This will be screened and incorporated into facade design.
		Ramping for accessibility should be minimised by building entry locations and setting ground floor levels in relation to footpath levels	•		
		Durable, graffiti resistant and easily cleanable materials should be used	•		
		Where development adjoins public parks, open space or bushland, the design positively addresses this interface and uses a number of the following design solutions: — Street access, pedestrian paths and building entries which are clearly defined — Paths, low fences and plating that clearly delineate between communal/private open space and the adjoining public open space — Minimal use of blank walls, fences and ground level parking			N/A
		On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking			N/A
3D	**Communal and public open space**				
	3D-1	**An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.**	•		The internal courtyard provides light and ventilation and improves residential amenity. The site benefits from proximity to local shops, transport and public open spaces.
		Communal open space has a minimum area equal to 25% of the site		•	Due to the nature and character of the site, the intention is to have smaller intimate spaces within the common areas for smaller groups of gathering. The site's location and proximity to parks and beach offers greater access to local open spaces. The proposal provides 15% of communal open space, this is supplemented by providing more generous apartments areas and larger private outdoor spaces exceeding ADG miniums for all residents.
		Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter)		•	This is not achievable due to the nature and purpose of the proposed communal open space.
		Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions	•		
		Communal open space should be co-located with deep soil areas			Soil depths are provide to support mature vegetation
		Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies			All communal open space can be access from the main circulation areas

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Where communal open space cannot be provided at ground level, it should be provided on a podium or roof	•		Predominantly provided on podium level 1 above Retail, and some on ground floor.
		Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they should: — provide communal spaces elsewhere such as a landscaped roof top terrace or a common room — provide larger balconies or increased private open space for apartments — demonstrate good proximity to public open space and facilities and/or provide contributions to public open space	•		
	3D–2	**Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting**	•		
		Facilities are provided within communal open spaces and common spaces for a range of age groups (see also 4F Common circulation and spaces), incorporating some of the following elements: — seating for individuals or groups — barbecue areas — play equipment or play areas — swimming pools, gyms, tennis courts or common rooms			N/A
		The location of facilities responds to microclimate and site conditions with access to sun in winter, shade in summer and shelter from strong winds and down drafts	•		
		Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks	•		
	3C–3	**Communal open space is designed to maximise safety**	•		
		Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy. Design solutions may include: — bay windows — corner windows — balconies	•		
		Communal open space should be well lit	•		
		Where communal open space/facilities are provided for children and young people they are safe and contained	•		
	3D–4	**Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood**			N/A
		The public open space should be well connected with public streets along at least one edge			N/A
		The public open space should be connected with nearby parks and other landscape elements			N/A
		Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid			N/A
		Solar access should be provided year round along with protection from strong winds			N/A
		Opportunities for a range of recreational activities should be provided for people of all ages			N/A
		A positive address and active frontages should be provided adjacent to public open space			N/A
		Boundaries should be clearly defined between public open space and private areas			N/A
3E	**Deep soil zones**				
	3E–1	**Deep soil zones provide areas on the site that allow for and support healthy plant tree growth. They improve residential amenity and promote management of water and air quality**			N/A

Subheading

Part No.	Objective No.	Objective / Design Criteria / Design Guidance	Yes	No	Notes
		Deep soil zones are to meet the following minimum requirements. **Site area** / **Minimum dimensions** / **Deep soil zone (% of site area)** Less than 650m² / - / 7% 650m² - 1,500m² / 3m Greater than 1,500m² / 6m Greater than 1,500m² with significant existing cover / 6m		•	The location and nature of the site restricts ability to provide deep soil, this is consistent with surounding built form character of the area. To achieve the objectives of the criteria, the proposed provides landscape opportunities with adequate soil depths to support mature landscaping in limited areas. Located in various areas through out the developvemt including: - Retail awning - Ground floor Residenital lobby - Level 1 Central coutryard - Roof terraces - proposed public domain embelishments Refer to Landscape architects design for further details.
		On some sites it may be possible to provide larger deep soil zones, depending on the site area and context: 10% of the site as deep soil on sites with an area of 650m² - 1,500m² 15% of the site as deep soil on sites greater than 1,500m²			N/A
		Deep soil zones should be located to retain existing significant trees and to allow for the development of healthy root systems, providing anchorage and stability for mature trees. Design solutions may include: — basement and sub-basement car park design that is consolidated beneath building footprints — use of increased front and side setbacks — adequate clearance around trees to ensure long term health — co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil			N/A
		Achieving the design criteria may not be possible on some sites including where: — The location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres) — There is 100% site coverage or non-residential uses at ground floor level — Where a proposal does not achieve deep soil requirements, acceptable stormwater management should be achieved and alternative forms of planting provided such as on structure	•		refer to comments above
	3F-1	**Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy**			
		Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows: **Building Height** / **Habitable Room and Balconies** / **Non Habitable** Up to 12 (4 storeys) / 6m / 3m Up to 25m (5-8 storeys) / 9m / 4.5m Over 25m (9+ storeys) / 12m / 6m Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2) Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties	•		Generally the built form condition is to 0m at boundary throughout, which is consistent within the street character and controls. Consideration has been made to mitigate any overlooking towards adjoining built form and future neighbouring building at 21 Whistler Street.
		Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a 'ziggurat' appearance			N/A
		For residential buildings next to commercial buildings, separation distances should be measured as follows: — for retail, office spaces and commercial balconies use the habitable room distances — for service and plant areas use the non-habitable room distances			N/A

