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The General Manager,
Liverpool City Council,
52 Scott Street
Liverpool,
NSW 2170

Ref No: 2401
Date : 19 July 2024
From : RO
Pages : 1

Re: **The Grand Liverpool, 402 Macquarie Street**
 Development Application

Subject : **HOUSING SEPP CHAPTER 4 DESIGN VERIFICATION**
 STATEMENT

The architectural plans for this development application have been prepared by
OLSSON Architecture | Urban Projects.

This documentation achieves and improves upon the design quality of the development to which the consents relate, having regard to the design quality principles set out in the Apartment Design Guide in Chapter 4 of the SEPP (Housing) 2021 – Design of Residential Apartment Development.



Russell Olsson
Registered architect 7079
Director

OLSSON Architecture | Urban Projects

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**SEPP 65 DESIGN QUALITY PRINCIPLES REPORT AND
APARTMENT DESIGN GUIDE
COMPLIANCE REPORT**

5th May 2021

FOR DEVELOPMENT APPLICATION
ALTERATION AND ADDITIONS TO A MULTI - RESIDENTIAL
138 Wardell Road, Marrikkville

SEPP 65 Design Statement

Address of project: 138 Wardell Road, Marrickville	Date of Statement: May 2021
Architect: OLSSON Architecture Urban Projects	Statement by: Russell Olsson, Architect, No. 7079
Council: Inner West Council	

1.0 Design Review

Principle 1: Context and Neighbourhood Character

SEPP 65: *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.*

Comment:

The site is situated immediately adjacent to Merrylands train station and bus interchange. The proposal is at a key intersection between Terminal Place, Pitt Street and McFarlane Street. Development approval exists for a mixed use development which includes an arcade linking McFarlane Street to the transport interchange, retail shops on three street frontages and two levels of commercial suites above, linked by escalators from the arcade. A residential tower is approved above the commercial levels.

This amended proposal involves the following components :

- Additional residential storeys with relocation of the lantern feature;

- A narrowing of the arcade to facilitate an enhanced retail environment with removal of the approved central escalators;
- Change of use of the first floor to gymnasium and child care centre.

These amendments provide a new child care centre, enhance the retail arcade and create a gateway tower with an articulated skyline that is appropriate to this key location in the town centre.

Principle 2: Built Form and Scale

SEPP 65: 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 approved development addresses 3 street frontages with retail built to the street alignment. A 3 storey high podium create a base for a 15 storey residential tower. The arcade is located on the axis of McFarlane Street as a visual termination of that street and a through site link to the train station. Building entries are clearly signalled by a raised canopy and 2 storey height entry space.

The urban design principles underlying the siting of the tower, are to reinforce street alignments and in particular to reinforce the corners of Terminal Place and Pitt Street as important gateway corners when viewed from Pitt Street and the train station and bus interchange. These principles have created a sculptural tower with curved corners that emphasise the importance of Terminal Place and Pitt Street.

The residential tower is divided into two distinct parts by a substantial inset to the lift core and corridor windows. This approach has the advantages of

- Strongly articulating the tower, avoiding a square proportioned tower block
- Creating vertical proportions in each of the parts
- Creating a subtle difference in character between the 2 parts, with the northern part of the tower being sculpturally curved and the southern part of the tower being square in plan with curved corners
- Providing daylight and ventilation to the centre of the corridor adjacent to the lifts
- Separating the lifts from apartments on 3 sides, minimizing the impact of the lifts on apartments.

This amended built form proposal creates an articulation skyline by adding 7 storeys onto the northern part of the tower and 4 storeys onto the southern part of the tower. This emphasizes the gateway character of the development, which marks the central core of the town centre at Stockland Mall and the transport interchange. The difference in heights between the northern and southern parts of the tower creates a visually interesting skyline and avoids multiple developments having the same monotonous flat topped form. The opportunity is taken to provide communal open space on the wider lower tower roof and private open space on the smaller taller tower roof.

The additional floors enhance the built form of the development by differentiating the northern and southern parts to the tower, creating a more slender northern part to the tower, emphasizing the corner of Terminal Place and Pitt Street as a gateway and creating a distinctive skyline when viewed from a distance.

Principle 3: Density

SEPP 65: 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.

The density of 9.31 : 1 is appropriate to the site, as the proposal addresses the street with active frontages, has an enhanced tower form, a child care centre and a public benefit in the form of a better retail environment in the arcade.

Principle 4: Sustainability

SEPP 65: 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.

The proposed site layout and built form are conducive to maximising the environmental design attributes of the development.

In terms of solar access to apartments, more than 70% of apartments gain a minimum of 2 hours direct sunlight to balconies and living rooms between 9am and 3pm in mid-winter.

There are no single-orientation south-facing apartments.

In terms of natural cross-ventilation, 70% of apartments are naturally cross-ventilated. 63% of apartments are naturally cross ventilated in the first nine storeys of the building. All apartments greater than 10 storeys above ground are deemed to be naturally cross ventilated.

The amenity of the circulation corridor is excellent, with 4 sources of natural light and ventilation.

Balconies extend along the length of all northern, western and eastern sides of the building, shading windows by extending over and past window openings. Where balustrades do not have masonry upstands, vertical perforated metal screens provide additional shading.

Principle 5 : Landscape

SEPP 65 : Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long term management.

The city centre location with retail frontages to 3 frontages and no deep soil mitigates against the provision of landscape at ground level. The proposed landscape at upper levels is shown in the landscape architecture plans. The landscaping of the communal open spaces is generous with extensive perimeter planting and wide area of pergola to provide good amenity and shelter. The communal open space on Level 21 includes an outdoor childrens play area, outdoor gym and outdoor kitchen and dining. A music room provides an opportunity for music practice and an accessible toilet and gardener's room ensure that the area may be easily used and maintained.

Principle 6: Amenity

SEPP 65: 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.

The amenity of the shopping arcade is enhanced with the removal of the central escalators which previously blocked shoppers from easily moving from one side of the arcade to the other, which is a typical pattern of shopper behavior. The previous, wider arcade also mitigated against this shopper behavior due to its atypical and excessive width. The proposed arcade continues to perform its important role in linking Stockland Mall and McFarlane Street to the transport interchange whilst being a better shopping experience for pedestrians.

Good amenity is achieved in the proposed Child Care Centre with a high ceiling of 4.2m height. Excellent natural light and ventilation is achieved with openings onto a 3 street frontages. An indoor / outdoor experience is provided for the children and carers in a safe environment with high amenity.

The additional residential floors continue to provide good amenity in the same design approach as the approved apartment levels. Solar access and natural ventilation are maximized to apartments. A minimum of 2 hours direct sunlight is provided to living room windows and private open spaces to 75% of apartments in midwinter between 9am and 3pm. Natural ventilation is provided to 64% of apartments. Kitchens are a maximum 8m to the rear of the kitchen. Single aspect apartments are 6.5m deep to the rear of the kitchen.

Less than 12 apartments are provided off a circulation core on a single level. The amenity of the circulation corridor is excellent, with 4 sources of natural light and

ventilation. Common circulation spaces achieve good amenity and serve the apartments with wide corridors.

Apartments provide appropriately sized private open space and balconies to enhance residential amenity. Balconies to 1 bedroom apartments are a minimum of 11.18 sqm and range from 11.18 sqm to 12.49 sqm. Balconies to 2 bedroom apartments are a minimum of 12.68 sqm and range from 12.68 sqm to 32.59 sqm. Balconies to 3 bedroom apartments are 36.07 sqm

The comparatively large balcony areas compensate for some parts of balconies being less than 2m deep. All balconies include an area with a depth greater than 2m, where a dining table and chairs may be located.

Private open spaces and balconies face north, east or west, providing good solar access. Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are designed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony.

Adaptable apartments are provided in accordance with the Cumberland Council DCP. DCP requirements for accessible car spaces are met.

Storage is provided in both apartments and the basement, and meets the DCP and ADG volume requirements.

Principle 7: Safety

SEPP 65: 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.

The following is noted as features for the safety of the residents in the proposed development:

1. The child care centre has secure access, CCTV and other features required for child care centres;
2. Secure key-card access for residents from basement parking.
3. There is one entrance to the residential development from Terminal Place
4. The communal open space has generous proportions and benefits from clear sight lines and is not accessible to the general public.

Principle 8: Housing Diversity and Social Interaction

SEPP 65: 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.

