

Attachment 3 - Apartment Design Guide Assessment

<i>Standards/controls</i>	<i>Comment</i>	<i>Compliance</i>
Part 1 – Identifying the context		
<u>1A Apartment building types</u>	The proposal is a shoptop housing development that does not specifically reflect any of the apartment building type examples provided in the ADG.	
<u>1B Local character and context</u> This guideline outlines how to define the setting and scale of a development, and involves consideration of the desired future character, common settings and the range of scales.	The strategic local character and future desired character of the site is set by Wollongong LEP 2009 (B3 Commercial Core and Clause 8.1 Objectives for development in Wollongong City Centre), Wollongong DCP 2009 (Chapter D13 Wollongong City Centre) Both LEP and DCP clauses are assessed in detail at Sections 2.1.5 and 2.3.1 of the assessment report.	
<u>1C Precincts and individual sites</u> Individual sites: New development on individual sites within an established area should carefully respond to neighbouring development, and also address the desired future character at the neighbourhood and street scales. Planning and design considerations for managing this include: <ul style="list-style-type: none"> - Site amalgamation where appropriate - Corner site and sites with multiple frontages can be more efficient than sites with single frontages - Ensure the development potential for adjacent sites is retained - Avoid isolated sites that are unable to realise the development potential. 	The site comprises 1 large allotment; no consolidation proposed or required. The development is not expected to have an impact on the development potential of the adjacent sites. The site is located with the CBD and is well located with regard to public transport, city centre services, employment and areas of high amenity.	Yes
<u>Part 2 – Developing the controls</u> These guidelines include tools to support the strategic planning process when preparing planning controls, and aren't relevant to the development assessment of individual proposals.	Strategic planning tool intent noted.	N/A

Standards/controls	Comment	Compliance
Part 3 Siting the development		
<u>3A Site analysis</u>		
<p>Site analysis uses the following key elements to demonstrate that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context:</p> <ul style="list-style-type: none"> - Site location plan - Aerial photograph - Local context plan - Site context and survey plan - Streetscape elevations and sections - Analysis <p>A written statement explaining how the design of the proposed development has responded to the site analysis must accompany the development application.</p>	<p>Site analysis plans provided with the DA material.</p>	Yes
<u>3B Orientation</u>		
<p>Buildings must be oriented to maximise norther orientation, response to desired character, promote amenity for the occupant and adjoining properties, retain trees and open spaces and respond to contextual constraints such as overshadowing and noise.</p> <p><u>Objective 3B-1:</u></p> <p><i>Building types and layouts respond to the streetscape and site while optimising solar access within the development</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Buildings should define the street by facing it and providing direct access. 	<p>Building faces the 2 street frontages and units are oriented towards the west, east and north to take advantage of outlook and available views to the escarpment and coast. The development offers opportunities for casual surveillance of the street and public domain.</p> <p>Most units and the COS areas will enjoy good solar access.</p> <p>The entrances are legible and the development provides for good activation of the street frontages along with ready access into the building from the adjoining footpaths.</p> <p>The scale of the building is appropriate when measured with regard to the desired future character sought to be achieved as defined by the planning controls (floor space ratio, height, and building setbacks).</p> <p>The strategic local character and future desired character of the site is set by Wollongong LEP 2009 (B3 zone, Clause 8.1 Objectives for development in Wollongong City Centre) and Chapter D13 of Wollongong DCP 2009</p>	Yes

Standards/controls	Comment	Compliance
<p><i>Objective 3B-2</i></p> <p><i>Overshadowing of neighbouring properties is minimised during mid- winter</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Overshadowing should be minimised to the south or down hill by increased upper level setbacks - Refer sections 3D & 4A below for solar access requirements - A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings 	<p>(Wollongong City Centre). Both LEP and DCP clauses are assessed in detail in the assessment report.</p> <p>Council's Landscape Architect has assessed the application and has provided a satisfactory referral.</p> <p>The shadow diagrams indicate overshadowing of the adjoining sites to the south, specifically being the IRT seniors housing development. Shadow diagrams and solar access analysis plans were provided with the application which indicate that the development will cast a shadow to the south crossing the IRT development over the course of the day in mid Winter. The solar access analysis indicates that the north-facing windows of the IRT Parkside building (south-eastern corner of the intersection of Stewart & Kembla Streets) will be shaded for parts of the day. This is discussed within the body of the report.</p> <p>The western-most units will be in shadow through the morning til around 12pm. The west-facing balconies will receive sunlight from around 11.30am onwards. The eastern units within the northern portion of Parkside will be subject to quite limited solar access. The north-facing units on Levels 2 – 4 are single aspect units only; these will receive very limited sunlight. At Council's request, the applicant has closely examined the issue of overshadowing of the units and has provided detailed plans and analysis in this regard.</p> <p>The communal POS on the roof of the eastern portion of IRT Parkside will be overshadowed from 11.30am - approximately 2.30pm; ie approx. half of that POS will receive 3 hours of sunlight – this is compliant with relevant controls.</p> <p>The large ground level landscaped garden area within the Parkside development will be in shade for most of the day – however most of this space is shaded by the Parkside building itself.</p> <p>The ground floor café of the building will be in shadow until approximately</p>	

