7.1 Tower Form and Proportion



Patterned site response in relation to city fabric



Flexible layout and configuration



NE views maximised

View corridors to the sky

#### Small regular floor plates

A regular tower footprint of moderate size offers a wide range of apartment footprints, both large and small, with a significant number achieving dual aspect. This highly flexible plan also offers a level of neighbourhood familiarity with a limited (not overwhelming) number of apartment addresses per foyer.

A two tower response encourages both a finer city skyline and the potential for a richer, more permeable ground plane with a number of potential links from midtown to Hyde Park as well as north-south connections.

The paired diagonally opposed arrangement of the towers elegantly reinforces the city's existing grid, supporting the diverse fine grained and permable ground plane at the tower bases

The limited floor plate area is ideal for creating smaller neighbourhoods per floor, where there is more opportunity to get to know your neighbour and less intrusion from constant foot traffic in the common corridor.

#### <u>Outlook</u>

View access, particularly to the north east, is maximised for the residences located in the dual towers. The two simple rectangular footprints offer highly flexible layout options, optimised dual aspect apartments. The shallow floor plate works equally well for small and large apartments creating well ventilated apartment with excellent sun access and daylight.

The diagonally opposed relationship and separation of the towers allows the small footprint floors to access outlook from all 4 sides, without obstruction from the nearby paired tower



The experience of the sky and access to daylight becomes an increasingly important issue as the city continues to develop. A configuration of two slender towers, rather than one large footprint, offers an improved visual connection with the sky and better daylight access. Staggering the towers' setback from surrounding streets further improves daylight into the public realm at street level.

The twin separated towers provides a finer grain in the skyline, enhancing public and private views in and around the towers and providing greater visual interest, especially whn compared to a singular large footprint tower.







## Sky Terraces

The tower cores are 'coupled' by two 4 story trusses. Along with supporting the sky terraces, these coupling trusses optimise each towers lateral stability enabling simple continuous core boxes to the top without the need for outriggers or mass dampeners to mitigate natural frequencies and building sway. The coupling trusses are located at a structurally optimised height within the towers.

The centralised location of the skybridge permits a more efficeint sharing of services berween the towers including air-conditioning, recycled water, hot water and fire services systems

The sky bridge is located above the height of the buildings lining Hyde Park between Elizabeth Street and Castlreagh Street. This allows the creation of a unique elevated space with distictve outlook toward Hyde Park, St Mary's Cathedral, The Domain and the Harbour beyond. This sdisticntive and spectacular pace will be available to residents, hotel guests and the general public.

The sky terraces break up and deflect accumulated tower down draft, protecting the ground plane and podium rooftop open spaces.

#### francis-jones morehen thorp

# City Scale and Proportion

The design of the tower forms are modulated through the height of the Sky Terraces and the form and height of the tower tops. These elements are located at a series of datums which relate back to the City scales. The Sky Terraces relate to the mid centruy tower scale of 110m and the transition in tower form occurs at the more recent city tower scale of 180m. The tower tops are a softer, lighter coloured form which articulates these elements from the city forms and relates them to the sky.

#### 7.2 **Residences**

Sweeping north-east views are maximised for the residences located in the dual towers. The two simple rectangular footprints offer highly flexible layout options, optimised dual aspect apartments and an arrangement which elegantly reinforces the city's existing grid structure. The shallow floor plate works equally well for small and large apartments creating well ventilated apartment with excellent sun access and daylight.

The limited floor plate area is ideal for creating smaller neighbourhoods per floor, where there is more opportunity to get to know your neighbour and less intrusion from constant foot traffic in the common corridor.

