

**PROJECT:** JOB NO. 10524 – 15 LAWRENCE STREET FRESHWATER NSW;

**DATE:** 15/12/2017

TABLE 1 – APARTMENT DESIGN GUIDE – DESIGN OBJECTIVES AND DESIGN CRITERIA

	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
<b>Part 3 Siting the Development</b>				
<b>Site Analysis</b>	<b>Objective 3A-1</b> Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context		Complies	Addresses site context and use with predominant Retail frontage along Lawrence street. Proposed residential apartments on upper level designed to address site opportunities.
<b>Orientation</b>	<b>Objective 3B-1</b> Building types and layouts respond to the streetscape and site while optimising solar access within the development		Complies	-
	<b>Objective 3B-2</b> Overshadowing of neighbouring properties is minimised during mid-winter		Complies	Neighbouring properties are all east and west across the side boundaries. To the south is Lawrence street, Freshwater town centre retail character.
<b>Public Domain Interface</b>	<b>Objective 3C-1</b> Transition between private and public domain is achieved without compromising safety and security		Complies	<ul style="list-style-type: none"> <li>- Separate Residential Building entry is clearly identified from Lawrence street;</li> <li>- Whilst there is a common (retail and residential) car parking driveway accessed from Lawrence Street, once inside the car park, there is separate security controlled residential car parking zone.</li> </ul>

					- Level 1 apartments contain courtyards with external access – buffer between communal/private zones;	
	<b>Objective 3C-2</b> Amenity of the public domain is retained and enhanced			Complies	Lawrence street retail character is maintained with maximum use of shopfront glazing;	
<b>Communal and Public Open Space</b>	<b>Objective 3D-1</b> An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	<ol style="list-style-type: none"> <li>Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)</li> <li>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)</li> </ol>	Not Compliant		<ol style="list-style-type: none"> <li>Communal open space of 410m<sup>2</sup> is located on Level 1 resulting in 16% of the site area;</li> <li>The proposed communal open space receives approximately 50% direct sunlight between 9am and 3pm mid-winter.</li> </ol>	
			Complies			
	<b>Objective 3D-2</b> Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting		Complies		Communal space is distributed across L1 podium level with outdoor garden/ interactive zones;	
	<b>Objective 3D-3</b> Communal open space is designed to maximise safety		Complies		Controlled access to podium communal open space. It will be adequately illuminated at night;	
<b>Objective 3D-4</b> Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood		N/A		-		
<b>Deep Soil Zones</b>	<b>Objective 3E-1</b> 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	Deep soil zones are to meet the following minimum requirements:			Not Compliant	119m <sup>2</sup> (4.6%) Site restricted with easements within setbacks. Quality above structure landscaping solutions have been maximised in this proposal with managed stormwater design.
		Site Area	Min. Dimensions	Deep soil zone (% of site area)		
		Less than 650m <sup>2</sup>	-	7%		

		650m <sup>2</sup> – 1500m <sup>2</sup>	3m			
		Greater than 1500m <sup>2</sup>	6m			
		Greater than 1500m <sup>2</sup> with significant tree cover	6m			
Visual Privacy	<p><b>Objective 3F-1</b> Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy</p> <p>Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room</p>	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:			Complies	Development is consistent with the building separation requirements;
		Building height	Habitable rooms and balconies	Non-habitable rooms		
		Up to 12m (4 storeys)	6m	3m		
		Up to 25m (5-8 storeys)	9m	4.5m		
		Over 25m (9+ storeys)	12m	6m		
	<p><b>Objective 3F-2</b> 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>				Complies	Predominant use of floor to ceiling glass throughout to maximise light. Use of screens to provide privacy and filter light throughout.
	<p><b>Objective 3G-1</b> Building entries and pedestrian access connects to and addresses the public domain</p>				Complies	All development entrances address the public domain through access and connectivity;

