APPENDIX B

SEPP65 & ADG COMPLIANCE CHECKLIST

ADG Ref.	Item Description	Notes	Compliance
PART3	**SITING THE DEVELOPMENT**		
3A	**SITE ANALYSIS**		
3A-1 p47	**Objective:** Site Analysis illustrates that design decisions have been based on opportunities & constraints of the site conditions & their relationship to the surrounding context.		✓
	Design Guidance		**Considered**
	Each element in the Site Analysis Checklist is addressed.		YES
3B	**ORIENTATION**		
3B-1 p49	**Objective:** Building types & layouts respond to the streetscape & site while optimising solar access within the development		✓
	Design Guidance		**Considered**
	Buildings along the street frontage define the street by facing it & incorporating direct access from the street		YES
	Where the street frontage is to the east or west, rear buildings are orientated to the north		N/A
	Where the street frontage is to the north or south, over-shadowing to the south is minimised & buildings behind the street frontage are orientated to the east & west		N/A
3B-2 p49	**Objective:** Overshadowing of neighbouring properties is minimised during mid winter.		✓
	Design Guidance		**Considered**
	Living areas, private open space & communal open space receive solar access in accordance with section 3D Communal & Public Open Space and section 4A Solar & Daylight Access		YES
	Solar access to living rooms, balconies & private open spaces of neighbours are considered		YES
	Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%		N/A
	If the proposal will reduce the solar access of neighbours, building separation is increased beyond minimums contained in 3F Visual Privacy		N/A
	Overshadowing is minimised to the south or downhill by increased upper level setbacks		N/A
	Buildings are orientated at 90 deg to the boundary with neighbouring properties to minimise overshadowing & privacy impacts, particularly where minimum setbacks are used & where buildings are higher than the adjoining development		N/A
	A minimum of 4 hours of solar access is retained to solar collectors on neighbouring buildings		N/A
3C	**PUBLIC DOMAIN INTERFACE**		
3C-1 p51	**Objective:** Transition between private & public domain is achieved without compromising safety & security.		✓
	Design Guidance		**Considered**
	Terraces, balconies and courtyard apartments have direct street entry, where appropriate		YES
	Changes in level between private terraces, front gardens & dwelling entries above the street level provide surveillance & improve visual privacy for ground level dwellings		YES
	Upper level balconies & windows overlook the public domain		YES
	Front fences & walls along street frontages use visually permeable materials & treatments. Height of solid fences or walls is limited to 1m		YES
	Length of solid walls is limited along street frontages		YES
	Opportunities for casual interaction between residents & the public domain is provided for. Design solutions may include seating at building entries, near letter boxes & in private courtyards adjacent to streets		YES

ADG Ref.	Item Description	Notes	Compliance
	In developments with multiple buildings and/or entries, pedestrian entries & spaces associated with individual buildings/entries are differentiated to improve legibility for residents, using the following design solutions: · Architectural detailing · Changes in materials · Plant Species · Colours · Opportunities for people to be concealed are minimised	Entry lobbies are clearly identified by vertical breaks within the building form, and reinforced by the landscape design. Pedestrian walkways are typically straight and continuous, in order to improve visibility throughout.	YES
3C-2 p53	**Objective:** Amenity of the public domain is retained & enhanced.		✓
	Design Guidance		**Considered**
	Planting is used to soften the edges of any raised terraces to the street, for example above sub-basement car parking		YES
	Mail boxes are located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	Mail boxes are integrated into the walls directly outside the residential lobby entries and are perpendicular to the street alignment.	YES
	The visual prominence of underground car park vents is minimised & located at a low level where possible	Make up air intake for the basement is concealed within a landscape feature above the basement ramp	YES
	Substations, pump rooms, garbage storage areas & other service requirements are located in basement car parks or out of view	Some essential services are located on the ground floor in order to be above the 1:100 year flood level. These are recessed within the facade and not visually prominent.	YES
	Ramping for accessibility is minimised by building entry location & setting ground floor levels in relation to footpath levels		YES
	Durable, graffiti resistant & easily cleanable materials are used		YES
	Where development adjoins public parks, open space or bushland, the design positively addresses this interface & uses the following design solutions: · Street access, pedestrian paths & building entries are clearly defined · Paths, low fences & planting are clearly delineate between communal/private open space & the adjoining public open space · Minimal use of blank walls, fences & ground level parking		YES
	On sloping sites protrusion of car parking above ground level is minimised by using split levels to step underground car parking		N/A
3D	**COMMUNAL & PUBLIC OPEN SPACE**		
3D-1 p55	**Objective:** An adequate area of communal open space is provided to enhance residential amenity & to provide opportunities for landscaping.		✓
	Design Criteria		
1	Communal open space has a minimum area equal to 25% of the site	The communal open space within Lot S3 measures 770m^2 at ground level and 600m^2 at roof terrace, equating to 25% of the site area.	✓
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)		✓
	Design Guidance		**Considered**
	Communal open space is consolidated into a well designed, easily identified & usable area		YES
	Communal open space have a minimum dimension of 3m. Larger developments should consider greater dimensions		YES
	Communal open space are co-located with deep soil areas		NO
	Direct, equitable access are provided to communal open space areas from common circulation areas, entries & lobbies	Direct equitable access is provided from Young Street and Jane Street, and also via each of the residential entry lobbies	YES
	Where communal open space cannot be provided at ground level, it is provided on a podium or roof	Both are provided	YES

