APARTMENT DESIGN GUIDE

The Apartment Design Guide (ADG) accompanies State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development, and is designed to:

- *deliver better quality design for buildings that respond appropriately to the character of the area, landscape setting and surrounding built form*
- *improve liveability through enhanced internal and external apartment amenity, including better layout, apartment depth and ceiling heights, solar access, natural ventilation and visual privacy*
- *deliver improved sustainability through better traffic and transport solutions, greater building adaptability and robustness, improved energy efficiency and water sensitive urban design*
- *improve the relationship of apartments to the public domain including streets, lanes and parks*
- *deliver design guidance and assist in the provision of more diverse housing mix and choice*
- *support councils in developing planning controls and master plans through improved guidance.*

The ADG provides design guidance on design and siting elements for apartment developments. The below table summarises the objectives of the ADG in relation to the siting and design of the apartment development, and addresses explicit Design Criteria provided.

Table 1

Apartment Design Guide: Objectives and Design Criteria

OBJECTIVES		COMMENTS
PART 3: SITING THE DEVELOPMENT		
3A – SITE ANALYSIS		
Objective 3A-1	Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.	Refer to site analysis submitted with the Environmental Assessment.
3B – ORIENTATION		
Objective 3B-1	Building types and layouts respond to the streetscape and site while optimising solar access within the development.	Complies. The proposal adaptively reuses existing infrastructure whilst responding to the residential environment with an appropriate infill design.
Objective 3B-2	Overshadowing of neighbouring properties is minimised during mid-winter.	Complies. See Architectural Plans.
3C – PUBLIC DOMAIN INTERFACE		
Objective 3C-1	Transition between private and public domain is achieved without compromising safety and security.	Complies.
Objective 3C-2	Amenity of the public domain is retained and enhanced.	Complies.
3D – COMMUNAL AND PUBLIC OPEN SPACE		
Objective 3D-1	An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.	Complies.
	Design Criteria	
	1. Communal open space has a minimum area equal to 25% of the site (see figure 3D.3).	3,255.1m^2 of communal open space of varying dimensions and functionality is provided at ground level and upon roof terraces, the equivalent of 46.56% of site area. See Landscape Concept Plans (Issue D) and Landscape Design Statement dated June 2017.
	2. Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter).	Complies. Large areas upon the Pitt Street frontage and roof terraces will receive adequate sunlight at mid-winter.
Objective 3D-2	Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.	Complies. See Landscape Concept Plans (Issue D) and Landscape Design Statement dated June 2017.

	OBJECTIVES	COMMENTS
Objective 3D-3	Communal open space is designed to maximise safety.	Complies.
Objective 3D-4	Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.	N/A.
3E – DEEP SOIL ZONES		
Objective 3E-1	Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality.	Complies.

Design Criteria

1. Deep soil zones are to meet the following minimum requirements:

The proposal is an adaptive reuse of a previously wholly developed and excavated site. There is negligible change to the approved building footprint.

Site Area	Minimum Dimensions	Deep Soil Zone (% of Site Area)
Less than 650m^2	-	7%
650m^2-1,500m^2	3m	
Greater than 1,500m^2	6m	
Greater than 1,500m^2 with significant existing tree cover	6m	

3F – VISUAL PRIVACY		
Objective 3F-1	Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.	Complies.

Design Criteria

1. 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:

See Sections 2 & 3 of the RTS.

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

Note:

Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2).

Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties.

Objective 3F-2	Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space.	Complies.
3G – PEDESTIRAN ACCESS AND ENTRIES		
Objective 3G-1	Building entries and pedestrian access connects to and addresses the public domain.	Complies.

