

# **164-170 CROATIA AVENUE**

EDMONDSON PARK, 2174

SEPP 65 DESIGN VERIFICATION STATEMENT AND ADG CHECKLIST

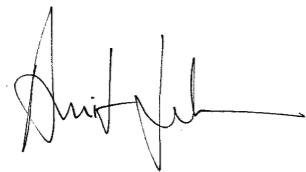
REVISION A - FOR DA SUBMISSION

28 / 10 / 2022

## **01** DESIGN VERIFICATION STATEMENT

Mr Amit Julka, a director of Plus Architecture Sydney Pty Ltd, is registered as an architect in New South Wales, in accordance with the Architects Act 2003, Part 3 Section 17. Registration number 10002.

I confirm that in my professional opinion the proposed design is capable of achieving the design principles set out in the 'State Environment Planning Policy 65 – Design Quality of Residential Flat Development' and has been designed with regard to the publication 'Apartment Design Guide' (ADG).



Amit Julka  
Registration Number (NSW): 10002

## **02** SEPP 65 DESIGN PRINCIPLES RESPONSE

## SEPP 65 DESIGN PRINCIPLES

## DESIGN RESPONSE

PRINCIPLE 1:

**Context and Neighbouring Character**

The subject site is located on 164-170 Croatia Avenue, Edmondson Park NSW. To the north and east interface sits MacDonald Road and Maxwells Creek. To the south sits the future commuter carpark (8 storeys). To the west sits Soldiers Parade and the future Landcom Development, which is also illustrated in the Landcom Town Centre North Design Guidelines 2020 (LTCN Design Guidelines 2020). Edmondson Park station is located south west from the site and is less than 150m away.

The site is a part of a wider masterplanning strategy called the Edmondson Park South as shown in the Edmondson Park South DCP 2012 (EPS DCP 2012). The vision sees a vibrant, mixed use Town Centre concentrated around Edmondson Park Station. These zones are flanked by further residential uses of varying densities and scales, generally reducing in scale from the high density Town Centre. Surrounding these areas are generous regional parks and public open space, providing a natural backdrop for the residents and great amenity. The land to the south of the train station, called Ed.Square, is undergoing development to deliver this intended vision.

The Landcom masterplan, situated north of Edmondson Park Train Station, reinforces a similar vision of a vibrant, mixed use Town Centre. The scheme illustrates variety of density up to 20 storeys/64m which is largely residential use supported with active programme at the ground plane, particularly at street corners and along Buchan Avenue.

Overall, the development is considered in its scale and programme and seeks to achieve the following:

- A development that provides residential programme as per the EPS DCP 2012, with retail programme situated along Soldiers Parade and Buchan Avenue, providing further street activation that also reinforces the active edges as shown in the LTCN Design Guidelines 2020.
- A development that continues the established streetscape rhythm of built form as seen from the Landcom Masterplan
- A development that relates to the scale and density of the surrounding areas as seen from the Landcom Masterplan and the Ed.Square development
- A development that adds life and amenity to the streetscape, and great amenity for its residents
- A development that provides ground plane connectivity for residents and the general public, and also provides a E-W public connection from the Landcom Masterplan to Maxwells Creek, and a N-S connection from the Edmondson Park Train Station to Maxwells Creek

PRINCIPLE 2:

**Built Form and Scale**

The proposed built form and scale of the development aims to fit into the future scale surrounding the site, which is largely defined by the future Landcom Masterplan to the west, the future commuter carpark to the south, and the burgeoning Ed.Square development to the south.

In regard to built form alignment, the proposal takes principles established in the Landcom Masterplan in order to create a cohesive language. Buildings are positioned amongst the streets to reinforce a street wall condition, whilst also framing key communal spaces within. Relief within these block forms are achieved through introduction of through site links, and variation of height to create articulation. The proposal also introduces podium versus tower setbacks, further articulating the bulk and creating a fine grain residential character to the street.

The buildings range from 4 to 9 storeys, and sit within the 30.8m height plane. This height plane is generated by the 24m height control and the 6.8m deviation as submitted in Stage 1 Concept DA. The proposed heights fit into the overall heights established in its surrounds. The commuter carpark to the south is an eight storey built form, and the Landcom Masterplan proposes built form ranging from 4 to 20 storeys. The Ed.Square precinct ranges in scale from two storey townhouses to 21 storey residential towers.

Appropriate street setbacks have also been incorporated into the development as per Liverpool Council and Design Excellence Panel comments, with 6m setbacks proposed on Soldiers Parade and Buchan Avenue, and 4.5m setbacks along the Local Road and MacDonald Road.

PRINCIPLE 3:

**Density**

The design has carefully considered the density of development that is appropriate for the site and its context. The proposal achieves an FSR of 2:1, which is compliant with the allowable FSR of 2:1. As mentioned in Principle 2, the proposed storeys are also consistent with the surrounding context. The development density is also supported by sufficient green space within the site and in the surrounding areas, sufficient road infrastructure, nearby mixed use amenities, and ease of access to public transport.

## SEPP 65 DESIGN PRINCIPLES

## DESIGN RESPONSE

PRINCIPLE 4:  
**Sustainability**

Sustainability has been considered in all aspects of the design. From a planning perspective, solar access was maximised where possible through orientation of buildings. Cross ventilation was also maximised with corner apartments, cross-through apartments, and introduction of building indents. Building depth was also greatly reduced from the Concept DA, providing more appropriate depths for the apartments, and thus allowing better opportunity for natural ventilation. In addition to this, a range of design measures are proposed which further enhance the proposal from a design perspective:

- Durable and robust façade systems with a high thermal mass (concrete)
- Slab extensions acting as a horizontal solar shading device
- Rainwater collection and re-use within the site.
- Screening that alleviates solar heat gain
- Landscape roofing that alleviates the urban heat island effect, and provides insulation to the space below
- The use of PV Cells on building rooftops as a means of energy creation.
- The outdoor pool providing cool air in summer via evaporative cooling

PRINCIPLE 5:  
**Landscape**

The proposed landscape concept for the development is designed to be closely integrated with and complementary to the architecture of the development. It is also used to provide amenity to the residents and to the general public, and enhance connectivity not only within the site, but with surrounding precincts.

Generous landscaping zones are located on ground and form an East-West band, connecting the future Landcom Masterplan and Maxwells Creek through Stage 02, 03, and 04. A North-south connection is also proposed, linking Maxwells Creek through Stage 03, 02, and 01, and connecting to Soldiers Parade. This ground plane strategy is composed of both public through links and residential communal space, offering amenity to the residents, and enhanced connectivity for the public. Units on the ground plane are also provided with private terraces, which are appropriately buffered with landscaping from the public links and the residential communal open space.

Landscaping is similarly expressed on the roof, with each stage having at least one rooftop communal open space. These rooftop areas are designed to invite use and engender a sense of community and identity, and provide variance in the communal open space offering to the precinct.

Overall, the landscaping on both ground and the roof zones enhances the overall character of the development by providing amenity to the residents, providing ground plane connectivity for the general public, creating privacy and softening at interfaces, and also providing a greater amenity to the streetscape.