ADG Ref.	Item Description	Notes	Compliance
	Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they need to: · Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room · Provide larger balconies or increased private open space for apartments · Demonstrate good proximity to public open space & facilities and/or provide contributions to public open space		N/A
3D-2 p57	**Objective:** Communal open space is designed to allow for a range of activities, respond to site conditions & be attractive and inviting		✓
	Design Guidance		**Considered**
	Facilities are provided within communal open spaces & common spaces for a range of age groups (see 4F Common Circulation & Spaces), incorporating the following: · Seating for individuals or groups · Barbeque areas · Play equipment or play areas · Swimming pools, gyms, tennis courts or common rooms		YES
	Location of facilities responds to microclimate & site conditions with access to sun in winter, shade in summer & shelter from strong winds & down drafts		YES
	Visual impacts of services are minimised, including location of ventilation duct outlets from basement car parks, electrical substations & detention tanks		YES
3D-3 p57	**Objective:** Communal open space is designed to maximise safety.		✓
	Design Guidance		**Considered**
	Communal open space & public domain should be readily visible from habitable rooms & private open space areas while maintaining visual privacy. Design solutions include: · Bay windows · Corner windows · Balconies		YES
	Communal open space is well lit		YES
	Communal open space/facilities that are provided for children & young people are safe and contained		YES
3D-4 p59	**Objective:** Public open space, where provided, responds to the existing pattern & uses of the neighbourhood.		N/A
3E	**DEEP SOIL ZONES**		
3E-1 p61	**Objective:** Deep soil zones are suitable for healthy plant & tree growth, improve residential amenity and promote management of water and air quality.		✓
	Design Criteria		
1	Deep soil zones are to meet the following minimum requirements: Site Area (sqm) / Minimum Dim. (m) / Deep Soil Zone (% of site area) less than 650 / - / 7 650-1500 / 3 greater than 1500 / 6 greater than 1500 with significant existing tree cover / 6	The basement has been set in from the northern and southern boundaries to provide a deep soil zone of 321m2, 6% of the site area. This not meet the 7% criteria however, a structural set down throughout the common out door area has been provided to allow for significant planting. While the dimension of the deep soil zone is less than 6m, it is contiguous with the deep soil within existing and new streets.	
	Design Guidance		**Considered**
	On some sites it may be possible to provide larger deep soil zones, depending on the site area & context: · 10% of the site as deep soil on sites with an area of 650sqm - 1,500sqm · 15% of the site as deep soil on sites greater than 1,500sqm	Within Lot S3, a deep soil area is limited due to the building envelopes set out in the Stage 1 Masterplan. Significant areas of deep soil are provided in nearby parts within the Masterplan (e.g. Lot E2), reducing the need for deep soil within Lot S3.	N/A
	Deep soil zones are located to retain existing significant trees & to allow for the development of healthy root systems, providing anchorage & stability for mature trees. Design solutions may include: · Basement & sub-basement car park design that is consolidated beneath building footprints · Use of increased front & side setbacks · Adequate clearance around trees to ensure long term health · Co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil	Planter beds located throughout the central communal space of the proposed development, with soil depths of up to 1m, allow for the growth of large trees with large canopies.	YES
	Achieving the design criteria may not be possible on some sites including where: · location & building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres) · there is 100% site coverage or non-residential uses at ground floor level Where a proposal does not achieve deep soil requirements, acceptable stormwater management is achieved & alternative forms of planting provided		YES
3F	**VISUAL PRIVACY**		
3F-1 p63	**Objective:** Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external & internal visual privacy.		✓
	Design Criteria		
1	Separation between windows & balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side & rear boundaries are as follows: Building Height (m) / Habitable Rooms & Balconies. (m) / Non-Habitable Rooms (m) up to 12 4 storeys) / 6 / 3 up to 25 (5-8 storeys) / 9 / 4.5 over 25 (9+ storeys) / 12 / 6 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 distance between townhouses and apartment building ranges from 9-12m. While less than 12m is a technical non-compliance, the rear elevation of the townhouses has been designed to provide good levels of visual privacy.	✓
	Design Guidance		**Considered**
	Generally as the height increases, one step in the built form is desirable due to building separations. Any additional steps do not cause a 'ziggurat' appearance	The form of the 7-storey building includes one signifcant step at the east end at Level 4.	YES
	For residential buildings next to commercial buildings, separation distances are measured as follows: · Retail, office spaces & commercial balconies use the habitable room distances · Service & plant areas use the non-habitable room distances		N/A
	New development are located & oriented to maximise visual privacy between buildings on site & for neighbouring buildings. Design solutions include: · site layout & building are orientated to minimise privacy impacts (see 3B Orientation) · on sloping sites, apartments on different levels have appropriate visual separation distances (see pg 63 figure 3F.4)	The townhouses have been designed with internal courtyards and front gardens in order to gain the benefit of winter sun from the north, whilst preventing overlooking from apartments to the south.	YES

ADG Ref.	Item Description	Notes	Compliance
	Apartment buildings have an increased separation distance of 3m (in addition to 3F-1 Design Criteria) when adjacent to a different zone that permits lower density residential development, to provide for a transition in scale & increased landscaping (pg 63 figure 3F.5)		N/A
	Direct lines of sight are avoided for windows & balconies across corners	Veritcal louvres have been provided where required	YES
	No separation is required between blank walls		YES
3F-2 p65	**Objective:** Site & building design elements increase privacy without compromising access to light & air and balance outlook & views from habitable rooms & private open space.		✓
	Design Guidance		**Considered**
	Communal open space, common areas & access paths are separated from private open space & windows to apartments, particularly habitable room windows. Design solutions include: · setbacks · solid or partially solid balustrades on balconies at lower levels · fencing and/or trees and vegetation to separate spaces · screening devices · bay windows or pop out windows to provide privacy in one direction & outlook in another · raising apartments or private open space above the public domain or communal open space · planter boxes incorporated into walls & balustrades to increase visual separation · pergolas or shading devices to limit overlooking of lower apartments or private open space · on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels on windows and/or balconies	The communal open space is separated from adjacent apartments, several landscape design measures, such as buffer planting, trellis planting, pergolas and screens. Generous soil depths are proposed for podium planting, ranging from 300mm to 900mm, such that substantial screen planting is possible.	YES
	Bedrooms, living spaces & other habitable rooms are separated from gallery access & other open circulation space by the apartment's service areas		N/A
	Balconies & private terraces are located in front of living rooms to increase internal privacy		YES
	Windows are offset from the windows of adjacent buildings		YES
	Recessed balconies and/or vertical fins are used between adjacent balconies		YES
3G	**PEDESTRIAN ACCESS & ENTRIES**		
3G-1 p67	**Objective:** Building entries & pedestrian access connects to and addresses the public domain.		✓
	Design Guidance		**Considered**
	Multiple entries (including communal building entries & individual ground floor entries) activate the street edge		YES
	Entry locations relate to the street & subdivision pattern, and the existing pedestrian network		YES
	Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries		YES
	Where street frontage is limited, a primary street address should be provided with clear sight lines and pathways to secondary building entries		YES
3G-2 p67	**Objective:** Access, entries & pathways are accessible & easy to identify.		✓
	Design Guidance		**Considered**
	Building access areas including lift lobbies, stairwells & hallways are clearly visible from the public domain & communal spaces		YES
	The design of ground floors & underground car parks minimise level changes along pathways & entries		YES
	Steps & ramps are integrated into the overall building & landscape design		YES
	For large developments 'way finding' maps are provided to assist visitors & residents		N/A
	For large developments electronic access & audio/video intercom are provided to manage access		YES

