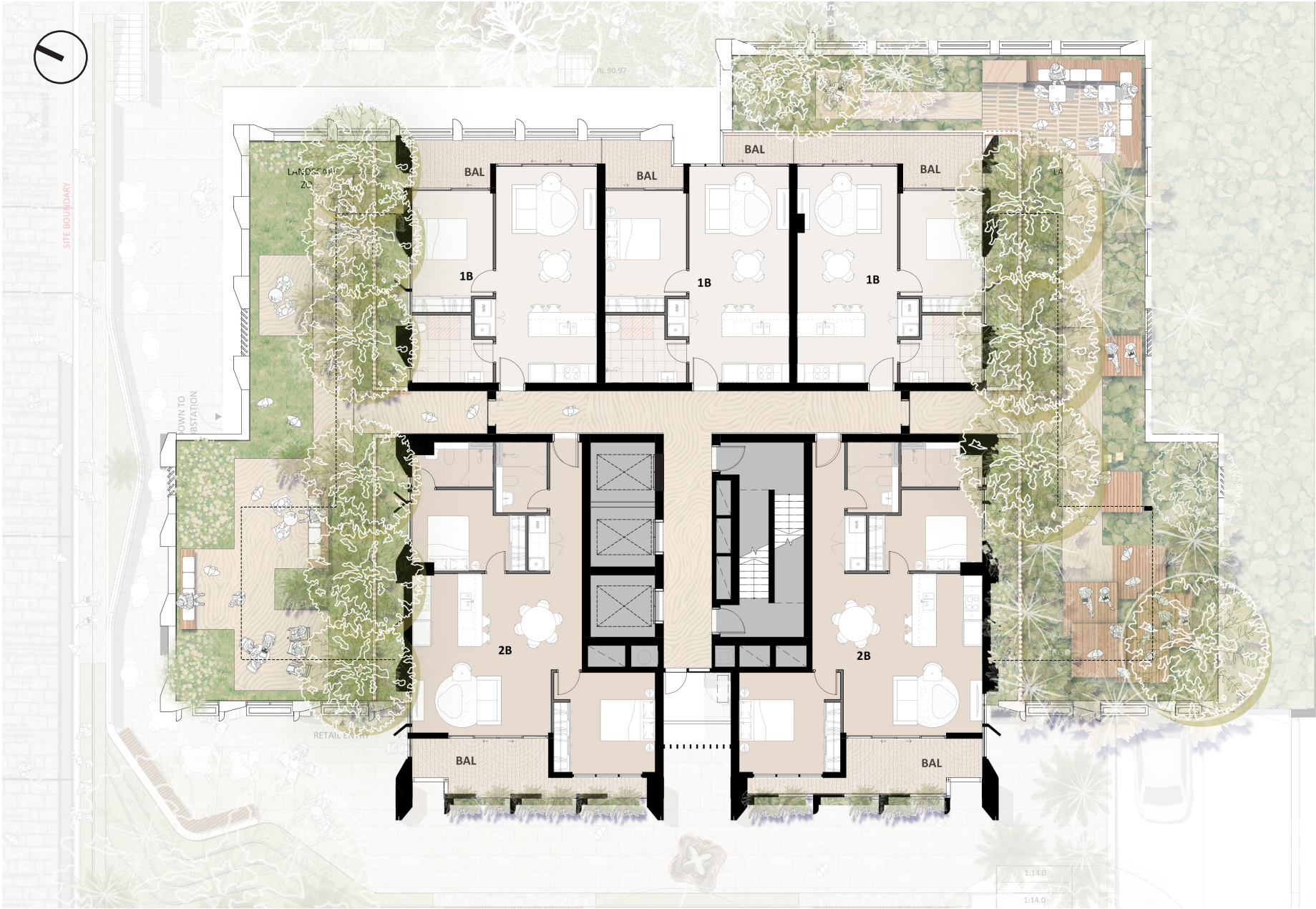


THE TOWER

Communal Spaces



PODIUM ROOF PLAN - LEVEL 06 (1:200)

ENTERTAINMENT AND LOUNGE

A central feature of our plan is the **Rooftop Garden and Lounge**, comfortable seating areas, enhanced by shaded spots, will provide residents with a place to unwind and socialize, additionally, a **Community Garden** will be available, allowing residents to cultivate their own vegetables and herbs, promoting both physical health and a sense of communal responsibility.

The inclusion of an **Outdoor Fitness Area** underscores our commitment to promoting an active lifestyle. We intend to offer group fitness sessions, such as yoga and aerobics, which will not only contribute to physical well-being but also foster a sense of community through shared activities.

Recognizing the importance of family-friendly spaces, we have planned a **Playground** and **Family Area**. This will feature safe and engaging play structures for children, as well as a designated pet area where residents can walk and play with their pets. For those looking to enjoy the outdoors, a sun deck equipped with loungers and umbrellas will provide a perfect setting for sunbathing.

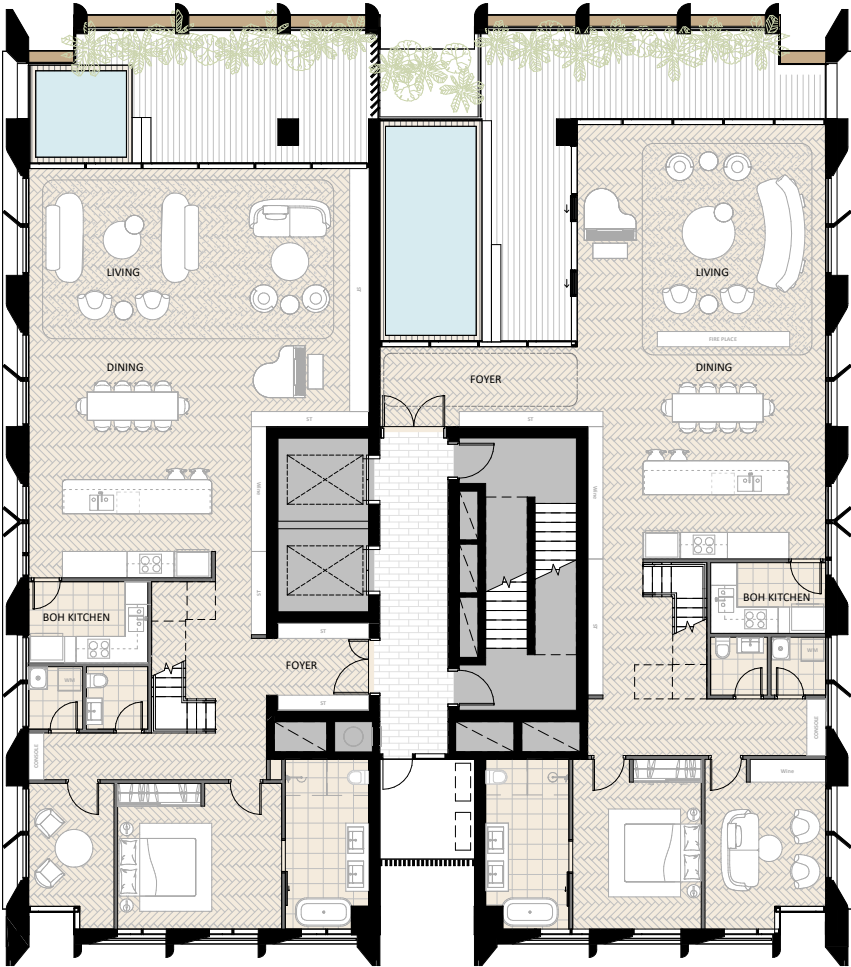
An **Entertainment and Event Space** is also a key component of our design. This area will include a BBQ area with grills and seating for outdoor cooking and dining, making it an ideal spot for social gatherings and events.

Our design includes several **Sustainable Features**. We will implement systems for rainwater harvesting for irrigation purposes. This sustainable practice not only conserves water but also supports the health and vitality of our green spaces.

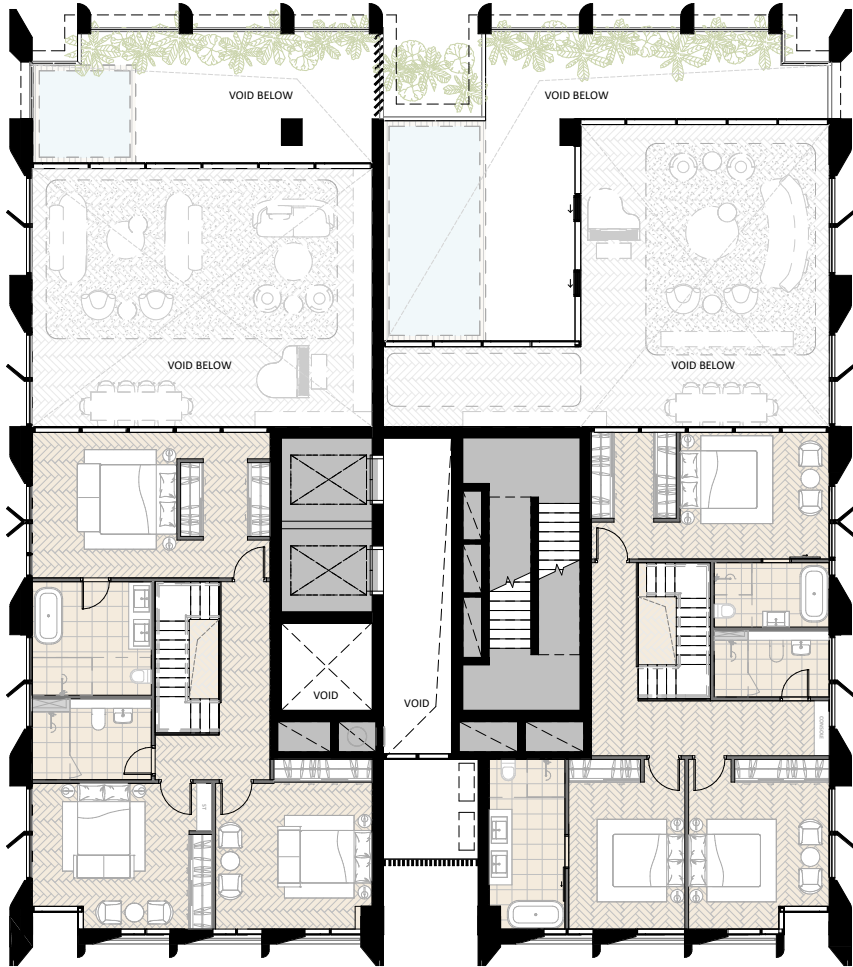
Finally, ensuring the safety and accessibility of our public space is paramount. We will install adequate lighting throughout all areas to enhance visibility and security, allowing residents to feel safe and comfortable at all times.



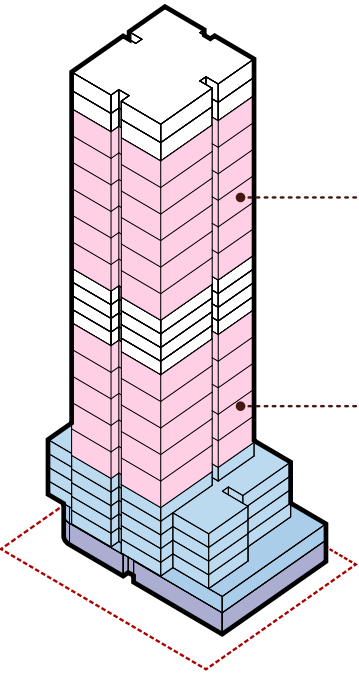
THE TOWER
Sky Homes - Duplex



SKY HOME - LOWER LEVEL (1:200)



SKY HOME - UPPER LEVEL (1:200)



Total GFA Sky Homes Duplex
5354.8 m²

LEVEL 21 TO 32
Sky Homes Duplex
2920.8 m²

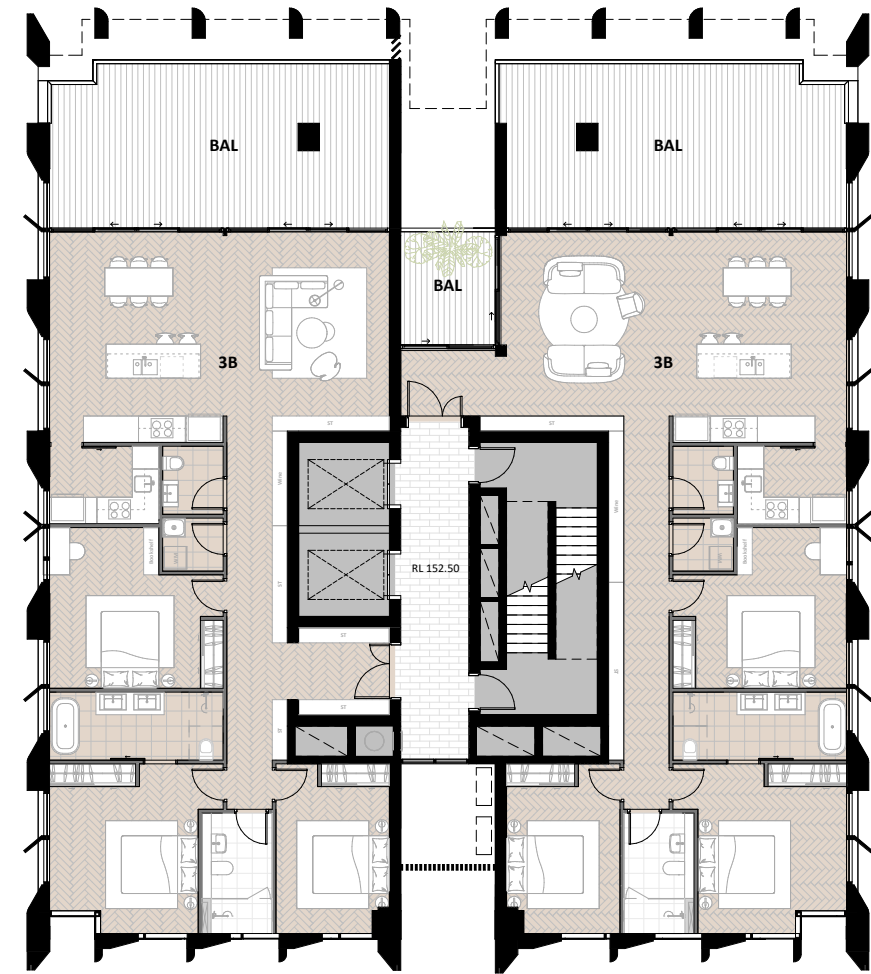
LEVEL 7 TO 16
Sky Homes Duplex
2434.0 m²