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include: — site layout and building orientation to minimise privacy impacts (see also section 3B Orientation) — on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)			N/A
		Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)	•		N/A
		Direct lines of sight should be avoided for windows and balconies across corners	•		
		No separation is required between blank walls	•		
	3F–2	**Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space**			
		Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows. Design solutions may include: — setbacks — solid or partially solid balustrades to balconies at lower levels — fencing and/or trees and vegetation to separate spaces — screening devices — bay windows or pop out windows to provide privacy in one direction and outlook in another — raising apartments/private open space above the public domain or communal open space — planter boxes incorporated into walls and balustrades to increase visual separation — pergolas or shading devices to limit overlooking of lower apartments or private open space — on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels to windows and/or balconies			N/A
		Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas	•		
		Balconies and private terraces should be located in front of living rooms to increase internal privacy	•		
		Windows should be offset from the windows of adjacent buildings	•		
		Recessed balconies and/or vertical fins should be used between adjacent balconies	•		Solid walls between balconies are provided
3G	**Pedestrian Access and Entries**				
	3G–1	**Building entries and pedestrian access connects to and address the public domain**			
		Multiple entries (including communal building entries and individual ground floor entries) are provided to activate the street edge	•		
		Entry locations relate to the street and subdivision pattern and the existing pedestrian network	•		
		Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries	•		
		Where street frontage is limited and multiple buildings are located on the site, a primary street address is provided with clear sight lines and pathways to secondary building entries	•		
	3G–2	Access, entries and pathways are equitable and easy to identify			
		Building access areas including lift lobbies, stairwells and hallways are clearly visible from the public domain and communal spaces	•		
		The design of ground floors and underground car parks minimise level changes along pathways and entries	•		
		Steps and ramps are integrated into the overall building and landscape design	•		

Subheading

		Objective	Complies		
Part No.	Objective No.	**Design Criteria** Design Guidance	Yes	No	Notes
		For large developments 'way finding' maps should be provided to assist visitors and residents (see figure 4T.3)			N/A
		For large developments electronic access and audio/video intercom should be provided to manage access			N/A
	3G–3	**Pedestrian links through developments provide access to streets and connect destinations**			
		Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport			N/A
		Pedestrian links should be direct, have clear sight lines, be overlooked by habitable rooms or private open spaces of dwellings, be well lit and contain active uses, where appropriate			N/A
3H	**Vehicle Access**				
	3H–1	**Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes**			
		Car park access is integrated with the building's overall facade, design solutions may include: — the materials and colour palette minimise visibility from the street — security doors or gates at entries that minimise voids in the facade — where doors are not provided, the visible interior reflects the facade design and the building services, pipes and ducts are concealed	•		The car park entry is integrated into the built form and recessed in behind the building line
		Car park entries are located behind the building line	•		
		Vehicle entries are located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout			N/A
		Car park entry and access is located on secondary streets or lanes where available	•		
		Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided	•		
		Access point locations avoid headlight glare to habitable rooms	•		
		Adequate separation distances are provided between vehicular entries and street intersections	•		
		The width and number of vehicle access points is limited to the minimum	•		
		Visual impact of long driveways is minimised through changing alignments and screen planting	•		N/A
		The requirement for large vehicles to enter or turnaround within the site is avoided	•		N/A
		Garbage collection, loading and servicing areas are screened	•		Garbage collection happens on street, garbage is collected from bin store areas located at street level in accordance with council requirements.
		Clear sight lines should be provided at pedestrian and vehicle crossings	•		
		Traffic calming devices such as changes in paving material or textures should be used where appropriate	•		
		Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: changes in surface materials level changes the use of landscaping for separation	•		
3J	**Bicycle and Car Parking**				
	3J–1	**Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		For development in the following locations: — on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or — on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less The car parking needs for a development must be provided off street			N/A
		Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site			N/A Refer to traffic report for further details.
		Where less car parking is provided in a development, council should not provide on street resident parking permits			N/A Refer to traffic report for further details.
	3J–2	**Parking and facilities are provided for other modes of transport**			
		Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters	•		Refer to traffic report for further details.
		Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	•		Secure undercover bicycle parking has been provided.
		Conveniently located charging stations are provided for electric vehicles, where desirable	•		Provision has been made for EV charging
	3J–3	**Car park design and access is safe and secure**			
		Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas and car wash bays can be accessed without crossing car parking spaces	•		
		Direct, clearly visible and well lit access should be provided into common circulation areas	•		
		A clearly defined and visible lobby or waiting area should be provided to lifts and stairs	•		
		For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards			N/A
	3J–4	**Visual and environmental impacts of underground car parking are minimised**			
		Excavation should be minimised through efficient car park layouts and ramp design	•		2 levels of basement have been proposed.
		Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles	•		
		Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or using split levels on sloping sites			N/A
		Natural ventilation should be provided to basement and sub-basement car parking areas			
		Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design	•		The driveway access point will be a ventilated door to allow fresh air in
	3J–5	**Visual and environmental impacts of on-grade car parking are minimised**			
		On-grade car parking should be avoided			N/A
		Where on-grade car parking is unavoidable, the following design solutions are used: — parking is located on the side or rear of the lot away from the primary street frontage — cars are screened from view of streets, buildings, communal and private open space areas — safe and direct access to building entry points is provided — parking is incorporated into the landscape design of the site, by extending planting and materials into the car park space — stormwater run-off is managed appropriately from car parking surfaces — bio-swales, rain gardens or on site detention tanks are provided, where appropriate — light coloured paving materials or permeable paving systems are used and shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures from large areas of paving			N/A

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
	3J-6	**Visual and environmental impacts of above ground enclosed car parking are minimised**			
		Exposed parking should not be located along primary street frontages			N/A
		Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the facade. Design solutions may include: — car parking that is concealed behind the facade, with windows integrated into the overall facade design (approach should be limited to developments where a larger floor plate podium is suitable at lower levels) — car parking that is 'wrapped' with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage (see figure 3J.9)			N/A
		Positive street address and active frontages should be provided at ground level	•		
4	**Designing the Building**				
4A	**Solar and daylight access**				
	4A-1	**To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space**			
		1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas			92% apartments achieve direct sunlight to living rooms and private open space
		2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid-winter			N/A
		3. A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid winter			N/A
		The design maximises north aspect and the number of single aspect south facing apartments is minimised	•		No south facing apartments provided
		Single aspect, single storey apartments should have a northerly or easterly aspect	•		
		Living areas are best located to the north and service areas to the south and west of apartment	•		
		To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: — dual aspect apartments — shallow apartment layouts — two storey and mezzanine level apartments — bay windows	•		
		To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m² of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	•		
		Achieving the design criteria may not be possible on some sites. This includes: — where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source — on south facing sloping sites — where significant views are oriented away from the desired aspect for direct sunlight — Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective			N/A
	4A-2	**Daylight access is maximised where sunlight is limited**			
		Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms			N/A

