ADG Ref.	Item Description	Notes	Compliance
PART 3	**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	The proposal is located on a corner allotment with street frontages to the northwest and southwest. The design has been considered with providing optimal solar access to the residential apartments by providing a cone of orientation from the northeast to the northwest to the tower	YES
	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		NA
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
	Overshadowing is minimised to the south or downhill by increased upper level setbacks	The proposed slender tower form is located on half of the podium only so as to minimise extent of overshadowing to the south.	YES
	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	The podium is built to the boundary in line with the SOP Masterplan 2030 planning guidelines. The tower is built to northeast boundary in line with the SOPA Masterplan 2030 guidelines. The orientation of the boomerang tower form results in generous setbacks to the southeast and southwest boundaries thereby minimising overshadowing and privacy impacts.	YES
	A minimum of 4 hours of solar access is retained to solar collectors on neighbouring buildings	No solar collectors located on neighbouring buildings to the south of the subject site.	NA
3C	**PUBLIC DOMAIN INTERFACE**		
3C-1 p51	**Objective:** Transition between private & public domain is achieved without compromising safety & security.		✓
	Design Guidance		**Considered**
	Upper level balconies & windows overlook the public domain	The tower sits on top of a podium which provides a covered colonnade to the ground public domain as required by the Masterplan. Retail tenancies at ground level encourage natural surveilence along the colonnade.	NO
	Length of solid walls is limited along street frontages	Street frontages consist predominantly of retail glazed frontages. Solid walls are limited to a secondary lane to the rear and are only provided where required to enclose services spaces.	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	Visitor bicycle parking and some residential bicycle parking is located at ground level. A generous residential lobby entry is flanked by the through-site link providing opportunities for casual interaction.	YES
	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	The architectural form and massing of the commercial, residential and retail entries are sufficiently differentiated to provide legibility for all users.	YES
3C-2 p53	**Objective:** Amenity of the public domain is retained & enhanced.		✓
	Design Guidance		**Considered**
	Mail boxes are located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided		YES
	Substations, pump rooms, garbage storage areas & other service requirements are located in basement car parks or out of view	Service spaces have been located off the secondary lane to the rear for reduced visibility.	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
	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		✓
	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**

ADG Ref.	Item Description	Notes	Compliance
	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		YES
	Direct, equitable access are provided to communal open space areas from common circulation areas, entries & lobbies		YES
	Where communal open space cannot be provided at ground level, it is provided on a podium or roof		YES
3D-2 p57	**Objective:** Communal open space is designed to allow for range of activities, respond to site conditions & be attractive & 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	A generous communal open space is provided to the residents with a variety of landscaped areas, seating arrangements and lounge areas to accommodate both individuals and groups of all ages. A community room is also provided adjacent to the communal open space for residential use.	YES
	Location of facilities responds to microclimate & site conditions with access to sun in winter, shade in summer & shelter from strong winds & down drafts	The rooftop landscaping proposes mature planting and a variety of enclosed lounge spaces to provide a microclimate to the strong wind conditions and wet weather. The communal open space provides ample access to winter sun with its northern aspect.	YES
	Visual impacts of services are minimised, including location of ventilation duct outlets from basement car parks, electrical substations & detention tanks	Services have been designed with minimal visual impact, with majority of outlets integrated within the open carpark facade and / or located on the secondary elevation to the rear.	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.	The proposed development is built to the boundary along the Olympic Boulevard frontage and along side streets off Olympic Boulevard as per the SOP Masterplan guidelines, with an activated colonnade alongside retail facilities at ground level. Whilst public open space is limited the colonnade responds to the existing ceremonial axis of Olympic Boulevard. The through-site link provides pedestrian desire paths and view lines to the adjoining P3 carpark to the east / sports facilities to the west.	✓
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	

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	The proposal has been built to the boundaries in response to the SOPA Masterplan guidelines. Limited deep soil zones are provided at ground however alternative forms of planting has been provided in the rooftop gardens to the north and south podiums, thereby contributing to the objectives of Section 3E. The landscaped areas on the north and south podium roofs total approximately 790m2 and 515m2 respectively, accounting for approx. 38% of the site area.	YES
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	The proposed deep soil zones will allow the development of healthy root systems to mature trees where proposed.	YES

ADG Ref.	Item Description	Notes	Compliance
	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	As noted planting on structures at podium roof level has been proposed in order to achieve the objectives of this section.	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.	The subject site is bounded by streets on all sides (existing and future) and is located within an existing context comprising carpark, sports centres and open space immediately adjacent. In addition to this the orientation and form of the residential tower is such that should future residential development be located on adjoining Site 12 the required separation distances can be easily achieved.	✓
	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.		✓
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 the residential tower by a distance of 4.5m, beyond which are proposed areas of new trees and planting to act as a screening device to the overlooking apartments.	YES
	Bedrooms, living spaces & other habitable rooms are separated from gallery access & other open circulation space by the apartment's service areas		YES
	Balconies & private terraces are located in front of living rooms to increase internal privacy		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
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	Level changes at ground respond to the natural sloping ground. Pathways are no steeper than 1:20 to ensure universal access without the need for handrails.	YES
	Steps & ramps are integrated into the overall building & landscape design		YES
	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	The colonnade responds to the ceremonial axis of Olympic Boulevard and the through-site link provides a pedestrian desire line connecting the existing sports facilities to the west and P3 carpark to the east.	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	Pedestrian links are flanked by retail and residential lobby entries, and contain active uses such as short-term bicycle parking and public WC amenities.	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	The carpark entry is located on the boundary and is accessed through a secondary street to the rear of the development.	NO
	Vehicle entries are located at the lowest point of the site, minimising ramp lengths, excavation & impacts on the building form and layout	The carpark is located above ground. The vehicle entry is located towards the highest point of the site to minimise ramp lengths.	NA
	Car park entry & access are located on secondary streets or lanes where available		YES
	Vehicle standing areas that increase driveway width & encroach into setbacks are avoided	The carpark entry contains ample space to accommodate queuing for 3 cars.	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
	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
	Pedestrian & vehicle access are separated & distinguishable. Design solutions include: · Changes in surface materials · Level changes · Landscaping for separation	Level and surface changes to footpaths distinguish between pedestrian and vehicle acccess.	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		
	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. Car parking needs for a development must be provided off street.		✓
	Design Guidance		**Considered**
	Where less car parking is provided in a development, council do not provide on street resident parking permits	The Masterplan does not specify minimum car parking rates, only maximum, with which the proposal complies.	NA
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	No motorbike provisions are required by the Masterplan.	NO
	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		NO
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**

