







Proposed BWL Seniors Housing Redevelopment
51-57 & 59 Masons Parade
Point Frederick


JWP Compliance Review
NSW Department of Planning and Environment
Apartment Design Guide
July 2015

Part 2 Developing Controls




Item	Design Criteria	Compliance	Design Response
Part 2A Primary Controls			
<i>Primary development controls include building height, floor space ratio, building depth, building separation and setbacks.</i>			
Part 2B Building Envelopes			
<p>A building envelope is a three dimensional volume that defines the outermost part of a site that the building can occupy.</p> <p>Building envelopes set the appropriate scale of future development in terms of bulk and height relative to the streetscape, public and private open spaces, and block and lot sizes in a particular location.</p>	<p><i>A building envelope should be 25-30% greater than the achievable floor area (see section 2D Floor space ratio) to allow for building components that do not count as floor space but contribute to building design and articulation such as balconies, lifts, stairs and open circulation space.</i></p>		<p>The existing urban footprint in the area is a mixture of low rise and medium density development, with predominantly retail and commercial along Mann Street and residential development on the city edges towards Point Frederick.</p> <p>The Central Coast Hwy wrapping the water's edge acts to separate pedestrian and visual connections to the water, particularly from a mix of 1 and 2 storey buildings along Masons Parade. Densifying development supports the DCPs approach of connecting the city to Gosford's natural settings.</p> <p>The proposal seeks to amend the height controls on the subject site to match the neighbouring properties and allow a consistent approach to development, providing a more harmonious streetscape to the water's edge.</p> <p>The current SEPP controls nominate a 15m height limit. This creates an inconsistency to the streetscape character framing the water and the adjacent green space.</p> <p>Through careful design and breaks in the form to avoid a continuous built edge, the proposal is to increase the allowable height in the precinct to 26m.</p>





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Part 2C Building Height			
Height controls should be informed by decisions about daylight and solar access, roof design and use, wind protection, residential amenity and in response to landform and heritage.	<i>Develop site-specific building envelopes and heights within a development control plan for large or complex sites such as those on steep slopes and those with changing topography. These specific heights need to be achievable within the building height set in the LEP</i>		The maximum building height is 15m per the Gosford City SEPP. The proposal exceeds the maximum height requirement, invoking Clause 8.4 – Exceptions to Height and Floor Space in Zones B3, B4 and B6.
Part 2D Floor Space Ratio			
Floor space ratio (FSR) is the relationship of the total gross floor area (GFA) of a building relative to the total site area it is built on. It indicates the intended density. FSR is a widely used method for estimating the development potential of a site.	<i>The allowable gross floor area should only 'fill' approximately 70% of the building envelope (see section 2B Building envelopes).</i>		Gosford City SEPP FSR for the site is 2:1. The proposal has an FSR of 0.76:1 and is compliant with the FSR provision.
Part 2E Building Depth			
Building depth is an important tool for determining the development capacity of a site. It is the overall cross section dimension of a building envelope. Building depth dimensions typically include articulation such as projecting balconies, gallery access, eaves, overhangs, sun hoods, blades and other architectural features.	<i>Use a range of appropriate maximum apartment depths of 12-18m from glass line to glass line when precinct planning and testing development controls. This will ensure that apartments receive adequate daylight and natural ventilation and optimise natural cross ventilation</i>		The apartments have a variety of depths and use corner units / cross through units to assist with ventilation. A wide central courtyard means all units are cross through units and are less than 14m in depth. All 54 units (100%) achieve cross ventilation. The building is orientated to address Masons Parade and significant views to Brisbane Water facing west, south/west. The northern and north/eastern elevations step down to bring natural light and ventilation into the courtyard. The courtyard is used as a secondary light source to the apartments. The courtyard is fully open to the sky, light coloured external walls and lift shaft are used to assist in reflecting natural light into the courtyard.




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Part 2F Building Separation			
Street setbacks establish the alignment of buildings along the street frontage, spatially defining the width of the street. Combined with building height and road reservation, street setbacks define the proportion and scale of the street and contribute to the character of the public domain.	<p><i>Minimum separation distances for buildings are:</i></p> <p><i>Up to four storeys (approx. 12m):</i></p> <ul style="list-style-type: none"> • 12m between habitable rooms/balconies • 9m between habitable and non-habitable rooms • 6m between non-habitable rooms <p><i>Five to eight storeys (approx. 25m):</i></p> <ul style="list-style-type: none"> • 18m between habitable rooms/balconies • 12m between habitable and non-habitable rooms • 9m between non-habitable rooms 		Complies. The separation distances for the building are: Ground to 4 th floor – 12m (6m each side) 5 th & 6 th floor – 18m (9m each side).
Part 2G Street Setbacks			
Street setbacks establish the alignment of buildings along the street frontage, spatially defining the width of the street. Combined with building height and road reservation, street setbacks define the proportion and scale of the street and contribute to the character of the public domain	<i>Align street setbacks with building use. For example in mixed use buildings a zero street setback is appropriate</i>		The proposed street setback is zero, in line with the existing mixed use buildings along the street.