Standards/controls	Comment	Compliance
<p><u>3C Public domain interface</u></p> <p>Key components to consider when designing the interface include entries, private terraces or balconies, fences and walls, changes in level, services locations and planting.</p> <p>The design of these elements can influence the real or perceived safety and security of residents, opportunities for social interaction and the identity of the development when viewed from the public domain</p> <p><u>Objective 3C-1:</u></p> <p><i>Transition between private and public domain is achieved without compromising safety and security</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Terraces, balconies and courtyards should have direct street entry, where appropriate - Changes in level between private terraces etc above street level provide surveillance and improved visual privacy for ground level dwellings. - 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. - Opportunities should be provided casual interaction between residents and the public domain eg seating at building entries, near letterboxes etc <p><u>Objective 3C-2:</u></p> <p><i>Amenity of the public domain is retained and enhanced</i></p> <p><u>Design Guidance</u></p>	<p>12.30pm in mid winter and should receive 2.5 hours of sunlight between 12.30pm – 3pm.</p> <p>Ground floor retail entries have direct street entry. Despite the floor levels of the building needing to be elevated for flood mitigation reasons, on the Kembla Street frontage of the site, the shopfronts will come down to the footpath level, with internal ramps and stairs being provided within the tenancies and lobbies to transition from footpath level to the shop floor level. This will improve the visual relationship between the shops and the public domain. On the Stewart Street frontage of the site the 2 ground level tenancies are elevated above street level for flooding reasons and are accessed via stairs and a platform lift. This was considered to be a reasonable outcome by the DRP.</p> <p>Street frontage treatment provided is acceptable to the DRP and Council's Development Engineer and Landscape Architect.</p> <p>Residential balconies and ground level retail/ commercial spaces face the 2 streets, providing opportunities for natural surveillance of the public domain.</p> <p>The amenity of the public domain will not be compromised by the development. A significant street tree will be maintained on the Kembla Street frontage and public domain improvements are proposed and</p>	<p>Yes</p>

Standards/controls	Comment	Compliance
<ul style="list-style-type: none"> - Planting softens the edges of any raised terraces to the street (eg basement podium) - Mailboxes should be located in lobbies perpendicular to street alignment or integrated into front fences. - Garbage storage areas, substations, pump rooms and other service requirements should be located in basement car parks. - Durable, graffiti resistant materials should be used - Where development adjoins public parks or open space the design should address this interface. 	<p>are required by consent conditions.</p> <p>Garbage storage areas, mail boxes, fire services and the like are to be generally accommodated within the building in a manner which will not detract from its design quality.</p> <p>Mailboxes will be located within the residential lobbies.</p> <p>Materials proposed are acceptable.</p>	
<p><u>3D Communal and public open space</u></p> <p><u>Objective 3D-1</u></p> <p><i>An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping</i></p> <p><u>Design Criteria</u></p> <ol style="list-style-type: none"> 1. Communal open space has a minimum area of 25% of the site area 2. 50% direct sunlight provided to principal usable part of communal open space for a minimum of 2 hours between 9am and 3pm on 21 June <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Communal open space should be consolidated into a well designed, usable area. - Minimum dimension of 3m - Should be co-located with deep soil areas - Direct & equitable access required - Where not possible at ground floor it should be located at podium or roof level. 	<p>The communal open space areas are provided on the building rooftops (L2 podium and L7 roof of Block B); combined area of approx. 856m² which is compliant (837.55sqm required).</p> <p>Communal open space accessible for residents only via the lifts.</p> <p>The communal open space areas will receive sufficient sunlight between 9am and 3pm as required. Some shading available via on-structure planting and pergolas etc to sections of the COS.</p> <p>The COS area achieves the minimum area and dimension requirements and will offer a range of spaces for residents.</p> <p>The COS will provide for casual seating, BBQ area, outdoor dining, a swimming pool and communal garden.</p>	Yes
<p><u>Objective 3D-2</u></p> <p><i>Communal open space is designed to allow for a range of activities, respond to</i></p>	<p>The COS will only be available to the</p>	