Subheading

Part No.	Objective No.	Objective / Design Criteria / Design Guidance	Complies Yes	Complies No	Notes
		Where courtyards are used: — use is restricted to kitchens, bathrooms and service areas — building services are concealed with appropriate detailing and materials to visible walls — courtyards are fully open to the sky — access is provided to the light well from a communal area for cleaning and maintenance — acoustic privacy, fire safety and minimum privacy separation distances (see section 3F Visual privacy) are achieved	•		Courtyard is not reliant for Daylight requirements
		Opportunities for reflected light into apartments are optimised through: — reflective exterior surfaces on buildings opposite south facing windows — positioning windows to face other buildings or surfaces (on neighbouring sites or within the site) that will reflect light — integrating light shelves into the design — light coloured internal finishes	•		Internal finishes on balconies are a lighter colouring
	4A–3	**Design incorporates shading and glare control, particularly for warmer months**			
		A number of the following design features are used: — balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas — shading devices such as eaves, awnings, balconies, pergolas, external louvres and planting — horizontal shading to north facing windows — vertical shading to east and particularly west facing windows — operable shading to allow adjustment and choice — high performance glass that minimises external glare off windows, with consideration given to reduced tint glass or glass with a reflectance level below 20% (reflective films are avoided)	•		Deeper reveals and reduced window to solid ratios assist with sun shading in summer, high performance glass is provided.
4B	**Natural Ventilation**				
	4B–1	**All habitable rooms are naturally ventilated**			
		The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms	•		
		Depths of habitable rooms support natural ventilation	•		
		The area of unobstructed window openings should be equal to at least 5% of the floor area served	•		
		Light wells are not the primary air source for habitable rooms	•		
		Doors and openable windows maximise natural ventilation opportunities by using the following design solutions: — adjustable windows with large effective openable areas — a variety of window types that provide safety and flexibility such as awnings and louvres — windows which the occupants can reconfigure to funnel breezes into the apartment such as vertical louvres, casement windows and externally opening doors	•		
	4B–2	**The layout and design of single aspect apartments maximises natural ventilation**			
		Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3)	•		
		Natural ventilation to single aspect apartments is achieved with the following design solutions: — primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation) — stack effect ventilation / solar chimneys or similar to naturally ventilate internal building areas or rooms such as bathrooms and laundries — courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation and avoid trapped smells	•		
	4B–3	**The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents**			

Subheading

Part No.	Objective No.	Objective / Design Criteria / Design Guidance	Complies Yes	Complies No	Notes
		Objective			
		Design Criteria			
		1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	•		Of the 25 apartments proposed, 100% of apartments achieve natural cross ventilation.
		2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	•		
		The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	•		
		In cross-through apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side) (see figure 4B.4)	•		
		Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow	•		
		Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow	•		
4C	**Ceiling heights**				
	4C-1	**Ceiling height achieves sufficient natural ventilation and daylight access**			
		Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	•		Habitable rooms can achieve or exceed 2.7m ceiling height and non-habitable are 2.4m.

Minimum ceiling height for apartment and mixed use buildings	
Habitable rooms	2.7m
Non-habitable rooms	2.4m
For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its apartment area does not exceed 50% of the apartment area
Attic spaces	1.8m at edge of room with a 30 people degree minimum ceiling slope
If located in mixed use areas	3.3m for ground and first floor to promote future flexibility of use