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Part 2H Side and Rear Setbacks			
Side and rear setbacks govern the distance of a building from the side and rear site boundaries and are related to the height of the building. They are important tools for achieving amenity for new development and buildings on adjacent sites.	<p><i>Test side and rear setbacks with height controls for overshadowing of the site, adjoining properties and open spaces. Test side and rear setbacks with the requirements for:</i></p> <ul style="list-style-type: none"> • <i>building separation and visual privacy</i> • <i>communal and private open space</i> • <i>deep soil zone requirements</i> 		<p>The proposed side setbacks are in accordance with the building separation guidelines.</p> <p>Proposed rear setbacks are governed by the landscape requirements.</p>

Part 3 Siting the Development

Item	Design Guidance	Compliance	Design Response
Part 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	<i>Each element in the Site Analysis Checklist should be addressed (see Appendix 1)</i>		The proposed design responds to site location, context and physical elements. Detailed site analysis plans respond to Appendix 1.
Part 3B Orientation			
Objective 3B-1 Building types and layouts respond to the streetscape and site while optimising solar access within the development	<p><i>Buildings along the street frontage define the street, by facing it and incorporating direct access from the street</i></p> <p><i>Where the street frontage is to the east or west, rear buildings should be orientated to the north Where the street frontage is to the north or south, overshadowing to the south should be minimised and buildings behind the street frontage should be orientated to the east and west</i></p>		<p>The proposed building faces the street and incorporates direct access from the street.</p> <p>The street frontage is to the west. The design of the building facilitates solar access.</p>
Objective 3B-2 Overshadowing of neighbouring properties is minimised during mid-Winter	<i>Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access</i>		Shadow diagrams indicate minor overshadowing of adjoining properties mid-Winter. This is minimised by compliance with the building envelope.




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Part 3C Public domain interface			
Objective 3C-1 Transition between private and public domain is achieved without compromising safety and security	<p><i>Terraces, balconies and courtyard apartments should have direct street entry, where appropriate</i></p> <p><i>Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings</i></p>		The street interface divides the public and private domain by minor grade separation to reinforce territoriality, improve street surveillance, and afford visual privacy to ground floor areas (refer cross-section)
Objective 3C-2 Amenity of the public domain is retained and enhanced	<i>Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking</i>		Refer to Landscaping plans .
Part 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	1. Communal open space has a minimum area equal to 25% of the site		<p><u>Required:</u> 1,510.25m²</p> <p><u>Achieves:</u></p> <p>Ground floor landscape area – 1,192m² (ex. stormwater chnl)</p> <p>Level 1 communal space – 148.44m²</p> <p>Level 2 veggie terrace – 82.54m²</p> <p>Level 3 BBQ terrace – 112.33m²</p> <p>Level 4 Chess terrace – 42.74m²</p> <p>Total communal open space 1,578.05m²</p>
	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)		<p>Complies.</p> <p>Ground floor landscaped area 1,192m² (75.5%)</p>






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Part 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	<p>1. Deep soil zones are to meet the following minimum requirements:</p> <p><u>Minimum Dimensions</u></p> <p>Greater than 1,500m² with significant existing tree cover 6m</p> <p><u>Deep soil zone (% of site area)</u></p> <p>7%</p>		<p>Complies with the Seniors housing SEPP and 2020.98sqm provided for deep soil planting.</p> <p>SEPP 65 Deep soil requires min. 422.86m² (7%)</p> <p>The design achieves 2020.98m² of deep soil (33.5%)</p>
Part 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	<p>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:</p> <p>Over 25m (9+ storeys)</p> <p>Habitable rooms and balconies-12m</p> <p>Non-habitable rooms-6m</p>		<p>Except for the balconies to level 5 and 6 on the southern façade, the design complies with the minimum building separation distances.</p> <p>Privacy screens have been provided to the level 5 & 6 balconies that intrude on the 9m side setback.</p>
Part 3G Pedestrian access and entries			
Objective 3G-1 Building entries and pedestrian access connects to and addresses the public domain	<p>Multiple entries (including communal building entries and individual ground floor entries) should be provided to activate the street edge</p> <p>Entry locations relate to the street and subdivision pattern and the existing</p>		Suitable access is provided and clearly delineated.