PRINCIPLE 6:  
**Amenity**

The proposed development offers a high level of amenity for residents:

- Views to Maxwells Creek and to landscape spaces are maximised
- A range of communal open space on the ground plane and on the roofs are provided per stage, offering great amenity to the residents
- A residential outdoor pool and a residential gym is provided (Stage 02)
- Residential communal rooms are provided (Stage 01 and Stage 02)
- Retail tenancies are proposed on Stage 01 and Stage 02, providing close access for residents to these amenities
- The proposal offers great ground plane connection to Maxwells Creek
- Apartments have been designed with appropriately sized living and kitchen zones that have a strong connection to private balconies /terraces
- Apartments have been designed with appropriately sized bedroom and storage zones
- Some apartments feature studies, allowing flexible use
- Solar access is maximised where possible with orientation of buildings, particularly in Stage 02 and 03 which features built form that is oriented to receive sun on the east and west
- Cross ventilation is maximised through corner apartments, introduction of cross-through units, and through building indents

## SEPP 65 DESIGN PRINCIPLES

## DESIGN RESPONSE

PRINCIPLE 7:  
**Safety**

Careful consideration has been made within the design for the security of residents, including the incorporation of the principles of defensible space design throughout the development.

- Entries to the residential building lobbies is clearly signposted. Circulation lobbies are designed to minimise obscure corners and to reduce risks of entrapment.
- Communal open spaces on ground are generally positioned away from the street for safety, and experience passive surveillance from the proposed residential buildings around them. Communal open spaces, residential private open space, and public open space/links will also be physically separated by a barrier and/or landscape elements (refer to landscape architect's design). All outdoor areas are to be well-lit and subject to both active (security cameras) and passive (visual observation) surveillance.
- Communal open spaces on the roof are generally offset from the slab edge. This not only provides a maintenance zone, but gives an additional layer of physical separation between the communal space and the edge of the building
- Carpark entries are positioned such that they are not from the busiest thoroughfare (Soldiers Parade or MacDonald Road). They are positioned off Buchan Avenue and the Local Road

PRINCIPLE 8:  
**Housing Diversity and Social Interaction**

The development has been designed to provide apartments that suit the local demographic. A variety of 1 beds, 2 beds, and 3 beds are proposed, ensuring that a broad spectrum of potential residents are catered to. Some apartments also provide studies, allowing flexibility for the household.

PRINCIPLE 9:  
**Aesthetics**

The design language for the development is intended to be contemporary and distinctive and is driven by a response to maximising amenity for occupants, creating a sense of identity for the development and contributing positively to the context the development sits within. The architecture of the site seeks to respond to and be a reflection of its surrounding context and urban fabric. With the adjoining Ed Square precinct, Edmondson Park Station and the Landcom masterplan, there is a strong urban interface presented at the south-western corner of the site. This is contrasted by the more natural setting of Maxwells Creek at the north-east interface. The notion of gradiating between urban/nature is explored.

Stage 01 seeks to celebrate its urbanity through expression of its gridded facade, creating a civic response with its rhythmic patterning.

Stage 02 and Stage 03 begin to take inspiration from its natural setting and the notion of a canopy line. The expressed podium introduces a more fine grain scale, and its verticality mimics the proportions of tree trunks. In contrast, the pattering of the facade above reinforces the idea of a dappled canopy through its alternating patterns and colours. Stage 02 keeps a muted colour palette that ties it conceptually with Stage 01, whilst Stage 03 is expressed in warm tones, tying it towards Maxwells Creek.

Stage 04 responds to its natural setting of the creek through the vertical blade walls that orient views to the water. Alternating and curved white concrete upstands create a horizontal expression that reflect the tidal notion of the water. This articulation is carried into Stage 03 northern facade, creating an element of cohesion. Stage 04 similarly articulates an alternating panelling in its recessed slots that face the water, reflecting the notion of the 'earth' being brought into the recesses.

Whilst variety of architecture is proposed to create unique identity, a consistent and restrained material palette of concrete, glass, and metal screening is shared by the buildings, creating an element of cohesion.

## **03** ADG COMPLIANCE ASSESSMENT



PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
PART 3A-1	<p><u>OBJECTIVE:</u></p> <p>Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions</p>	<ul style="list-style-type: none"> <li>The Architectural DA Design Report outlines and provides relevant diagrams responding to site analysis requirements outlined in appendix 1 of the ADG: <ul style="list-style-type: none"> <li>* Site location</li> <li>* Aerial photos</li> <li>* Local context plans</li> <li>* Site context plans</li> <li>* Streetscape elevations and sections</li> <li>* Context Analysis</li> </ul> </li> <li>All parts of the ADG have been considered and analysis responses incorporated</li> </ul>	
PART 3B-1	<p><u>OBJECTIVE:</u></p> <p>Building types and layouts respond to the streetscape and site while optimising solar access within the development</p>	<ul style="list-style-type: none"> <li>The proposed layout appropriately positions the buildings to activate the proposed street network.</li> <li>Buildings are oriented to maximise solar access to the residential units.</li> <li>Buildings are oriented to maximise solar access to communal space.</li> </ul>	
PART 3B-2	<p><u>OBJECTIVE:</u></p> <p>Overshadowing of neighbouring properties is minimised during mid winter</p>	<ul style="list-style-type: none"> <li>Stage 01 incorporates a 6m western setback on storeys 1-4 and a 9m setback from storeys 5-9 to the future commuter carpark. The use of the setback minimises shadows.</li> <li>Stage 03 Building E incorporates a 6m western setback on storeys 1-4 and a 9m setback from storeys 5-8 to the Landcom Masterplan. The use of the setback minimises shadows.</li> </ul>	
PART 3C-1	<p><u>OBJECTIVE:</u></p> <p>Transition between private and public domain is achieved without compromising safety and security</p>	<ul style="list-style-type: none"> <li>The development has been designed with a clear delineation between the public and private domain.</li> <li>Building entries have been designed to be highly visible and legible from the street.</li> <li>Private residential communal spaces have been provided at ground level, encouraging a high level of interaction amongst residents. They are usually placed between buildings and is separated from the street in order to provide security.</li> <li>Private residential communal spaces on ground will be appropriately fenced from the public through-site links.</li> </ul>	
PART 3C-2	<p><u>OBJECTIVE:</u></p> <p>Amenity of the public domain is retained and enhanced</p>	<ul style="list-style-type: none"> <li>The proposal presents an enhanced streetscape to Soldiers Parade and Buchan Avenue with an activated retail frontage to the ground floor.</li> <li>Everywhere else, residential ground floor units are maximised. Introduction of terraces with planters further enhances the streetscape, which is reinforced with street trees and landscaping - refer to landscape architect's documentation</li> <li>Residential lobbies further activate the streetscape</li> <li>Proposed public through site links will have a generous landscaped backdrop - refer to landscape architect's documentation</li> </ul>	

