

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 five (5) separate four (4) storey apartment blocks containing a total of 108 apartments 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 (R3 Medium Density Residential Development), Wollongong DCP 2009 (Chapters D1 Character Statement and D16 West Dapto Release Area). Both LEP and DCP clauses are assessed in detail at Sections 2.1.7 and 2.2.1 and Attachment 4 of the assessment report.	Yes
<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. 	<p>The site is an existing large site with lengthy frontages to West Dapto Road and Darkes Road.</p> <p>The site is a corner site with frontages to West Dapto Road and Darkes Road.</p> <p>The development is not expected to have an unreasonable impact on the development potential of adjacent sites. The proposed development will not isolate the adjoining lot immediately to the South.</p> <p>The adjacent site to the immediate south of the subject land has extensive frontages to both Darkes Road and West Dapto Road. The subject site immediately to the South is the subject of an application for a 193 lot residential subdivision currently under assessment.</p> <p>The site is located within Darkes Road South precinct and within the vicinity of the future Darkes Road town centre.</p>	Yes

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<p>Part 2 – Developing the controls</p> <p>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.</p> <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 northern 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>Strategic planning tool intent noted.</p> <p>Detailed site analysis plans provided with the application submission.</p> <p>The development as proposed has blocks addressing each of the street frontages, offering opportunities for surveillance of the street.</p> <p>Most units appear to enjoy good solar access.</p> <p>The proposed ground level spaces address the street and access within tenancies is reasonably well resolved. The entrances are reasonably legible and the frontages provide for an active street frontage.</p> <p>The scale of the building responds to the desired future character sought to be achieved in the precinct 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 (R3 Medium Density Residential Development), Wollongong DCP 2009 (Chapters D1 Character Statement and D16 West Dapto Release</p>	<p>N/A</p> <p>Yes</p> <p>Yes</p>

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<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 downhill 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>3C Public domain interface</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 	<p>Area).</p> <p>Both LEP and DCP clauses are assessed in detail at Sections 2.1.7 and 2.2.1 and Attachment 4 of the assessment report.</p> <p>Council's Landscape Officer has assessed the application and provided a satisfactory referral subject to conditions.</p> <p>The shadow diagrams indicate lengthy shadows cast by the proposed buildings during mid-winter, as expected given the height of the proposed buildings and the orientation of the site.</p> <p>Submitted shadow diagrams are considered satisfactory for overshadowing on the neighbouring property to the South when the effects of the existing mature vegetation along the Southern boundary of the subject site are taken into account</p> <p>Given the zoning of the site and allowable heights and densities this is considered to be a reasonable outcome.</p> <p>Active street frontage provided. Proposed units have direct street entry. The unit orientation provides casual surveillance of public areas (East to Darkes Road, North west to West Dapto Road and South west to Road 1).</p> <p>The public domain is to be treated with footpath paving and street tree planting in accordance with Council's City Centre Public Domain Technical Manual. Draft Conditions as at Attachment 6 are</p>	<p>Yes</p> <p>Yes</p>

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<p>materials and treatments. The height of solid fences or walls should be limited to 1m.</p> <ul style="list-style-type: none"> - 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> <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></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> <p>1. Communal open space (COS) minimum area equal to 25% of the site (3635m²)</p> <p>2. 50% direct sunlight provided to principal</p>	<p>recommended in this regard.</p> <p>Residential balconies face the street frontage, providing opportunities for natural surveillance.</p> <p>The ground floor court yards and living areas have been oriented to provide opportunities for surveillance of the street.</p> <p>The amenity of the public domain will be vastly improved by development of the site in the manner proposed. The development will provide for active ground floor uses and an active street presence. Public domain works comprising paving and street tree planting will also enhance the public domain.</p> <p>Garbage storage areas, substation, fire services and the like are to be accommodated within the site in a manner which will not detract from its design quality.</p> <p>Mailboxes located within the residential lobby.</p> <p>Durable materials proposed.</p> <p>The development as proposed provides for communal open space areas along the north, central and southern areas of the site comprising approximately 4350m² in area or 30% of the site area</p> <p>The communal open space areas are accessible for residents. The landscape plan makes provision for casual seating, along with possible locations for a BBQ and outdoor dining, children's play equipment and outdoor recreational activities.</p> <p>The communal open space areas will receive sufficient sunlight between 9am</p>	<p>Yes</p>

