

Attachment 4 - ADG assessment table - Apartment Design Guide

DA-2022/938 – 4-8 Parkinson Street & 377-383 Crown Street, Wollongong

<u>3A Site analysis</u>	
<i>Objective 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.	The applicant has provided a site and design analysis which demonstrates an understanding of the site's relationship to neighbouring development and the proposed building form.
<u>3B Orientation</u>	
<i>Objective 3B-1</i> Building types and layouts respond to the streetscape and site while optimising solar access within the development	Sun eye diagrams have been provided. Adequate solar access has been provided within the development. The layout responds to the streetscape.
<i>Objective 3B-2</i> Overshadowing of neighbouring properties is minimised during mid-winter	Shadow diagrams and view from sun diagrams have been provided illustrating the impacts to the adjoining development. Shadow diagrams and view from sun diagrams have been provided illustrating the impacts to the adjoining development. Shadow diagrams and view from sun diagrams have been provided illustrating the impacts to the adjoining development. Overshadowing to the south of the property is inevitable due to the proposed height of the building and the slope of the site from Crown Street to Parkinson Street.
<u>3C Public domain interface</u>	
<i>Objective 3C-1</i> Transition between private and public domain is achieved without compromising safety and security	Adequate transition between spaces provided.
<i>Objective 3C-2</i> Amenity of the public domain is retained and enhanced	The proposed design is likely to enhance the pedestrian experience and public amenity of the area. Upgrades to the footpath to ensure accessibility, covered awnings, and more active street frontages.
<u>3D Communal and public open space</u>	
<i>Objective 3D-1</i> An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.	An appropriate amount of COS is provided. Refer to variation request in ADG.

1. Communal open space has a minimum area equal to 25% of the site 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	Adequate solar access provided to COS area. Required Communal Open Space Achieving 2 hours Solar 50% of 470sqm = 235sqm Proposed Communal Open Space Achieving 2 hours Solar 266sqm of 470sqm =56%
<i>Objective 3D-2</i> Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting	Design is acceptable.
<i>Objective 3D-3</i> Communal open space is designed to maximise safety	No safety concerns.
<i>Objective 3D-4</i> Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood	NA – no public open space
<u>3E Deep soil zones</u>	
<i>Objective 3E-1</i> 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 1. Deep soil zone is 7% of site area with a minimum dimension of 6m	Not provided- commercial zoning.
<u>3F Visual privacy</u>	
<i>Objective 3F-1</i> Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy 1. Building separation (habitable): - 4 storeys 6m - 5-8 storeys 9m - 9+ storeys 12m	Clause 4.6 submission has been submitted with respect to building separation. The residential apartments start at level 10 which is the 6th storey of the Crown Street tower. The development within 6-8 storeys complies with the 9m setback requirement to the east and west. Above 9 storeys, the development achieves the required 12m setback to the eastern and western boundaries up the full height of 21 storeys.
<i>Objective 3F-2</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	Adequate levels of privacy have been provided from habitable rooms and POS areas.

<u>3G Pedestrian access and entries</u>	
<i>Objective 3G-1</i> Building entries and pedestrian access connects to and addresses the public domain	Generally, entrances front street with clear residential lobbies.
<i>Objective 3G-2</i> Access, entries and pathways are accessible and easy to identify	Generally acceptable, clear access from the ground floor parking to shops is provided, through a separate commercial lobby. Satisfactory for residential and retail areas.
<i>Objective 3G-3</i> Large sites provide pedestrian links for access to streets and connection to destinations	NA – site is unlikely to connect to other sites.
<u>3H Vehicle access</u>	
<i>Objective 3H-1</i> Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	The location of the main vehicular and loading access point is considered acceptable.
<u>3J Bicycle and car parking</u>	
<i>Objective 3J-1</i> Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	Car parking rates are compliant with Council's DCP controls.
<i>Objective 3J-2</i> Parking and facilities are provided for other modes of transport	Bicycle parking and motorcycle parking are provided within the parking areas.
<i>Objective 3J-3</i> Car park design and access is safe and secure	Carparking is generally controlled through boom gate access, a secure roller door has been added to prevent pedestrian access to residential area.
<i>Objective 3J-4</i> Visual and environmental impacts of underground car parking are minimised	No impacts are anticipated.
<i>Objective 3J-5</i> Visual and environmental impacts of on-grade car parking are minimised	Ground floor parking is sleeved to the street with retail which is appropriate while providing amenity for business premises.
<i>Objective 3J-6</i> Visual and environmental impacts of above ground enclosed car parking are minimised	N/A

