

APARTMENT DESIGN GUIDE

100 Edinburgh Road, Castlecrag

The proposed development is defined as a shop top housing under Chapter 4 of the Housing SEPP and therefore is required to consider the Apartment Design Guidelines. The table below provides an assessment of the proposed development against the relevant sections of the ADG.

No.	SEPP 65 Apartment Design Guide	Compliance
Part 3 – SITING THE DEVELOPMENT		
3A	Site Analysis	
3A-1	<i>Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.</i>	Yes – Refer to Site Analysis Section of the Design Report in Appendix F .
3B	Orientation	
3B-1	<i>Building types and layouts respond to the streetscape and site while optimising solar access within the development.</i>	Yes – - Refer to the Streetscape section of the report. - Within the constraints of the Willoughby City Council DCP, the Apartments are located to optimise solar access and minimise overshadowing within the site and to the significant public domain elements.
3B-2	<i>Overshadowing of neighbouring properties is minimised during mid-winter.</i>	Yes – - Within the constraints of the Willoughby City Council DCP, the building forms and orientation have been composed to minimise overshadowing - refer to the report. - Refer to the shadow diagrams showing plan shadows to the adjacent buildings and significant public domain elements.
3C	Public Domain Interface	
3C-1	<i>Transition between private and public domain is achieved without compromising safety and security.</i>	Yes – The apartment lobby opens to the public domain through glazed facades providing good visual amenity toward the public domain. An access

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			control system will be provided to control entry and exit from the apartment lobby. The lobby entry is also within view of primary pedestrian paths along the northern boundary (Edinburgh Road) which in turn will provide good passive surveillance of the area. - All public spaces to the edge of the building are overlooked by the ground level retail tenancies which provides passive surveillance and a visual link. - Opportunities for concealment are minimised with the ground floor mainly glazed.
3C-2	<i>Amenity of the public domain is retained and enhanced.</i>		Yes – Existing public domain at the northern street frontage has been retained and enlarged towards the western street front (at the intersection to Eastern Valley Way) and a new public pedestrian link has been created through the site connecting the public path to the south of the site to Edinburgh Road.
3D	Communal and Public Open Space		
3D-1	<i>An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.</i>		
	Design Criteria	Communal open space has a minimum area equal to 25% of the site.	No – - The total area devoted to communal open space equals 26% of the site area. It is located at: - Ground floor (Resident Communal Open space and publicly accessible public open space).

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			○ Level 1- podium roof (Resident Communal Open space). ○ Level 11 - top roof (Resident Communal Open space).
		Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter).	Yes – • The Level 1 podium roof communal open space is south/north facing and achieve a minimum of two hours of sunlight on 21 June to 50% of the space. • The Level 11 top roof communal open space is south/north facing and achieve a minimum of two hours of sunlight on 21 June to over 50% of the space.
3D-2	<i>Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.</i>		Yes – • Communal open spaces are constituted by an outdoor communal terrace, including play areas, seating and outdoor dining/BBQ spaces.
3D-3	<i>Communal open space is designed to maximise safety.</i>		Yes – • Passive surveillance of space and CPTED principles have been considered throughout the development and is enhanced with CCTV coverage of the public domain and lobby areas. Please refer to Appendix CC for CPTED.
3D-4	<i>Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.</i>		Yes – • Public domain at the northern street frontage has been retained to maintain pedestrian activity along Edinburgh Road which is a main through-fare and provide foot traffic to the retail shops along that street.

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				The north-south link has an active retail presence which is now enhance with the connection through to the existing public foot path on the southern side of the site.												
3E	Deep Soil Zones															
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.			Yes												
	Design Criteria	Deep soil zones are to meet the following minimum requirements: <table><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>		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	Yes – The proposed development provides 11% of the site area as Deep Soil zone. The deep soil zone is located on the Southern and Western sides of the site, providing a great solar access to support plant and tree growth. Southern zone is directly adjoining the existing neighbouring deep soil area.
Site area	Minimum dimensions	Deep soil zone (% of site area)														
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650m ² - 1,500m ²	3m															
greater than 1,500m ²	6m															
greater than 1,500m ² with significant existing tree cover	6m															
3F	Visual Privacy															
3F-1	Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.															
	Design Criteria	Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows: <table><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>		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	Yes – The proposed development is surrounded by low rise building. Building setback are compliant with the planning controls.
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		Separation distances between buildings are as follows:		Yes												

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		3F-2	Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space.	Yes – - Balconies and windows have been designed to avoid overlooking between units. - Balcony planters are utilised on the facade to provide privacy where appropriate without impacting natural ventilation and light.																									