		These minimums do not preclude higher ceilings if desired			
		Ceiling height can accommodate use of ceiling fans for cooling and heat distribution			
	4C-2	**Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms**			
		A number of the following design solutions can be used: — The hierarchy of rooms in an apartment is defined using changes in ceiling heights and alternatives such as raked or curved ceilings, or double height spaces — Well-proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings — Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor and coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist	•		Greater floor to floor tollerances are provided to maximise ceiling heights across the development.
	4C-3	Ceiling heights contribute to the flexibility of building use over the life of the building			
		Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses (see figure 4C.1)	•		Greater floor to floor tollerances are provided to maximise ceiling heights across the development.
4D	**Apartment size and layout**				
	4D-1	**The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		1. Apartments are required to have the following minimum internal areas: **Apartment Type** / **Minimum Internal Area** Studio / 35m² 1 bedroom / 50m² 2 bedroom / 70m² 3 bedroom / 90m² The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m² each	•		The apartments have been designed with generous internal areas that exceed ADG miniums.
		2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms	•		
		Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)	•		
		A window should be visible from any point in a habitable room	•		
		Where minimum areas or room dimensions are not met apartments need to demonstrate that they are well designed and demonstrate the usability and functionality of the space with realistically scaled furniture layouts and circulation areas. These circumstances would be assessed on their merits			N/A
	4D-2	**Environmental performance of the apartment is maximised**			
		1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height	•		
		2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	•		
		Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maxi-mum depths	•		
		All living areas and bedrooms should be located on the external face of the building	•		
		Where possible: — bathrooms and laundries should have an external openable window — main living spaces should be oriented toward the primary outlook and aspect and away from noise sources	•		
	4D-3	**Apartment layouts are designed to accommodate a variety of household activities and needs**			
		1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space)	•		
		2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	•		
		3. Living rooms or combined living/dining rooms have a minimum width of: — 3.6m for studio and 1 bedroom apartments — 4m for 2 and 3 bedroom apartments	•		
		4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	•		
		Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas			
		All bedrooms allow a minimum length of 1.5m for robes			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		The main bedroom of an apartment or a studio apartment should be provided with a wardrobe of a minimum 1.8m long, 0.6m deep and 2.1m high	•		
		Apartment layouts allow flexibility over time, design solutions may include: — dimensions that facilitate a variety of furniture arrangements and removal — spaces for a range of activities and privacy levels between different spaces within the apartment — dual master apartments — dual key apartments — Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the Building Code of Australia and for calculating the mix of apartments — room sizes and proportions or open plans (rectangular spaces (2:3) are more easily furnished than square spaces (1:1)) — efficient planning of circulation by stairs, corridors and through rooms to maximise the amount of usable floor space in rooms	•		
4E	**Private Open Space and Balconies**				
	4E-1	**Apartments provide appropriately sized private open space and balconies to enhance residential amenity**			
		All apartments are required to have primary balconies as follows: **Dwelling Type** / **Minimum Area** / **Minimum Depth** Studio Apartments / 4m² / - 1 bedroom apartments / 8m² / 2m 2 bedroom apartments / 10m² / 2m 3+ bedroom apartments / 12m² / 2.4m The minimum balcony depth to be counted as contributing to the balcony area is 1m	•		Generally all balconies are generous in area and exceed ADG miniums.
		For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a bal-cony. It must have a minimum area of 15m² and a minimum depth of 3m			N/A
		Increased communal open space should be provided where the number or size of balconies are reduced			N/A
		Storage areas on balconies is additional to the minimum balcony size			N/A
		Balcony use may be limited in some proposals by: — consistently high wind speeds at 10 storeys and above — close proximity to road, rail or other noise sources — exposure to significant levels of aircraft noise — heritage and adaptive reuse of existing buildings — In these situations, Juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate, and other amenity benefits for occupants should also be provided in the apartments or in the development or both. Natural ventilation also needs to be demonstrated			N/A
	4E-2	**Primary private open space and balconies are appropriately located to enhance liveability for residents**			
		Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space	•		
		Private open spaces and balconies predominantly face north, east or west	•		
		Primary open space and balconies should be orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms	•		
	4E-3	**Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are de-signed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony. Solid and partially solid balustrades are preferred			
		Full width full height glass balustrades alone are generally not desirable			No glass balustrades have been included
		Projecting balconies should be integrated into the building design and the design of soffits considered	•		The balconies are completely integrated and form part of the façade design
		Operable screens, shutters, hoods and pergolas are used to control sunlight and wind	•		
		Balustrades are set back from the building or balcony edge where overlooking or safety is an issue	•		
		Downpipes and balcony drainage are integrated with the overall facade and building design	•		
		Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design	•		
		Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and inte-grated in the building design	•		
		Ceilings of apartments below terraces should be insulated to avoid heat loss	•		
		Water and gas outlets should be provided for primary balconies and private open space	•		
	4E–4	**Private open space and balcony design maximises safety**			
		Changes in ground levels or landscaping are minimised			N/A
		Design and detailing of balconies avoids opportunities for climbing and falls	•		
4F	**Common Circulation and Spaces**				
	4F–1	**Common circulation spaces achieve good amenity and properly service the number of apartments**			
		1. The maximum number of apartments off a circulation core on a single level is eight	•		7 apartments provided off a single core
		2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40			N/A
		Greater than minimum requirements for corridor widths and/ or ceiling heights allow comfortable movement and ac-cess particularly in entry lobbies, outside lifts and at apartment entry doors			All corridors meet DDA requirements and are open to air.
		Daylight and natural ventilation should be provided to all common circulation spaces that are above ground	•		Natural ventilation is provided as all corridors are not enclosed and they also have the oppor-tunity for
		Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors	•		The common circulation is open to air via breezeway corridors.
		Longer corridors greater than 12m in length from the lift core should be articulated. Design solutions may include: a series of foyer areas with windows and spaces for seating wider areas at apartment entry doors and varied ceiling heights			N/A
		Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	•		
		Achieving the design criteria for the number of apartments off a circulation core may not be possible. Where a development is unable to achieve the design criteria, a high level of amenity for common lobbies, corridors and apartments should be demonstrated, including: — sunlight and natural cross ventilation in apartments — access to ample daylight and natural ventilation in common circulation spaces — common areas for seating and gathering — generous corridors with greater than minimum ceiling heights — other innovative design solutions that provide high levels of amenity	•		