ADG Ref.	Item Description	Notes	Compliance
3G-3 p67	**Objective:** Large sites provide pedestrian links for access to streets & connection to destinations.		✓
	Design Guidance		**Considered**
	Pedestrian links through sites facilitate direct connections to open space, main streets, centres & public transport		YES
	Pedestrian links are direct, have clear sight lines, are overlooked by habitable rooms or private open spaces of dwellings, are well lit & contain active uses, where appropriate		YES
3H	**VEHICLE ACCESS**		
3H-1 p69	**Objective:** Vehicle access points are designed & located to achieve safety, minimise conflicts between pedestrians & vehicles and create high quality streetscapes.		✓
	Design Guidance		**Considered**
	Car park access is integrated with the building's overall facade. Design solutions include: · materials & colour palette minimise visibility from street · security doors/gates minimise voids in the facade · where doors are not provided, visible interiors reflect facade design, and building services, pipes & ducts are concealed		YES
	Car park entries are located behind the building line		YES
	Vehicle entries are located at the lowest point of the site, minimising ramp lengths, excavation & impacts on the building form and layout	The site is relatively flat, and the basement entry location was determined by the best outcome for the street environment and public domain.	YES
	Car park entry & access are located on secondary streets or lanes where available	The basement entry is located to the north of the site, on the new road ST3. This is a secondary street in terms of pedestrian activity and vehicle movement.	YES
	Vehicle standing areas that increase driveway width & encroach into setbacks are avoided		N/A
	Access point is located to avoid headlight glare to habitable rooms		YES
	Adequate separation distances are provided between vehicle entries & street intersections		YES
	The width & number of vehicle access points are limited to the minimum		YES
	Visual impact of long driveways is minimised through changing alignments & screen planting		N/A
	The need for large vehicles to enter or turn around within the site is avoided		YES
	Garbage collection, loading & servicing areas are screened		YES
	Clear sight lines are provided at pedestrian & vehicle crossings		YES
	Traffic calming devices, such as changes in paving material or textures, are used where appropriate		YES
	Pedestrian & vehicle access are separated & distinguishable. Design solutions include: · Changes in surface materials · Level changes · Landscaping for separation		YES
3J	**BICYCLE & CAR PARKING**		
3J-1 p71	**Objective:** Car parking is provided based on proximity to public transport in metropolitan Sydney & centres in regional areas.		✓
	Design Criteria		

ADG Ref.	Item Description	Notes	Compliance
1	For development in the following locations: on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre the minimum car parking requirement for residents & visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less. The car parking needs for a development must be provided off street.		✓
	Design Guidance		**Considered**
	Where a car share scheme operates locally, car share parking spaces are provided within the development.	A separate Infrastructure DA will contain on street share parking distributed throughout the masterplan.	N/A
	Where less car parking is provided in a development, council do not provide on street resident parking permits		N/A
3J-2 p71	**Objective:** Parking & facilities are provided for other modes of transport.		✓
	Design Guidance		**Considered**
	Conveniently located & sufficient numbers of parking spaces are provided for motorbikes & scooters		YES
	Secure undercover bicycle parking is provided & easily accessible from both public domain & common areas		YES
	Conveniently located charging stations are provided for electric vehicles, where desirable	Subject to future detailed design development	YES
3J-3 p73	**Objective:** Car park design & access is safe and secure.		✓
	Design Guidance		**Considered**
	Supporting facilities within car parks, including garbage, plant & switch rooms, storage areas & car wash bays can be accessed without crossing car parking spaces		YES
	Direct, clearly visible & well lit access is provided into common circulation areas		YES
	Clearly defined & visible lobby or waiting area is provided to lifts & stairs		YES
	For larger car parks, safe pedestrian access is clearly defined & circulation areas have good lighting, colour, line marking and/or bollards		YES
3J-4 p73	**Objective:** Visual & environmental impacts of underground car parking are minimised.		✓
	Design Guidance		**Considered**
	Excavation minimised through efficient car park layouts & ramp design		YES
	Car parking layout is well organised, using a logical, efficient structural grid & double loaded aisles		YES
	Protrusion of car parks do not exceed 1m above ground level. Solution include stepping car park levels or using split levels on sloping sites		YES
	Natural ventilation is provided to basement & sub-basement car parking	The basement is mechanically ventilated due to its location below ground. This avoids protrusion of the car park above ground and provides opportunities for a well connected, well activated ground plane.	NO
	Ventilation grills or screening devices for car parking openings are integrated into the facade & landscape design		YES
3J-5 p75	**Objective:** Visual & environmental impacts of on-grade car parking are minimised.		✓
	Design Guidance		**Considered**
	On-grade car parking is avoided		YES
	Where on-grade car parking is unavoidable, the following design solutions are used: · Parking is located on the side or rear of the lot away from the primary street frontage · Cars are screened from view of streets, buildings, communal & private open space areas · Safe & direct access to building entry points is provided · Parking is incorporated into the landscape design, by extending planting & materials into the car park space · Stormwater run-off is managed appropriately from car parking surfaces · Bio-swales, rain gardens or on site detention tanks are provided, where appropriate · Light coloured paving materials or permeable paving systems are used. Shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures to large areas of paving		N/A
3J-6 p75	**Objective:** Visual & environmental impacts of above ground enclosed car parking are minimised.		N/A
PART4	**DESIGNING THE BUILDING**		
4A	**SOLAR & DAYLIGHT ACCESS**		
4A-1 p79	**Objective:** To optimise number of apartments receiving sunlight to habitable rooms, primary windows & private open space.		✓
	Design Criteria		
1	Living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 2 hrs direct sunlight between 9am - 3pm at mid winter in Sydney Metropolitan Area and in Newcastle and Wollongong local government areas	Within Lot S3, 66% of dwellings receive 2 hrs of direct sun between 9am and 3pm at midwinter. Building S3.3 has a south-facing street address, and in response to this, a high proportion of apartments have south-facing living rooms in order to activate the street and also to take advantage of views over the adjacent parkland. These apartments are typically dual-aspect through-apartments, and as such receive northern sun in winter (generally to bedrooms) as well benefitting from a high-degree of cross ventilation. Private open space is provided to the northern and southern frontages of the through-apartments, such that direct solar access is possible at midwinter. Across Lot S3 the proportion of apartments receiving direct midwinter sun to private open space is 85%.	NO
3	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am - 3 pm at mid winter	13% of apartments receive no direct sunlight at midwinter.	✓
	Design Guidance		**Considered**
	The design maximises north aspect. The number of single aspect south facing apartments is minimised		YES
	Single aspect, single storey apartments have a northerly or easterly aspect		NO
	Living areas are located to the north and service areas to the south & west of apartments	In Building S3.3, some apartments have been designed with south-facing living rooms in order to address the street in that direction, and also take advantage of views over Paine Reserve.	NO
	To optimise direct sunlight to habitable rooms & balconies a number of the following design features are used: · Dual aspect apartments · Shallow apartment layouts · Two storey &mezzanine level apartments · Bay windows	All apartments layouts are either dual-aspect or shallow in plan.	YES