Pedestrian Access and Entries	<b>Objective 3G-2</b> Access, entries and pathways are accessible and easy to identify		Complies	
	<b>Objective 3G-3</b> Large sites provide pedestrian links for access to streets and connection to destinations		N/A	
Vehicle Access	<b>Objective 3H-1</b> Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes		Complies	
Bicycle and Car Parking	<b>Objective 3J-1</b> Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	<p>For development in the following locations:</p> <ul style="list-style-type: none"> <li>• on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or</li> <li>• on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre</li> </ul> <p>the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less</p> <p>The car parking needs for a development must be provided off street.</p>	Complies	Car parking provision is in accordance with the Council controls;
	<b>Objective 3J-2</b> Parking and facilities are provided for other modes of transport		Complies	Bicycle racks are provided within car park.
	<b>Objective 3J-3</b> Car park design and access is safe and secure		Complies	Secure/ controlled access to carpark is proposed;

	<b>Objective 3J-4</b> Visual and environmental impacts of underground car parking are minimised	Complies	Development has been designed to minimise depth of excavation by utilizing the space behind the retail space at Ground level for car parking.
	<b>Objective 3J-5</b> Visual and environmental impacts of on-grade car parking are minimised	N/A	
	<b>Objective 3J-6</b> Visual and environmental impacts of above ground enclosed car parking are minimised	complies	The carpark will be naturally ventilated, with mechanical vent as make up. Car park will not be visible from public areas.
<b>Part 4 – Designing the Building</b>			
<b>Solar and Daylight Access</b>	<b>Objective 4A-1</b> To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the <b>Sydney Metropolitan Area</b> and in the Newcastle and Wollongong local government areas	Complies  Apartments with 2 hour Solar access: <b><u>18/ 23 = 78 %</u></b>
		2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter	n/a
		3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	Complies  A total of 3 apartments (13%) receive no direct sunlight between 9am and 3pm at mid-winter; <b><u>3/23= 13 %</u></b>

	<b>Objective 4A-2</b> Daylight access is maximised where sunlight is limited		Complies	Use of large windows throughout apartments;
	<b>Objective 4A-3</b> Design incorporates shading and glare control, particularly for warmer months		Complies	External Sun Shade elements provided. Performance glass intended;
<b>Natural Ventilation</b>	<b>Objective 4B-1</b> All habitable rooms are naturally ventilated		Complies	
	<b>Objective 4B-2</b> The layout and design of single aspect apartments maximises natural ventilation		Complies	
	<b>Objective 4B-3</b> The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.  Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	Complies	17/23 apartments =741% <b><u>60% ADG compliance</u></b>
		2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	Generally compliant	2 x Apartments at 18.2m. Balance of apartments within 18m.
<b>Ceiling Heights</b>	<b>Objective 4C-1</b> Ceiling height achieves sufficient natural ventilation and daylight access	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	Complies	Ceiling heights set at minimal limits as specified by code
		Minimum ceiling height for apartment and mixed use buildings		
		Habitable Rooms		

		Non-Habitable	2.4m		
		For 2 Storey Apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area		
		Attic Spaces	1.8m at edge of room with a 30 degree minimum ceiling slope		
		If located in mixed use areas	3.3m for ground and first floor to promote future flexibility of use		
<b>Objective 4C-2</b> Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms				Complies	
<b>Objective 4C-3</b> Ceiling heights contribute to the flexibility of building use over the life of the building				Complies	
<b>Apartment Size and Layout</b>	<b>Objective 4D-1</b> 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:		Complies	Apartments designed to meet or <u>exceed</u> minimal internal area required under the ADG and in accordance with specific apartment sizes per the Stage 1 Conditions of Consent under BB Council;
		Apartment Types	Minimum Internal Area		
		Studio	35m <sup>3</sup>		
		1 bedroom	50m <sup>3</sup>		
		2 bedroom	70m <sup>3</sup>		
		3 bedroom	90m <sup>3</sup>		

		<p>The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m<sup>2</sup> each.</p> <p>A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m<sup>2</sup> 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>	Complies	
Objective 4D-2 Environmental performance of the apartment is maximised	1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height	Complies		
	2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Complies		
Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs	1. Master bedrooms have a minimum area of 10m <sup>2</sup> and other bedrooms 9m <sup>2</sup> (excluding wardrobe space)	Complies		
	2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Complies		
	<p>3. Living rooms or combined living/dining rooms have a minimum width of:</p> <ul style="list-style-type: none"> <li>• 3.6m for studio and 1 bedroom apartments</li> </ul>	Complies		