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level			N/A
		Primary living room or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces to any other rooms should be carefully con-trolled	•		
	4F–2	**Common circulation spaces promote safety and provide for social interaction between residents**			
		Direct and legible access should be provided between vertical circulation points and apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines	•		
		Tight corners and spaces are avoided	•		
		Circulation spaces should be well lit at night			Noted
		Legible signage should be provided for apartment numbers, common areas and general wayfinding			Noted
		Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided	•		
		In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally co-located with communal open space			N/A
		Where external galleries are provided, they are more open than closed above the balustrade along their length	•		
4G	**Storage**				
	4G–1	**Adequate, well designed storage is provided in each apartment**			
		In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: **Dwelling type** / **Storage size** Studio apartments / 4m3 1 bedroom apart-ments / 6m3 2 bedroom apart-ments / 8m3 3 bedroom apart-ments / 10m3 At least 50% of the required storage is to be located within the apartment	•		
		Storage is accessible from either circulation or living areas	•		
		Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proof and screened from view from the street	•		
		Left over space such as under stairs is used for storage			N/A
	4G–2	**Additional storage is conveniently located, accessible and nominated for individual apartments**			
		Storage not located in apartments is secure and clearly allocated	•		
		Storage is provided for larger and less frequently accessed items, where practical	•		Storage rooms are located in the basement for larger storage items
		Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages so that allocated car parking remains accessible	•		Storage will not be designed to impede the car parking spaces.
		If communal storage rooms are provided they should be accessible from common circulation areas of the building	•		N/A
		Storage not located in an apartment is integrated into the overall building design and not visible from the public domain	•		Additional storage is located in the basement
4H	**Acoustic Privacy**				
	4H–1	**Noise transfer is minimised through the siting of buildings and building layout**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Adequate building separation is provided within the development and from neighbouring buildings / adjacent uses (also see section 2F Building separation and section 3F Visual Privacy)	•		Consideration has been made to privacy and noise to adjoiing buildings through orienetation.
		Window and door openings are generally orientated away from noise sources	•		Acoustic attenuation will be required to mitigate noise from Belgrave and Raglan Street.
		Noisy areas within buildings including building entries and corridors are located next to or above each other and quieter areas next to or above quieter areas	•		The floor plans are replicated from the ground to the top level.
		Storage, circulation areas and non-habitable rooms are located to buffer noise from external sources	•		
		The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	•		
		Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equip-ment, active communal open spaces and circulation areas are located at least 3m away from bedrooms	•		
	4H-2	**Noise impacts are mitigated through internal apartment layout and acoustic treatments**			
		Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: rooms with similar noise requirements are grouped together doors separate different use zones wardrobes in bedrooms are co-located to act as sound buffers	•		
		Where physical separation cannot be achieved noise conflicts are resolved using the following design solutions: double or acoustic glazing acoustic seals use of materials with low noise penetration properties continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements	•		
4J	**Noise and Pollution**				
	4J-1	**In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings**			
		To minimise impacts the following design solutions may be used: — physical separation between buildings and the noise or pollution source — residential uses are located perpendicular to the noise source and where possible buffered by other uses — non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses and communal open spaces — Non-residential uses are located at lower levels vertically separating the residential component from the noise or pollution source. Setbacks to the underside of residential floor levels should increase relative to traffic volumes and other noise sources — Buildings should respond to both solar access and noise. Where solar access is away from the noise source, nonhabitable rooms can provide a buffer — Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferable (see figure 4J.4) — Landscape design reduces the perception of noise and acts as a filter for air pollution generated by traffic and industry	•		
		Achieving the design criteria in this Apartment Design Guide may not be possible in some situations due to noise and pollution. Where developments are unable to achieve the design criteria, alternatives may be considered in the following areas: — solar and daylight access — private open space and balconies — natural cross ventilation	•		Noted
	4J-2	Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Design solutions to mitigate noise include: — limiting the number and size of openings facing noise sources — providing seals to prevent noise transfer through gaps — using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens) — using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits	•		
4K	**Apartment Mix**				
	4K-1	**A range of apartment types and sizes is provided to cater for different household types now and into the future**			
		A variety of apartment types is provided	•		2 Bed / 3 Bed / 4 bed
		The apartment mix is appropriate, taking into consideration: — the distance to public transport, employment and education centres — the current market demands and projected future demographic trends — the demand for social and affordable housing — different cultural and socioeconomic group	•		Location is desirable for smaller families, downsizers requiring larger spatial needs.
		Flexible apartment configurations, such as dual key apartments, are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households	•		Average sizes are generally larger provide some flexability to cater different living needs
	4K-2	**The apartment mix is distributed to suitable locations within the building**			
		Different apartment types are located to achieve successful facade composition and to optimise solar access. See figure 4A.3	•		
		Larger apartment types are located on the ground or roof level where there is potential for more open space and on corners where more building frontage is available	•		Generally larger apartments situated on corners on each level and upper most level.
4L	**Ground Floor Apartments**				
	4L-1	**Street frontage activity is maximised where ground floor apartments are located**			
		Direct street access should be provided to ground floor apartments			N/A
		Activity is achieved through front gardens, terraces and the facade of the building. Design solutions may include: both street and foyer entrances to ground floor apartments private open space is next to the street doors and windows face the street	•		Ground floor is activated by Retail uses
		Retail or home office spaces are located along street frontages			N/A
		Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for con-version into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor ameni-ties for easy conversion			N/A
	4L-2	**Design of ground floor apartments delivers amenity and safety for residents**			
		Privacy and safety is provided without obstructing causal surveillance. Design solutions may include: — elevation of private gardens and terraces above the street level by 1m - 1.5m (see Figure 4L.4) — landscaping and private courtyards — window sill heights that minimise sight lines into apartments — integrating balustrades, safety bars or screens with the exterior design			N/A
		Solar access is maximised through: — high ceilings and tall windows — trees and shrubs that allow solar access in winter and shade in summer			N/A
4M	**Facades**				