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No.	SEPP 65 Apartment Design Guide	Compliance
3G	Pedestrian Access and Entries	
3G-1	<i>Building entries and pedestrian access connects to and addresses the public domain.</i>	Yes – All entries and pedestrian ways address the greater public domain.
3G-2	<i>Access, entries and pathways are accessible and easy to identify.</i>	Yes – Access requirements have been identified including requirements for access to lobbies, apartments and retail. All have on grade accessible access and contrasting colours for vision impairment. Signage to entrances is provided in addition to site wide way-finding strategies.
3G-3	<i>Large sites provide pedestrian links for access to streets and connection to destinations.</i>	Yes – • Site abounds street on two sides (Edinburgh Road & Eastern Valley Way) • New public pedestrian link has been created through the site connecting the public path to the south of the site to Edinburgh Road.
3H	Vehicle Access	
3H-1	<i>Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.</i>	Yes – The loading dock and the basement carpark share the entry on Edinburgh Rd. It is of adequate width to provide ease of entrance and exit.
3J	Bicycle and Car Parking	
3J-1	<i>Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas.</i>	
	Design Criteria For development in the following locations: • on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or • on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre	Yes – The proposed development provides 204 residential and 172 commercial car bays (376 total), located across 4 levels of basement. Refer to Traffic Report in Appendix Q for details of car parking numbers.

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	the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.	
	The car parking needs for a development must be provided off street.	Yes
3J-2	<i>Parking and facilities are provided for other modes of transport.</i>	Yes – 24 bicycle parking spaces are provided. (Refer Traffic Report in Appendix Q). 22 motorbike parking spaces are provided. (Refer Traffic Report in Appendix Q).
3J-3	<i>Car park design and access is safe and secure.</i>	Yes – The car park is secure with access directly to the residential lobby. Residential lift serves for access to bicycle parking on basement floors in addition to management of waste and loading.
3J-4	<i>Visual and environmental impacts of underground car parking are minimised.</i>	Yes – Parking is below the residential building and is not visible from ground level.
3J-5	<i>Visual and environmental impacts of on-grade car parking are minimised.</i>	Yes – - The impact of entry and loading on ground level is minimised by maintaining a single-entry point. - Existing loading entry location maintained.
3J-6	<i>Visual and environmental impacts of above ground enclosed car parking are minimised.</i>	Yes – There is no above ground parking.

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Part 4 – DESIGNING THE BUILDING		
4A	Solar and Daylight Access	
4A-1	<i>To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.</i>	
	Design Criteria	Yes – 70% of the apartment achieve more than 2 hours of direct sunlight between 9 am and 3 pm at mid-winter. 30% receiving less than 2 hours of Sun at winter solstice. 30% receive no direct sunlight between 9 am and 3 pm at mid-winter.
		No – 30% of apartments in a building receive no direct sunlight between 9am to 3pm at mid-winter. - This is due to achieving high degree of amenity such as generous floor to ceiling clearances (i.e. 3.4m) and a landscaped outlook.
4A-2	<i>Daylight access is maximised where sunlight is limited.</i>	
		Yes – All apartments have been designed to maximise their window openings to capture views and as a consequence, optimise their access to sunlight be it direct, reflected or ambient.

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4A-3	<i>Design incorporates shading and glare control, particularly for warmer months.</i>		Yes – - To all apartments on all levels across the whole development, balconies and sun shading extend to shade summer sun, but allow winter sun to penetrate living areas. - Shading devices such as fixed louvres and balconies are used across the development for specific facade responses. Refer to elevations and 3D imagery.
4B	Natural Ventilation		
4B-1	<i>All habitable rooms are naturally ventilated.</i>		- All apartments have operable windows with compliant open areas. - All balconies have sliding doors opening into the living spaces to maximise ventilation.
4B-2	<i>The layout and design of single aspect apartments maximises natural ventilation.</i>		Yes – Apartments are well orientated where possible to maximise the natural ventilation performance of apartments.
4B-3	<i>The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents.</i>		
	Design Criteria	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.	Yes – 60% of the apartments are cross ventilated. 55% are dual aspect.
		Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.	Yes – All apartments are less than 18m deep.