Standards/controls	Comment	Compliance												
<p><i>site conditions and be attractive and inviting</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Facilities to be provided in communal open spaces for a range of age groups, and may incorporate seating, barbeque areas, play equipment, swimming pools <p><u>Objective 3D-3</u></p> <p><i>Communal open space is designed to maximise safety</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Communal open space should be visible from habitable rooms and POS areas and should be well lit. <p><u>3E Deep soil zones</u></p> <p><u>Objective 3E-1</u></p> <p><i>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.</i></p> <p><u>Design Criteria:</u></p> <ol style="list-style-type: none"> 1. Deep soil zones are to meet the following minimum requirements: <table border="1"> <thead> <tr> <th>Site area</th><th>Minimum dimensions</th><th>Deep soil zone (% of site area)</th></tr> </thead> <tbody> <tr> <td>less than 650m²</td><td>-</td><td rowspan="4">7%</td></tr> <tr> <td>650m² - 1,500m²</td><td>3m</td></tr> <tr> <td>greater than 1,500m²</td><td>6m</td></tr> <tr> <td>greater than 1,500m² with significant existing tree cover</td><td>6m</td></tr> </tbody> </table> <p><u>Design guidance:</u></p> <ul style="list-style-type: none"> - Deep soil zones should be located to retain existing significant trees. 	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	<p>building occupants, therefore is secure.</p> <p>No DSZ proposed, as is expected within the B3 Commercial Core. Planting on structure is however provided on L2 podium and on L7 (rooftop of Block B). The landscape plans are included in Attachment 1 and provide for tree and mass shrub planting on structure as well as some ground level planting adjacent to the eastern site boundary.</p>	<p>No, but satisfactory</p>
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													

3F Visual privacy

Objective 3F-1

Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual amenity.

Design Criteria:

1. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

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

No separation is required between blank walls

Not in full,
variations are
noted in bold
text

East (Block B)

Ground – commercial uses only

L2 (up to 12m)

Required setbacks:

6m to balconies and habitable rooms
3m to non-habitable rooms

Provided setbacks = 3.27m to wall of Level 2, which combined with the 9.775m width of the adjacent access driveway and at grade car park on Lot 301 and 501 provides approx. 20m separation from the Church to the east. It is noted that the windows of the units on L2 are highlight windows only which will assist in mitigating privacy loss.

The L2 COS is setback **1.4m** from the eastern boundary where a 6m setback is required. This combined with the width of the adjoining access driveway and at grade car park on Lot 301 and 501 provides approx. 20m separation from the Church to the east. There is a raised planter bed around the perimeter of the COS which will assist in reducing potential privacy loss from this space in the event the nearest properties to the east are re-developed in future.

L3- L7 (up to 25m):

Required setbacks:

9m to balconies and habitable rooms
4.5m to non-habitable rooms

Provided setbacks = **3.27m** to wall where 9m is required. Combined with the 9.775m width of the adjacent access driveway on Lot 501 there is approx. 20m separation from the Church to the east. It is noted that the eastern elevation of L3 – L7 features privacy screens applied to all openings which

Objective 3F-2:

*Site and building design elements
increase privacy without compromising
access to light and air and balance
outlook and views from habitable rooms
and private open space*

Design Guidance

- Communal open space, common areas and access paths should be separated from private open space and windows to apartments. Design solutions include:
 - Setbacks,
 - Solid or partly solid balustrades to balconies
 - Fencing or vegetation to separate spaces
 - Screening devices
 - Raising apartments/private open space above the public domain
 - Planter boxes incorporated into walls and balustrades to increase visual separation
 - Pergolas or shading devices to limit overlooking
 - Only on constrained sites where it's demonstrated that building layout opportunities are limited – fixed louvres or screen panels
- Windows should be offset from the windows of adjoining buildings

will ensure the internal privacy of these units whilst also preventing future privacy loss to any future redevelopment to the east.

North (Block A) –

L2 (up to 12m)

Required setbacks:

6m to balconies and habitable rooms

3m to non-habitable rooms

Provided = 10.450m (complies)

L3 – L6 (12m – 25m height)

Required setbacks:

9m to balconies and habitable rooms

4.5m to non-habitable rooms

Provided = 10.450m (complies)

L7 (>25m height)

Required setbacks:

12m to balconies and habitable rooms

6m to non-habitable rooms

Provided = **10.450m** (complies only for non-habitable rooms). Applicant has sought a variation and has applied fixed louvres to the openings on the northern elevation which will provide for appropriate visual privacy; this variation is supported in this instance and was considered acceptable by the DRP.

L8 – L12 (>25m height)

Required setbacks:

12m to balconies and habitable rooms

6m to non-habitable rooms

Provided = **10.6m**

Levels 8-12 have no direct interface with the windows on the southern elevation of the IMB building to the north. At Levels 8 and 9, the proposed building will be facing the blank wall of the IMB building's southern elevation. Levels 10 and above are at a higher level than the IMB building; ie the setback is compliant as the 6m non-habitable setback control applies.

