

Attachment 3 - Apartment Design Guide Assessment

Standards/controls	Comment	Compliance
Part 1 – Identifying the context		
<u>1A Apartment building types</u>	The proposal is as Shop Top Apartment Building that does not specifically reflect any of the apartment building type examples provided in the ADG.	Yes
<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. Significant departures are noted in respect of floor space ratio and building separation.	No
<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 proposed building is made possible with the proposed amalgamation of the two existing individual parcels (31 and 33 Atchison Street). The site has a single frontage to Atchison Street. The development potential on adjacent sites to the south may be affected by the reduced building setbacks provided to the proposed building. The site is located with the City Centre precinct and well located with regard to the CBD.	Yes & No
<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	Strategic planning tool intent noted.	N/A

Standards/controls	Comment	Compliance
individual proposals.		
<p>Part 3 Siting the development</p> <p>3A Site analysis</p> <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>3B Orientation</p> <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>Some site analysis plans provided with the DA material.</p> <p>Building faces the street; units above ground floor level are oriented towards the street, offering opportunities for surveillance of the street.</p> <p>Most units appear to generally enjoy reasonable solar access with the exception of the upper level units (levels 9 – 14) whose windows are generally highlight (high sill) windows for privacy reasons due to the reduced building setbacks proposed.</p> <p>The proposal addresses the street in part providing direct access to the footpath, though this is via stairs or a platform chair lift which is not ideal. The entrance is reasonably legible.</p> <p>The scale of the building does not respond to the desired future character sought to be achieved in the precinct as defined by the planning controls when measured in terms of floor space ratio and building setbacks to the tower which are in part non-compliant.</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 (Wollongong City Centre). Both LEP and DCP clauses are assessed in detail at Sections 2.1.5 and</p>	<p>Yes</p> <p>Yes and no</p>

Standards/controls	Comment	Compliance
<p><u>Objective 3B-2</u></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>2.3.1 of the assessment report.</p> <p>Council's Landscape Architect has assessed the application and provided a satisfactory referral subject to conditions.</p> <p>Overshadowing impacts are considered in detail below at 4A.</p>	Yes
<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 	<p>Upper level balconies face the street frontage, providing opportunities for natural surveillance.</p> <p>Single pedestrian access from the street frontage only proposed via the central common lobby.</p> <p>Ground floor is raised due to flood affectation which provides opportunities for surveillance of the street from the ground level commercial tenancies, though it is noted that despite the reasonable width of the site, the glazed tenancies are not a dominant element of the façade.</p>	No

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<p>entries, near letterboxes etc</p> <p><u>Objective 3C-2:</u> <i>Amenity of the public domain is retained and enhanced</i></p> <p><u>Design Guidance</u></p> <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><u>3D Communal and public open space</u></p> <p><u>Objective 3D-1</u> <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 (ie 397.55sqm) 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>	<p>Some concealment opportunities are created within the façade of the building by the multiple egress points and the vehicular ramp. This may compromise the perceived and physical safety of the frontage of the building.</p> <p>The elevated floor plate and dominance of services, vehicle ramp and multiple egress points will compromise the design quality of the building and will not provide for a positive relationship with the public domain. Pedestrian access is obtained via stairs or platform lift.</p> <p>Garbage storage areas are located within the basement; substation, fire services and the like are to be accommodated within the front façade of the building which detracts from its design quality; questions have been raised in relation to the adequacy of the substation and fire services storage and whether these spaces may need to be enlarged which may further impact on the façade.</p> <p>Mailboxes located within the residential lobby.</p> <p>Durable materials proposed.</p>	<p>No</p>

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<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><u>Objective 3D-2</u></p> <p><i>Communal open space is designed to allow for a range of activities, respond to 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>	<p>lifts end at L13.</p> <p>The two areas in combination achieve the minimum area required for the site though the L14 area is not accessible and therefore cannot be included in the overall COS.</p> <p>The principal communal open space will receive between sufficient sunlight between 9am and 3pm as required. Some shade will be offered to a small section of the COS, which, being west-facing, may be uncomfortable for residents in Summer.</p> <p>Achieves required dimensions.</p> <p>Direct and equitable access available to principal COS which is located on podium as required.</p> <p>Provision made for a BBQ, casual seating and possible outdoor dining within the COS areas.</p> <p>The principal useable part of the communal open space will be visible from units located above.</p>	<p>No *</p> <p>Acceptable in B3 zone</p>