The location of the residences is ideal for people working in the city or working from home; flexible

workspaces can offer both permanent work points and drop-in hot desks for when the apartment becomes too crowded. The neighbouring hotel supports bigger family gatherings of those living in the residences and breakout space in rooftop gardens and the Urban Courtyard Garden will provide the broader outdoor amenity which some apartments lack. A pedestrian friendly precinct will encourage workers, visitors and residents alike to leave the car behind - or perhaps not purchase one at all with all the public transport opportunity and walkable destinations at the doorstep. Penthouses

\_ High Rise

\_ Low rise 2

\_ Level 36: Residential rooftop gardens

\_ Level 35: Residential pool and gym







#### 7.3 Floor Plate Amenity & Flexibility

The simple plan reflects an ambition to design floor plates of the highest apartment amenity, flexibility and economy. With a consistent core to perimeter wall dimension of only 8.5m and perimeter columns the floor plate becomes a highly adaptable canvass for various apartment configurations, all with generous frontages or dual aspect views. The core locations have been considered to balance compliance parameters, structural performance, and concentrate apartment area to the northeast where view value and amenity is greatest.

- 80% of all apartments enjoy high value dual aspect corner views and natural ventilation
- 70% of all apartments enjoy northeast views toward the Harbour and Hyde Park
- \_ 77.5% 2 hours sun access in mid winter
- Consistent 8.5 m core to facade dimension, with perimeter columns for apartment planning flexibility and great natural light access while allowing stunning vistas
- Building forms create ideal conditions for high level calm balcony zones
- Low number of apartments per floor, with single loaded corridor amenity
- \_ Light and view access to lobbies
- The small footprint tower result in an increased facade area with improved access to natural light and views.
- The orientation of the 2 residential tower maximises the views and orientation to Hyde Park, St. Mary's Cathedral and Sydney Harbour to the east, city views and Darling Harbour to the west and city views to the north.
- Quantity and quality of common areas and facilities ie. Bridgetop park, Pool and gym, rooftop communal facilities and garden
- A high quality public domain and and ground level environment with fine grain network of laneways, arcades and central courtyard providing quiet refuge from the busy city streets around.
- Proximity to Hyde Park
- Central Sydney location with associated access to all the city has to offer.
- \_ Light and view access to lobbies

# 7.4 Apartment Mix and Yield

The apartment sizes are compliant with or exced the minium sizes refrenced in the ADG and the apartment mix breaks down as follows

Apartent mix summary:592 total apartments0 Studio0%169 x 1 Bed29%321 x 2 Bed54 %102 x 3 Bed +17 %

1 Bed

2 Bed

3 Bed +

\_ Premium Penthouses

\_ Premium Penthouses

Penthouse

\_ High Rise

Setback Level

Low rise 2

\_ Sky bridge:Residential Pool and Gym

Sky bridge

Low rise 1

\_ Low rise 1

\_\_ Residential Amenities and Communal Open Space



## 7.5 **Residential amenity**



#### Sun Access - 77.5%

This high level of 2 hour winter solstice sun access has been achieved without manipulating the mix- high value apartments have been located in their optimum amenity locations.



#### Good Ventilation - 80.2%

#### Balcony calm

Due to the small residential floor plate, the development maximises the number of dual aspect apartments and creates 475 apartments with natural cross ventilation. Wind affected balconies will be calmer and useable more often than on a singular tower, as the two towers shield each other from wind.



Northeast apartment orientation - 70%

## Access to daylight in corridor

The unquestionable amenity uplift is found in maximising opti-mum views for apartments. Further, the core configuration allows natural light to penetratrate into the corridor.



francis-jones morehen thorp

Dual aspect corner apartments - 80.2%

#### **PRINCIPLE 1: CONTEXT AND NEIGHBOURHOOD CHARACTER**

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions

Occupying nearly half a city block in the mid-town of the Sydney CBD the project will reinvigorate the precinct and catalyse complementary development. The building will be highly visible on the Sydney skyline with unobstructed views from Hyde Park and the east side of the CBD. The proposal has a distinctive and forward looking form but is also restrained, elegant and reinforces the geometry, urban structure and maturity of Sydney.