L13 (>25m height)

Required setbacks:

12m to balconies and habitable rooms

6m to non-habitable rooms

Provided = **11m** to alfresco terrace area,

	<p>noting there is no direct interface with IMB building which is much shorter ie the setback is compliant as the 6m non-habitable setback control applies.</p> <p><u>North (Block B) –</u> Separation distances for Block B to the north are met on all levels.</p>	
<p><u>3G Pedestrian access and entries</u></p> <p><u>Objective 3G-1</u> <i>Building entries and pedestrian access connects to and addresses the public domain</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Multiple entries should be provided to activate the street edge. - Buildings entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries. <p><u>Objective 3G-2</u> <i>Access, entries and pathways are accessible and easy to identify</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Building access areas should be clearly visible from the public domain and communal spaces - Steps and ramps should be integrated into the overall building and landscape design. <p><u>Objective 3G-3</u> <i>Large sites provide pedestrian links for access to streets and connection to destinations</i></p>	<p>Multiples entries proposed to the street frontages for the ground level retail / commercial spaces and separate residential lobbies.</p> <p>Entries are readily identifiable on the street frontage. Development provides for good street activation and well managed transitions into the building from the public domain. Level changes are accommodated within the retail spaces to avoid the need for ramps/ stairs where possible on the Kembla Street frontage.</p> <p>Ground floor level is accessible from the street frontage. Lift and stair access is provided to all dwellings from the basement and ground floor level. Access points are readily identifiable.</p> <p>No through-site link required.</p>	<p>Yes</p>
<p><u>3H Vehicle access</u></p> <p><u>Objective 3H-1</u> <i>Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Car park entries should be located behind the building line - Access point locations should avoid headlight glare to habitable rooms 	<p>Proposed car park entries are behind the building line. Headlight glare is not expected to be an issue.</p> <p>Proposed driveway locations are positioned away from the intersection.</p> <p>Garbage storage within the basement</p>	<p>Yes</p>

<ul style="list-style-type: none"> - Garbage collection, loading and service areas should be screened - Vehicle and pedestrian access should be clearly separated to improve safety. - Where possible, vehicle access points should not dominate the streetscape and be limited to the minimum width possible. 	<p>with bins to be collected from within the site via the proposed loading dock.</p> <p>Vehicle and pedestrian access is separated.</p> <p>Driveway and vehicular entry width is acceptable.</p>	
<p><u>3J Bicycle and car parking</u></p> <p><u>Objective 3J-2</u></p> <p><i>Parking and facilities are provided for other modes of transport</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters - Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas. <p><u>Objective 3J-3</u></p> <p><i>Car park design and access is safe and secure</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Supporting facilities within car parks (garbage rooms, storage areas, car wash bays) can be accessed without crossing parking spaces - A clearly defined and visible lobby or waiting area should be provided to lifts and stairs. - Permeable roller doors allow for natural ventilation and improve the safety of car parking areas by enabling passive surveillance. <p><u>Objective 3J-4</u></p> <p><i>Visual and environmental impact of underground car parking are minimised</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Excavation should be minimised through efficient carpark layouts and ramp design. - Protrusion of carparks should not exceed 1.0m above ground level. - Natural ventilation should be provided to basement and sub-basement car parking areas. 	<p>Sufficient car, motorcycle and bicycle parking provided. Residential car parking to be provided within the basement car park; visitor and commercial car parking provided at ground and mezzanine level sleeved by the commercial spaces on Level 1.</p> <p>Supporting facilities generally well located.</p> <p>Basement layout is generally appropriate with regard to safety and security.</p> <p>Roller shutter proposed within the basement. If approved, it is recommended that any roller shutters be permeable to improve ventilation.</p> <p>Mechanical ventilation of basement proposed.</p> <p>Visual impact of car park is acceptable.</p>	<p>Yes</p>

- Ventilation grills or screening devices should be integrated into the façade and landscape design.

Objective 3J-5

Visual and environmental impact of on-grade car parking are minimised

Design Guidance

- On-grade car parking should be avoided;
- Where unavoidable, the following design solutions should be used – parking is located on the side or rear of the lot away from the primary street frontage
- Cars are screened from view of streets, buildings, communal and private open space areas
- Safe and direct access to building entry points is provided
- Parking is incorporated into the landscaping design of the site
- Stormwater run-off is appropriately managed
- Light coloured paving materials or permeable paving systems are used and shade trees are planted to reduce increased surface temperatures from large areas of paving

On-grade parking is proposed within the building, to the rear of the ground floor retail spaces so it is sleeved by the building. Car parking provision complies with applicable controls.

Part 4 – Designing the building - Amenity

4A Solar and daylight access

Objective 4A-1

To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space

Design Criteria

1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of two (2) hours direct sunlight between 9am and 3pm in mid-winter in Wollongong LGA.
1. A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid winter

Objective 4A-2

Daylight access is maximised where sunlight is limited

Design Guidance

75% of the units (77 of the 102 units) will achieve compliant solar access (ie living rooms and private open spaces will receive a minimum of 2 hours sunlight between 9am-3pm mid-Winter). This is compliant.