ADG Ref.	Item Description	Notes	Compliance
	To maximise the benefit to residents of direct sunlight within living rooms & private open spaces, a minimum of 1sqm of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes		YES
	Achieving the design criteria may not be possible where: · greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source · on south facing sloping sites · significant views are oriented away from the desired aspect for direct sunlight Design drawings need to demonstrate how site constraints & orientation preclude meeting Design Criteria & how the development meets the objective.	Dual aspect apartments with south-facing living rooms are proposed in Building S3.3 due to the south-facing street address and the significant views available in this direction.	N/A
4A-2 p81	**Objective:** Daylight access is maximised where sunlight is limited.		✓
	Design Guidance		**Considered**
	Courtyards, skylights & high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms		YES
	Opportunities for reflected light into apartments are optimised through: · Reflective exterior surfaces on buildings opposite south facing windows · Positioning windows to face other buildings or surfaces (on neighbouring sites or within site) that will reflect light · Integrating light shelves into the design · Light coloured internal finishes		YES
4A-3 p81	**Objective:** Design incorporates shading & glare control, particularly for warmer months.		✓
	Design Guidance		**Considered**
	A number of the following design features are used: · Balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas · Shading devices such as eaves, awnings, balconies, pergolas, external louvres & planting · Horizontal shading to north facing windows · Vertical shading to east & particularly west facing windows · Operable shading to allow adjustment & choice · High performance glass that minimises external glare off windows, with consideration given to reduce tint glass or glass with a reflectance level below 20% (reflective films are avoided)		YES
4B	**NATURAL VENTILATION**		
4B-1 p83	**Objective:** All habitable rooms are naturally ventilated.		✓
	Design Guidance		**Considered**
	The building's orientation maximises capture & use of prevailing breezes for natural ventilation in habitable rooms		YES
	Depths of habitable rooms support natural ventilation		YES
	The area of unobstructed window openings should be equal to at least 5% of the floor area served		YES
	Light wells are not the primary air source for habitable rooms		N/A
	Doors & openable windows maximise natural ventilation opportunities by using the following design solutions: · Adjustable windows with large effective openable areas · Variety of window types that provide safety & flexibility such as awnings & louvres · Windows that occupants can reconfigure to funnel breezes into apartment, such as vertical louvres, casement windows & externally opening doors		YES
4B-2 p83	**Objective:** The layout & design of single aspect apartments maximises natural ventilation.		✓
	Design Guidance		**Considered**
	Apartment depths limited to maximise ventilation & airflow		YES
	Natural ventilation to single aspect apartments is achieved with the following design solutions: · Primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation) · Stack effect ventilation, solar chimneys or similar used to naturally ventilate internal building areas or rooms such as bathrooms & laundries · Courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation & avoid trapped smells	Operable glass louvre windows to habitable rooms combined with generous operable glazed panels to habitable rooms and living rooms located off balconies assist to encourage natural ventilation.	YES
4B-3 p85	**Objective:** Number of apartments with natural cross vent is maximised to create comfortable indoor environments for residents.		✓
	Design Criteria		
	1 At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	83% of dwellings are naturally cross ventilated.	✓
	2 Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line		✓
	Design Guidance		**Considered**
	The building includes dual aspect apartments, cross through apartments & corner apartments, and limited apartment depths		YES
	In cross-through apartments, external window & door opening sizes/ areas on one side of an apartment (inlet side) are approximately equal to the external window & door opening sizes/areas on the other side of the apartment (outlet side)		YES
	Apartments are designed to minimise the number of corners, doors & rooms that might obstruct airflow		YES
	Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation & airflow		YES
4C	**CEILING HEIGHTS**		
4C-1 p87	**Objective:** Ceiling height achieves sufficient natural ventilation & daylight access.		✓
	Design Criteria		
	1 Measured from finished floor level to finished ceiling level, minimum ceiling heights are:		✓

Minimum Ceiling Height for apt and mixed-used buildings (m)	
Habitable rooms	2.7
Non-habitable rooms	2.4
For 2 storey apts	2.7 for main living area floor 2.4 for second floor, where its area does not exceed 50% of the apt area
Attic spaces	1.8 at edge of room with 30deg minimum ceiling slope
If located in mixed-used areas	3.3 for ground and first floor to promote future flexibility of use

	These minimums do not preclude higher ceilings if desired		
	Design Guidance		**Considered**
	Ceiling height accommodates use of ceiling fans for cooling & heat distribution	The ceiling heights to habitable rooms can accommodate ceiling fans if required.	YES
4C-2 p87	**Objective:** Ceiling height increases the sense of space in apartments & provides for well proportioned rooms.		✓
	Design Guidance		**Considered**