The proposed development provides a mix of housing choice with 20% 1 bedrooms, 67% 2 bedrooms and 13% 3 bedrooms. The apartment mix is

distributed to suitable locations in the building, with every typical floor level having one 3 bedroom, two 1 bedroom and eight 2 bedroom apartments.

Generously proportioned and landscaped communal open spaces are located on the podium and roof levels, with seating providing a safe socialising space for residents and their guests. A children's play area, gym workout area, lounge and BBQ areas provide diversity in the use of communal areas.

Principle 9: Aesthetics

SEPP 65: 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.

The aesthetics of the building relate to urban design principles, the context, and environmental design strategies.

The Important corner of Terminal Place and Pitt Street is defined by a curved corner tower. Pitt Street is a major entry to the city centre from the north. The building emphasises the corner with a gently projecting curved corner. The curved built form at the corner is reinforced with solid masonry balustrades. The balustrades step to become half masonry / half glass, then all glass adjacent to the recesses between the building bays. This stepping of the balustrades emphasises the corners and diminishes towards the open recesses.

A strongly articulated skyline is created by visually separating the top 4 floors of the building from the lower levels with a 2 storey high glazed lantern recess. The top floors are visually emphasised with coloured perforated metal screens that will create an interesting skyline when viewed from a distance.

This amended proposal further articulates the skyline and this important corner with additional height that is appropriate to this gateway site. The lower southern part of the tower is also appropriately scaled as a mid-block building that will relate to future buildings to the south.

The building base is distinguished from the tower with glass facades and awnings that visually unify the base, while providing solar protection to the glass commercial facades.

The elevational openings of the child care centre provide amenity in the form of natural light and ventilation. The metal and glass materials in the podium are appropriate for city centre commercial uses. The continuous commercial frontages in the podium create a well defined built form which is not compromised by the openness of the child care centre. The mix of uses in this development is highly appropriate to this urban setting, adding vitality to this thriving part of the town centre.

Objective 3A-1	
Site analysis illustrated that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context	Design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context. The site analysis drawings and photomontages demonstrate that the urban opportunities presented by this site have been fully realized with the proposed built form approach.
<i>Design guidance</i>	
Each element of the site analysis checklist should be addressed	These elements have been addressed
Objective 3B-1	
Building types and layouts respond to the streetscape and site while optimizing solar access within the development	The building is aligned to Terminal Place and Pitt Street with active frontages and optimizes solar access to the building
<i>Design guidance</i>	
Buildings along the street frontage define the street, by facing it and incorporating direct access from the street	Addressed
Where the street frontage is to the east or west, rear buildings should be orientated to the north	Not applicable
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	Not applicable
Objective 3B-2	
Overshadowing of neighbouring properties is minimised during mid-winter	Overshadowing is minimised by the building having a predominantly north-south axis with the narrowest side of the building creating shadow
<i>Design guidance</i>	
Living areas, private open space and	Achieved.

communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access	
Solar access to living rooms, balconies and private open spaces of neighbours should be considered	Addressed
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%	Not applicable
If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy	Not applicable
Overshadowing should be minimised to the south or down hill by increased upper level setbacks	Not applicable
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	Overshadowing is minimised by the building being at 90 degrees to the side boundary
A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings	Not applicable
Objective 3C-1	
Transition between public and private domain is achieved without compromising safety and security	The public / private domain interface is predominantly active shopfronts and arcade.
Design guidance	
Terraces, balconies and courtyard apartments should have direct street entry, where appropriate	Not applicable
Changes in level between private terraces, front gardens and dwelling entries above	Not applicable

the street level provide surveillance and improve visual privacy for ground level dwellings	
Upper level balconies and windows should overlook the public domain	Addressed
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	Not applicable
Length of solid walls should be limited along street frontages	The lengths of solid walls are minimised
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	Not applicable
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	The residential entry is differentiated with a raised awning to signify its difference to retail frontages adjacent
Opportunities for people to be concealed should be minimised	Addressed
Objective 3C-2 Amenity of the public domain is retained and enhanced	The amenity of the public domain is retained and enhanced compared to its current state
<i>Design guidance</i>	
Planting softens the edges of any raised terraces to the street, for example above	Not applicable

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	Addressed
The visual prominence of underground car park vents should be minimised and located at a low level where possible	Addressed
Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view	The substation is in its existing location. Its visibility is reduced by being located under the awning and with visually recessive louvring
Ramping for accessibility should be minimised by building entry location and setting ground floor levels in relation to footpath levels	Addressed
Durable, graffiti resistant and easily cleanable materials should be used	Addressed
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 designed . paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space . minimal use of blank walls, fences and ground level parking	Not applicable
On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking	Not applicable
Objective 3D-1	

An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	An adequate area of communal open space is provided
<i>Design criteria</i>	
1. Communal open space has a minimum area equal to 25% of the site	Complies, with more than 25% of the site area communal open space
2. 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)	Complies. More than 50% of the area is on the roof.
<i>Design guidance</i>	
Communal open space should be consolidated into a well designed, easily identified and usable area	Addressed
Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions	Addressed
Communal open space should be co-located with deep soil areas	City centre location mitigates against deep soil
Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies	Addressed
Where communal open space cannot be provided at ground level, it should be provided on a podium or roof	Addressed
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	Not applicable

• 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	
Objective 3D-2 Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting	Communal open space is designed to allow for a range of activities.
<i>Design guidance</i>	
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	Activities include children's play, outdoor fitness, socializing and passive recreation, with seating and bbqs.
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	A range of sunny and shady places are created for a range of activities
Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks	Plant room is screened
Objective 3D-3 Communal open space is designed to maximise safety	
<i>Design guidance</i>	
Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy.	Addressed

Design solutions may include: . bay windows . corner windows • balconies	
Objective 3D-4 Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood	Not applicable
<i>Design guidance</i>	
The public open space should be well connected with public streets along at least one edge	
The public open space should be connected with nearby parks and other landscape elements	
Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid	
Solar access should be provided year round along with protection from strong winds	
Opportunities for a range of recreational activities should be provided for people of all ages	
A positive address and active frontages should be provided adjacent to public open space	
Boundaries should be clearly designed between public open space and private areas	
Objective 3E-1 Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality	The city centre location mitigates against deep soil
<i>Design criteria</i>	

Deep soil zones are to meet the following minimum requirements:		
Site area	Minimum dimensions	Deep soil zone (% of site area)
less than 650m ²	-	7%
650m ² - 1,500m ²	3m	
greater than 1,500m ²	6m	
greater than 1,500m ² with significant existing tree cover	6m	
Design guidance		
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		
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		

colocation with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil													
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	The city centre location mitigates against deep soil												
Objective 3F-1													
Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal privacy	Adequate building separation distances are shared equitably between neighbouring sites												
Design criteria													
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: <table><tr><th>Building height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr><tr><td>up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr><tr><td>up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr><tr><td>over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr></table> Separation distances between buildings on the same site should combine required	Building height	Habitable rooms and balconies	Non-habitable rooms	up to 12m (4 storeys)	6m	3m	up to 25m (5-8 storeys)	9m	4.5m	over 25m (9+ storeys)	12m	6m	Addressed. The southern residential tower setback is 12m.
Building height	Habitable rooms and balconies	Non-habitable rooms											
up to 12m (4 storeys)	6m	3m											
up to 25m (5-8 storeys)	9m	4.5m											
over 25m (9+ storeys)	12m	6m											

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	
Design guidance	
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	Not applicable
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	Not applicable
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	Addressed
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	Not applicable

