

SYDNEY





RENZO PIANO BUILDING WORKSHOP

Via Rubens 29,
16158 Genova, Italy
T + 39 010 61 711
italy@rpbw.com



ONE SYDNEY HARBOUR

BARANGAROO

R5 SUPPLEMENTARY DESIGN STATEMENT FOR S4.55 MODIFICATION - RESPONSE TO SUBMISSION
March 2021

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1.0 Introduction

This supplementary Design Statement has been prepared by Renzo Piano Building Workshop (RPBW) to illustrate and explain design amendments proposed by a S4.55 Modification to development consent SSD6966 for Building R5 located at Barangaroo South. The report supports the Response to Submissions phase of the modification application, and includes key design refinements to the building as a result of design development.

Such refinements include a revised apartment exhaust strategy, facade amendments and a revised entry design. They are outlined in section 2.5, 2.9, 2.12 and 3.2.

These changes represent the culmination of an iterative design process that has sought to refine the spatial planning of the tower as well as to craft a striking architectural form that responds to its urban and environmental context.

The proposed changes comprehend both the podium and the tower and is divided accordingly in two major sections with a third comprehending the Apartment Design Guide (ADG) schedules.



1.0 Introduction

1.1 Site Context

The One Sydney Harbour site lies at the northern end of the Barangaroo South precinct. The extent of the site is defined by Hickson Road towards the east, Watermans Quay to the south, Barangaroo Avenue to the west and Hickson Park to the north.

The development constitutes three residential towers named R4A, R4B and R5. These towers share the precinct with the Crown Resort which is located to the west and the International Towers which are located to the south.

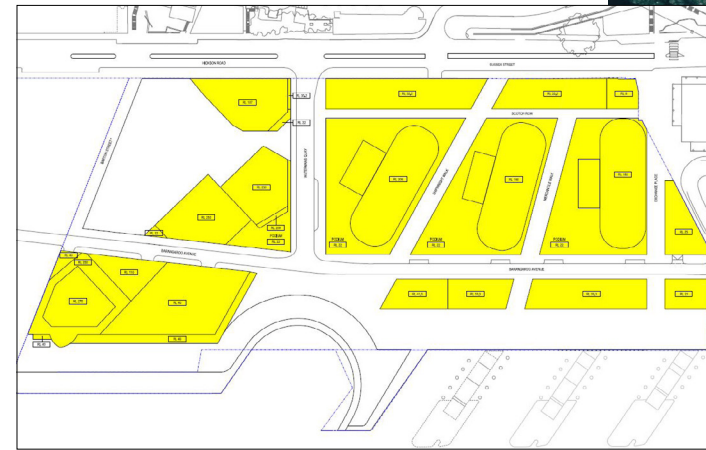
Under the Barangaroo Concept Plan, the site layout allows for the grouping of the residential building forms towards the south and the creation of a park to the north. This park separates the site from Barangaroo Central.

The tower forms feature podiums of a moderate height that extend to the aforementioned streets to define the character and scale of the public domain. All three towers and podiums fit within the Barangaroo South Building Envelope Plan.

The three residential buildings sit above a four level common basement containing car parking, storage, and services / infrastructure.

RPBW has developed a proposal that reiterates and strengthens the design objectives of the Concept Plan layout produced by Rogers, Stirk, Harbour + Partners.

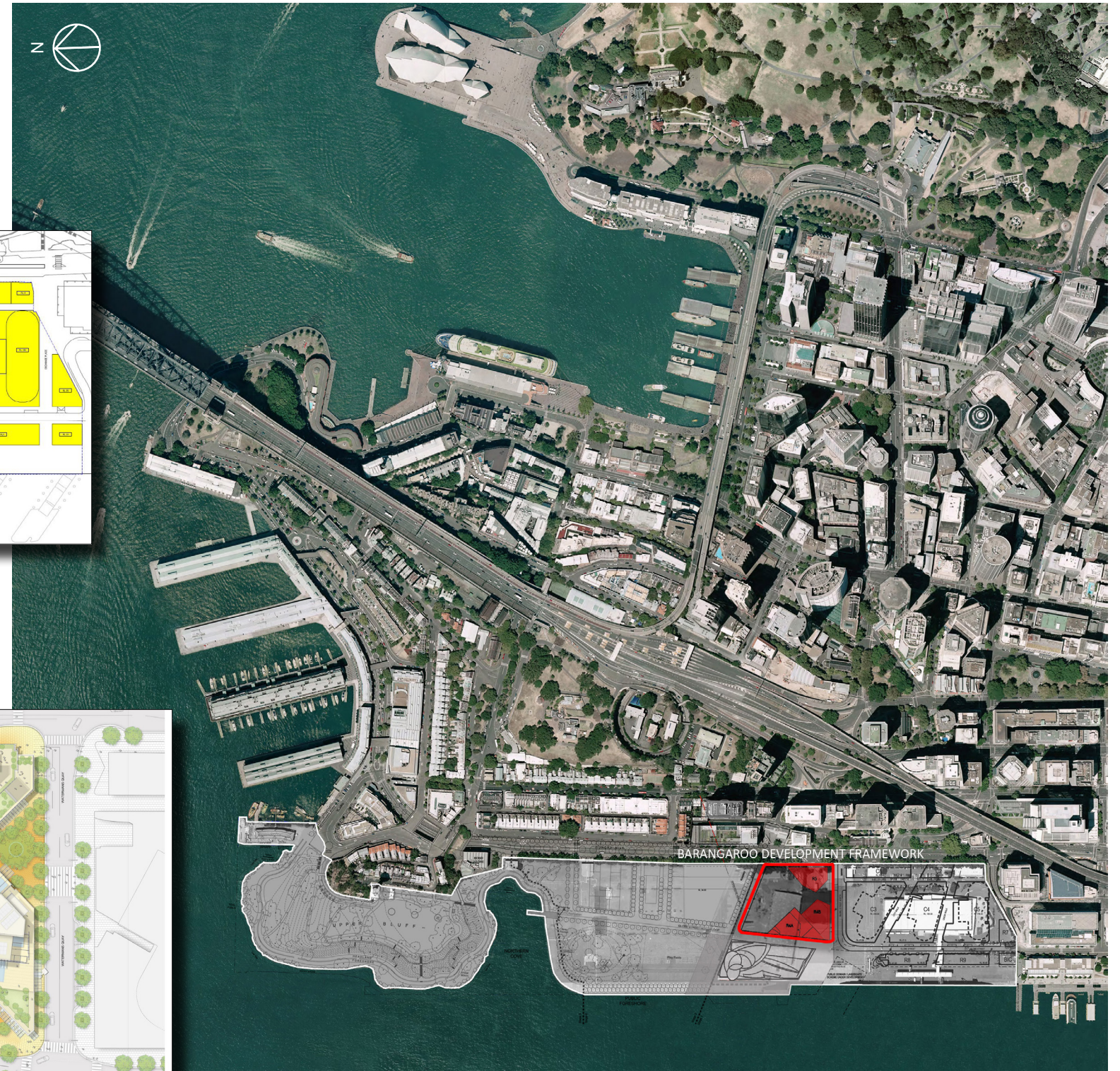
The modifications proposed in this report allow for Building R5 to continue to comply with the performance criteria and controls outlined in the Barangaroo South Built Form and Urban Design Controls as provided by the Barangaroo Concept Plan.



Precinct's Concept Plan



Concept Site Plan



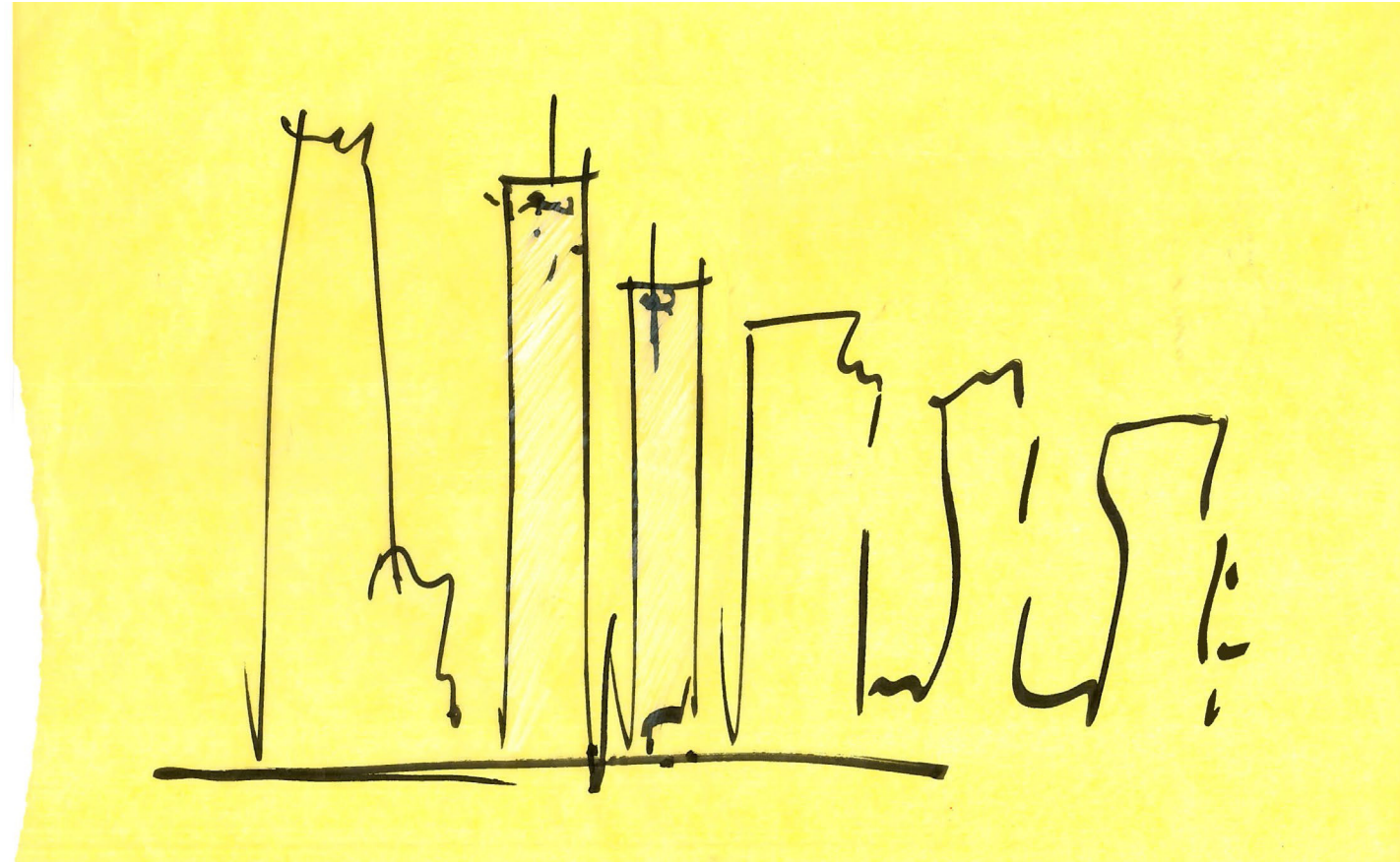
One Sydney Harbour Development Set in Barangaroo Aerial View Highlighted in Red
"Cove and Wharf is now completed. These elements are not reflected in this graphic"

1.0 Introduction

1.2 Architectural Process



Early Conceptual Context Model



Conceptual Sketch

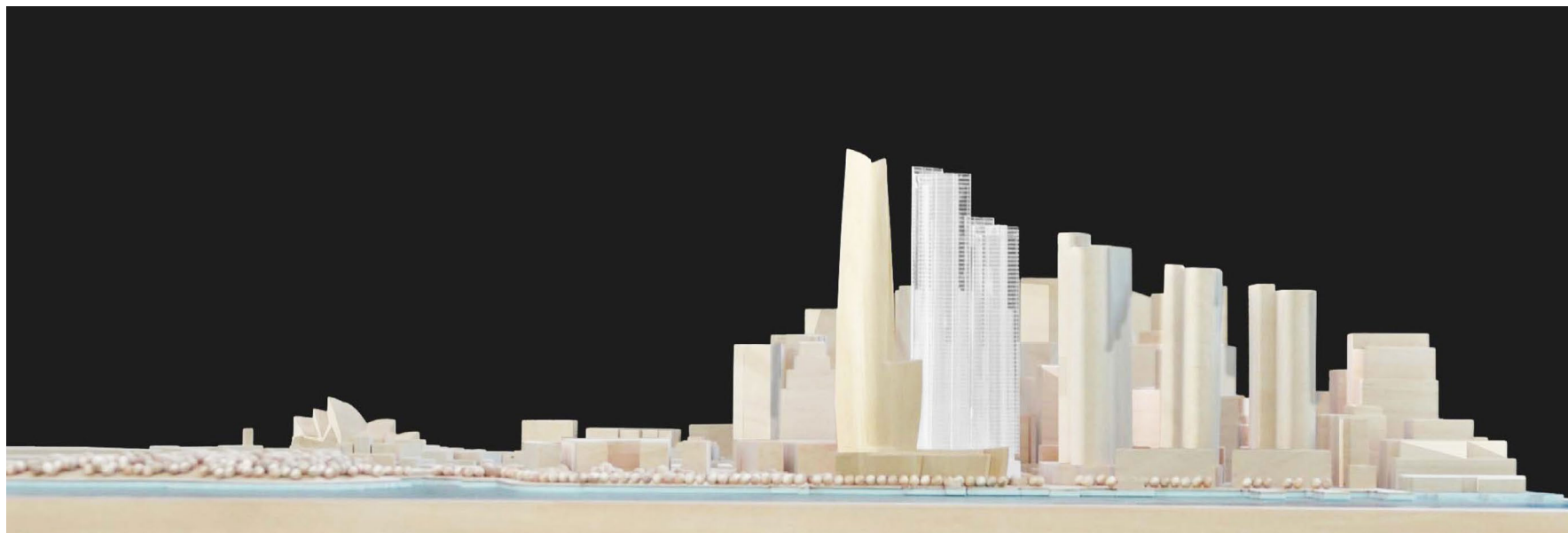
Building R5 forms part of three residential towers that have been conceived as 'crystals'. These crystalline forms will be elegantly skinned with a highly transparent glass facade. The form and juxtaposition of the associated detailing of these facades will create a unique architectural language that reflects the site's setting between the Harbour and the CBD.

The selected triangular form is not only intended to maximise the view aspect and the orientation to the north-east and west, but this geometry also aims to enhance access to natural light and ventilation.

The façades of each of the three key elevations associated with the triangulated geometry are intended to be consciously expressed, feathering at the edges and delineated with incised rebates at each corner. The design approach is about clarity to the form and surfaces associated with the crystal structures.

The crystal volumes are articulated with a number of different glass facade treatments that form a kinetic skin, extending the crystalline aspect against the sky and down to the podium.

In planning the ground plane a great deal of attention went into maximising the creation of active spaces within the adjacent public realm. Lobbies, amenity facilities and retail spaces are designed and located in a way that will draw life into the precinct.