ADG Ref.		Item Description	Notes	Compliance
		Excavation minimised through efficient car park layouts & ramp design	Above ground car parking is proposed.	YES
		Car parking layout is well organised, using a logical, efficient structural grid & double loaded aisles	The width of the site (30.4m) prevents double loaded aisles however car parking grid is organised within an efficient structural grid.	NO
		Protrusion of car parks do not exceed 1m above ground level. Solution include stepping car park levels or using split levels on sloping sites	An above ground car park is proposed due to the inground site contamination as required by the planning guidelines.	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
3J-6 p75		**Objective:** Visual & environmental impacts of above ground enclosed car parking are minimised.		✓
		Design Guidance		**Considered**
		Exposed parking is not located along primary street frontages	The car park podium facade is integrated with the commercial office facade and will provide adequate and aesthetic screening to the carpark.	YES
		Screening, landscaping & other design elements including public art are used to integrate the above ground car parking with the facade. Design solutions include: · Car parking that is concealed behind facade, with windows integrated into the overall facade design (limited to developments where larger floor plate podium is suitable at lower levels) · Car parking that is 'wrapped' with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage		YES
		Positive street address & active frontages are provided at ground level		YES
PART 4		**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		✓
	2	In all other areas, living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 3 hrs direct sunlight between 9 am - 3 pm at mid winter		N/A
	3	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am - 3 pm at mid winter		✓
		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		YES
		Living areas are located to the north and service areas to the south & west of apartments		YES
		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	The design of the apartments has been oriented to maximise solar access to habitable rooms and balconies. Living areas and wintergardens are proposed on the tower corners to benefit from dual aspect.	YES
		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
4A-2 p81		**Objective:** Daylight access is maximised where sunlight is limited.		N/A
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)	The facade design incorporates recessed living rooms behind balconies, vertical external fins and high performance double-glazing for thermal comfort.	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

ADG Ref.	Item Description	Notes	Compliance
	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	Apartments generally provide open plan living with approximately 8m to the kitchen.	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		NO
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	The first floor of apartments begins on level 7 and as such we have assumed a tower typology for the cross ventilation approach to the apartments. The corner apartments have been typically designed as enclosed wintergardens to mitigate the regularity of strong wind conditions occuring at these tower corners. The remaining apartments have been designed with open balconies to allow adequate natural ventilation.	NO
2	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	No cross-over apartments proposed.	N/A
	Design Guidance		**Considered**
	The building includes dual aspect apartments, cross through apartments & corner apartments, and limited apartment depths	The floorplate has been designed to provide single apartments at the tower corners to maximise the dual aspect / cross ventilation opportunities in these areas.	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	Apartments generally provide open plan living with approximately 8m to the kitchen.	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	No ceiling fans are proposed in the development.	NA
4C-2 p87	**Objective:** Ceiling height increases the sense of space in apartments & provides for well proportioned rooms.		✓
	Design Guidance		**Considered**
	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.		N/A
	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	Non-residential uses of the development are contained within ground floors and on the commercial floors.	NA
4D	**APARTMENT SIZE & LAYOUT**		

ADG Ref.		Item Description	Notes	Compliance
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 sqm 1 Bedroom: 50 sqm 2 Bedroom: 70 sqm 3 Bedroom: 90 sqm 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	In some instances study rooms are provided and rely on borrowed ventilation and daylight fron an adjoining room, to satisfy BCA requirements. All bedrooms and living rooms are located adjacent to external walls with access to natural ventilation and daylight.	NO
		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.		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**
		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	All bathrooms and laundries will be mechanically ventilated in order to maximise available facade frontage to habitable living rooms and bedrooms.	NO
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)	Master bedrooms and other bedrooms have a minimum area of 9sqm. The design of the apartments is such that an overall high level of amenity is achieved via good planning.	NO
	2	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Bedrooms have a minimum dimension of 2.8m to the facade which has the benefit of maximising the number of units located with a N/NE orientation, thus resulting in solar access 100% of units. The bedrooms are provided with a typical length of 3.2m to allow sufficient room aound the bed. The design of the apartments is such that an overall high level of amenity is achieved via good planning.	NO
	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	Living rooms have a minimum width of 3.6m for 1 & 2 bedroom apartments. In most apartment types the 3.6m minimum width at the facade line increases to 4m internally in the living and dining areas. 3 bedroom apartments typically have a minimum width of 4m. 4.5-5m living room widths are provided to the 4 bedroom apartments.	✓
	4	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	No cross-over apartments are proposed.	N/A
		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

ADG Ref.	Item Description	Notes	Compliance
	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	Open plan room sizes are generally rectangular and facilitate a variety of furniture arrangements and removal.	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: Apartment Type / Minimum Area (sqm) / Minimum Depth (m) 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		✓
2	For apartments at ground level or on podium or similar, a private open space is provided instead of a balcony. It must have minimum area of 15sqm & minimum depth of 3m		N/A
	Design Guidance		**Considered**
	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	Regular high wind speeds occur at the tower corners. This is mitigated by the provision of enclosed wintergardens to provide a useable balcony space to these apartments.	YES
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	Proposed transparent balustrades maximise outlook to the residents. There are no neighbouring high-rise developments which will affect visual privacy.	YES
	Full width full height glass balustrades alone are generally not desirable	A full width full height glass balustrade is proposed with a solid handrail integrated within the overall facade approach. Refer facade design section of the design report.	YES
	Operable screens, shutters, hoods & pergolas are used to control sunlight & wind	Enclosed wintergardens with operable windows are proposed on tower corners to mitigate high wind speeds.	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	Typically air-conditioning units are located on balconies. These are integrated to be screened from view of the living room or bedroom with a nib wall. The air-conditioning units serving the wintergarden apartments and the upper level 4 bedroom apartments are located either in a plantroom located on each floor or on the top level.	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

ADG Ref.		Item Description	Notes	Compliance
		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		✓
		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
		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	The floorplate has been designed to provide a high level of amenity and outlook to the lift lobby which is oriented to a glazed facade, with outlook on every floor. The corridor serving the majority of apartment entries provides straight, clear sight lines to each entry. On a typical floor the remaining two apartments are located directly adjacent to the lift lobby around a secondary lobby for privacy.	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	It is anticipated that the lift lobby with glazed outlook on every floor will serve as an incidental space for the residents.	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		YES
4G		**STORAGE**		
4G-1 p101		**Objective:** Adequate, well designed storage is provided in each apartment		✓
		Design Criteria		
	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 required storage is to be located within apartment		
		Design Guidance		**Considered**
		Storage is accessible from either circulation or living areas	Refer Appendix C for breakdown of storage provisions.	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
		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