ADG Ref.	Item Description	Notes	Compliance
	A number of the following design solutions are used: · Hierarchy of rooms in apartment is defined using changes in ceiling heights & alternatives such as raked or curved ceilings, or double height spaces · Well proportioned rooms are provided, for example, smaller rooms feel larger & more spacious with higher ceilings · Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor & coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist		YES
4C-3 p87	**Objective:** Ceiling heights contribute to the flexibility of building use over the life of the building.		✓
	Design Guidance		**Considered**
	Ceiling heights of lower level apartments should be greater than the minimum required by Design Criteria allowing flexibility & conversion to non-residential uses	The ground floor ceiling heights of Building S3.3 range from 2.7m to 3.3m. Lot S3 is considered a residential precinct, and is not considered a likely location for future retail uses. The provision of new retail in Lots N1 and E1 is considered an important aspect of the Newmarket Green masterplan.	YES
4D	**APARTMENT SIZE & LAYOUT**		
4D-1 p89	**Objective:** The layout of rooms within apartment is functional, well organised & provides a high standard of amenity.		✓
	Design Criteria		
1	Apartments have the following minimum internal areas: Studio 35 1 Bedroom 50 2 Bedroom 70 3 Bedroom 90 The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5sqm each. A fourth bedroom & further additional bedrooms increase the minimum internal area by 12sqm each		✓
2	Every habitable room has 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 & air is not borrowed from other rooms		✓
	Design Guidance		**Considered**
	Kitchens is not located as part of the main circulation space in larger apartments (such as hallway or entry space)		YES
	A window is visible from any point in a habitable room		YES
	Where minimum areas or room dimensions are not met, apartments demonstrate that they are well designed and demonstrate the usability & functionality of the space with realistically scaled furniture layouts & circulation areas.	Unit plans with realistically scaled furniture are demonstrated on drawing series DA.S3.05.	YES
4D-2 p89	**Objective:** Environmental performance of the apartment is maximised.		✓
	Design Criteria		
1	Habitable room depths are limited to a maximum of 2.5 x the ceiling height		✓
2	In open plan layouts (living, dining & kitchen are combined) maximum habitable room depth is 8m from a window		✓
	Design Guidance		**Considered**
	Greater than minimum ceiling heights allow for proportional increases in room depth up to the permitted max depths	Kitchen depths of approximately 8m to 8.5m have been provided to the open plan layouts with ceilings of 2.7m generally.	YES

ADG Ref.	Item Description	Notes	Compliance
	All living areas & bedrooms are located on the external face of building		YES
	Where possible: · bathrooms & laundries have external openable window · main living spaces are oriented toward the primary outlook & aspect and away from noise sources	Bathrooms and laundries are typically located to the rear of the apartments in order to maximise daylight and ventilation to habitable bedrooms and living rooms. Living spaces are orientated toward the primary outlook where possible and away from noise sources.	YES
4D-3 p91	**Objective:** Apartment layouts are designed to accommodate a variety of household activities & needs.		✓
	Design Criteria		
1	Master bedrooms have a minimum area of 10sqm & other bedrooms 9sqm (excluding wardrobe space)		✓
2	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)		✓
3	Living rooms or combined living/dining rooms have a minimum width of: · 3.6m for studio & 1 bedroom apartments · 4m for 2 & 3 bedroom apartments	There are some minor non compliant living rooms with in 2BF, 2BF(U) and 2BH(U) and total 8 units out of the 122. Detailed apartment plans showing realist furniture layouts can be found in the DA.S3.05 drawing series.	
4	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts		✓
	Design Guidance		**Considered**
	Access to bedrooms, bathrooms & laundries is separated from living areas minimising direct openings between living & service areas		YES
	All bedrooms allow a minimum length of 1.5m for robes		YES
	Main bedroom of apartment or studio apartment is provided with a wardrobe of minimum 1.8m L x 0.6m D x 2.1m H		YES
	Apartment layouts allow flexibility over time, design solutions include: · Dimensions that facilitate a variety of furniture arrangements & removal · Spaces for a range of activities & privacy levels between different spaces within the apartment · Dual master apartments · Dual key apartments Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the BCA & for calculating mix of apartments · Room sizes & proportions or open plans (rectangular spaces 2:3 are more easily furnished than square spaces 1:1) · Efficient planning of circulation by stairs, corridors & through rooms to maximise the amount of usable floor space in rooms		YES
4E	**PRIVATE OPEN SPACE & BALCONIES**		
4E-1 p93	**Objective:** Apartments provide appropriately sized private open space & balconies to enhance residential amenity.		✓
	Design Criteria		
1	All apartments are required to have primary balconies as follows: Studio 4 - 1 Bedroom 8 2 2 Bedroom 10 2 3+ Bedroom 12 2.4 The minimum balcony depth to be counted as contributing to the balcony area is 1m		✓
	Design Guidance		**Considered**
	Increased communal open space are provided where the number or size of balconies are reduced		N/A

ADG Ref.	Item Description	Notes	Compliance
	Storage areas on balconies is additional to the minimum balcony size		N/A
	Balcony use may be limited in some proposals where: · consistently high wind speeds at 10 storeys & above · close proximity to road, rail or other noise sources · exposure to significant levels of aircraft noise · heritage & adaptive reuse of existing buildings In these situations, · juliet balconies, · operable walls, · enclosed wintergardens · bay windows are appropriate. Other amenity benefits for occupants are provided in the apartments or in the development or both. Natural ventilation is also demonstrated		N/A
4E-2 p93	**Objective:** Primary private open space & balconies are appropriately located to enhance liveability for residents		✓
	Design Guidance		**Considered**
	Primary open space & balconies are located adjacent to the living room, dining room or kitchen to extend the living space		YES
	POS & balconies predominantly face north, east or west		YES
	POS & balconies are orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms		YES
4E-3 p95	**Objective:** Private open space & balcony design is integrated into & contributes to the overall architectural form & detail of the building		✓
	Design Guidance		**Considered**
	Solid, partially solid or transparent fences & balustrades are selected to respond to the location. They are designed to allow views & passive surveillance of the street while maintaining visual privacy & allowing for a range of uses on the balcony. Solid & partially solid balustrades are preferred		YES
	Full width full height glass balustrades alone are generally not desirable		YES
	Projecting balconies are integrated into the building design. The design of soffits are considered		YES
	Operable screens, shutters, hoods & pergolas are used to control sunlight & wind		YES
	Balustrades are set back from the building or balcony edge where overlooking or where safety is an issue		YES
	Downpipes & balcony drainage are integrated with the overall facade & building design		YES
	Air-conditioning units are located on roofs, in basements, or fully integrated into the building design		YES
	Where clothes drying, storage or air conditioning units are located on balconies, they are screened & integrated in the building design		YES
	Ceilings of apartments below terraces are insulated to avoid heat loss		YES
	Water & gas outlets are provided for primary balconies & private open space		YES
4E-4 p95	**Objective:** Private open space & balcony design maximises safety		✓
	Design Guidance		**Considered**
	Changes in ground levels or landscaping are minimised		YES
	Balcony design & detailing avoids opportunities for climbing & falling		YES
4F	**COMMON CIRCULATION & SPACES**		
4F-1 p97	**Objective:** Common circulation spaces achieve good amenity & properly service the number of apartments		✓
	Design Criteria		
1	The maximum number of apartments off a circulation core on a single level is eight		✓
2	For buildings of 10 storeys & over, the maximum number of apartments sharing a single lift is 40		N/A
	Design Guidance		**Considered**
	Greater than minimum requirements for corridor widths and/or ceiling heights allow comfortable movement & access particularly in entry lobbies, outside lifts & at apartment entry doors		YES
	Daylight & natural ventilation are provided to all common circulation spaces that are above ground		YES
	Windows are provided in common circulation spaces & are adjacent to the stair or lift core or at the ends of corridors		YES
	Longer corridors greater than 12m in length from the lift core are articulated. Design solutions include: · Series of foyer areas with windows & spaces for seating · Wider areas at apartment entry doors & varied ceiling heights		YES
	Common circulation spaces maximise opportunities for dual aspect apartments, including multiple core apartment buildings & cross over apartments		YES
	Achieving Design Criteria for the number of apartments off a circulation core may not be possible. Where development is unable to achieve this, a high level of amenity for common lobbies, corridors & apartments is demonstrated, including: · Sunlight & natural cross ventilation in apartments · Access to ample daylight & natural ventilation in common circulation spaces · Common areas for seating & gathering · Generous corridors with greater than minimum ceiling heights · Other innovative design solutions that provide high levels of amenity		N/A
	Where Design Criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level		N/A
	Primary living room or bedroom windows do not open directly onto common circulation spaces, open or enclosed. Visual & acoustic privacy from common circulation spaces to any other rooms are carefully controlled		YES
4F-2 p99	**Objective:** Common circulation spaces promote safety & provide for social interaction between residents		✓
	Design Guidance		**Considered**
	Direct & legible access are provided between vertical circulation points & apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines		YES
	Tight corners & spaces are avoided		YES
	Circulation spaces are well lit at night		YES
	Legible signage are provided for apartment numbers, common areas & general wayfinding		YES
	Incidental spaces, eg space for seating in a corridor, at a stair landing, or near a window are provided		YES
	In larger developments, community rooms for activities such as owners corporation meetings or resident use, are provided & are co-located with communal open space		N/A
	Where external galleries are provided, they are more open than closed above the balustrade along their length		N/A
4G	**STORAGE**		
4G-1 p101	**Objective:** Adequate, well designed storage is provided in each apartment		✓
	Design Criteria		