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
<p><b>PART 3D-1</b></p> <p>p.55</p>	<p><u>OBJECTIVE:</u></p> <p>An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping</p> <p><u>DESIGN CRITERIA:</u></p> <ol style="list-style-type: none"> <li>Communal open space has a minimum area equal to 25% of the site area</li> <li>Developments achieve a minimum of 50% direct sunlight to the principal useable part of the communal open space for a minimum of 2 hours between 9am and 3pm on 21st June (mid-winter)</li> </ol>	<ul style="list-style-type: none"> <li>The communal area (ground level) is easily accessible to residents and incorporates a range of uses - refer to landscape architect's documentation.</li> <li>A combination of deep soil landscaping and planter boxes have been designed to maximise opportunities for larger trees and dense landscaping &amp; flora</li> <li>Communal open space on the ground level has been sized in order to not impact the amenity and privacy of the ground floor apartments.</li> <li>Communal open space is also provided on rooftop space, enhancing residential amenity</li> </ul> <ol style="list-style-type: none"> <li>Stage 01 COS Achieved = 28% Stage 02 COS Achieved = 26% Stage 03 COS Achieved = 28% Stage 04 COS Achieved = 25%</li> <li>Stage 01 COS Solar Access Achieved = 55% Stage 02 COS Solar Access Achieved = 58% Stage 03 COS Solar Access Achieved = 73% Stage 04 COS Solar Access Achieved = 50%</li> </ol>	<ol style="list-style-type: none"> <li>ACHIEVED</li> <li>ACHIEVED</li> </ol>
<b>PART 3D-2</b>	<p><u>OBJECTIVE:</u></p> <p>Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting</p>	<ul style="list-style-type: none"> <li>Refer to landscape architect's documentation.</li> </ul>	
<b>PART 3D-3</b>	<p><u>OBJECTIVE:</u></p> <p>Communal open space is designed to maximise safety</p>	<ul style="list-style-type: none"> <li>The ground floor communal space has been designed to incorporate passive surveillance from the ground floor units.</li> <li>The communal open space will be well lit at night and has been designed with clearly delineated barriers and is contained.</li> <li>Refer to landscape architect's documentation for further information.</li> </ul>	
<b>PART 3D-4</b>	<p><u>OBJECTIVE:</u></p> <p>Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood</p>	<ul style="list-style-type: none"> <li>The development provides public through site links that provides key connections across the site.</li> <li>An E-W connection is provided on Stage 02/03 and Stage 04, connecting the future Landcom Masterplan to Maxwells Creek.</li> <li>A N-S connection is provided on Stage 01 and Stage 02/03 which provides a connection from Maxwells Creek to the south-west corner of the site, interfacing Soldiers Parade, the future Station Plaza, and is closely located to Edmondson Park Station</li> </ul>	

**PART**

**DESIGN OBJECTIVE/CRITERIA**

**NOTES**

**OUTCOMES**

**PART 3E-1**

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OBJECTIVE:

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

DESIGN CRITERIA:

- Deep soil zones are to meet the following minimum requirements

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

- Deep soil zones have been incorporated into the landscape design wherever possible
- Basement footprint has been minimised to increase opportunities for deep soil
- A combination of deep soil landscaping and planter boxes have been designed to maximise opportunities for larger trees and dense landscaping & flora

- Deep soil zones achieved: 2230.3m<sup>2</sup>

- ACHIEVED

Site Area	Minimum Dimensions	Deep Soil Zone (% of site area)
30289m <sup>2</sup>	6m	7.36%

**PART 3F-1**

p.63

OBJECTIVE:

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:

Building Height	Habitable Rooms & 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.

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

- The proposal provides adequate separation to the neighbouring sites.

Southern Boundary:

- A 6m setback from storeys 1-4 are proposed, satisfying the 6m requirement
- A 9m setback from storeys 5-8 are proposed, satisfying the 9m requirement
- A 9m setback on storey 9 is proposed. As the future commuter carpark is 3 storeys lower than Stage 01, there are no separation issues.

Western Boundary:

- A 6m setback is provided from storeys 1-4, satisfying the 6m requirement
- A 9m setback is provided from storeys 5-8, satisfying the 9m requirement
- A 9m setback on the ninth storey is proposed on Stage 02 Building C. Building C is foreseen to interface with Soldiers Paade, and not a future development at that level. Therefore, there will be no separation issues.

North and East Boundary:

- There is no neighbouring site to the north or east boundary.

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
PART 3F-2	<p><u>OBJECTIVE:</u></p> <p>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</p>	<ul style="list-style-type: none"> <li>The proposed design has been designed to ensure privacy of apartments while maintaining the amenity of the communal space.</li> <li>The private open spaces and communal open space to the ground floor units are bound by barriers and/or planters as a means of privacy. These spaces are also naturally separated from the street, creating an additional layer of privacy.</li> <li>Units interfacing with rooftop communal spaces are to be appropriately screened for visual privacy.</li> </ul>	
PART 3G-1	<p><u>OBJECTIVE:</u></p> <p>Building entries and pedestrian access connects to and addresses the public domain</p>	<ul style="list-style-type: none"> <li>Each building core has an entry accessible from the street. These entry points have been designed to have a direct visual connection from street edge to entry.</li> <li>Buildings on Stage 2, 3 and 4 have additional entries that connect to the the public domain.</li> </ul>	
PART 3G-2	<p><u>OBJECTIVE:</u></p> <p>Access, entries and pathways are accessible and easy to identify</p>	<ul style="list-style-type: none"> <li>Building entries have been designed to have a direct line of sight from the street and are intended to be signposted through the use of signage, changes in surface materiality and the use of landscaping.</li> <li>Some buildings cores have multiple access points for flexibility, with at least one being accessible per core</li> <li>It is intended that the development will have a comprehensive wayfinding signage strategy that will allow users to navigate through the basement carpark and the residential lobbies to their residence.</li> </ul>	
PART 3G-3	<p><u>OBJECTIVE:</u></p> <p>Large sites provide pedestrian links for access to streets and connection to destinations</p>	<ul style="list-style-type: none"> <li>Pedestrian links are provided in each stage</li> <li>Stage 01 features a link from Buchan Avenue to Soldiers Parade</li> <li>Stage 02/03 features a N-S link between MacDonald Road and Buchan Avenue</li> <li>Stage 02/03 features a E-W link between Soldier's Parade and the Local Road</li> <li>Stage 04 features a E-W link between the Local Road and MacDonald Road</li> </ul>	
PART 3H-1	<p><u>OBJECTIVE:</u></p> <p>Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes</p>	<ul style="list-style-type: none"> <li>The vehicle access points have been carefully considered. Where possible, they have been positioned at the lower points of the lots to minimise ramping</li> <li>No vehicle entries have been placed along Soldiers Parade as that is the busiest vehicular thoroughfare</li> <li>For the largest basement (Stage 02/03), two access points have been provided to minimise congestion at one entry</li> <li>Vehicle access points have been positioned away from retail areas where possible to avoid conflict</li> </ul>	