Early Conceptual Context Model



1.0 Introduction

1.3 Proposed Modifications

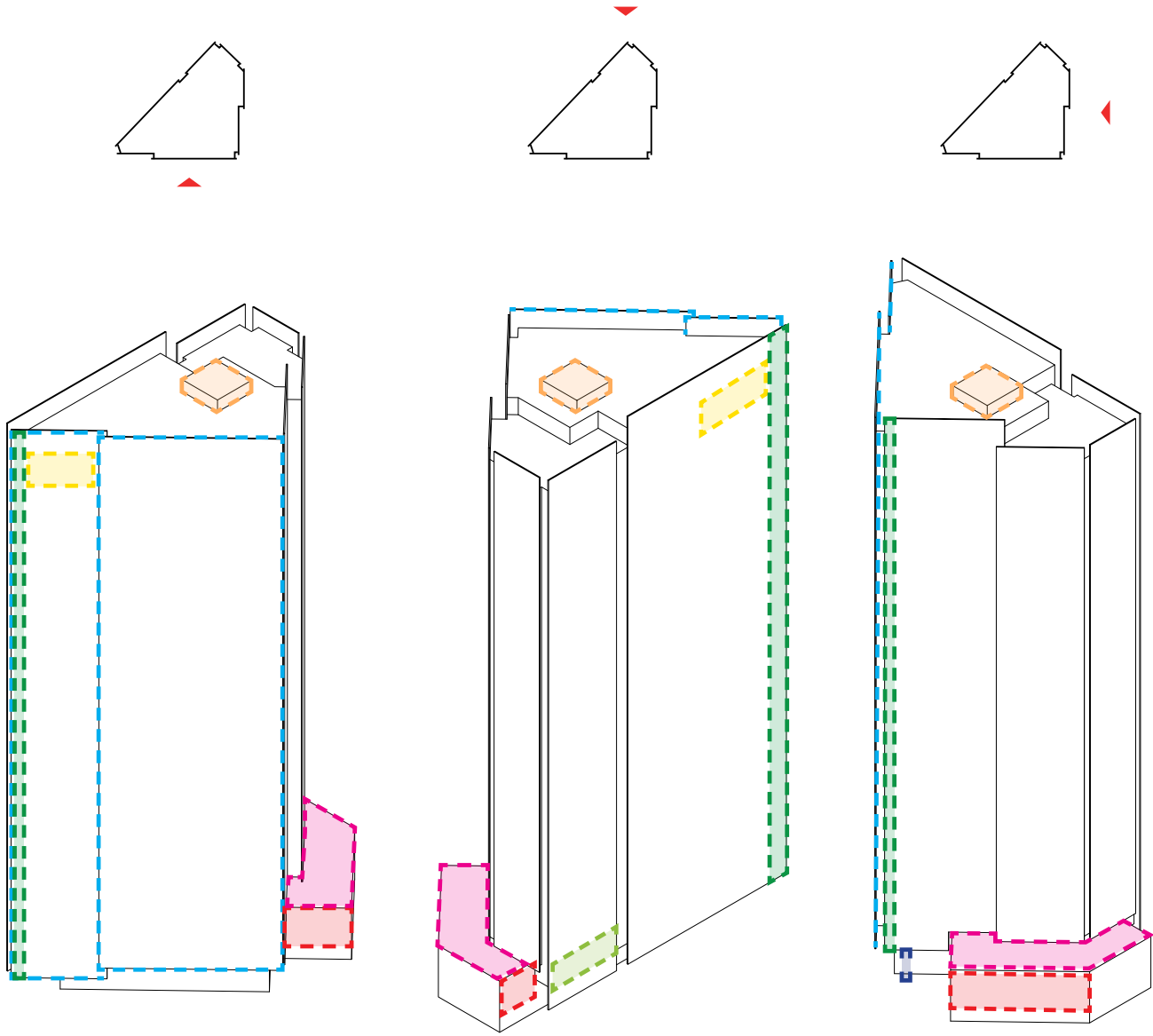
Building R5 was approved by the Independent Planning Commission of NSW in October 2019. Since that approval, the architectural design of the building has been further reviewed, studied, and modelled by the RPBW team in response to the Barangaroo Concept Plan (as modified), discussed further in this design report.

Subsequent design refinements undertaken and are outlined in the following sections:

- 2.0 Tower Refinements
 - 2.1 Park Facade Shift
 - 2.2 Reviewed Apartment Mix
 - 2.3 Updated Apartment Floor Plans
 - 2.4 Updated Roofscape
 - 2.5 Apartment Exhaust Strategy
 - 2.6 Amended Finish Floor Levels
 - 2.7 Tower Facade Panels Layout
 - 2.8 Apartment 01 Sliding Doors Arrangement
 - 2.9 Amended Tip Balcony Facade
 - 2.10 Amended Skyhome Facade
 - 2.11 Reviewed Balcony Blinds
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- 3.0 Podium Modifications
 - 3.1 Ground Floor and Lobby Refinements
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 - 3.5 Podium GRC Panels Layout
 - 3.6 Amended Podium Amenities and Terrace

Park Facade Shift	
Added Facade Panel	
Reviewed Apartment Mix	
Amended Skyhome Facade	
Updated Roofscape	
Podium GRC Panels Layout	
Amended Podium Amenities and Terrace	
Additional Signage Zones	



2.0 Tower Refinements

2.1 Park Facade Shift

Before addressing the detailed changes relevant to this Section 4.55 application, it is key to consider the Modification 10 to the Barangaroo South Concept Plan.

Modification 10 triggered two key changes:

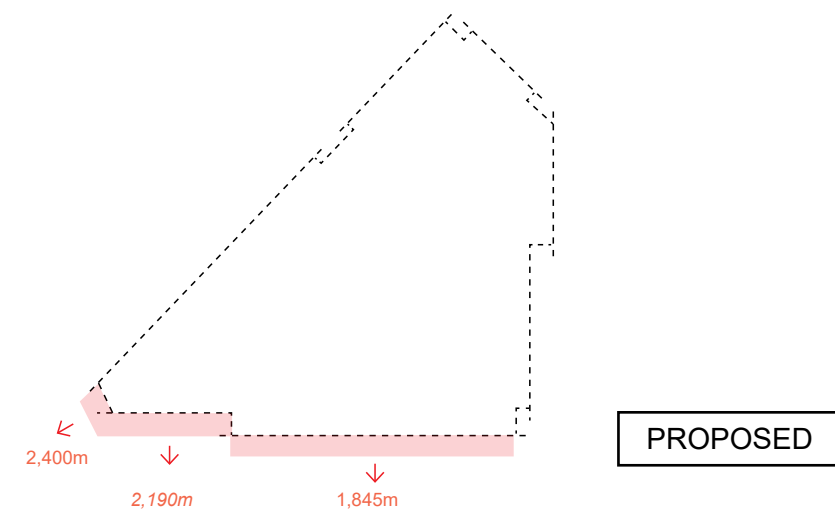
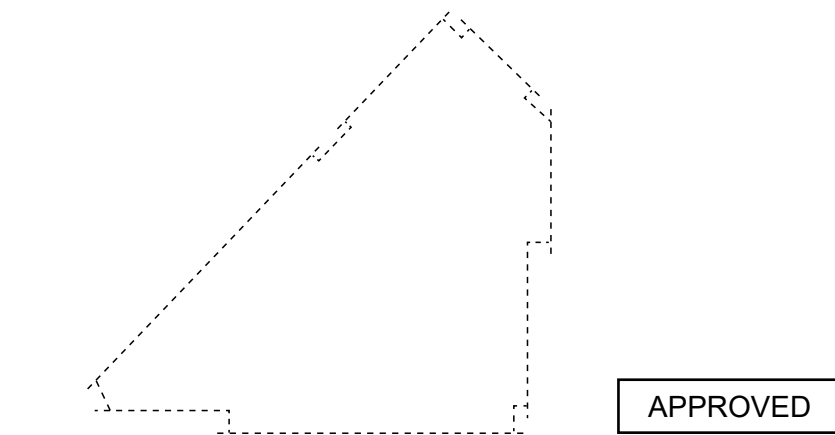
1. Increased the height of R4B, to a maximum of RL 235.
2. Increased the maximum allowable GFA within the development by 8,000m². This was allocated to Block 4A and 4B under the Concept Plan, which contains both R4B & R5 building's.

The R5 facade facing Hickson Park is a focal point for the modification, in response to Modification 10 to the Concept Plan. That facade is proposed to be shifted outwards, aligning with R4B facade modules as shown in the lower diagram. In total, the park facade is shifted by 1,845m and 2,190m in the closest and furthest portions to R2 respectively. Following this shift, the tip is also amended with a 2,400m shift so it could preserve equivalent proportions. The shifts are illustrated by the middle diagram to the left.

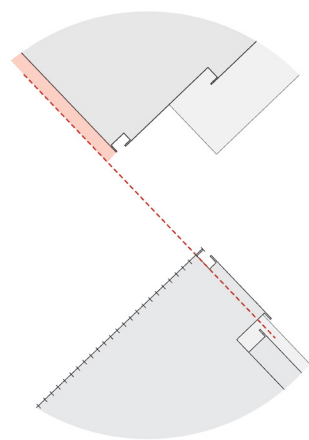
These movements to the facade allow better internal amenity within the apartments, improving the user experience within those areas.

This increased area in R5 does not compromise the harmonious relationship established within the precinct and will not obstruct the views from R4B or any of the neighbouring towers and buildings.

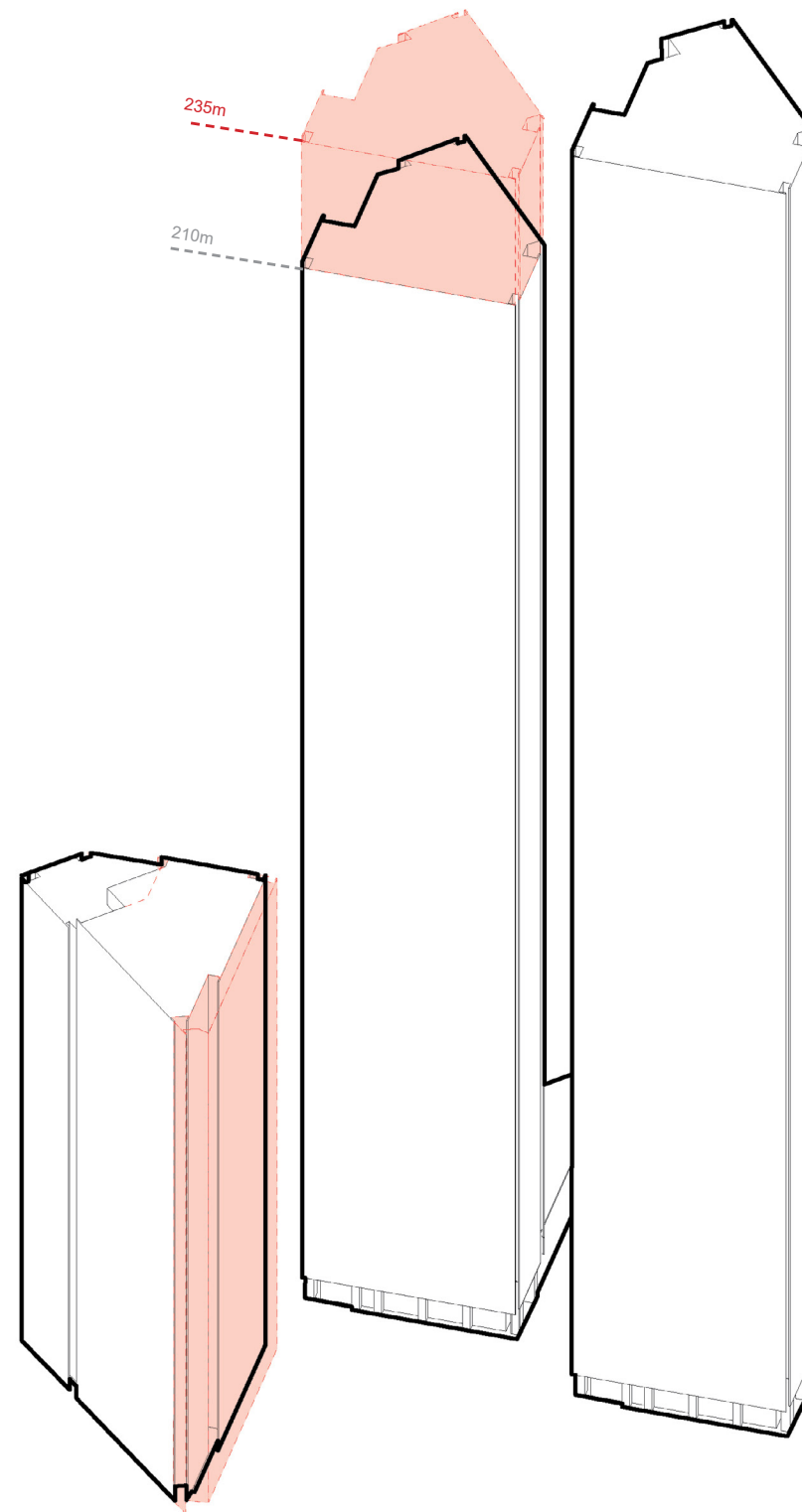
This change will drive some other amendments, such as updated apartment mix, to include more KWH units and a minor reconfiguration of the apartment layouts, as a direct consequence of the change in floor plate geometry.



Typical Floor Plate - Proposed Scheme



Schematic R4B and R5 Proposed facade Relationship



Schematic R4B and R5 Additional GFA placement

2.0 Tower Refinements

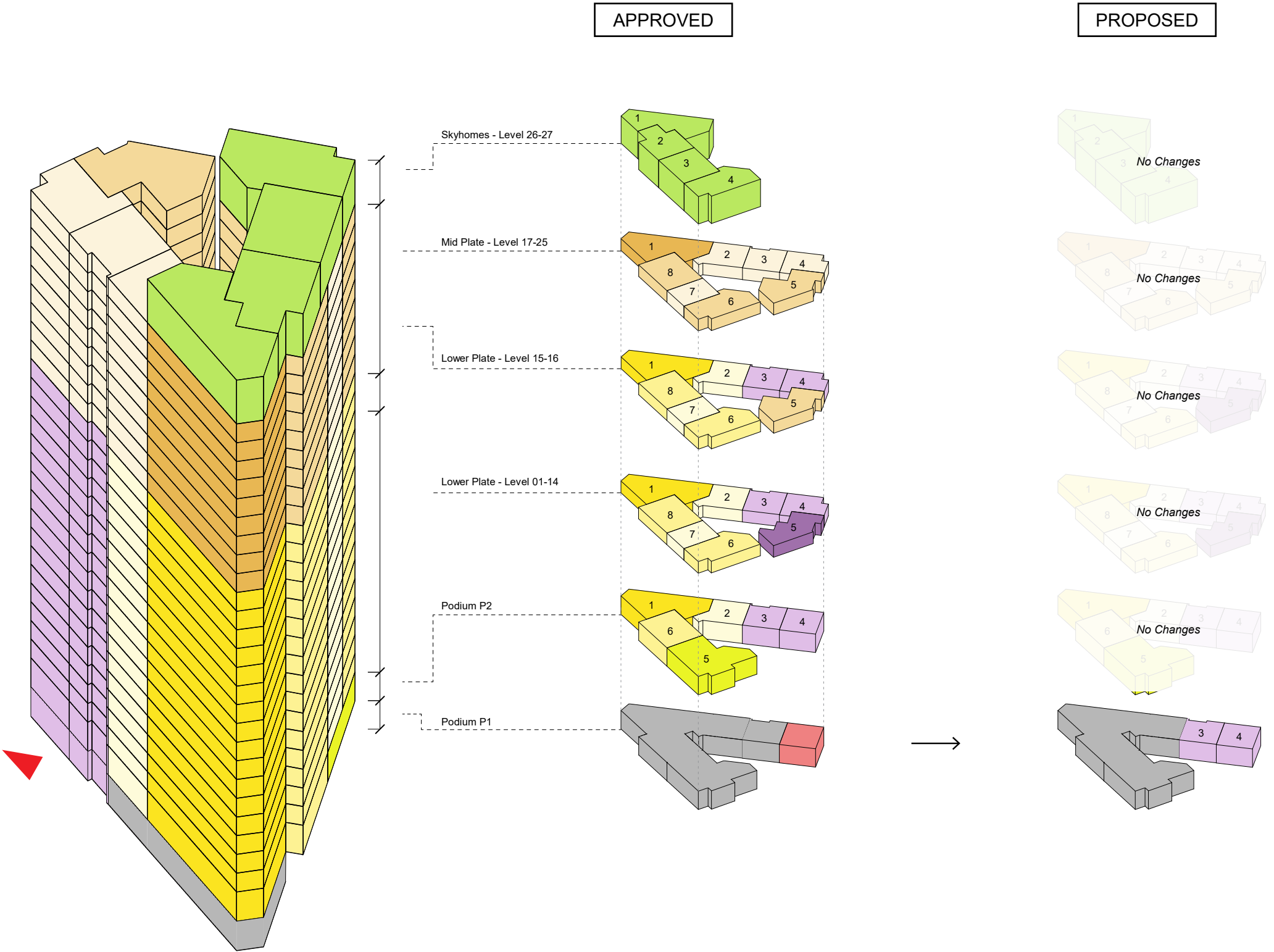
2.2 Reviewed Apartment Mix

The increase in the precinct GFA caused a proportional increase in the Key Worker Housing (KWH) GFA, which resulted in two additional key worker apartments (and an improved communal area for the Key Worker Housing, as discussed further under Section 3.6).