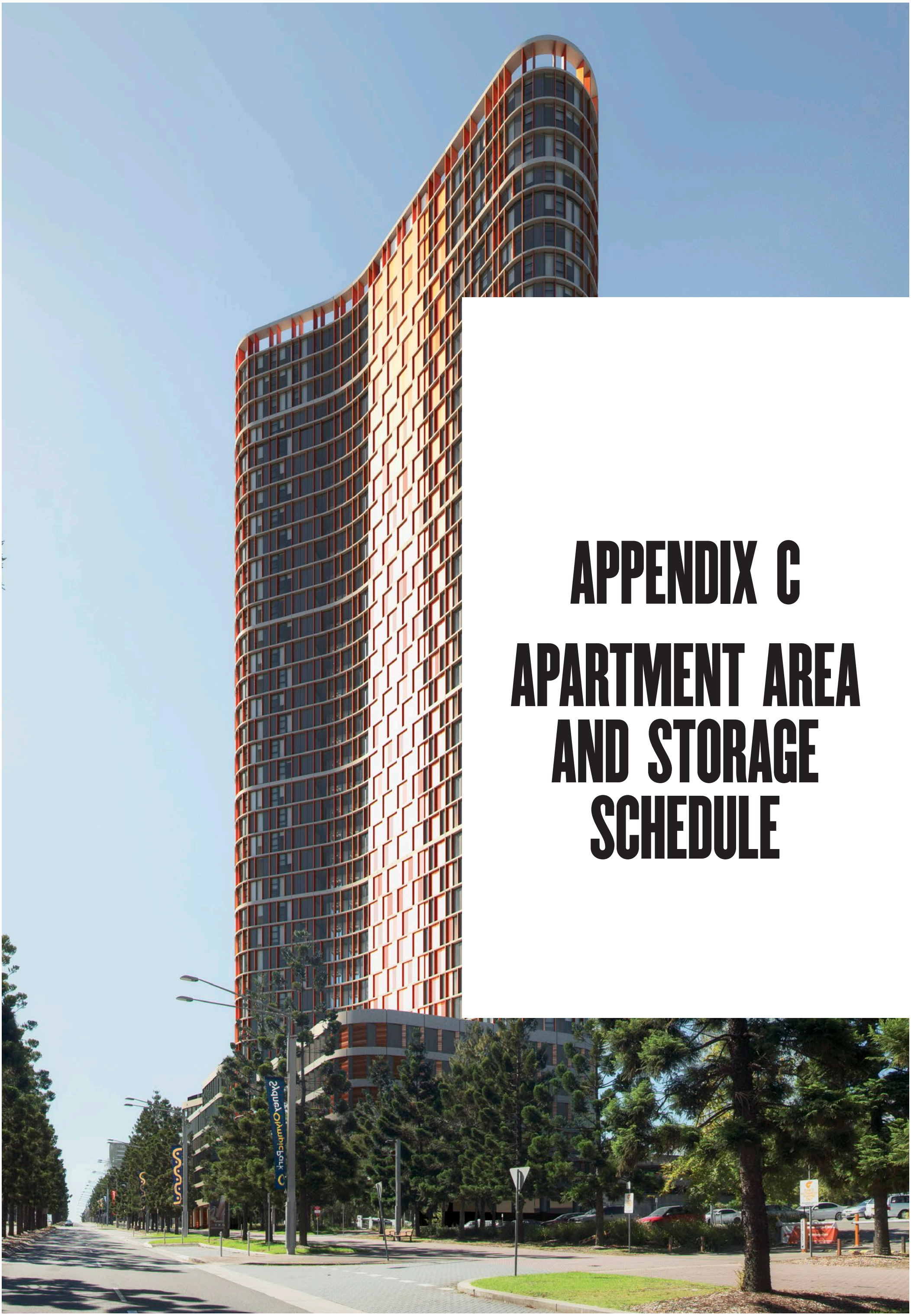
ADG Ref.	Item Description	Notes	Compliance
	Storage, circulation areas & non-habitable rooms are located to buffer noise from external sources		YES
	The number of party walls (shared with other apartments) are limited & are appropriately insulated		YES
	Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces & circulation areas should be located at least 3m away from bedrooms	Where plant areas are located in proximity to bedrooms (levels 7 and 8) airlocks and suitable attentuation mechanisms in the form of silencers and discontinuous wall construction will be provided.	YES
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		✓
	Design Guidance		**Considered**
	To minimise impacts the following design solutions are used: · Physical separation between buildings & the noise or pollution source · Residential uses are located perpendicular to the noise source & where possible buffered by other uses · Non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses & communal open spaces · Non-residential uses are located at lower levels vertically separating residential component from noise or pollution source. Setbacks to the underside of residential floor levels are increased, relative to traffic volumes & other noise sources · Buildings respond to both solar access & noise. Where solar access is away from noise source, non-habitable rooms will provide a buffer · Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferred · Landscape design reduces the perception of noise & acts as a filter for air pollution generated by traffic & industry		YES
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
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

ADG Ref.	Item Description	Notes	Compliance
	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	The tower achieves a horizontal expression of the apartments by projecting slabs. Where the floorplates change a thicker slab is expressed (which also serves to integrate the transfer of building services internally).	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	The roof design relates to an extension of the tower form and does not detract from the overall massing.	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	The facade fins rise up one storey to surround the perimeter of the roof level to form a crown to the tower, providing a consistency in scale and materiality. The provision of a perimeter crown serves to conceal the roof plant services and lift overrun.	YES
4N-2 p113	**Objective:** Opportunities to use roof space for residential accommodation & open space are maximised		N/A
4N-3 p113	**Objective:** Roof design incorporates sustainability features		N/A
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	Diverse and appropriate planting is provided to the rooftop gardens. Shading trees are provided at intervals to provide landmarks as well as seating opportunities to the residents. Plant species have been selected to provide a micro-climate to the communal open space.	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	The planning guidelines permit development to site boundary extents and as such the permissible development will encroach upon the tree protection zones of the existing trees along Olympic Boulevard. The proposal seeks to remove these trees so as not to cause long term advise impacts. Refer arborist report for detalis.	NO
	Plants selected are endemic to region & reflect local ecology		YES
4P	**PLANTING ON STRUCTURES**		
4P-1 p117	**Objective:** Appropriate soil profiles are provided		✓
	Design Guidance		**Considered**
	Structures are reinforced for additional saturated soil weight		YES

ADG Ref.	Item Description	Notes	Compliance
	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	A landscaped garden is proposed to the roof of the north podium wing for residential use. A landscaped garden for outlook only is proposed to the roof of the south podium wing. Both gardens will incorporate planting integrated within the structure with adequate support for deep soil planting.	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		YES
4S	**MIXED USE**		
4S-1 p123	**Objective:** Mixed use developments are provided in appropriate locations & provide active street frontages that encourage pedestrian movement.		✓
	Design Guidance		**Considered**
	Mixed use development are concentrated around public transport & centres		YES
	Mixed use developments positively contribute to the public domain. Design solutions include: · Development addresses the street · Active frontages provided · Diverse activities & uses · Avoiding blank walls at the ground level · Live/work apartments on the ground floor level, rather than commercial		YES

ADG Ref.	Item Description	Notes	Compliance	
4S-2 p123	**Objective:** Residential levels of the building are integrated within the development. Safety & amenity is maximised.			✓
	Design Guidance		**Considered**	
	Residential circulation areas are clearly defined. Solutions include: · Residential entries separated from commercial entries & directly accessible from the street · Commercial service areas separated from residential components · Residential car parking & communal facilities separated or secured · Security at entries & safe pedestrian routes are provided · Concealment opportunities are avoided		YES	
	Landscaped communal open space are provided at podium or roof		YES	
4T	**AWNING & SIGNAGE**			
4T-1 p125	**Objective:** Awnings are well located and complement & integrate with the building design.	A continuous colonnade integrated with the building form is provided at ground level.		N/A
4T-2 p125	**Objective:** Signage responds to context & desired streetscape character.	No signage is proposed as part of this DA.		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)		YES	
	Well located, screened outdoor areas are provided for clothes drying	Not considered appropriate for a development of this scale. Apartments are provided with a combined washer / dryer. which is included in the BASIX assessment.	NO	
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	
	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	
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	

ADG Ref.	Item Description	Notes	Compliance
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		NO
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	The provision of a crown at tower roof level provides an opportunity for a building maintenance system to be easily integrated for cleaning and maintenance	NO
	Building maintenance systems are incorporated & integrated into the design of the building form, roof & facade	The provision of a crown at tower roof level provides an opportunity for a building maintenance system to be easily integrated.	YES
	Design does not require external scaffolding for maintenance access	The provision of a crown at tower roof level provides an opportunity for a building maintenance system to be easily integrated.	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		YES