Direct lines of sight should be avoided for windows and balconies across corners	Bedroom windows between the two building wings are offset to maintain privacy
No separation is required between blank walls	Not applicable
Objective 3F-2	
Site and building elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space	Site and building elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space
Design guidance	
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	Planter boxes and a fence separate private open spaces from communal open spaces on Level 3

windows and/or balconies	
Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas	Not applicable
Balconies and private terraces should be located in front of living rooms to increase internal privacy	Addressed
Windows should be offset from the windows of adjacent buildings	Addressed
Recessed balconies and/or vertical screens should be used between adjacent balconies	Addressed
Objective 3G-1	
Building entries and pedestrian access connects to and addresses the public domain	Building entries connect to and addresses the public domain
Design guidance	
Multiple entries (including communal building entries and individual ground floor entries) should be provided to activate the street edge	One residential entry only
Entry locations relate to the street and subdivision pattern and the existing pedestrian network	Addressed
Building entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries	The residential entry is differentiated with a raised awning to signify its difference to retail frontages adjacent
Where street frontage is limited and multiple buildings are located on the site, a primary street address should be provided with clear sight lines and pathways to secondary building entries	Addressed
Objective 3G-2	
Access, entries and pathways are accessible and easy to identify	Access, entries and pathways are accessible and easy to identify
Design guidance	
Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and	Addressed

communal spaces	
The design of ground floors and underground car parks minimise level changes along pathways and entries	Addressed
Steps and ramps should be integrated into the overall building and landscape design	Not applicable
For large developments 'way finding' maps should be provided to assist visitors and residents	Not applicable
For large developments electronic access and audio/video intercom should be provided to manage access	Not applicable
Objective 3G-3	
Large sites provide pedestrian links for access to streets and connections to destinations	Not applicable
<i>Design guidance</i>	
Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport	
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	
Objective 3H-1	
Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes
<i>Design guidance</i>	
Car park access should be integrated with the building's overall facade. Design solutions may include: . the materials and colour palette to minimise visibility from the street . security doors or gates at entries that minimise voids in the facade	Addressed

. where doors are not provided, the visible interior reflects the facade design and the building services, pipes and ducts are concealed	
Car park entries should be located behind the building line	Addressed
Vehicle entries should be located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout	Not applicable
Car park entry and access should be located on secondary streets or lanes where available	Addressed
Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided Access point locations should avoid headlight glare to habitable rooms	Not applicable
Adequate separation distances should be provided between vehicle entries and street intersections	Addressed
The width and number of vehicle access points should be limited to the minimum	Addressed
Visual impact of long driveways should be minimised through changing alignments and screen planting	Not applicable
The need for large vehicles to enter or turn around within the site should be avoided	Addressed
Garbage collection, loading and servicing areas are screened	Addressed
Clear sight lines should be provided at pedestrian and vehicle crossings	Addressed
Traffic calming devices such as changes in paving material or textures should be used where appropriate	Addressed
Pedestrian and vehicle access should be	Addressed

separated and distinguishable. Design solutions may include:	
· changes in surface materials · level changes · the use of landscaping for separation	
Objective 3J-1	
Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas
Design criteria	
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	Car parking complies with Cumberland Council's rates.
Design guidance	
Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site	Not applicable
Where less car parking is provided in a development, council should not provide on street resident parking permits	Not applicable
Objective 3J-2	
Parking and facilities are provided for other modes of transport	Parking and facilities are provided for other modes of transport
Design guidance	

Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters	Motorbikes and scooter spaces comply with Cumberland Council's rates.
Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	Bicycle spaces comply with Cumberland Council's rates.
Conveniently located charging stations are provided for electric vehicles, where desirable	Not applicable
Objective 3J-3	
Carpark design is safe and secure	Carpark design is safe and secure
Design guidance	
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	Addressed
Direct, clearly visible and well lit access should be provided into common circulation areas	Addressed
A clearly defined and visible lobby or waiting area should be provided to lifts and stairs	Addressed
For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards	Addressed
Objective 3J-4	
Visual and environmental impacts of underground carparking are minimised	Visual and environmental impacts of underground carparking are minimised
Design guidance	
Excavation should be minimised through efficient car park layouts and ramp design	Addressed
Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles	Addressed
Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or	Addressed

using split levels on sloping sites	
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	Addressed
Objective 3J-5	
Visual and environmental impacts of on-grade car parking are minimised	Not applicable
Objective 3J-6	
Visual and environmental impacts of above ground enclosed carparking are minimised	Not applicable
Objective 4A-1	
To optimise the number of apartments receiving sunlight to habitable rooms, primary windows	The number of apartments receiving sunlight to habitable rooms, primary windows is optimised
<i>Design criteria</i>	
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 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 A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	Complies. 78 % of apartments receive 2 hours or more direct sunlight between 9 am and 3 pm at mid winter. Zero apartments receive no direct sunlight between 9 am and 3 pm at mid winter
<i>Design guidance</i>	
The design maximises north aspect and the number of single aspect south facing apartments is minimised	Addressed
Single aspect, single storey apartments should have a northerly or easterly aspect	Addressed

Living areas are best located to the north and service areas to the south and west of apartments	Addressed
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	Addressed
To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m ² of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	Addressed
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	Not applicable
Objective 4A-2 Daylight access is maximised where sunlight is limited	Not applicable
<i>Design guidance</i>	
Courtyards, skylights and high level windows (with sills of 1,500mm or greater)	

are used only as a secondary light source in habitable rooms	
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	
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	
Objective 4A-3	
Design incorporates shading and glare control, particularly for warmer months	Design incorporates shading and glare control, particularly for warmer months
<i>Design guidance</i>	
A number of the following design features are used: . balconies or sun shading that extend far enough to shade summer sun, but allow	Balconies extend along the length of all northern, western and eastern sides of the building, shading windows by extending over and past window openings. Where balustrades do not have masonry upstands,

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)	vertical perforated metal screens provide additional shading.
Objective 4B-1	
All habitable rooms are naturally ventilated	All habitable rooms are naturally ventilated
<i>Design guidance</i>	
The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms	Addressed
Depths of habitable rooms support natural ventilation	Addressed
The area of unobstructed window openings should be equal to at least 5% of the floor area served	Addressed
Light wells are not the primary air source for habitable rooms	Not applicable
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	Addressed

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	
Objective 4B-2 The layout and design of single aspect apartments maximises natural ventilation	The layout and design of single aspect apartments maximises natural ventilation
Design guidance	
Apartment depths are limited to maximise ventilation and airflow	Addressed. The rear of kitchens is within 8m of living room windows.
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	Not applicable
Objective 4B-3	
The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents
Design criteria	
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	Complies. 64 % of apartments are naturally cross ventilated in the first 9 storeys. All apartments greater than 10 storeys above ground are deemed to be naturally cross ventilated.

Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line									
Design guidance									
The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	Addressed								
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)	Not applicable								
Apartments are designed to minimise the number of corners, doors and rooms that might obstruct air flow	Addressed								
Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and air flow	Addressed								
Objective 4C-1									
Ceiling height achieves sufficient natural ventilation and daylight access	Ceiling height achieves sufficient natural ventilation and daylight access. The Child Care Centre has high ceilings to provide good natural sunlight and ventilation.								
Design Criteria									
Measured from finished floor level to finished ceiling level, minimum ceiling heights are: <table border="1"> <tr> <th colspan="2">Minimum ceiling height for apartment and mixed use buildings</th></tr> <tr> <td>Habitable rooms</td><td>2.7m</td></tr> <tr> <td>Non-habitable</td><td>2.4m</td></tr> <tr> <td>For 2 storey apartments</td><td> 2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the </td></tr> </table>	Minimum ceiling height for apartment and mixed use buildings		Habitable rooms	2.7m	Non-habitable	2.4m	For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the	Complies
Minimum ceiling height for apartment and mixed use buildings									
Habitable rooms	2.7m								
Non-habitable	2.4m								
For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the								

	apartment area	
Attic spaces	1.8m at edge of room with a 30 degree minimum ceiling slope	
If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use	
Design guidance		
Ceiling height can accommodate use of ceiling fans for cooling and heat distribution		Complies
Objective 4C-2		
Ceiling height increases the sense of space in apartments and provides for well proportioned rooms		Ceiling height increases the sense of space in apartments and provides for well proportioned rooms
Design guidance		
A number of the following design solutions can be used: - the hierarchy of rooms in an apartment is designed 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		Addressed
Objective 4C-3		
Ceiling heights contribute to the flexibility of building use over the life of the building		Not applicable
Design guidance		
Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria		Commercial uses with high ceilings on lowest 3 floors

allowing flexibility and conversion to non-residential uses	
Objective 4D-1	
The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity	The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity
<i>Design criteria</i>	
Apartments are required to have the following minimum internal areas: Studio : 35 sqm 1 bedroom : 50 sqm 2 bedroom : 70 sqm 3 bedroom : 90 sqm 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 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	Complies
<i>Design guidance</i>	
Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)	Addressed
A window should be visible from any point in a habitable room	Addressed
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	Not applicable

assessed on their merits.	
Objective 4D-2	
Apartment layouts are designed to accommodate a variety of household activities and needs	Apartment layouts are designed to accommodate a variety of household activities and needs
<i>Design criteria</i>	
. Habitable room depths are limited to a maximum of 2.5 x the ceiling height	Addressed
. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Addressed. The rear of kitchens is a maximum 8m from a window
<i>Design guidance</i>	
Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths	Addressed
All living areas and bedrooms should be located on the external face of the building	Addressed
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	Addressed
Objective 4D-3	
Apartment layouts are designed to accommodate a variety of household activities and needs	Apartment layouts are designed to accommodate a variety of household activities and needs
<i>Design criteria</i>	
Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space)	Complies
Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Complies
Living rooms or combined living/dining	Complies

rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments 4m for 2 and 3 bedroom apartments	
The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	Not applicable
<i>Design guidance</i>	
. Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas	Addressed
. All bedrooms allow a minimum length of 1.5m for robes	Addressed
. 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	Addressed
. 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 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	Addressed