Two additional Key Worker apartments are proposed to be located on Level P01, reflecting minor changes to the apartment mix. Retail area and a portion of the plant room has been converted to allow for the two additional one-bedroom apartments.

The two additional apartments on P01 results in a total of 212 apartments in R5.

The following diagram analyses these changes and how the remaining portion of the tower remains unaffected.



R5 Proposed apartment mix diagram.

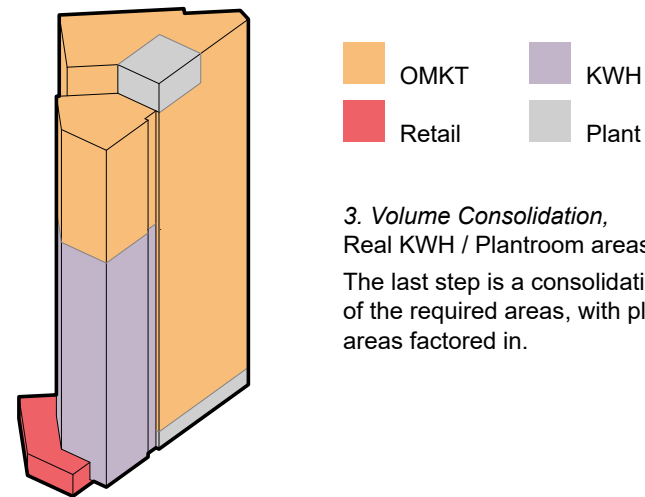
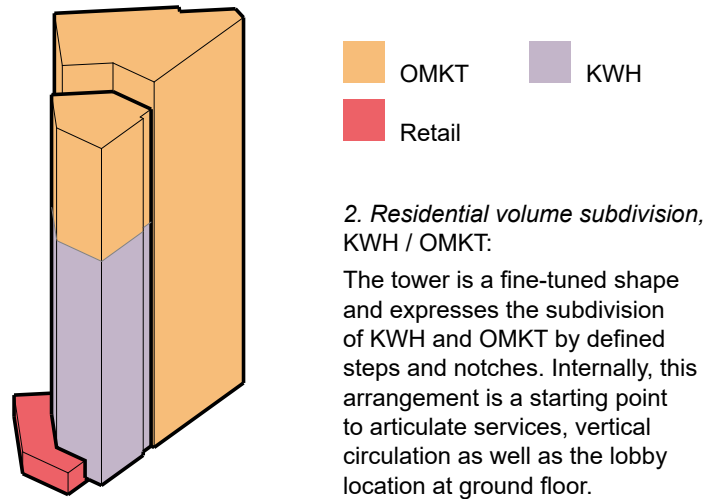
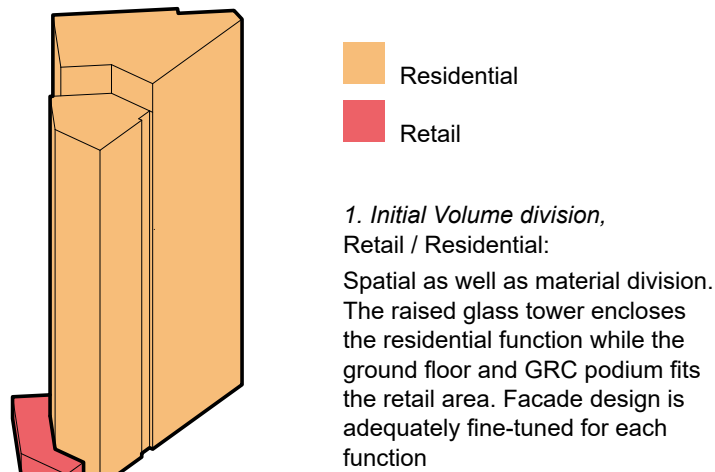
Approved R5 Apartment Mix scheme

Proposed R5 Apartment Mix scheme

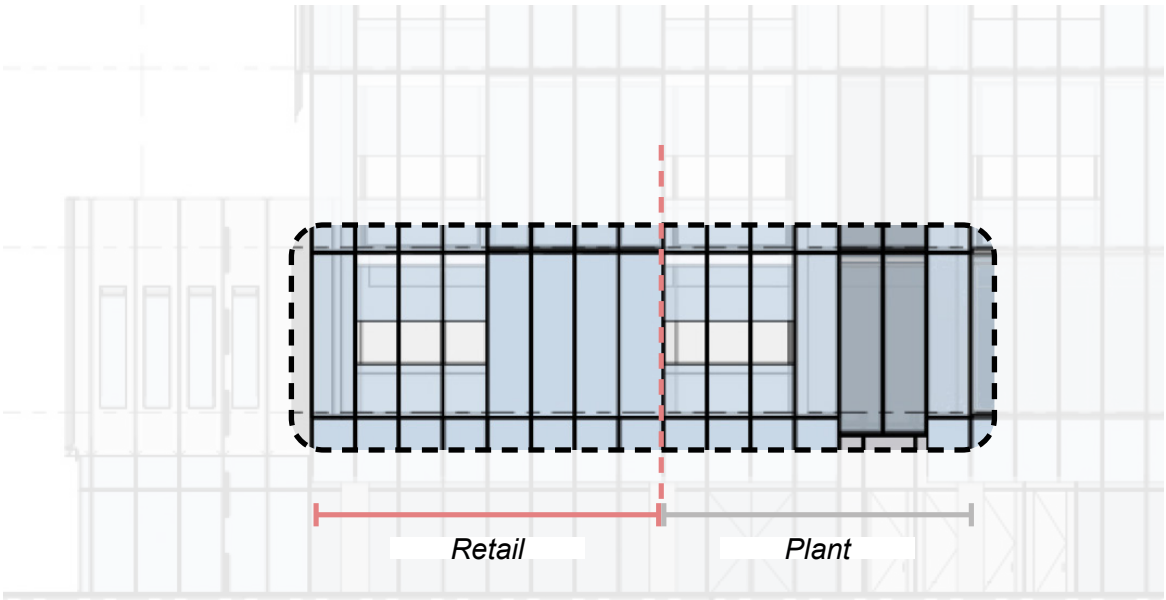
2.0 Tower Refinements

2.2 Reviewed Apartment Mix

APPROVED

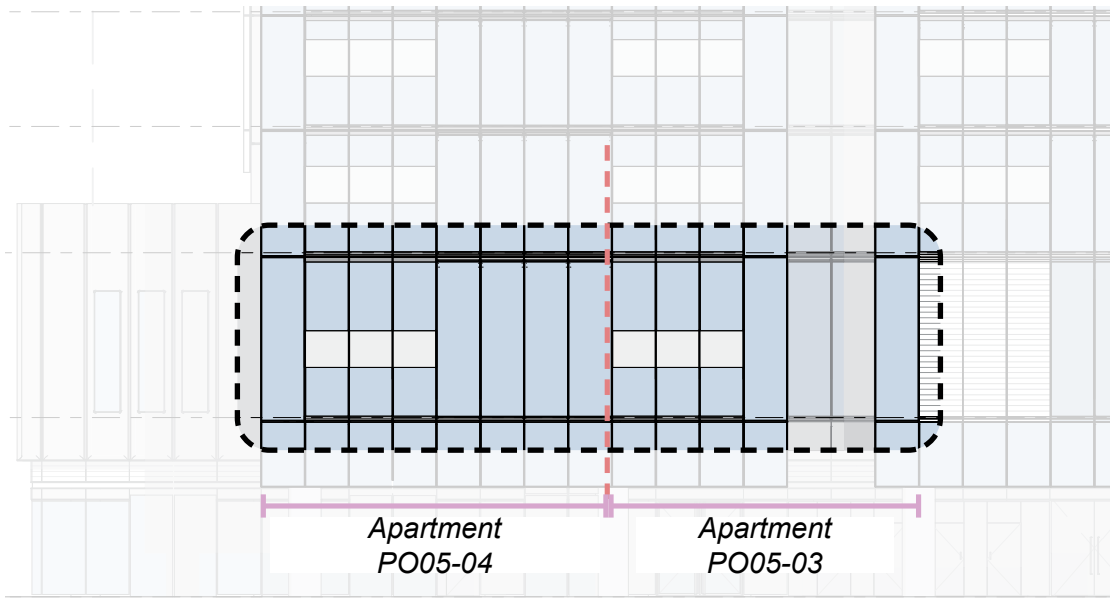


Proposed R5 Apartment Mix scheme



Approved R5 Apartment Mix scheme

PROPOSED



Proposed R5 Apartment Mix scheme

The location for the additional KWH units was analysed to determine best location, and they we subsequently determined to be best located within the approved vertical KWH stack based on the following rationale:

- The raised elevation and podium relationship between Tower R4B and R5 forms a critical architectural relationship and datum within the wider precinct reinforcing the connection of all three towers as a singular architectural and urban response;
- The location of the KWH additional units within the vertical KWH stack maintains KWH operational continuity of function and adjacency to the vertical transportation, egress stairs, services, plant areas and access to the communal outdoor space;
- Balconies were located on this level as per the approved drawings (left), however the addition of the two KWH apartments allows for the relevant function within that space whilst maintaining continuity of design.
- The units provide a continuity of the product offering at that location as the floor plates and plan are consistent with the approved units;
- The proposed units amalgamate with façade configuration and balconies within the currently approved scheme and align with the design intent to date, minimising additional changes to the façade;
- Alternative locations on the P1 level was assessed away from the vertical stack. However it was deemed not feasible due to the location of significant down stand transfer beams and structural core and bracing walls.
- The residential and retail division between the volumetric forms is enhanced and further clarity and definition to the façade and street wall response is achieved. This definition is denoted in images 1-3.

Finally, the location of the additional apartments is considered to provide an acceptable level of amenity for the residents who will reside there.

2.0

Tower Refinements

2.3 Updated Apartment Floor Plans

As a result of the additional GFA to the apartments facing the park, the internal layouts have been studied to ensure an optimal outcome for these apartments is achieved.

The apartments which have improved as a result of the additional GFA are the park facing apartments being:







- 01, 05, 06 on Level P2
- 01, 06, 07, 08 on Level 1-25
- 01, 02, 03, 04 on Level 26-27

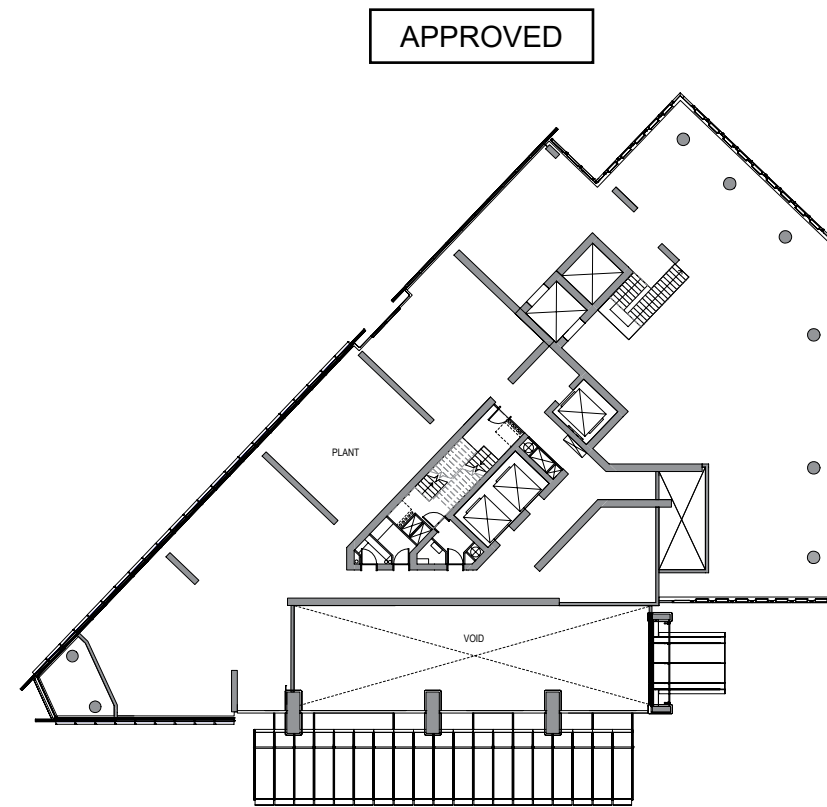
These apartments benefit from the inclusion of studies and other design refinements.

Another important amendment that drove some layout changes is the adoption of a direct exhaust strategy (see section 2.5), reducing shaft dimensions and allowing more flexibility for improving these apartments.

To maintain a consistent approach, a number of apartments also underwent minor internal layout refinements as depicted in the following diagrams.

A colour coded key is provided to highlight such changes throughout the tower.