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
PART 3J-2	<p><u>OBJECTIVE:</u></p> <p>Parking and facilities are provided for other modes of transport</p>	<ul style="list-style-type: none"> <li>Provision has been made for bicycle parking and motorcycle parking within the development, within the secure carpark. Refer to traffic report for details.</li> </ul>	
PART 3J-3	<p><u>OBJECTIVE:</u></p> <p>Car park design and access is safe and secure</p>	<ul style="list-style-type: none"> <li>The carpark has been designed to be a secure component of the development, with security access required for entry to the residential components.</li> <li>Retail carparking on Stage 01 and Stage 02 are allocated at the entrances of the basements to avoid retail visitors driving too deep into the basement</li> <li>Retail lifts are provided to safely take retail visitors from the carpark to the ground plane</li> <li>It is intended to be a safe environment, with good lighting and provision for security cameras.</li> <li>Residential lobby zones area clearly demarcated and separated from the flow of cars.</li> </ul>	
PART 3J-4	<p><u>OBJECTIVE:</u></p> <p>Visual and environmental impacts of underground car parking are minimised</p>	<ul style="list-style-type: none"> <li>The underground parking layout has been designed with efficiency in mind. The proposal features consolidated carparks per lot to improve efficiency, reduce depth of excavation and number of basements</li> <li>The proposal takes advantage of the natural slope of the land in the siting of the basements</li> </ul>	
PART 3J-5	<p><u>OBJECTIVE:</u></p> <p>Visual and environmental impacts of on grade car parking are minimised</p>	<ul style="list-style-type: none"> <li>Parallel on-street carparking is provided for use by the general public. Street landscaping including trees are provided which will minimise visual impact - refer to landscape architect's documentation and civil engineer's documentation</li> </ul>	
PART 3J-6	<p><u>OBJECTIVE:</u></p> <p>Visual and environmental impacts of above ground enclosed car parking are minimised</p>	<ul style="list-style-type: none"> <li>There is a future commuter carpark proposed to the south of the site, which interfaces Stage 01 Building A and B</li> <li>The capark design features screening to provide visual privacy</li> <li>Stage 01 provides appropriate setbacks to this future carpark to provide separation.</li> <li>There is a 6m setback provided on the first four storeys between the residential apartments and the southern boundary. The carpark provides a 4m setback to that boundary. Thus, the separation provided is 10m, satisfying the required 9m separation between habitable and non-habitable.</li> <li>There is a 9m setback provided from storeys 5-8 between the residential apartments and the southern boundary. The carpark provides a 4m setback to that boundary. Thus, the separation provided is 13m, satisfying the required 12m separation between habitable and non-habitable.</li> <li>There is a 9m setback provided on the 9th storey between the residential apartments and the southern boundary. The carpark is approximately 3 storeys lower than Stage 01, and thus, there is no separation issue at this height.</li> </ul>	

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
<p><b>PART 4A-1</b></p> <p>p.79</p>	<p><u>OBJECTIVE:</u></p> <p>To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space</p> <p><u>DESIGN CRITERIA:</u></p> <ol style="list-style-type: none"> <li>Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm at 21 June (mid-winter) in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas</li> <li>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 9am and 3pm at 21 June (mid-winter)</li> <li>A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at 21 June (mid-winter)</li> </ol>	<ul style="list-style-type: none"> <li>Units are oriented for solar access where possible, i.e. to the east, north and west</li> <li>Living spaces are placed to the facade where possible to increase solar amenity</li> </ul> <ol style="list-style-type: none"> <li>Each stage achieves 70% or greater of apartments having 2 hours of solar access during winter solstice from 9am-3pm <ul style="list-style-type: none"> <li>Stage 01: 94 apartments Unit Achieving solar access: 66 Apartments % Achieved = 70.2%</li> <li>Stage 02: 164 apartments Unit Achieving solar access: 133 Apartments % Achieved = 81.1%</li> <li>Stage 03: 148 apartments Unit Achieving solar access: 124 Apartments % Achieved = 83.8%</li> <li>Stage 04: 192 apartments Unit Achieving solar access: 135 Apartments % Achieved = 70.3%</li> </ul> </li> <li>N/A</li> <li>Each stage does not exceed 15% of apartments having no direct sunlight during winter solstice from 9am-3pm <ul style="list-style-type: none"> <li>Stage 01: 94 apartments Unit Achieving no solar access: 14 Apartments % Achieved = 14.9%</li> <li>Stage 02: 164 apartments Unit Achieving no solar access: 24 Apartments % Achieved = 14.6%</li> <li>Stage 03: 148 apartments Unit Achieving no solar access: 0 Apartments % Achieved = 0%</li> <li>Stage 04: 192 apartments Unit Achieving no solar access: 15 Apartments % Achieved = 7.8%</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>ACHIEVED</li> <li>N/A</li> <li>ACHIEVED</li> </ol>
<b>PART 4A-2</b>	<p><u>OBJECTIVE:</u></p> <p>Daylight access is maximised where sunlight is limited</p>	<ul style="list-style-type: none"> <li>Skylights have been incorporated on Stage 01 and Stage 04 where possible to provide better solar access to units that have limited sunlight</li> </ul>	
<b>PART 4A-3</b>	<p><u>OBJECTIVE:</u></p> <p>Design incorporates shading and glare control, particularly for warmer months</p>	<ul style="list-style-type: none"> <li>Balconies are generally protected by the balcony above or roof elements.</li> <li>All glazing is intended to be designed with pelmet zones or zones that allow the fixing of internal blinds/curtains.</li> <li>Screening is used to aid in shading, particularly on the western facades</li> </ul>	
<b>PART 4B-1</b>	<p><u>OBJECTIVE:</u></p> <p>All habitable rooms are naturally ventilated</p>	<ul style="list-style-type: none"> <li>All habitable rooms have a direct openable window or door to the external wall for natural ventilation, the areas of which are equal to at least 5% of the floor area served.</li> <li>There are a range of sizes of windows and glazed doors provided for, allowing for maximum flexibility in their use for ventilation during different times of the day.</li> </ul>	

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
<p><b>PART 4B-3</b> p.85</p>	<p><u>OBJECTIVE:</u> The number of apartments with natural cross-ventilation is maximised to create a comfortable indoor environment for residents</p> <p><u>DESIGN CRITERIA:</u></p> <ol style="list-style-type: none"> <li>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.</li> <li>Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.</li> </ol>	<ul style="list-style-type: none"> <li>Open plan living has been incorporated to maximise natural air-flow through the apartments</li> <li>Corner apartments and cross-through apartments are introduced where possible</li> <li>Building indents/slots are introduced where possible to aid cross-ventilation</li> <li>Each stage and building achieves 60% or greater cross-ventilation.</li> </ul> <ol style="list-style-type: none"> <li> <p>Stage 01 Bldg A: 50 apartments Unit Achieving Cross Ventilation: 40 Apartments % Achieved = 80%</p> <p>Stage 01 Bldg B: 44 apartments Unit Achieving Cross Ventilation: 33 Apartments % Achieved = 75%</p> <p>Stage 02 Bldg C: 94 apartments Unit Achieving Cross Ventilation: 62 Apartments % Achieved = 70%</p> <p>Stage 02 Bldg D: 70 apartments Unit Achieving Cross Ventilation: 42 Apartments % Achieved = 60%</p> <p>Stage 03 Bldg E: 72 apartments Unit Achieving Cross Ventilation: 48 Apartments % Achieved = 67%</p> <p>Stage 03 Bldg F: 76 apartments Unit Achieving Cross Ventilation: 48 Apartments % Achieved = 63%</p> <p>Stage 04 Bldg G: 105 apartments Unit Achieving Cross Ventilation: 77 Apartments % Achieved = 73%</p> <p>Stage 04 Bldg H: 67 apartments Unit Achieving Cross Ventilation: 42 Apartments % Achieved = 63%</p> <p>Stage 04 Bldg I: 20 apartments Unit Achieving Cross Ventilation: 17 Apartments % Achieved = 85%</p> </li> <li>The maximum depth for a cross-over is 18m.</li> </ol>	<ol style="list-style-type: none"> <li>ACHIEVED</li> <li>ACHIEVED</li> </ol>