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<p>1. Deep soil zones are to meet the following minimum requirements:</p> <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. <p>3F Visual privacy</p> <p><u>Objective 3F-1</u></p> <p><i>Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual amenity.</i></p> <p><u>Design Criteria:</u></p> <p>1. Minimum required separation distances from buildings to the side and rear boundaries are as follows:</p> <table border="1"> <thead> <tr> <th>Building height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr> </thead> <tbody> <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> </tbody> </table> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Direct lines of sight should be avoided - No separation is required between blank walls <p><u>Objective 3F-2:</u></p> <p><i>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</i></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	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	<p>balconies.</p> <p>The proposed building does not comply with the required side boundary setbacks for levels 8-14 as detailed within the body of the report. The plans make provision of highlight (high sill) windows to all side facing rooms to mitigate overlooking towards the side boundaries. No provision made for screening of common lobbies where they are located closer than 12m from the side boundaries.</p> <p><u>Southern & northern boundaries</u> – Levels 1 and 2 are built to the boundary in part to achieve a continuous street wall as required by the street frontage height controls in the DCP. Solid blank walls proposed to the podium. Units to the rear are setback 9m as required to Levels 1 and 2.</p> <p>Level 3 setback is 8m (6m required) Levels 4 – 8 – setback is 8m (9m required) Levels 9 – 14 – setbacks are 8m (12m required)</p> <p><u>Eastern boundary</u> Levels 1 – 8– setback 9.3m to edge of terrace/ balconies (6m required) Levels 9 - 11 - 12.035m to edge of balconies (9m required) Levels 12,13 & 14 – setback 12m or more (12m required)</p>	<p>No</p> <p>Variation sought in relation to northern and southern boundaries for part of levels 8-14 which are setback a min of 8m instead of the required 12m.</p>
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<p>space</p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Communal open space, common areas and access paths should be separated from private open space and windows to apartments. Design solutions include: <ul style="list-style-type: none"> • 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 <p><u>3G Pedestrian access and entries</u></p> <p><u>Objective 3G-1</u></p> <p><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></p> <p><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 	<p>Some concerns regarding privacy relationship between Levels 1 and 2 bedrooms and lift lobby areas; skylights in COS and units below.</p> <p>No details of treatment to secure privacy of level 1 terrace areas where 2 POS areas abut.</p> <p>Highlight (high sill) windows proposed on the northern and southern elevations to reduce potential overlooking where required setbacks have not been achieved. Reduces potential overlooking but raises concerns regarding internal amenity of the units.</p> <p>Single entry only proposed; shared entry for commercial tenancies, child care centre and residential units. Proposed entry addresses the public domain.</p> <p>Ground floor level is elevated due to flooding. Lift and stair access is provided to all dwellings from the basement and ground floor level.</p> <p>Universal access is not available to the lobby from the street frontage as only a chair lift and stairs are proposed.</p>	<p>No</p>

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<p>design.</p> <p><u>Objective 3G-3</u></p> <p><i>Large sites provide pedestrian links for access to streets and connection to destinations</i></p> <p><u>3H Vehicle access</u></p> <p><u>Objective 3H-1</u></p> <p><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 - 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><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 	<p>Proposed car park entry is behind the building line. Headlight glare is not expected to be an issue.</p> <p>Proposed driveway location removed from the nearest intersection.</p> <p>Vehicle and pedestrian access separated.</p> <p>Roller shutters proposed within the building.</p> <p>Excessive driveway width proposed will compromise design quality and the public domain.</p> <p>Generally adequate vehicle, motor bike and bicycle parking provided meeting the requirements of Chapter E3 of Wollongong DCP 2009.</p> <p>Appropriate resident bicycle security arrangements are proposed.</p> <p>Supporting facilities generally adequately located.</p> <p>Lift lobby area not clearly visible in either basement level – potential concealment and entrapment opportunity.</p>	<p>No</p> <p>Yes</p>