- PENTHOUSE
- OPEN MARKET
- DUPLEX
- AFFORDABLE HOUSING
- COMMERCIAL
- RETAIL

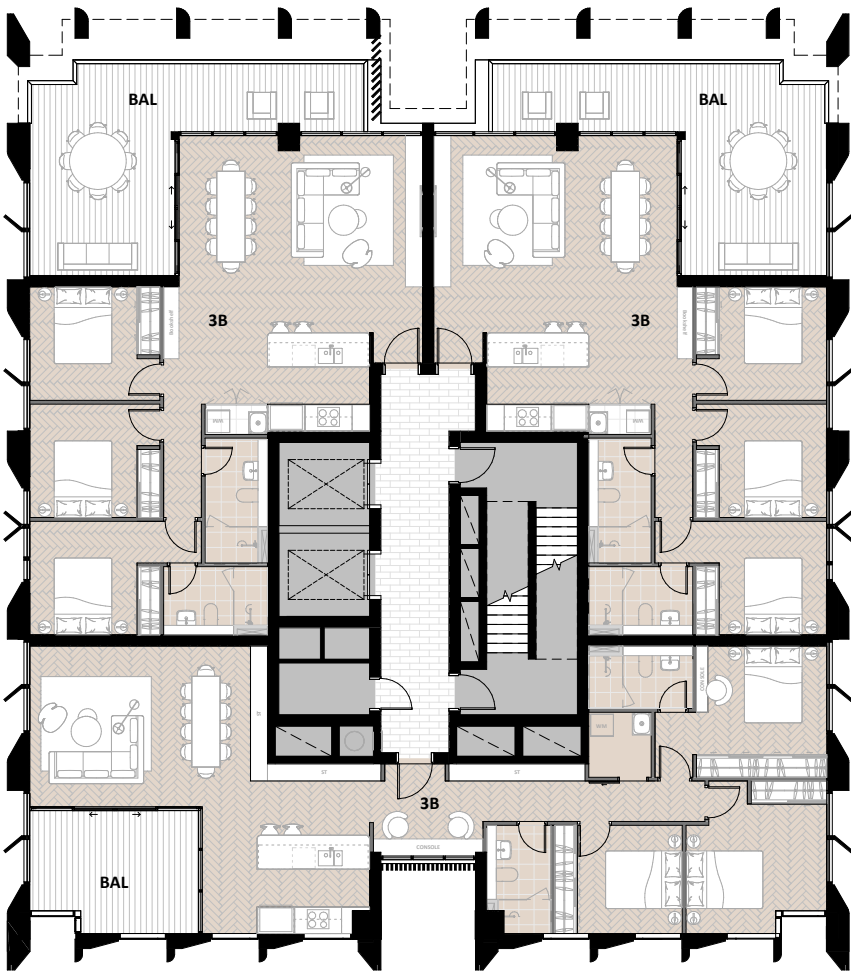


THE TOWER

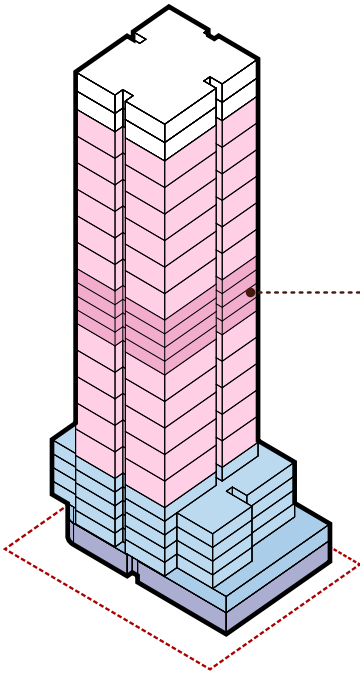
Open Market



2 UNITS TYPE - TYPICAL LEVEL (1:200)



3 UNITS TYPE - TYPICAL LEVEL (1:200)

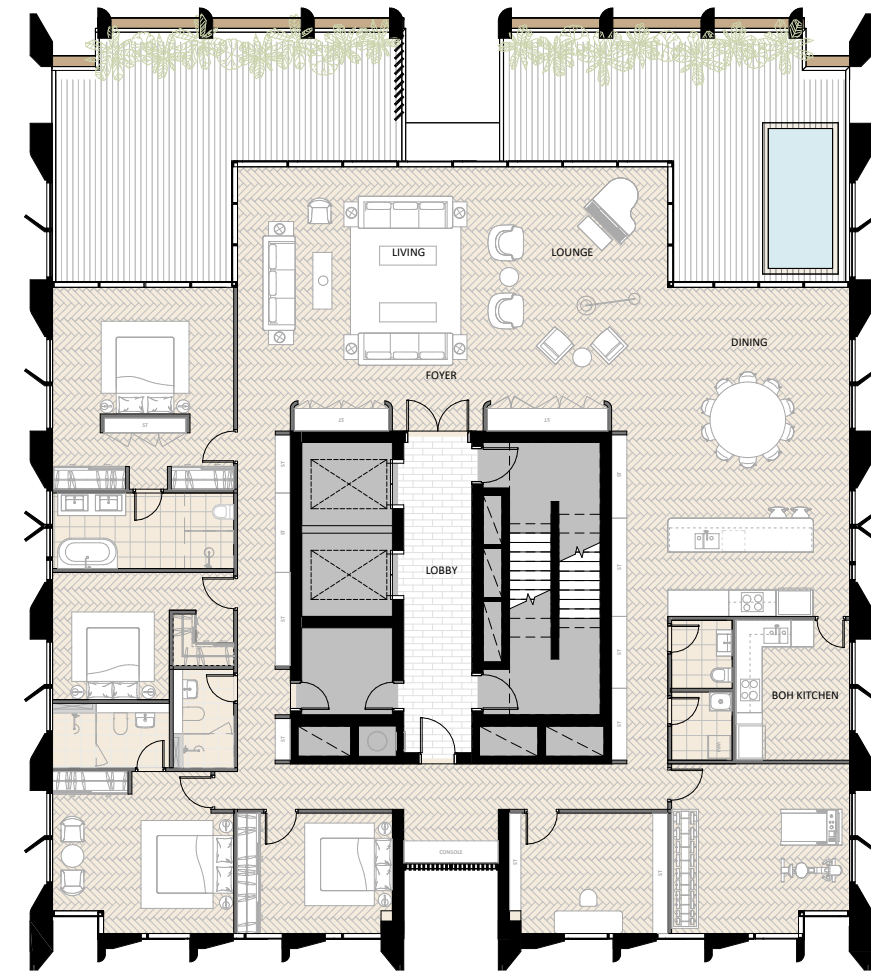
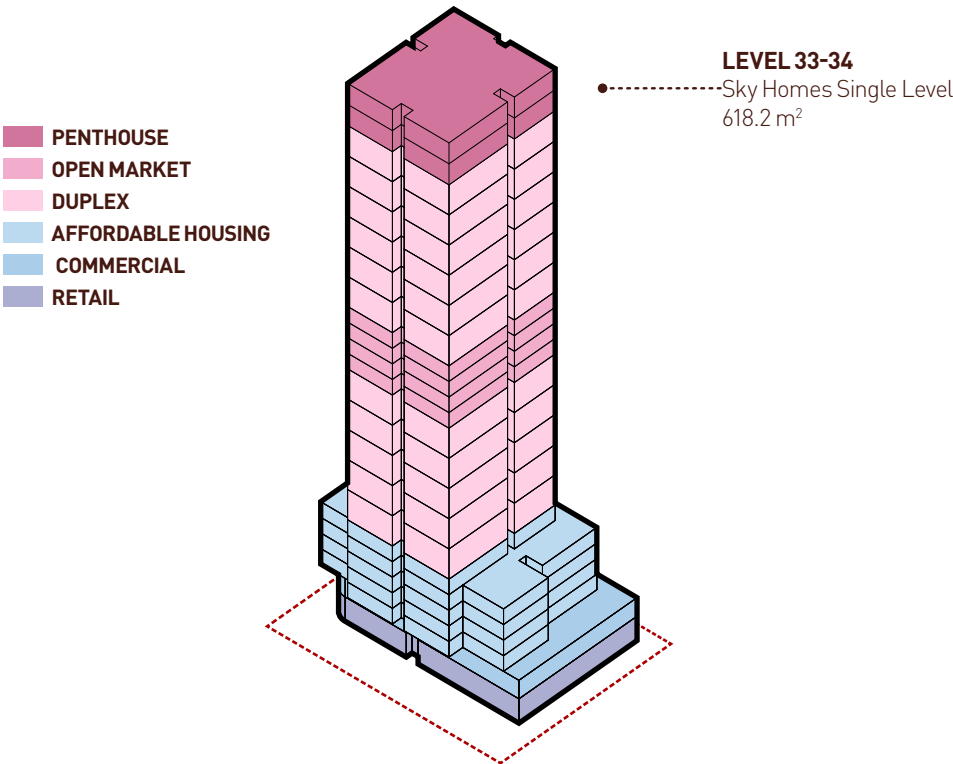


LEVEL 17 TO 20
Open Market
1224 m²

- PENTHOUSE
- OPEN MARKET
- DUPLEX
- AFFORDABLE HOUSING
- COMMERCIAL
- RETAIL

THE TOWER

Sky Homes - Single Level



PENTHOUSE (1:200)



THE TOWER

The overall design of the tower presents a different outlook between its east and west facades and its north and south facades, responding to both the urban context and the natural surroundings.

East and West Facades

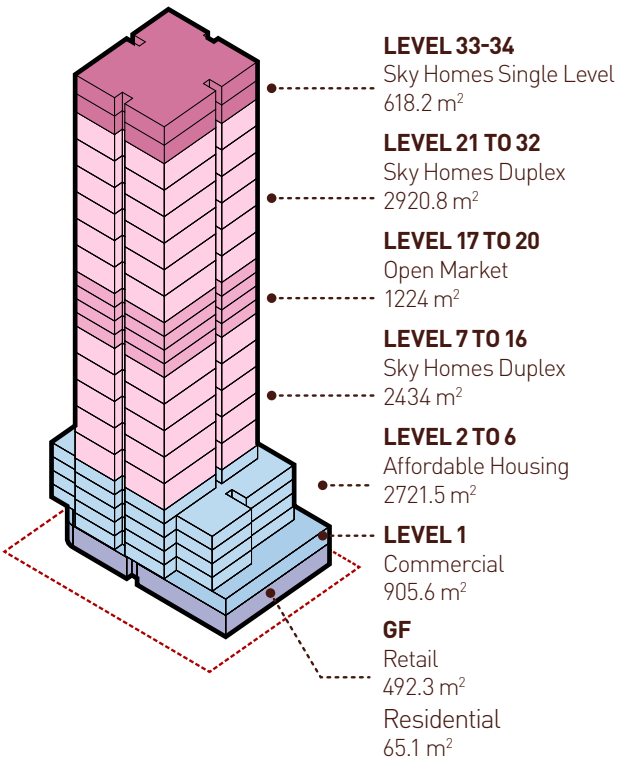
The east and west facades of the tower are conceived to be more permeable, facilitating a seamless connection between the urban landscape to the west and the expansive views towards the ocean to the east. The western facade adopts a more rigorous, structured design, reflecting its proximity to the dynamic urban environment of the city. Conversely, the eastern facade embraces openness, projecting towards the panoramic ocean views, creating an inviting and transparent aspect that maximizes visual connections and solar exposure. This duality allows the building to engage with its immediate surroundings while offering residents stunning vistas and abundant natural light.

North and South Facades

In contrast, the north and south facades exhibit a more solid and vertical rhythm, designed to respond to the future context of adjacent tall buildings. This solidity ensures privacy and minimizes visual disruption from neighboring structures. The vertical articulation of these facades adds a sense of rhythm and order, enhancing the building's architectural integrity and coherence.

Special Consideration for the South Elevation

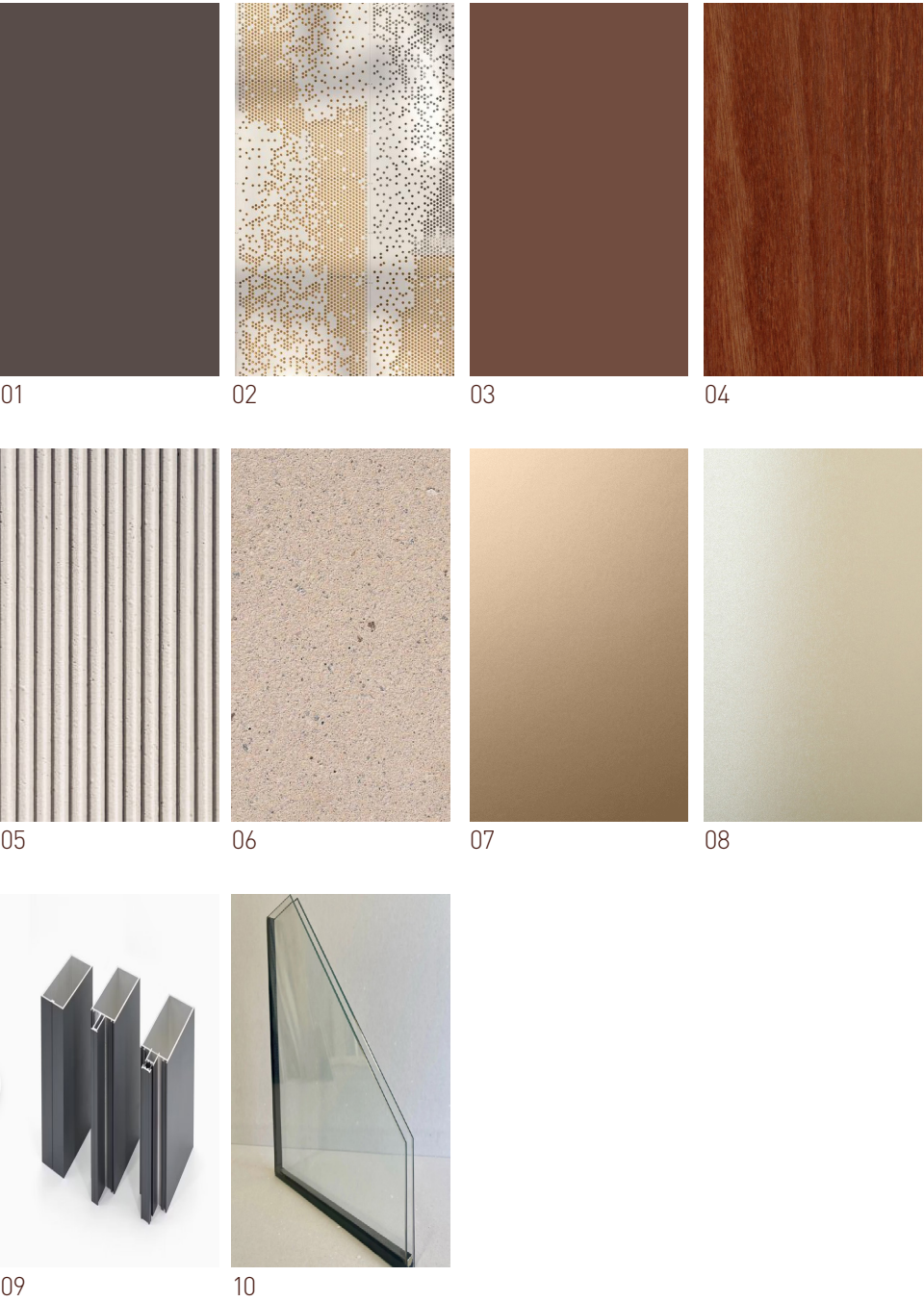
An exception to this solid approach is found on the southern facade, specifically in the uppermost eight levels. Here, the design could open up to capture the most valuable views towards the Sydney CBD. This strategic openness at the top levels allows residents to enjoy breathtaking cityscapes, adding an element of luxury and exclusivity to the upper floors.