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES																								
<p><b>PART 4C-1</b>  p.87</p>	<p><u>OBJECTIVE:</u> Ceiling height achieves sufficient natural ventilation and daylight access</p> <p><u>DESIGN CRITERIA:</u></p> <p>1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:</p> <table border="1" data-bbox="516 558 1029 976"> <thead> <tr> <th colspan="2">Minimum Ceiling Height for apartment and mixed-use buildings</th> </tr> </thead> <tbody> <tr> <td>Habitable Rooms</td> <td>2.7m</td> </tr> <tr> <td>Non-Habitable Rooms</td> <td>2.4m</td> </tr> <tr> <td>For 2 storey apartments</td> <td>2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area</td> </tr> <tr> <td>Attic Spaces</td> <td>1.8m at edge of room with a 30 degree minimum ceiling slope</td> </tr> <tr> <td>If located in mixed-use areas</td> <td>3.3m for ground and first floor to promote future flexibility of use</td> </tr> </tbody> </table> <p>These minimums do not preclude higher ceilings if desired.</p>	Minimum Ceiling Height for apartment and mixed-use buildings		Habitable Rooms	2.7m	Non-Habitable Rooms	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-use areas	3.3m for ground and first floor to promote future flexibility of use	<ul style="list-style-type: none"> <li>Ceiling heights have been achieved to meet the minimum requirements of this part of the ADG</li> <li>The use of bulkheads within living areas have been positioned to minimise any impacts to ceiling heights within the primary zones</li> <li>Wherever possible, services have been coordinated to be located within non-habitable areas which have lower ceiling heights</li> </ul> <p>1. Measured from finished floor level to finished ceiling level, minimum ceiling heights achieved are as follows:</p> <table border="1" data-bbox="1225 558 1804 1100"> <thead> <tr> <th colspan="2">Minimum Ceiling Height for apartment and mixed-use buildings</th> </tr> </thead> <tbody> <tr> <td>Habitable Rooms</td> <td>2.7m</td> </tr> <tr> <td>Non-Habitable Rooms</td> <td>2.4m</td> </tr> <tr> <td>For 2 storey apartments</td> <td>N/A</td> </tr> <tr> <td>Attic Spaces</td> <td>N/A</td> </tr> <tr> <td>If located in mixed-use areas</td> <td>The development is primarily residential use. Building A and B contains ground floor retail components that achieves the minimum 3.3m floor to ceiling. Building D features three tenancies, with floor to ceilings of 5.1m, 5.45m, and 3.3m Building C features three tenancies, with floor to ceilings of 4.7m, 4.1m, and 2.7m. The 2.7m is due to the sloping of the site.</td> </tr> </tbody> </table>	Minimum Ceiling Height for apartment and mixed-use buildings		Habitable Rooms	2.7m	Non-Habitable Rooms	2.4m	For 2 storey apartments	N/A	Attic Spaces	N/A	If located in mixed-use areas	The development is primarily residential use. Building A and B contains ground floor retail components that achieves the minimum 3.3m floor to ceiling. Building D features three tenancies, with floor to ceilings of 5.1m, 5.45m, and 3.3m Building C features three tenancies, with floor to ceilings of 4.7m, 4.1m, and 2.7m. The 2.7m is due to the sloping of the site.	<p>1. MOSTLY ACHIEVED</p>
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PART 4C-2	<p><u>OBJECTIVE:</u></p> <p>Ceiling height increases the sense of space in apartments and provides for well proportioned rooms</p>	<ul style="list-style-type: none"> <li>The hierarchy of rooms within apartments will be emphasised by providing 2.7m ceiling heights for habitable rooms such as bedrooms and living areas, with 2.4m ceilings to service zones such as bathrooms.</li> </ul>																					
PART 4C-3	<p><u>OBJECTIVE:</u></p> <p>Ceiling heights contribute to the flexibility of building use over the life of the building</p>	<ul style="list-style-type: none"> <li>Stage 01 incorporates higher ceiling spaces at the ground levels at the retail tenancies. This gives flexibility for future alternate uses.</li> <li>Stage 02 incorporates higher ceiling spaces at the ground levels at the retail tenancies. This gives flexibility for future alternate uses.</li> </ul>																					
PART 4D-1	<p><u>OBJECTIVE:</u></p> <p>The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity</p>	<ul style="list-style-type: none"> <li>Apartments have been designed to achieve suitably sized living areas.</li> <li>Apartment layouts incorporate open plan living/dining and kitchen areas to maximise spatial areas and general amenity for the residents</li> <li>All apartments incorporate direct access of external areas from the primary living areas to enhance the quality of living</li> <li>Access from bedrooms to balconies have been provided where possible.</li> <li>Studies have been incorporated in some units for additional amenity.</li> </ul>																					
p.89	<p><u>DESIGN CRITERIA:</u></p> <p>1. Apartments are required to have the following minimum internal areas:</p> <table border="1" data-bbox="516 1052 1029 1323"> <thead> <tr> <th>Apartment Type</th> <th>Minimum Internal Area</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>These minimum internal areas include only one bathroom. Additional bathrooms increases the minimum internal area by 5m2 each.</p> <p>A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m2 each</p> <p>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</p>	Apartment Type	Minimum Internal Area	Studio	35m2	1 Bedroom	50m2	2 Bedroom	70m2	3 Bedroom	90m2	<p>1. The proposed apartments achieve these minimum internal areas, which are compliant with the ADG minimum areas:</p> <table border="1" data-bbox="1225 1052 1739 1323"> <thead> <tr> <th>Apartment Type</th> <th>Minimum Internal Area</th> </tr> </thead> <tbody> <tr> <td>Studio</td> <td>N/A</td> </tr> <tr> <td>1 Bedroom</td> <td>50m2</td> </tr> <tr> <td>2 Bedroom 2 Bath</td> <td>75m2</td> </tr> <tr> <td>3 Bedroom 2 Bath</td> <td>95m2</td> </tr> </tbody> </table> <p>2. All habitable rooms within apartments have a window to an external wall. Wherever possible, direct access to balconies has been provided. Window sizes have been sized to achieve a glass area of minimum 10% of the floor area of the room</p>	Apartment Type	Minimum Internal Area	Studio	N/A	1 Bedroom	50m2	2 Bedroom 2 Bath	75m2	3 Bedroom 2 Bath	95m2	<p>1. ACHIEVED</p> <p>2. ACHIEVED</p>
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<p><b>PART 4D-3</b> p.91</p>	<p><u>OBJECTIVE:</u> Apartment layouts are designed to accommodate a variety of household activities and needs</p> <p><u>DESIGN CRITERIA:</u></p> <ol style="list-style-type: none"> <li>Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)</li> <li>Bedrooms have a minimum dimension of 3m (excluding wardrobe space)</li> <li>Living rooms or combined living/dining rooms have a minimum width of:                             <ul style="list-style-type: none"> <li>3.6m for Studio and 1 Bedroom apartments</li> <li>4.0m for 2 and 3 Bedroom apartments</li> </ul> </li> <li>The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts</li> </ol>	<ul style="list-style-type: none"> <li>All apartments have been designed to achieve the requirements of this part of the ADG.</li> <li>Generally, wardrobe lengths have been designed to be a length of 1.5m or greater.</li> <li>There are a range of apartments that feature studies to provide flexibilities for the residents.</li> </ul> <ol style="list-style-type: none"> <li>All Master bedrooms achieve a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)</li> <li>All Bedrooms achieve a minimum dimension of 3m or greater (excluding wardrobe space)</li> <li>Living rooms or combined living/dining rooms achieve a minimum width of:                             <ul style="list-style-type: none"> <li>3.6m for 1 Bedroom apartments</li> <li>4.0m for 2 and 3 Bedroom apartments</li> </ul> </li> <li>Yes, widths of cross-through apartments are at least 4m.</li> </ol>	<ol style="list-style-type: none"> <li>ACHIEVED</li> <li>ACHIEVED</li> <li>ACHIEVED</li> <li>ACHIEVED</li> </ol>																														
<p><b>PART 4E-1</b> p.93</p>	<p><u>OBJECTIVE:</u> Apartments provide appropriately sized private open space and balconies to enhance residential amenity</p> <p><u>DESIGN CRITERIA:</u></p> <ol style="list-style-type: none"> <li>All apartments are required to have primary balconies as follows:</li> </ol> <table border="1" data-bbox="516 1234 1020 1507"> <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>2m2</td> </tr> <tr> <td>2 Bedroom Apartments</td> <td>10m2</td> <td>2m2</td> </tr> <tr> <td>3+ Bedroom Apartments</td> <td>12m2</td> <td>2.4m2</td> </tr> </tbody> </table> <p>The minimum balcony depth to be counted as contributing to the balcony area is 1m.</p> <ol style="list-style-type: none"> <li>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.</li> </ol>	Dwelling Type	Minimum Area	Minimum Depth	Studio Apartments	4m2	-	1 Bedroom Apartments	8m2	2m2	2 Bedroom Apartments	10m2	2m2	3+ Bedroom Apartments	12m2	2.4m2	<ul style="list-style-type: none"> <li>All primary open space and balconies have been designed so that they are located adjacent to the living room, dining room or kitchen as an extension of the living space.</li> <li>Balconies have been orientated to maximise views and vistas and optimise the amount of solar access into the adjacent rooms</li> <li>All balconies have been designed to meet the requirements of this part of the ADG</li> </ul> <ol style="list-style-type: none"> <li>All apartments have a primary balcony and achieve the following minimum areas as follows:</li> </ol> <table border="1" data-bbox="1228 1234 1733 1507"> <thead> <tr> <th>Dwelling Type</th> <th>Minimum Area</th> <th>Minimum Depth</th> </tr> </thead> <tbody> <tr> <td>Studio Apartments</td> <td>N/A</td> <td>-</td> </tr> <tr> <td>1 Bedroom Apartments</td> <td>8m2</td> <td>2m2</td> </tr> <tr> <td>2 Bedroom Apartments</td> <td>10m2</td> <td>2m2</td> </tr> <tr> <td>3 Bedroom Apartments</td> <td>12m2</td> <td>2.4m2</td> </tr> </tbody> </table> <ol style="list-style-type: none"> <li>All ground level apartments achieve the minimum 15sqm private open space and minimum depth of 3m when also counting the general balcony zone.</li> </ol>	Dwelling Type	Minimum Area	Minimum Depth	Studio Apartments	N/A	-	1 Bedroom Apartments	8m2	2m2	2 Bedroom Apartments	10m2	2m2	3 Bedroom Apartments	12m2	2.4m2	<ol style="list-style-type: none"> <li>ACHIEVED</li> <li>ACHIEVED</li> </ol>
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PART 4E-2	<p><u>OBJECTIVE:</u></p> <p>Primary private open space and balconies are appropriately located to enhance liveability for residents</p>	<ul style="list-style-type: none"> <li>Private open space and balconies have been located adjacent to the living room, dining room or kitchen as an extension of the living space.</li> <li>Balconies have been orientated to maximise views and vistas and optimise the amount of solar access into the adjacent rooms</li> <li>Access from bedrooms to balconies are provided where possible to provide further amenity to the residents</li> <li>Some units provide two balconies as additional amenity</li> </ul>	
PART 4E-3	<p><u>OBJECTIVE:</u></p> <p>Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building</p>	<ul style="list-style-type: none"> <li>Balcony design is integrated into the overall architectural design of the building.</li> <li>Private open spaces are to be integrated as part of the overall landscape strategy, refer to landscape architect's documentation</li> </ul>	
PART 4E-4	<p><u>OBJECTIVE:</u></p> <p>Private open space and balcony design maximises safety</p>	<ul style="list-style-type: none"> <li>All private open space have been designed in accordance with BCA/NCC requirements</li> <li>Private open space will have physical barriers and planters to maximise safety</li> <li>Private open spaces will have a secure gate to maximise safety</li> <li>All balustrade heights and types are appropriately designed to withstand wind-loading and force ensuring the safety of the residents and visitors</li> </ul>	
<p>PART 4F-1</p> <p>p.97</p>	<p><u>OBJECTIVE:</u></p> <p>Common circulation spaces achieve good amenity and properly service the number of apartments</p> <p><u>DESIGN CRITERIA:</u></p> <ol style="list-style-type: none"> <li>The maximum number of apartments off a circulation core on a single level is eight. Note: Where Design Criteria 1 is not achieved, no more than 12 apartments should be provide off a circulation core on a single level.</li> <li>For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.</li> </ol>	<ul style="list-style-type: none"> <li>All lift lobbies have been designed to accomodate accessibility requirements and circulations</li> <li>Each core is generally positioned adjacent to an opening to allow provision of natural dalight, creating an inviting circulation space.</li> </ul> <p>1. The number of apartments off a circulation core is:</p> <p>Stage 01 Building A: 8 on lower floors, 7 on upper floors Stage 01 Building B: 6 on lower floors, 5 on upper floors</p> <p>Stage 02 Building C: 13 on lower floors, 11 on upper floors Stage 02 Building D: 11 on lower floors, 9 on upper floors</p> <p>Stage 03 Building E: 10 on lower floors, 8 on upper floors Stage 03 Building F: 10 on lower floors, 9 on upper floors</p> <p>Stage 04 Building G: 4 on core 1, 6 on core 2, 5 on core 3 Stage 04 Building H: 8 on typical floors Stage 04 Building I: 4 on all floors</p> <p>Stage 01 and Stage 04 are compliant with the maximum 8 units per core. Stage 02 and Stage 03 do not strictly comply, however most floorplates comply with the design guidance of 12 or less units per core. Stage 02 Building C lower floors feature 13 units, however, this instance only occurs on two levels.</p> <p>2. N/A</p>	<p>1. Partial</p> <p>2. N/A</p>
PART 4F-2	<p><u>OBJECTIVE:</u></p> <p>Common circulation spaces promote safety and provide for social interaction between residents</p>	<ul style="list-style-type: none"> <li>Each residential building core has an accessible path of entry.</li> <li>Some buildings feature two points of entry, providing flexibility for the residents.</li> <li>All common circulation have been designed in accordance with BCA/NCC requirements and the accessibility code to promote use of spaces by all resident users</li> <li>All corridors are to be well lit at night</li> </ul>	