Standards/controls	Comment	Compliance
<p>and stairs.</p> <ul style="list-style-type: none"> - 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. - Ventilation grills or screening devices should be integrated into the façade and landscape design. <p><u>Objective 3J-5</u></p> <p><i>Visual and environmental impact of on-grade car parking are minimised</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - 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 <p>Part 4 – Designing the building -</p>	<p>Roller shutter proposed within the basement. If approved, it is recommended that proposed any roller shutters be permeable to improve ventilation.</p> <p>No details provided in relation to mechanical ventilation.</p> <p>Basement/ car park walls are to be built to the side and rear boundaries.</p> <p>Basement protrudes out of the ground for part of the length of the southern and northern boundaries.</p> <p>No on-grade parking proposed</p>	

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<p>Amenity</p> <p><u>4A Solar and daylight access</u></p> <p><u>Objective 4A-1</u></p> <p><i>To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space</i></p> <p><u>Design Criteria</u></p> <ol style="list-style-type: none"> 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 <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - The design maximises north aspect and the number of single aspect south facing apartments is minimised - To optimise the direct sunlight to habitable rooms and balconies, the following design features are used: Dual aspect, Shallow apartment layouts Bay windows - To maximise the benefit to residents, a minimum of 1m² of direct sunlight measured at 1m above floor level, is achieved for at least 15 minutes. <p><u>Objective 4A-2</u></p> <p><i>Daylight access is maximised where sunlight is limited</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Courtyards, skylights and high level windows (sill heights of 1500m or greater) are used only as secondary light sources in habitable rooms <p><u>Objective 4A-3</u></p> <p><i>Design incorporates shading and glare control, particularly for warmer months</i></p> <p><u>Design Guidance</u></p> <p>Design features can include:</p> <ul style="list-style-type: none"> - Balconies - Shading devices or planting 	<p>It appears that at least 70% of the units can achieve appropriate solar access (living rooms and private open spaces receive a minimum of 2 hours sunlight between 9am-3pm mid winter.)</p> <p>The solar access diagrams submitted with the DA take into account the 8 storey building under construction on the adjoining site to the north.</p> <p>The shadow diagrams indicate lengthy shadows cast by the proposed building during mid-winter, as expected given the height of the proposed building and the orientation of the site. Shadow diagrams indicate significant overshadowing of the neighbouring single storey dwelling to the immediate south of the site, though it appears that afternoon sun will be available to the front of that house during mid Winter. Given the zoning of the site and allowable heights and densities this is considered to be a reasonable outcome.</p> <p>Sunlight is not limited to the proposal site except to the lower level where the neighbouring building to the north casts some shadow.</p> <p>A number of units have high sill windows to reduce potential overlooking; these will be</p>	<p>Yes</p>

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<ul style="list-style-type: none"> - Operable shading - High performance glass that minimises external glare 	<p>the primary light source to habitable rooms contrary to this design guidance</p> <p>No louvres or other screening measures indicated on the western side of the building for shading from western sun.</p>	Yes
<p><u>4B Natural ventilation</u></p> <p><u>Objective 4B-1</u></p> <p><i>All habitable rooms are naturally ventilated.</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - A building's orientation should maximise the prevailing winds for natural ventilation in habitable rooms - The area of unobstructed window openings should be equal to at least 5% of the floor area served. - Doors and openable windows should have large openable areas to maximise ventilation. <p><u>Objective 4B-2</u></p> <p><i>The layout and design of single aspect apartments maximises natural ventilation</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Single aspect apartments should use design solutions to maximise natural ventilation. <p><u>Objective 4B-3</u></p> <p><i>The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents</i></p> <p><u>Design Criteria:</u></p> <ol style="list-style-type: none"> 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. 	<p>Units have been generally been designed to achieve cross ventilation.</p> <p>There are 3 single aspect units (within the podium on levels 1 and 2). Not all habitable rooms within these units will achieve natural ventilation. Skylights are proposed to Units 4 and 6; no clear whether these allow ventilation</p> <p>All bar the 3 single aspect units would achieve cross ventilation (ie 91% of the units in the first nine storeys)</p>	
<p><u>4C Ceiling heights</u></p> <p><u>Objective 4C-1</u></p> <p><i>Ceiling height achieves sufficient natural ventilation and daylight access</i></p> <p><u>Design Criteria</u></p> <ol style="list-style-type: none"> 1. Minimum 2.7m for habitable rooms and 	<p>Minimum ceiling height of 2.7m proposed</p>	Yes