THE TOWER

Materiality

MATERIAL BOARD



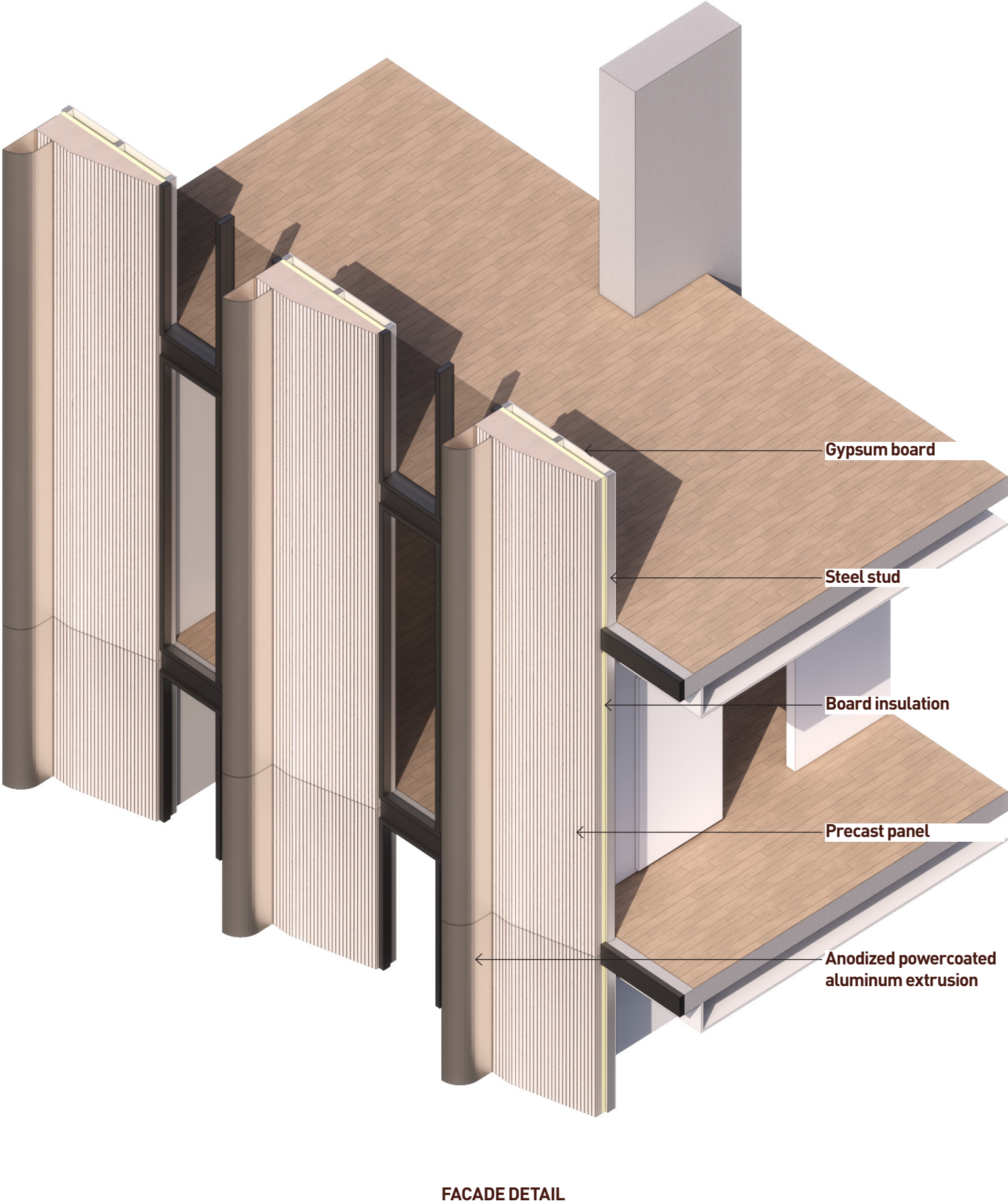
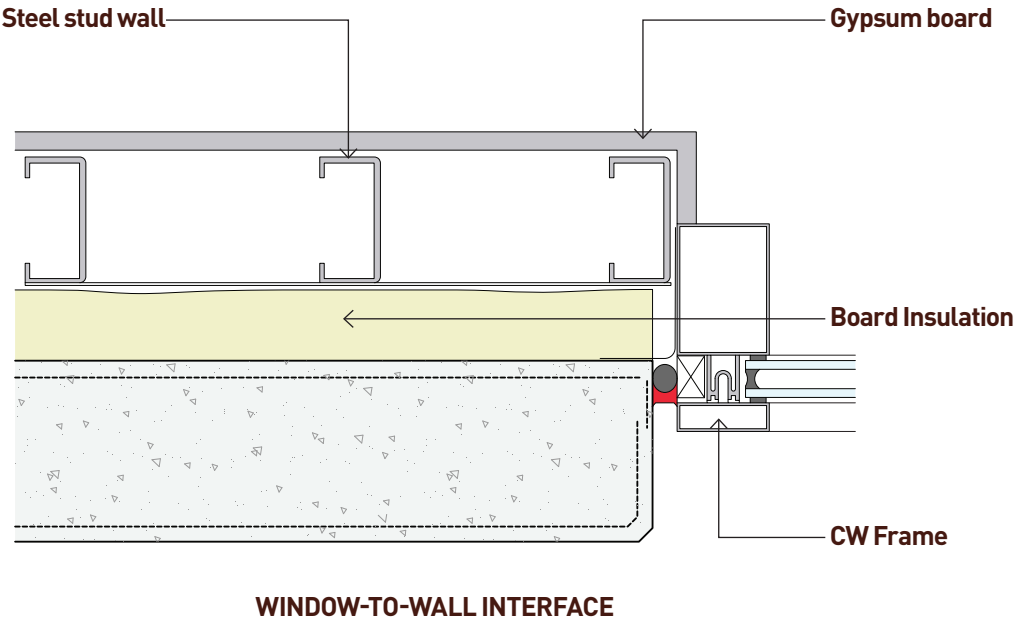
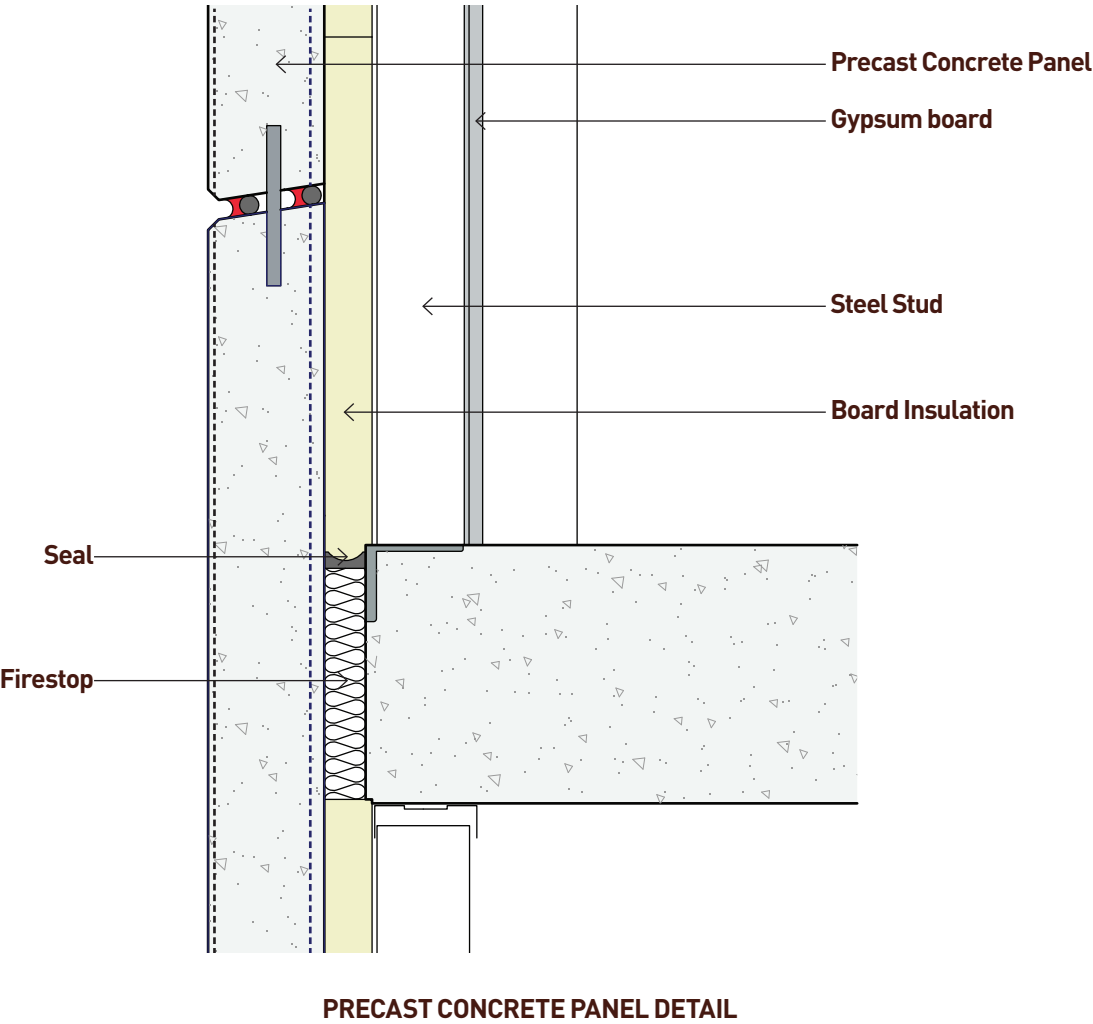
LEGEND

- 01. Hammersley Brown Powder coated aluminum panel
- 02. Printed Metal Mesh in Champagne/Gold Color
- 03. Anodized Aluminum
- 04. Blue Gum Timber trims
- 05. Ribbed Precast concrete panel (finish:sandstone)
- 06. Sandblasted Precast concrete panel (finish:sandstone)
- 07. Custom profile Aluminum extrusion (Anodized and Powdercoated) - Champagne Color
- 08. Custom profile Aluminum extrusion (Anodized and Powdercoated) - Brass Color
- 09. Dark Grey Aluminum frames
- 10. Double glazing windows



THE TOWER

Facade Expression and Materiality

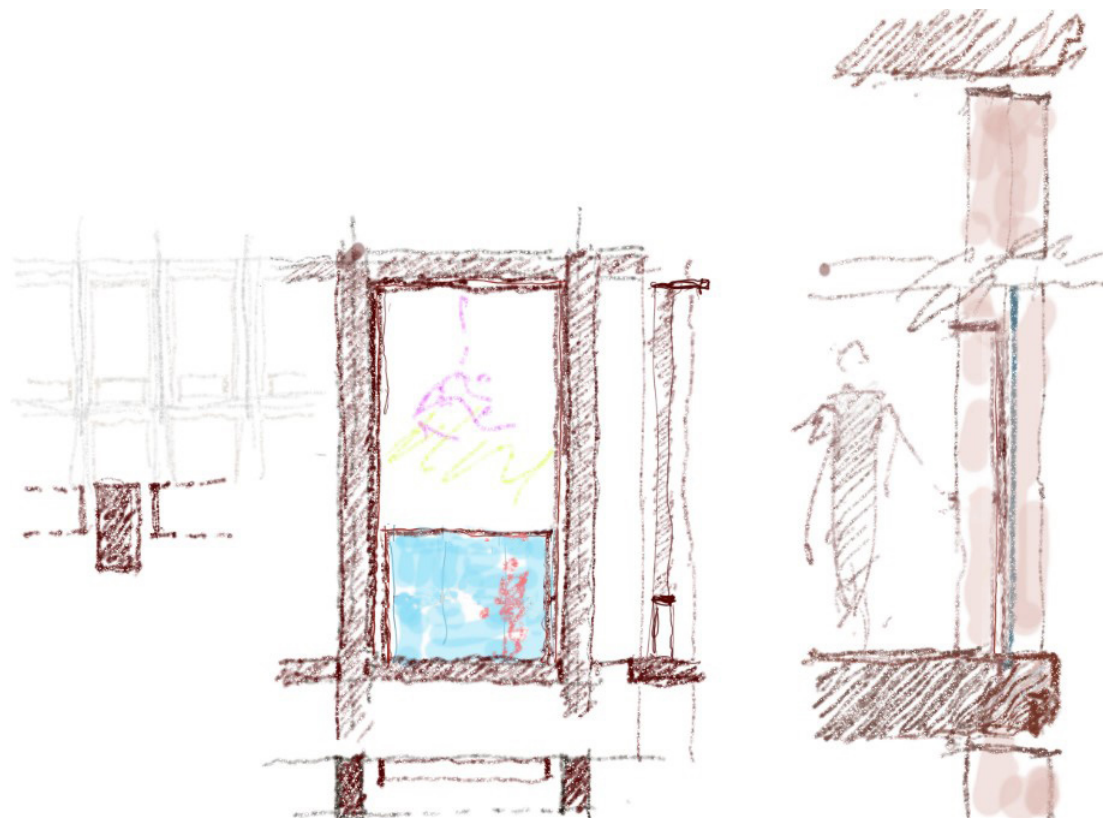


THE TOWER

Facade Expression and Materiality



LOGGIAS IDEA



EASTERN FACADE LOGGIAS CONCEPT SKETCH



CLOSE UP OF THE EASTERN ELEVATION

THE TOWER

Facade Expression and Materiality

(from October 2024 - 51-55 Archer Street Competition Brief)

4.4 Façade Design

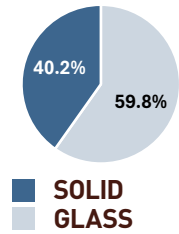
To maintain cost efficiency and for the ease of meeting BASIX requirements, try to avoid more than 60% glass façade.

OPTION 01 (from October 2024 - 51-55 Archer Street Competition Brief)

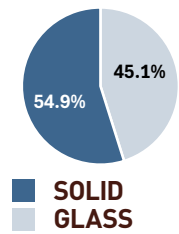
4.4 Façade Design

To maintain cost efficiency and for the ease of meeting BASIX requirements, try to avoid more than 60% glass façade.

Section	Total Façade (m2)	Glass (m2)	Solid (m2)	Glass (%)	Solid (%)
L00	637.8	369.7	268.1	58.0%	42.0%
L01	506.8	425.9	80.9	84.0%	16.0%
L02-L04	446	245.1	200.9	55.0%	45.0%
L05	431.8	239.1	192.7	55.4%	44.6%
L06	316.3	143	173.3	45.2%	54.8%
L07 (LOWER)	299	174.6	124.4	58.4%	41.6%
L08 (UPPER)	299	174.6	124.4	58.4%	41.6%
OPEN MARKET (TYPE 1)	278.1	162.6	115.5	58.5%	41.5%
L34	260.9	170.7	90.2	65.4%	34.6%
AVERAGE				59.8%	40.2%



OPTION 01 - FULL HEIGHT GLASS (3m) - GLASS RATIO 59.8%



OPTION 02 - WITH 1m HIGH SPANDREL (2m) - GLASS RATIO 45.1%

OPTION 02 (from ADP Consulting)

50% Glass Ratio for BASIX compliance recommended.