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
	4M-1	**Building facades provide visual interest along the street respecting the character of the local area**			
		Design solutions for front building facades may include: — A composition of varied building elements — A defined base, middle and top of the buildings — Revealing and concealing certain elements — Changes in texture, material, detail and colour to modify the prominence of elements	•		Changes in material facade texture and colour provide interest and make it uniquely to its locality.
		Building services should be integrated within the overall façade	•		Downpipes will not be visible along with condensers that are to be hidden on the roof.
		Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions may include: — Well composed horizontal and vertical elements — Variation in floor heights to enhance the human scale — Elements that are proportional and arranged in patterns — Public artwork or treatments to exterior blank walls — Grouping of floors or elements such as balconies and windows on taller buildings	•		Facades are detailed with consideration of the following: - Overall pattern and rhythm contributing to the existing street character - Brick facades provide detail and texture - Intergration of landscape elements to the facade to soften edges - Dynamic roof form create interesting form against the sky
		Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	•		Consistent with existing and transitioning character
		Shadow is created on the façade throughout the day with building articulation, balconies and deeper window re-veals	•		Deeper reveals and playful proportions to enhance the visual experience during different times of the day
	4M-2	**Building functions are expressed by the façade**			
		Building entries should be clearly defined	•		
		Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height	•		Emphases has been given to the corner along Raglan and Belgrave street, through vaulted roof forms to reinforce the important corner.
		The apartment layout should be expressed externally through façade features as party walls and floor slabs	•		
4N	**Roof Design**				
	4N-1	**Roof treatments are integrated into the building design and positively respond to the street**	•		
		Roof design relates to the street. Design solutions may include: — Special roof features and strong corners — Use of skillion or very low pitch hipped roofs — Breaking down the massing of the roof by using smaller elements to avoid bulk — Using materials or a pitched form complementary to adjacent buildings	•		
		Roof treatments should be integrated with the building design. Design solutions may include: Roof design proportionate to the overall building size, scale and form Roof materials complement the building Service elements are integrated	•		
	4N-2	**Opportunities to use roof space for residential accommodation and open space are maximised**			
		Habitable roof space should be provided with good levels of amenity. Design solutions may include: — Penthouse apartments — Dormer or clerestory windows — Openable skylights	•		At the upper most level the vaulted roof expression is incororated into the apartments providng them with greater ceiling height and volume.
		Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations	•		The upper most apartments have roof top access to additional private open space and gardens.
	4N-3	**Roof design incorporates sustainability features**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Roof design maximises solar access to apartments during winter and provides shade during summer. Design solutions may include: — The roof lifts to the north — Eaves and overhangs shade walls and windows from summer sun	•		Overhangs and deep balconies shade the walls in the summer Landscaping to reduce heat island effect Incorporate PV panels to regenerate energy use for common areas of the building.
		Skylights and ventilation systems should be integrated into the roof design	•		
4O	**Landscape Design**				
	4O-1	**Landscape design is viable and sustainable**			
		Landscape design should be environmentally sustainable and can enhance environmental performance by incorporating: — Diverse and appropriate planting — Bio-filtration gardens — Appropriately planted shading trees — Areas for residents to plant vegetables and herbs — Composting — Green roofs or walls	•		A landscape design has been provided by the landscape architect, details provided as part of the submission.
		Ongoing maintenance plans should be prepared	•		noted
		Microclimate in enhanced by: — Appropriately scaled trees near the eastern and western elevations for shade — A balance of evergreen and deciduous trees to provide shading in summer and sunlight access in winter — Shade structures such as pergolas for balconies and courtyards	•		
		Tree and shrub selection considers size at maturity and the potential for roots to complete (see table 4)	•		
	4O-2	**Landscape design contributes to the streetscape and amenity**			
		Landscape design responds to the existing site conditions including: Changes of levels — Views — Significant landscape features including trees and rock outcrops	•		
		Significant landscape features should be protected by: — Tree protection zones (see figure 4O.5) — Appropriate signage and fencing during construction	•		noted
		Plants selected should be endemic to the region and reflect the local ecology	•		
4P	**Planting on Structures**				
	4P-1	**Appropriate soil profiles are provided**			
		Structures are reinforced for additional saturated soil weight	•		
		Soil volume is appropriate for plant growth, considerations include: — Modifying depths and widths according to the planting mix and irrigation frequency — Free draining and long soil life span — Tree anchorage	•		
		Minimum soil standards for plant sizes should be provided in accordance with Table 5	•		
	4P-2	**Plant growth is optimised with appropriate selection and maintenance**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Plants are suited to site conditions, considerations include: — Drought and wind tolerance — Seasonal changes in solar access — Modified substrate depths for diverse range of plants — Plant longevity	•		
		A landscape maintenance plan is prepared	•		
		Irrigation and drainage systems respond to: — Changing site conditions — Soil profile and the planting regime — Whether rainwater, stormwater r recycled grey water is used	•		
	4P–3	**Planting on structure contributes to the quality and amenity of communal and public open spaces**			
		Building design incorporates opportunities for planting on structures. Design solutions may include: — Green walls with specialised lighting for indoor green walls — All design that incorporates planting — Green roofs, particularly where roofs are visible form public domain — Planter boxes — Note: structures designed to accommodate green walls should be integrated into the building façade and consider the ability of the façade to change over time	•		
4Q	**Universal Design**				
	4Q–1	**Universal design features are included in apartment design to promote flexible housing for all community members**			
		Developments achieve a benchmark of 20% of the total apartment incorporating the Liveable Housing Guideline's silver level universal design features	•		
	4Q–2	**A variety of apartments with adaptable designs are provided**			
		Adaptable housing should be provided in accordance with the relevant council policy	•		provided
		Design solutions for adaptable apartments include: — Convenient access to communal and public areas — High level of solar access — Minimal structural change and residential amenity loss when adapted — Larger car parking spaces for accessibility — Parking titled separately from apartments or shared car parking arrangements	•		
	4Q–3	**Apartment layouts are flexible and accommodate a range of lifestyle needs**			
		Apartments design incorporates flexible design solutions which may include: — Rooms with multiple functions — Dual master bedroom apartments with separate bathrooms — Larger apartments with various living space options — Open plan 'loft' style apartments with only a fixed kitchen, laundry and bathroom	•		The area of the apartments are generally larger than the minimums suggested in the ADG
4R	**Adaptive Reuse**				
	4R–1	**New additional to existing buildings are contemporary and complementary and enhance an area's identity and sense of place**			
		Design solutions may include: — New elements to align with the existing building — Additions that complement the existing character, siting, scale, proportion, pattern form and detailing — Use of contemporary and complementary materials, finishes, textures and colours			N/A

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
	4R–2	**Adapted buildings provide residential amenity while not precluding future adaptive reuse**			
		Design features should be incorporated sensitively into adapted buildings to make up for any physical limitations, to ensure residential amenity is achieved. Design solutions may include: — Generously sized voids in deeper buildings — Alternative apartment types when orientation is poor — Using additions to expand the existing building envelope			N/A
		Some proposals that adapt existing buildings may not be able to achieve all of the design criteria in this Apartment Design Guide. Where developments are unable to achieve the design criteria, alternatives could be considered in the following areas: — Where there are existing higher ceilings, depths of habitable rooms could increase subject to demonstrating access to natural ventilation, cross ventilation (when applicable) and solar an daylight access (see also sections 4A Solar and daylight access and 4B Natural ventilation) — Alternatives to providing deep soil where less than the minimum requirement is currently available on the site — Building and visual separation - subject to demonstrating alternative design approaches to achieving privacy — Common circulation — Car parking — Alternative approaches to private open space and balconies			N/A
4S	**Mixed Use**				
	4S–1	**Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement**			
		Mixed use development should be concentrated around public transport and centres	•		
	4S–2	**Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents**	•		
		Residential circulation areas should be clearly defined. Design solutions may include: — Residential entries are separated from commercial entries and directly accessible from the street — Commercial service areas are separated from residential components — Residential car parking and communal facilities are separated or secured — Concealment opportunities are avoided	•		
		Landscape communal open space should be provided at podium or roof levels	•		.
4T	**Awnings and Signage**				
	4T–1	**Awnings are well located and complement and integrate with the building design**			
		Awnings should be located along streets with high pedestrian activity and active frontages	•		contiuous awning is provided
		A number of the following design solutions are used: — Continuous awnings are maintained and provided in areas with existing pattern — Height, depth, material and form complements the existing street character — Protection from the sun and rain is provided — Awnings are wrapped around the secondary frontages of corner sites — Awnings are retractable in areas without an established pattern	•		
		Awnings should be located over building entries for building address and public domain amenity	•		
		Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure	•		
		Gutters and down pipes should be integrated and concealed	•		