11 of the units will receive no direct sunlight between 9am and 3pm in mid winter (11%) which is acceptable/compliant

Sunlight availability is not limited to this

Yes

- Courtyards, skylights and high level windows (sill heights of 1500mm or greater) are used only as secondary light sources in habitable rooms

Objective 4A-3

Design incorporates shading and glare control, particularly for warmer months

Design Guidance

Design features can include:

- Balconies
- Shading devices or planting
- Operable shading
- High performance glass that minimises external glare

site.

Design incorporates extensive shading elements / operable louvre systems on the western façade to improve thermal comfort and control glare. Details of the screens/ shutters are included in the plans at Attachment 1.

4B Natural ventilation

Objective 4B-1

All habitable rooms are naturally ventilated.

Objective 4B-2

The layout and design of single aspect apartments maximises natural ventilation

Design Guidance

- Single aspect apartments should use design solutions to maximise natural ventilation.

Objective 4B-3

The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents

Design Criteria:

1. 60% of apartments are naturally cross ventilated in the first nine storeys
2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.

The DRP commended the development for its high degree of compliance with solar access and natural ventilation requirements.

52 of the 80 units (80%) of the apartments in the first 9 storeys of the building are naturally ventilated; this is compliant.

The single-aspect units will receive sufficient ventilation.

Some building depth variations are sought – these are discussed in the body of the assessment report and are supported in this instance.

4C Ceiling heights

Objective 4C-1

Ceiling height achieves sufficient natural ventilation and daylight access

Design Criteria

Minimum ceiling height of 2.7m proposed

Yes

Yes

<p>1. Minimum 2.7m for habitable rooms and 2.4m for non-habitable rooms</p> <p><u>Objective 4C-2</u></p> <p><i>Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms</i></p> <p><u>Objective 4C-3</u></p> <p><i>Ceiling height contribute to the flexibility of building use over the life of the building</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses. 	<p>to habitable (all) rooms.</p>
<p><u>4D Apartment size and layout</u></p> <p><u>Objective 4D-1</u></p> <p><i>The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity</i></p> <p><u>Design Criteria:</u></p> <ol style="list-style-type: none"> 1. Minimum internal areas: <ul style="list-style-type: none"> 2 bed – 70m² 3 bed – 90m² <p>The minimum internal areas include only 1 bathroom. Additional bathrooms increase the minimum internal areas by 5m² each.</p> <p>A fourth bedroom and further additional bedrooms increase the minimum internal by 12m².</p> 2. Every habitable room must have a window in an external wall with a total minimum glass area of at least 10% of the floor area of the room 	<p>Apartment size and layout is generally functional.</p> <p>All units achieve compliance with the minimum internal areas specified.</p> <p>All habitable rooms have adequate windows.</p>
<p><u>Objective 4D-2</u></p> <p><i>Environmental performance of the apartment is maximised</i></p> <p><u>Design Criteria:</u></p> <ol style="list-style-type: none"> 1. Habitable room depths are limited to a maximum of 2.5 x ceiling height 2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window. <p><u>Design Guidance:</u></p>	<p>Habitable room depths comply.</p> <p>2.7m ceiling heights proposed. Most units within the proposal are designed with bathrooms and laundries without external opening windows to allow habitable rooms to achieve access to</p>

- Greater than the minimum ceiling heights can allow proportionate increases in room depths.
- Where possible, bathrooms and laundries should have an external openable window.
- Main living spaces should be oriented towards the primary outlook.

Objective 4D-3

Apartment layouts are designed to accommodate a variety of household activities and needs

Design Criteria:

1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excl wardrobe space)
2. Bedrooms have minimum dimension of 3m (excl wardrobe)
3. Living rooms have minimum width of:
 - 3.6m for studio and 1 bed apartments and
 - 4m for 2+ beds.
4. The width of the crossover or cross through apartments are at least 4m internally to avoid deep narrow apartment layouts.

Design Guidance:

- Access to bedrooms, bathrooms and laundries is separated from living areas
- Minimum 1.5m length for bedroom wardrobes
- Main bedroom apartment: minimum 1.8m long x 0.6m deep x 2.1m high wardrobe
- Apartment layouts allow for flexibility over time, including furniture removal, spaces for a range of activities and privacy levels within the apartments.

4E Private open space and balconies

Objective 4E-1

Apartments provide appropriately sized private open space and balconies to enhance residential amenity

1. Minimum balcony depths are:

external windows.

Main living areas are oriented towards the primary outlooks.

Good apartment mix proposed so as to provide accommodation for a range of household types.

Bedroom and living room dimensions are adequate.

Yes

All balconies achieve compliance with the minimum requirements

Dwelling type	Minimum area	Minimum depth
Studio apartments	4m ²	-
1 bedroom apartments	8m ²	2m
2 bedroom apartments	10m ²	2m
3+ bedroom apartments	12m ²	2.4m

The minimum balcony depth to be counted as contributing to the balcony area is 1m.