Section	Total Façade (m2)	Glass (m2)	Solid (m2)	Glass (%)	Solid (%)
L00	637.8	369.7	268.1	58.0%	42.0%
L01	506.8	425.9	80.9	84.0%	16.0%
L02-L04	446	163.4	282.6	36.6%	63.4%
L05	431.8	159.4	272.4	36.9%	63.1%
L06	316.3	95.3	221.0	30.1%	69.9%
L07 (LOWER)	299	116.4	182.6	38.9%	61.1%
L08 (UPPER)	299	116.4	182.6	38.9%	61.1%
OPEN MARKET (TYPE 1)	278.1	108.4	169.7	39.0%	61.0%
L34	260.9	113.8	147.1	43.6%	56.4%
AVERAGE				45.1%	54.9%

THE TOWER

Private Open Spaces



EAST ELEVATION



DOUBLE HEIGHT OUTDOOR SPACES



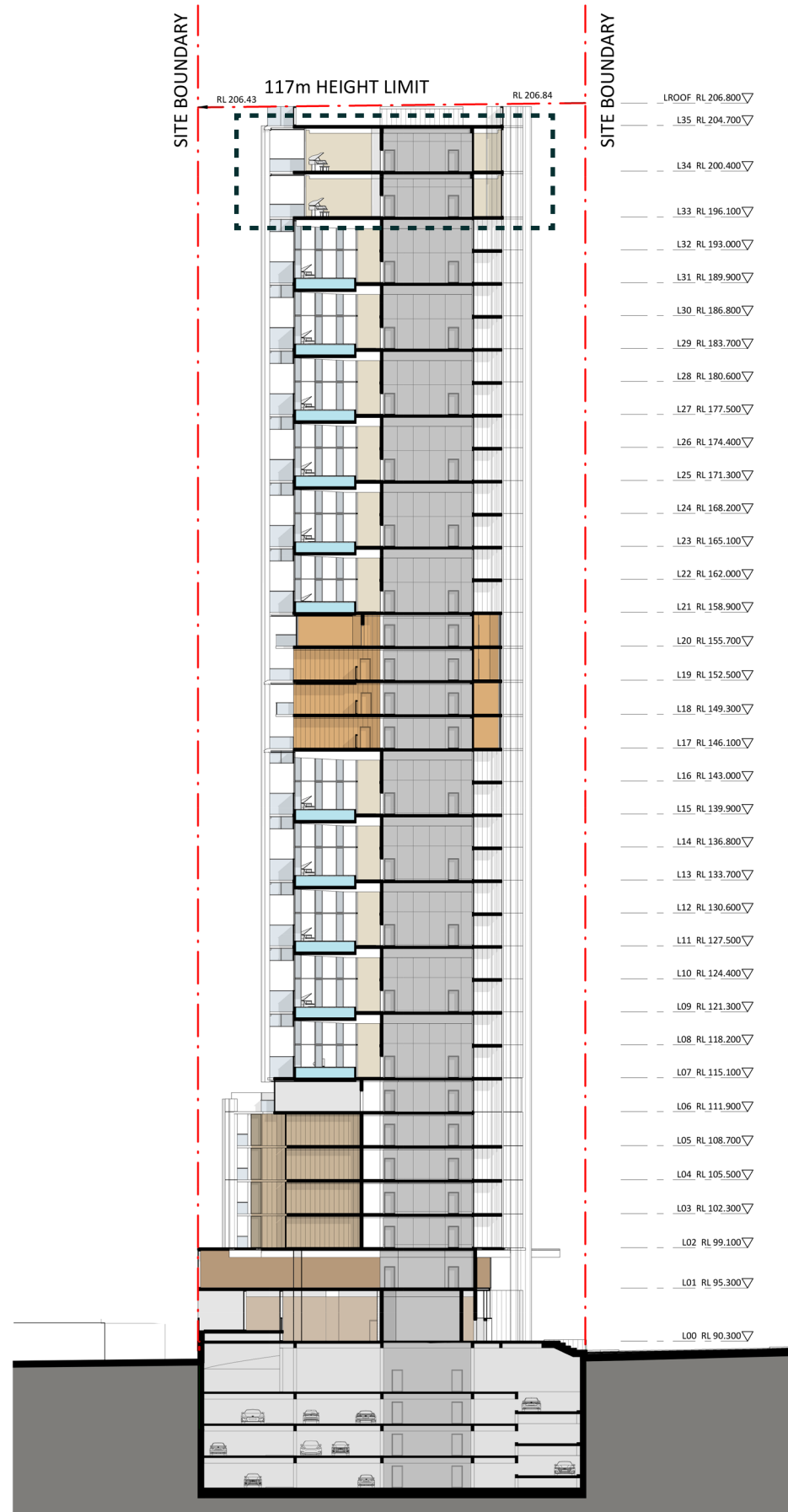
The eastern elevation of the building is designed to maximize the panoramic views extending all the way to the sea. This orientation is chosen to benefit from optimal solar access, ensuring abundant natural light throughout the day. We have positioned the private open spaces to face this side, capitalizing on both the vistas and the sunlight.

These private open spaces are articulated in two distinct forms:

Double-Height Balconies: These expansive balconies are designed to seamlessly extend the living spaces outward, projecting towards the views. They not only offer residents stunning vistas but also create a sense of openness and connection to the outdoors.

Intimate Gardens: These gardens are more secluded, protected on three sides to provide privacy and tranquility. Designed with the potential to include small plunge pools, these spaces offer a serene retreat for residents, combining the luxury of private outdoor space with the practicality of sheltered, usable areas.

DATA SUMMARY



Project Address 51-55 ARCHER STREET, CHATSWOOD																		
Design Reference																		
PTW ARCHITECTS																		
Site Data		RL	HEIGHT														ADG	
Site Area	1767		117	Level	GFA	NSA	Unit Mix		1B	2B	3B	3BM	3BL	SH	T	Solar	CV	
Maximum FSR	6.5		117	ROOF												70%	60%	
Proposed FSR	6.5																	
Maximum GFA	11485.5																	
Proposed GFA	11485.3		207.3	TOP														
Residential Data			204.7	ROOF														
Proposed GFA	9983.6	SH	200.4	L34		309.1	309.1	SH							1	1	1	
AH (15% of Total GFA)	2721.5		196.1	4.3	L33		309.1		309.1							1	1	1
OpenMarket GFA	1224		193	3.1	L32		486.8		468.8									2
Skyhome GFA	5973		189.9	3.1	L31											2	2	2
Resi GFA target	9983.5		186.8	3.1	L30		486.8		468.8									
Unit Yield	73		183.7	3.1	L29											2	2	2
1B	20		180.6	3.1	L28		486.8		468.8									2
2B	17		177.5	3.1	L27											2	2	2
3B(Small)	12		174.4	3.1	L26		486.8		468.8									2
3B(Medium)	0		171.3	3.1	L25											2	2	2
3B(Large)	0	168.2	3.1	L24		486.8	468.8									0		
Skyhome	24	165.1	3.1	L23										2	2	2		
Non-Residential Data			162	L22		486.8	468.8									2		
%	17%		158.9	L21										2	2	2		
Non-Resi GFA	1501.7	Open market	155.7	L20		306.0	288.0	OM			3				3	3		
C.O.S Minimum Requirement (25%)	441.8		152.5	3.2	L19		306.0		288.0			3			3	3		
			149.3	3.2	L18		306.0		288.0			3			3	3		
C.O.S Achieved (27.9%)	493.6		146.1	3.2	L17		306.0		285.0			3			3	3		
No. Lifts	3	Skyhome Duplex	143	L16		486.8	468.8	SH								2		
Units / Lift	24		139.9	3.1	L15										2	2	2	
avg NSA / unit	128.4		136.8	3.1	L14		486.8		468.8									
Total Storeys	25		133.7	3.1	L13										2	2	2	
Total Basement Levels	4		130.6	3.1	L12		486.8		468.8									
VARRIES	-0.2		127.5	3.1	L11										2	2		
			124.4	3.1	L10		486.8		468.8								2	
			121.3	3.1	L09										2	2	2	
			118.2	3.1	L08		486.8		468.8									
			115.1	3.1	L07										2	2	2	
Parking Data		Affordable	111.9	L06		351.2	311.5	AH	3	2					5	4		
Car Spaces			108.7	3.2	L05		574.2		516.8	5	3					8	5	
			105.5	3.2	L04		598.7		541.3	4	4					8	5	
			102.3	3.2	L03		598.7		541.3	4	4					8	5	
			99.1	3.2	L02		598.7		541.3	4	4					8	5	
			95.3	3.8	L01		905.6		815	COM	-	-	-	-	-	-	-	
			90.3	5.0	GROUND	65.1	492.3		443		-	-	-	-	-	-	-	
				4.6	B1		103.8											
				3.0	B2													
				3.0	B3													
			3.0	B4														

The main option includes 73 units, as we have incorporated the suggestion from the technical feedback summary. This feedback recommended introducing an alternative typology in the upper levels: a single-level Sky Home with an approximate height of 4.3 meters.

From Summary of technical feedback – PTW (22 November 2024):

7.1 General

- All sky home schemes shall stick to the design brief of 240sqm each.
- Sky homes could be limited to the top 5 levels only (total 10). Ceiling height could be extended to 4 – 4.2m to provide better amenity.
- Open-market products could be shifted to the middle section of the tower (in between sky homes).

YIELD - 76 UNITS



Project Address 51-55 ARCHER STREET, CHATSWOOD														
Design Reference														
PTW ARCHITECTS														
Site Data														
Site Area 1767														
Maximum FSR 6.5														
Proposed FSR 6.50														
Maximum GFA 11485.5														
Proposed GFA 11485.4														
Residential Data														
Proposed GFA 9983.7														
AH (15% of Total GFA) 2721.4														
OpenMarket GFA 1495														
Skyhome GFA 5702														
Resi GFA target 9983.5														
Unit Yield 76														
1B 20														
2B 17														
3B(Small) 15														
3B(Medium) 0														
3B(Large) 0														
Skyhome 24														
Non-Residential Data														
% 17%														
Non-Resi GFA 1501.7														
C.O.S Minimum Requirement (25%) 441.8														
C.O.S Achieved (27.9%) 493.6														
No. Lifts 3														
Units / Lift 25														
avg NSA / unit 123.4														
Total Storeys 25														
Total Basement Levels 4														
VARRIES -0.1														
Parking Data														
Car Spaces 93														
RL HEIGHT														
Level GFA NSA														
1B 2B 3B 3BM 3BL SH T														
ADG Solar CV														
70% 60%														
TOF														
TOF														
L35														
L34														
L33														
L32														
L31														
L30														
L29														
L28														
L27														
L26														
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L09														
L08														
L07														
L06														
L05														
L04														
L03														
L02														
L01														
GROUND														
B1														
B2														
B3														
B4														
Totals														
Efficiency 93%														
1B 2B 3BS 3BM 3BL SH Total														
Solar CV														
64 33														
84.2% 85%														
UCA FECA GBA														
2387 14319 16706														

If we replace the last two recommended single-level penthouses, we can add an extra level of open market single-level units, increasing the total number of units from 73 to 76. In order to achieve 82 Units the last 6 Levels of Sky Homes should be replaced with Open Market Single Level typology thus reducing the number of Sky homes to 12.

BASEMENT

Loading and Waste Management Strategy

LOADING AND WASTE MANAGEMENT STRATEGY

Loading Bay Design

- Location: Basement Level 1
- Loading Bays: Two bays
- Bay 1: For Small Rigid Vehicles (SRV)
- Bay 2: For a non-standard Medium Rigid Vehicle (MRV) up to 10.5 meters

Loading Operations

- Scheduling: Implement a booking system to manage loading and unloading times, reducing congestion and ensuring smooth operations.
- Signage: Clear signage to direct vehicles to the appropriate loading bay.
- Safety: Ensure adequate lighting, ventilation, and safety measures such as mirrors and warning signals for vehicle movement.

Waste Management Plan

- Waste Segregation: Separate bins for general waste, recyclables, and organic waste. Encourage residents to segregate waste at the source.
- Collection Points: Designated central waste collection points on each floor with easy access to chutes and bins.
- Waste Chutes: waste chutes for general waste and recyclables, leading to the central waste storage area in the basement.
- Organic Waste: a separate chute or dedicated bins for organic waste can be considered, with regular collection to prevent odors.

Central Waste Storage

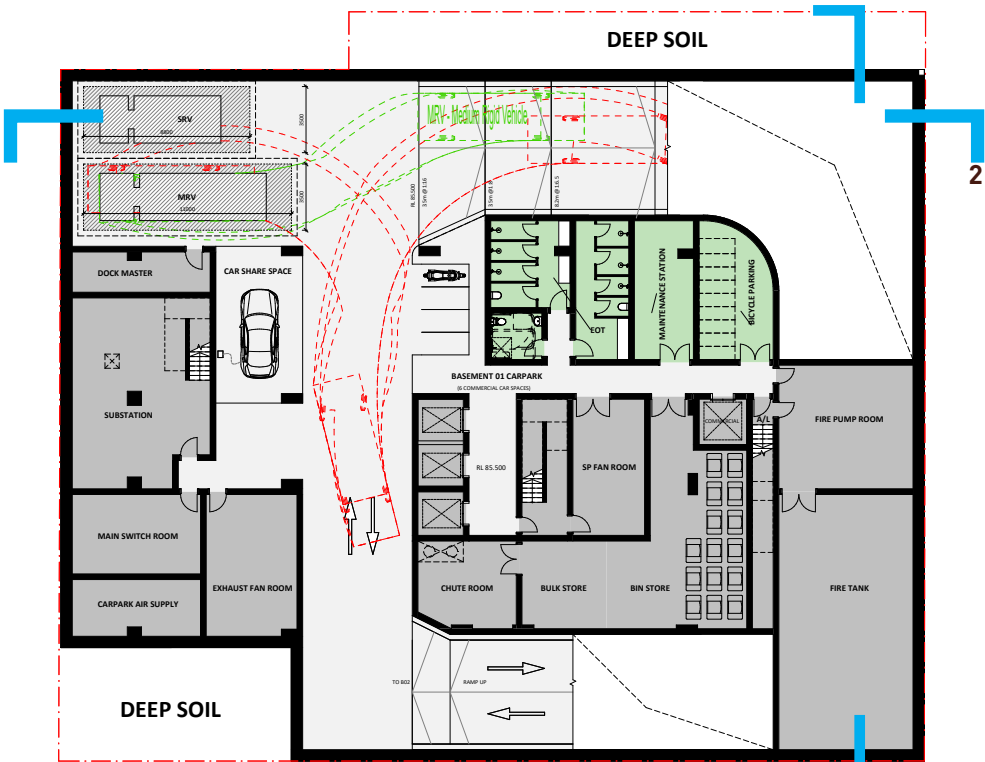
- Location: Basement Level 1, near the loading bays for easy access by collection vehicles.
- Design: the storage area is well-ventilated, secure, and large enough to accommodate the volume of waste generated.
- Equipment: Usage of compactors and balers to reduce the volume of waste is recommended, making storage and collection more efficient.

Collection and Disposal

- Frequency: Schedule regular waste collection to prevent overflow and maintain hygiene.
- Contractors: Engage licensed waste management contractors familiar with local regulations and best practices.
- Compliance: Ensure all waste management practices comply with local regulations, such as the Waste Avoidance and Resource Recovery Act 2001.

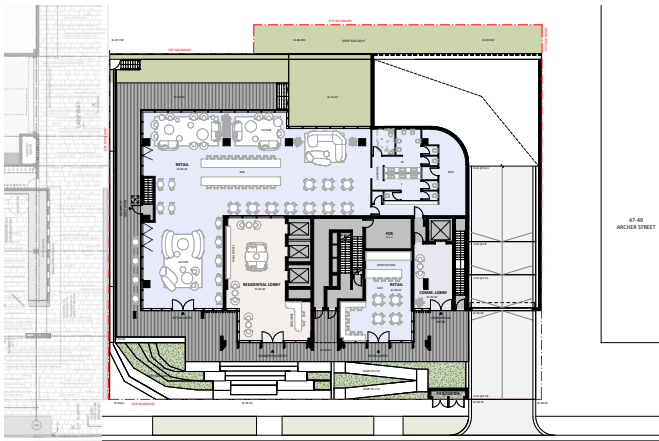
Sustainability Initiatives

- Recycling Programs: Promote recycling programs and provide educational materials to residents.
- Organic Waste Treatment: Explore options for on-site composting or organic waste treatment to reduce landfill waste.
- Monitoring and Feedback: Implement a system to monitor waste generation and provide feedback to residents to encourage sustainable practices.