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<p>usable part of communal open space for a minimum of 2 hours between 9am and 3pm on 21 June</p> <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><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>and 3pm as required. Some shade will be offered to sections of the COS via planting and structures.</p> <p>The communal open space areas in combination achieve the minimum area required for the site and satisfy the required dimension requirements. The design and treatment will provide for well designed, usable areas.</p> <p>Direct and equitable access is available to the communal open space areas.</p> <p>Provision made for a BBQ, casual seating and possible outdoor dining, play equipment and outdoor recreational activities within the COS areas.</p> <p>The principal useable part of the communal open space will be visible from units located above and nearby individual private open space areas.</p> <p>There is DSZ provided within the Northern and Southern portions of the site portion of the site with a combined area of 2521m² or 17.3% of the site area.</p> <p>The DSZ coincides with the EEC/CEEC Illawarra Lowlands Grassy Woodland/Illawarra and South Coast Lowland Forest and Woodland in the north and south of the site. A Vegetation Management Plan (VMP) for revegetation and management for these areas on the site as in place.</p>	<p>Yes</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 space</i></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 	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><u>All blocks are 4 Storeys</u></p> <p>The subject site is triangular in shape with road frontage on the full length of two (2) sides (Eastern and North western). Southern boundary has been taken as the rear boundary. Blocks A, D and E are the closest blocks to the Southern site boundary.</p> <p>South (rear):</p> <p>Block A: Min 13.85m</p> <p>Block D: Min 17.157m</p> <p>Block E: Min 17.03m.</p> <p>Internal separation distances between blocks are considered acceptable. Blank walls have been incorporated into the Eastern and Western elevations of the balconies on Block E so as to avoid direct lines of sight with louvered privacy screens added to the Northern elevation of the balconies of the Eastern and Western most units so as to increase visual privacy without compromising access to light and air to address matters raised during the SRPP briefing on 30 October 2018.</p> <p>It is considered that the orientation of the buildings on the site and layout of units is such that visual privacy is maximized for both the occupants on the site and the adjoining property to the South and therefore satisfies the objectives of 3F.</p> <p>The COS areas are considered separated from private open space areas by a combination of fencing and landscape</p>	<p>Yes</p>
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<p>destinations</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 	<p>connection to the future town centre.</p> <p>Proposed basement car park entry is behind the building line of Block A. Headlight glare is not expected to be an issue.</p> <p>The proposed driveway location is removed from the nearest intersection.</p> <p>Loading/ service areas all screened from view.</p> <p>Vehicle and pedestrian access has been separated.</p> <p>Driveway and vehicular entry width is acceptable.</p> <p>Adequate vehicle, motor bike and bicycle parking provided meeting the requirements of the Metropolitan Sub Regional car parking rates in the RMS Guide to Traffic Generating Development and the rates specified in Chapter E3 of WDCP 2009 for the development. Parking to be provided as basement parking.</p> <p>Appropriate resident bicycle security arrangements are proposed.</p> <ul style="list-style-type: none"> • 170 car parking spaces (including 11 spaces capable of adaption for people with disabilities, and 22 visitor car parking spaces) • A minimum of 7 motorcycle parking spaces • 36 secure (class B) residential bicycle spaces • 9 visitor bicycle spaces (class C). <p>Supporting facilities generally adequately located.</p>	<p>Yes</p> <p>Yes</p>