Objective 4E-1	
Apartments provide appropriately sized private open space and balconies to enhance residential amenity	Apartments provide appropriately sized private open space and balconies to enhance residential amenity
<i>Design criteria</i>	
All apartments are required to have primary balconies as follows: Studios : 4 sqm min. area 1 bedroom : 8 sqm min area 2m min depth 2 bedroom : 10 sqm 2m min depth 3 bedrooms : 12 sqm	Balconies to 1 bedroom apartments are a minimum of 11.18 sqm and range from 11.18 sqm to 12.49 sqm Balconies to 2 bedroom apartments are a minimum of 12.68 sqm and range from 12.68 sqm to 32.59 sqm Balconies to 3 bedroom apartments are 36.07 sqm The comparatively large balcony areas compensate for some parts of balconies being less than 2m deep. All balconies include an area with a depth greater than 2m, where a dining table and chairs may be located.
For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m ² and a minimum depth of 3m	Podium level terraces range in area from 20.41 sqm to 159.88 sqm
<i>Design guidance</i>	
Increased communal open space should be provided where the number or size of balconies are reduced	Addressed. Large communal areas are provided on the roof and Level 3
Storage areas on balconies is additional to the minimum balcony size	Not applicable
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 sign cant level of aircraft noise • heritage and adaptive reuse of existing buildings In these situations, juliet balconies,	Not applicable

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	
Objective 4E-2	
Primary private open space and balconies are appropriately located to enhance liveability for residents	Primary private open space and balconies are appropriately located to enhance liveability for residents
<i>Design guidance</i>	
Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space	Addressed
Private open spaces and balconies predominantly face north, east or west	Addressed
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	Addressed
Objective 4E-3	
Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building
<i>Design guidance</i>	
Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are designed 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	Addressed
Full width full height glass balustrades alone are generally not desirable	Addressed. Glass balustrade areas also have perforated metal screens
Projecting balconies should be integrated into the building design and the design of soffits considered	Addressed
Operable screens, shutters, hoods and	Addressed

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	Not applicable
Downpipes and balcony drainage are integrated with the overall facade and building design	Addressed
Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design	Addressed
Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design	Addressed
Ceilings of apartments below terraces should be insulated to avoid heat loss	Addressed
Water and gas outlets should be provided for primary balconies and private open space	Addressed
Objective 4E-4	
Private open space and balcony design maximises safety	Private open space and balcony design maximises safety
<i>Design guidance</i>	
Changes in ground levels or landscaping are minimised	Not applicable
Design and detailing of balconies avoids opportunities for climbing and falls	Addressed
Objective 4F-1	
Common circulation spaces achieve good amenity and properly service the number of apartments	Common circulation spaces achieve good amenity and properly service the number of apartments
<i>Design criteria</i>	
The maximum number of apartments off a circulation core on a single level is eight	Addressed. The maximum number of apartments off a circulation core on a single level is eleven, however please refer to Design Guidance clause 7 which states that where Design Criteria 1 is not achieved, no more than 12 apartments

	should be provided off a circulation core on a single level. The amenity of the circulation corridor is excellent, with 4 sources of natural light and ventilation
For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	Complies. 4 lifts serve each floor.
<i>Design Guidance</i>	
Greater than minimum requirements for corridor widths and/ or ceiling heights allow comfortable movement and access particularly in entry lobbies, outside lifts and at apartment entry doors	Addressed
Daylight and natural ventilation should be provided to all common circulation spaces that are above ground	Addressed
Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors	Addressed
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	Addressed
Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	Addressed
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	Addressed. The amenity of the circulation corridor is excellent, with 4 sources of natural light and ventilation

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	
Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level	Complies. Less than 12 apartments are provided off a circulation core on a single level
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 controlled	Addressed
Objective 4F-2	
Common circulation spaces promote safety and provide for social interaction between residents	Common circulation spaces promote safety and provide for social interaction between residents
<i>Design Guidance</i>	
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	Addressed. Corridors are direct and legible.
Tight corners and spaces are avoided	Addressed
Circulation spaces should be well lit at night	Addressed
Legible signage should be provided for apartment numbers, common areas and	Addressed

general wayfinding	
Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided	Addressed
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	Not applicable
Where external galleries are provided, they are more open than closed above the balustrade along their length	Not applicable
Objective 4G-1	
Adequate, well designed storage is provided in each apartment	Adequate, well designed storage is provided in each apartment
<i>Design criteria</i>	
In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: Studios : 4 cu.m. 1 bedroom : 6 cu.m. 2 bedroom : 8 cu.m. 3 bedroom : 10 cu.m. At least 50% of the required storage is to be located within the apartment	Complies.
<i>Design guidance</i>	
Storage is accessible from either circulation or living areas	Addressed
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	Not applicable
Left over space such as under stairs is used for storage	Addressed
Objective 4G-2	
Additional storage is conveniently located, accessible and nominated for individual apartments	Additional storage is conveniently located, accessible and nominated for individual apartments

<i>Design guidance</i>	
Storage not located in apartments is secure and clearly allocated to specific apartments	Addressed
Storage is provided for larger and less frequently accessed items	Addressed
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	Addressed
If communal storage rooms are provided they should be accessible from common circulation areas of the building	Not applicable
Storage not located in an apartment is integrated into the overall building design and is not visible from the public domain	Addressed
Objective 4H-1	
Noise transfer is minimised through the siting of buildings and building layout	Noise transfer is minimised through the siting of buildings and building layout
<i>Design guidance</i>	
Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses	Addressed
Window and door openings are generally orientated away from noise sources	Addressed
Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas	Addressed
Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources	Addressed
The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	Addressed
Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment,	Addressed

active communal open spaces and circulation areas should be located at least 3m away from bedrooms	
Objective 4H-2	
Noise impacts are mitigated with apartments through layout and acoustic treatments	Noise impacts are mitigated with apartments through layout and acoustic treatments
Design Guidance	
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	Addressed
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	Addressed. Lifts are separated from rooms on 3 sides. Thick concrete walls between the lift shaft and bedroom on the 4 th side insulates from sound.
Objective 4J-1	
In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	Not applicable. Traffic noise is moderate and residential levels start 4 levels above street level.
Objective 4J-2	
Appropriate noise shielding or attenuation techniques for the building design, construction and choice of	Not applicable. Traffic noise is moderate and residential levels start 4 levels above street level.

materials are used to mitigate noise transmission	
<i>Design guidance</i>	
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	
Objective 4K-1	
A range of apartment types and sizes is provided to cater for different household types now and into the future	A range of apartment types and sizes is provided to cater for different household types now and into the future
<i>Design guidance</i>	
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 groups	The mix is well balanced, with% 1 bedrooms,% 2 bedrooms and% 3 bedrooms.
Flexible apartment configurations are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households	Addressed
Objective 4K-2	