APPENDIX C

APARTMENT AREA AND STORAGE SCHEDULE

	GFA (m^2)				Car Parking				Bicycle Parking		Apartment Mix			
Level	**Retail / Club**	**Retail**	**Comm.**	**Resi.**	**Retail / Club**	**Retail**	**Comm**	**Resi.**	**Comm**	**Resi.**	**1 Bed**	**2 Bed**	**3 Bed**	**4 Bed**
Level 38				610							-	-	-	3
Level 37				719							-	-	-	4
Level 36				719							-	-	-	4
Level 35				678							1	4	2	-
Level 34				678							1	4	2	-
Level 33				678							1	4	2	-
Level 32				678							1	4	2	-
Level 31				678							1	4	2	-
Level 30				678							1	4	2	-
Level 29				678							1	4	2	-
Level 28				678							1	4	2	-
Level 27				678							1	4	2	-
Level 26				683							3	4	1	-
Level 25				683							3	4	1	-
Level 24				683							3	4	1	-
Level 23				683							3	4	1	-
Level 22				683							3	4	1	-
Level 21				683							3	4	1	-
Level 20				683							3	4	1	-
Level 19				683							3	4	1	-
Level 18				683							3	4	1	-
Level 17				683							3	4	1	-
Level 16				683							3	4	1	-
Level 15				683							3	4	1	-
Level 14				681							2	6	-	-
Level 13				681							2	6	-	-
Level 12				681							2	6	-	-
Level 11				681							2	6	-	-
Level 10				681							2	6	-	-
Level 9				668							1	6	-	-
Level 8			1,185	538							1	5	-	-
Level 7			1,314	552							1	5	-	-
Level 6								83		24				
Level 5								84		24				
Level 4								85		10				
Level 3						3	34	36	17	10				
Level 2					12			16		10				
Ground	790	160	41	131					36	70				
Totals	**790**	**160**	**2,540**	**21,640**	**12**	**3**	**34**	**304**	**53**	**148**	**58**	**130**	**30**	**11**

TABLE 1: APARTMENT MIX, GFA + PARKING SCHEDULE

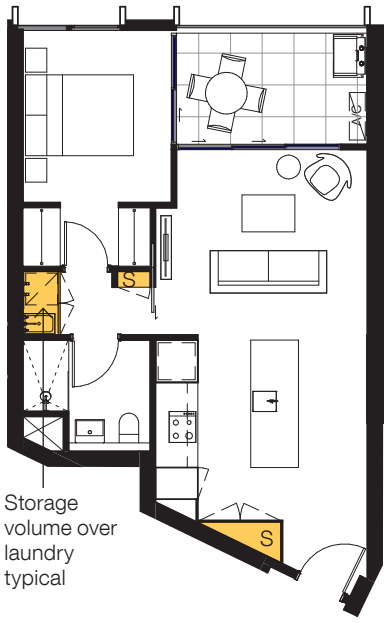
Refer accompanying Traffic Impact Assessment for breakdown of parking provision.

			NSA (m2)		Storage			SEPP65 Compliance			
Unit Type	**Ad'ptable**	**Quantity**	**Internal**	**Balcony /W'Grden**	**Min. Storage Req'd (100%) (m3)**	**Min. Storage Req'd in Apt (100%) (m3)**	**Storage Vol. Provided in Apt (m3)**	**Internal Apt Storage Complies**	**Carpark Storage Cage**	**Total Storage Cages**	**Total Apt Storage Complies**
1B-A		26	50	8	6.00	3.00	3.00	✓	Yes	26	✓
1B-B		19	58	8	6.00	3.00	4.87	✓	Yes	19	✓
1B-C	13	13	58	8	6.00	3.00	3.95	✓	Yes	13	✓
2B-A		27	84	11	8.00	4.00	5.92	✓	Yes	27	✓
2B-B		8	82	13	8.00	4.00	9.94	✓	Yes	8	✓
2B-C	8	8	78	11	8.00	4.00	5.60	✓	Yes	8	✓
2B-D		20	70	10	8.00	4.00	4.55	✓	Yes	20	✓
2B-E		10	79	10	8.00	4.00	5.13	✓	Yes	10	✓
2B-E2		10	79	10	8.00	4.00	5.25	✓	Yes	10	✓
2B-F		28	77	10	8.00	4.00	6.21	✓	Yes	28	✓
2B-G		9	74	11	8.00	4.00	5.95	✓	Yes	9	✓
2B-H		1	92	10	8.00	4.00	12.45	✓	Yes	1	✓
2B-I		4	80	10	8.00	4.00	6.73	✓	Yes	4	✓
2B-I2		5	80	10	8.00	4.00	6.84	✓	Yes	5	✓
3B-A		21	106	13	10.00	5.00	5.27	✓	Yes	21	✓
3B-B		9	108	20	10.00	5.00	5.04	✓	Yes	9	✓
4B-A	2	2	148	17	10.00	5.00	5.97	✓	Yes	2	✓
4B-B		2	162	16	10.00	5.00	5.63	✓	Yes	2	✓
4B-C		2	154	22	10.00	5.00	10.22	✓	Yes	2	✓
4B-D		2	148	18	10.00	5.00	12.01	✓	Yes	2	✓
4B-E		1	169	22	10.00	5.00	5.26	✓	Yes	1	✓
4B-F		1	186	35	10.00	5.00	10.91	✓	Yes	1	✓
4B-G		1	177	25	10.00	5.00	7.88	✓	Yes	1	✓
Totals	**23**	**229**								**229**	

TABLE 2: APARTMENT TYPE AREA + STORAGE SCHEDULE

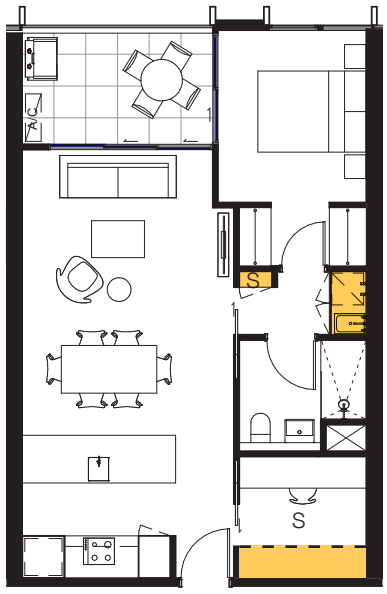
Carpark storage cages provided: 229
Number of units achieving SEPP65 storage requirements: 229 (100%)
SOPA storage requirements are equal to that required by the ADG (SEPP65)

Storage allocations per unit type are located on the following pages.



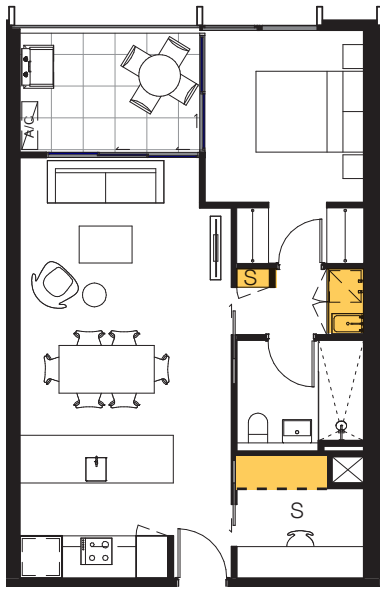
TYPE 1B-A

Storage volume provided within apartment	3.00m³
Storage cage provided in carpark	Yes (3m³)
Total storage volume compliant with SEPP 65 guidelines (6.00m³)	✓