2. Ground level apartment POS must have minimum area of 15m² and min. depth of 3m

Objective 4E-2

Primary private open space and balconies are appropriately located to enhance liveability for residents

Design Guidance

- Primary private open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space.
- POS & Balconies should be oriented with the longer side facing outwards to optimise daylight access into adjacent rooms.

Objective 4E-3

Primary private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building

Design Guidance

- A combination of solid and transparent materials balances the need for privacy with surveillance of the public domain
- Full width glass balustrades alone are not desirable
- Operable screens etc are used to control sunlight and wind, and provide increased privacy for occupancy while allowing for storage and external clothes drying.

Objective 4E-4

Private open space and balcony design maximises safety

Design Guidance

- Changes in ground levels or landscaping are minimised.

No ground floor level apartments are proposed.

POS of all units are located adjoining and accessible from living/dining areas.

Adequate solar access appears to be available to the private open space areas.

Balconies are designed in part to articulate the façade and provide visual interest. A combination of solid and transparent materials are proposed to balconies along with screens where necessary for shading and privacy.

Operable screens are proposed on the northern and western sides of the building to balconies to manage glare and heat gain and mitigate potential privacy loss where required to the north where there is a direct interface with the neighbouring IMB building.

No concerns are raised in regards to safety of the balcony areas.

4F Common circulation and spaces

Objective 4F-1

Common circulation spaces achieve good amenity and properly service the number of apartments.

Design Criteria

1. The maximum number of apartments off a circulation core on a single level is eight
2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.

Design Guidance

- Long corridors greater than 12m in length should be articulated through the use of windows or seating.
- Primary living rooms or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces should be controlled.

Objective 4F-2

Common circulation spaces promote safety and provide for social interaction between residents

Design Guidance:

- Incidental spaces can be used to provide seating opportunities for residents, and promotes opportunities for social interaction.

4G Storage

Objective 4G-1

Adequate, well designed storage is provided in each apartment

1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided

Dwelling type	Storage size volume
Studio apartments	4m ³
1 bedroom apartments	6m ³
2 bedroom apartments	8m ³
3+ bedroom apartments	10m ³

At least 50% of the required storage is to be located within the apartment

The circulation strategy proposed is satisfactory.

7 apartments in Block A are accessed off a circulation core containing 2 lifts. 5 apartments in Block B are accessed off a circulation core (1 lift).

A total of 102 apartments are serviced off 3 lifts which equates to 34 apartments per lift.

There will be access to natural light available and partly openable windows.

Unit entries are appropriately located with regard to corridors.

No concerns are raised with regard to visual or acoustic privacy impacts arising from the lobby areas.

Corridor width is adequate. There will be opportunities for social interaction on the ground floor within the lobby and outdoor spaces.

Common circulation areas are proposed to be well lit with natural light.

Sufficient storage proposed to be provided in the basement and within cupboards internal to the units.

Individual storage lockers are proposed

Yes

Yes

Objective 4G-2

Additional storage is conveniently located, accessible and nominated for individual apartments

Design Guidance:

- Storage not located within apartments should be allocated to specific apartments.

4H Acoustic privacy

Objective 4H-1

Noise transfer is minimised through the siting of buildings and building layout

Design Guidance

- Adequate building separation is required (see also section 3F above).
- Noisy areas within buildings should be located next to or above each other and quieter areas next to or above quieter areas.
- Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources.
- Noise sources such as garage doors, plant rooms, active communal open spaces and circulation areas should be located at least 3m away from bedrooms.

Objective 4H-2

Noise impacts are mitigated within apartments through layout and acoustic treatments

Design Guidance

- In addition to mindful siting and orientation of the building, acoustic seals and double or triple glazing are effective methods to further reduce noise transmission.

4J Noise and pollution

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

Design Guidance

- Minimise impacts through design solutions such as physical separation from the noise or pollution source,

Objective 4J-2

within the basement levels. Additional storage also provided for internal to units. Overall quantum of storage provision is compliant. It is recommended that a condition be imposed to ensure apartment dedication occurs to the residential storage lockers.

Sufficient building separation proposed to side boundaries, noting there are some variations which are discussed in relation to 3F above.

The main source of external noise intrusion will be from the adjacent roads and shared loading dock, and internally from the communal open space areas. The applicant has provided an acoustic report which makes recommendations in relation to the acoustic amenity of residential units. Conditions are recommended to ensure the implementation of the acoustic report recommendations.

Internal layout provides for appropriate internal acoustic amenity within units.

The majority of each floor has matching room types to the rooms below / above and adjoining.

The applicant has provided an acoustic report which makes recommendations in regards to the acoustic amenity of the residential units. Conditions are recommended to ensure the implementation of these recommendations.

Yes

Yes

Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission

Design guidance:

- Design solutions include limiting openings to noise sources & providing seals to prevent noise transfer.