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<p>wash bays) can be accessed without crossing parking spaces</p> <ul style="list-style-type: none"> - 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. - Ventilation grills or screening devices should be integrated into the façade and landscape design. <p>Part 4 – Designing the building - 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. 2. 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 	<p>Basement layout is appropriate with regard to safety and security.</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; impose conditions in relation to provision of appropriate mechanical ventilation and ducting.</p> <p>Basement car park walls are to be built well within the site boundaries.</p> <p>Car park layout appears to be reasonably efficient.</p> <p>Protrusion of the carpark does not exceed 1m above ground level.</p>	<p>Yes</p>

<i>Standards/controls</i>	<i>Comment</i>	<i>Compliance</i>
<p>habitable rooms and balconies, the following design features are used:</p> <p>Dual aspect,</p> <p>Shallow apartment layouts</p> <p>Bay windows</p> <ul style="list-style-type: none"> - 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 1500mm 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 - Operable shading - High performance glass that minimises external glare 	<p>that apartments allow for good sunlight penetration.</p> <p>Sunlight is not limited in this instance.</p> <p>Glare control is provided in the form of screens and louvre systems and landscape planter beds in the cases of some terraces and balconies.</p>	
<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</i></p>	<p>Units have been generally been designed to achieve cross ventilation.</p>	Yes

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<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 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. <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: 	<p>Apartment size and layout is generally functional, well organised and provides a reasonable standard of amenity for future residents. The unit layout has been considered by the Design Review Panel and is considered to be acceptable.</p> <p>All units achieve compliance with the minimum internal areas specified.</p> <p>All habitable rooms have adequate windows.</p> <p>Habitable room depths comply.</p> <p>Unit depths comply</p> <p>2.7m ceiling heights proposed. All living areas and bedrooms are located on the external face of the building.</p> <p>No habitable rooms exceed 6.75m in depth (2.7m x 2.5).</p> <p>Open plan living areas do not exceed 8m.</p> <p>Living spaces are oriented so as to take advantage of outlook.</p> <p>Bedroom and living room dimensions are adequate.</p>	<p>Yes</p>

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<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> <p>1. Minimum balcony depths are:</p> <table border="1"> <thead> <tr> <th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr> </thead> <tbody> <tr> <td>Studio apartments</td><td>4m²</td><td>-</td></tr> <tr> <td>1 bedroom apartments</td><td>8m²</td><td>2m</td></tr> <tr> <td>2 bedroom apartments</td><td>10m²</td><td>2m</td></tr> <tr> <td>3+ bedroom apartments</td><td>12m²</td><td>2.4m</td></tr> </tbody> </table> <p>The minimum balcony depth to be counted as contributing to the balcony area is 1m.</p> <p>2. Ground level apartment POS must have minimum area of 15m² and min. depth of 3m</p> <p><u>Objective 4E-2</u></p> <p><i>Primary private open space and balconies are appropriately located to enhance liveability for residents</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - 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. <p><u>Objective 4E-3</u></p> <p><i>Primary private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - 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. 	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	<p>All balcony areas achieve the minimum area and depth requirements</p> <p>All ground level apartments POS achieve the minimum required.</p> <p>POS of all units are located adjoining and accessible from living/dining areas.</p> <p>Adequate solar access appears to be available to the private open space areas.</p> <p>Balconies designed to articulate the façade. A variety of materials are proposed, including solid fin walls, glass and operable louvre screens.</p>	<p>Yes</p>
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Standards/controls	Comment	Compliance
<p><u>Objective 4E-4</u></p> <p><i>Private open space and balcony design maximises safety</i></p> <p><u>Design Guidance</u></p> <ul style="list-style-type: none"> - Changes in ground levels or landscaping are minimised. <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>Blocks A to D have a maximum of 5 apartments per level serviced off a single lift.</p> <p>Block E has a maximum of 9 apartments per level serviced off 2 lifts.</p> <p>The corridors are lengthy though are partly articulated and have access to natural light via windows. Unit entries are appropriately located with regard to circulation spaces.</p> <p>No living or bedroom window openings to common circulation spaces.</p> <p>Each lobby is small compact with direct legible access between the lift and the apartment entry doors.</p> <p>Daylight and natural ventilation are provided to common circulation areas.</p>	<p>Yes</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 $29 \times 6\text{m}^3 = 174\text{m}^3$</p> <p>2 bed $79 \times 8\text{m}^3 = 632\text{m}^3$</p> <p>Total required: 806m^3</p>	<p>Yes</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.		Dwelling type	Storage size volume	Studio apartments	4m³	1 bedroom apartments	6m³	2 bedroom apartments	8m³	3+ bedroom apartments	10m³	<p>Individual storage lockers are proposed within the basement carpark. 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.</p> <p>Individual secure storage units proposed for each unit; impose condition to ensure apartment dedication to the residential storage lockers occurs.</p>	Yes
Dwelling type	Storage size volume												
Studio apartments	4m³												
1 bedroom apartments	6m³												
2 bedroom apartments	8m³												
3+ bedroom apartments	10m³												
<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>Adequate building separation is proposed, see Section 3F above.</p> <p>Noisy rooms within each unit are located adjacent or above similar rooms. Any consent issued by Council would require the development to be constructed in accordance with BCA requirements.</p>											
<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		<p>Internal layout provides for appropriate internal acoustic amenity within individual units.</p> <p>The majority of each floor has matching room types to the rooms below / above and adjoining.</p>											