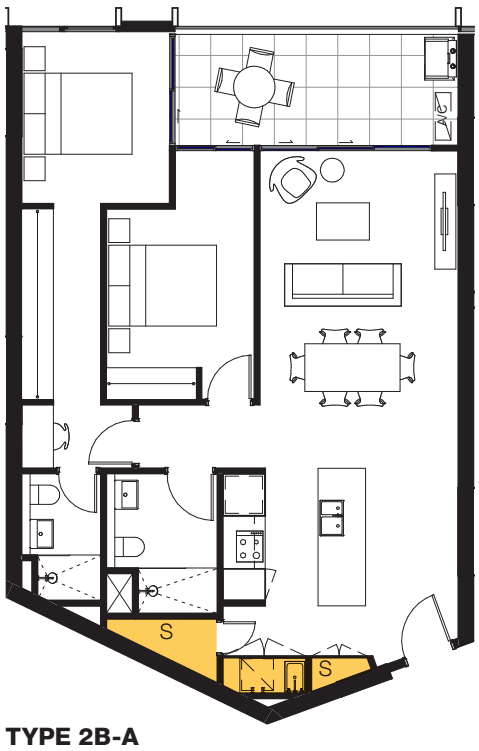
TYPE 1B-B

Storage volume provided within apartment	4.87m³
Storage cage provided in carpark	Yes (3m³)
Total storage volume compliant with SEPP 65 guidelines (6.00m³)	✓



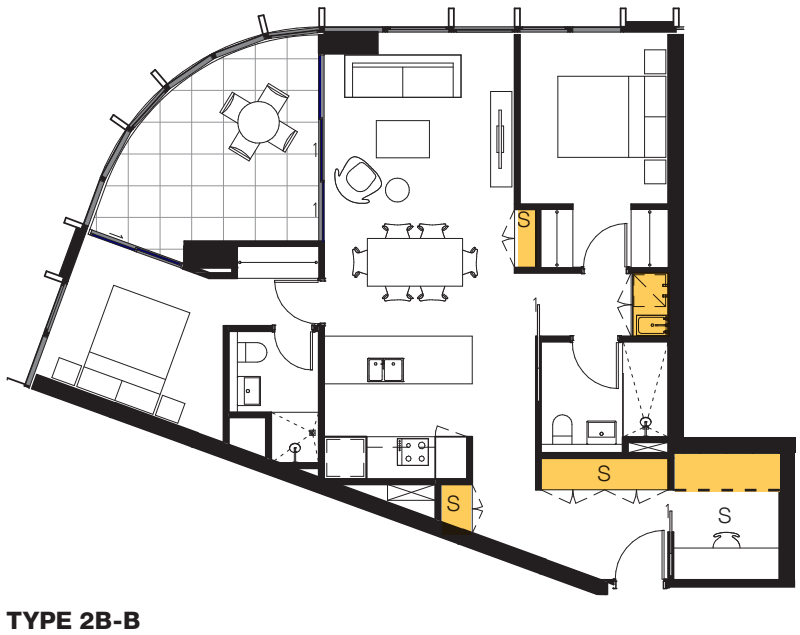
TYPE 1B-C

Storage volume provided within apartment	3.95m³
Storage cage provided in carpark	Yes (3m³)
Total storage volume compliant with SEPP 65 guidelines (6.00m³)	✓



TYPE 2B-A

Storage volume provided within apartment	5.92m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓

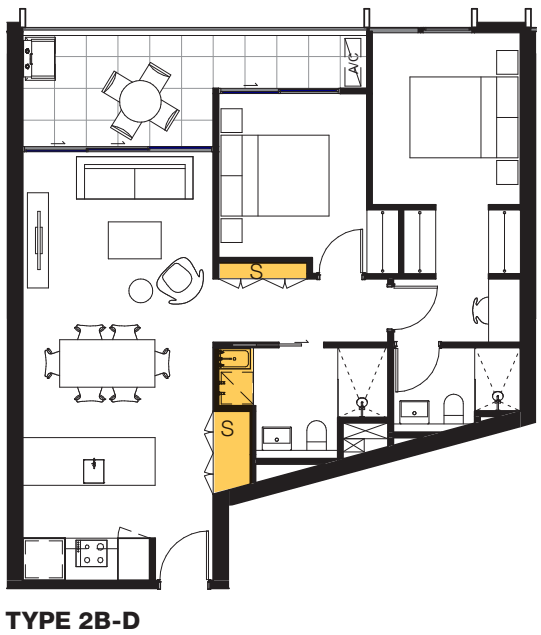


TYPE 2B-B

Storage volume provided within apartment	9.94m³
Storage cage provided in carpark	Yes
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓

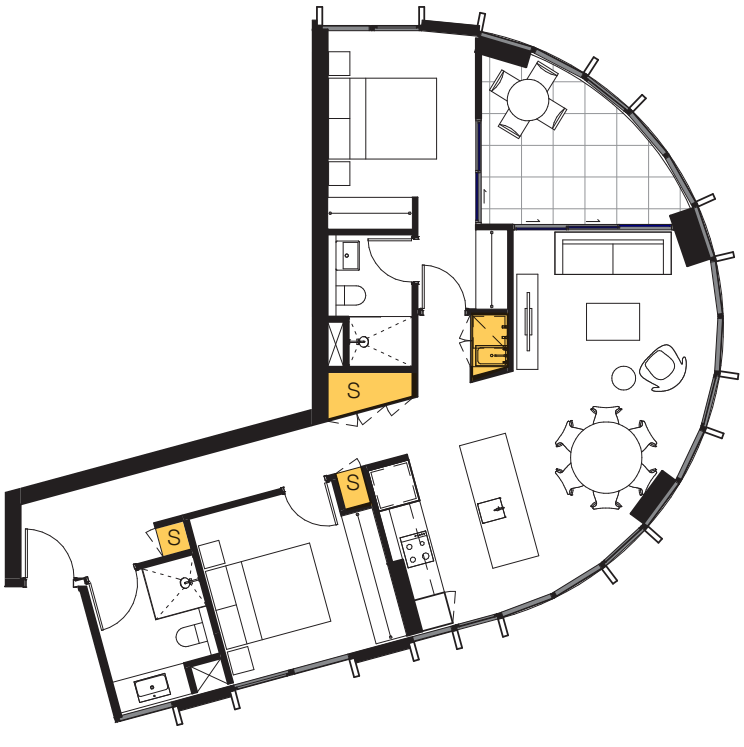
TYPE 2B-C

Storage volume provided within apartment	5.60m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓



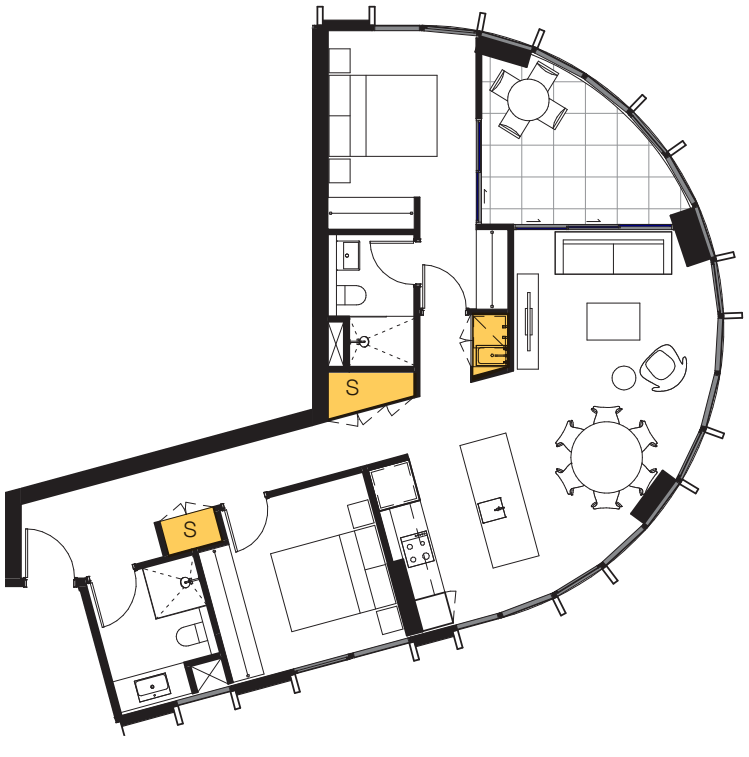
TYPE 2B-D

Storage volume provided within apartment	4.55m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓



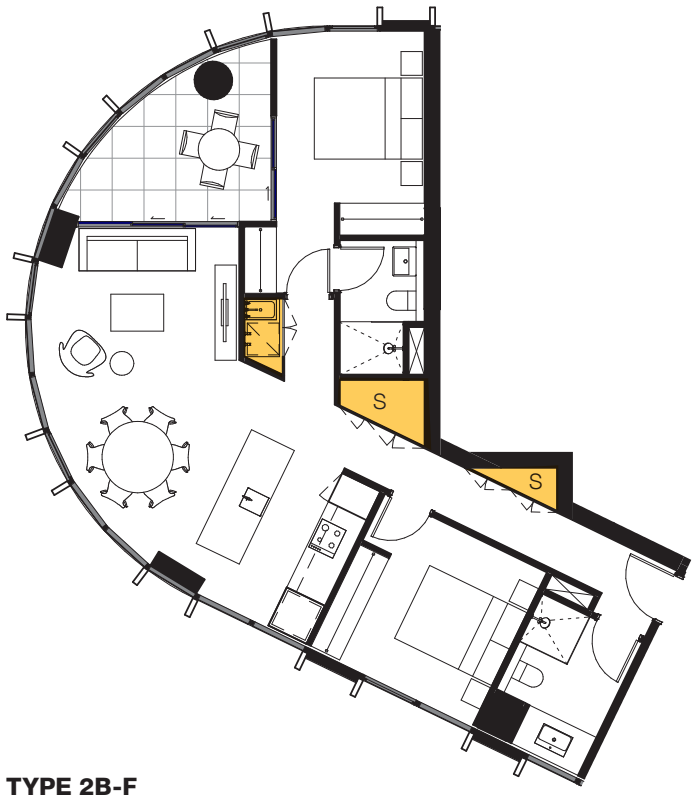
TYPE 2B-E

Storage volume provided within apartment	5.13m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓



TYPE 2B-E2

Storage volume provided within apartment	5.25m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓

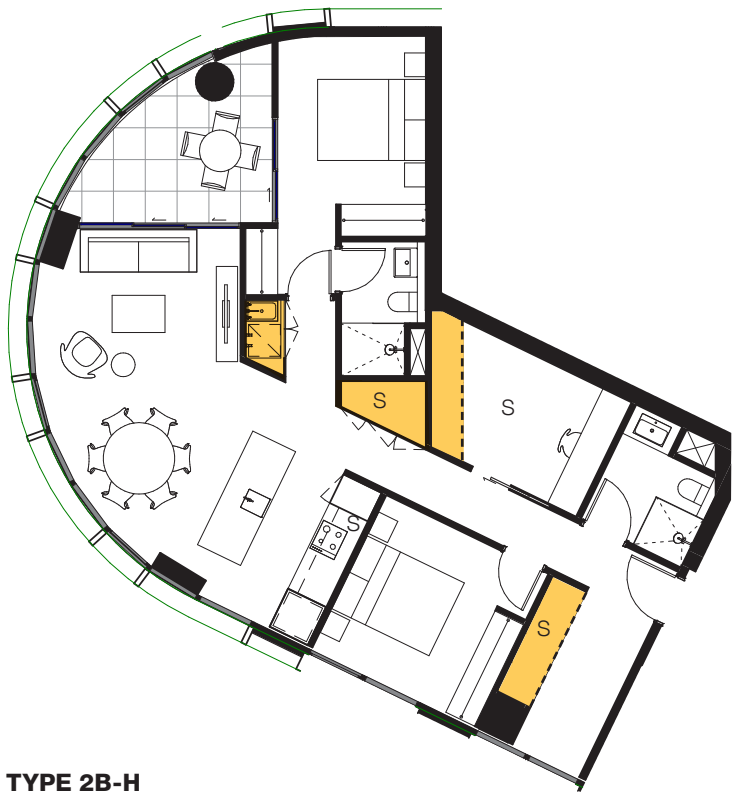


TYPE 2B-F

Storage volume provided within apartment	6.21m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓

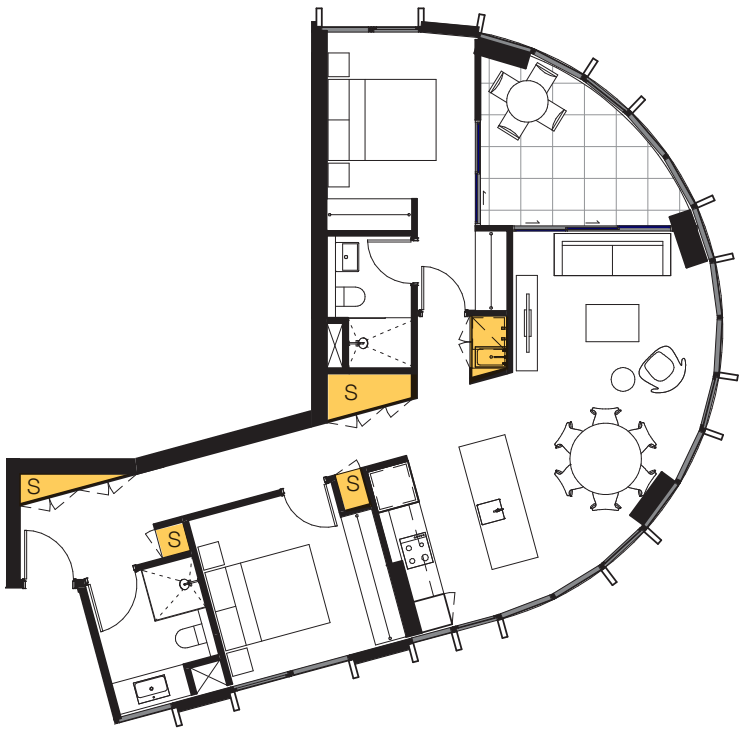
TYPE 2B-G

Storage volume provided within apartment	5.95m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓



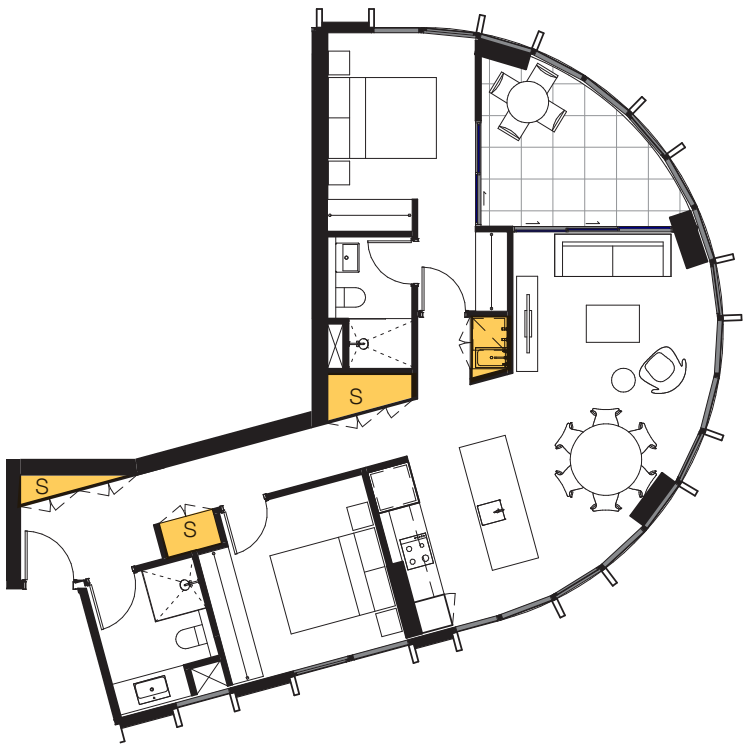
TYPE 2B-H

Storage volume provided within apartment	12.45m³
Storage cage provided in carpark	Yes
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓



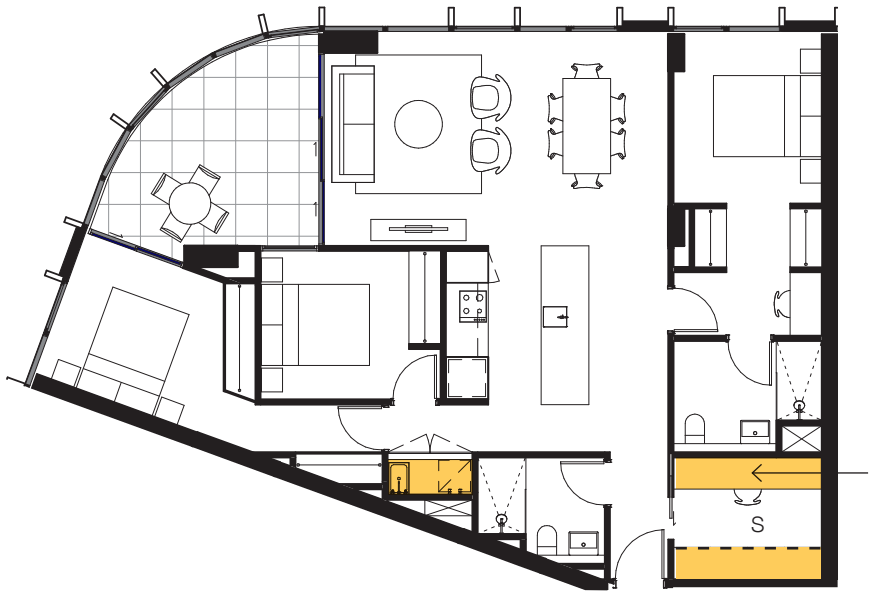
TYPE 2B-I

Storage volume provided within apartment	6.73m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓



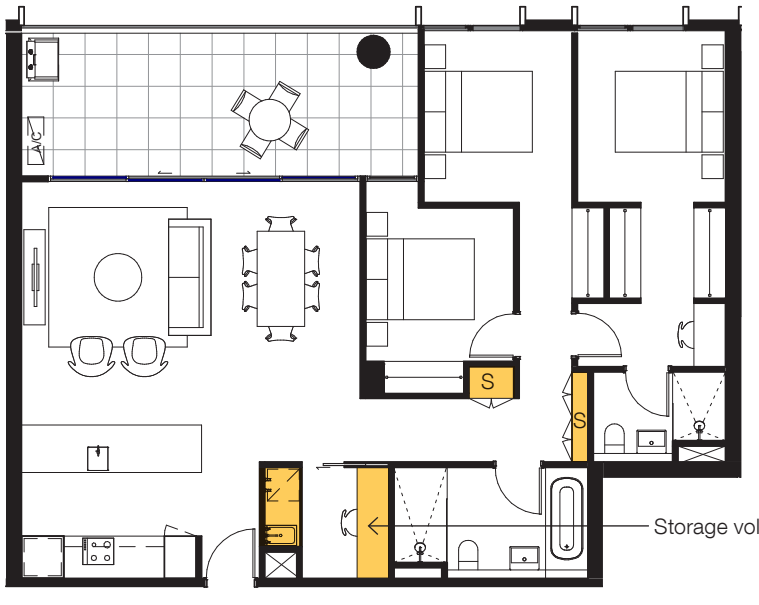
TYPE 2B-I2

Storage volume provided within apartment	6.84m³
Storage cage provided in carpark	Yes (4m³)
Total storage volume compliant with SEPP 65 guidelines (8.00m³)	✓



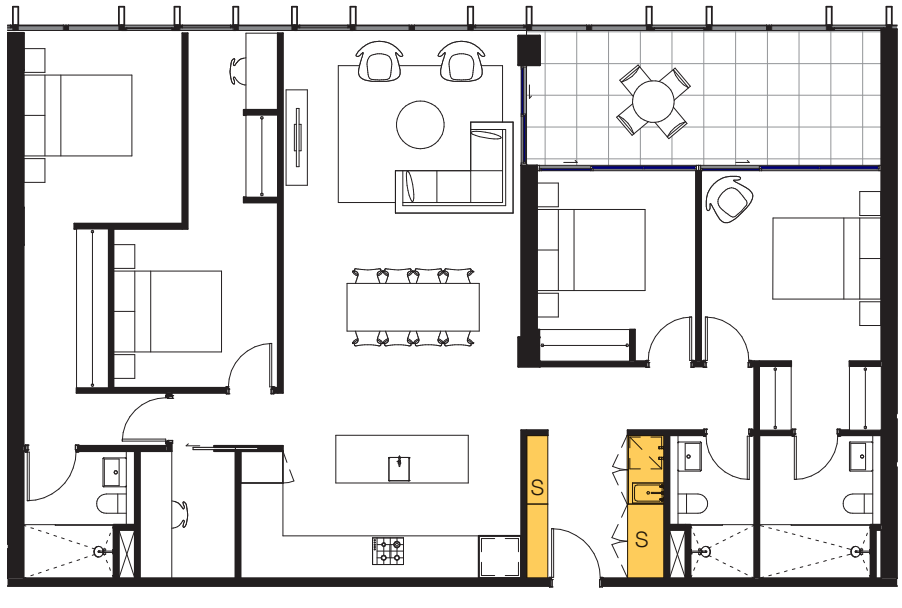
TYPE 3B-A

Storage volume provided within apartment	5.27m³
Storage cage provided in carpark	Yes (5m³)
Total storage volume compliant with SEPP 65 guidelines (10.00m³)	✓



TYPE 3B-B

Storage volume provided within apartment	5.04m³
Storage cage provided in carpark	Yes (5m³)
Total storage volume compliant with SEPP 65 guidelines (10.00m³)	✓



TYPE 4B-A

Storage volume provided within apartment	5.97m³
Storage cage provided in carpark	Yes
Total storage volume compliant with SEPP 65 guidelines (10.00m³)	✓