Fundamental to the urban character of the design is the fine grain orthogonal structure of the public domain and streetscape. The small footprint tower forms nestle into a network of through site links and inmate public spaces addressed and activated by a variety of low scale buildings: a city in microcosm. This network of public spaces provide permeability within the city block and contribute to the changing face of Sydney from a vehicle dominated to a pedestrian focused city.

The slender tower forms reduce the environmental impacts of larger buildings on the public domain and the broader city. The small footprint tower floor plates offer unusually high levels of amenity with very high levels of sun access, predominantly dual aspect apartments, a small number of apartments per floor and exceptional access to outlook and views.

The public domain is extended vertically through the development, with the public experience extending from the basement porte cochere, which is open to the sky, the street level public domain, a variety of roof terrace gardens and to the public and common facilities at the mid level link structure which will provide public access to the traditionally private and exclusive views over Hyde Park and beyond to the Harbour.

#### **PRINCIPLE 2: BUILT FORM AND** SCALE

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Dual tower forms contribute to the grid of the city, maintaining and reflecting its perpendicular geometry and potential points of access to Hyde Park while maximising views to it. Their reduced footprint allows the 'pre-amalgamation' scale of Sydney's built form (typically less than half the block) to be expressed.

The experience of the sky and access to daylight becomes an increasingly important issue as the city continues to develop. A configuration of two slender towers, rather than one large footprint, offers an improved visual connection with the sky and better daylight access. Staggering the towers' setback from surrounding streets further improves daylight into the public realm at street level.

The street frontage heights follow the predominant street wall height of adjacent buildings and buildings in the vicinity and relate to nearby Heritage Buildings.

Facades directly adjacent to the street scape are lower than the maximum permitted heights reflecting the fine grained nature of the design of the public domain and to improve natural light penetration into the public domain.

#### **PRINCIPLE 3: DENSITY**

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

The apartments mix is in line with the DCP recommended ratios of 1 bed, 2 bed and 3 bed apartments. The planning and configuration of the apartments has been carefully developed in response to the unique orientation and opportunities of the site providing ADG compliant apartment sizes that maximises the amenity for the residents:

- \_ 80% of all apartments enjoy high value dual aspect corner views and natural ventilation
- \_ 70% of all apartments enjoy northeast views toward the Harbour and Hvde Park
- 77.5% 2 hours sun access in mid winter
- Consistent 8.5 m core to facade dimension, with perimeter columns for apartment planning flexibility and great natural light access while allowing stunning vistas
- Building forms create ideal conditions for high level calm balcony zones
- Low number of apartments per floor, with single loaded corridor amenity
- Light and view access to lobbies
- \_ The small footprint tower result in an increased facade area with improved access to natural light and views.
- The orientation of the 2 residential tower maximises the views and orientation to Hyde Park, St. Mary's Cathedral and Sydney Harbour to the east, city views and Darling Harbour to the west and city views to the north
- Quantity and guality of common areas and facilities ie. Bridgetop park, Pool and gym, rooftop communal facilities and garden
- \_ A high quality public domain and and ground level environment with fine grain network of laneways, arcades and central courtyard providing quiet refuge from the busy city streets around.
- Proximity to Hyde Park
- Central Sydney location with associated access to all the city has to offer.

#### **PRINCIPLE 4: SUSTAINABILITY**

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs.

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs.

The project aims to deliver a sustainable retail, hotel and residential buildings and aspiring to met the NABERS Energy 5 Stars rating in the hotel component and a BASIX Energy30 and BASIX Water 45 in the residential component.

As such, the thermal comfort has been assessed and was incorporated into facade configuration and materials selection. At the same time a high level of indoor environmental quality is maintained through appropriate mechanical design.

Moreover, the proposal exceeds the ADG targets for cross ventilation and solar access for apartments: 80% of all apartments enjoy high value dual aspect corner natural ventilation and 77.5% of apartments receive 2 hours sun access in mid winter. Additionally, the access to a view in the lobbies and the limited dimension from facade to core ensure that natural light penetrates the entire floor plate.