Part 4 Designing the building	
<u>4A Solar and daylight access</u>	
<i>Objective 4A-1</i> To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space 1. 70% receive 2 hours sunlight between 9am and 3pm on winter solstice 3. Maximum of 15% receive no direct sunlight between 9am and 3pm on winter solstice	Solar compliance table and improved Sun's eye view diagrams have been provided. The development appears to comply with solar access requirements
<i>Objective 4A-2</i> Daylight access is maximised where sunlight is limited	It appears as if this has been attempted and satisfactory.
<i>Objective 4A-3</i> Design incorporates shading and glare control, particularly for warmer months	Windows and balconies are well positioned to maximise solar access in winter months.
<u>4B Natural ventilation</u>	
<i>Objective 4B-1</i> All habitable rooms are naturally ventilated	Elevations have been updated to show which windows are operable and which windows are fixed. It appears that all habitable rooms provide natural ventilation..
<i>Objective 4B-2</i> The layout and design of single aspect apartments maximises natural ventilation	3 single aspect units rely on plenums to achieve natural ventilation. Refer comments below regarding plenum details.
<i>Objective 4B-3</i> The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents 1. 60% of apartments are naturally cross ventilated 2. Overall depth of an apartment does not exceed 18m	Cross ventilation complies. 18 out of 30 units have been nominated as achieving cross ventilation which equates to 60%.
<u>4C Ceiling heights</u>	
<i>Objective 4C-1</i> Ceiling height achieves sufficient natural ventilation and daylight access 1. Minimum ceiling height of 2.7m for habitable rooms, 2.4m for non-habitable rooms, 3.3m for ground and first floor in mixed use areas	All other units appear to have compliant ceiling heights to all habitable rooms.
<i>Objective 4C-2</i>	

Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms	All ceiling heights within units appear to comply.
<i>Objective 4C-3</i> Ceiling heights contribute to the flexibility of building use over the life of the building	N/A – All residential units start at level 10
<u>4D Apartment size and layout</u>	
<i>Objective 4D-1</i> The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity - Minimum apartment size: - Studio 35sqm - 1-bedroom 50sqm - 2-bedroom 70sqm - 3-bedroom 90sqm - Every habitable room must have a window with a total minimum glass area of not less than 10% of the floor area of the room.	Unit sizes appear to comply with minimum requirements.
<i>Objective 4D-2</i> Environmental performance of the apartment is maximised - Habitable room depths are limited to a maximum of 2.5 x the ceiling height - In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Apartments all appear to meet minimum depths.
<i>Objective 4D-3</i> Apartment layouts are designed to accommodate a variety of household activities and needs - Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space) - Bedrooms have a minimum dimension of 3m (exc wardrobe) - Living rooms or combined living/dining rooms have a minimum width of: - 3.6m for studio / 1 bed - 4m for 2+ beds - The width of cross-over or cross-through apartments are at least 4m	Room sizes appear to comply with minimum requirements.