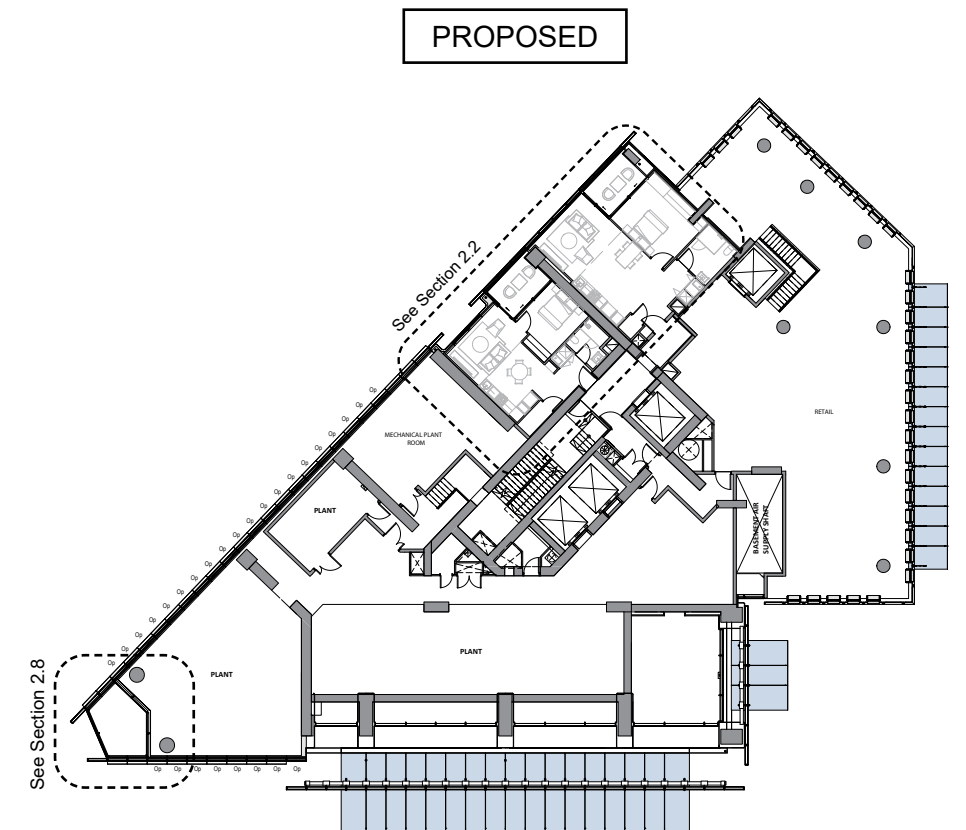
- | | |
|---|----------------------------|
|  | Added Storage / Robe |
|  | Added Study |
|  | Relocated Bedroom |
|  | Relocated Bathroom |
|  | Relocated Kitchen/ Laundry |
|  | Reviewed Stairs |



Approved P01 Plan



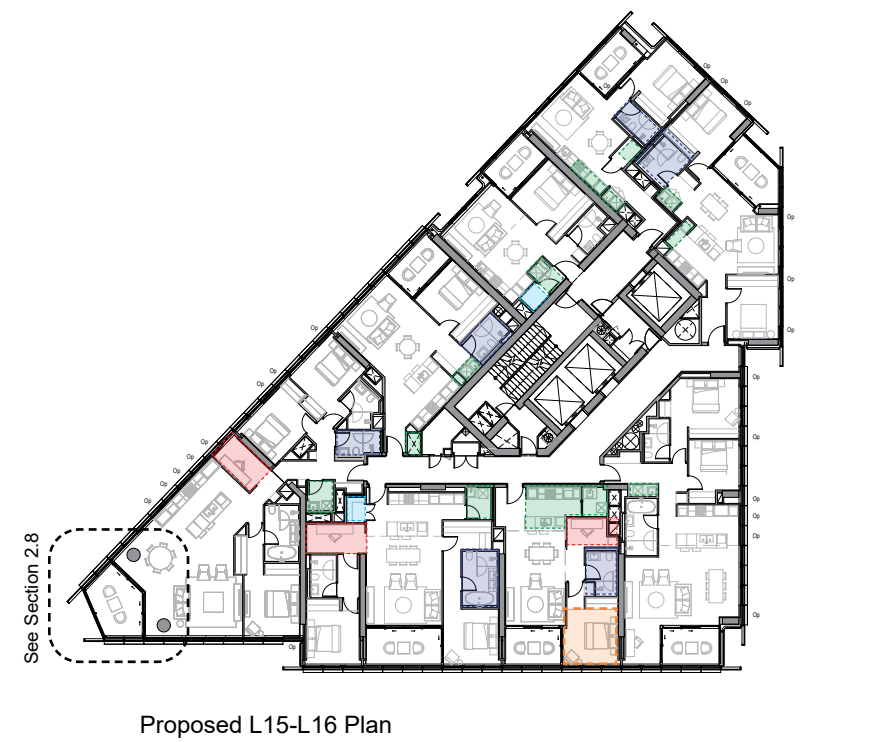
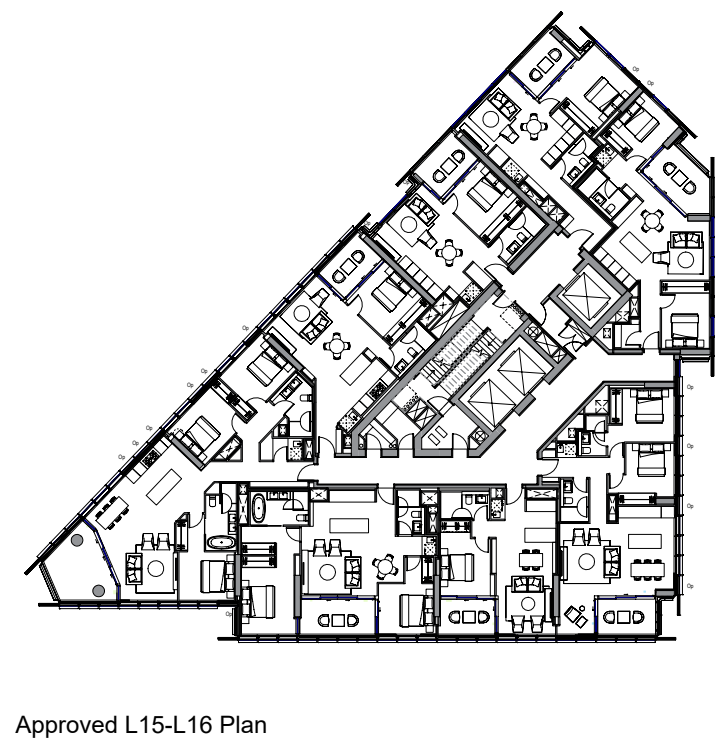
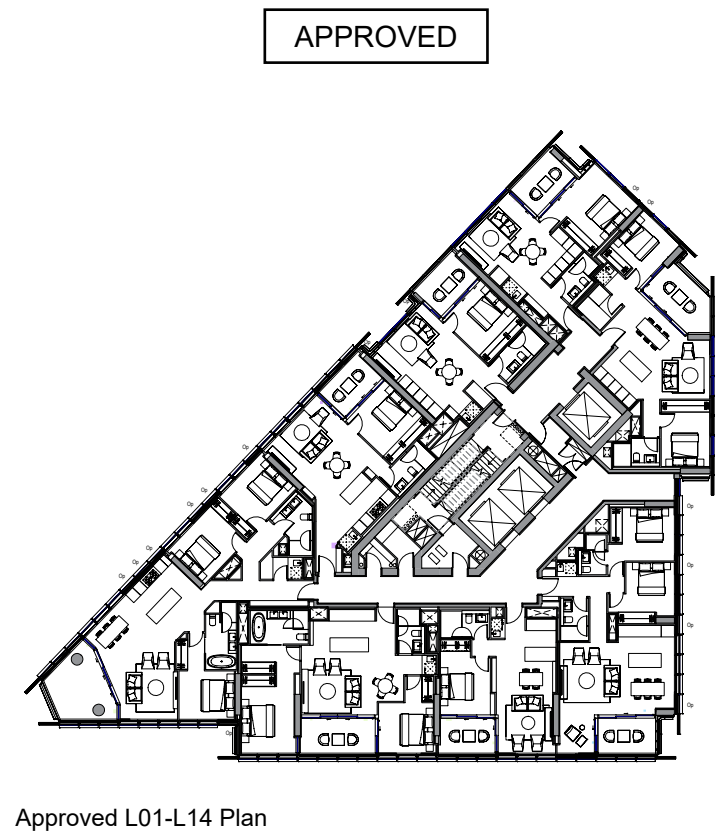
Approved P02 Plan



Proposed P01 Plan



Proposed P02 Plan



- Added Storage / Robe
- Added Study
- Relocated Bedroom
- Relocated Bathroom
- Relocated Kitchen/ Laundry
- Reviewed Stairs

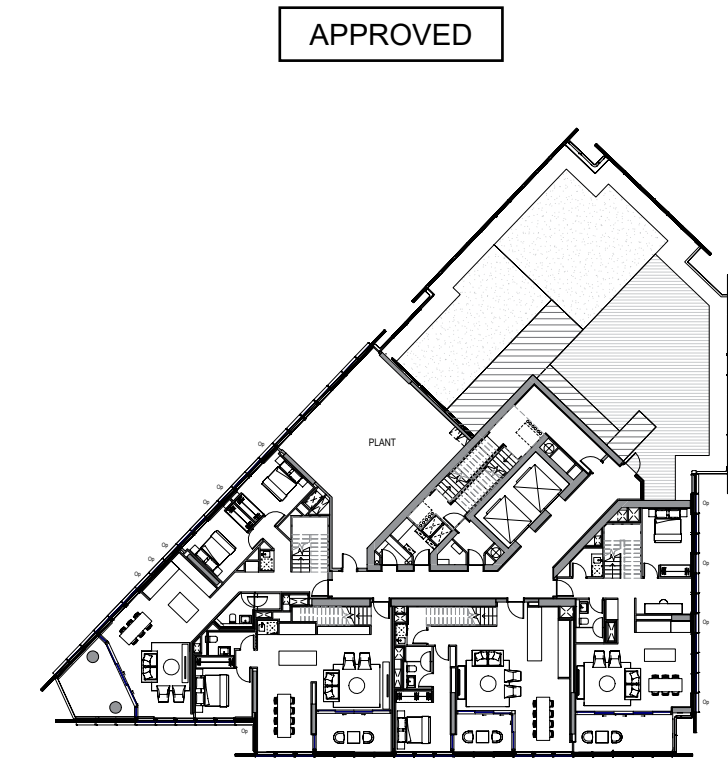
2.0

Tower Refinements

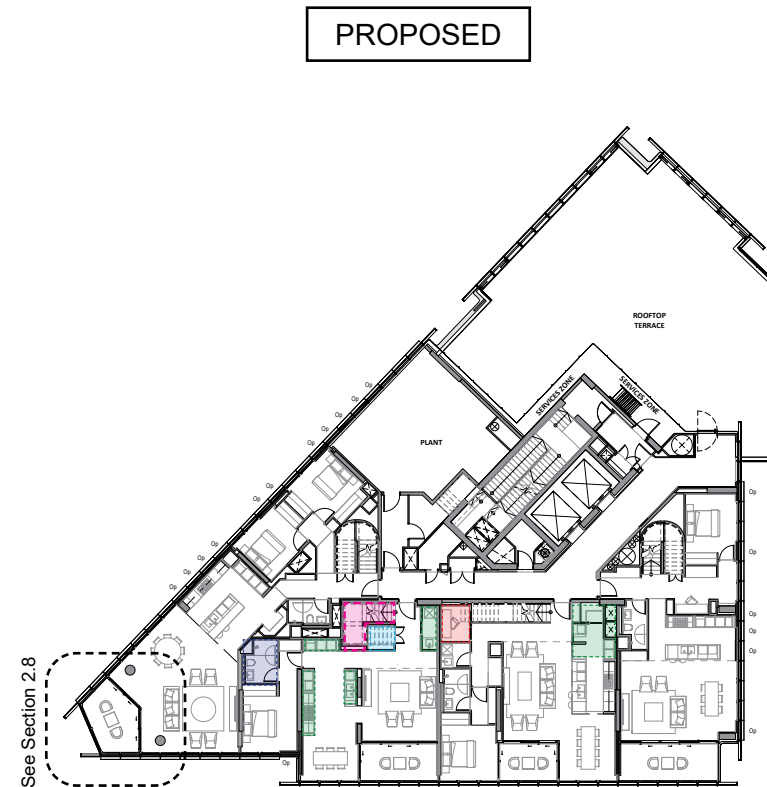
2.3

Updated Apartment Floor Plans

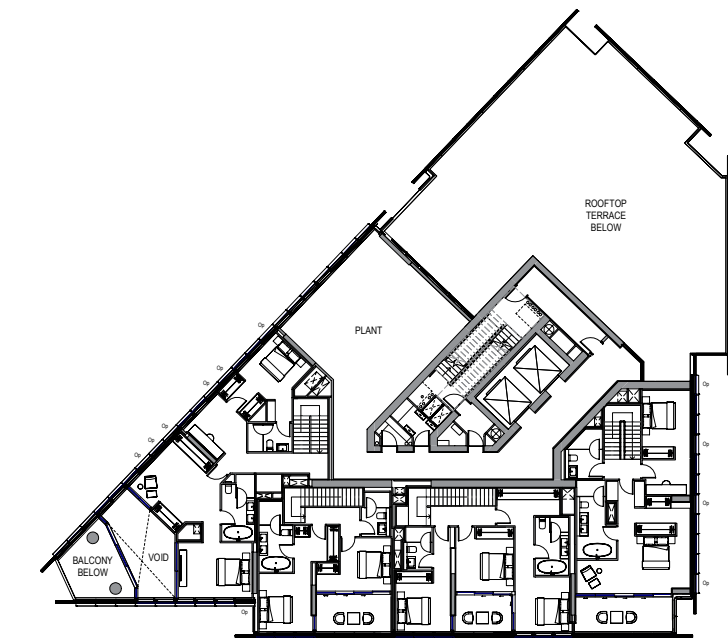




Approved L26 Plan



Proposed L26 Plan



Approved L27 Plan



Proposed L27 Plan

- Added Storage / Robe
- Added Study
- Relocated Bedroom
- Relocated Bathroom
- Relocated Kitchen/ Laundry
- Reviewed Stairs

2.0 Tower Refinements

2.4 Updated Roofscape

A minor refinement in the location and configuration of the Lift Motor Room (LMR) is proposed.

The proposed LMR has a larger footprint but a smaller height, as shown in the following schemes. The ability to provide essential maintenance strategy to support the vertical transportation infrastructure is enhanced with the amended location.

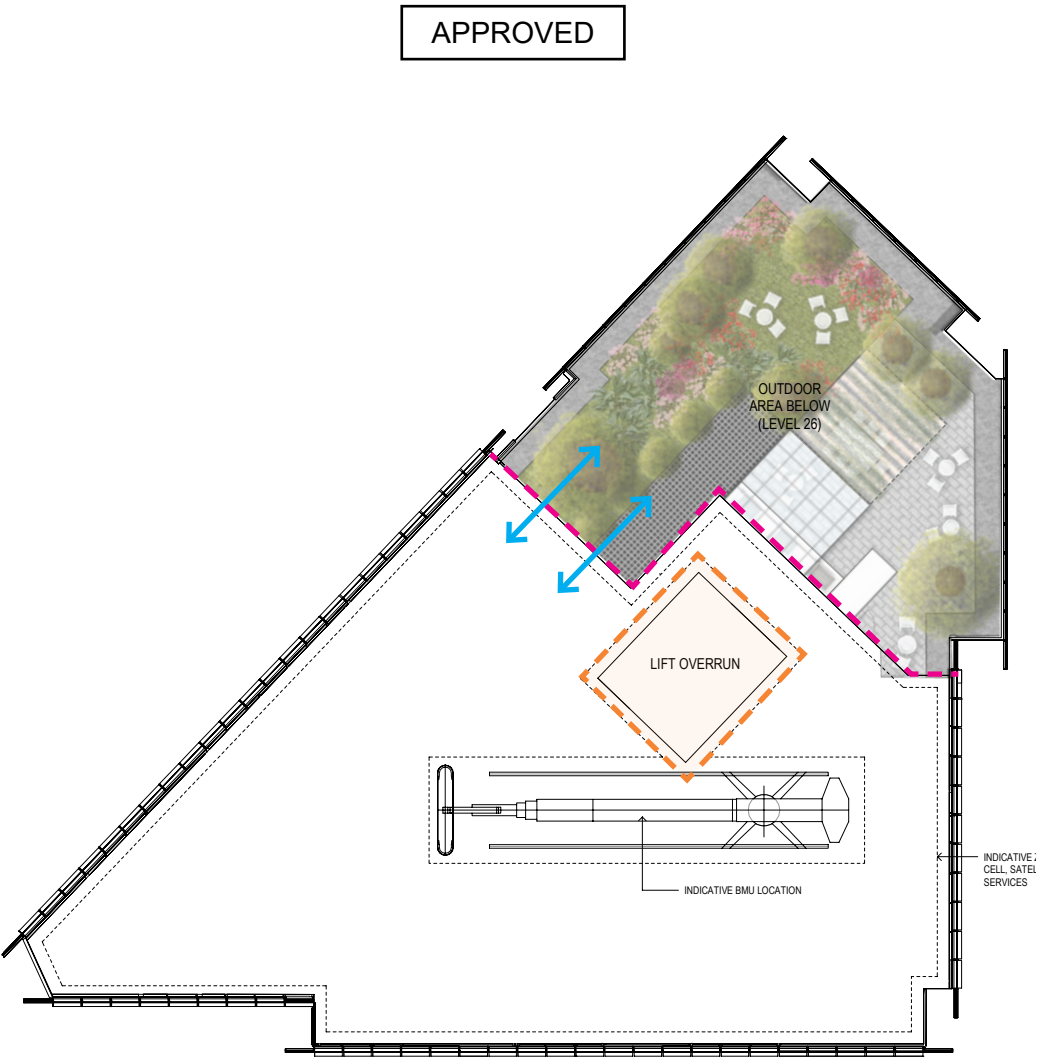
Moreover, this change in height is important to ensure an efficient relationship with the Building Maintenance Unit (BMU), allowing it to operate above it, and to have an unobstructed reach to the complete facade.