Further, the central location allows for excellent pedestrian access to infrastructure, entertainment and public transport. Additionally, each apartment is provided with an individual bicycle storage space in order to promote alternative modes of transportation.

### **PRINCIPLE 5: LANDSCAPE**

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Enhancing the human experience of the city is critical for the success of public domain. Engagement with the space in manners which do not always require dining or shopping will support long term use of spaces and regular return. Both permanent and temporary art can be exhibited throughout the extended ground plane combined with event programming and placemaking activities to create both seasonal and permanent attractions. Water combined with digital art is being considered for the northern wall of the courtyard. Artistic misting and water vapours can serve dual purposes of dramatic effect and cooling. Laneways and rooftops (see Public Art vegetated rooftops) can similarly be venues for both temporary and permanent art

The landscaped character of the public square is derived from the spectacular array of seasonal changes that will occur form the suitable selection of trees. Including manicured pleached summer foliage trees, coloured autumn leaves and sculptural form of the spreading gnarled branches and trunks in winter.

The roof terraces and communal gardens are the City's third elevation and also a logical extension of public domain as the city becomes more dense. They offer a unifying and connecting theme between buildings as well as physical connection through bridges. Soft landscape will contribute to the environmental performance of the precinct as well as the city(mitigating urban heat island effect).The roofscape will offer the amenity of outlook, an increased sense of separation from the hubub of the street and potential for view. Collaboratinon with an artist could contribute to a strategy for public art such as the rooftop at MoNA (permanant landscpae) or the rooftop at The Met (a venue for installations as well as function areas). A patch work of materials and spaces. lawns, decks, planting zones, quiet reflection, social and collaboration areas can be sinously entwined in the layout and create a foreground display which is highly engaging from above.

#### **PRINCIPLE 6: AMENITY**

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

All users of the precinct will benefit from the luscious public amenities. By creating a permeable podium in the mid-town of the Sydney CBD the project will allow for the public domain to flow through the development. The network of laneways, arcades and central courtyard providing quiet refuge from the busy city streets around. Further, the public domain is extended vertically through the development, with the public experience spreading from the basement porte cochere, which is open to the sky, the street level public domain, a variety of roof terrace gardens and to the public and common facilities at the mid level link structure which will provide public access to the traditionally private and exclusive views over Hyde Park and beyond to the Harbour.

Moreover the residential component extends the targets set by the ADG:

#### **PRINCIPLE 7: SAFETY**

Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

Key to a development which optimises safety and security is the creation of shared communal spaces that encourage high levels of surveillance both day and night. The creation of a pedestrian square in the center of the develoyment and the hotel lounge located facing the placa will provide an environment that is visible and highly activated further encouraging passive surveillance.

Residents, Hotel guests and patrons of the skybridge are each provided with a seperate entrance lofbby in order to to minimise any cross over in traffic and further enhancing privacy for the residents.

#### **PRINCIPLE 8: HOUSING DIVERSITY** AND SOCIAL INTERACTION

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

The proposed development yields a total of 592 apartments

- 169 x 1 bedroom apartments

- 321 x 2 bedroom apartments

- 102 x 3 bedrooms apartments

This responds to the needs of the local community by providing for diversity in the type and affordability of the units. and is compliant woth the DCP required apartment mix.

The proposal makes deliberate and significant gestures in relation to the provision of shared residential facilities such as residential pool, rooftop garden indoor amenities. Further, the podium contributes positively to the public domain within which the proposal sits and improves pedestrian experience in the busy city street scape.

Various spaces throughout the building will contribute to positive social interaction between residents; the ground floor lobby, with connections to retail and placa; the residential pool located on the skybridge benefits from the stunning view; and varied communal spaces ranging from gym, function spaces, and rooftop gardens.

Moreover, the retail and commercial functions will not only serve the daily needs of local residents but also day to day workers and tourists around the development. By creating multiple through site links and a solely pedestrian placa the site opens up to the public and will be frequented by a divers user base.