ADG Ref.	Item Description	Notes	Compliance
	1 In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: Apartment Type / Storage Size Volume (cubic m): Studio 4 1 Bedroom 6 2 Bedroom 8 3+ Bedroom 10 At least 50% of the required storage is to be located within the apartment	All apartments meet the minimum storage requirements, and all apartments have at least 50% of the required storage located within the apartment.	✓
	Design Guidance		**Considered**
	Storage is accessible from either circulation or living areas		YES
	Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proofed & screened from view from the street		N/A
	Left over space such as under stairs is used for storage		YES
4G-2 p101	**Objective:** Additional storage is conveniently located, accessible & nominated for individual apartments		✓
	Design Guidance		**Considered**
	Storage not located in apartments is secure and clearly allocated to specific apartments		YES
	Storage is provided for larger & less frequently accessed items		YES
	Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages, such that allocated car parking remains accessible		YES
	If communal storage rooms are provided they are accessible from common circulation areas of the building		YES
	Storage not located in apartment is integrated into the overall building design & not visible from public domain		YES
4H	**ACOUSTIC PRIVACY**		
4H-1 p103	**Objective:** Noise transfer is minimised through the siting of buildings & building layout		✓
	Design Guidance		**Considered**
	Adequate building separation is provided within the development & from neighbouring buildings/adjacent uses (see 2F Building Separation & 3F Visual Privacy)		YES
	Window & door openings are orientated away from noise sources		YES
	Noisy areas within buildings including building entries & corridors are located next to or above each other while quieter areas are located next to or above quieter areas		YES
	Storage, circulation areas & non-habitable rooms are located to buffer noise from external sources		YES
	The number of party walls (shared with other apartments) are limited & are appropriately insulated		YES
	Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces & circulation areas should be located at least 3m away from bedrooms	The driveway entry to the basement is located within 3m of the easternmost townhouse. The typically narrow plan of the townhouse results in bedroom being located within this zone. A masonry wall is proposed to separate the townhouse and the basement, and window openings are located away from the noise source where possible.	NO
4H-2 p103	**Objective:** Noise impacts are mitigated within apartments through layout & acoustic treatments		✓
	Design Guidance		**Considered**
	Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: · Rooms with similar noise requirements are grouped together · Doors separate different use zones · Wardrobes in bedrooms are co-located to act as sound buffers		YES
	Where physical separation cannot be achieved, noise conflicts are resolved using the following design solutions: · Double or acoustic glazing · Acoustic seals · Use of materials with low noise penetration properties · Continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements		YES
4J	**NOISE & POLLUTION**		
4J-1 p105	**Objective:** In noisy or hostile environments impacts of external noise & pollution are minimised through careful siting & layout		N/A
4J-2 p105	**Objective:** Appropriate noise shielding or attenuation techniques for building design, construction & choice of materials are used to mitigate noise transmission		✓
	Design Guidance		**Considered**
	Design solutions to mitigate noise include: · Limiting the number & size of openings facing noise sources · Providing seals to prevent noise transfer through gaps · Using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens) · Using materials with mass and/or sound insulation or absorption properties eg solid balcony balustrades, external screens & soffits		YES
4K	**APARTMENT MIX**		
4K-1 p107	**Objective:** A range of apartment types & sizes is provided to cater for different household types now & into the future		✓
	Design Guidance		**Considered**
	A variety of apartment types is provided		YES
	The apartment mix is appropriate, taking into consideration: · Distance to public transport, employment & education centres · Current market demands & projected future demographic trends · Demand for social & affordable housing · Different cultural & socioeconomic groups		YES
	Flexible apartment configurations are provided to support diverse household types & stages of life including single person households, families, multi-generational families & group households		YES
4K-2 p107	**Objective:** The apartment mix is distributed to suitable locations within the building		✓
	Design Guidance		**Considered**
	Different apartment types are located to achieve successful facade composition & to optimise solar access		YES
	Larger apartment types are located on ground or roof level where there is potential for more open space, and on corners where more building frontage is available		YES
4L	**GROUND FLOOR APARTMENTS**		
4L-1 p109	**Objective:** Street frontage activity is maximised where ground floor apartments are located		✓
	Design Guidance		**Considered**
	Direct street access are provided to ground floor apartments		YES
	Activity is achieved through front gardens, terraces & the facade of the building. Design solutions include: · Both street, foyer & other common internal circulation entrances to ground floor apartments · Private open space is next to the street · Doors & windows face the street		YES
	Retail or home office spaces are located along street frontages		N/A
	Ground floor apartment layouts support SOHO use & provide opportunities for future conversion into commercial or retail areas. In these cases higher floor to ceiling heights & easy conversion to ground floor amenities are provided.		N/A