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<p><b>PART 4G-1</b> p.101</p>	<p><u>OBJECTIVE:</u> Adequate, well designed storage is provided in each apartment</p> <p><u>DESIGN CRITERIA:</u> 1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:  At least 50% of the required storage is to be located within the apartment</p>	<ul style="list-style-type: none"> <li>All apartments feature joinery cupboards as their main storage provision. Where possible, additional storage is also provided in utility rooms, such as the laundry room.</li> </ul> <p>1. The proposal will accommodate the recommended amount of storage per apartment. 50% or greater of the required volume is accessible from the apartment living areas. Minimum apartment storage allocation is as follows:</p>	<p>1. ACHIEVED</p>																
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<p><b>PART 4G-2</b></p>	<p><u>OBJECTIVE:</u> Additional storage is conveniently located, accessible and nominated for individual apartments</p>	<ul style="list-style-type: none"> <li>Additional storage not located in apartments will be located in capark levels in secure storage 'cages'. These will be clearly allocated to specific apartments and be readily accessible from common aidles or from adjacent allocated car spaces.</li> </ul>																	
<p><b>PART 4H-1</b></p>	<p><u>OBJECTIVE:</u> Noise transfer is minimised through the siting of buildings and building layout</p>	<ul style="list-style-type: none"> <li>Adequate acoustic insulation will be implemented.</li> <li>Appropriate separation is given between buildings and is supplemented by screening where required, which will aid in minimising acoustic transmission</li> </ul>																	
<p><b>PART 4H-2</b></p>	<p><u>OBJECTIVE:</u> Noise impacts are mitigated within apartments through layout and acoustic treatments</p>	<ul style="list-style-type: none"> <li>Internal apartment layouts have been designed to ensure that spaces are zoned to maximise privacy and acoustic separation within the apartments. Bedrooms are grouped together as much as possible and have doors to separate them from living zones.</li> </ul>																	
<p><b>PART 4J-1</b></p>	<p><u>OBJECTIVE:</u> In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings</p>	<ul style="list-style-type: none"> <li>Appropriate setbacks are provided to give separation from the street to the buildings. Noise from Soldiers Parade and Buchan Avenue are mitigated with a generous 6m setback.</li> <li>Awnings on Stage 01 and 02 along Soldiers Parade and Buchan Avenue help mitigate noise from the street</li> <li>Screens are used on facades facing Soldiers Parade to help mitigate noise</li> <li>Landscaping on the ground plane will help dampen and absorb noise</li> </ul>																	