#### **PRINCIPLE 9: AESTHETICS**

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The hands of four architects will contribute to the varied, vibrant nature of this block celebrating the diversity of midtown and ensuring that this amalgamated site avoids monotony and uniformity. Each parcel offers opportunity to contribute to both streetscape and mid block spaces as wellas rooftops. This results in ever changing elevations and vistas, variation in form and character, materiality and detail which would be difficult to achieve through one architectural practice.

The height of the towers is broken up thourgh a setbak level and the proportions further communicated by differing colour choise adn treatment of corners corresponding to the height

The tower facade is wrapped in series of thin continuous metallic bands that accentuate and articulate the form of the tower while still providing unobscured views from the apartments..

# 7.7 Visual Privacy

### Objective 3F-1

Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.

## Design Criteria

Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:.

The design of the towers has been carefully considered to achieve the minimum required separation between windows and balconies as set out in section 3F of the Apartment Design Guide. A minimum of 24m separation is provided between habitable rooms and a minimum of 12m is provided between non habitable rooms within the zone of influence measured at 45° to the window or balcony in accordance with Figure 4F.6

12m setbacks from the northern boundary or the centreline of surrounding streets has been provided which is consistent with the ADG Design Criteria. For a commentary on Dungate Lane setbacks refer to the Setbacks section in this Statement of Compliance.



Figure 3F.2 Any one development will have a variety of visual privacy conditions to be acc shows separation distances between apartments within the same site ated. Section A (Figure 3F.4)

Building Height	Habitable rooms and balconies	Non-habitable rooms	
Up to 12m (4 storeys)	6m	Зm	
Up to 25m (5-8 storeys)	9m	4.5m	
Over 25m (9+ storeys)	12m	6m	

Boundary conditions

121

Habitable to habitable rooms



**Glazing Interlayer** 









Habitable to non-habitable rooms





Figure 3F.6 Diagrams wing different privacy





Habitable to non-compliant existing





To non-habitable rooms





9.0 technical design consideration towers

# Alternative Option 01

# Sawtooth Facade

# Alternative Option 02

# N. 1 <u>\_\_\_</u> S BATHROOM LIVINGROOM BALCONY BEDROOM

# Internal Tower Elevation 1:50



# <u>Typical Tower Plan</u> 1:50


# External Tower Elevation 1:50





Vertical Louvres



### 7.8 Solar Access Analysis

#### 7.8.1 Solar Access to living

spaces and private open spaces

#### Objective 4A-1: Design Criteria

1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm at mid winter in Sydney Metropolitan Area.

The proposal achieves 2 hours direct sunlight between 9am and 3pm at mid winter in Sydney Metropolitan Area to 77.5 % of all living spaces and 76.1 % of all private open spaces. A detailed heat map analysis has been undertaken.

## 2. Not applicable

3. A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid winter.

Complies: 5.4% of apartments receive no direct sun.













Compliant: 2 hours of sunlight on 21 June

non-compliant: less than 2 hours of sunlight on 21 June

# 7.9 Communal Open Space

#### Objective 3D-1 Design criteria

1. Communal open space has a minimum area equal to25% of the site (see figure 3D.3)

2. Developments achieve a minimum of 50% directsunlight to the principal usable part of the communalopen space for a minimum of 2 hours between 9 amand 3 pm on 21 June (mid winter)

#### Design guidance

Where developments are unable to achieve the designcriteria, such as on small lots, sites within business zones, or in a dense urban area, they should:• provide communal spaces elsewhere such as a landscaped roof top terrace or a common room.

The central location of the site provides residents with easy access to the nearby Hide Park. Further, the development proposes the following communal open spaces:

Communal open spaces with a total of 1307 m2 (21 % of site area):

— Rooftop garden level 4	880m2
_ Communal garden level 36	427 m2

Additionally, a communal kitchen, entertainment room and meeting rooms are located on level 04.