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	<p><i>pedestrian network</i></p> <p><i>Building entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries</i></p> <p><i>Where street frontage is limited and multiple buildings are located on the site, a primary street address should be provided with clear sight lines and pathways to secondary building entries</i></p>		
Part 3H Vehicle access			
<p>Objective 3H-1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes</p>	<p><i>Car park access should be integrated with the building's overall facade. Design solutions may include:</i></p> <ul style="list-style-type: none"> <i>• the materials and colour palette to minimise visibility from the street</i> <i>• security doors or gates at entries that minimise voids in the facade</i> <i>• where doors are not provided, the visible interior reflects the facade design and the building services, pipes and ducts are concealed</i> 		<p>Carparking has been integrated into the design of the building.</p>
Part 3J Bicycle and car parking			
<p>Objective 3J-1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas</p>	<p><i>1. For development in the following locations:</i></p> <ul style="list-style-type: none"> <i>• 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</i> 		<p>Proposed off street carparking provides 48 spaces, compliant with Seniors Living SEPP.</p>



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	<p><i>parking requirement prescribed by the relevant council, whichever is less</i></p> <p><i>The car parking needs for a development must be provided off street</i></p>		




Part 4 Designing the Building



Item	Design Guidance	Compliance	Design Response
Amenity			
Part 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	2. <i>[In areas outside Sydney Metropolitan Area and in the Newcastle and Wollongong local government 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</i>		ADG provides user concession 'where significant views are oriented away from the desired aspect for direct sunlight.' The street frontage is to the west, with the best views of Brisbane Water to the south/west. Apartments have been designed to take full advantage of these views. Excluding those units that face south together with those units orientated toward significant views, 30 of the 54 units are deemed exempt. 18 of the 24 units are compliant with the 3hr sunlight requirement between 9am and 3pm on 21 June. This equates to 75% compliance.
	3. <i>A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter</i>		Complies.
Part 4B Natural ventilation			
Objective 4B-3 The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	1. <i>At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.</i> <i>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</i>		Building Design ensures that proposed apartments provide increased access to daylight and natural ventilation, with the central open courtyard creating a stack effect for hot air to escape the building while residences are cross ventilated. The apartments have a variety of depths and use corner units / cross through units to assist with ventilation. A wide central courtyard means all units are cross through units and are less than 14m in depth. All 54 units (100%) achieve cross ventilation.





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	2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line		We confirm that no cross-over or cross-through apartment is greater than 18m. The furthest is 12m.
Part 4C Ceiling heights			
Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access	1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are: Habitable rooms 2.7m Non-habitable 2.4m		Complies
Part 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	1. Apartments are required to have the following minimum internal areas: 1 bedroom 50m ² 2 bedroom 70m ² 3 bedroom 90m ²		Complies 1 bed + study = 56.25m ² 1 bed + study (west facing) = 81.71m ² 2 Bed = 84.36m ² 2 bed + study = 105.96m ² 3 bed = 115.49m ²
	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	1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height		Complies




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maximised	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	1. Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space)		Complies. All master bedrooms comply with the requirements for SEPP Seniors. The smallest master bedroom (3 bed) is 11.86m ² All other master bedrooms are 12.57m ² or greater.
	2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)		Complies. All bedrooms achieve the minimum dimension of 3m (excluding wardrobe)
	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
Part 4E Private open space and balconies			
Objective 4E-1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity	1. All apartments are required to have primary balconies as follows: <u>1 bedroom apartments</u> Minimum Area 8m ² Minimum Depth 2m <u>2 bedroom apartments</u> Minimum Area 10m ²		Complies 1 bed + study = varies 9.52m ² , 10.7m ² , 27.4m ² 2 bed = 19.25m ² 2 bed + study = 29.76m ² 3 bed = 25.62m ²