		<ul style="list-style-type: none"> <li>• 4m for 2 and 3 bedroom apartments</li> </ul>																	
		4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	Complies																
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:	Complies	Apartments designed to meet or <u>exceed</u> minimal balcony area required under the ADG.															
		<table border="1"> <thead> <tr> <th>Dwelling type</th> <th>Minimum Area</th> <th>Minimum Depth</th> </tr> </thead> <tbody> <tr> <td>Studio</td> <td>4m<sup>3</sup></td> <td>-</td> </tr> <tr> <td>1 bedroom</td> <td>8m<sup>3</sup></td> <td>2m</td> </tr> <tr> <td>2 bedroom</td> <td>10m<sup>3</sup></td> <td>2m</td> </tr> <tr> <td>3+ bedroom</td> <td>12m<sup>3</sup></td> <td>2.4m</td> </tr> </tbody> </table>			Dwelling type	Minimum Area	Minimum Depth	Studio	4m <sup>3</sup>	-	1 bedroom	8m <sup>3</sup>	2m	2 bedroom	10m <sup>3</sup>	2m	3+ bedroom	12m <sup>3</sup>	2.4m
		Dwelling type			Minimum Area	Minimum Depth													
		Studio			4m <sup>3</sup>	-													
		1 bedroom			8m <sup>3</sup>	2m													
		2 bedroom			10m <sup>3</sup>	2m													
		3+ bedroom	12m <sup>3</sup>	2.4m															
The minimum balcony depth to be counted as contributing to the balcony area is 1m																			
2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m <sup>2</sup> and a minimum depth of 3m.		N/a																	
Objective 4E-2 Primary private open space and balconies are appropriately located to enhance liveability for residents		Complies	Addresses orientation and amenity;																
Objective 4E-3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building		Complies																	

	<b>Objective 4E-4</b> Private open space and balcony design maximises safety		Complies											
<b>Common Circulation and Spaces</b>	<b>Objective 4F-1</b> Common circulation spaces achieve good amenity and properly service the number of apartments	1. The maximum number of apartments off a circulation core on a single level is eight	Complies											
		2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	N/A											
	<b>Objective 4F-2</b> Common circulation spaces promote safety and provide for social interaction between residents		Complies											
<b>Storage</b>	<b>Objective 4G-1</b> Adequate, well designed storage is provided in each apartment	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	Complies	Shared with at least 50% in basement										
		<table border="1"> <thead> <tr> <th>Dwelling Type</th> <th>Storage size volume</th> </tr> </thead> <tbody> <tr> <td>Studio</td> <td>4m<sup>3</sup></td> </tr> <tr> <td>1 bedroom</td> <td>6m<sup>3</sup></td> </tr> <tr> <td>2 bedroom</td> <td>8m<sup>3</sup></td> </tr> <tr> <td>3+ bedroom</td> <td>10m<sup>3</sup></td> </tr> </tbody> </table>			Dwelling Type	Storage size volume	Studio	4m <sup>3</sup>	1 bedroom	6m <sup>3</sup>	2 bedroom	8m <sup>3</sup>	3+ bedroom	10m <sup>3</sup>
		Dwelling Type			Storage size volume									
		Studio			4m <sup>3</sup>									
		1 bedroom			6m <sup>3</sup>									
		2 bedroom			8m <sup>3</sup>									
		3+ bedroom			10m <sup>3</sup>									
At least 50% of the required storage is to be located within the apartment														
<b>Objective 4G-2</b> Additional storage is conveniently located, accessible and nominated for individual apartments	Complies	On Carpark level;												
<b>Objective 4H-1</b> Noise transfer is minimised through the siting of buildings and building layout	Complies													
<b>Acoustic Privacy</b>														