50.59 % of the level 36 communal space receives winter sun.

Winter sun access to the total communal open space is  $16.5\%\,.$ 







9.0 technical design consideration towers



#### 7.10 Natural Ventilation Analysis

Where possible corner apartments are maximised to provide natural cross ventilation.

### Objective 4B-3: 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.

Total number of apartments Level 9 and below: 20.

Out of 20apartments on and below level nine (9) 16 can be cross ventilated (80%)

Although most of the apartments are located outside the guidelines as set out for cross-ventilation, we have produced a scheme that provides for 80.2% (475 out of 592) of apartments to have cross-ventilation, in efforts to achieve reduced reliance on mechanical ventilation:

2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.

Compliant: All apartment depths are below 18 m

/ Level 79-80 / Level 77-78 Level 76 / Level 72-75 Level 57-71 Level 56 Level 39-55 Level 38-37 Level 36 Level 35 Level 34 Level 33 Level 32-31 Level 18-30 Level 17-6

### 7.11 Residential Storage Analysis

		Apt. No.
<u>Objective</u> 4	<u>G-1: Design Criteria</u>	
	storage in kitchens, bathrooms and bed-	Level 6-17
rooms, the fol	lowing storage is provided:	
1 Bedroom	- 6m3	
2 Bedroom	- 8m3	
3 Bedroom	- 10m3	
	a fille and a standard standards in the last standard	
within the apa	of the required storage is to be located artment	Level 18
Complies		
<u>Design Gui</u>	delines	
C C		
	Storage is accessible from either circulation or living areas Storage provided on balconies (in addition to the	
minimum balc	ony size) is integrated into the balcony	
	er proof and screened from view from the er space such as under stairs is used for	
storage	si space such as under stans is used for	
Complies		
		Level 19-30
Objective 4	<u>G-2: Design Criteria</u>	
Additional sta	rage is conveniently located, accessible	
	d for individual apartments	
Complies		
Compiloo		
<u>Design Gui</u>	delines	
_ Storage no	ot located in apartments is secure and	
clearly allo	cated to specific apartments	
<ul> <li>Storage is accessed i</li> </ul>	provided for larger and less frequently tems	
	ace in internal or basement car parks is	
provided at	t the rear or side of car spaces or in cages	

provided at the rear or side of car spaces or in cages so that allocated car parking remains accessible

- If communal storage rooms are provided they should be accessible from common circulation areas of the building
- Storage not located in an apartment is integrated into the overall building design and is not visible from the public domain

Complies

	Cri	teria	Storage provided			openable area	
Apt. No.	Apartment size	storage required m3	Storage provided in Basement in m3	Storage required in apartment in m3	Achieved	Complies with Criteria	
Level 6-17							
1	3 Bed	10	4.8	5.2	7.88	~	
2	1 Bed	6	4.8	3	6.51	~	
3	1 Bed	6	4.8	3	4.57	~	
4	2 Bed	8	4.8	4	5.07	~	
5	2 Bed	8	4.8	4	9.83	~	
Level 18						ĺ	
1801	3 Bed	10	4.8	5.2	7.88	~	
1802	1 Bed	6	4.8	3	6.51	~	
1803	1 Bed	6	4.8	3	4.57	~	
1804	2 Bed	8	4.8	4	5.07	~	
1805	2 Bed	8	4.8	4	9.83	~	
1806	2 Bed	8	4.8	4	4.35	~	
1807	1 Bed	6	4.8	3	9.18	~	
1808	1 Bed	6	4.8	3	3.35	~	
1809	2 Bed	8	4.8	4	4.63	~	
Level 19-30							
1	3 Bed	10	4.8	-1.8	7.88	~	
2	1 Bed	6	4.8	3	6.51	~	
3	1 Bed	6	4.8	3	4.57	~	
4	2 Bed	8	4.8	4	5.07	~	
5	2 Bed	8	4.8	4	9.83	~	
6	2 Bed	8	4.8	4	4.35	~	
7	1 Bed	6	4.8	3	9.18	~	
8	1 Bed	6	4.8	3	3.35	~	
9	1 Bed	6	4.8	3	4.01	~	
10	2 Bed	8	4.8	4	4.63	~	
1	3 Bed	10	4.8	5.2	13.58	~	
2	1 Bed	6	4.8	3	5.53	~	
3	1 Bed	6	4.8	3	3.77	~	
4	1 Bed	6	4.8	3	6.01	~	
5	1 Bed	6	4.8	3	3.81	~	
6	1 Bed	6	4.8	3	4.84	~	
Level 36							
1	3 Bed	10	4.8	-0.8	7.88	~	