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	<i>Minimum Depth 2m</i> <i>3+ bedroom apartments</i> <i>Minimum Area 12m²</i> <i>Minimum Depth 2.4m</i>		
Part 4F Common circulation and spaces			
Objective 4F-1 Common circulation spaces achieve good amenity and properly service the number of apartments	1. <i>The maximum number of apartments off a circulation core on a single level is eight</i>		Complies with user concession. The building design consists of separate but linked buildings around a courtyard. This creates separation between small groups of apartments and better amenity for the residents. Number of apartments off a single core does not exceed 12 (proposal has 11) and is reduced on upper levels.
4G Storage			
Objective 4G-1 Adequate, well designed storage is provided in each apartment	1. <i>In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:</i> <i>1 bedroom apartments 6m³</i> <i>2 bedroom apartments 8m³</i> <i>3+ bedroom apartments 10m³</i> <i>At least 50% of the required storage is to be located within the apartment</i>		The design provides for required storage within each apartment with additional secured storage space provided on the ground floor and within the car park. <ul style="list-style-type: none"> • 1 bedroom - 6m³ • 2 bedroom - 8m³ • 3 bedroom - 10m³




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Part 4H Acoustic privacy			
Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout	<p><i>Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses (see also section 2F Building separation and section 3F Visual privacy)</i></p> <p><i>Window and door openings are generally orientated away from noise sources</i></p>		6m side setback is provided, providing adequate building separation for acoustic privacy with adjoining buildings.
Part 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	<p><i>To minimise impacts the following design solutions may be used:</i></p> <ul style="list-style-type: none"> <i>• physical separation between buildings and the noise or pollution source</i> <i>• residential uses are located perpendicular to the noise source and where possible buffered by other uses</i> <i>• non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses and communal open spaces</i> 		Physical separation is provided between buildings.
Configuration			
Part 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	<i>A variety of apartment types is provided</i>		The development provides 1-, 2- and 3-bedroom apartments.




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Part 4M Facades			
Objective 4M-1 Building facades provide visual interest along the street while respecting the character of the local area	<p><i>Design solutions for front building facades may include:</i></p> <ul style="list-style-type: none"> • a composition of varied building elements • a defined base, middle and top of buildings • revealing and concealing certain elements • changes in texture, material, detail and colour to modify the prominence of elements 		Varied building materials are proposed including finishes along the front façade.
Part 4N Roof design			
Objective 4N-1 Roof treatments are integrated into the building design and positively respond to the street	<p><i>Roof design relates to the street. Design solutions may include:</i></p> <ul style="list-style-type: none"> • special roof features and strong corners • use of skillion or very low pitch hipped roofs • breaking down the massing of the roof by using smaller elements to avoid bulk • using materials or a pitched form complementary to adjacent buildings 		<p>The LEP states that development in B4 mixed use zone should 'allow development in Point Frederick to take advantage of and retain view corridors while avoiding a continuous built edge along the waterfront.'</p> <p>Communal spaces to the east and west break the massing of the facade, creating places for resident interaction and social engagement, maximising views to Brisbane Waters and the Landscaped Garden at the rear.</p> <p>A deliberate break and step in the street facade and the vertical tower element on the right, assist in clearly defining the main entry point to the facility. This break sets up a pedestrian axis that runs to the rear of the site to the communal landscaped area.</p>

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Part 4O Landscape design			
Objective 4O-1 Landscape design is viable and sustainable	<p><i>Recommended tree planting in deep soil zones</i></p> <p><i>Greater than 1,500m² 1 large tree or 2 medium trees per 80m² of deep soil zone</i></p>		<p>Approximately 25 large trees required in deep soil area.</p> <p>Approximately 30, medium to large trees proposed in deep soil area</p>
Building			
4Q Universal design			
Objective 4Q-1 Universal design features are included in apartment design to promote flexible housing for all community members	<p><i>Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features</i></p>		<p>Seniors SEPP compliant</p> <p>All units achieve a minimum silver level of the Livable Housing Guideline's.</p>
Objective 4Q-2 A variety of apartments with adaptable designs are provided	<p><i>Adaptable housing should be provided in accordance with the relevant council policy</i></p>		<p>Refer Gosford City Centre SEPP and Gosford DCP Compliance.</p>
Objective 4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle needs	<p><i>Apartment design incorporates flexible design solutions which may include:</i></p> <ul style="list-style-type: none"> <i>• rooms with multiple functions</i> <i>• dual master bedroom apartments with separate bathrooms</i> <i>• larger apartments with various living space options</i> <i>• open plan 'loft' style apartments with only a fixed kitchen, laundry and bathroom</i> 		

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Part 4S Mixed use			
Objective 4S-1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	<i>Mixed use development should be concentrated around public transport and centres</i>		The proposed development is suitably located, close to public transport within a commercial area.
Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	<i>Residential circulation areas should be clearly defined. Design solutions may include:</i> <ul style="list-style-type: none"> • residential entries are separated from commercial entries and directly accessible from the street • commercial service areas are separated from residential components • residential car parking and communal facilities are separated or secured • security at entries and safe pedestrian routes are provided • concealment opportunities are avoided 		Residential areas are located on separate floors to commercial areas.
Part 4T Awnings and signage			
Objective 4T-1 Awnings are well located and complement and integrate with the building design	<i>Awnings should be located along streets with high pedestrian activity and active frontages</i>		Balconies are provided along high pedestrian traffic streets.