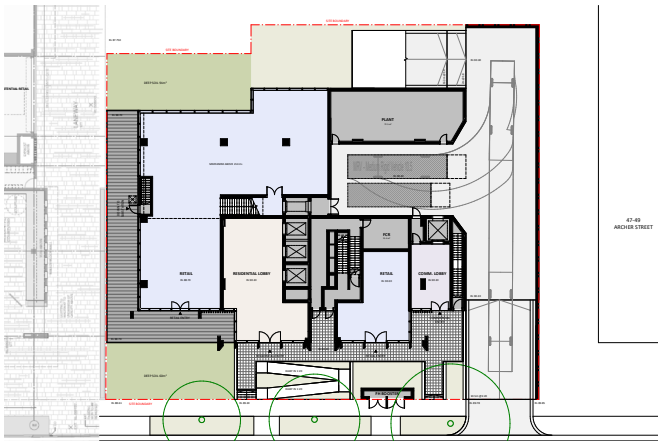


LOADING AT B01 (1:400)

1

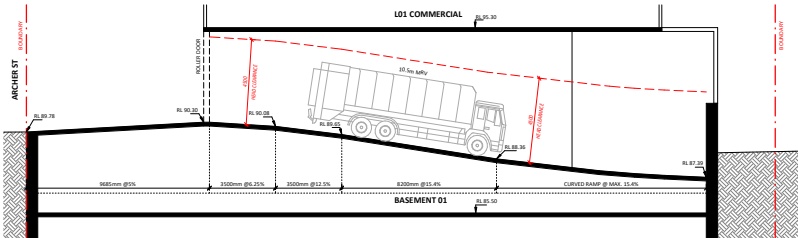


OPTION 01 - LOADING AT B01

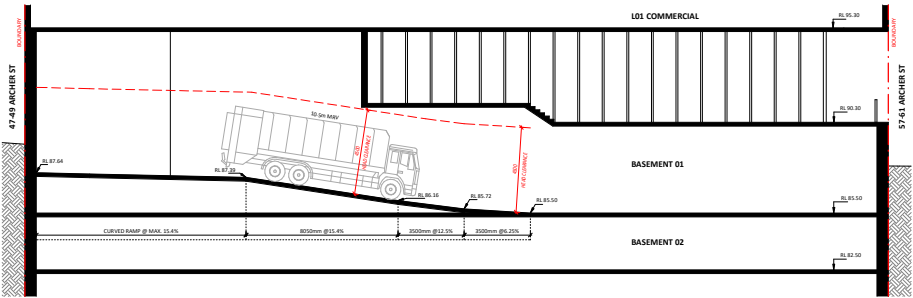


OPTION 02- LODING ABOVE GROUND

During the initial stage of the design process, we conducted several studies to evaluate different strategies for loading and waste collection. These studies included options for situating these facilities at the ground level, as observed on the neighboring site to the north, and at the designated location on Basement Level 1.

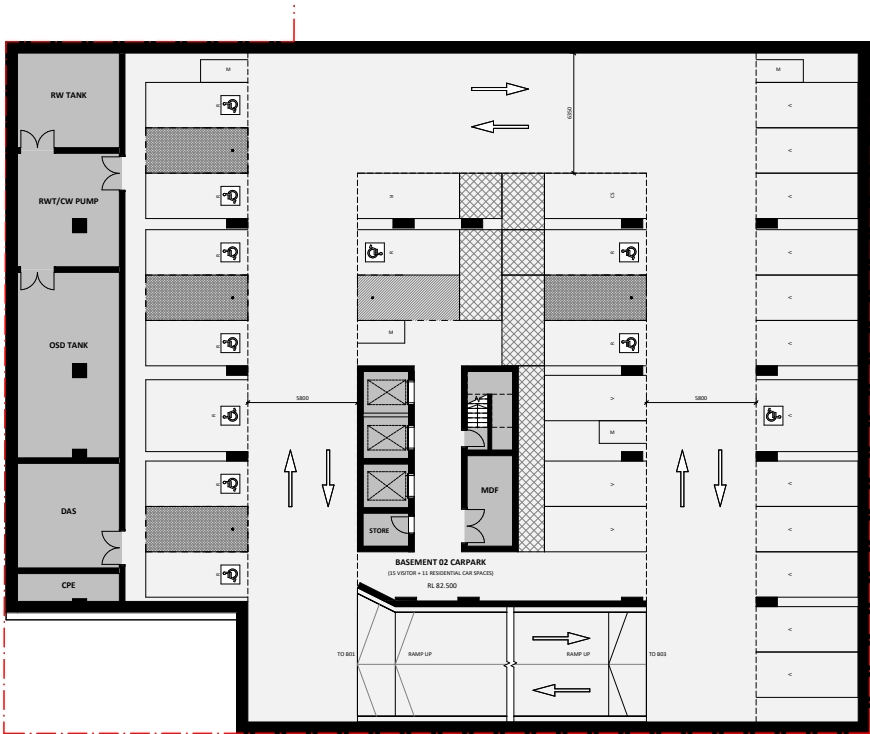


SECTION 1 (1:400)

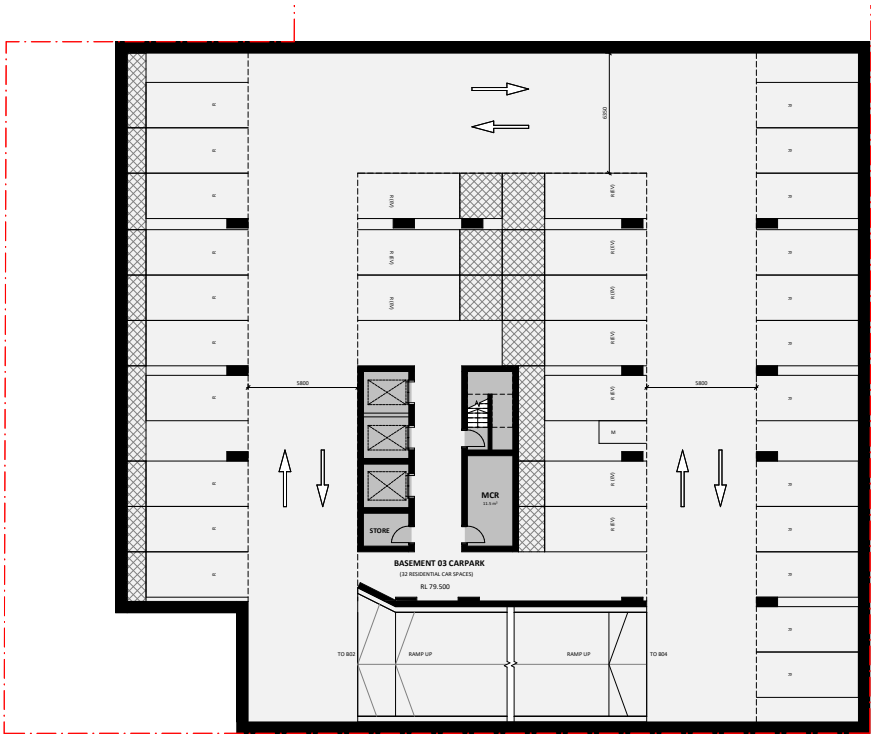


SECTION 2 (1:400)

BASEMENT Parking Strategy



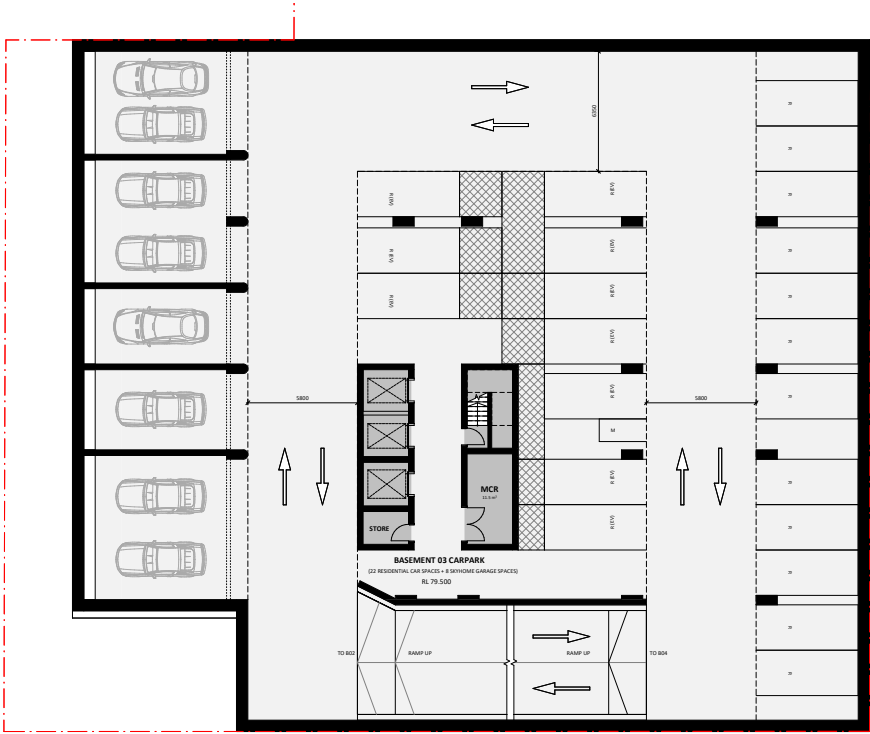
B02



B03-04

	resi		com	visitor	retail	motor	carshare	total
B1							1	1
B2	11			15		4	1	27
B3	32					2		32
B4	32					2		32
	75		0	15	0	8	2	93

1 Car Wash Bay Included in residential parking in B4



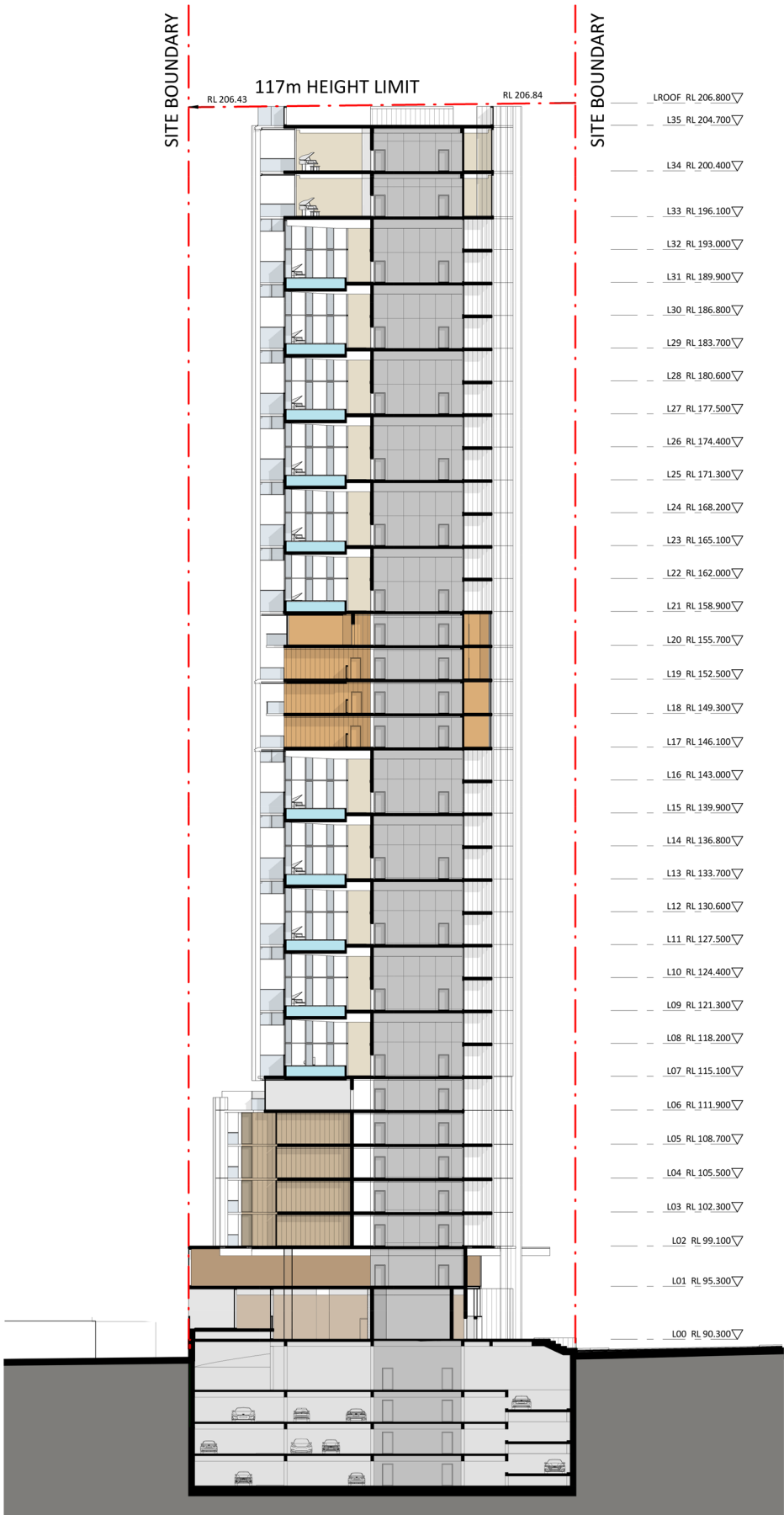
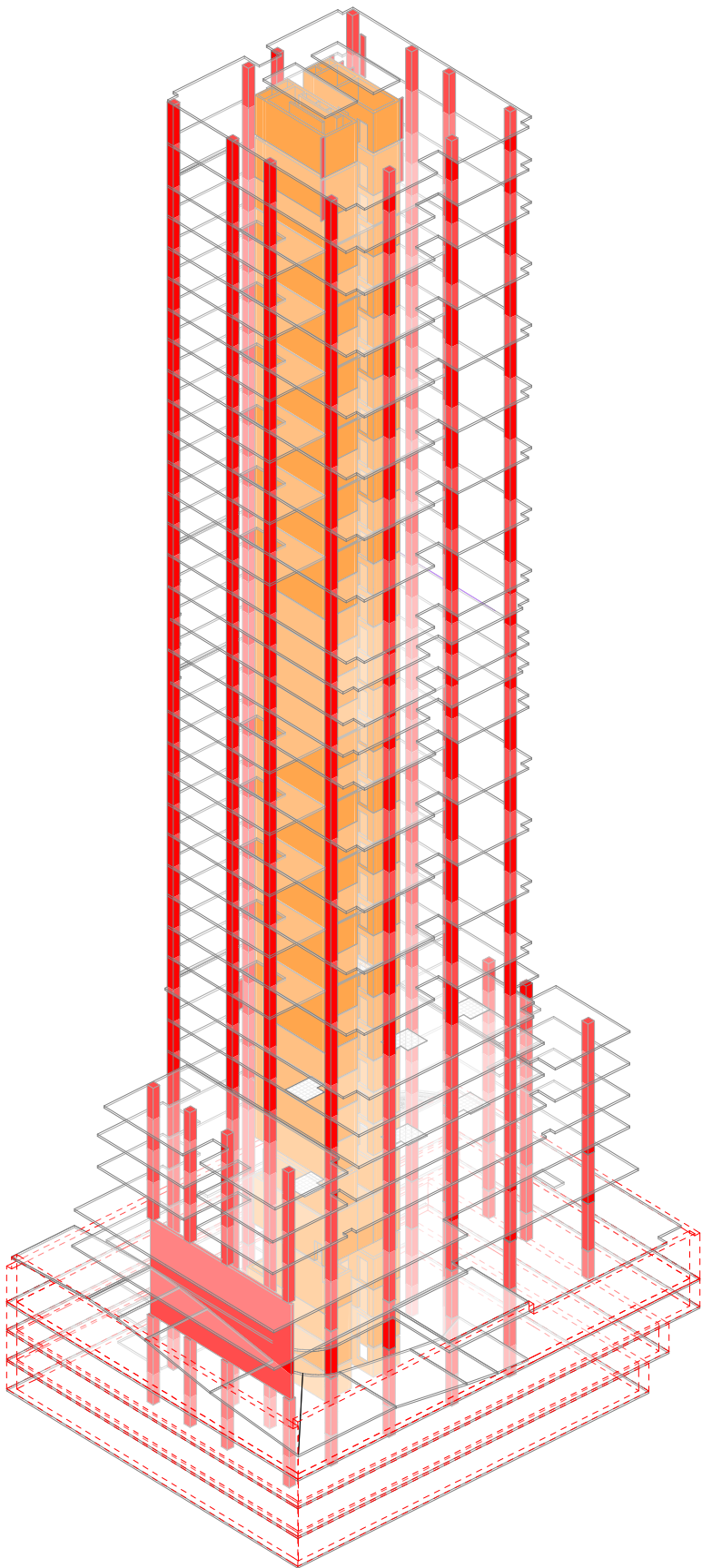
B03-04 OPTIONAL WITH BOX



GARAGE BOX FOR THE SKY HOMES : At Basement 03 and 04 there is the opportunity to introduce garage boxes for the Sky Homes.