The apartment mix is distributed to suitable locations in the building	The apartment mix is distributed to suitable locations in the building
<i>Design guidance</i>	
Different apartment types are located to achieve successful facade composition and to optimise solar access	Every typical floor level has one 3 bedroom, two 1 bedrooms and eight 2 bedrooms.
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	Larger apartments of 3 bedrooms are located on corners with two corner balconies linked by a continuous balcony, totalling 36 sqm.
Objective 4L-1	
Street frontage activity is maximised where ground floor apartments are located	Not applicable
<i>Design guidance</i>	
. Privacy and safety should be provided without obstructing casual surveillance. Design solutions may include: . elevation of private gardens and terraces above the street level by 1-1.5m . landscaping and private courtyards . window sill heights that minimise sight lines into apartments . integrating balustrades, safety bars or screens with the exterior design	
. Solar access should be maximised through: - high ceilings and tall windows - trees and shrubs that allow solar access in winter and shade in summer	
Objective 4M-2	
Building functions are expressed by the facade	Building functions are expressed by the facade
<i>Design guidance</i>	
Building entries should be clearly defined	Building entries are clearly signalled by a raised canopy and 2 storey height entry space. An important through block arcade

	is provided from McFarlane Street to Terminus Street, providing a pedestrian link from the bus interchange and train station to the retail core of Merrylands, the Stockland Mall. This arcade is on the axis of McFarlane Street. A major residential entry is provided from Terminus Place on the northern street frontage.
Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height	Important corners are defined by curved tower corners. Pitt Street is a major entry to the city centre from the north. The building emphasises the corner with a corner tower that is taller than the southern part of the tower to give greater visual prominence to the corner. The corner building is curved the corner is given greater visual prominence with solid masonry balustrades. The balustrades are solid on the corner, are half masonry / half glass further to the south, then all glass adjacent to the recesses between the building bays. This stepping emphasises the corner and diminishes towards the open slots. Screening is provided to the all glass balustrades to maintain privacy and environmental performance.
The apartment layout should be expressed externally through facade features such as party walls and floor slabs	The changes of balustrade types, from full masonry, to half and to all glass, occur at the party walls of apartments.
Objective 4N-1	
Roof treatments are integrated into the building design and positively respond to the street	Roof treatments are integrated into the building design and positively respond to the street
<i>Design guidance</i>	
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	A strongly articulated skyline is created by stepping the tops of the towers and visually separating the top 4 floors of the building from the lower levels with a 2 storey high glazed recess. The top floors are visually emphasised with coloured perforated metal screens. The major corners of Terminal Place are reinforced with white masonry balustrades and parapet to the top of the building.

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 compliment the building . service elements are integrated	Addressed in the overall composition of the building elements, materials and colours
Objective 4N-2	
Opportunities to use roof space for residential accommodation and open space are maximised	Opportunities to use roof space for residential accommodation and open space are maximised
<i>Design guidance</i>	
Habitable roof space should be provided with good levels of amenity. Design solutions may include: . penthouse apartments . dormer or clerestory windows . openable skylights	The roof is used for a large communal open space area and private roof terraces.
Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations	Privacy is maintained by separating the communal open space from the private spaces across the gap between the buildings. Privacy between the private open spaces is maintained with 1.8m high fences between the areas.
Objective 4N-3	
Roof design incorporates sustainability features	
<i>Design guidance</i>	
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	Not applicable

Skylights and ventilation systems should be integrated into the roof design	Not applicable
Objective 40-1	
Landscape design is viable and sustainable	Landscape design is viable and sustainable
<i>Design guidance</i>	
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 Ongoing maintenance plans should be prepared	See landscape architecture plans.
Microclimate is 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	The city centre location with retail frontages to 3 frontages and no deep soil mitigates against the provision of landscape at ground level.
Tree and shrub selection considers size at maturity and the potential for roots to compete	
Objective 40-2	
Landscape design contributes to the streetscape and amenity	The city centre location with retail frontages to 3 frontages and no deep soil

	mitigates against the provision of landscape at ground level.
Design guidance	
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 • appropriate signage and fencing during construction	
Plants selected should be endemic to the region and reflect the local ecology	
Objective 4P-2	
Plant growth is optimised with appropriate selection and maintenance	The city centre location with active frontages to boundaries mitigates against landscape
Design guidance	
Plants are suited to site conditions, considerations include: . drought and wind tolerance . seasonal changes in solar access . modified substrate depths for a 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 or	

recycled grey water is used	
Objective 4P-3	
Planting on structures contributes to the quality and amenity of communal and public open spaces	See landscape plans for landscape provision.
Design guidance	
Building design incorporates opportunities for planting on structures. Design solutions may include: . green walls with specialised lighting for indoor green walls . wall design that incorporates planting . green roofs, particularly where roofs are visible from the public domain . planter boxes	
Objective 4Q-1	
Universal design features are included in apartment design to promote flexible housing for all community members	Universal design features are included in apartment design to promote flexible housing for all community members
Design guidance	
Adaptable housing should be provided in accordance with the relevant council policy	See Access Consultant's report and Adaptable Apartment plans for compliance with Council adaptable housing policy
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	Addressed
Objective 4Q-3	

Apartment layouts are flexible and accommodate a range of lifestyle needs	Apartment layouts are flexible and accommodate a range of lifestyle needs
<i>Design guidance</i>	
Apartment 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	Addressed
Objective R-1	
New additions to existing buildings are contemporary and complementary and enhance an areas identity and sense of place	Not applicable
<i>Design guidance</i>	
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	
Additions to heritage items should be clearly identifiable from the original building	
New additions allow for the interpretation and future evolution of the building	
Objective 4R-2	
Adapted buildings provide residential amenity while not precluding future adaptive re-use	Not applicable
<i>Design guidance</i>	

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	
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 and daylight access . 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	
Objective 4S-1	
Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	This mixed use development provides active street frontages that encourage pedestrian movement
Design guidance	

Mixed use development should be concentrated around public transport and centres	The close proximity of the retail frontages to the Merrylands Train Station and Bus Interchange will ensure substantial pedestrian movement and street life. The proposed through site arcade will also encourage pedestrian movement through this permeable piece of urban fabric. This development has the potential to substantially contribute to the urban activity and pedestrian amenity of the town centre.
Mixed use developments positively contribute to the public domain. Design solutions may include: . development addresses the street . active frontages are provided . diverse activities and uses . avoiding blank walls at the ground level . live/work apartments on the ground floor level, rather than commercial	Addressed
Objective 4S-2	
Residential levels of the development are integrated within the development and safety and amenity is maximised for residents	Residential levels of the development are integrated within the development and safety and amenity is maximised for residents
<i>Design guidance</i>	
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 . security at entries and safe pedestrian routes are provided	The residential entry is separated from the retail shopfronts and the commercial lobbies, to maintain its own identity and function. Residential and commercial carparking is separated.

. concealment opportunities are avoided	
Landscaped communal open space should be provided at podium or roof levels	Landscaped communal open space is provided at podium level
Objective 4T-1	
Awnings are well located and complement and integrate with the building design	Awnings are well located and complement and integrate with the building design
Design guidance	
Awnings should be located along streets with high pedestrian activity and active frontages	Addressed
A number of the following design solutions are used: . continuous awnings are maintained and provided in areas with an 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	Addressed
Awnings should be located over building entries for building address and public domain amenity	Addressed
Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure	Addressed
Gutters and down pipes should be integrated and concealed	Addressed
Lighting under awnings should be provided for pedestrian safety	Addressed
Objective 4T-2	

Signage responds to the context and desired streetscape character	Signage responds to the context and desired streetscape character
Design guidance	
Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development	Signage for the pedestrian through site arcade is located above the arcade on the axis of McFarlane Street
Legible and discrete way finding should be provided for larger developments	Not applicable
Signage is limited to being on and below awnings and a single facade sign on the primary street frontage	Addressed
Objective 4U-1	
Development incorporates passive environmental design	
Design guidance	
Adequate natural light is provided to habitable rooms	Addressed
Well located, screened outdoor areas should be provided for clothes drying	
Objective 4U-2	
Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer
Design guidance	
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 is maximised . polished concrete floors, 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	The north, east and west elevations are screened by extensive balcony overhangs. The continuous nature of the balconies assists in screening windows and doors. Sun control is assisted by perforated metal screens where all glass balustrades are located. The building walls are precast concrete with thermal mass. The roof is insulated.

Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the basement)	Addressed
Objective 4U-3	
Adequate natural ventilation minimises the need for mechanical ventilation	The natural ventilation performance exceeds the minimum requirement. Only 6 residential levels are below the 10 storey height established in the ADG where natural ventilation will occur in all apartments due to wind speed.
A number of the following design solutions are used: . rooms with similar usage are grouped together . natural cross ventilation for apartments is optimised . natural ventilation is provided to all habitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible	Natural ventilation is provided to the central corridor from 4 locations, ensuring that natural ventilation will be excellent.
Objective 4V-1	
Potable water is minimised	Potable water is minimised
<i>Design guidance</i>	
Water efficient fittings, appliances and wastewater reuse should be incorporated	Please refer to the BASIX report.
Apartments should be individually metered	Please refer to the BASIX report.
Rainwater should be collected, stored and reused on site	Please refer to the BASIX report.
Drought tolerant, low water use plants should be used within landscaped areas	Please refer to the BASIX report.
Objective 4V-2	
Urban stormwater is treated on site before being discharged to receiving waters	
<i>Design guidance</i>	
Water sensitive urban design systems are designed by a suitably qualified professional	The city centre context mitigates against water sensitive urban design.