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4C	Ceiling Heights			
4C-1	Ceiling height achieves sufficient natural ventilation and daylight access.			
	Design Criteria	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	Yes – - All habitable rooms have a minimum ceiling height of 2.7m. - All non-habitable rooms have a minimum ceiling height of 2.4m.	
		Minimum ceiling height for apartment and mixed use buildings		
		Habitable rooms		2.7m
		Non-habitable		2.4m
		For 2 storey apartments		2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area
		Attic spaces		1.8m at edge of room with a 30 degree minimum ceiling slope
If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use			
		These minimums do not preclude higher ceilings if desired.		
4C-2	Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms.		Yes – - All habitable rooms have a minimum ceiling height of 2.7m. - All non-habitable rooms have a minimum ceiling height of 2.4m. - All ceiling mounted services are located in 2400 ceilings over non-habitable areas. Bulkheads do not protrude into habitable spaces.	
4C-3	Ceiling heights contribute to the flexibility of building use over the life of the building.		Yes – - The proposed development is for a residential development with Ground Floor retail and Commercial. - The apartment ceiling heights comply with Objectives 4C-1 and 4C-2.	
4D	Apartment Size and Layout			
4D-1	The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity.			
	Design Criteria	Apartments are required to have the following minimum internal areas:	Yes – All apartments conform to the required minimum internal areas.	

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		<table><tr><th>Apartment type</th><th>Minimum internal area</th></tr><tr><td>Studio</td><td>35m²</td></tr><tr><td>1 bedroom</td><td>50m²</td></tr><tr><td>2 bedroom</td><td>70m²</td></tr><tr><td>3 bedroom</td><td>90m²</td></tr></table>	Apartment type	Minimum internal area	Studio	35m ²	1 bedroom	50m ²	2 bedroom	70m ²	3 bedroom	90m ²	- Apartment sizes have been developed in accordance with the client brief and approvals on the development site whilst providing efficient apartment planning. - The scheme results in the following range of apartment sizes: I. 1 Bed Internal- 59 m² II. 2 Bed Internal - 73 to 97m² III. Duplex 2 Bed Internal - 92m² IV. 3+ Bed Internal - 102 to 145m²
		Apartment type	Minimum internal area										
		Studio	35m ²										
1 bedroom		50m ²											
2 bedroom		70m ²											
3 bedroom	90m ²												
The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m ² each.													
A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m ² each.													
		Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.	Yes – All habitable rooms have windows which represent more than 10% of the floor area of the room.										
4D-2	<i>Environmental performance of the apartment is maximised.</i>												
	Design Criteria	Habitable room depths are limited to a maximum of 2.5 x the ceiling height.	Yes – - All apartments are open plan layouts, with living rooms and bedrooms located against the external envelope of the building to maximise natural light and ventilation. - All apartments have habitable room widths greater than the ADG recommendation allowing for greater daylight penetration.										
		In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.	Yes – All apartments comply with the 8m to the back of the kitchen rule of thumb.										

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4D-3	<i>Apartment layouts are designed to accommodate a variety of household activities and needs.</i>		
	Design Criteria	Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space).	Yes – - All apartments comply with the minimum ADG bedroom sizes. - All apartments comply with the minimum ADG living room widths. - Penthouses have wider living rooms.
		Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	Yes
		Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1-bedroom apartments 4m for 2- and 3-bedroom apartments.	Yes
		The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.	Yes

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4E	Private Open Space and Balconies																			
4E-1	<i>Apartments provide appropriately sized private open space and balconies to enhance residential amenity.</i> <table> <tr> <td>Design Criteria</td><td> All apartments are required to have primary balconies as follows: <table> <tr> <th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr> <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> </table> The minimum balcony depth to be counted as contributing to the balcony area is 1m. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m. </td><td> Yes – - Majority of the proposed apartment balcony areas satisfy the ADG objectives. - The scheme results in the following range of balcony sizes: I. 1 Bed External Area- 8 to 10m² II. 2 Bed External Area - 13 to 27m² III. Duplex 2 Bed External Area - 16m² IV. 3 Bed External Area - 15 to 27m² V. Penthouse External area - 33m² Yes – For apartments on a podium Level 1 and Level 4, a private open space is provided instead of a balcony. </td></tr> </table>	Design Criteria	All apartments are required to have primary balconies as follows: <table> <tr> <th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr> <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> </table> The minimum balcony depth to be counted as contributing to the balcony area is 1m. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m.	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	Yes – - Majority of the proposed apartment balcony areas satisfy the ADG objectives. - The scheme results in the following range of balcony sizes: I. 1 Bed External Area- 8 to 10m² II. 2 Bed External Area - 13 to 27m² III. Duplex 2 Bed External Area - 16m² IV. 3 Bed External Area - 15 to 27m² V. Penthouse External area - 33m² Yes – For apartments on a podium Level 1 and Level 4, a private open space is provided instead of a balcony.	
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4E-2	<i>Primary private open space and balconies are appropriately located to enhance liveability for residents.</i>	Yes – Balconies are located off the living areas to maximise sunlight and views.																		