Standards/controls	Comment	Compliance
<p>effective methods to further reduce 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 corners where more building frontage is 	<p>The external environment is not considered to be hostile and noisy.</p> <p>There are seven (7) apartment types ranging from 52m² to 88m² in area with a mixture of 1 and 2 bedroom units proposed. The breakdown of 1 and 2 bedroom units is as follows:</p> <p>29 x 1 BR</p> <p>79 x 2 BR</p> <p>Eleven (11) adaptable units are proposed.</p> <p>The largest units are proposed on the upper levels of the building where greater open space is provided and access to</p>	<p>Yes</p> <p>Yes</p>

Standards/controls	Comment	Compliance
<p>available</p> <p><u>4L Ground floor apartments</u></p> <p><i><u>Objective 4L-1</u></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><u>Objective 4L-2</u></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><u>Objective 4M-1</u></i></p> <p><i>Building facades provide visual interest along the street while respecting the character of the local area</i></p> <p><u>Design guidance</u></p>	<p>extensive views will be available.</p> <p>Ground floor units are considered to have been adequately designed including incorporation of landscaping. Access to the street is afforded in the design.</p> <p>The design of the ground floor court yards is such that privacy is afforded to the occupants without compromising surveillance to the street.</p> <p>Landscaping provides adequate separation for ground floor court yards from communal open space areas.</p> <p>Adequate solar access appears to be available to the private open space areas.</p>	<p>Yes</p> <p>Yes</p>

Standards/controls	Comment	Compliance
<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>The applicant has provided a colour and materials schedule with the application submission. The schedule is considered generally acceptable.</p> <p>Front building façade features a combination of building elements and a mixture of materials; the building provides for a clearly defined base, middle and top.</p> <p>Building services are integrated into the façade in a manner which will not reduce the design quality of the building. Glazing on the street frontage provides for street activation. Entries are well defined and access is reasonably well resolved.</p> <p>Building composition defines the base, middle and top/ tower as required.</p> <p>The proposed building entries are reasonably well defined.</p>	
<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><u>4N Roof design</u></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 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 	<p>The roof design is appropriate.</p> <p>No roof top services are indicated on the plans though conditions are recommended in relation to this issue.</p> <p>No habitable roof space is proposed.</p>	Yes

Standards/controls	Comment	Compliance
<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>4O 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><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><u>Design guidance</u></p> <ul style="list-style-type: none"> - Plants are suited to site conditions <p><u>Objective 4P-3</u></p> <p><i>Planting on structures contributes to the quality and amenity of communal and</i></p>	<p>Landscape design is generally satisfactory. Satisfies relevant provisions. Advice received from Council's Landscape and Environment Officers indicate that the landscaping is conditionally satisfactory.</p> <p>Council's Landscape Officer has reviewed the proposal and the submitted Landscape Plan and has provided conditionally satisfactory referral advice.</p>	<p>Yes</p> <p>Yes</p>