Subheading

		Objective	Complies		
Part No.	Objective No.	**Design Criteria** Design Guidance	Yes	No	Notes
		Lighting under awnings should be provided for pedestrian safety	•		noted
	4T-2	**Signage responds to the context and desired streetscape character**			
		Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development	•		Noted
		Legible and discrete way finding should be provided for larger developments	•		Noted
		Signage is limited to being on and below awnings and in single façade sign on the primary street frontage	•		Noted
4U	**Energy Efficiency**				
	4U-1	**Development incorporates passive environmental design**			
		Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access)	•		
		Well located, screened outdoor areas should be provided for clothes drying		•	
	4U-2	**Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer**			
		A number of the following design solutions are used: — The use of smart glass or other technologies on north and west elevations — Thermal mass in the floors and walls of north facing rooms in maximised — Polished concrete floor, tiles, or timber rather than carpet — Insulated roofs, walls and floors and seals on window and door openings — Overhangs and shading devices such as awnings, blinds and screens	•		
		Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the basement)	•		
	4U-3	**Adequate natural ventilation minimises the need for mechanical ventilation**			
		A number of the following design solution are used: — Rooms with similar usage are grouped together — Natural cross ventilation for apartments is optimised — Natural ventilation is provided to all inhabitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible	•		
4V	**Water Management and Conservation**				
	4V-1	**Potable water use is minimised**			
		Water efficient fittings, appliances and wastewater reuse should be incorporated	•		Refer BASIX certificate
		Apartments should be individually metered	•		
		Rainwater should be collected, stored and reused on site	•		Refer BASIX certificate
		Drought tolerant, low water use plants should be used within landscaped areas	•		Refer landscape design
	4V-2	**Urban stormwater is treated on site before being discharged to receiving waters**			
		Water sensitive urban design systems are designed by a suitably qualified professional			N/A
		A number of the following design solutions are used: — Runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation — Porous and open paving materials is maximised — On site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits	•		Water harvesting for irrigation
	4V-3	**Flood management systems are integrated into site design**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		Detention tanks should be located under paved areas, driveways or in basement car parks	•		OSD tanks are located off site as they deal with the site run off for the whole precinct
		On large sites parks or open spaces are designed to provide temporary on site detention basins			N/A
4W	**Waste Management**				
	4W-1	**Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents**			
		Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park	•		
		Waste and recycling storage areas should be well ventilated	•		
		Circulation design allows bins to be easily manoeuvred between storage and collection points	•		
		Temporary storage should be provided for large bulk items such as mattresses	•		A bulky items storage room, that is separate from the waste rooms.
		A waste management plan should be prepared	•		
	4W-2	**Domestic waste is minimised by providing safe and convenient source separation and recycling**			
		All dwellings should have a waste and recycling cupboard or temporary storage area of sufficient size to hold two days' worth of waste and recycling	•		
		Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core	•		There are two chutes per lift core; one for garbage and one for recycling in addition a recycling bin is provided for cardboard collection within the common areas of each level.
		For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses	•		
		Alternative waste disposal methods such as composting should be provided	•		This will be up to the body corporate to include as they see fit
4X	**Building Maintenance**				
	4X-1	**Building design detail provides protection from weathering**			
		A number of the following design solutions are used: — Roof overhangs to protect walls — Hoods over windows and doors to protect openings — Detailing horizontal edges with drip lines to avoid staining of surfaces — Methods to eliminate or reduce planter box leaching — Appropriate design and material selection for hostile locations	•		
	4X-2	**Systems and access enable ease of maintenance**			
		Window design enables cleaning from the inside of the building	•		There are only a few windows that are not accessed from a balcony and of the ones that can't be accessed the openable section of the window will be generally cleaned by the building management
		Building maintenance systems should in incorporated and integrated into the design of the building form, roof and façade	•		A roof hatch has been allowed for in order to gain access to the roof where condensers are located.
		Design solutions do not require external scaffolding for maintenance access	•		
		Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems	•		
		Centralised maintenance, services and storage should be provided for communal open space areas within the building	•		
	4X-3	**Material selection reduces ongoing maintenance costs**			

Subheading

		Objective	Complies		
		Design Criteria			
Part No.	Objective No.	Design Guidance	Yes	No	Notes
		A number of the following design solutions are used: — Sensors to control artificial lighting in common circulation and spaces — Natural materials that weather well and improve with time such as face brickwork — Easily cleaned surfaces that are graffiti resistant — Robust and durable materials and finished are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors	•		

4

Site Analysis Checklist

Site Analysis Checklist

Subheading

Documentation	Required information	Provided	
		Yes	No
	any existing buildings on the site	•	
	building entries (pedestrian, vehicular and service)	•	
	profile of buildings on adjacent properties or for 50m in each direction, whichever is most appropriate	•	
Sections	A scale drawing showing:		
	— proposed building height and RL lines	•	
	— building height control	•	
	— setbacks or envelope outline	•	
	— adjacent buildings	•	
	— building circulation	•	
	— the relationship of the proposal to the ground plane, the street and open spaces particularly at thresholds	•	
	— the location and treatment of car parking	•	
	— the location of deep soil and soil depth allowance for planting on structure (where applicable)	•	
	— building separation within the development and between neighbouring buildings	•	
	— ceiling heights throughout the development	•	
	— detailed sections of the proposed facades	•	
	— the location and treatment of car parking	•	
Solar access study	Where required, graphic documentation at winter solstice (21 June) at a minimum of hourly intervals showing:		
	— number of hours of solar access to the principal communal open space	•	
	— number of hours of solar access to units within the proposal and tabulation of results	•	
	— overshadowing of existing adjacent properties and overshadowing of future potential development where neighbouring sites are planned for higher density	•	
	— elevation shadows if shadow is likely to fall on neighbouring windows, openings or solar panels	•	
Cross ventilation study	Where required, graphic documentation of unobstructed path of air movement through dual aspect apartments and tabulation of results	•	
Material and finishes board	A sample board of the proposed external materials, finishes and colours of the proposal, keyed to elevations	•	
Illustrative views	Photomontages or similar rendering or perspective drawings illustrating the proposal in the context of surrounding development. Note: Illustrative views need to be prepared using a perspective that relates to the human eye. Where a photomontage is prepared, it should use a photo taken by a full frame camera with a 50mm lens and 46 degree angle of view	•	
Models	A three dimensional computer generated model showing views of the development from adjacent streets and buildings	•	
	A physical model that shows the massing of the proposal that includes relevant context (particularly for developments of 20 apartments or more, or on contentious sites) if required by the consent authority		