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4E-3	<i>Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building.</i>		Yes – - Balconies are located within the building envelope to become an integral part of the form. - Balcony planters are used to control sunlight and winds.
4E-4	<i>Private open space and balcony design maximises safety.</i>		Yes – - The proposed development satisfies the requirements of the objective. - The handrail design is contiguous across the width of all balconies, and the heights are compliant with the Australian Standards and NCC.
4F	Common Circulation and Spaces		
4F-1	<i>Common circulation spaces achieve good amenity and properly service the number of apartments.</i>		
	Design Criteria	The maximum number of apartments off a circulation core on a single level is eight.	N/A – Not applicable, the building is of 11 storeys.
		For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	Yes – - Four (4) resident lifts are proposed. - There is also two (2) additional commercial lift accessing Ground Floor, Lower Ground Floor, Basement 1 and Basement and, a three (3) additional goods lifts for the Supermarket on Ground Floor, Lower Ground Floor and Basement 1.
4F-2	<i>Common circulation spaces promote safety and provide for social interaction between residents.</i>		Yes – Areas in front of lifts and corridor widths allow for sufficient circulation space and interaction of residents.

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4G	Storage		
4G-1	Adequate, well-designed storage is provided in each apartment.		
	Design Criteria	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	Yes – Storage is provided in all the apartments.
		At least 50% of the required storage is to be located within the apartment.	
4G-2	Additional storage is conveniently located, accessible and nominated for individual apartments.		Yes – - Storage cages being provided in Basement 3 and Basement 4. - On grade accessible access is provided to storage facilities.
4H	Acoustic Privacy		
4H-1	Noise transfer is minimised through the siting of buildings and building layout.		Yes – Generally, apartments are arranged side by side to assist in the resolution of acoustic separation and zoning. Noise sources such as lift shafts and common corridors have also been taken into account.
4H-2	Noise impacts are mitigated within apartments through layout and acoustic treatments.		Yes – Where possible, rooms with similar noise requirements are grouped together. Wardrobes are also used as sound buffers.
4J	Noise and Pollution		
4J-1	In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings.		Yes – - Generally, apartments are arranged side by side to assist in the resolution of acoustic separation and zoning. - Noise sources such as lift shafts and common corridors have also been taken into account.

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		Operable screens and louvres are proposed to balconies to provide a sense of enclosure and privacy when desired.
4J-2	<i>Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.</i>	Yes – - Insulation will be provided to the facade walls to minimise noise. Elements of solid walls are provided to the balcony areas to further minimise noise transfer. - The use of solid wall construction and appropriately insulated window will mitigate the proximity of the Edinburgh Road rail corridor.
4K	Apartment Mix	
4K-1	<i>A range of apartment types and sizes is provided to cater for different household types now and into the future.</i>	Yes – A range of apartment types are provided across the entire development, including, large 1 bed, 2 bed, 3 bed and 4 bed apartments, with the addition of affordable housing units, 3 beds penthouses and 2 bed multi-level units.
4K-2	<i>The apartment mix is distributed to suitable locations within the building.</i>	Yes – The mix is distributed evenly across the floors with the premium/larger apartments taking up the upper levels and prime location.
4L	Ground Floor Apartments	
4L-1	<i>Street frontage activity is maximised where ground floor apartments are located.</i>	Yes – No ground floor apartments are located directly off of street on Edinburgh Road or along Eastern Valley Way so will not impact street front activity.

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4L-2	<i>Design of ground floor apartments delivers amenity and safety for residents.</i>	Yes – Ground floor apartments are accessed through a secure building lobby.
4M	Façades	
4M-1	<i>Building facades provide visual interest along the street while respecting the character of the local area.</i>	Yes – The facades have been studied in detail in terms of local materiality, environmental response, enhancement of the public domain and modulation of scale and residential rhythm.
4M-2	<i>Building functions are expressed by the façade.</i>	Yes – Refer to facade information in Design Verification Statement (Appendix G).
4N	Roof Design	
4N-1	<i>Roof treatments are integrated into the building design and positively respond to the street.</i>	Yes – The east and west facing parts of the roof areas are used as terraces for apartments.
4N-2	<i>Opportunities to use roof space for residential accommodation and open space are maximised.</i>	Yes – The roof areas are used as terraces for the apartments. The roof areas on the podium (level 1 & level 4) are used as private open space for the residents.
4N-3	<i>Roof design incorporates sustainability features.</i>	Yes – Rooftop landscaping is proposed as part of the rainwater harvesting system.
4O	Landscape Design	