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	The city centre context mitigates against water sensitive urban design.
Objective 4V-3	
Flood management systems are integrated into site design	
<i>Design guidance</i>	
Detention tanks should be located under paved areas, driveways or in basement car parks	Please refer to hydraulic engineering drawings
On large sites parks or open spaces are designed to provide temporary on site detention basins	Please refer to hydraulic engineering drawings
Objective 4W-1	
Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents
<i>Design guidance</i>	
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	Waste and recycling requirements of Cumberland Council are met
Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core	Addressed
For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses	Addressed
Alternative waste disposal methods such as composting should be provided	Not applicable

Objective 4X-1	
Building design detailing provides protection from weathering	Building design detailing provides protection from weathering
<i>Design guidance</i>	
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	Continuous balconies protect walls from weathering. Balconies are drained and have drip grooves to avoid staining walls Planter boxes are designed to avoid leaching
Objective 4X-2	
Systems and access enable ease of maintenance	Systems and access enable ease of maintenance
<i>Design guidance</i>	
Window design enables cleaning from the inside of the building	Continuous balconies allow for external window cleaning
Building maintenance systems should be incorporated and integrated into the design of the building form, roof and facade	Continuous balconies assist in building maintenance
Design solutions do not require external scaffolding for maintenance access	Continuous balconies assist in building maintenance
Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems	There are no mechanical shading devices
Centralised maintenance, services and storage should be provided for communal open space areas within the building	Access to communal open space areas is directly via lift
Objective 4X-3	
Material selection reduces ongoing maintenance costs	Material selection reduces ongoing maintenance costs
<i>Design guidance</i>	

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 finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors	Sensors will be designed at construction documentation stage Precast concrete is robust and requires little maintenance The majority of the ground floor accessible from the public domain is glass shopfronts or metal louvres which are graffiti resistant.
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SEPP 65 Design Verification Statement

Project Address: 138 Wardell Road, Marrickville, NSW

Project Stage : Development Application

Date : 5th May 2021

The Construction Certificate architectural documentation has been prepared by OLSSON Architecture | Urban Projects.

This documentation achieves and improves upon the design quality of the development to which the consents relate, having regard to the design quality principles set out in the Apartment Design Guide per Part 24 of SEPP 65 – Design Quality of Residential Flat Development.

SEPP 65 DESIGN QUALITY PRINCIPLES

Principle 1: Context and Neighbourhood Character

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.

Comment:

Existing context and character

The subject site is located at the corner of Monash Road and College Street and close to Victoria Road, which is a major road connecting Parramatta with Gladesville and the western end of the Anzac Bridge.

The context for this site is comprised of both the existing built context and the DCP planning controls in the Key Sites building envelopes.

The existing built form context is diverse as Monash Road is an area in transition. The built form in Monash Road is primarily 1 and 2 storey-mixed-use buildings. A single storey heritage item, with an attic in the roof, is located opposite the subject site in Monash Road. A new mixed use building that is part 5 storeys and part 6 storeys has been built opposite the subject site, next to the heritage item in Monash Road. West of the subject site, in College Street, is an area of detached 1 and 2 storey houses.

The future built context for the subject site is outlined in the building envelopes in the Key Site drawings in the DCP. The adjoining sites on the western side of Monash Road have mixed uses, with ground level retail built to the street alignment. They have building heights of 4 storeys adjoining the subject site,

and 5 storeys at the corner of Victoria Road. The rear wings of these buildings, in the western courtyards of these sites, are 4 storeys.

Future context and character

The subject site is on the fringe of the Monash Road Precinct within the Gladesville Town Centre and Victoria Road Corridor (LEP 2014). The precinct of Monash Road is envisioned to maintain its local retail role whilst increasing the number of retail, commercial and residential developments.

The heritage item and main street retail character of the Monash Road Precinct are to be protected.

The precinct is zoned B4 mixed use. A proposal for the adjoining site at 6-8 Monash Road [was the subject of a S34 Land and Environment Court appeal, which \[has resulted in a section 4.55 application to Council for modifications relating to vehicular access\]\(#\)](#). The DCP development controls for that site show 3 to 5 storeys with ground floor retail and residential apartments above.

The future character of the Monash Road street frontage will have continuous active frontage of 3 to 5 storey buildings built to the street alignment. This proposal for the corner of Monash Road and College Street will have an active frontage, with entry to the retail ground floor at the splayed corner, a traditional retail entry location. Ryde Council has a public domain policy to upgrade the footpath in Monash Road. This Development Application allows for the footpath levels to be re-graded with a cross-fall from the building towards the kerb, so that the Council can upgrade the footpath at any time in the future.

The proposed 4-storey building has rounded balconies turning onto College Street to emphasise the corner.

The proposed development and its building envelope relate well to the built form context in terms of the future built form in the Key Sites diagram, and also the existing housing to the west of the site. The proposed development has retail at ground floor on Monash Road and residential in College Street. The retail relates to the ground level retail built to the street alignment in Monash Road.

The residential use relates to the existing residential use in College Street. The residential character of College Street is reinforced with pedestrian entries to ground level apartment courtyards being provided direct from the footpath. This enhances pedestrian security and activates the street.

The proposed 4 storey building height at Monash Road relates to the 4 storeys to the south of the subject site. The 4 and 3 storey rear wing of the proposed building envelope relates to the 4 storey rear wings of the adjoining building envelopes. The proposed rear wing in College Street steps from 4 storeys down to 3 storeys, in acknowledgement of the 1 and 2 storey detached houses that exist west of the site in College Street. The 6.6-metre setback from the western boundary and the stepped built form provides a transition to the adjoining sites to the west.

The proposed building height limits relate to the DCP height limits of 15m at the corner down to 13m and 12 metres adjacent to the right of way for the laneway in the DCP.

The proposed development fits the goals, purposes and vision for the area. The project has been designed to maximise the side and rear setbacks, address the street frontage in a similar way to the neighbouring development and avoiding overlooking and impacts on the neighbours.

Building relationship to the surrounding context.

The project is a 5-storey building comprising 21 apartments, ground floor retail, ground floor and terrace communal open spaces and 2 levels of basement car parking.

The provision of this new mixed-use development aims to contribute to the vision to better serve the local community with a wide range of retail and residential uses to make a vibrant, attractive and safe growing town centre.

The proposed building provides generous side and rear setbacks and avoids overlooking possible impact to make sure the rest of the street can be redeveloped without any additional constraints.

Principle 2: Built Form and Scale

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.

Comment:

The building works well with the future character of the area. The building heights and depths are similar or smaller to those of the adjacent building under development and comply with the DCP and SEPP 65 ADG.

The building façade in College Street is recessed from the Lower ground floor to Level 4 to respect the neighbouring residential character. The building is recessed further than the 2 metres minimum setback in the DCP and presents a landscaped front setting. The public domain of College Street and Monash Road will be upgraded in the future, so that the landscaped front setback and public domain upgrade will create an enhanced future streetscape.

Overall, the built form of this proposal is appropriate as it relates to the future 4 and 5 storey environment, steps down to 3 storeys adjoining the residential area to the west and minimizes the impact on neighbouring properties.

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, and access to jobs, community facilities and the environment

Comment:

The density complies with the density allowed in the planning controls. The building presents an FSR of 1.75:1, which is within 10% of the permissible 1.7:1 FSR. Whilst this section 4.55 application increases the floor area by 6.9m², it does not increase the volume of the built form.

The building density fits with the envisioned character for the area.

The proposed density has no adverse effects in the surroundings and has no significant impact in relation to traffic, overshadowing or privacy.

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.

Comment:

The design exhibits good principles of passive sustainable design. All apartments receive direct sunlight and have generous balconies. Apartments are cross-ventilated and have their living rooms open up to the North East (College Street). Living areas facing south are minimized with only 3 living rooms facing South East (Monash Road). This design approach also assists in minimizing the impact of road noise and pollution from the busier Monash Road.

Solar access to living rooms exceeds minimum ADG standards, with 85% of living rooms receiving at least 2 hours sun between 9am and 3pm in mid winter. Cross ventilation also exceed the minimum ADG requirements, with 62% of apartments being naturally cross ventilated.

Deep soil areas exceed the minimum standards, with 16.9% of the site being deep soil. This is predominantly under part of the communal ground floor area. The deep soil area will be best used for water infiltration of the soil and will be landscaped to create a harmonious bench seating area.