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<p>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><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><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> <ul style="list-style-type: none"> - Greater than the minimum ceiling 	<p>to habitable (all) rooms.</p> <p>Apartment size and layout is generally functional, well organised and provides a reasonable standard of amenity for future residents. Concerns are raised in relation to the layout of Unit Types D and E (where bathroom accessed directly from dining areas in Units Type D (levels 4 – 12) and Type E (levels 1 – 8).</p> <p>All units achieve compliance with the minimum internal areas specified.</p> <p>Habitable rooms in levels have adequate windows.</p> <p>Habitable room depths comply.</p> <p>Units within the podium levels 1 and 2 (7 units in total) – open plan room depth is greater than 8m</p>	<p>Yes, though some internal layout could be improved</p>

Standards/controls	Comment	Compliance
<p>heights can allow proportionate increases in room depths.</p> <ul style="list-style-type: none"> - Where possible, bathrooms and laundries should have an external openable window. - Main living spaces should be oriented towards the primary outlook. <p><u>Objective 4D-3</u></p> <p><i>Apartment layouts are designed to accommodate a variety of household activities and needs</i></p> <p><u>Design Criteria:</u></p> <ol style="list-style-type: none"> 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: <ul style="list-style-type: none"> - 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. <p><u>Design Guidance:</u></p> <ul style="list-style-type: none"> - 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. 	<p>2.7m ceiling heights proposed. Most units within the proposal are designed with bathrooms and laundries without external opening windows to allow all habitable rooms to achieve access to external windows.</p> <p>Bedroom and living room dimensions are adequate.</p>	
<p><u>4E Private open space and balconies</u></p> <p><u>Objective 4E-1</u></p> <p><i>Apartments provide appropriately sized private open space and balconies to enhance residential amenity</i></p> <ol style="list-style-type: none"> 1. Minimum balcony depths are: 	<p>Not all balcony areas achieve the minimum area and depth requirements – units 3, 7, 10 and 11 balcony areas are under sized.</p>	<p>No</p>

Standards/controls

Comment

Compliance

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 level apartments 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 designed to articulate the façade. A variety of materials are proposed, including solid fin walls, glass and louvre screens in part.

Standards/controls	Comment	Compliance
<p><u>4F Common circulation and spaces</u></p> <p><u>Objective 4F-1</u></p> <p><i>Common circulation spaces achieve good amenity and properly service the number of apartments.</i></p> <p><u>Design Criteria</u></p> <ol style="list-style-type: none"> 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. <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - 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. <p><u>Objective 4F-2</u></p> <p><i>Common circulation spaces promote safety and provide for social interaction between residents</i></p> <p><u>Design Guidance:</u></p> <ul style="list-style-type: none"> - Incidental spaces can be used to provide seating opportunities for residents, and promotes opportunities for social interaction. 	<p>2 - 7 apartments on each level; serviced by 2 lifts.</p> <p>50 units share 2 lifts</p> <p>Not applicable.</p> <p>No living or bedroom window openings to common circulation spaces. There is the potential for privacy loss of the bedrooms of Units 3 and 10 resulting from direct overlooking opportunities available from the lobbies</p> <p>Short corridors proposed between vertical circulation points and proposed units access.</p> <p>Common circulation areas are proposed to be well lit with natural light and access to natural ventilation.</p>	<p>Yes and no</p>
<p><u>4G Storage</u></p> <p><u>Objective 4G-1</u></p> <p><i>Adequate, well designed storage is provided in each apartment</i></p> <ol style="list-style-type: none"> 1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided 	<p><u>Storage Required:</u></p> <p>1 bed $12 \times 6\text{m}^3 = 72\text{m}^3$</p> <p>2 bed $31 \times 8\text{m}^3 = 248\text{m}^3$</p> <p>3 bed $7 \times 10 = 70\text{m}^3$</p> <p>Total required: 390m^3</p> <p>Storage provided for within the basement and internal to units. Overall quantum of storage provision has not been identified on the plans.</p>	<p>Unclear whether compliant</p>