The south facing cladding (highlighted in magenta) also underwent changes. First, it was shifted outwards to ensure proper clearance between the BMU, LMR and services on that level. Secondly it also increased in height to function as a parapet for the roof and partially cover the LMR as shown in the elevations below.

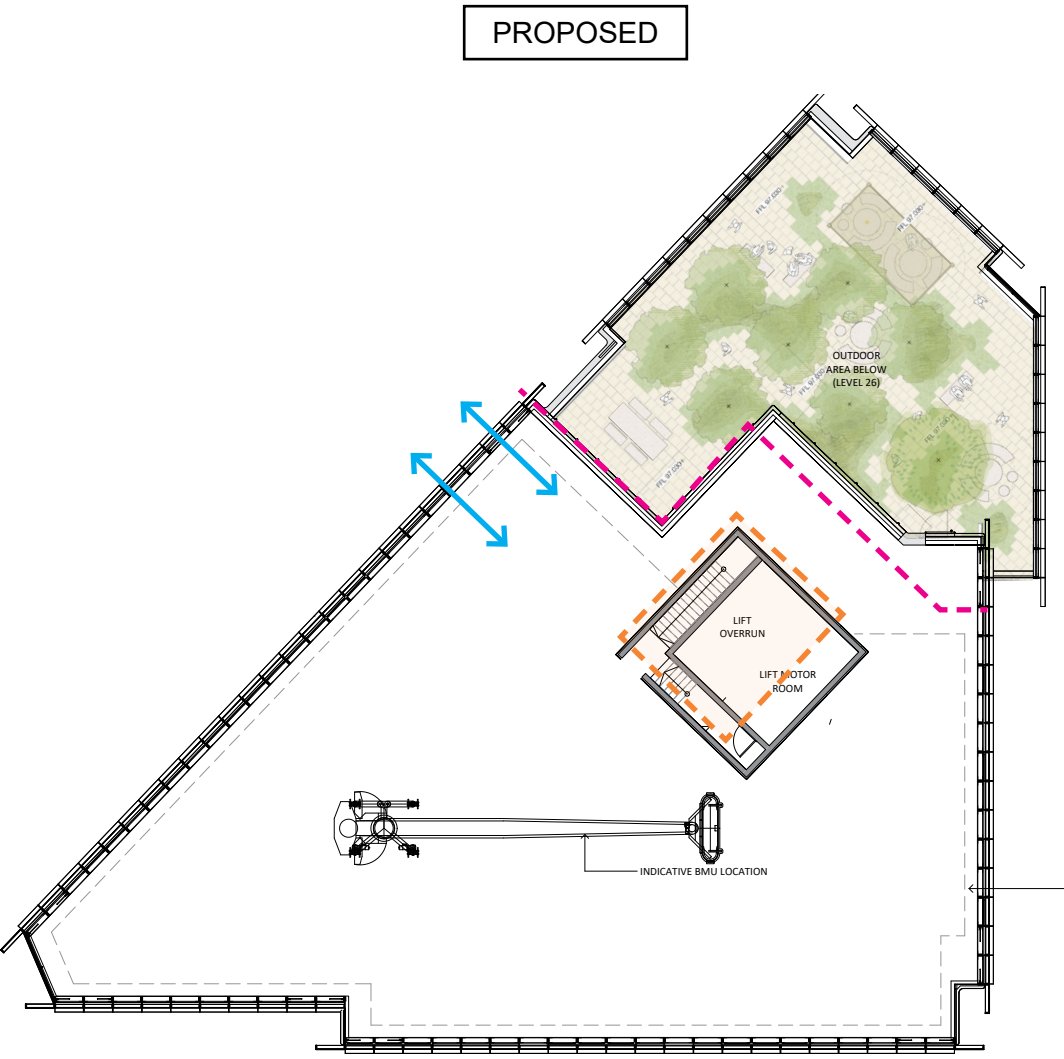
The landscape area on L26 was also reviewed. An important factor in that revision was the shift of louvres on L26/L27 Plantroom. Previously facing the terrace, these louvres are now proposed to face Hickson Road, allowing the residents to use the terrace space in its entirety as shown in light blue.

Finally, the refinements to the planning of the overall roofscape enables a cleaner and unobstructed photovoltaic cell layout to maximise renewable energy opportunities.

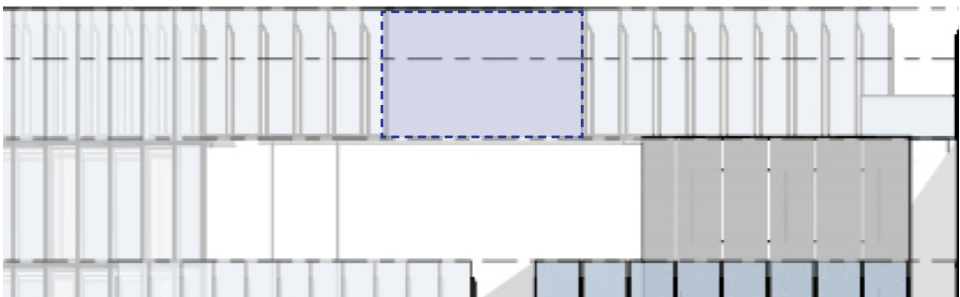
- ↔ L26/L27 Louvres
- Visible LMR above cladding
- Approved cladding Outline
- Approved LMR Footprint



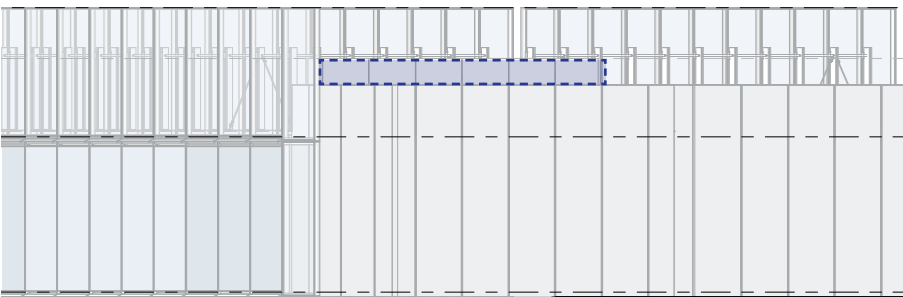
Approved Roofscape and Lift Motor Room - Plan



Proposed Roofscape and Lift Motor Room - Plan



Approved Roofscape and Lift Motor Room - Elevation



Proposed Roofscape and Lift Motor Room - Elevation

2.0 Tower Refinements

2.5 Apartment Exhaust Strategy

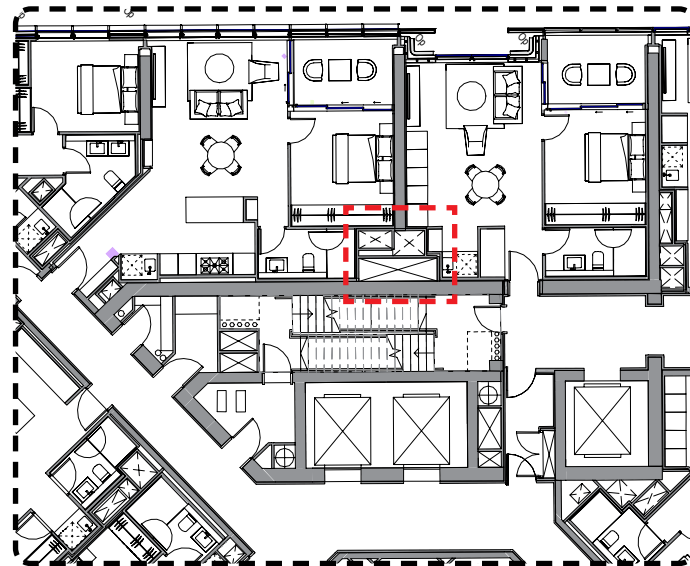
The bathroom exhaust strategy has been revisited to further simplify the floor plate and the riser configuration throughout the tower.

The design intent is to exhaust mixed bathroom and laundry air (for all apartments with the exclusion of the skyhomes) to the balcony zone.

Considering the soffit zone of the balconies are visible from the ground plane, this response is appropriately detailed to align with the high design standards of the facade through a considered minimal shadow reveal concealing any ductwork within the soffit zone. This design language is consistent with the facade design and the concealed nature of the detail sympathetically integrates the outcome with the overall building design response. This is denoted in the following images.

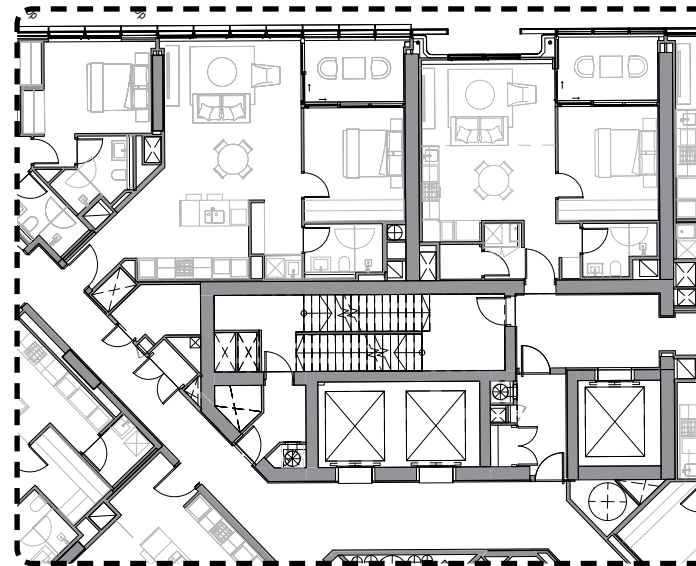
The roofscape has been identified as an important aspect of the development as it is visible from adjacent properties as well as R4A and R4B. The reduction of services terminations facilitates the ability to coordinate an ordered design response. The final configuration will continue to be developed and refined during the design development phase.

APPROVED



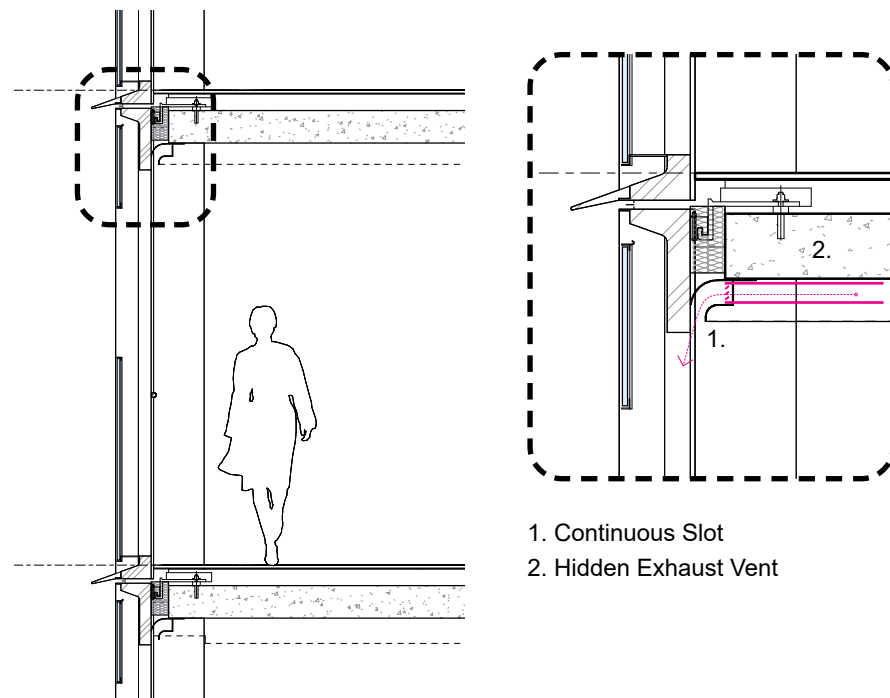
Approved APT 2 and 3 Layouts with affected shaft in red