ADG Ref.	Item Description	Notes	Compliance
4L-2 p109	**Objective:** Design of ground floor apartments delivers amenity & safety for residents		✓
	Design Guidance		**Considered**
	Privacy & safety are provided without obstructing casual surveillance. Design solutions include: · Elevating private gardens & terraces above the street level by 1-1.5m (see pg 109 Figure 4L.4) · Landscaping & private courtyards · Window sill heights minimise sight lines into apartments · Integrating balustrades, safety bars or screens with exterior design		YES
	Solar access is maximised through: · High ceilings & tall windows · Trees & shrubs allow solar access in winter & shade in summer		YES
4M	**FACADES**		
4M-1 p111	**Objective:** Building facades provide visual interest along the street while respecting the character of the local area		✓
	Design Guidance		**Considered**
	Design solutions for front building facades include: · Composition of varied building elements · Defined base, middle & top of buildings · Revealing & concealing certain elements		YES
	Building services are integrated within the overall facade		YES
	Building facades are well resolved with appropriate scale & proportion to streetscape & with consideration of human scale. Solutions include: · Well composed horizontal & vertical elements · Variation in floor heights to enhance the human scale · Elements that are proportional & arranged in patterns · Public artwork or treatments to exterior blank walls · Grouping of floors or elements such as balconies & windows on taller buildings		YES
	Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights		YES
	Shadow is created on the facade throughout the day with building articulation, balconies & deeper window reveals		YES
4M-2 p111	**Objective:** Building functions are expressed by the facade		✓
	Design Guidance		**Considered**
	Building entries are clearly defined		YES
	Important corners are given visual prominence through change in articulation, materials or colour, roof expression or changes in height		YES
	Apartment layout is expressed externally through facade features such as party walls & floor slabs		YES
4N	**ROOF DESIGN**		
4N-1 p113	**Objective:** Roof treatments are integrated into the building design & positively respond to the street		✓
	Design Guidance		**Considered**
	Roof design relates to the street. Design solutions include: · Special roof features & 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 pitched form complementary to adjacent buildings		YES
	Roof treatments are integrated with the building design. Design solutions include: · Roof design is in proportion to the overall building size, scale & form · Roof materials compliment the building · Service elements are integrated		YES
4N-2 p113	**Objective:** Opportunities to use roof space for residential accommodation & open space are maximised		✓
	Design Guidance		**Considered**
	Habitable roof space are provided with good levels of amenity. Design solutions include: · Penthouse apartments · Dormer or clerestory windows · Openable skylights		YES
	Open space is provided on roof tops subject to acceptable visual & acoustic privacy, comfort levels, safety & security considerations		YES
4N-3 p113	**Objective:** Roof design incorporates sustainability features		✓
	Design Guidance		**Considered**
	Roof design maximises solar access to apartments during winter & provides shade during summer. Design solutions include: · Roof lifts to the north · Eaves & overhangs shade walls & windows from summer sun		YES
	Skylights & ventilation systems are integrated into the roof design		YES
4O	**LANDSCAPE DESIGN**		
4O-1 p115	**Objective:** Landscape design is viable & sustainable		✓
	Design Guidance		**Considered**
	Landscape design is environmentally sustainable & can enhance environmental performance by incorporating: · Diverse & appropriate planting · Bio-filtration gardens · Appropriately planted shading trees · Areas for residents to plant vegetables & herbs · Composting · Green roofs or walls		YES
	Ongoing maintenance plans are prepared		YES
	Microclimate is enhanced by: · Appropriately scaled trees near the eastern & western elevations for shade · Balance of evergreen & deciduous trees to provide shading in summer & sunlight access in winter · Shade structures such as pergolas for balconies & courtyards		YES
	Tree & shrub selection considers size at maturity & the potential for roots to compete.		YES
4O-2 p115	**Objective:** Landscape design contributes to streetscape & amenity		✓
	Design Guidance		**Considered**
	Landscape design responds to the existing site conditions including: · Changes of levels · Views · Significant landscape features including trees & rock outcrops		YES
	Significant landscape features are protected by: · Tree protection zones · Appropriate signage & fencing during construction		YES
	Plants selected are endemic to region & reflect local ecology		YES
4P	**PLANTING ON STRUCTURES**		
4P-1 p117	**Objective:** Appropriate soil profiles are provided		✓