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PART 4J-2	<p><u>OBJECTIVE:</u></p> <p>Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission</p>	<ul style="list-style-type: none"> <li>The facade is predominantly concrete, fibre cement, and glass, and will be specified with the appropriate acoustic and thermal insulation requirements.</li> <li>Awnings are provided above retail tenancies to create an acoustic barrier to the residential units above.</li> <li>Screening provides a level of acoustic protection. This is especially evident along Soldiers Parade Facade, which features screening.</li> </ul>	
PART 4K-1	<p><u>OBJECTIVE:</u></p> <p>A range of apartment types and sizes is provided to cater for different household types now and into the future</p>	<ul style="list-style-type: none"> <li>A variety of apartment types are proposed, ranging from 1 bed, 1 bed + Study, 2 Bed, 2 Bed + Study, and 3 Bed. The proposed mix is reflective of the site's location and demographics, and provides for apartments that can accommodate singles, couples, and family households.</li> <li>Units with studies allow for flexible use, such as a home office or gym.</li> </ul>	
PART 4K-2	<p><u>OBJECTIVE:</u></p> <p>The apartment mix is distributed to suitable locations within the building</p>	<ul style="list-style-type: none"> <li>The apartment mix is distributed throughout the floorplates of each building.</li> <li>Larger units are generally located at the corners of the building to maximise on dual aspect</li> </ul>	
PART 4L-1	<p><u>OBJECTIVE:</u></p> <p>Street frontage activity is maximised where ground floor apartments are located</p>	<ul style="list-style-type: none"> <li>Yes. The ground floor maximises street trees and landscaping especially towards the ground floor apartments.</li> <li>Frontage to Buchan Avenue and Soldiers Parade on Stage 01 and 02 is also activated with retail tenancies.</li> </ul>	
PART 4L-2	<p><u>OBJECTIVE:</u></p> <p>Design of ground floor apartments delivers amenity and safety for residents</p>	<ul style="list-style-type: none"> <li>Ground level apartments have been designed with secure access from the proposed external civil levels via a gate</li> <li>The ground level apartments are naturally separated from the street level with a planting zone and barrier. The planting will add an additional layer of privacy for the residents.</li> <li>Communal open space and private open space for ground floor apartments are physically separated with a barrier.</li> </ul>	
PART 4M-1	<p><u>OBJECTIVE:</u></p> <p>Building facades provide visual interest along the street while respecting the character of the local area</p>	<ul style="list-style-type: none"> <li>Refer associated design report for a comprehensive design principles response in relation to facade articulation and treatment.</li> </ul>	
PART 4M-2	<p><u>OBJECTIVE:</u></p> <p>Building functions are expressed by the facade</p>	<ul style="list-style-type: none"> <li>Refer associated design report for a comprehensive design principles response in relation to facade articulation and treatment.</li> </ul>	
PART 4N-1	<p><u>OBJECTIVE:</u></p> <p>Roof treatments are integrated into the building design and positively respond to the street</p>	<ul style="list-style-type: none"> <li>Roof Plant and services have been centrally located away from the edge of the building.</li> <li>Screening is provided where required to provide additional visual separation to these services.</li> <li>The use of flat roof designs reduces the impact of the height of the buildings</li> <li>Communal open spaces are provided on the roofs, creating opportunity for greenery which will add to the streetscape.</li> </ul>	

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
PART 4N-2	<u>OBJECTIVE:</u> Opportunities to use roof space for residential accommodation and open space are maximised	<ul style="list-style-type: none"> <li>Each stage in the precinct features communal open space on the roof, providing great amenity to the residents.</li> </ul>	
PART 4N-3	<u>OBJECTIVE:</u> Roof design incorporates sustainability features	<ul style="list-style-type: none"> <li>Each stage in the precinct features communal open space on the roof, which will feature green planting. This will provide insulation to the levels below and help reduce the urban heat island effect, particularly in summer. It will also aid in reducing air pollution, and managing stormwater runoff.</li> <li>Solar panels are provided.</li> </ul>	
PART 4O-1	<u>OBJECTIVE:</u> Landscape design is viable and sustainable	<ul style="list-style-type: none"> <li>Refer Landscape design package for details.</li> </ul>	
PART 4O-2	<u>OBJECTIVE:</u> Landscape design contributes to the streetscape and amenity	<ul style="list-style-type: none"> <li>Refer Landscape design package for details.</li> </ul>	
PART 4P-1	<u>OBJECTIVE:</u> Appropriate soil profiles are provided	<ul style="list-style-type: none"> <li>Refer Landscape design package for details.</li> </ul>	
PART 4P-2	<u>OBJECTIVE:</u> Plant growth is optimised with appropriate selection and maintenance	<ul style="list-style-type: none"> <li>Refer Landscape design package for details.</li> </ul>	
PART 4P-3	<u>OBJECTIVE:</u> Planting on structures contributes to the quality and amenity of communal and public open spaces	<ul style="list-style-type: none"> <li>Refer Landscape design package for details.</li> </ul>	
PART 4Q-1	<u>OBJECTIVE:</u> Universal design features are included in apartment design to promote flexible housing for all community members	<ul style="list-style-type: none"> <li>The current proposal achieves the 20% requirement of apartments achieving the Livable Housing Guideline's Silver Level universal design features.</li> </ul>	
PART 4Q-2	<u>OBJECTIVE:</u> Adaptable housing should be provided in accordance with the relevant council policy	<ul style="list-style-type: none"> <li>The ADG states that adaptable housing should be provided in accordance with the relevant council policy. The Edmondson Park South DCP does not provide a numeric control for adaptable housing. It is considered reasonable to provide nil adaptable housing.</li> </ul>	
PART 4Q-3	<u>OBJECTIVE:</u> Apartment layouts are flexible and accommodate a range of lifestyle needs	<ul style="list-style-type: none"> <li>Unit mix typologies include 1, 2 and 3 bedroom apartments</li> <li>Some units include studies, allowing flexibility to be a room that can have a multitude of uses, such as a home office or gym.</li> </ul>	
PART 4R-1	<u>OBJECTIVE:</u> New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	<ul style="list-style-type: none"> <li>N/A</li> </ul>	