PROPOSED

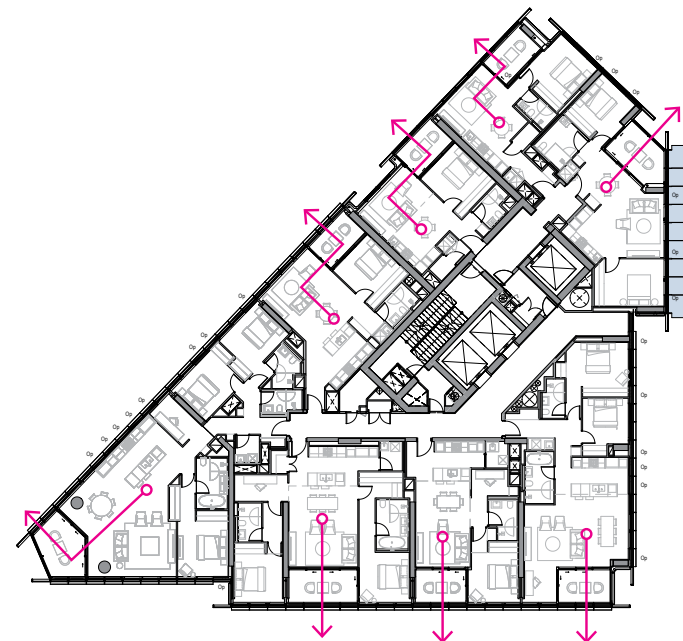


Proposed APT 2 and 3 Layouts without shaft

PROPOSED



Illustrative exhaust detail on balcony



Illustrative exhaust scheme

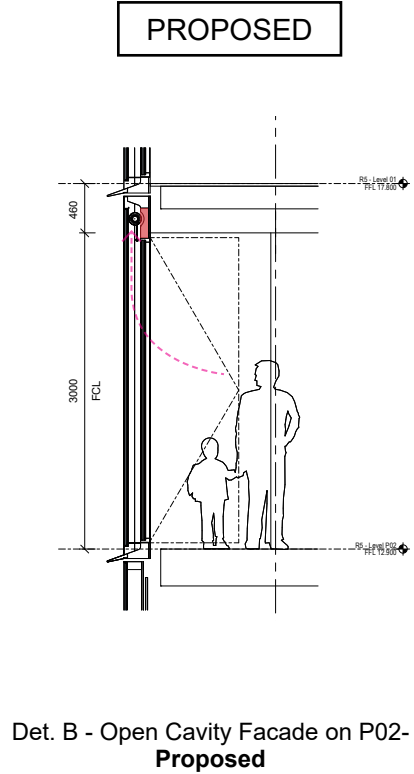
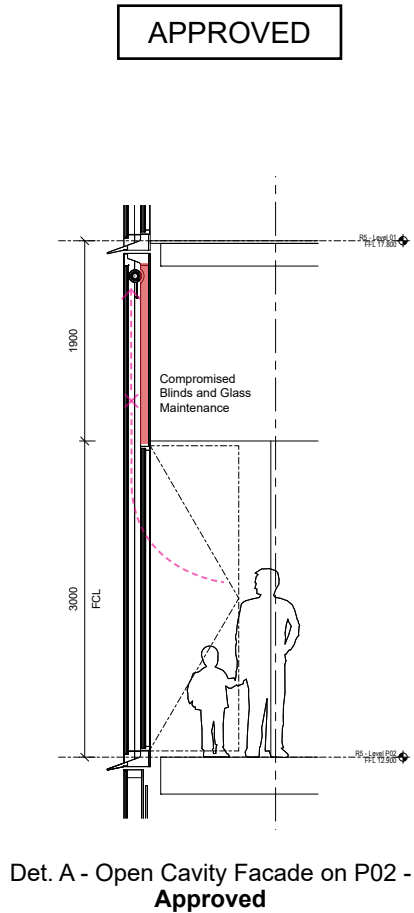
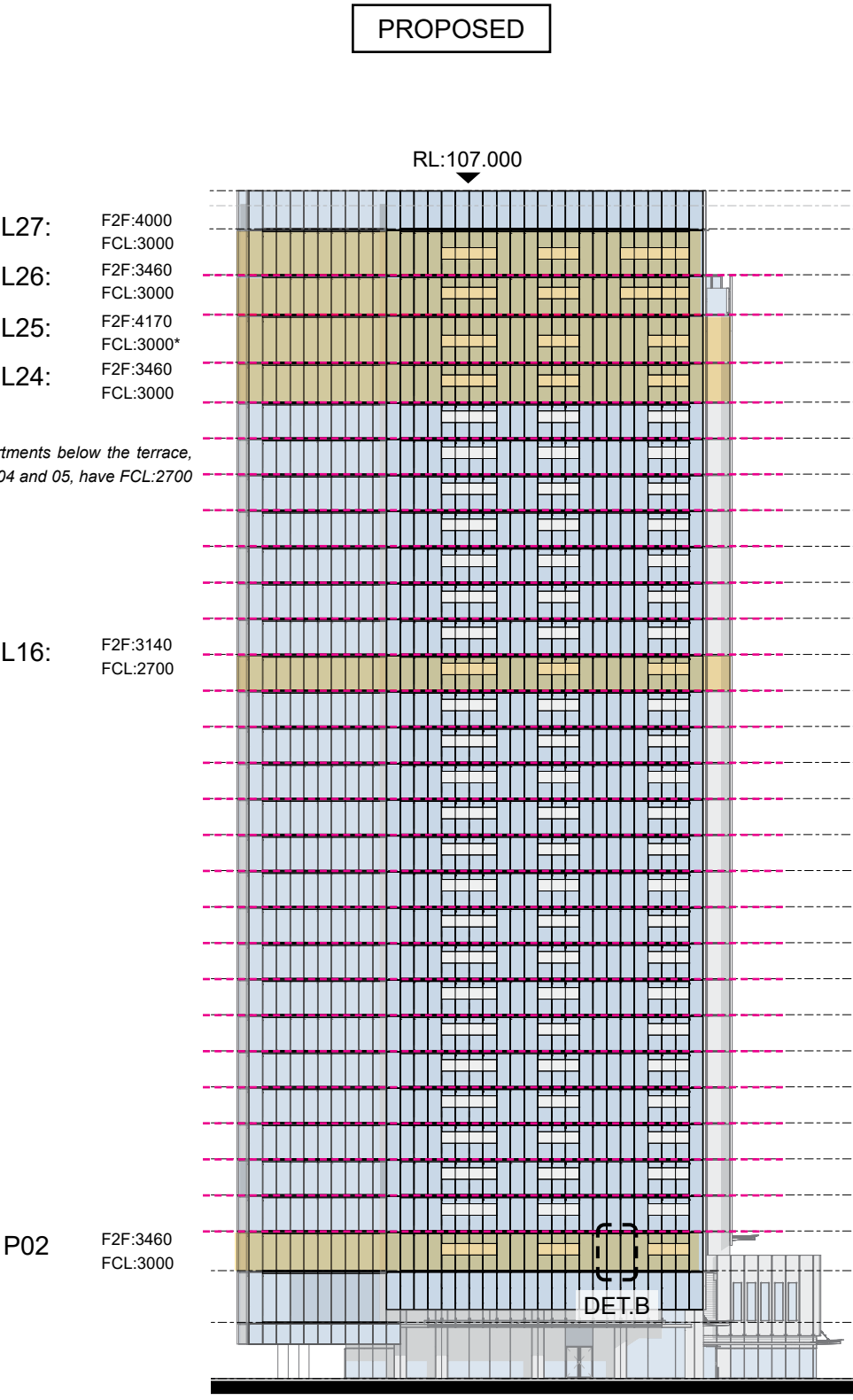
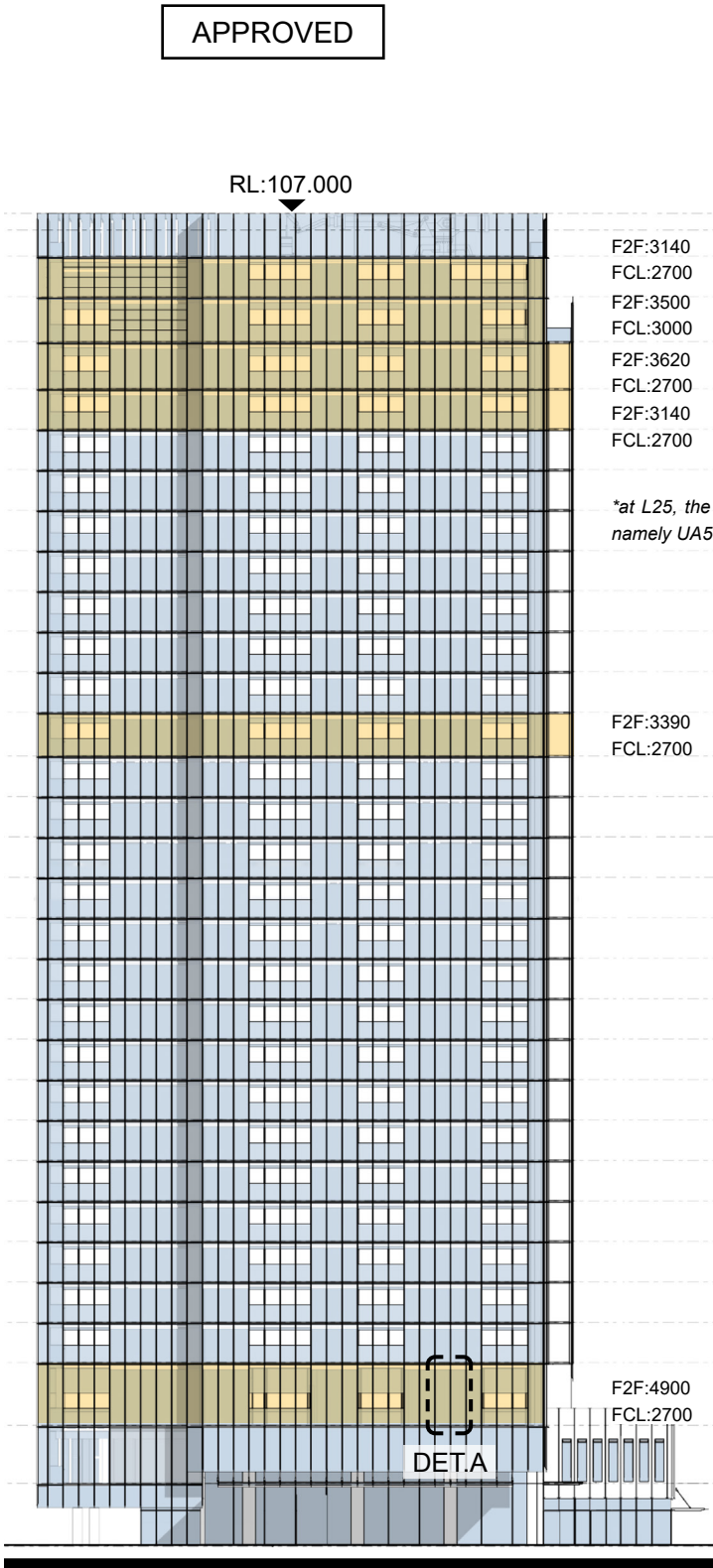
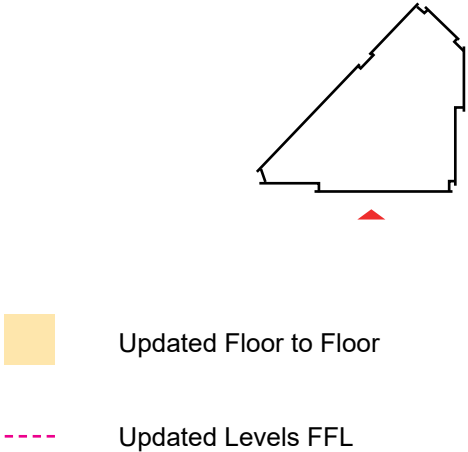
2.0 Tower Refinements

2.6 Amended Finish Floor Levels

In order to better serve the functions in the tower, the levels in the building were reviewed. The main driver of this amendment was the reduction of P02 level from a 4.900m floor to floor (F2F), matching R4A & R4B, to 3.460m.

This was done in order to reflect the different nature of the P02 level across the precinct. In R4A and R4B this level houses amenities spaces with large open spaces and high finish ceiling levels. However, the R5 building P02 level houses apartments, not justifying the extra F2F height. To preserve a sense of uniqueness to the level, while addressing its function, it was proposed to adopt the 3.460m height mentioned, allowing the apartments at that level to have taller 3.000m Finish Ceiling Level (FCL).

To maintain the tower roof line, L16 and L24-27 were updated on their F2F and FCL as shown in the following schematical elevation, resulting in an increased number of 3.000m FCL apartments.



2.0 Tower Refinements

2.6 Amended Finish Floor Levels

APPROVED



View 1 - View From Hickson Park

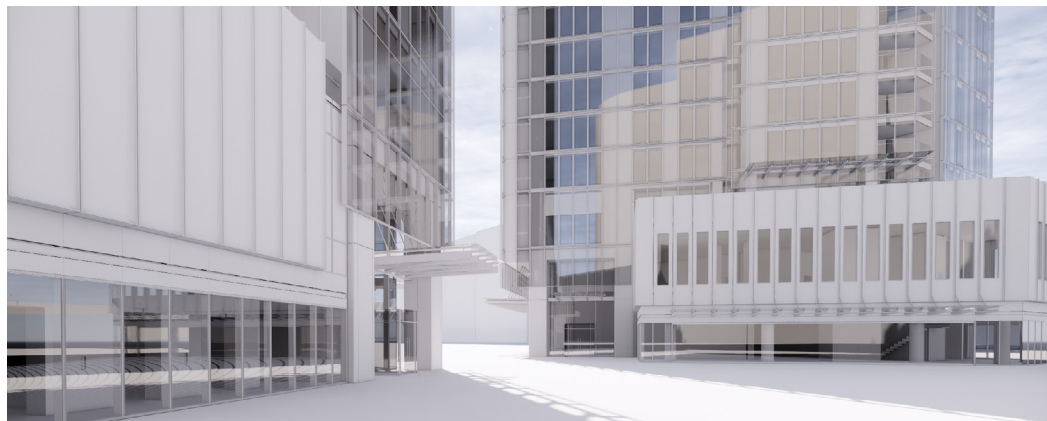
PROPOSED



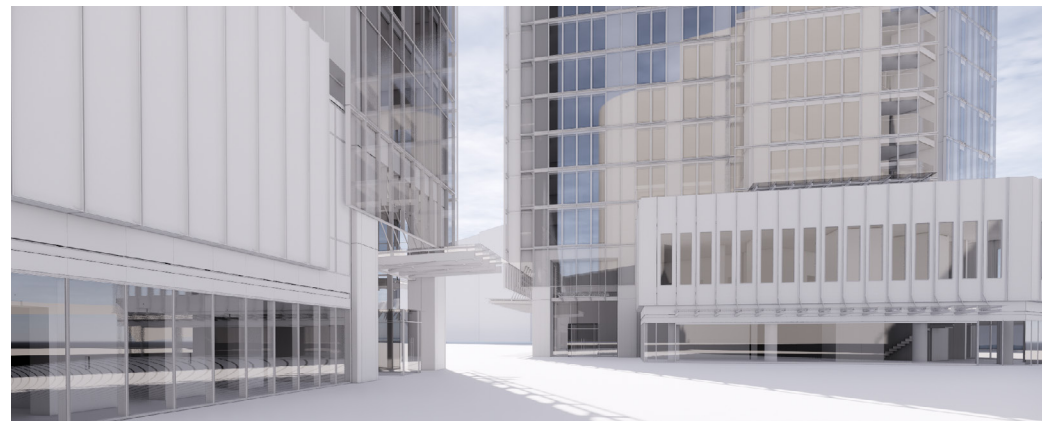
View 1 - View From Hickson Park

Futhermore, the previously proposed higher F2F on P02 results in a large horizontal strip of spandrel above the operable facade, which compromises the transparency of the facade, especially visible to the park facade as shown on the View 1. The current proposal provides a superior outcome that preserves the crystal forms concept.

While the lowering of P02 F2F creates a misalignment on the floor levels across the precinct, such a misalignment is not readily appreciated given the different orientation of R5 in comparison with its neighbors R4A and R4B as shown in the following Views 1 and 2.



View 2 - View approaching from the Piazza at Watermans Quay



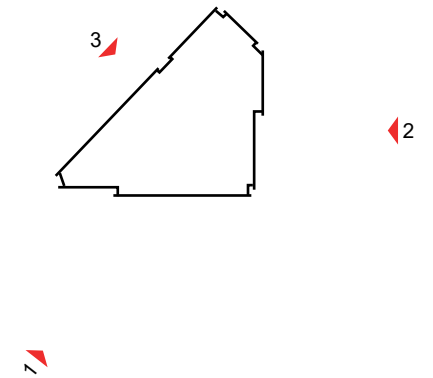
View 2 - View approaching from the Piazza at Watermans Quay



View 3 - View from across Hickson Road



View 3 - View from across Hickson Road



2.0

Tower Refinements

2.7

Tower Facade Panels Layout

As a result of the design improvements described in the previous sections, the overall building facade underwent some refinements in the facade panel layouts to better suit the proposed solutions.

The changes are highlighted in the following comparison studies and the facade panels amendments are colour coded following the key below.

Most of the new facade modules are a result of the additional GFA and the step-out of the facade towards the park front as shown in section 2.1. The exception are the panels highlighted on the upper portion of Elevation 1, as they are consequences of the amended roof line described in section 2.4

The interchanging panels typologies that are proposed to be replaced by Balconies, Open Cavity Facades and Spandrel panels are consequences of the amendment proposed in section 2.3.