THE TOWER

Structure - Value Management



EAST/WEST SECTION (1:600)

VALUE MANAGEMENT REVIEW

51-55 Archer St, Chatswood

Lateral Consulting has undertaken a review of the proposed design for 51-55 Archer Street by PTW to assess its structural efficiency and value management opportunities. Lateral believe that with further structural coordination and refinement, the PTW proposal can result in an extremely cost-effective building structure underpinned by the following design principles:

- Structure has been vertically aligned throughout the building to remove the need for a major transfer slab. For a building of this height, a 2.5m transfer slab at Ground floor would generally be required at a cost of approx. \$1.8m (not including the cost of additional construction time or excavations costs). With further refinement we believe the PTW proposal can align structure from the top of the building down to footings, negating the need for a major transfer slab and its associated costs. Furthermore, it is our belief that removing large transfer from tall towers is best practice as it reduces the risk of structural movement or structural defects in the future.
- PTW have located entry ramps outside the tower envelope limiting the need for localised transfers in these areas. Lateral believes that with further refinement, all circulation in the basement and loading dock can be designed to ensure that it does not clash with tower structure. Through this process the cost of in-ground construction can be significantly economised on the project.
- A building of this height will need to be tested in a wind tunnel to understand the effects of wind loading on the structure. The compact form, balcony openings and faceted facades may assist in minimising wind loading. Generally, wind tunnel testing can result in a 10% - 30% reduction in wind loads, which will result in an equal reduction in the material cost of the structure.

Value Management Review 51-55 Archer St, Chatswood

- The building envelope and slab profiles proposed by PTW lends itself to a simple, cost-effective building methodology. The alignment of the slab profile in the tower means that a jump-form can be employed with perimeter screens, avoiding the costly need for scaffold above the podium. Equally, the design can be further refined to ensure minimal changes to the core design so the jump form does not need to be changed continually on site. The proposed designs build-ability will result in a very quick jump cycle of between 4-5 days a level.
- The facades design proposed by PTW lends itself to a window-wall construction methodology. This is a scenario in which individual glazing panels are fixed from slab to slab, compared to a curtain wall system, in which multiple floors of glazing are installed at once. The ability to construct the facades as a window-wall system will significantly reduce the construction cost of the facade and will equally result in a quicker construction methodology.
- Overall, Lateral believe that the PTW proposal has been designed with consideration to key value-management principles, that with further refinement, will ensure a cost-effective and efficient building design.

Neil Warner-O'Connell
Director
Lateral Consulting

THE TOWER

Service Integration | ESD

ADP Consulting have worked with PTW Architects on the services integration to 51 – 55 Archer St, Chatswood architectural design. The services spatial allowances throughout the proposed design are in line with ADP area expectations with locations to be further coordinated in next stages.

Mechanical

A passive design approach has been utilised for the HVAC design to ensure an energy efficient solution is integrated whilst achieving optimal indoor air quality. An air-cooled system has been considered and incorporated to architectural design via dedicated condenser plant rooms on every level to serve the conditioned space. Utilising smart home technology, the AC system shall have integrated controls for each individual apartment.

Hydraulic

Through detailed coordination, the rainwater drainage system design strategy shall be integrated within the architectural façade ensuring a consistent external finish is achieved. The rainwater downpipes reticulate through the tower to the rainwater reuse system where the water can be used for irrigation and non-potable usages. The design of the water reticulation system shall include domestic cold water that will serve individual apartments and retail units throughout the tower with the centralised hot water system as an energy efficient option.

Electrical

The central core provides a continuous distribution riser for the power and communication systems. Within each floor, the electrical riser shall contain suitable sized distribution boards including future expansion whilst the communication riser will contain security services and antenna systems to improve in building cellular coverage. The proposed smart home system will have the capability to control the apartments internal systems including AC, AV, and lighting systems.

Fire Protection

A fire detection system has been allowed for within the architectural plans including a dedicated Fire Control Room with safe access and spatial allowance for Fire Pump Room and Tank to provide a sprinkler and hydrant systems with the booster located at the site frontage.

ESD

Sustainability has been a key consideration throughout the services and architectural design. ADP and PTW are exploring various opportunities to ensure an environmentally friendly building is constructed including embedded network operators, energy efficient plant design, an all-electric site design, smart building design (BMS & EMS), smart home integration, rainwater harvesting and reuse, solar panel design etc.

Maintenance and Accessibility

The services design has considered safe access to each system to ensure maintenance and routine inspections. The access zones have been allocated within the architectural layouts in line with Australian Standard and manufacturer requirements.

Ruadhan Fanning
Senior Mechanical Engineer
ADP



DESIGN RATING TOOLS

NCC Section J Compliance
BASIX and NatHERS Protocol
ADG NSW Department of Planning and Environment
5 Star Green Star Target



ENERGY EFFICIENCY:

Passive Design
High-Performance Building Envelope
Renewable Energy Sources



WATER MANAGEMENT:

Rainwater Harvesting
Greywater Recycling
Efficient Fixtures



WASTE REDUCTION:

Construction Waste Management
Recycling Programs



INDOOR ENVIRONMENTAL QUALITY:

Low-VOC Materials
Natural Ventilation
Green Spaces
Occupant Health and Comfort



SUSTAINABLE MATERIALS:

Locally Sourced Materials
Recycled Content
Sustainable Timber
Embodied Carbon Reduction Strategy
and Sustainable Procurement



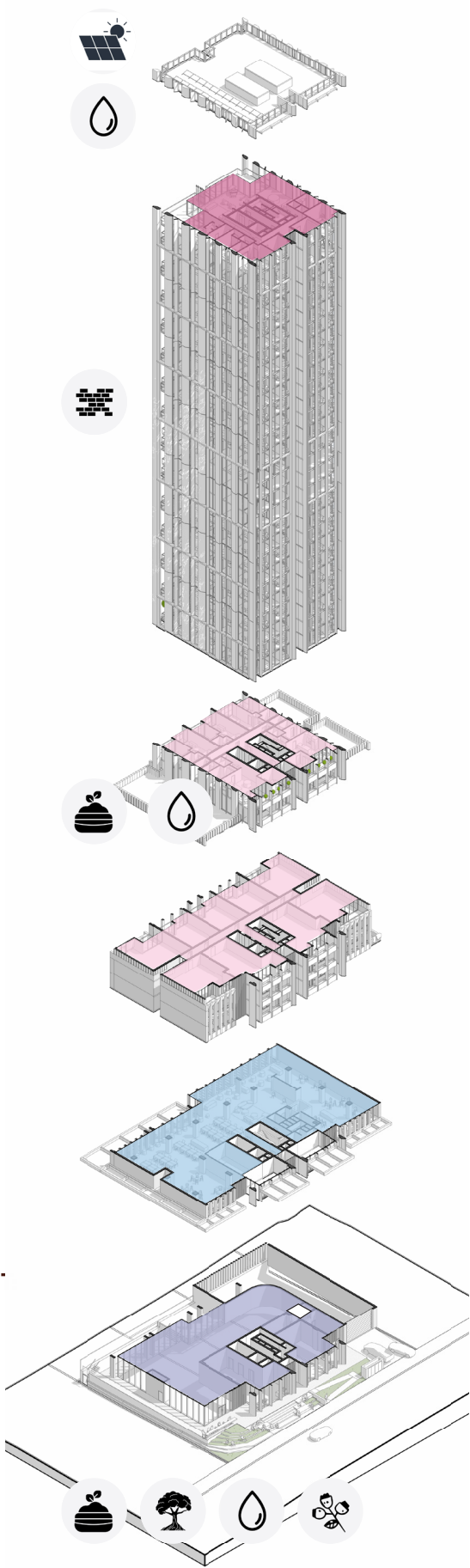
SUSTAINABLE TRANSPORT MANAGEMENT

Bicycle Facilities
Electric Vehicle Charging
Public Transport Access



SMART BUILDING TECHNOLOGIES:

Building Management Systems (BMS)
Energy Management System (including Smart Meters)
Automated Lighting and HVAC



In designing this building with a focus on sustainability, several key strategies are employed to enhance energy efficiency, water management, waste reduction, indoor environmental quality, the use of sustainable materials, transportation, and smart building technologies.

Energy Efficiency

To achieve energy efficiency, passive design principles are utilized. This includes natural ventilation, which allows fresh air to flow through the building, reducing the need for mechanical cooling. Daylighting is another crucial aspect, where the design maximizes natural light to reduce the reliance on artificial lighting. Additionally, thermal mass materials are used to absorb and store heat, helping to maintain a stable indoor temperature.

A high-performance building envelope is essential for minimizing energy loss. This involves incorporating high-insulation materials, double glazing on windows, and reflective roofing to reduce heat gain in the summer and heat loss in the winter. Furthermore, integrating renewable energy sources such as solar panels, can generate on-site renewable energy, significantly reducing the building's carbon footprint.

Water Management

Effective water management strategies include rainwater harvesting, where rainwater is collected and stored for non-potable uses such as irrigation and toilet flushing. Greywater recycling systems treat and reuse water from showers and sinks for landscaping or flushing toilets, further conserving water resources. Installing efficient fixtures like low-flow faucets, showerheads, and dual-flush toilets also helps to reduce water consumption.

Waste Reduction

To minimize waste, construction waste management plans are implemented to reduce, reuse, and recycle materials during the building process. Recycling programs are also established, with designated spaces for recycling bins and educational initiatives to encourage proper waste segregation among residents.

Indoor Environmental Quality

Improving indoor environmental quality involves using low or zero volatile organic compound (VOC) paints, adhesives, and finishes to enhance indoor air quality. Natural ventilation is designed into the building with operable windows and ventilation systems to ensure a continuous flow of fresh air. Incorporating green spaces, such as indoor plants and green walls, not only improves air quality but also provides a connection to nature, enhancing the overall well-being of occupants.

Sustainable Materials

The use of sustainable materials is a key consideration. Locally sourced materials are preferred to reduce transportation emissions. Materials with high recycled content, such as recycled steel, concrete, and insulation, are selected to minimize environmental impact. Certified sustainable timber is used for structural and finishing elements, ensuring responsible forest management practices.

Sustainable Transportation Management

To promote sustainable transportation, secure bicycle storage facilities are provided to encourage cycling. Electric vehicle (EV) charging stations are installed to support the use of electric vehicles. The building is also designed to be easily accessible by public transport, reducing reliance on private cars and lowering overall transportation emissions.

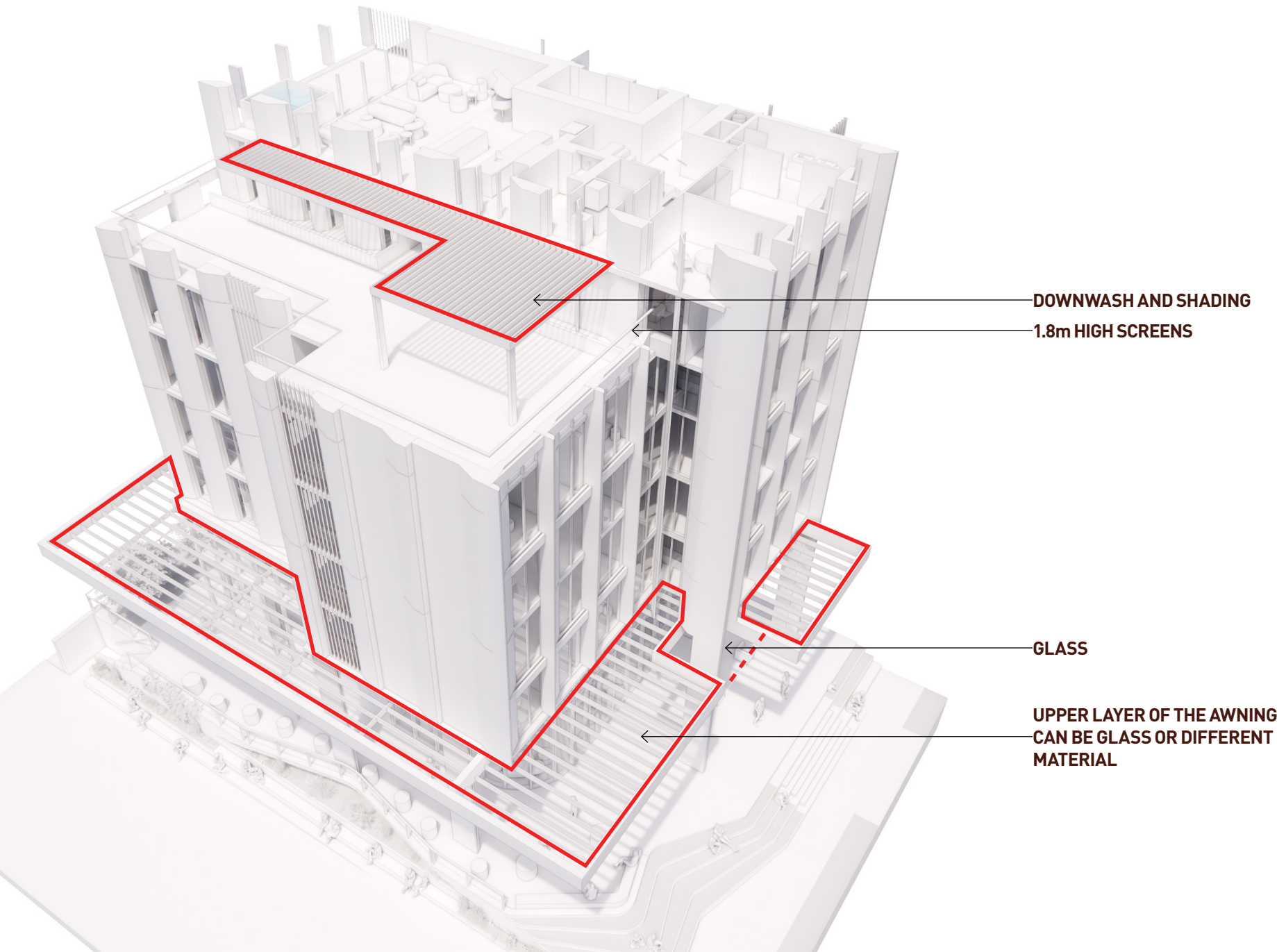
Smart Building Technologies

Smart building technologies play a crucial role in optimizing building performance. Building Management Systems (BMS) are implemented to monitor and control energy, water, and other building systems. Smart meters are used to track energy and water usage, providing real-time data to residents and building managers. Automated lighting and HVAC systems, equipped with sensors, adjust based on occupancy and usage patterns, ensuring efficient operation and energy savings.

By integrating these strategies, the building not only achieves high levels of sustainability but also provides a comfortable and healthy living environment for its occupants.

THE TOWER

Wind Mitigation



Ground Level Wind Mitigation Measures

Building Entrance and Immediate Surrounds:

The already proposed building setbacks and colonnades around the main entrance are expected to significantly improve pedestrian comfort by helping to redirect downwash flows and minimize potential wind channelling effects commonly found at corners and entry points. These architectural features help disperse strong descending winds from the upper levels and create a calmer environment at the entry zone.

The existing and proposed trees along pedestrian pathways surrounding the development will also contribute positively to wind conditions. These natural elements act as effective wind filters, helping to dissipate higher-level winds before they reach the walking zones. As a result, the area is expected to meet the recommended walking comfort criteria.