The boundary between the communal area and the adjoining site will be landscaped to allow screen planting to minimize the impacts of the development on neighbours.

Principle 5: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features, which contribute to the local context, co-ordinating water and soil management, solar access, microclimate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long-term management.

Comment:

The landscape design by TGS Landscape Architects places the building within a well-landscaped setting, and provides a communal ground level area and a communal terrace with facilities for the enjoyment of the residents.

The generous setbacks of 6.35 metres at the communal ground level area and 3.27 metres at College Street combined with the recessed upper levels provide opportunities for landscape that compliments the building. The landscape makes the most of the two wide deep soil areas at each side of the building

and provides good amenity. Among the proposed planted areas, two sitting areas are provided for the residents at the communal ground floor area.

A series of planters with different heights are proposed for each private terrace at Lower Ground Floor facing College Street following its slope. The planters will be constructed with white glazed bricks and on top of them there will be horizontal aluminium slats, which in addition to the planters' heights will provide privacy to the Lower Ground Level apartments. These planters together with the Lower Ground Floor terraces create a playful topography to the building along College Street, contrasting against the brick building and white balconies.

Overall the deep soil areas and landscaping along all boundaries provide screening for neighbours and place the buildings within a landscaped setting.

The proposed communal terrace offers a large, north-facing space harmoniously filled with plants, bench seats and a covered barbecue area. An additional pavilion will provide additional shelter for users of this space. This terrace is accessible, close to stairs and lift and offers toilet facilities. The project provides abundant planting along the boundaries creating a leafy and pleasant environment.

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.

Good amenity is provided for neighbours and residents through appropriate setbacks, built forms, apartment layouts and window placements.

Comment:

The amenity for residents and neighbours is enhanced as the proposed building provides greater setbacks from the south-eastern and north-western boundaries, compared to the existing houses on the site. The new setbacks from south-eastern and north-western boundaries are 6.35 metres and 6.61 metres respectively, respecting the privacy of the residents and neighbours and avoiding any significant overshadowing. The building separations on site comply with the ADG, ensuring good privacy between apartments.

Good amenity is provided for residents as the great majority of living rooms are oriented towards the north-east and 85% of living rooms gain at least 2 hours sun between 9am and 3pm in midwinter. Natural cross ventilation is provided to 62% of apartments.

All apartment sizes exceed the minimum apartment sizes in the ADG, and the majority of balconies exceed the minimum sizes in the ADG.

Good amenity is also achieved with the proposed room sizes that exceed the minimum sizes in the ADG and also their layout promotes natural ventilation and access to sunlight.

Storage meets the ADG requirements. At least 50% of the required storage is located within the apartment and the other 50%, and more, is proposed at Lower Ground and [Basement](#) Levels.

Adaptable apartments are provided as required and access is provided through the site with ramps and lifts.

[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.

Comment:

Monash Road and College Street will significantly benefit as an urban environment from the redevelopment of the area. The new residential building will promote safer streets with an increase in pedestrian traffic and casual surveillance – eyes on the street - from apartments. The new developments will also improve the lighting conditions at night-time.

The development presents a clear distinction between the public space and the private one that belongs to the residents. The communal areas of the development do not have public access and are fenced off from the street.

Communal spaces do benefit from casual surveillance from apartments and adequate lighting will be provided integrating with the landscape design. Lighting will improve the functionality and safety of these spaces while not disturbing the neighbours or the apartments.

Secure pedestrian access to the development is provided at the street entry from Monash Road and private secured entries to the Lower Ground Floor apartments in College Street, which enhance pedestrian security and activate the street.

[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.

Comment:

A mix of apartment sizes is provided to encourage a range of household sizes and budgets. The project provides 19% of 1-bedroom apartments, 62% of 2-bedroom apartments and 19% of 3-bedroom apartments.

Within each apartment category there is a range of apartments sizes and types. Some apartments include a study area, others include a walk-in wardrobe, additional storage, larger kitchen and living rooms or more generous terraces.

The provision of large communal open spaces will help residents' interaction and offer opportunity for formal and informal play and socializing.

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.

Comment:

The building design is shaped with each street frontage having a different architectural character due to the environmental and urban design characteristics of the street.

The proposal is a greater scale than the existing houses on the subject site, due to the LEP controls of 15m, 13m and 12m height and 1.7:1 FSR. The design responds to the surrounding context in its allocation of floor area and built form on the site.

The proposed building is a brick volume perforated with balcony voids and patterned by a series of carefully positioned vertical windows. A balanced composition of horizontals and verticals is created. The horizontality of the brick volume is harmoniously balanced with the verticality of the balconies and windows. The built form is articulated by stepping down the building height along College Street. The composition is articulated with recessed windows and projecting balconies and awnings.

The façade at Monash Road has ground floor retail and residential lobby and apartments above. The proposal contains the same characteristics as the existing context, with a brick facade built to the street alignment, and an awning over ground floor retail. The ground floor retail and residential lobby are glazed and designed to activate the street frontage as well as to provide a high degree of transparency to and from the outdoors, providing visual interest as well as increased safety.

The building scale is reduced along College Street by stepping down the built form towards the north-western site boundary and the adjoining houses. The façade at College Street achieves visual balance through the composition of varies setbacks and the stepping down. That is enhanced with the horizontality of the exposed slabs and verticality of the windows. The different placement of windows gives a playful touch to the overall.

The great majority of balconies face north-east, and are proposed to have perforated metal balustrades as a playful white textured element letting the sunlight play with the volume.

The building presents a simple palette of materials that suits the surroundings, offering an interesting addition to the wider urban escape and responding to the craft and bespoke quality of the building.

APARTMENT DESIGN GUIDE - PART 3 AND PART 4 COMPLIANCE REPORT

PART 3 – Siting the Development		
OBJECTIVE	COMPLIANCE / COMMENTS	COMMENTS
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	The subject site is on the fringe of Monash Road Precinct within the Gladesville Town Centre and Victoria Road Corridor (LEP 2014). The precinct of Monash Road is envisioned to maintain its local retail role whilst increasing the number of retail, commercial and residential developments. The subject site is at zone B4 mixed use. There are new developments on both sides of Monash Road and they are mixed use developments with 3 to 5 storeys with ground floor retail and residential apartments above. The proposal responds to the desired character of the area providing a 4 storey façade with ground floor retail at Monash Road and a more recessed and stepping façade at College Street following the topography and maximising the side setbacks.	Site Analysis and Site Plan are provided on drawings A-110 and A-120.
3B Orientation 3B-1 Building types and layouts respond to the streetscape and site while optimising solar	The proposed building responds to the site's geometry, the required setbacks and the desired streetscape character. Notwithstanding the site constraints, the proposed design maximises the North Eastern aspects achieving good solar access to the majority of the apartments and makes the most of the topography by stepping the massing	

access within the development 3B-2 Overshadowing of neighbouring properties is minimised during mid winter	towards the Northwest and the lower part of the site. The building is recessed beyond the minimum setback along College Street façade to maximise privacy while reducing its scale and impact.	
3C Public Domain Interface 3C-1 Transition between private and public domain is achieved without compromising safety and security 3C-2 Amenity of the public domain is retained and enhanced	The building facade is aligned to the site boundary at Monash road and corner of College street as per council controls. This façade assists in providing a continuous urban active frontage to the street. This façade presents ground floor retail and the main pedestrian entry that activate the ground floor and provide a pleasant pedestrian environment. This will be enhanced by a future public domain design that will propose generous tree planting and garden beds around the retail areas and pedestrian entries. The building façade at College Street is setback beyond the minimums from the boundary line. The ground floor is setback 3.6 metres and this setback area is dedicated to ground floor terraces and landscaped areas that enhance the streetscape. These ground floor terraces with their entries enhance street activation. As per council's controls, there will be an upgrade and redevelopment of the public domain (footpath and kerb) surrounding the site. The proposal assists in achieving the re-grading of footpath levels. The upgrade proposal will be done in accordance with Council's public domain guidelines.	
3D Communal and Public Open Space	Communal open space is provided in 2 locations. At the rear of the building there are seating areas and landscaped features. At the upper level a communal open space is located at the north end of the site, receiving abundant sunlight during the whole year. This area is equipped with BBQ facilities, seating areas and landscaped features. Communal open space is provided at ground level and on the rooftop. The dedicated area to communal open space is 461.8m², which is 34% of the site.	Complies with the ADG, which requires 25% communal open space and includes all the standard facilities. Refer to drawing A-200 and A-203 for communal open space diagram.
3E Deep soil zones	Deep soil areas are provided at both sides of the building totalling 223m² (16.4% of the site) with a minimum width of 3.27m, which is wider than the ADG requirements. The deep soil location and dimensions allows for tree planning alongside the boundaries to the neighbours.	Complies with ADG requirement of 7% and minimum dimensions.