Part 4 – Designing the building - Configuration

4K Apartment mix

Objective 4K-1

A range of apartment types and sizes is provided to cater for different household types now and into the future

Design guidance

- A variety of apartment types is provided
- The apartment mix is appropriate, taking into consideration the location of public transport, market demands, demand for affordable housing, different cultural/social groups
- Flexible apartment configurations are provided to support diverse household types and stages of life

Unit mix comprises 21 x1 BR units; 59 x 2 BR units and 22 x 3BR units

A number of adaptable and livable units are also proposed.

Yes

4L Ground floor apartments

No ground floor apartments

N/A

4M Facades

Objective 4M-1

Building facades provide visual interest along the street while respecting the character of the local area

Design guidance

- To ensure that building elements are integrated into the overall building form and façade design
- The front building facades should include a composition of varied building elements, textures, materials, detail and colour and a defined base, middle and top of building.
- Building services should be integrated within the overall facade
- Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale.

Refer to lengthy discussion around this issue in the body of the report and the DRP notes.

The design is appropriate for the setting and responds to most of the applicable development controls except for some variations which are supported in this instance. There is a mixture of materials and colours proposed; services are generally integrated within the overall facade; the scale is appropriate for the streetscape and the development provides for an appropriate public domain response. The proportions of the building appropriately respond to the two street frontages and their different

Yes

- To ensure that new developments have facades which define and enhance the public domain and desired street character.

Objective 4M-2

Building functions are expressed by the facade

Design guidance

- Building entries should be clearly defined

4N Roof design

Objective 4N-1

Roof treatments are integrated into the building design and positively respond to street

Design guidance

- Roof design should use materials and a pitched form complementary to the building and adjacent buildings.

Objective 4N-2

Opportunities to use roof space for residential accommodation and open space are maximised

Design guidance

- Habitable roof space should be provided with good levels of amenity.
- Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations

Objective 4N-3

Roof design incorporates sustainability features

Design guidance

- Roof design maximises solar access to apartments during winter and provides shade during summer

4O Landscape design

Objective 4O-1

Landscape design is viable and sustainable

Design guidance

character.

The single height at the lower levels is appropriate for the Stewart Street frontage of the site – this provides for a better proportioned façade and allows for a more appropriate response to the streetscape to the south.

Building functions are expressed by façade.

Building entries are readily defined.

Roof top lift overrun is indicated on the elevations of Block A. The rooftop of Block B is occupied by communal open space and landscaped areas. The plans do not depict any other roof top services; conditions are recommended in relation to other rooftop structures like antennae, mechanical ventilation shafts/ducts and the like to ensure they are provided in a manner which is not visually obtrusive.

Yes

The landscape design is satisfactory; satisfies relevant provisions and is satisfactory to Council's Landscape

- Landscape design should be environmentally sustainable and can enhance environmental performance
- Ongoing maintenance plans should be prepared

Objective 4Q-2

Landscape design contributes to the streetscape and amenity

Design guidance

- Landscape design responds to the existing site conditions including:
 - changes of levels
 - views
 - significant landscape features

4P Planting on Structures

Objective 4P-1

Appropriate soil profiles are provided

Design guidance

- Structures are reinforced for additional saturated soil weight
- Minimum soil standards for plant sizes should be provided in accordance with Table 5

Objective 4P-2

Plant growth is optimised with appropriate selection and maintenance

Design guidance

- Plants are suited to site conditions

Objective 4P-3

Planting on structures contributes to the quality and amenity of communal and public open spaces

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

4Q Universal design

Objective 4Q-1

Section and the Design Review Panel. It is noted that the plans have been revised on that initially submitted to Council which has substantially improved the streetscape treatment, particularly to the Kembla Street frontage of the site, also allowing the retention of the existing street tree.

Yes

Council's Landscape Officer has reviewed the proposal and the submitted Landscape Plan and has provided a satisfactory referral. Most of the landscaping proposed will be on structure. Conditions are recommended to ensure any planting on structure is sustainable and well maintained.

Yes

Universal design features are included in apartment design to promote flexible housing for all community members

Design guidance

- A universally designed apartment provides design features such as wider circulation spaces, reinforced bathroom walls and easy to reach and operate fixtures

Objective 4Q-2

A variety of apartments with adaptable designs are provided

Design guidance

- Adaptable housing should be provided in accordance with the relevant council policy

Objective 4Q-3

Apartment layouts are flexible and accommodate a range of lifestyle needs

Design guidance

- Apartment design incorporates flexible design solutions

4S Mixed use

Objective 4S-1

Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement

Design guidance

- Mixed use development should be concentrated around public transport and centres
- Mixed use developments positively contribute to the public domain.

Objective 4S-2

Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents

Design guidance

- Residential circulation areas should be clearly defined.
- Landscaped communal open space should be provided at podium or roof levels

4T Awnings and signage

16 adaptable units are proposed in a mixture of configurations/ unit types.