	OBJECTIVES	COMMENTS
Objective 3G-2	Access, entries and pathways are accessible and easy to identify.	Complies.
Objective 3G-3	Large sites provide pedestrian links for access to streets and connection to destinations.	N/A.
3H – VEHICLE ACCESS		
Objective 3H-1	Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.	No change from approved vehicular access arrangement. See Assessment of Traffic and Parking Implications dated May 2017, which concludes that the proposed modification will be less than that associated with the former use and will not present any adverse traffic implications.
3J – BICYCLE AND CAR PARKING		
Objective 3J-1	Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas.	Complies.
	Design Criteria 1. For development in the following locations: • on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or • on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre. the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less. The car parking needs for a development must be provided off street.	Noted.
Objective 3J-2	Parking and facilities are provided for other modes of transport.	Complies.
Objective 3J-3	Car park design and access is safe and secure.	Complies.
Objective 3J-4	Visual and environmental impacts of underground car parking are minimised.	Complies.
Objective 3J-5	Visual and environmental impacts of on-grade car parking are minimised.	N/A.
Objective 3J-6	Visual and environmental impacts of above ground enclosed car parking are minimised.	N/A.
PART 4 (A-J): DESIGNING THE DEVELOPMENT – AMENITY		
4A – SOLAR AND DAYLIGHT ACCESS		
Objective 4A-1	To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.	Complies.
	Design Criteria 1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.	Complies. 71.2% of apartments achieve direct solar access.
	2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid-winter.	N/A.
	3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.	Complies. 13.2% of apartments achieve no direct sunlight only.
Objective 4A-2	Daylight access is maximised where sunlight is limited.	Complies.
Objective 4A-3	Design incorporates shading and glare control, particularly for warmer months.	Able to comply.

OBJECTIVES		COMMENTS
4B – NATURAL VENTILATION		
Objective 4B-1	All habitable rooms are naturally ventilated.	Complies.
Objective 4B-2	The layout and design of single aspect apartments maximises natural ventilation.	Complies.
Objective 4B-3	The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents.	Complies.
	Design Criteria	
	1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.	Complies. 64.2% of apartments are naturally cross ventilated.
	2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.	Complies.
4C – CEILING HEIGHTS		
Objective 4C-1	Ceiling height achieves sufficient natural ventilation and daylight access.	Complies.
	Design Criteria	
	1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	Complies.

Minimum Ceiling Height for Apartment and Mixed Use Buildings	
Habitable rooms	2.7m
Non-habitable	2.4m
For 2 storey apartments	2.7m for the 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 use areas	3.3m for ground and first floor to promote future flexibility of use

These minimums do not preclude higher ceilings if desired

Objective 4C-2	Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms.	Complies.
Objective 4C-3	Ceiling heights contribute to the flexibility of building use over the life of the building.	Complies.
4D – APARTMENT SIZE AND LAYOUT		
Objective 4D-1	The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity.	Complies.
	Design Criteria	
	1. Apartments are required to have the following minimum internal areas:	Complies.

Apartment Type	Minimum Internal Area
Studio	35m^2
1 bedroom	50m^2

OBJECTIVES		COMMENTS
	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.	Complies.
	2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.	Complies.
Objective 4D-2	Environmental performance of the apartment is maximised.	Complies.
	Design Criteria	
	1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height.	Complies.
	2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.	Complies.
Objective 4D-3	Apartment layouts are designed to accommodate a variety of household activities and needs.	Complies.
	Design Criteria	
	1. Master bedrooms have a minimum area of 10m^2 and other bedrooms 9m^2 (excluding wardrobe space).	Complies.
	2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	Complies.
	3. 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	Complies.
	4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.	Complies.
4E – PRIVATE OPEN SPACE AND BALCONIES		
Objective 4E-1	Apartments provide appropriately sized private open space and balconies to enhance residential amenity.	Complies.
	Design Criteria	
	1. All apartments are required to have primary balconies as follows:	Complies.

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.

	OBJECTIVES	COMMENTS
	2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m^2 and a minimum depth of 3m.	The building footprint is unchanged and all units are provisioned with balconies that meet Design Criteria 1. The ground floor apartments generally have outlook across generous landscaped building circulation areas.
Objective 4E-2	Primary private open space and balconies are appropriately located to enhance liveability for residents.	Complies.
Objective 4E-3	Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building.	Complies.
Objective 4E-4	Private open space and balcony design maximises safety.	Complies.
4F – COMMON CIRCULATION AND SPACES		
Objective 4F-1	Common circulation spaces achieve good amenity and properly service the number of apartments.	Complies.
	Design Criteria	
	1. The maximum number of apartments off a circulation core on a single level is eight.	Complies.
	2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	N/A.
Objective 4F-2	Common circulation spaces promote safety and provide for social interaction between residents.	Complies.
4G – STORAGE		
Objective 4G-1	Adequate, well designed storage is provided in each apartment.	Complies.
	Design Criteria	
	1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	Complies. Storage areas are shown on internal apartment plans and in basement plan.