ADG Ref.	Item Description	Notes	Compliance
	Design Guidance		**Considered**
	Structures are reinforced for additional saturated soil weight		YES
	Soil volume is appropriate for plant growth, including: · Modifying depths & widths according to planting mix & irrigation frequency · Free draining & long soil life span · Tree anchorage		YES
	Minimum soil standards for plant sizes should be provided in accordance with: Site Area (sqm) / Recommended Tree Planting Up to 850 / 1 medium tree per 50sqm of deep soil zone 850 - 1,500 / 1 large tree or 2 medium trees per 90sqm of deep soil zone Greater than 1,500 / 1 large tree or 2 medium trees per 80sqm of deep soil zone		YES
4P-2 p117	**Objective:** Plant growth is optimised with appropriate selection & maintenance		✓
	Design Guidance		**Considered**
	Plants are suited to site conditions, considerations include: · Drought & wind tolerance · Seasonal changes in solar access · Modified substrate depths for a diverse range of plants · Plant longevity		YES
	A landscape maintenance plan is prepared		YES
	Irrigation & drainage systems respond to: · Changing site conditions · Soil profile & planting regime · Whether rainwater, stormwater or recycled grey water is used		YES
4P-3 p117	**Objective:** Planting on structures contributes to the quality & amenity of communal & public open spaces		✓
	Design Guidance		**Considered**
	Building design incorporates opportunities for planting on structures. Design solutions include: · Green walls with specialised lighting for indoor green walls · Wall design that incorporates planting · Green roofs, particularly where roofs are visible from the public domain · Planter boxes Note: structures designed to accommodate green walls should be integrated into the building facade & consider the ability of the facade to change over time	The proposed development incorporates planting at ground level throughout the communal open space. Planting is also proposed at the Level 4 and level 7 terraces.	YES
4Q	**UNIVERSAL DESIGN**		
4Q-1 p119	**Objective:** Universal design features are included in apartment design to promote flexible housing for all community members		✓
	Design Guidance		**Considered**
	Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features		YES
4Q-2 p119	**Objective:** A variety of apartments with adaptable designs are provided		✓
	Design Guidance		**Considered**
	Adaptable housing should be provided in accordance with the relevant council policy		YES
	Design solutions for adaptable apartments include: · Convenient access to communal & public areas · High level of solar access · Minimal structural change & residential amenity loss when adapted · Larger car parking spaces for accessibility · Parking titled separately from apartments or shared car parking arrangements		YES
4Q-3 p119	**Objective:** Apartment layouts are flexible & accommodate a range of lifestyle needs		✓
	Design Guidance		**Considered**
	Flexible design solutions include: · Rooms with multiple functions · Dual master bedroom apartments with separate bathrooms · Larger apartments with various living space options · Open plan 'loft' style apartments with only a fixed kitchen, laundry & bathroom	All apartment plans feature open plan living arrangements and at least 2 bathrooms to the 2 bedroom and 3 bedroom layouts.	YES
4R	**ADAPTIVE REUSE**		N/A
4S	**MIXED USE**		N/A
4T	**AWNING & SIGNAGE**		N/A
4U	**ENERGY EFFICIENCY**		
4U-1 p127	**Objective:** Development incorporates passive environmental design.		✓
	Design Guidance		**Considered**
	Adequate natural light is provided to habitable rooms (see 4A Solar & Daylight Access)	All apartments receive adequate natural light to all habitable rooms, whether direct or indirect.	YES
	Well located, screened outdoor areas are provided for clothes drying		YES
4U-2 p127	**Objective:** Passive solar design is incorporated to optimise heat storage in winter & reduce heat transfer in summer.		✓
	Design Guidance		**Considered**
	A number of the following design solutions are used: · Use of smart glass or other on north & west elevations · Thermal mass maximised in floors & walls of north facing rooms · Polished concrete floors, tiles or timber rather than carpet · Insulated roofs, walls & floors. Seals on window & door openings · Overhangs & shading devices such as awnings, blinds & screens		YES
	Provision of consolidated heating & cooling infrastructure is located in a centralised location (eg basement)		YES
4U-3 p127	**Objective:** Adequate natural ventilation to minimise the need for mechanical ventilation.		✓
	Design Guidance		**Considered**
	A number of the following design solutions are used: · Rooms with similar usage are grouped together · Natural cross ventilation for apartments is optimised · Natural ventilation is provided to all habitable rooms & as many non-habitable rooms, common areas & circulation spaces as possible		YES
4V	**WATER MANAGEMENT & CONSERVATION**		
4V-1 p129	**Objective:** Potable water use is minimised.		✓
	Design Guidance		**Considered**
	Water efficient fittings, appliances & wastewater reuse are incorporated		YES
	Apartments are individually metered		YES
	Rainwater is collected, stored & reused on site		YES

ADG Ref.	Item Description	Notes	Compliance	
	Drought tolerant, low water use plants are used within landscaped areas		YES	
4V-2 p129	**Objective:** Urban stormwater is treated on site before being discharged to receiving waters.			✓
	Design Guidance		**Considered**	
	Water sensitive urban design systems are designed by a suitably qualified professional		YES	
	A number of the following design solutions are used: · Runoff is collected from roofs & balconies in water tanks and plumbed into toilets, laundry & irrigation · Porous & open paving materials is maximised · On site stormwater & infiltration, including bio-retention systems such as rain gardens or street tree pits		YES	
4V-3 p129	**Objective:** Flood management systems are integrated into site.			✓
	Design Guidance		**Considered**	
	Detention tanks are located under paved areas, driveways or in basement car parks		YES	
	On large sites, parks or open spaces are designed to provide temporary on site detention basins		N/A	
4W	**WASTE MANAGEMENT**			
4W-1 p131	**Objective:** Waste storage facilities are designed to minimise impacts on streetscape, building entry & amenity of residents.			✓
	Design Guidance		**Considered**	
	Adequately sized storage areas for rubbish bins are located discreetly away from the front of the development or in basement car park		YES	
	Waste & recycling storage areas are well ventilated		YES	
	Circulation design allows bins to be easily manoeuvred between storage & collection points		YES	
	Temporary storage are provided for large bulk items such as mattresses		YES	
	Waste management plan is prepared		YES	
4W-2 p131	**Objective:** Domestic waste is minimised by providing safe & convenient source separation & recycling.			✓
	Design Guidance		**Considered**	
	All dwellings have a waste & recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste & recycling		YES	
	Communal waste & recycling rooms are in convenient & accessible locations related to each vertical core		YES	
	For mixed use developments, residential waste & recycling storage areas & access is separate & secure from other uses		YES	
	Alternative waste disposal methods such as composting is provided	Subject to detailed design development	YES	
4X	**BUILDING MAINTENANCE**			
4X-1 p133	**Objective:** Building design detail provides protection from weathering.			✓
	Design Guidance		**Considered**	
	A number of the following design solutions are used: · Roof overhangs to protect walls · Hoods over windows & doors to protect openings · Detailing horizontal edges with drip lines to avoid staining surfaces · Methods to eliminate or reduce planter box leaching · Appropriate design & material selection for hostile locations		YES	
4X-2 p133	**Objective:** Systems & access enable ease of maintenance.			✓
	Design Guidance		**Considered**	
	Window design enables cleaning from the inside of the building	Subject to detailed design development. The majority of glazing is operable and located on balconies. Smaller fixed windows are typically able to be cleaned via adjacent operable windows.	YES	
	Building maintenance systems are incorporated & integrated into the design of the building form, roof & facade		YES	
	Design does not require external scaffolding for maintenance access		YES	
	Manually operated systems such as blinds, sunshades & curtains are used in preference to mechanical systems		YES	
	Centralised maintenance, services & storage are provided for communal open space areas within the building		YES	
4X-3 p133	**Objective:** Material selection reduces ongoing maintenance costs.			✓
	Design Guidance		**Considered**	
	A number of the following design solutions are used: · Sensors to control artificial lighting in common circulation & spaces · Natural materials that weather well & improve with time, such as face brickwork · Easily cleaned surfaces that are graffiti resistant · Robust & durable materials & finishes in locations which receive heavy wear & tear such as common circulation areas & lift interiors	All materials selected for Lot S3 are robust and durable. These include brickwork, anodised aluminium panels and powdercoated aluminium screens, each of which require minimal long term maintenance.	YES	