Standards/controls	Comment	Compliance										
<table><tr><th>Dwelling type</th><th>Storage size volume</th></tr><tr><td>Studio apartments</td><td>4m³</td></tr><tr><td>1 bedroom apartments</td><td>6m³</td></tr><tr><td>2 bedroom apartments</td><td>8m³</td></tr><tr><td>3+ bedroom apartments</td><td>10m³</td></tr></table> <p>At least 50% of the required storage is to be located within the apartment</p> <p><u>Objective 4G-2</u></p> <p><i>Additional storage is conveniently located, accessible and nominated for individual apartments</i></p> <p><u>Design Guidance:</u></p> <ul style="list-style-type: none">- Storage not located within apartments should be allocated to specific apartments. <p><u>4H Acoustic privacy</u></p> <p><u>Objective 4H-1</u></p> <p><i>Noise transfer is minimised through the siting of buildings and building layout</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none">- 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. <p><u>Objective 4H-2</u></p> <p><i>Noise impacts are mitigated within apartments through layout and acoustic treatments</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none">- In addition to mindful siting and orientation of the building, acoustic seals and double or triple glazing are effective methods to further reduce	Dwelling type	Storage size volume	Studio apartments	4m ³	1 bedroom apartments	6m ³	2 bedroom apartments	8m ³	3+ bedroom apartments	10m ³	<p>Residential storage is located within linen cupboards accessed from the hallway or living area.</p> <p>Secure basement and bicycle storage is proposed.</p> <p>The building does not comply with the minimum required building setback and separation distances outlined which may result in some acoustic privacy impacts between neighbouring properties, though it appears that this is dealt with by high sill windows. Potential acoustic privacy issues arising from the lack of separation provided between the POS areas on level 2 and also if the skylights on level 3 for the units below are openable.</p> <p>The main concern relates to the noise generation from the child care centre and its potential impacts on the amenity of residential units within the development and that neighbouring the site. Noise generation has not been quantified nor have mitigation measures been identified to resolve this potential impact if necessary.</p> <p>The majority of each floor has matching room types to the rooms below / above and adjoining.</p>	<p>Yes and no</p>
Dwelling type	Storage size volume											
Studio apartments	4m ³											
1 bedroom apartments	6m ³											
2 bedroom apartments	8m ³											
3+ bedroom apartments	10m ³											

Standards/controls	Comment	Compliance
<p>noise transmission.</p> <p><u>4J Noise and pollution</u></p> <p><u>Objective 4J-1</u></p> <p><i>In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Minimise impacts through design solutions such as physical separation from the noise or pollution source, <p><u>Objective 4J-2</u></p> <p><i>Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission</i></p> <p><u>Design guidance:</u></p> <ul style="list-style-type: none"> - Design solutions include limiting openings to noise sources & providing seals to prevent noise transfer. <p>Part 4 – Designing the building - Configuration</p> <p><u>4K Apartment mix</u></p> <p><u>Objective 4K-1</u></p> <p><i>A range of apartment types and sizes is provided to cater for different household types now and into the future</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - 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 <p><u>Objective 4K-2</u></p> <p><i>The apartment mix is distributed to suitable locations within the building</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Larger apartment types are located on the ground or roof level where there is potential for more open space and on 	<p>The proposal site is not considered to be a noisy or hostile environment though some concerns are raised in relation to noise from the child care centre as identified above.</p> <p>A variety of apartment types are proposed including 1, 2 and 3 bedroom units.</p> <p>5 of the units (10% of the 50 proposed) are adaptable units. They are all 2 bedroom units.</p> <p>The largest units are proposed on the upper levels of the building where access to views will be available.</p>	<p>?</p> <p>Yes</p>

Standards/controls	Comment	Compliance
<p>corners where more building frontage is available</p> <p><u>4L Ground floor apartments</u></p> <p><i>Objective 4L-1</i></p> <p><i>Street frontage activity is maximised where ground floor apartments are located</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Direct street access should be provided to ground floor apartments - Activity is achieved through front gardens, terraces and the facade of the building. - Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities for easy conversion <p><i>Objective 4L-2</i></p> <p><i>Design of ground floor apartments delivers amenity and safety for residents</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - The design of courtyards should balance the need for privacy of ground floor apartments with surveillance of public spaces. Design solutions include: <ul style="list-style-type: none"> • elevation of private gardens and terraces above the street level by 1-1.5m (see figure 4L.4) • landscaping and private courtyards • window sill heights that minimise sight lines into apartments • integrating balustrades, safety bars or screens with the exterior design - Solar access should be maximised through: <ul style="list-style-type: none"> • high ceilings and tall windows • trees and shrubs that allow solar access in winter and shade in summer <p><u>4M Facades</u></p> <p><i>Objective 4M-1</i></p> <p><i>Building facades provide visual interest along the street while respecting the character of the local area</i></p>	<p>N/A, no ground floor apartments</p>	<p>N/A</p> <p>No</p>