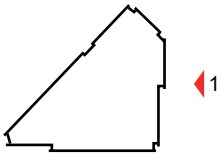
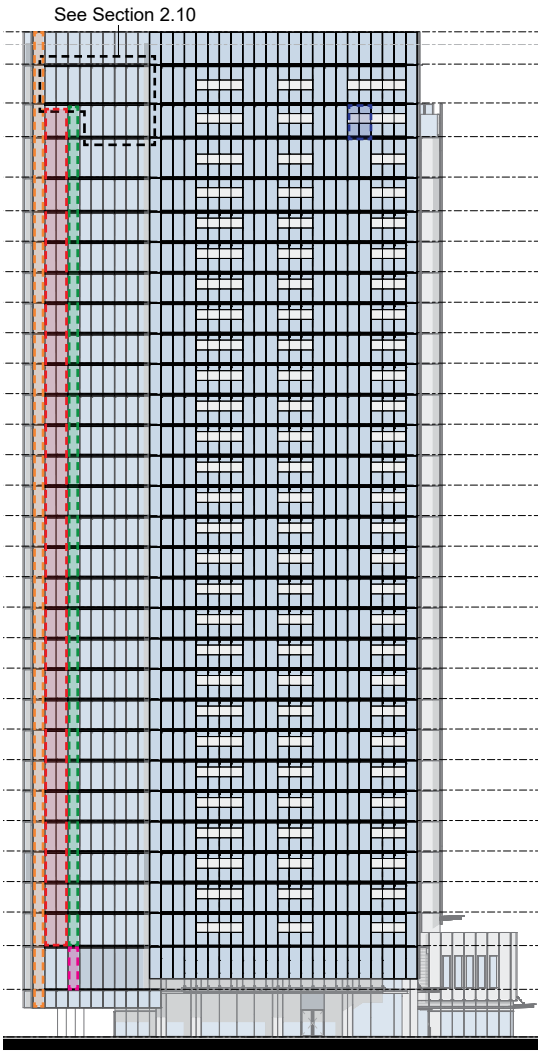
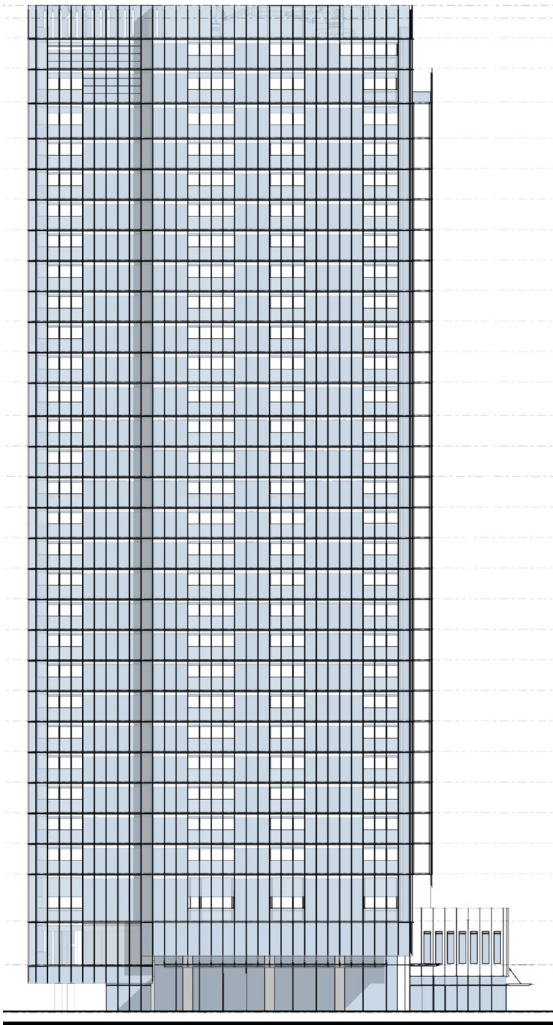
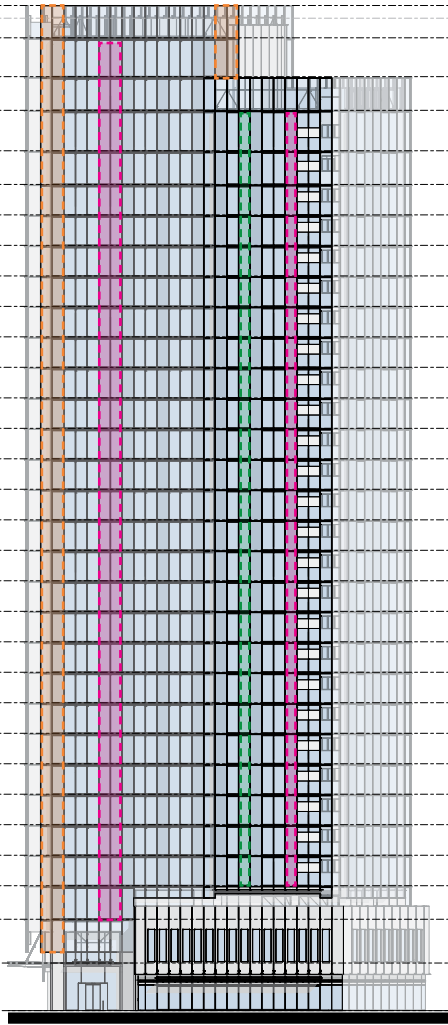
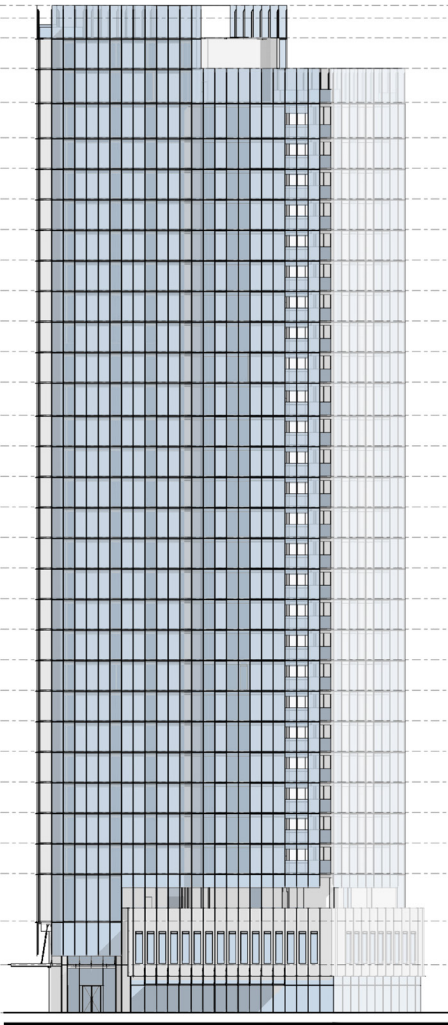
- New Facade Module
- Facade Panel replaced to a Balcony Facade
- Facade Panel replaced to an Open Cavity Facade
- Facade Panel replaced to a Spandrel Panel
- Balcony replaced to a Full Height Glazing
- Facade Panel replaced to a Louvre Panel

APPROVED

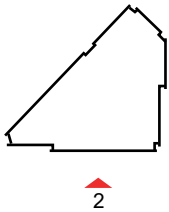
PROPOSED

APPROVED

PROPOSED



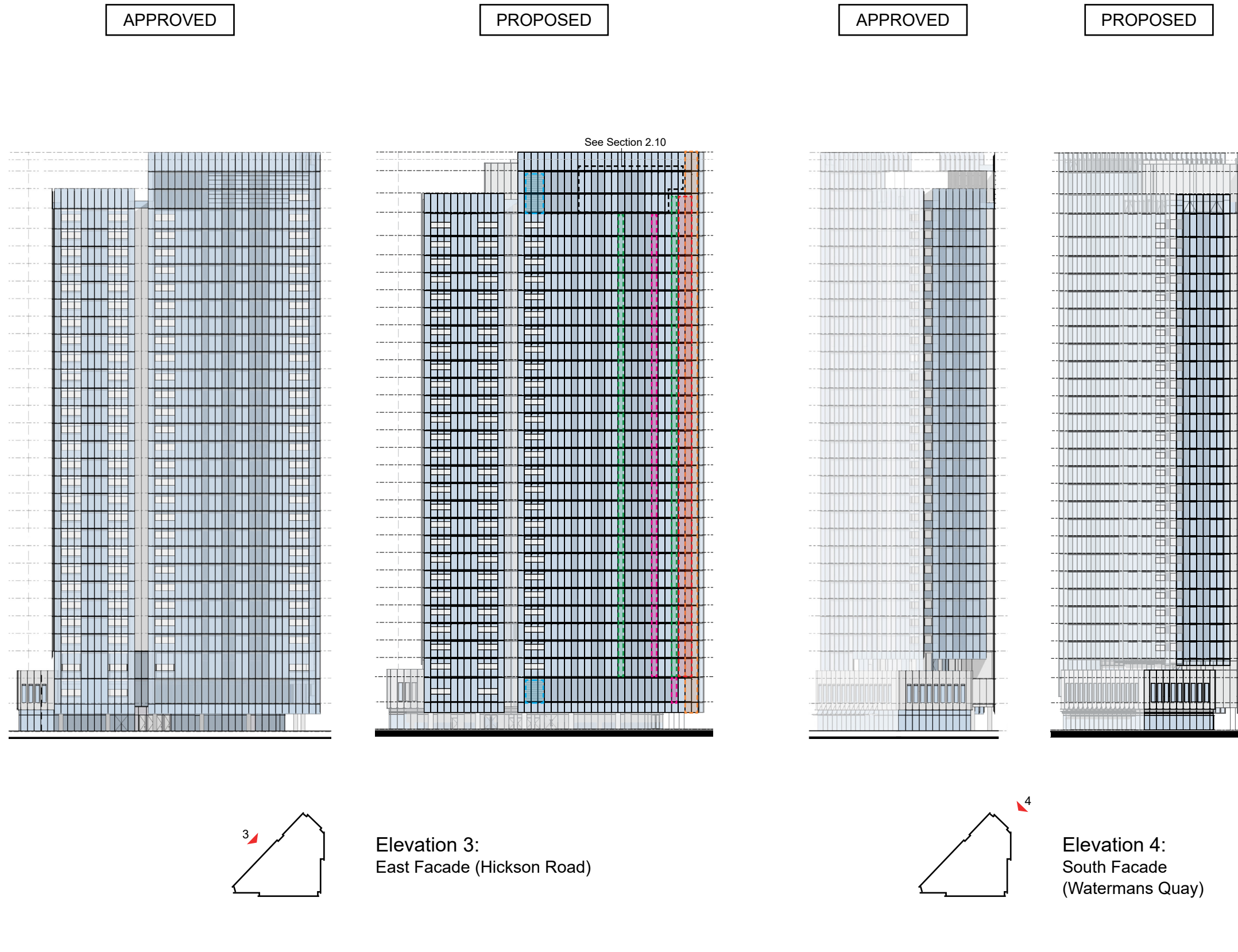
Elevation 1:
South West Facade (Piazza)



Elevation 2:
North West Facade (Park)

2.0 Tower Refinements

2.7 Tower Facade Panels Layout



The proposed louvre panels on L26/L27 are consequences of the upper terrace redevelopment as shown on Section 2.4. Three other louvres are proposed on P01. They are aligned with the upper ones and are proposed to reflect the mechanical nature of that level and to be used for stairs pressurization intake.

Finally, the change of the tip balconies to full height laminated glazing is further detailed on Section 2.9.

- New facade Module
- Facade Panel replaced to a Balcony Facade
- Facade Panel replaced to an Open Cavity Facade
- Facade Panel replaced to a Spandrel Panel
- Balcony replaced to a Full Height Glazing
- Facade Panel replaced to a Louvre

2.0 Tower Refinements

2.8 Apartment 01 Sliding Doors Arrangement

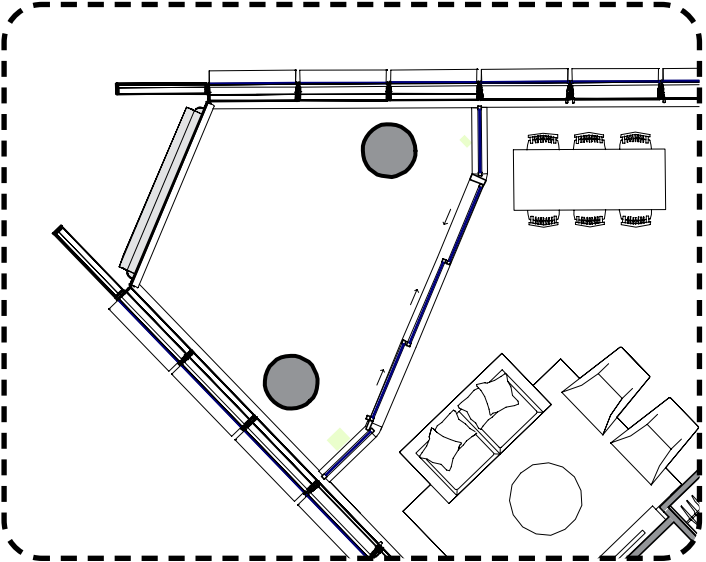
An amendment is proposed to the sliding doors arrangement of the apartment 01. This change is a consequence of the facade shift described on Section 2.1. The shift caused the tip to extend by one bay from the column grid.

Considering the design intent to have the columns free of connections that would undermine their perception and the requirement of 12m² in the balcony the doors arrangement had to be reviewed.

A last factor that was considered was the requirement of maintenance needs of the adjoining OCF facades. Such facades require access to their cavity for cleaning and for the blind's maintenance.

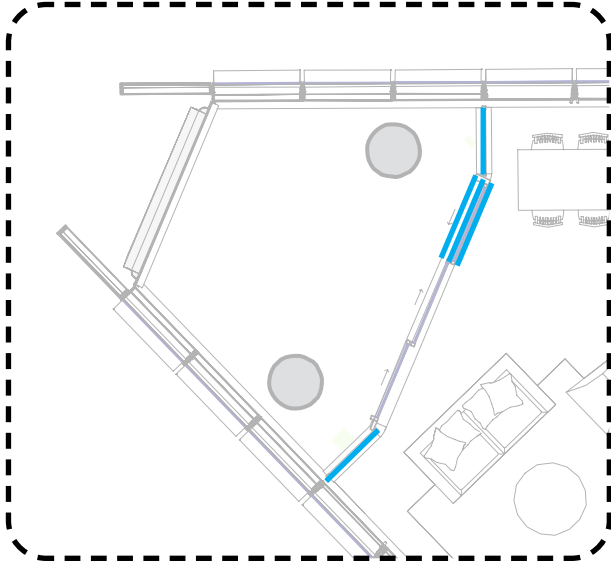
The proposed solution simplifies the door arrangements, removing the side fixed panels. By doing so, we can have the mid panels that are operable by the user, and the end panels, to be operated for maintenance only, creating a clean accessway to the OCF facade. Furthermore, this proposed scheme allows the doors to pack symmetrically away from the main line of sight, enhancing the connection between inside and outside.