Dwelling Type	Storage Size Volume
Studio apartments	4m^3
1 bedroom apartments	6m^3
2 bedroom apartments	8m^3
3+ bedroom apartments	10m^3

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

Objective 4G-2	Additional storage is conveniently located, accessible and nominated for individual apartments.	Complies.
4H – ACOUSTIC PRIVACY		
Objective 4H-1	Noise transfer is minimised through the siting of buildings and building layout.	Complies.
Objective 4H-2	Noise impacts are mitigated within apartments through layout and acoustic treatments.	Complies.
4J – NOISE AND POLLUTION		
Objective 4J-1	In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings.	See Acoustic Assessment submitted with the the Environmental Assessment.
Objective 4J-2	Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.	See Acoustic Assessment submitted with the the Environmental Assessment.

OBJECTIVES		COMMENTS
PART 4 (K-T): DESIGNING THE DEVELOPMENT – CONFIGURATION		
4K – APARTMENT MIX		
Objective 4K-1	A range of apartment types and sizes is provided to cater for different household types now and into the future.	Complies.
Objective 4K-2	The apartment mix is distributed to suitable locations within the building.	Complies.
4L – GROUND FLOOR APARTMENTS		
Objective 4L-1	Street frontage activity is maximised where ground floor apartments are located.	Complies.
Objective 4L-2	Design of ground floor apartments delivers amenity and safety for residents.	Complies.
4M – FACADES		
Objective 4M-1	Building facades provide visual interest along the street while respecting the character of the local area.	Complies.
Objective 4M-2	Building functions are expressed by the façade.	Complies.
4N – ROOF DESIGN		
Objective 4N-1	Roof treatments are integrated into the building design and positively respond to the street.	Complies.
Objective 4N-2	Opportunities to use roof space for residential accommodation and open space are maximised.	Complies.
Objective 4N-3	Roof design incorporates sustainability features.	Able to comply.
4O – LANDSCAPE DESIGN		
Objective 4O-1	Landscape design is viable and sustainable.	Complies.
Objective 4O-2	Landscape design contributes to the streetscape and amenity.	Complies.
4P – PLANTING ON STRUCTURES		
Objective 4P-1	Appropriate soil profiles are provided.	Complies.
Objective 4P-2	Plant growth is optimised with appropriate selection and maintenance.	Complies.
Objective 4P-3	Planting on structures contributes to the quality and amenity of communal and public open spaces.	Complies.
4Q – UNIVERSAL DESIGN		
Objective 4Q-1	Universal design features are included in apartment design to promote flexible housing for all community members.	Complies.
Objective 4Q-2	A variety of apartments with adaptable designs are provided.	Complies.
Objective 4Q-3	Apartment layouts are flexible and accommodate a range of lifestyle needs.	Complies.
4R – ADAPTIVE REUSE		
Objective 4R-1	New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place.	Complies. Refer to the Revised Heritage Impact Statement prepared by Extent and the heritage letter prepared by Weir Phillips Heritage.
Objective 4R-2	Adapted buildings provide residential amenity while not precluding future adaptive reuse.	Complies. Refer to the Revised Heritage Impact Statement prepared by Extent and the heritage letter prepared by Weir Phillips Heritage.
4S – MIXED USE		
Objective 4S-1	Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement.	N/A.

	OBJECTIVES	COMMENTS
Objective 4S-2	Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents.	N/A.
4T – AWNINGS AND SIGNAGE		
Objective 4T-1	Awnings are well located and complement and integrate with the building design.	N/A.
Objective 4T-2	Signage responds to the context and desired streetscape character.	N/A.
PART 4 (U-X): DESIGNING THE DEVELOPMENT – PERFORMANCE		
4U – ENERGY EFFICIENCY		
Objective 4U-1	Development incorporates passive environmental design.	Complies through solar access and natural ventilation.
Objective 4U-2	Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer.	Complies.
Objective 4U-3	Adequate natural ventilation minimises the need for mechanical ventilation.	Complies.
4V – WATER MANAGEMENT AND CONSERVATION		
Objective 4V-1	Potable water use is minimised.	Complies.
Objective 4V-2	Urban stormwater is treated on site before being discharged to receiving waters.	Complies.
Objective 4V-3	Flood management systems are integrated into site design.	N/A.
4W – WASTE MANAGEMENT		
Objective 4W-1	Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.	Complies.
Objective 4W-2	Domestic waste is minimised by providing safe and convenient source separation and recycling.	Complies.
4X – BUILDING MAINTENANCE		
Objective 4X-1	Building design detail provides protection from weathering.	Complies.
Objective 4X-2	Systems and access enable ease of maintenance.	Complies.
Objective 4X-3	Material selection reduces ongoing maintenance costs.	Complies.