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4O-1	<i>Landscape design is viable and sustainable.</i>	Yes – Selected plants provide visual interest through form, texture and variations in seasonal colour. Raised perimeter mass planting beds are provided on the terrace gardens to define outdoor entertainment areas and to enhance privacy screens between neighbouring terraces. Stormwater is to be harvested and retained on site for re-use in the planter bed irrigation system.
4O-2	<i>Landscape design contributes to the streetscape and amenity.</i>	Yes – The proposed urban and landscape design creates a unique sense of place fully integrated with the nature of the architectural proposition.
4P	Planting on Structures	
4P-1	<i>Appropriate soil profiles are provided.</i>	Yes – Raised planters across the entire proposed development provides sufficient soil depth for planting appropriately scaled plants.
4P-2	<i>Plant growth is optimised with appropriate selection and maintenance.</i>	Yes – Plant selection will be a combination of groundcovers, climbing plants and selection of plants suitable for external terraces. The soil formation will be framed in planters to provide a variety of soil depths to ensure a diverse selection of species types.
4P-3	<i>Planting on structures contributes to the quality and amenity of communal and public open spaces.</i>	Yes – Refer to Landscape Report in Appendix T .
4Q	Universal Design	
4Q-1	<i>Universal design features are included in apartment design to promote flexible housing for all community members.</i>	Yes

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4Q-2	<i>A variety of apartments with adaptable designs are provided.</i>	Yes – - An adaptable apartment type is provided with a total of 24 apartments located on Levels 1-3. - Equitable access is provided to all adaptable apartment doors in accordance with AS 1428.2
4Q-3	<i>Apartment layouts are flexible and accommodate a range of lifestyle needs.</i>	Yes – Apartment layouts are flexible and can accommodate different furniture layout to suit range of lifestyle. Light weight internal partitions are proposed to permit layouts to be changed at later date to suit requirements.
4R	Adaptive Reuse	
4R-1	<i>New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place.</i>	N/A
4R-2	<i>Adapted buildings provide residential amenity while not precluding future adaptive reuse.</i>	N/A
4S	Mixed Use	
4S-1	<i>Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement.</i>	Yes – The project is a compliant mixed-use development within the approved boundaries and given the retail locations and expected pedestrian activation of the precinct, the proposed development will achieve the objective.
4S-2	<i>Residential levels of the building are integrated within the development, and safety and amenity are maximised for residents.</i>	Yes – The proposed development satisfies the requirements of the objective. Please refer to the drawing documentation which illustrates compliance with this.
4T	Awnings and Signage	
4T-1	<i>Awnings are well located and complement and integrate with the building design.</i>	Yes – The proposed development satisfies the requirements of the objective. Please refer to the

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		drawing documentation which illustrates compliance with this objective.
4T-2	<i>Signage responds to the context and desired streetscape character.</i>	Yes – Signage to be developed under separate application.
4U	Energy Efficiency	
4U-1	<i>Development incorporates passive environmental design.</i>	Yes – - See 'Solar and Daylight Access' for natural daylighting. - All apartments have internal drying facilities and where indicated, screened balconies.
4U-2	<i>Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer.</i>	Yes – The proposed development satisfies the requirements of the objective. Please refer to the drawing documentation which illustrates compliance with this objective.
4U-3	<i>Adequate natural ventilation minimises the need for mechanical ventilation.</i>	Yes – Natural ventilation is provided.
4V	Water Management and Conservation	
4V-1	<i>Potable water use is minimised.</i>	Yes – The proposed development satisfies the requirements of the objective.
4V-2	<i>Urban stormwater is treated on site before being discharged to receiving waters.</i>	Yes – The proposed development satisfies the requirements of the objective. Refer to Water Management Plan.
4V-3	<i>Flood management systems are integrated into site design.</i>	Yes – All Ground Floor levels have been designed to suit flood levels and freeboard requirements.
4W	Waste Management	
4W-1	<i>Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.</i>	Yes – All waste storage and management facilities are located on basement

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		and are not accessible nor visible to the general public.
4W-2	<i>Domestic waste is minimised by providing safe and convenient source separation and recycling.</i>	Yes – A dual garbage & recycling chute is provided to all the apartments.
4X	Building Maintenance	
4X-1	<i>Building design detail provides protection from weathering.</i>	Yes – The materiality and detailing of the proposed development are in keeping with the client brief, building typology and expected building life.
4X-2	<i>Systems and access enable ease of maintenance.</i>	Yes – All facades are accessible for cleaning and maintenance via rope access.
4X-3	<i>Material selection reduces ongoing maintenance costs.</i>	Yes – Materials have been carefully selected to require minimum ongoing maintenance.

The assessment table above demonstrates that the proposed development complies with all of the key design criteria of the Apartment Design Guide.