Deep awning structures are included, providing substantial coverage to pedestrians. This feature offers strong protection against potential downwash from the building above and shields key zones from prevailing winds (The awning is designed with a solid upper layer, recommended to be constructed from glass or other transparent materials. This approach maintains the dual benefit of effective wind deflection while allowing natural light to reach the ground level, supporting both comfort and visual amenity. An alternative option could be an awning fitted with operable louvres, which can be closed during windy conditions to provide additional wind protection when needed and allow for better natural ventilation and airflow through the space.

Glass balustrades and transparent vertical enclosures are used strategically across the frontage, offering additional wind protection without compromising daylight or views. These transparent barriers serve as effective windbreaks while maintaining an open and welcoming aesthetic.

The recessed podium edges and the careful shaping around corners further assist in managing wind flows at the base of the building. This architectural treatment is known to reduce wind intensification and corner accelerations, contributing to a more comfortable ground-level environment.

Recommendation: While the existing strategies are performing well, it is recommended to add some vertical windbreaks around the seating areas on the ground level to enhance localized comfort further. Planter boxes approximately 1.1m high can serve this purpose effectively. These can provide wind protection while integrating well with the landscaping and overall urban design.

Communal Open Space – Level 6

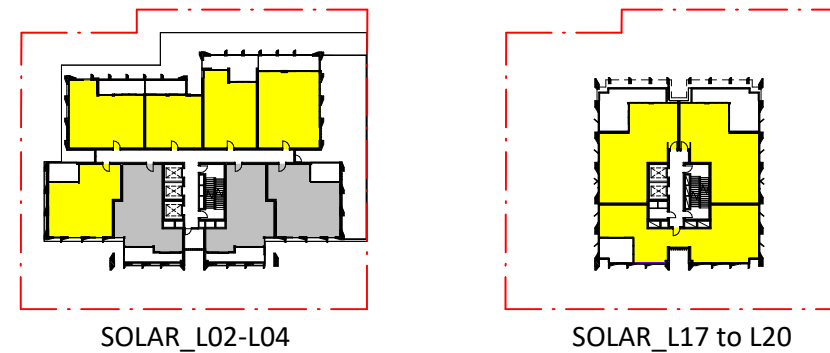
The 1.8m high balustrades and vertical windbreaks are of sufficient height and well-positioned to maintain usability across this area. These features are expected to effectively mitigate elevated wind conditions, creating a protected and enjoyable environment on Level 6.

Wind modelling studies using CFD or Wind Tunnel Testing are recommended to be carried out during the DA/Detailed design stage to confirm the effectiveness of the proposed wind mitigation treatments.

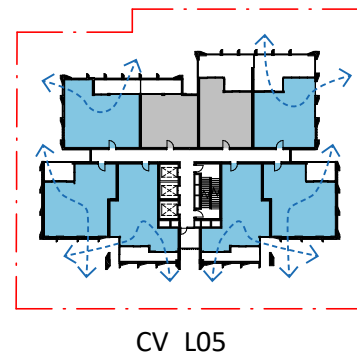
Neihad Al-Khalidy
SRL Consulting

SOLAR ACCESS

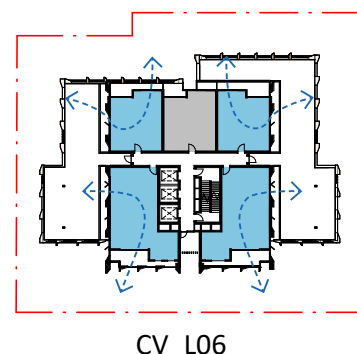
SUMMARY



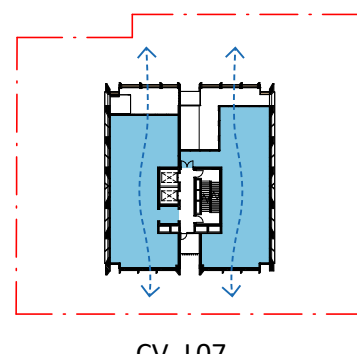
AFFORDABLE HOUSE LEVEL 02 TO 04



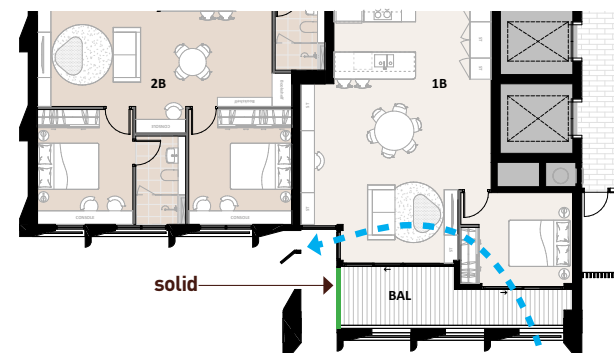
SOLAR_L05



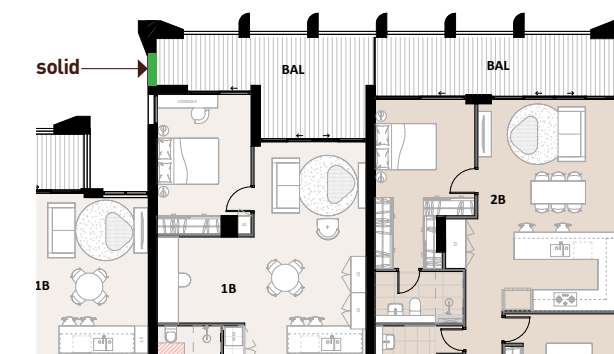
SOLAR_L06



SOLAR_L07 to L16



1. "Arrangement supported.
Modeling should show favourable results if required" - SRL Consulting



2. "Proposed arrangement should improve the cross ventilation for the unit" - SRL Consulting

ROOF
L35
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GROUND

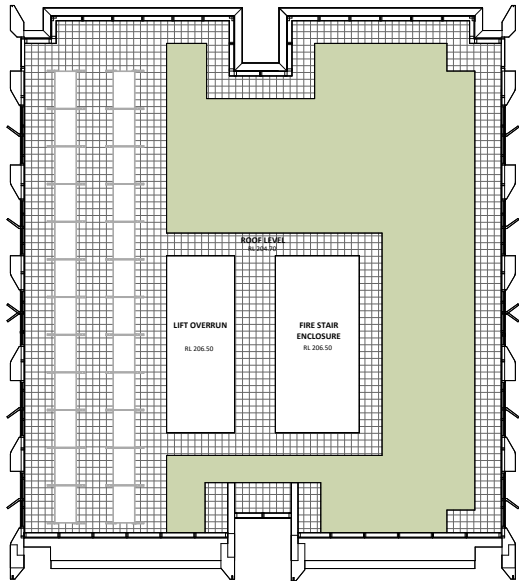
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THE TOWER

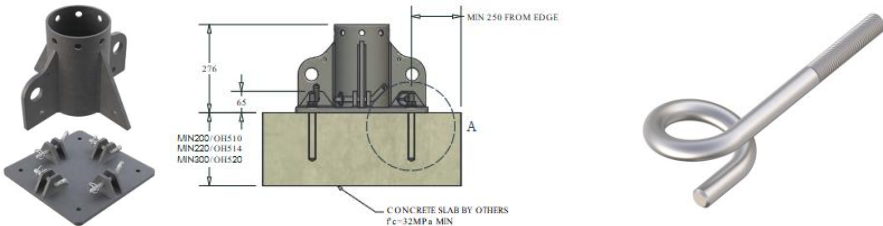
Façade Maintenance

Rope access appears to be the most suitable and cost-effective method for access and maintenance.

Anchoring will be provided in the form of Davit Arm Bases mounted to the L35 rooftop slab at the perimeter, spaced approximately 1.5 meters apart.



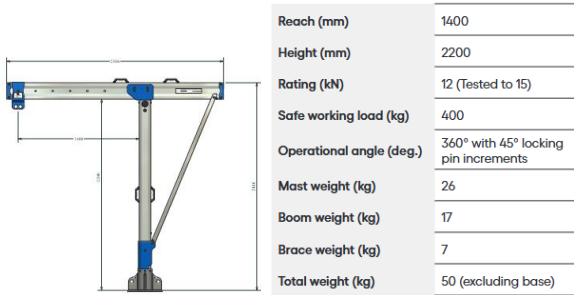
Roof Plan



Davit Bases

Lateral Restraint anchor

This setup will allow workers to install the Davit Arm and anchor their ropes up, over, and past the parapet wall, which typically will not be engineered for rope access loads.



Davit Arm

The workers will then continue down the façade on their ropes. We understand that the windows will be set back from the façade (i.e., horizontal and vertical elements) by approximately 590mm. Therefore, the windows will still be within arm's reach for performing window cleaning.



Podium West Elevation Close up

In a building of this size, it is recommended that lateral restraint anchors be fitted to the façade. These anchors assist abseilers in locking into position as they progress down the building, particularly in strong winds. They should be placed typically every eight stories, in line with the roof anchorage points. These can be installed to cladding/curtain walls or epoxied into the slab.

There will be some interaction between the L07 communal space awning and rope access workers. Therefore, if the awning has glass, it should be designed to be trafficable, with edge details to allow the worker to pass over without damaging ropes or glass panels (e.g., steel frame with soft protection attached as required). Note: If the awning is slatted aluminum, it should have gaps large enough for the rope access worker to pass through to reach the ground on L07.

As the building footprint/shape changes at L07, new anchorage will be required to access areas below. Note: The 1.8m parapet wall at L07 necessitates a Davit Arm mounted to the slab at the perimeter, spaced approximately 1.5 meters apart.

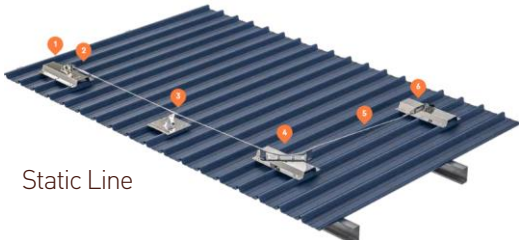


Level 07



Street Awning - North Elevation

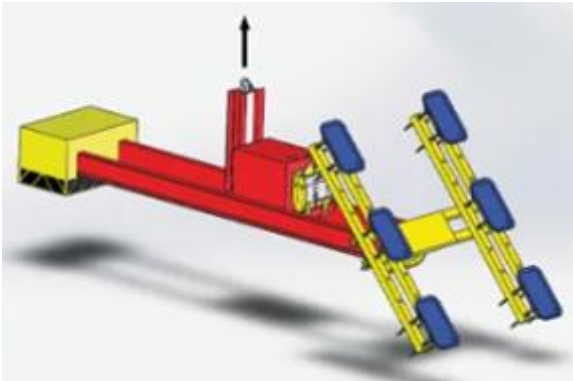
There will be some interaction between the street awning and rope access workers. Therefore, if the awning has glass, it should be designed to be trafficable, with edge details to allow the worker to pass over without damaging ropes or glass panels (e.g., steel frame with soft protection attached as required). Note: If the awning is slatted aluminum, it should have gaps large enough for the rope access worker to pass through to reach the street level. A static line may be required on the awning to permit workers to traverse to a suitable egress point to street level.



Static Line

Regarding glass replacement:

Glass replacement is regularly performed utilizing rope access. Depending on the size and weight of the panel, a mobile crane will perform the lifting of the panel, or a winch will be used, with a lifting point established on the rooftop (using scaffolding and counterweights). Rope access workers perform the external installation in conjunction with glaziers working internally. It is possible to utilize Davit Arms on the rooftop for glass lifting, but this requires engineering sign-off and manufacturer approval prior.



Cantilever glass fitting unit



Glass Panel replacement

Summary of Maintenance Provisions: The above provisions will provide adequate access for the maintenance of the building, with access and maintenance complying with AS/NZS 1891 and AS/NZS ISO 22846.

The maintenance will have a low environmental impact, with water and biodegradable soap being the primary products used for cleaning, and little to no electricity usage during the performance of work. The cost implications of this system will be far minimized compared to Building Maintenance Units (BMU), which have high initial and maintenance costs and draw substantial electrical current during operation.

Vertical Transportation

3.1 High Rise. 2 x 1350kg @3m/s with 1000 doors (Prestige)

3.1.1 Building and Population

Number of Floors: 40
Building Population: 248

Floor Name	Floor Height	Floor Level	Description	Quantity	Density	Net Population	Σ
35	3.10 m	109.50 m	Residential	4.0 persons	1.0 *	4 persons	+
34	3.10 m	106.40 m	Residential	4.0 persons	1.0 *	4 persons	+
33	3.10 m	103.30 m	Residential	8.0 persons	1.0 *	8 persons	+
32	3.10 m	100.20 m	Residential				+
31	3.10 m	97.10 m	Residential	8.0 persons	1.0 *	8 persons	+
30	3.10 m	94.00 m	Residential				+
29	3.10 m	90.90 m	Residential	8.0 persons	1.0 *	8 persons	+
28	3.10 m	87.80 m	Residential				+
27	3.10 m	84.70 m	Residential	8.0 persons	1.0 *	8 persons	+
26	3.10 m	81.60 m	Residential				+
25	3.10 m	78.50 m	Residential	8.0 persons	1.0 *	8 persons	+
24	3.10 m	75.40 m	Residential				+
23	3.10 m	72.30 m	Residential	8.0 persons	1.0 *	8 persons	+
22	3.10 m	69.20 m	Residential				+
21	3.20 m	66.00 m	Residential	12.0 persons	1.0 *	12 persons	+
20	3.20 m	62.80 m	Residential	12.0 persons	1.0 *	12 persons	+
19	3.20 m	59.60 m	Residential	12.0 persons	1.0 *	12 persons	+
18	3.20 m	56.40 m	Residential	12.0 persons	1.0 *	12 persons	+
17	3.20 m	53.20 m	Residential	12.0 persons	1.0 *	12 persons	+
16	3.10 m	50.10 m	Residential				+
15	3.10 m	47.00 m	Residential	8.0 persons	1.0 *	8 persons	+
14	3.10 m	43.90 m	Residential				+
13	3.10 m	40.80 m	Residential	8.0 persons	1.0 *	8 persons	+
12	3.10 m	37.70 m	Residential				+
11	3.10 m	34.60 m	Residential	8.0 persons	1.0 *	8 persons	+
10	3.10 m	31.50 m	Residential				+
9	3.10 m	28.40 m	Residential	8.0 persons	1.0 *	8 persons	+
8	3.10 m	25.30 m	Residential				+
7	3.10 m	22.20 m	Residential	8.0 persons	1.0 *	8 persons	+
6	3.20 m	19.00 m	Residential	11.4 persons	1.0 *	11 persons	+
5	3.20 m	15.80 m	Residential	19.2 persons	1.0 *	19 persons	+
4	3.20 m	12.60 m	Residential	20.4 persons	1.0 *	20 persons	+
3	3.20 m	9.40 m	Residential	20.4 persons	1.0 *	20 persons	+
2	3.20 m	6.20 m	Residential	20.4 persons	1.0 *	20 persons	+
1	3.80 m	2.40 m	Office				+
G	5.00 m	-2.60 m	Lobby				
B1	3.00 m	-5.60 m	Parking	1.0 parking lots	1.2 pers. / lot	1 persons	
B2	3.00 m	-8.60 m	Parking	27.0 parking lots	1.2 pers. / lot	32 persons	
B3	3.00 m	-11.60 m	Parking	34.0 parking lots	1.2 pers. / lot	41 persons	
B4	3.00 m	-14.60 m	Parking	34.0 parking lots	1.2 pers. / lot	41 persons	

3.2 Low rise. 1 x 1350kg @1m/s with 1000 doors (Resi Standard)

3.2.1 Building and Population

Number of Floors: 40
Building Population: 248

Floor Name	Floor Height	Floor Level	Description	Quantity	Density	Net Population	Σ
35	3.10 m	109.50 m	Residential	4.0 persons	1.0 *	4 persons	+
34	3.10 m	106.40 m	Residential	4.0 persons	1.0 *	4 persons	+
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16	3.10 m	50.10 m	Residential				+
15	3.10 m	47.00 m	Residential	8.0 persons	1.0 *	8 persons	+
14	3.10 m	43.90 m	Residential				+
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B4	3.00 m	-14.60 m	Parking	34.0 parking lots	1.2 pers. / lot	41 persons	

Traffic Analysis Report

A traffic simulations in this report has been carried out in accordance with ISO8100-32 (Prestige & Standard residential).