TYPE 4B-B

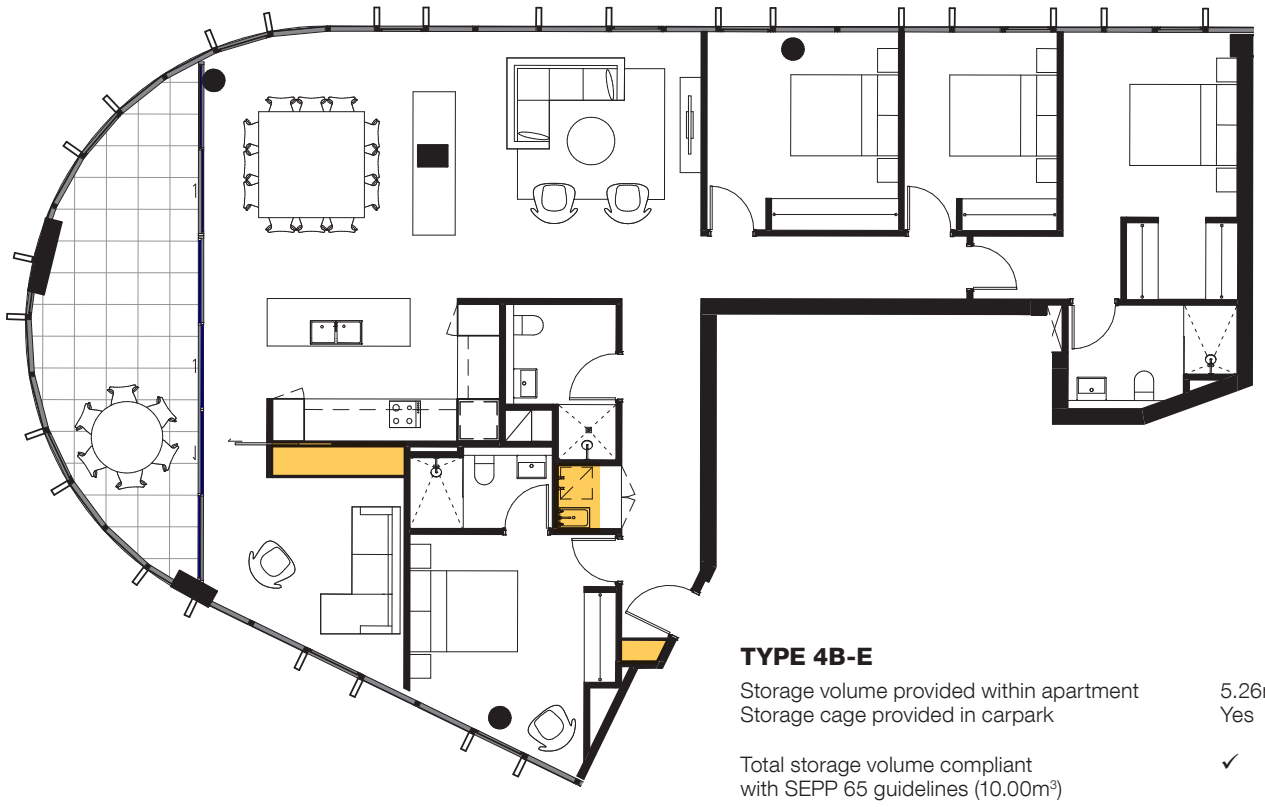
Storage volume provided within apartment	5.63m³
Storage cage provided in carpark	Yes
Total storage volume compliant with SEPP 65 guidelines (10.00m³)	✓

TYPE 4B-C

Storage volume provided within apartment	10.22m³
Storage cage provided in carpark	Yes
Total storage volume compliant with SEPP 65 guidelines (10.00m³)	✓

TYPE 4B-D

Storage volume provided within apartment	12.01m³
Storage cage provided in carpark	Yes (5m³)
Total storage volume compliant with SEPP 65 guidelines (10.00m³)	✓

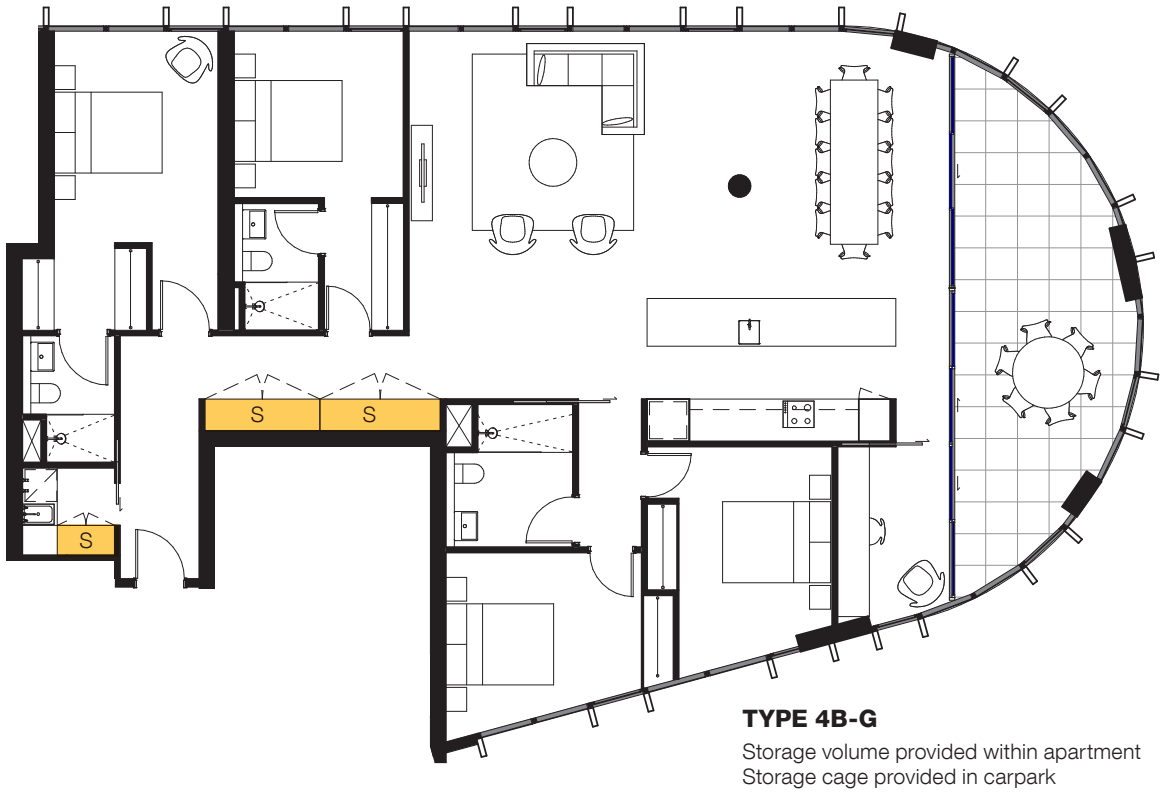


TYPE 4B-E

Storage volume provided within apartment	5.26m^3
Storage cage provided in carpark	Yes
Total storage volume compliant with SEPP 65 guidelines (10.00m^3)	✓

TYPE 4B-F

Storage volume provided within apartment	10.91m^3
Storage cage provided in carpark	Yes
Total storage volume compliant with SEPP 65 guidelines (10.00m^3)	✓



TYPE 4B-G

Storage volume provided within apartment	7.88m^3
Storage cage provided in carpark	Yes (5m^3)
Total storage volume compliant with SEPP 65 guidelines (10.00m^3)	✓

APPENDIX D

MATERIALS SAMPLE BOARD

MATERIAL SAMPLE BOARD

PICTURED

1. Precast concrete
2. Aluminium facing
3. Aluminium fins
4. Glass
5. Colourback glass
6. Metal framing and cladding
7. Aluminium mesh
8. Terracotta
9. Concrete columns