5

Development Application Checklist

Subheading

Documentation	Required information	Provided	
		Yes	No
Development details	A summary document that provides the key details of the development proposal. It contains information such as the:		
	— floor space ratio of the development	•	
	— number, mix, size and accessibility of apartments	•	
	— number of car parking spaces for use (residential, retail, accessible, visitor etc.)	•	
	— percentage of cross ventilation and daylight compliance	•	
Statement of Environmental Effects	In addition to the consent authorities requirements:		
	— An explanation of the design in terms of the design quality principles set out in Schedule 1 of State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development		
	— If the proposed development is within an area where the built form and density is changing, statements about how the proposed development responds to the existing context and contributes to desired future character of the area		
	— Description of how the proposed development achieves the relevant objectives and design criteria of the Apartment Design Guide		
Site analysis	Prepared consistent with Appendix 1 of the Apartment Design Guide		
Site plan	A scale drawing showing:		
	— any proposed site amalgamation or subdivision	•	
	— location of any proposed buildings or works in relation to setbacks, building envelope controls and building separation dimensions	•	
	— proposed finished levels of land in relation to existing and	•	
	— proposed buildings and roads	•	
	— pedestrian and vehicular site entries and access	•	
	— interface of the ground floor plan with the public domain and	•	
	— with open spaces within the site	•	
	— areas of communal open space and private open space	•	
	— indicative locations of planting and deep soil zones including retained or proposed significant trees	•	
Landscape plan	A scale drawing showing:		
	— the building footprint of the proposal including pedestrian, vehicle and service access	•	
	— trees to be removed shown dotted	•	
	— trees to remain with their tree protection zones (relative to the proposed development)		
	— deep soil zones and associated tree planting		
	— areas of planting on structure and soil depth		
	— proposed planting including species and size	•	
	— details of public space, communal open space and private open space	•	
	— external ramps, stairs and retaining wall levels	•	
	— security features and access points	•	
	— built landscape elements (fences, pergolas, walls, planters and water features)	•	
	— ground surface treatment with indicative materials and finishes	•	
	— site lighting		
	— water management and irrigation concept design		
	— external ramps, stairs and retaining wall levels	•	

Subheading

Documentation	Required information	Provided	
		Yes	No
Floor plans	A scale drawing showing:		
	— all levels of the building including roof plan	•	
	— layout of entries, circulation areas, lifts and stairs, communal spaces, and service rooms with key dimensions and RLs shown	•	
	— apartment plans with apartment numbers and areas, all fenestration, typical furniture layouts for each apartment type, room dimensions and intended use and private open space dimensions	•	
	— accessibility clearance templates for accessible units and common spaces	•	
	— visual privacy separation shown and dimensions where necessary	•	
	— vehicle and service access, circulation and parking	•	
	— storage areas	•	
Elevations	A scale drawing showing:		
	— proposed building height and RL lines	•	
	— building height control	•	
	— setbacks or envelope outline	•	
	— building length and articulation	•	
	— the detail and features of the facade and roof design	•	
	— any existing buildings on the site	•	
	— building entries (pedestrian, vehicular and service)	•	
	— profile of buildings on adjacent properties or for 50m in each direction, whichever is most appropriate	•	
Sections	A scale drawing showing:		
	— proposed building height and RL lines	•	
	— building height control	•	
	— setbacks or envelope outline	•	
	— adjacent buildings	•	
	— building circulation	•	
	— the relationship of the proposal to the ground plane, the street and open spaces particularly at thresholds	•	
	— the location and treatment of car parking	•	
	— the location of deep soil and soil depth allowance for planting on structure (where applicable)	•	
	— building separation within the development and between neighbouring buildings	•	
	— ceiling heights throughout the development	•	
	— detailed sections of the proposed facades	•	
	— the location and treatment of car parking	•	
Solar access study	Where required, graphic documentation at winter solstice (21 June) at a minimum of hourly intervals showing:		
	— number of hours of solar access to the principal communal open space	•	
	— number of hours of solar access to units within the proposal and tabulation of results	•	
	— overshadowing of existing adjacent properties and overshadowing of future potential development where neighbouring sites are planned for higher density	•	
	— elevation shadows if shadow is likely to fall on neighbouring windows, openings or solar panels	•	

Development Application Checklist

Subheading

Documentation	Required information	Provided	
		Yes	No
Cross ventilation study	Where required, graphic documentation of unobstructed path of air movement through dual aspect apartments and tabulation of results	•	
Material and finishes board	A sample board of the proposed external materials, finishes and colours of the proposal, keyed to elevations	•	
Illustrative views	Photomontages or similar rendering or perspective drawings illustrating the proposal in the context of surrounding development. Note: Illustrative views need to be prepared using a perspective that relates to the human eye. Where a photomontage is prepared, it should use a photo taken by a full frame camera with a 50mm lens and 46 degree angle of view	•	
Models	A three dimensional computer generated model showing views of the development from adjacent streets and buildings	•	
	A physical model that shows the massing of the proposal that includes relevant context (particularly for developments of 20 apartments or more, or on contentious sites) if required by the consent authority		

SJB is passionate about the possibilities of architecture, interiors, urban design and planning. Let's collaborate.

Gadigal Country
Level 2, 490 Crown Street
Surry Hills NSW 2010

T 61 2 9380 9911
E architects@sjb.com.au
W sjb.com.au