The lifts have been separated as below:

- High rise (Prestige), serving basment levels 3 & 4, ground floor and from floor 7 to floor 35.
- Low rise (Standard Reisdential) , serving basement levels 1 & 2, ground floor to level 6.

The results of the simulations are:

- High Rise: 2 x 1350kg units @ 3m/s resulted in an average wait time of 33.3s @7%HC5
- Low Rise: 1 x 1350kg unit @ 1m/s resulted in an average wait time of 31.7s @7%HC5

The result of the simulations utilising Conventional Control demonstrate that the ISO8100-32 performance guidelines of < or = 60 seconds average wait times (WT < or = 60 seconds) for Standard residential and < or = 40 seconds average wait times (WT < or = 40 seconds) for prestige residential has been achieved.

Regarding the office lift, reccomended sizing should be inline with PCA grade a requirements of at least 1275kg with 1000mm doors.

1 High Rise. 2 x 1350kg @3m/s with 1000 doors (Prestige)								
Lifts: 2 Conventional, 1350 kg, 3.00 m/s								
Traffic Situation	Floors	Population	P5	HC5	WT	DT	IS	LW
Two-Way Residential	B4..B3, G, 7, 9, 11, 13...	156	11	7.0 %	33.3 s	75.8 s	0.6	4.3 %
			12	8.0 %	37.7 s	82.1 s	0.7	6.4 %

2 Low rise. 1 x 1350kg @1m/s with 1000 doors (Resi Standard)								
Lift: 1 Conventional, 1350 kg, 1.00 m/s								
Traffic Situation	Floors	Population	P5	HC5	WT	DT	IS	LW
Two-Way Residential	B2..G, 2..6	92	6	7.0 %	31.7 s	62.3 s	0.4	3.5 %
			7	8.0 %	34.7 s	66.2 s	0.5	4.8 %

Standard and Recommendations

Every analysis covers a full range of traffic intensities, reporting handling capacity HC5 and average waiting time WT as main criteria. As a general guideline, Schindler defines recommendations based on these criteria:

Schindler Traffic Analysis Recommendations (conforming to ISO 8100-32:2020)						
Traffic Situation	Traffic Definition			Standard Requirements		
	Incoming	Outgoing	Inter-floor	HC5	WT	
Two-Way Residential	50 %	50 %	0 %	≥ 7 %	≤ 60 s	

Scott East
Senior Technical Consultant
Schindler

DESIGN COMPLIANCE

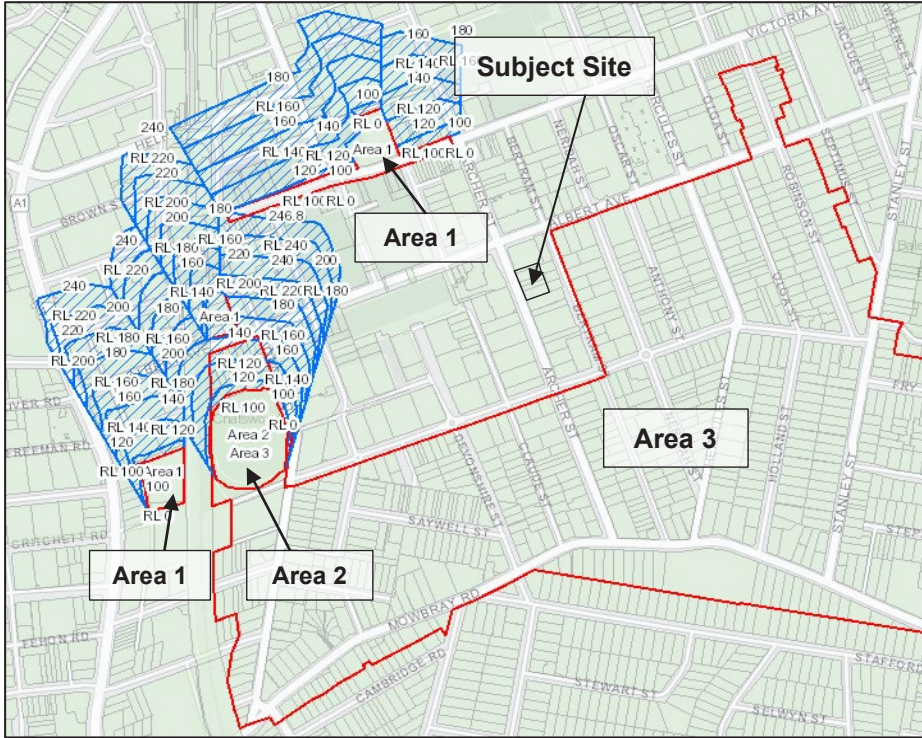
Project Overview		Compliance Status		Action Items	
Project Name	Project ID	Overall Status	Last Audit Date	Open Issues	Responsible Party
Alpha Project	PRJ-001	Compliant	2023-10-27	0	John Doe
Beta Project	PRJ-002	Minor Non-Compliance	2023-10-26	2	Jane Smith
Gamma Project	PRJ-003	Major Non-Compliance	2023-10-25	5	Mike Johnson
Delta Project	PRJ-004	Compliant	2023-10-24	0	Sarah Lee
Epsilon Project	PRJ-005	Minor Non-Compliance	2023-10-23	1	David Kim
Total Projects		5		8	
Compliance Rate		60%			
Next Audit Due		2023-11-15			

TABLE 1. APARTMENT DESIGN GUIDE (ADG) CONTROLS		
CONTROL	DESIGN CRITERIA	COMMENT
Building separation	Minimum separation distances for buildings are: Nine storeys and above/ over 25 metres 24 metres between habitable rooms/balconies 18 metres between habitable rooms/balconies and non-habitable rooms 12 metres between non-habitable rooms	Comply
	Minimum distances from side and rear setbacks is required: Nine storeys and above/ over 25 metres 12 metres to habitable rooms/balconies 6 metres to non-habitable rooms	Comply
Deep soil zones	Minimum of 7% of a site should be a deep soil zone with the following minimum dimensions: 650sqm-1500sqm – 3m - greater than 1500sqm – 6m Achieving the design criteria may not be possible on some sites including where: - the location and 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 should be achieved and alternative forms of planting provided such as on structure.	(11.78%) Deep soil provide of which 60 m ² with a minimum dimension of 6m and 90m2 with a minimum dimension of 3m.
Communal and Public Open space	25%-30% of the site area should be devoted to communal open space.	Complies. Located at Level 5: 493.6m ² (27.9%)
	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)	YES refer to p.26 where the principle usable part of the communal spaces are located on the north east and south east corner of Level GF, L02 and L06.
Vehicle access	Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.	Complies, pedestrian and Vehicles access are clearly segregated
Car Parking	For development in the following locations: on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or - on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less. The car parking needs for a development must be provided off street. <i>Note: refer to maximum car parking requirements as addressed in the Design Competition Brief – Willoughby Council's rate of 0.5 spaces per dwelling prevails.</i>	Complies. All the car parking are allocated off street.
	Parking and facilities are provided for other modes of transport	
	Visual and environmental impacts of on-grade car parking are minimised	N/A
Pedestrian access	Access, entries and pathways are accessible and easy to identify.	Accessible ramp max grade 1:14

TABLE 1. APARTMENT DESIGN GUIDE (ADG) CONTROLS		
Apartment layout	Habitable room depths are limited to a maximum of 2.5 x the ceiling height.	Comply
	In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.	Comply
	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.	N/A
	Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments 4m for 2 and 3 bedroom apartments	Comply
	Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space).	Comply
	Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	Comply
	Minimum Apartment sizes: 35m² for studios; 50m² for one bedrooms; 70m² for two bedrooms; and 90m² for three bedrooms. Note: An additional 5m ² is required for each additional bathroom.	Complies Minimum Dimension of a 1B is: 73 m ² Minimum Dimension of a 2B is: 50 m ² Minimum Dimension of a 3B is: 92.1 m ²
Balconies	Apartments are to have the following balcony dimensions: - Studios – 4sqm 1br – 8sqm with min. 2m depth 2br – 10sqm with min. 2m depth 3br – 12sqm with min. 2.4m depth	Complies
Ceiling heights	Minimum ceiling heights are as follows: 2.7m for habitable rooms 2.4m for non-habitable rooms - double storey apartments – 2.7m for main living area, 2.4m for second floor where its area does not exceed 50% of the apartment area - attic spaces – 1.8m at edge of room with a minimum 30degree slope - in mixed use areas – 3.3m for ground and first floor (4m for cafes and restaurants).	Complies
Internal circulation	The maximum number of apartments off a circulation core on a single level is eight.	
	For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	Complies. 3 Lifts serving 73 units
Storage	- Studio apartments require 4sqm of storage area. - One-bedroom dwellings require 6m³ of storage area. - Two-bedroom dwellings require 8m³ of storage area. - Three-bedroom dwellings require 10m³ of storage area. 50% of the required storage is to be provided within each apartment.	Complies, when not available in the units there will be a storage cage in the basement level
Ground floor apartments	Direct street access should be provided for ground-floor apartments.	N/A

TABLE 1. APARTMENT DESIGN GUIDE (ADG) CONTROLS		
Daylight access	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.	Complies refer to Report p 49
	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.	None refer to Report p 49
	Daylight access is maximised where sunlight is limited	
	Design incorporates shading and glare control, particularly for warmer months	Can Comply
Natural ventilation	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.	82% Complies refer to Report p 49
	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.	N/A
	All habitable rooms are naturally ventilated	Complies

TABLE 2. SUMMARY OF THE WILLOUGHBY LEP 2012 (AMENDMENT NO 34) CONTROLS WHICH APPLY TO THE SITE		
ZONING / STANDARD	PROVISION	COMPLIANCE
2.1 Land use zone	The site is zoned MU1 Mixed Use MU1 Mixed Use (previously B4 Mixed Use): <u>Permitted with consent</u> Amusement centres; Boarding houses; Building identification signs; Business identification signs; Car parks; Centre-based child care facilities; Commercial premises; Community facilities; Entertainment facilities; Function centres; Information and education facilities; Light industries; Local distribution premises; Medical centres; Oyster aquaculture; Passenger transport facilities; Places of public worship; Recreation areas; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Seniors housing; Shop top housing; Tank-based aquaculture; Tourist and visitor accommodation; Vehicle repair stations; Any other development not specified in item 2 or 4 <u>Prohibited</u> Agriculture; Air transport facilities; Airstrips; Animal boarding or training establishments; Biosolids treatment facilities; Boat building and repair facilities; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Electricity generating works; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Freight transport facilities; Heavy industrial storage establishments; Helipads; Highway service centres; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Marinas; Mooring pens; Mortuaries; Open cut mining; Port facilities; Recreation facilities (major); Research stations; Residential accommodation; Resource recovery facilities; Rural industries; Service stations; Sewage treatment plants; Sex services premises; Signage; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Veterinary hospitals; Waste disposal facilities; Water recycling facilities; Water supply systems; Wharf or boating facilities; Wholesale supplies	Complies: The Proposal comprise a ground floor with retail premises, a Level 1 with commercial spaces and 73 residential units above it.
4.3 Height of Building	Maximum 90m in height	116.8 m (90m+30% = 117m) Complies refer to Report p 9
4.4 Floor Space Ratio	The subject site is subject to a maximum 5:1 FSR standard.	Complies refer to Report p 9 and 47
5.10 Heritage Conservation	The site does not comprise a heritage item, nor is the site located in a heritage conservation area.	N/A
6.1 Acid Sulfate Soils	The site is identified as having Class 5 Acid Sulfate Soils.	N/A
6.3 Urban heat	The objective of this clause is to ensure new development incorporates effective design and ongoing operation to— (a) reduce and remove urban heating from the environment, and (b) protect community health and wellbeing. (2) In deciding whether to grant development consent to development for the purposes of commercial premises, industries or residential accommodation, the consent authority must consider whether— (a) the facade and roof of the proposed building and paved surfaces are designed to reduce adverse effects of solar heat on the surrounding land, including private open space and the public domain, and (b) the awnings and eaves of the building are designed to provide shelter from the sun and improve public comfort at street level, and (c) the heating, ventilation and air conditioning systems of the building are designed to minimise the release of heat in the direction of private open space and the public domain, and (d) the development maximises the use of green infrastructure that is strategically designed and managed to support a good quality of life in an urban environment, and (e) the development accommodates sufficient tree canopy, open space and deep soil zones to achieve urban cooling benefits, and (f) the building is designed to achieve high passive thermal performance.	Can comply. Our proposal - utilizes materials with high reflectivity and low thermal absorption. At Level 6 and Level 35 green roofs provide insulation and reduce the heat island effect. - Incorporates awnings, eaves, and vertical fins to provide shade and reduce direct solar heat gain. - Integrates ample green spaces, trees, and plants that can cool the air through evapotranspiration and consider native species for lower maintenance and better adaptation. - Uses materials for pavements and walkways that have high albedo and low thermal conductivity to reduce heat absorption.
6.7 Active Street Frontage	Active street frontage is required for Anderson Street, Day Street, McIntosh Street and the western laneway. All ground floor premises facing the street are used for commercial premises. An active street frontage is not required for part of a building that is used for the following— (a) entrances and lobbies, including as part of mixed use development, (b) access for fire services, (c) vehicular access.	Complies Archer Street frontage will be fully dedicated to commercial premises excluding (a)(b)(c) from 6.7 <i>Active Street Frontage of the Willoughby LEP</i>.

6.8 Affordable Housing	A 10% affordable housing contribution applies to the site.	Complies as part of the 2721m ² of GFA for Affordable Housing in our proposal.
6.15 Sun access	(1) Development consent must not be granted to development on land in Zone E2 Commercial Centre or Zone MU1 Mixed Use that results in additional overshadowing on land identified as “Area 1” on the Sun Access Protection Map at mid-winter between 12pm and 2pm. (2) Development consent must not be granted to development that results in additional overshadowing on land identified as “Area 2” on the Sun Access Protection Map at mid-winter between 11am and 2pm. (3) Development consent must not be granted to development that results in a dwelling on land identified as “Area 3” on the Sun Access Protection Map receiving less than 3 hours of direct sunlight between 9am and 3pm at mid-winter. (4) Development consent must not be granted to development that results in additional overshadowing on the tree canopy of the Angophora costata tree identified as Schedule 5, Part 1, item I237 at mid-winter between 12pm and 2pm.	Complies refer to Report p 49
		
6.16 Minimum lot sizes for commercial and mixed-use development in Chatswood CBD	Minimum lot size for mixed use development in MU1 Mixed Use zone: 1,200m ²	Complies. Site Area = 1767m ²
6.23 Design Excellence	(1) The objective of this clause is to deliver the highest standard of architectural, urban and landscape design. (2) This clause applies to development involving the erection of a new building or external alterations to an existing building on land identified as “Area 5” on the <u>Special Provisions Area Map</u>. (3) Development consent must not be granted to development to which this clause applies unless the consent authority considers that the development exhibits design excellence. (4) In considering whether the development exhibits design excellence, the consent authority must have regard to the following matters— (a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved, (b) whether the form, arrangement and external appearance of the development will improve the quality and amenity of the public domain, (c) whether the development detrimentally impacts on view corridors. (5) The consent authority must also have regard to how the development addresses the following matters— (a) the suitability of the land for development, (b) existing and proposed uses and use mix, (c) heritage and streetscape constraints,	