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Objective 4T-2 Signage responds to the context and desired streetscape character	<i>Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development</i>		Complies. Signage responds to the context and desired streetscape character.
Part 4U Energy efficiency			
Objective 4U-1 Development incorporates passive environmental design	<i>Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access). Well located, screened outdoor areas should be provided for clothes drying</i>		Design facilitates natural lighting within habitable rooms.
Objective 4U-2 Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	<p><i>A number of the following design solutions are used:</i></p> <ul style="list-style-type: none"> <i>• the use of smart glass or other technologies on north and west elevations</i> <i>• thermal mass in the floors and walls of north facing rooms is maximised</i> <i>• polished concrete floors, tiles or timber rather than carpet</i> <i>• insulated roofs, walls and floors and seals on window and door openings</i> <i>• overhangs and shading devices such as awnings, blinds and screens</i> 		<p>The proposal incorporates the use of design solutions to optimise heat storage in winter and heat transfer in summer.</p> <p>Roller blinds are incorporated into the street façade (west facing)</p> <p>Central courtyard has been designed to create a stack effect, allowing hot air to escape the building. Greenery through the open walkways and within shared spaces helps maintain temperatures in these areas.</p>
Part 4V Water management and conservation			
Objective 4V-1 Potable water use is minimised	<p><i>Water efficient fittings, appliances and wastewater reuse should be incorporated. Apartments should be individually metered</i></p> <p><i>Rainwater should be collected, stored and reused on site.</i></p> <p><i>Drought tolerant, low water use plants should be used within landscaped areas.</i></p>		Suitable water fittings and appliances will be provided. As per BASIX.

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Objective 4V-2 Urban stormwater is treated on site before being discharged to receiving waters	<i>Water sensitive urban design systems are designed by a suitably qualified professional</i>		Suitably designed water sensitive systems are facilitated by the design.
Part 4W Waste management			
Objective 4W-1 Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	<p><i>Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park.</i></p> <p><i>Waste and recycling storage areas should be well ventilated.</i></p> <p><i>Circulation design allows bins to be easily manoeuvred between storage and collection points.</i></p> <p><i>Temporary storage should be provided for large bulk items such as mattresses.</i></p> <p><i>A waste management plan should be prepared</i></p>		<p>Suitable waste management facilities are proposed for the development.</p> <p>A waste management plan has been written for DA.</p>
Objective 4W-2 Domestic waste is minimised by providing safe and convenient source separation and recycling	<p><i>All dwellings should have a waste and recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste and recycling.</i></p> <p><i>Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core .</i></p> <p><i>For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses.</i></p> <p><i>Alternative waste disposal methods such as composting should be provided.</i></p>		Waste and recycling rooms are provided on each floor to accommodate waste for approximately two days.

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4X Building maintenance			
Objective 4X-1 Building design detail provides protection from weathering	<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> • roof overhangs to protect walls • hoods over windows and doors to protect openings • detailing horizontal edges with drip lines to avoid staining of surfaces • methods to eliminate or reduce planter box leaching • appropriate design and material selection for hostile locations 		<p>Typical 1:20 wall details have been provided.</p> <p>The concrete floor slab extends past the Cemintel wall sheet with a drip groove to the underside of the slab to avoid staining of surfaces.</p> <p>All balcony slabs will also have a drip groove.</p>
Objective 4X-2 Systems and access enable ease of maintenance	<p>Window design enables cleaning from the inside of the building.</p> <p>Building maintenance systems should be incorporated and integrated into the design of the building form, roof and façade. Design solutions do not require external scaffolding for maintenance access. Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems. Centralised maintenance, services and storage should be provided for communal open space areas within the building.</p>		Complies
Objective 4X-3 Material selection reduces ongoing maintenance costs	<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> • sensors to control artificial lighting in common circulation and spaces • natural materials that weather well and improve with time such as face brickwork 		Refer to materials section in the Urban Design Analysis report.

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	<ul style="list-style-type: none"> • <i>easily cleaned surfaces that are graffiti resistant</i> • <i>robust and durable materials and finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors</i> 		