	<b>Objective 4H-2</b> Noise impacts are mitigated within apartments through layout and acoustic treatments	Complies	
<b>Noise and Pollution</b>	<b>Objective 4J-1</b> In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	Complies	
	<b>Objective 4J-2</b> Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission	Complies	It is also intended for use of landscaping and appropriate acoustic measures by consultant;
<b>Apartment Mix</b>	<b>Objective 4K-1</b> A range of apartment types and sizes is provided to cater for different household types now and into the future	Complies	
	<b>Objective 4K-2</b> The apartment mix is distributed to suitable locations within the building	Complies	
<b>Ground Floor Apartments</b>	<b>Objective 4L-1</b> Street frontage activity is maximised where ground floor apartments are located	N/A	
	<b>Objective 4L-2</b> Design of ground floor apartments delivers amenity and safety for residents	N/A	
<b>Facades</b>	<b>Objective 4M-1</b> Building facades provide visual interest along the street while respecting the character of the local area	Complies	Streetscape façade is in accordance with character of local area.
	<b>Objective 4M-2</b> Building functions are expressed by the facade	Complies	..and differentiated through use of materials
<b>Roof Design</b>	<b>Objective 4N-1</b> Roof treatments are integrated into the building design and positively respond to the street	Complies	Flat roof , recessed from the street – minimal impact;
	<b>Objective 4N-2</b> Opportunities to use roof space for residential accommodation and open space are maximised	N/A	
	<b>Objective 4N-3</b> Roof design incorporates sustainability features	Complies	Thermal mass concrete insulated roof

Landscape Design	Objective 4O-1 Landscape design is viable and sustainable	Complies	Podium contains communal landscaped gardens;
	Objective 4O-2 Landscape design contributes to the streetscape and amenity	N/A	
Planting on Structures	Objective 4P-1 Appropriate soil profiles are provided	Complies	
	Objective 4P-2 Plant growth is optimised with appropriate selection and maintenance	Complies	
	Objective 4P-3 Planting on structures contributes to the quality and amenity of communal and public open spaces	Complies	
Universal Design	Objective 4Q-1 Universal design features are included in apartment design to promote flexible housing for all community members	Complies	Design is flexible to accommodate disability – subject demand;
	Objective 4Q-2 A variety of apartments with adaptable designs are provided	Complies	Design is flexible to accommodate compliance;
	Objective 4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle needs	Complies	
Adaptive Reuse	Objective 4R-1 New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	n/a	
	Objective 4R-2 Adapted buildings provide residential amenity while not precluding future adaptive reuse	n/a	
Mixed Use	Objective 4S-1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	Complies	
	Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	Complies	Separate and clearly identifiable Residential Entry from Lawrence street.

Awnings and Signage	<b>Objective 4T-1</b> Awnings are well located and complement and integrate with the building design	Complies	
	<b>Objective 4T-2</b> Signage responds to the context and desired streetscape character	n/a	Post Development Application process;
Energy Efficiency	<b>Objective 4U-1</b> Development incorporates passive environmental design	Complies	Adequate light and ventilation to all habitable rooms;
	<b>Objective 4U-2</b> Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	Complies	Insulation, and shading devices and performance glazing intended for use throughout;
	<b>Objective 4U-3</b> Adequate natural ventilation minimises the need for mechanical ventilation	Complies	
Water Management and Conservation	<b>Objective 4V-1</b> Potable water use is minimised	Intended to comply	
	<b>Objective 4V-2</b> Urban stormwater is treated on site before being discharged to receiving waters	Intended to comply	Consultant has been engaged to assist ensure compliance;
	<b>Objective 4V-3</b> Flood management systems are integrated into site design	N/A	
Waste Management	<b>Objective 4W-1</b> Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	Complies	In accordance with Council DCP
	<b>Objective 4W-2</b> Domestic waste is minimised by providing safe and convenient source separation and recycling	Intended to comply;	Waste management Plan accompanies the DA.
Building Maintenance	<b>Objective 4X-1</b> Building design detail provides protection from weathering	Intended to comply;	Concrete, brick, glass and metal/ aluminium are dominant materials;
	<b>Objective 4X-2</b> Systems and access enable ease of maintenance	Intended to comply	

	<b>Objective 4X-3</b> Material selection reduces ongoing maintenance costs	Intended to comply	
--	--	--------------------	--