Standards/controls	Comment	Compliance
<p><u>Design guidance</u></p> <ul style="list-style-type: none"> - 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. - To ensure that new developments have facades which define and enhance the public domain and desired street character. <p><u>Objective 4M-2</u></p> <p><i>Building functions are expressed by the facade</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Building entries should be clearly defined <p>4N Roof design</p> <p><u>Objective 4N-1</u></p> <p><i>Roof treatments are integrated into the building design and positively respond to street</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Roof design should use materials and a pitched form complementary to the building and adjacent buildings. <p><u>Objective 4N-2</u></p> <p><i>Opportunities to use roof space for residential accommodation and open space are maximised</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Habitable roof space should be 	<p>The applicant has provided a colour and materials schedule with the DA. The schedule is considered generally acceptable.</p> <p>Façade is dominated by the wide vehicular ramp, multiple egress points and services (substation and fire services) which will in combination detract from the design quality of the development and its relationship with the public domain.</p> <p>Building services are not well integrated into the overall façade and the finish and composition of the northern elevation of the podium (where it abuts the northern boundary) is not well resolved, noting that this part of the building will remain readily visible from the northern approaches to the site due to the setback of the adjoining building from the common boundary.</p> <p>Building composition defines the base, middle and top/ tower as required though it is noted that the bulk measured in terms of floor space ratio and building setbacks to part of the tower are non-compliant.</p> <p>Refer to design review at Attachment 4.</p> <p>The proposed building entry is reasonably well defined.</p> <p>The roof design is appropriate.</p> <p>No roof top services are indicated on the plans though conditions should be imposed in relation to this issue.</p>	<p>Yes</p>

Standards/controls	Comment	Compliance
<p>provided with good levels of amenity.</p> <ul style="list-style-type: none"> - Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations <p><u>Objective 4N-3</u></p> <p><i>Roof design incorporates sustainability features</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Roof design maximises solar access to apartments during winter and provides shade during summer 		
<p><u>40 Landscape design</u></p> <p><u>Objective 4O-1</u></p> <p><i>Landscape design is viable and sustainable</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Landscape design should be environmentally sustainable and can enhance environmental performance - Ongoing maintenance plans should be prepared <p><u>Objective 4O-2</u></p> <p><i>Landscape design contributes to the streetscape and amenity</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Landscape design responds to the existing site conditions including: <ul style="list-style-type: none"> • changes of levels • views • significant landscape features 	<p>Landscape design is generally satisfactory. Satisfies relevant provisions and is satisfactory to Council's Landscape Section.</p>	Yes
<p><u>4P Planting on Structures</u></p> <p><u>Objective 4P-1</u></p> <p><i>Appropriate soil profiles are provided</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Structures are reinforced for additional saturated soil weight - Minimum soil standards for plant sizes should be provided in accordance with Table 5 <p><u>Objective 4P-2</u></p> <p><i>Plant growth is optimised with appropriate selection and maintenance</i></p>	<p>Council's Landscape Officer has reviewed the proposal and the submitted Landscape Plan and has provided a satisfactory referral subject to conditions including those detailing specific podium/ on structure planting matters.</p>	Yes

Standards/controls	Comment	Compliance
<u>Design guidance</u> - Plants are suited to site conditions <u>Objective 4P-3</u> <i>Planting on structures contributes to the quality and amenity of communal and public open spaces</i> <u>Design guidance</u> - Building design incorporates opportunities for planting on structures. Design solutions may include: <ul style="list-style-type: none"> • 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 		
<u>4Q Universal design</u> <u>Objective 4Q-1</u> <i>Universal design features are included in apartment design to promote flexible housing for all community members</i> <u>Design guidance</u> - A universally designed apartment provides design features such as wider circulation spaces, reinforced bathroom walls and easy to reach and operate fixtures <u>Objective 4Q-2</u> <i>A variety of apartments with adaptable designs are provided</i> <u>Design guidance</u> - Adaptable housing should be provided in accordance with the relevant council policy <u>Objective 4Q-3</u> <i>Apartment layouts are flexible and accommodate a range of lifestyle needs</i> <u>Design guidance</u> - Apartment design incorporates flexible design solutions	5 adaptable units are proposed which is compliant with minimum requirements though it is noted that a range of adaptable units have not been provided for, with all adaptable units being 2 bedroom only. Applicant has provided an access consultant report verifying that the adaptable units can achieve compliance with the relevant standard.	Yes
<i>Part 4 – Designing the building - Configuration</i> <u>4U Energy efficiency</u>		Yes