The applicant has provided an access consultant report verifying that the adaptable units can achieve compliance with the AS4299.

In addition to the adaptable units provided, 11 units are capable of providing compliance with the features of Silver level of Livable Housing Guidelines.

The development is sited in an appropriate location within the city centre, near public transport, within close walking distance of services, employment opportunities and numerous amenities including public recreation areas.

The development positively contributes to the public domain, provides for appropriate streetscape and footpath treatment and will encourage pedestrian movement along its frontages.

Commercial uses are at the street level and at Level 1 immediately fronting Stewart Street and Kembla Street will activate the street frontages.

The residential lobbies are separate to the commercial entries and are clearly defined. Landscaped COS areas are at podium and roof level.

Residential and commercial parking areas will be separated and separate residential and commercial waste storage and collection areas are proposed.

The ground floor commercial spaces are setback further from the Kembla Street

Yes

No but

<p><u>Objective 4T-1</u></p> <p><i>Awnings are well located and complement and integrate with the building design</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Awnings should be located along streets with high pedestrian activity and active frontages 	<p>frontage of the site to Level 1 above, creating an undercroft area.</p> <p>The development does not provide a continuous awning built to the street frontage as the building is setback from both street frontages. The existing street tree on the Kembla Street frontage and new street tree planting to the Stewart Street frontage of the site would preclude the ability to provide continuous footpath awnings to the site in any event and there are no continuous street awnings along either Kembla or Stewart Streets as buildings are typically setback from the street edge.</p>	<p>acceptable in this instance</p>
<p><u>Objective 4T-2</u></p> <p><i>Signage responds to the context and desired streetscape character</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development 	<p>No signage is proposed in this application and separate consent will be required for any future signage if not exempt.</p>	
<p>Part 4 – Designing the building - Configuration</p>		
<p><u>4U Energy efficiency</u></p>		<p>Yes</p>
<p><u>Objective 4U-1</u></p> <p><i>Development incorporates passive environmental design</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access) <p><u>Objective 4U-2</u></p> <p><i>Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Provision of consolidated heating and cooling infrastructure should be located in a centralised location <p><u>Objective 4U-3</u></p> <p><i>Adequate natural ventilation minimises the need for mechanical ventilation</i></p>	<p>The applicant has obtained a BASIX certificate which confirms that the residential component of the development will achieve the required energy efficiency and thermal comfort targets of the SEPP.</p> <p>Adequate natural light will be provided to habitable rooms as required; refer to discussion at 4A.</p> <p>Glare and heat gain will be controlled by operable screens proposed to be fixed to the west-facing balconies.</p> <p>Cross ventilation requirements are complied with.</p> <p>Plant room located within the basement.</p> <p>Refer to discussion above at 4B in relation to natural ventilation.</p>	
<p><u>4V Water management and conservation</u></p>		<p>Yes</p>

Objective 4V-1

Potable water use is minimised

Objective 4V-2

Urban stormwater is treated on site before being discharged to receiving waters

Design guidance

- Water sensitive urban design systems are designed by a suitably qualified professional

Objective 4V-3

Flood management systems are integrated into site design

Design guidance

- Detention tanks should be located under paved areas, driveways or in basement car parks

4W Waste management

Objective 4W-1

Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents

Design guidance

- Common waste and recycling areas should be screened from view and well ventilated

Objective 4W-2

Domestic waste is minimised by providing safe and convenient source separation and recycling

Design guidance

- Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core
- For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses
- Alternative waste disposal, such as composting, can be incorporated into the design of communal open space areas

4X Building maintenance

Objective 4X-1

Building design detail provides protection from weathering

The applicant has obtained a BASIX certificate which confirms that the proposal will meet the BASIX SEPP targets for water efficiency.

The stormwater design is satisfactory. A water sensitive urban design strategy is proposed and conditions of consent are recommended in regards to the implementation of this system.

Flood mitigation measures are integrated into the site design as required.

Yes

The applicant proposes residential waste storage within the basement and commercial waste storage adjacent to the loading zone. All waste will be collected via the loading zone and appropriate and practical waste handling appears to have been provided for within the building.

Waste will be transported to the residential garbage room via chutes. Separate waste storage rooms are proposed for the residential and commercial components of the building with on-site collection proposed for all waste.

A bulky waste room is proposed within the basement.

Yes

Finishes and materials are considered to be durable for the location.

Design guidance

- Design solutions such as roof overhangs to protect walls and hoods over windows and doors to protect openings can be used.

Objective 4X-2

Systems and access enable ease of maintenance

Design guidance

- Window design enables cleaning from the inside of the Building

Objective 4X-3

Material selection reduces ongoing maintenance costs easily cleaned surfaces that are graffiti resistant

Most windows can be accessed from balconies or terraces for ease of cleaning.