		Refer to drawing A-2B1 and A-2B2 for deep soil diagram.
3F Visual Privacy	The building presents setbacks of more than 6m to side and rear boundaries as per ADG requirements. Abundant landscaping will create a landscaped buffer between the building and the adjacent properties and will enhance the privacy between them. At ground floor on College Street, privacy screens are provided to ground level private open spaces.	
3G Pedestrian access and entries	The pedestrian entry is located on the main façade facing Monash Road. The front door is protected by an overhang and mailboxes are located adjacent to the door for easy postal delivery and accessibility by residents	
3H Vehicle Access	Vehicle access is to the N-W of the building. This avoids the roller shutter being visible directly from the street and allows the adjacent deep soil area to be well landscaped.	Refer to traffic report for technical details.
3J Bicycle and car parking	All car parking is located in the basement with no presence or impact on the street. Car parking numbers comply with Council's DCP. The building provides 36 car spaces for residents, visitors and retail. It provides 7 bicycle parking spaces and 2 motorbike parking spaces.	Complies with DCP. Refer to traffic report for technical details and calculations.
PART 4 - Designing the Building		
Amenity		
4A Solar and daylight access	A minimum of 2 hours direct sunlight is provided to living room windows and private open spaces of 85% of the apartments (18 out of 21) in midwinter between 9am and 3pm. There are no south-facing apartments that receive no direct sunlight.	Complies with ADG solar access guidelines
4B Natural ventilation	All habitable rooms are naturally ventilated through operable windows. The opening is more than 5% of the room. The building layout provides 62% of cross-ventilated apartments (13 out of 21) and the room layouts are shallow to facilitate natural ventilation. High-level openable windows are provided in kitchens along Lower Ground Level corridor apartments. Fixed open screens are provided along the corridor to allow for	Complies with ADG cross ventilation guidelines Please refer to drawing A-302 for cross section of kitchen windows and corridor louvre screens

	natural cross ventilation. These louvres comply with fire egress requirements and corridor areas are included in FSR calculations. An external concrete hood is provided over the fixed screens to provide weather protection.	
4C Ceiling Heights	All residential ceiling heights are a minimum 2.7m. The ceiling height in the retail shop is 3.3m and the floor-to-floor height is 3.6m. The 2.7m residential ceiling heights will be achievable during construction, as floor-to-floor heights are 3150mm where external decks are located, to provided waterproofing to the deck while achieving 2.7m ceiling heights. Elsewhere the floor-to-floor height is 3100mm.	Complies with ADG heights
4D Apartment size and layout	All apartments exceed minimum ADG apartment sizes. All rooms exceed minimum clear dimensions in the ADG.	Complies with ADG areas and dimensions.
4E Private open space and balconies	All apartments are provided with a private balcony or courtyard that exceeds the minimum area and depth of the ADG guidelines. Balconies have direct access from the living rooms and are incorporated into the architectural design. Balustrades are perforated powder coated metal, to provide a balance between privacy and openness. Balconies are recessed into facades and project past facades, to provide a balance between privacy and outward views.	Complies with ADG areas and minimum dimensions.
4F Common circulation and spaces	Corridors are naturally lit and ventilated. They are more open than closed above the balustrade along their length. Apartment entries are identified with a wider entry space that articulates the corridor and signals the apartment entry.	
4G Storage	Apartment storage complies with the minimum requirements of the ADG. At least half of the storage is provided within the apartments and the other half (or more) is provided in the basement though lockable storage cages. Storage is also provided for the retail shop in the basement.	Complies with ADG volumes Please refer to detailed residential schedule on drawing A-010 for more detail.
4H Acoustic privacy	Service areas are located next to the lift to provide an acoustic buffer and bedrooms and living rooms are not located next to the lift. All balconies and living rooms address the street and are not oriented towards neighbouring properties. There is no	

	issue of acoustic privacy across the internal corner of the development.	
4J Noise and Pollution	The project is not foreseen to present any noise or pollution issues as it not located on a major road, rail line or flight path.	
Configuration		
4K Apartment mix	The development contains a mix of 1, 2 and 3 bedroom apartments. There is a reasonably high percentage of 1 and 3 bedroom apartments. The development provides very well for a range of household types and sizes. 1 bedroom units = 4 (19%) 2 bedroom units = 13 (62%) 3 bedroom units = 4 (19%) Within each category there are a wide range of apartment sizes with different amenities. Some apartments have additional study areas, some other have walk-in wardrobes, or walk-in laundry and storage areas, larger living rooms and terraces, etc.	
4L Ground floor apartments	There are 3 ground floor apartments. One is a 3-bedroom apartment and two are 1-bedroom apartments. Private secured entries are provided to these apartments to activate the street and enhance amenity of access for the apartment owners. Direct pedestrian access is provided both from the street and from the corridor. All ground floor apartments have generous courtyards that are protected through planters and screens to provide privacy. The need for privacy is balanced with street surveillance, through the use of a change of level and privacy screens. Private courtyards receive good solar access and apartments are naturally ventilated.	
4M Facades	The proposed building is a brick volume perforated with balcony voids and patterned by a series of carefully positioned vertical windows. A balanced composition of horizontals and verticals is created. The horizontality of the brick volume is harmoniously balanced with the verticality of the balconies and windows. The built form is articulated by stepping down the building height along College Street. The composition is articulated with recessed windows and projecting balconies and awnings. The façade at Monash Road has ground floor retail and residential lobby and apartments above. The proposal contains the same characteristics as the existing context, with a brick facade built to the street alignment, and an	Refer to the Architectural Design Report for more details.

	awning over ground floor retail. The ground floor retail and residential lobby are glazed and designed to activate the street frontage as well as to provide a high degree of transparency to and from the outdoors, providing visual interest as well as increased safety. The great majority of balconies face north east, and are proposed to have perforated metal balustrades as a playful white textured element letting the sunlight play with the volume. The building presents a simple palette of materials that suits the surroundings, offering an interesting addition to the wider urban escape and responding to the craft and bespoke quality of the building.	
4N Roof design	The roof design is appropriate for this urban context. The existing two storey shop buildings in Monash Road have a traditional parapet addressing the street. Accordingly, this proposal has a parapet to address Monash Road, the corner and part of College Street to create an urban corner. The stepped built form down College Street is appropriate for outdoor terraces, which have a parapet with planter boxes to provide a green roofscape in this residential area.	
4O Landscape design	The landscape design by TGS Landscape Architects places the building within a well-landscaped setting, and provides a communal ground level area and a communal terrace with facilities for the enjoyment of the residents. Overall the deep soil areas and landscaping along all boundaries provide screening for neighbours and place the buildings within a landscaped setting. The proposed communal terrace offers a large, north facing space harmoniously filled with plants, bench seats and a covered barbecue area.	Refer to Landscape plans for more details.
4P Planting on structures	Raised planter boxes on the communal rooftop help to create a pleasant environment for the residents and a green roofscape within the residential area.	Refer to Landscape plans for more details.
4Q Universal design	The design complies with Council's Accessible Design requirements	Refer to Access Report
4R Adaptive re-use	N/A	
4S Mixed Use	The retail shop is located on the main shopping street, with a traditional corner entry to the shop. The shop is provided with a separate waste chute to the commercial waste room	

	below. It is also provided with a loading bay in the basement and car parking to meet Council requirements.	
4T Awnings and signage	A continuous awning is provided above the retail shopfronts and residential entry. Signage is to be limited to on and below the awning.	
Performance		
4U Energy efficiency	The shallow floor plans and the orientation based on solar design and natural ventilation will minimise energy consumption.	See BASIX report.
4V Water management and conservation	Water is collected on site as shown in stormwater plans.	See BASIX report and Stormwater design
4W Waste management	Waste will be kept in the basement and collected from College Street, as required by Council Waste Planners in pre-DA meetings.	See Waste Management Plan by Elephant's Foot.
4X Building maintenance	The building is designed to minimise maintenance, through the selection of face brick as the primary building material.	