internally to avoid deep narrow apartment layouts	
<u>4E Private open space and balconies</u>	
<i>Objective 4E-1</i> Apartments provide appropriately sized private open space and balconies to enhance residential amenity 1. Minimum balconies: - Studio 4sqm - 1 bed 8sqm / 2m depth - 2 bed 10sqm / 2m - 3 bed 12sqm / 2.4m 2. Podium level apartments have a POS of 15sqm and depth of 3m	Balcony sizes appear to comply with minimum requirements.
<i>Objective 4E-2</i> Primary private open space and balconies are appropriately located to enhance liveability for residents	No privacy concerns anticipated.
<i>Objective 4E-3</i> Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	POS balconies are well integrated within the built form.
<i>Objective 4E-4</i> Private open space and balcony design maximises safety	Acceptable.
<u>4F Common circulation and spaces</u>	
<i>Objective 4F-1</i> Common circulation spaces achieve good amenity and properly service the number of apartments 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	An additional lift has been added to ensure there are no more than 40 units per lift. (Total 93 units for 3 lifts).
<i>Objective 4F-2</i> Common circulation spaces promote safety and provide for social interaction between residents	Circulation areas are acceptable.
<u>4G Storage</u>	
<i>Objective 4G-1</i> Adequate, well designed storage is provided in each apartment	Storage generally appears compliant. Storage Schedule has been provided.

1. Storage required, of which 50% is in the apartment: • Studio 4m³ • 1 bed 6 m³ • 2 bed 8 m³ • 3+ bed 10 m³	
<i>Objective 4G-2</i> <i>Additional storage is conveniently located, accessible and nominated for individual apartments</i>	Generally acceptable.
<u>4H Acoustic privacy</u>	
<i>Objective 4H-1</i> Noise transfer is minimised through the siting of buildings and building layout	Generally acceptable. Acoustic report submitted with the recommendations conditioned.
<i>Objective 4H-2</i> Noise impacts are mitigated within apartments through layout and acoustic treatments	Generally acceptable.
<u>4J Noise and pollution</u>	
<i>Objective 4J-1</i> In noisy or hostile environments, the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	The development will need to meet the requirements of Clause 102 of the State Environmental Planning Policy – (Infrastructure) 2007, AS 2107 ‘Acoustics – Recommended Design Sound Levels and Reverberation Times’, and Council requirements. Conditions have been imposed.
<i>Objective 4J-2</i> Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission	Acceptable by Council’s Environment Officer and conditions provided.
<u>4K Apartment mix</u>	
<i>Objective 4K-1</i> A range of apartment types and sizes is provided to cater for different household types now and into the future	The development includes 93 units, of which 19 are one bed (20%), 58 are two bed (62%) and 16 are 3 bed units (17%). This is likely to be an appropriate mix in this area.
<i>Objective 4K-2</i> The apartment mix is distributed to suitable locations within the building	Generally acceptable, with units spread throughout the building for a mix of household types.
<u>4L Ground floor apartments</u>	
<i>Objective 4L-1</i>	NA

Street frontage activity is maximised where ground floor apartments are located	
<i>Objective 4L-2</i> Design of ground floor apartments delivers amenity and safety for residents	NA
<u>4M Facades</u>	
<i>Objective 4M-1</i> Building facades provide visual interest along the street while respecting the character of the local area <i>Objective 4M-2</i> Building functions are expressed by the façade	Façades provide a sufficient amount of visual interest.
<u>4N Roof design</u>	
<i>Objective 4N-1</i> Roof treatments are integrated into the building design and positively respond to the street	The roof of the main tower is well integrated into the building design
<i>Objective 4N-2</i> Opportunities to use roof space for residential accommodation and open space are maximised	This space will likely be needed for services.
<i>Objective 4N-3</i> Roof design incorporates sustainability features	Roof incorporates solar panels.
<u>4O Landscape design</u>	
<i>Objective 4O-1</i> Landscape design is viable and sustainable	Landscape referral has been returned satisfactory.
<i>Objective 4O-2</i> Landscape design contributes to the streetscape and amenity	Generally acceptable, and landscape referral has been returned satisfactory.
<u>4P Planting on structures</u>	
<i>Objective 4P-1</i> Appropriate soil profiles are provided	Generally acceptable, and landscape referral has been returned satisfactory.
<i>Objective 4P-2</i> Plant growth is optimised with appropriate selection and maintenance	Generally acceptable, and landscape referral has been returned satisfactory.
<i>Objective 4P-3</i> Planting on structures contributes to the quality and amenity of communal and public open spaces	Generally acceptable, and landscape referral has been returned satisfactory.