Standards/controls	Comment	Compliance
<u>Objective 4U-1</u> <i>Development incorporates passive environmental design</i> <u>Design guidance</u> <ul style="list-style-type: none"> - Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access) 	<p>The applicant has obtained a BASIX certificate which confirms that the proposed development will achieve the required energy efficiency and thermal comfort targets of the SEPP.</p>	
<u>Objective 4U-2</u> <i>Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer</i> <u>Design Guidance</u> <ul style="list-style-type: none"> - Provision of consolidated heating and cooling infrastructure should be located in a centralised location 	<p>Adequate natural light will be provided to most habitable rooms with the exception of some of the upper level bedrooms (levels 9-12) where high sill windows are the only source of daylight. Further addressed above at 4A.</p> <p>Heat gain for west facing living rooms and balconies has not been addressed.</p> <p>Plant room located within the basement.</p> <p>Refer to discussion above at 4B in relation to natural ventilation.</p>	
<u>Objective 4U-3</u> <i>Adequate natural ventilation minimises the need for mechanical ventilation</i>		
<u>4V Water management and conservation</u>		Yes and no
<u>Objective 4V-1</u> <i>Potable water use is minimised</i>		
<u>Objective 4V-2</u> <i>Urban stormwater is treated on site before being discharged to receiving waters</i> <u>Design guidance</u> <ul style="list-style-type: none"> - Water sensitive urban design systems are designed by a suitably qualified professional 	<p>The applicant has obtained a BASIX certificate which confirms that the proposed development will meet the NSW Government requirements for sustainability if built in accordance with the commitments set out in the certificate. This relates to both energy and water efficiency (4U and 4V).</p>	
<u>Objective 4V-3</u> <i>Flood management systems are integrated into site design</i> <u>Design guidance</u> <ul style="list-style-type: none"> - Detention tanks should be located under paved areas, driveways or in basement car parks 	<p>The stormwater design is unsatisfactory and insufficient information has been provided in relation to flood affectation to determine what measures are required for flood mitigation and management including off-site impacts. The built form may require re-design to resolve flooding matters.</p>	
<u>4W Waste management</u>		No
<u>Objective 4W-1</u> <i>Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents</i>		

Standards/controls	Comment	Compliance
<p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Common waste and recycling areas should be screened from view and well ventilated <p><u>Objective 4W-2</u></p> <p><i>Domestic waste is minimised by providing safe and convenient source separation and recycling</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - 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 <p><u>4X Building maintenance</u></p> <p><u>Objective 4X-1</u></p> <p><i>Building design detail provides protection from weathering</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Design solutions such as roof overhangs to protect walls and hoods over windows and doors to protect openings can be used. <p><u>Objective 4X-2</u></p> <p><i>Systems and access enable ease of maintenance</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Window design enables cleaning from the inside of the Building <p><u>Objective 4X-3</u></p> <p><i>Material selection reduces ongoing maintenance costs easily cleaned surfaces that are graffiti resistant</i></p>	<p>The applicant proposes waste storage rooms within the basement, screened from view. Separate waste rooms are proposed for the residential and commercial components of the development.</p> <p>Waste collection from the street is inappropriate in this instance due to the scale of the development, the nature of the uses proposed and the location of the site within the city centre where there are high levels of pedestrian activity. Standing of bins on the footpath for collection will reduce pedestrian amenity, the quality of the public domain and will have an impact on on-street car parking availability in front of the site.</p> <p>The applicant proposes to use durable and cleanable materials. Most windows are unable to be accessed from balconies for ease of cleaning so other cleaning methods will be required to be employed.</p>	<p>Yes and no</p>