Apartments which can be cross ventilated

Apartments with single aspect

#### Storage Summary

	Cri	teria	Storage provided			openable area	
Apt. No.	Apartment size	storage required m3	Storage provided in Basement in m3	Storage required in apartment in m3	Achieved	Complies with Criteria	
2	1 Bed	6	4.8	3	6.51	~	
3	1 Bed	6	4.8	3	4.57	~	
4	2 Bed	8	4.8	4	5.07	~	
5	2 Bed	8	4.8	4	9.83	~	
6	3 Bed	10	4.8	5.2	5.26	~	
7	1 Bed	6	4.8	3	5.83	~	
8	3 Bed	10	4.8	5.2	5.86	~	
9	2 Bed	8	4.8	4	11.6	~	
Level 37							
1	2 Bed	8	4.8	4	5.74	<ul> <li>✓</li> </ul>	
2	2 Bed	8	4.8	4	4.3	<ul> <li>✓</li> </ul>	
3	1 Bed	6	4.8	3	3.34	<ul> <li>✓</li> </ul>	
4	1 Bed	6	4.8	3	3.34	~	
5	1 Bed	6	4.8	3	3.53	~	
6	2 Bed	8	4.8	4	6.71	~	
7	3 Bed	10	4.8	5.2	5.26	~	
8	1 Bed	6	4.8	3	5.83	~	
9	3 Bed	10	4.8	5.2	5.86	~	
10	2 Bed	8	4.8	4	11.6	~	
Level 38							
1	2 Bed	8	4.8	4	5.74	~	
2	2 Bed	8	4.8	4	4.3	~	
3	1 Bed	6	4.8	3	3.34	~	
4	1 Bed	6	4.8	3	3.34	~	
5	1 Bed	6	4.8	3	3.53	<ul> <li>✓</li> </ul>	
6	2 Bed	8	4.8	4	6.71	~	
7	3 Bed	10	4.8	5.2	12.3	~	
8	2 Bed	8	4.8	4	4.37	~	
9	2 Bed	8	4.8	4	10.20	<ul> <li>✓</li> </ul>	
10	2 Bed	8	4.8	4	8.78	<ul> <li>✓</li> </ul>	
Low rise 2 level 39-55							
1	2 Bed	8	4.8	4	5.74	<ul> <li>✓</li> </ul>	
2		8	4.8	4	5.49	<ul> <li>✓</li> </ul>	
3	1	6	4.8	3	3.34	<ul> <li>✓</li> </ul>	
4	1 Bed	6	4.8	3	3.34	~	