Standards/controls	Comment	Compliance
<p><i>public open spaces</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - 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 <p><u>4Q Universal design</u></p> <p><u>Objective 4Q-1</u></p> <p><i>Universal design features are included in apartment design to promote flexible housing for all community members</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - A universally designed apartment provides design features such as wider circulation spaces, reinforced bathroom walls and easy to reach and operate fixtures <p><u>Objective 4Q-2</u></p> <p><i>A variety of apartments with adaptable designs are provided</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Adaptable housing should be provided in accordance with the relevant council policy <p><u>Objective 4Q-3</u></p> <p><i>Apartment layouts are flexible and accommodate a range of lifestyle needs</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Apartment design incorporates flexible design solutions <p><u>4S Mixed use</u></p> <p><u>Objective 4S-1</u></p> <p><i>Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Mixed use development should be concentrated around public transport 	<p></p> <p></p> <p>11 of the units (>10% of the 108 proposed) are adaptable units. A combination of 1 and 2 bedroom adaptable units are proposed.</p> <p>The applicant has provided a Statement of Compliance Access for People with a Disability that demonstrates the proposed development has been suitably designed for access.</p> <p>Lifts from the street and basement proposed to be provided.</p> <p>.</p> <p>Not Applicable</p>	<p></p> <p>Yes</p> <p></p> <p>N/A</p>

Standards/controls	Comment	Compliance
<p>and centres</p> <ul style="list-style-type: none"> - Mixed use developments positively contribute to the public domain. <p><u>Objective 4S-2</u></p> <p><i>Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Residential circulation areas should be clearly defined. - Landscaped communal open space should be provided at podium or roof levels 		
<p><u>4T Awnings and signage</u></p> <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><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>The applicant proposes that appropriate awnings and lighting will be provided to the proposed development entries</p> <p>No specific signage proposed.</p>	<p>Yes</p>
<p><i>Part 4 – Designing the building - Configuration</i></p> <p><u>4U Energy efficiency</u></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</i></p>	<p>Adequate natural light will be provided to habitable rooms. Further is provided above at Section 4A.</p> <p>The applicant has submitted the required BASIX certificate demonstrating that the proposal meets the minimum BASIX energy efficiency requirements.</p> <p>Heat gain for west facing living rooms and balconies has been addressed through the use of some screening/ louvre systems.</p>	<p>Yes</p>

<i>Standards/controls</i>	<i>Comment</i>	<i>Compliance</i>
<p><i>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>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><u>Objective 4V-1</u></p> <p><i>Potable water use is minimised</i></p>	<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>	Yes
<p><u>Objective 4V-2</u></p> <p><i>Urban stormwater is treated on site before being discharged to receiving waters</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Water sensitive urban design systems are designed by a suitably qualified professional <p><u>Objective 4V-3</u></p> <p><i>Flood management systems are integrated into site design</i></p> <p><u>Design guidance</u></p> <ul style="list-style-type: none"> - Detention tanks should be located under paved areas, driveways or in basement car parks 	<p>The applicant has provided a Water Sensitive Urban Design plan with the development which has been reviewed by Council's Environmental and Stormwater Officers who have considered it consistent with the water quality objectives of WDCP 2009 Chapter E15. Conditions are recommended in this regard.</p> <p>The stormwater design is satisfactory and the design makes provision for the required flood mitigation and management. The flood management system is integrated into the building/ site design.</p>	
<p><u>4W Waste management</u></p> <p><u>Objective 4W-1</u></p> <p><i>Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents</i></p> <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</i></p>	<p>The applicant proposes waste storage external to the buildings to the South of Block E.</p>	Yes

Standards/controls	Comment	Compliance
<p><i>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 to use durable and cleanable materials. Some windows are unable to be accessed from balconies or terraces for ease of cleaning so other cleaning methods will be required to be employed.</p> <p>The walls, windows and openings are protected by roof overhangs.</p>	<p>Yes</p>