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
PART 4R-2	<p><u>OBJECTIVE:</u></p> <p>Adapted buildings provide residential amenity while not precluding future adaptive reuse</p>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	
PART 4S-1	<p><u>OBJECTIVE:</u></p> <p>Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement</p>	<ul style="list-style-type: none"> <li>Mixed use programme is provided on Stage 01 and 02 and acts as an extension of programme as stipulated in the Landcom masterplan</li> <li>Retail tenancies are provided along Soldier's Parade and Buchan Avenue and provide active street frontages</li> </ul>	
PART 4S-2	<p><u>OBJECTIVE:</u></p> <p>Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents</p>	<ul style="list-style-type: none"> <li>Residential entries and modes of circulation are to be clearly signposted, secured and easily seen from the street.</li> <li>These areas are to be well-lit at night to maximise safety</li> <li>Turns or corners in these areas are minimised to reduce concealment opportunities.</li> </ul>	
PART 4T-1	<p><u>OBJECTIVE:</u></p> <p>Awnings are well located and complement and integrate with the building design</p>	<ul style="list-style-type: none"> <li>Awnings have been located at the main entries of the buildings, providing weather protection for the residents. Awnings are integrated with the facade articulation and language established for the development.</li> <li>Awnings are provided to retail tenancies, allowing weather protection and Better use of the outdoor space.</li> </ul>	
PART 4T-2	<p><u>OBJECTIVE:</u></p> <p>Signage responds to the context and desired streetscape character</p>	<ul style="list-style-type: none"> <li>Yes - refer to signage details.</li> </ul>	
PART 4U-1	<p><u>OBJECTIVE:</u></p> <p>Development incorporates passive environmental design</p>	<ul style="list-style-type: none"> <li>The development has incorporated a number of passive design principles</li> <li>Cross ventilation is maximised where possible.</li> <li>Skylights provide another opportunity for ventilation</li> <li>Screening is used to mitigate solar heat gain.</li> <li>Green roof helps with urban heat island effect, and purifies the air.</li> <li>concrete slsb extensions provide further shading.</li> <li>Concrete facade provides thermal mass to kepe the building warm in winter and cool in the summer.</li> </ul>	
PART 4U-2	<p><u>OBJECTIVE:</u></p> <p>Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer</p>	<ul style="list-style-type: none"> <li>Refer response above.</li> </ul>	
PART 4U-3	<p><u>OBJECTIVE:</u></p> <p>Adequate natural ventilation minimises the need for mechanical ventilation</p>	<ul style="list-style-type: none"> <li>Each stage and building achieves the minimum 60% cross ventilation as per ADG requirements</li> <li>Building slots have been utilised to increase opportunitys of cross ventilation</li> <li>Open plan living has been incorporated to maximise natural air-flow through the apartments</li> <li>Apartment depths and appropriate ceiling heights have been designed in accordance with the requirements of this part of the ADG to maximise cross-ventilation and air-flow.</li> </ul>	
PART 4V-1	<p><u>OBJECTIVE:</u></p> <p>Potable water use is minimised</p>	<ul style="list-style-type: none"> <li>It is proposed to use water efficient fixtures within the development to minimise potable water usage.</li> <li>Refer to landscape architect's documentation for water saving measures in relation to landscaping.</li> </ul>	

PART	DESIGN OBJECTIVE/CRITERIA	NOTES	OUTCOMES
PART 4V-2	<p><u>OBJECTIVE:</u></p> <p>Urban stormwater is treated on site before being discharged to receiving waters</p>	<ul style="list-style-type: none"> <li>Stormwater management plans have been designed by an approved civil engineer. Refer to civil engineer's documentation.</li> </ul>	
PART 4V-3	<p><u>OBJECTIVE:</u></p> <p>Flood management systems are integrated into site design</p>	<ul style="list-style-type: none"> <li>Stormwater management plans have been designed by an approved civil engineer. Refer to civil engineer's documentation.</li> </ul>	
PART 4W-1	<p><u>OBJECTIVE:</u></p> <p>Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents</p>	<ul style="list-style-type: none"> <li>The design integrates waste storage facilities in the basements in order to minimise impacts on the streetscape, building entry, and amenity of residents</li> <li>Waste holding rooms are located adjacent to the loading docks</li> <li>A comprehensive waste management plan has been prepared by specialist consultants to support the development application.</li> </ul>	
PART 4W-2	<p><u>OBJECTIVE:</u></p> <p>Domestic waste is minimised by providing safe and convenient source separation and recycling</p>	<ul style="list-style-type: none"> <li>Each residential core provides access to a waste chute and a recycling chute. In this way, waste and recycling are easily separated in the waste room in the basement</li> <li>Communal food waste rooms are provided in the basement for each building core, and thus are separate from residential waste and recycling</li> <li>Separate retail waste rooms are provided on Stage 01 and Stage 02, and are separated from residential waste.</li> </ul>	
PART 4X-1	<p><u>OBJECTIVE:</u></p> <p>Building design detail provides protection from weathering</p>	<ul style="list-style-type: none"> <li>The development has been designed to with materials that are durable and long lasting such as concrete floors and roofs and concrete facades</li> <li>Awnings and balcony overhangs provide additional weather protection.</li> <li>The number of facade materials proposed is limited to ensure that junctions between materials, which typically are weak points in relation to water ingress, are minimised.</li> </ul>	
PART 4X-2	<p><u>OBJECTIVE:</u></p> <p>Systems and access enable ease of maintenance</p>	<ul style="list-style-type: none"> <li>The development has been designed with provision for facade building maintenance systems. This will be detailed in further design development.</li> <li>All rooftop green spaces are readily accessible via stair and lift for ease of maintenance.</li> <li>Majority of service rooftop spaces are accessible via firestair for ease of maintenance.</li> </ul>	
PART 4X-3	<p><u>OBJECTIVE:</u></p> <p>Material selection reduces ongoing maintenance costs</p>	<ul style="list-style-type: none"> <li>The building façade is intended to be robust and hard-wearing.</li> <li>Internally, common areas will be resilient in order to accommodate high traffic patterns, particularly around the lift lobby.</li> </ul>	



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