	Cri	teria	St	orage provid	ed	openable area	
Apt. No.	Apartment size	storage required m3	Storage provided in Basement in m3	Storage required in apartment in m3	Achieved	Complies with Criteria	
5	1 Bed	6	4.8	3	4.73	~	
6	2 Bed	8	4.8	4	6.49	~	
7	2 Bed	8	4.8	4	6.23	~	
8	2 Bed	8	4.8	4	5.23	~	
9	2 Bed	8	4.8	4	7.77	~	
10	2 Bed	8	4.8	4	9.93	~	
11	2 Bed	8	4.8	4	6.48	~	
level 56							
5601	2 Bed	8	4.8	4	4.11	~	
5602	2 Bed	8	4.8	4	7.72	~	
5603	1 Bed	6	4.8	3	4.73	~	
5604	2 Bed	8	4.8	4	4.03	~	
5605	2 Bed	8	4.8	4	7.10	~	
5606	2 Bed	8	4.8	4	8.22	~	
5607	2 Bed	8	4.8	4	11.47	<ul> <li>✓</li> </ul>	
5608	1 Bed	6	4.8	3	6.29	~	
High rise 1 Level 58-71	İ					İ	
1	3 Bed	10	4.8	5.2	16.89	<ul> <li>✓</li> </ul>	
2	3 Bed	10	4.8	5.2	29.06	~	
3	2 Bed	8	4.8	4	9.41	<ul> <li>✓</li> </ul>	
4	3 Bed	10	4.8	5.2	11.24	~	
5	2 Bed	8	4.8	4	8.18	~	
6	2 Bed	8	4.8	4	4.69	~	
7	2 Bed	8	4.8	4	10.44	<ul> <li>✓</li> </ul>	
8	2 Bed	8	4.8	4	8.9	~	
9	2 Bed	8	4.8	4	5.84	~	
High rise 2 Level 72-75							
1	3 Bed	10	4.8	5.2	10.88	~	
2	3 Bed	10	4.8	5.2	15.53	<ul> <li>✓</li> </ul>	
3	3 Bed	10	4.8	5.2	7.87	~	
4	3 Bed	10	4.8	5.2	6.48	~	
5	3 Bed	10	4.8	5.2	6.82	~	
6	3 Bed	10	4.8	5.2	6.93	~	
7	2 Bed	8	4.8	4	8.3	~	
level 76							
7601	3 Bed	10	4.8	5.2	>5.2	<ul> <li>✓</li> </ul>	

	Cri	teria	Storage provided			openable area	
Apt. No.	Apartment size	storage required m3	Storage provided in Basement in m3	Storage required in apartment in m3	Achieved	Complies with Criteria	
7602	1 Bed	6	4.8	3	3.9	~	
7601	3 Bed	10	4.8	5.2	>5.2	~	
7604	1 Bed	6	4.8	2	3.9	~	
level 77-78							
7701	3 Bed	10	4.8	5.2	>5.2	<ul> <li>✓</li> </ul>	
7702	1 Bed	6	4.8	3	3.9	~	
7703	1 Bed	6	4.8	3	3.9	~	
7704	3 Bed	10	4.8	5.2	>5.2	~	
7705	3 Bed	10	4.8	5.2	>5.2	~	
7706	3 Bed	10	4.8	5.2	>5.2	~	
7707	1 Bed	6	4.8	3	3.9	~	
7708	1 Bed	6	4.8	3	3.9	~	

#### **NOTICE OF DETERMINATION**

#### - APPROVAL D/2016/1509 -

Conditions of Consent -(9) location of residential land uses:

No residential apartments are approved within the podium levels of the building. Residential apartments must not be provided below level 10 (RL 64.40).

The objectives of the ADG are set out as follows:

#### ADG requirement Objective 4B-1

All habitable rooms are naturally ventilated.

The development is fully compliant with this objective.

#### Objective 4B-3 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.

Through the carefully developed siting and layout of building, the proposal achieves a rate of 80% cross ventilated apartments throughout the development as well as below level 10 and is well in excess of the 60% minimum requirement.

2 hour Solar Access across the development is achieved for 77.5% of living spaces. Well in excess of the minimum 70% defined in the Apartment Design Guide.

The proportion of apartments which receive no sun on 21 June is 5.4%. Well below the 15% maximum in the ADG.

Based on the acousic advice received, the acoustic conditions for the apartments below level 10 are similar to those for the apartments further up the tower. The acoustic solution for apartments below level 10 will also be the same as for those from level 10 - 80. For further discussion on acoustic treatment refer to the acoustic report.