<u>4Q Universal design</u>	
<i>Objective 4Q-1</i> Universal design features are included in apartment design to promote flexible housing for all community members	21% of units have been provided as silver livable.
<i>Objective 4Q-2</i> A variety of apartments with adaptable designs are provided	21% of units have been provided as adaptable.
<i>Objective 4Q-3</i> Apartment layouts are flexible and accommodate a range of lifestyle needs	The apartment layouts are acceptable.
<u>4R Adaptive reuse</u>	
<i>Objective 4R-1</i> New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	NA
<i>Objective 4R-2</i> Adapted buildings provide residential amenity while not precluding future adaptive reuse	NA
<u>4S Mixed use</u>	
<i>Objective 4S-1</i> Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	Generally acceptable, as the site is within close proximity to Wollongong Train Station and on prominent bus routes, with access to school, employment, and other services. Active retail street frontages have been provided to both Crown Street and Parkinson Street.
<i>Objective 4S-2</i> Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	Residential entry is separated from the commercial entry and easily accessible from the street.
<u>4T Awnings and signage</u>	
<i>Objective 4T-1</i> Awnings are well located and complement and integrate with the building design	Awning generally appears acceptable. Glazed awnings have been provided to Crown Street to ensure light penetration is maximised into the colonnade whilst providing pedestrians with an appropriate level of amenity and weather protection.
<i>Objective 4T-2</i> Signage responds to the context and desired streetscape character	No detail regarding signage provided. Will require separate development approvals.
<u>4U Energy efficiency</u>	
<i>Objective 4U-1</i>	Acceptable.

Development incorporates passive environmental design	
<i>Objective 4U-2</i> Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	Acceptable solar design is provided throughout the building.
<i>Objective 4U-3</i> Adequate natural ventilation minimises the need for mechanical ventilation	The number of units naturally cross ventilated in the first 9 storeys is 18 out of 30 (60%). This however includes 3 units which will be ventilated via a plenum. This is acceptable.
<u>4V Water management and conservation</u>	
<i>Objective 4V-1</i> Potable water use is minimised	The rainwater tank appears to be located on Level 1 within the Carpark vent fan room. The tank is of a sufficient size to ensure use for irrigation, communal toilets, and car wash facilities as a minimum.
<i>Objective 4V-2</i> Urban stormwater is treated on site before being discharged to receiving waters	Acceptable, conditions provided by Council's Stormwater Engineers.
<i>Objective 4V-3</i> Flood management systems are integrated into site design	Acceptable, conditions provided by Council's Stormwater Engineers.
<u>4W Waste management</u>	
<i>Objective 4W-1</i> Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	Waste rooms have been appropriately located for waste collection and well concealed from the street.
<i>Objective 4W-2</i> Domestic waste is minimised by providing safe and convenient source separation and recycling	Waste chutes have been provided.
<u>4X Building maintenance</u>	
<i>Objective 4X-1</i> Building design detail provides protection from weathering	Generally, balconies provide protection.
<i>Objective 4X-2</i> Systems and access enable ease of maintenance	No detail provided.
<i>Objective 4X-3</i> Material selection reduces ongoing maintenance costs	The western edge podium (Proposed building on subject site) will be exposed for a significant amount of time. Consideration must be given to how the exposed nil setback wall will be expressed / articulated with high quality materials.

	It's recommended that the face brick corbelling detail to the Crown Street elevation is carried through to the side elevations. Refer to response to DRP notes for extra conditions relating to materials.
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