APPROVED



Approved Sliding doors layout

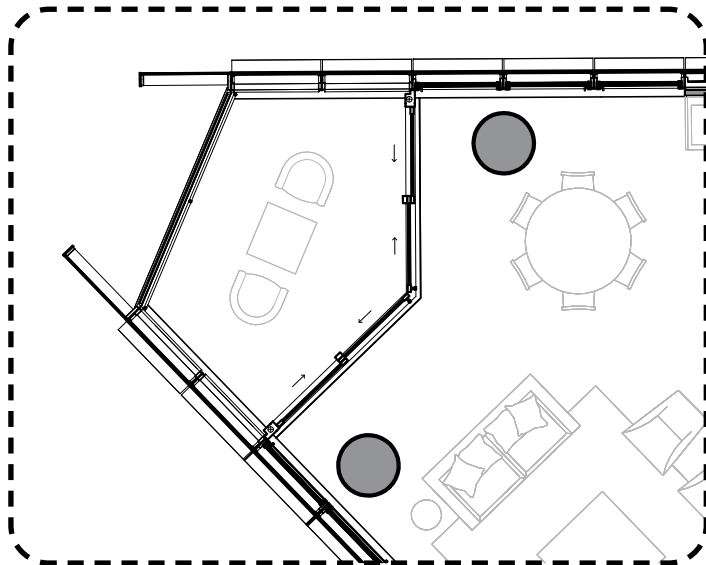
APPROVED



Approved Sliding doors layout - User opening

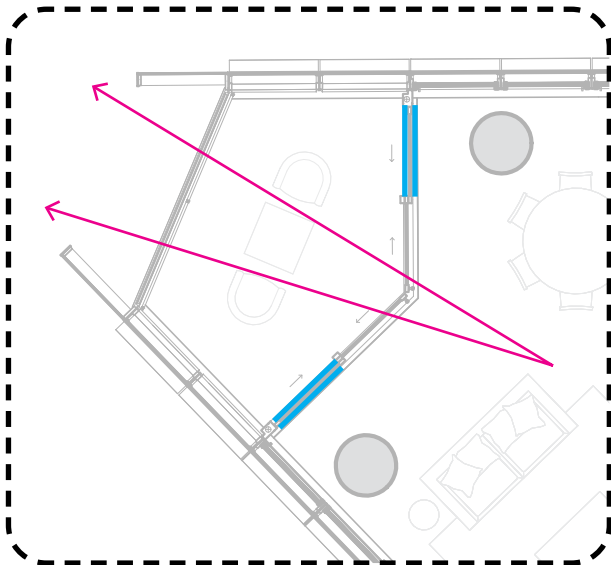


PROPOSED



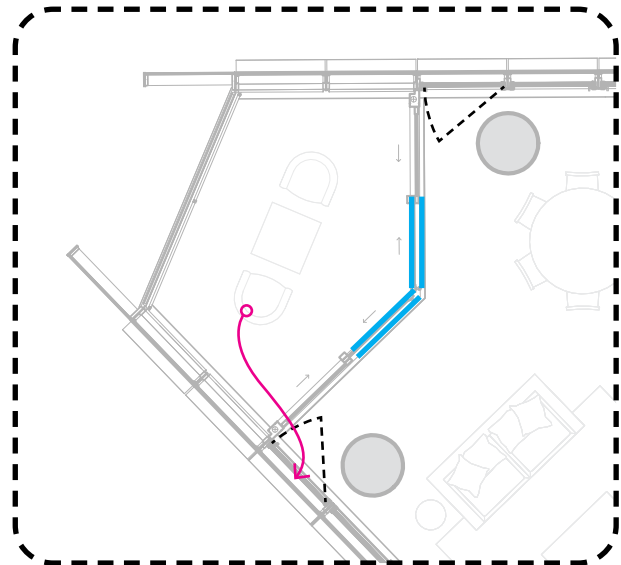
Proposed Sliding doors layout

PROPOSED



Proposed Sliding doors layout - User Opening

PROPOSED



Proposed Sliding doors layout - OCF Maintenance Opening

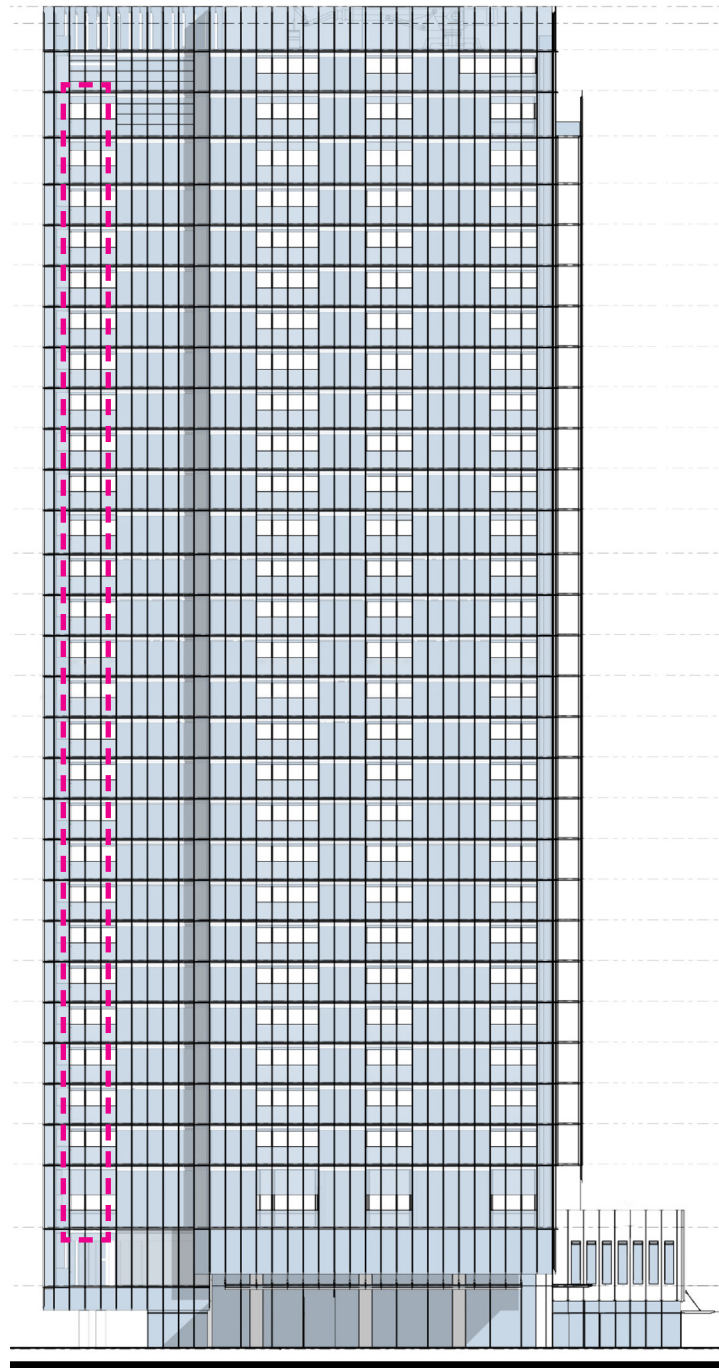
2.0 Tower Refinements

2.9 Amended Tip Balcony Facade

APPROVED

APPROVED

PROPOSED



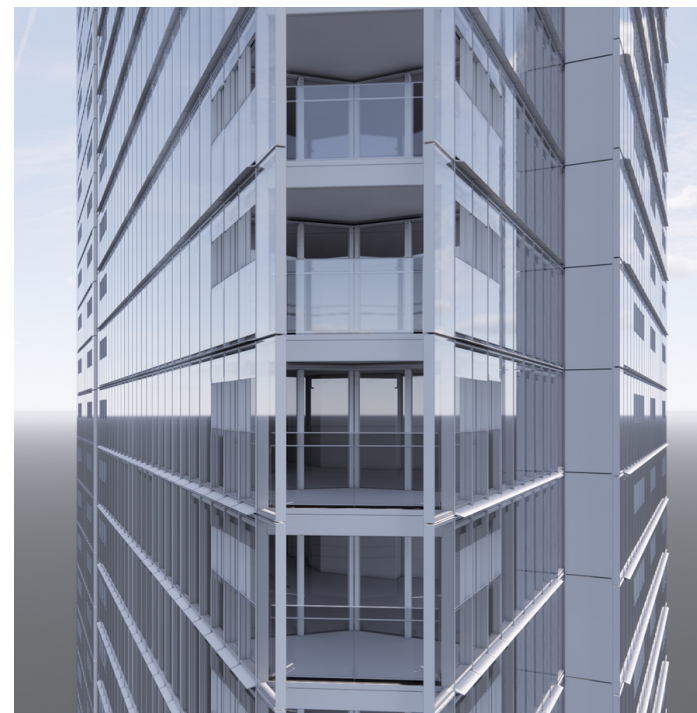
Approved Park Facade Elevation



Approved Apt 01 (Tip) Balcony - Internal View



Proposed Apt 01 (Tip) Balcony - Internal View



Approved Apt 01 (Tip) Balcony - External View



Proposed Apt 01 (Tip) Balcony - External View

A minor adjustment is proposed to the balcony facade for Apartment 01 for all levels. Wind analysis has identified both a comfort and safety exceedance. As a result, if left unchanged, the residents will periodically experience uncomfortable conditions during high wind events.

To mitigate this issue, the facade balustrade glass is proposed to be extended floor to floor (full height) on both the eastern and western facades maintaining the symmetry of the northern most point of the tower form. No changes are proposed to the northern most balcony face which will remain open as shown in the following images. This semi-enclosure will ensure safe conditions are maintained on this balcony year-round.

2.0 Tower Refinements

2.10 Amended Skyhome Facade

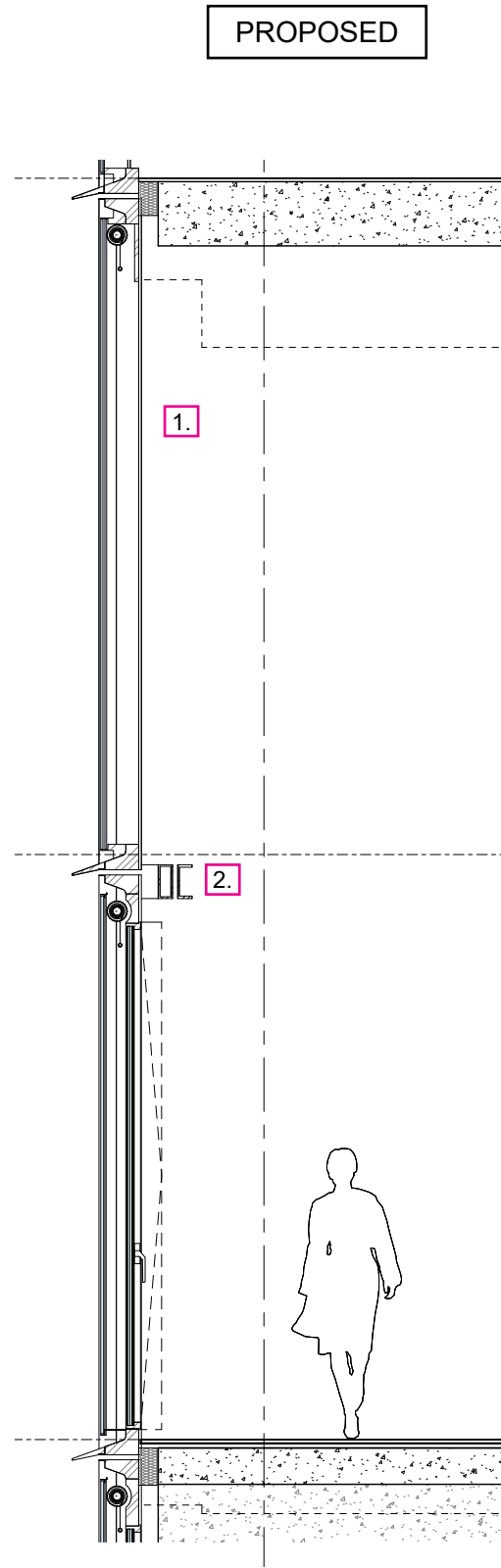
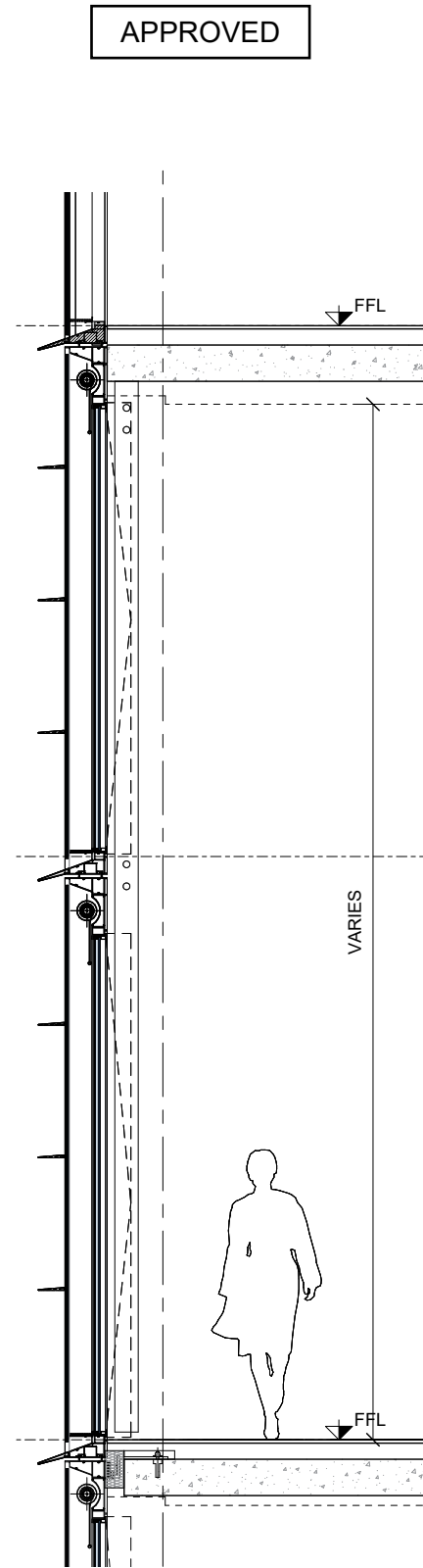
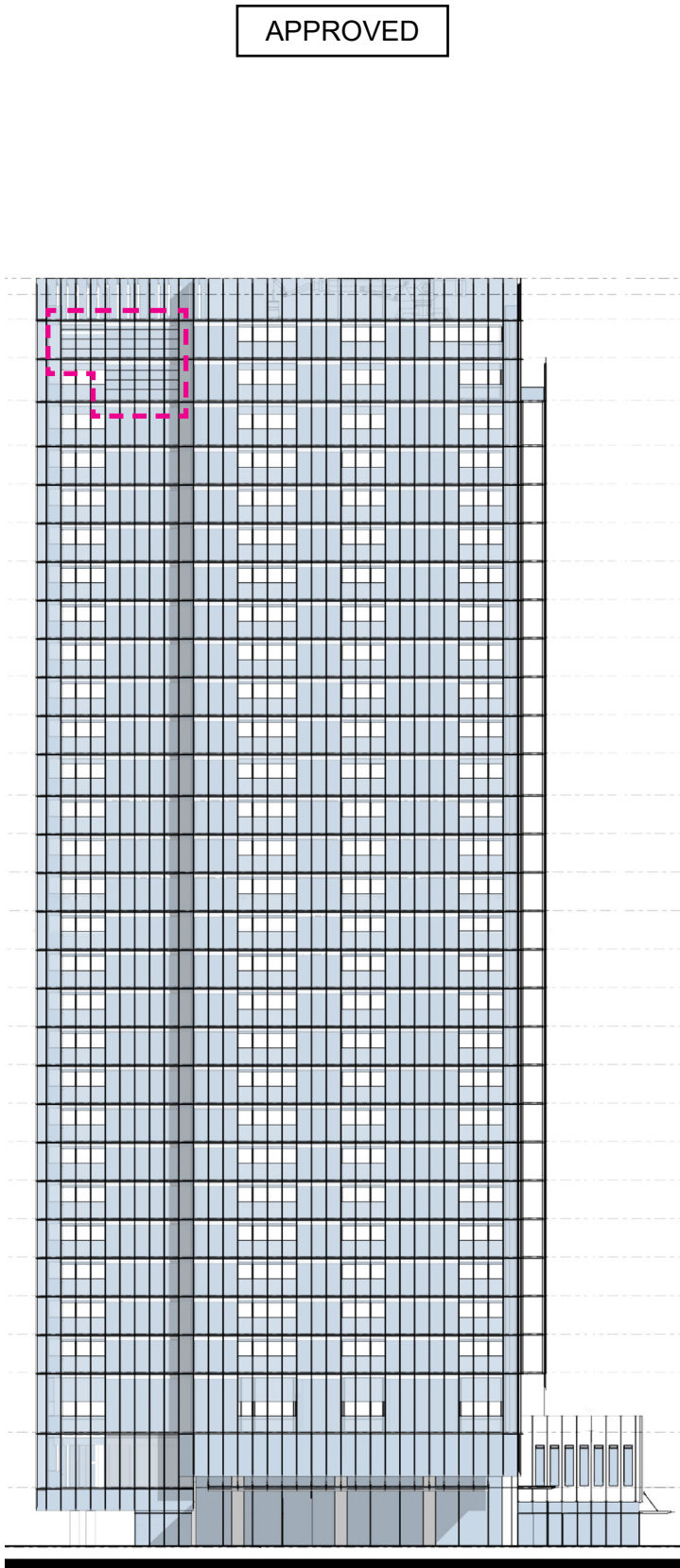
A minor adjustment was made to the uppermost levels of the tower on the northern tip.

In the approved design, the area was envisaged with some horizontal brise-soleil facing both the Park and the Hickson Road facade.

In line with the development of the adjoining towers R4A and R4B, these elements are now proposed to be removed from the facade, allowing R5 to match its precinct neighbours.

Internally two adjustments are also proposed to match the similar situation in the R4A double height area.

- 1. The top panel of the space is changed from an Open Cavity Facade to a fixed Double Glazed Unit. This allows for easier and safer maintenance of these elements.
- 2. The backstructure has changed from vertical posts to a horizontal beam. This avoids potential clashes with the operable OCF panels swing and clear up the view from that space outwards.



2.0 Tower Refinements

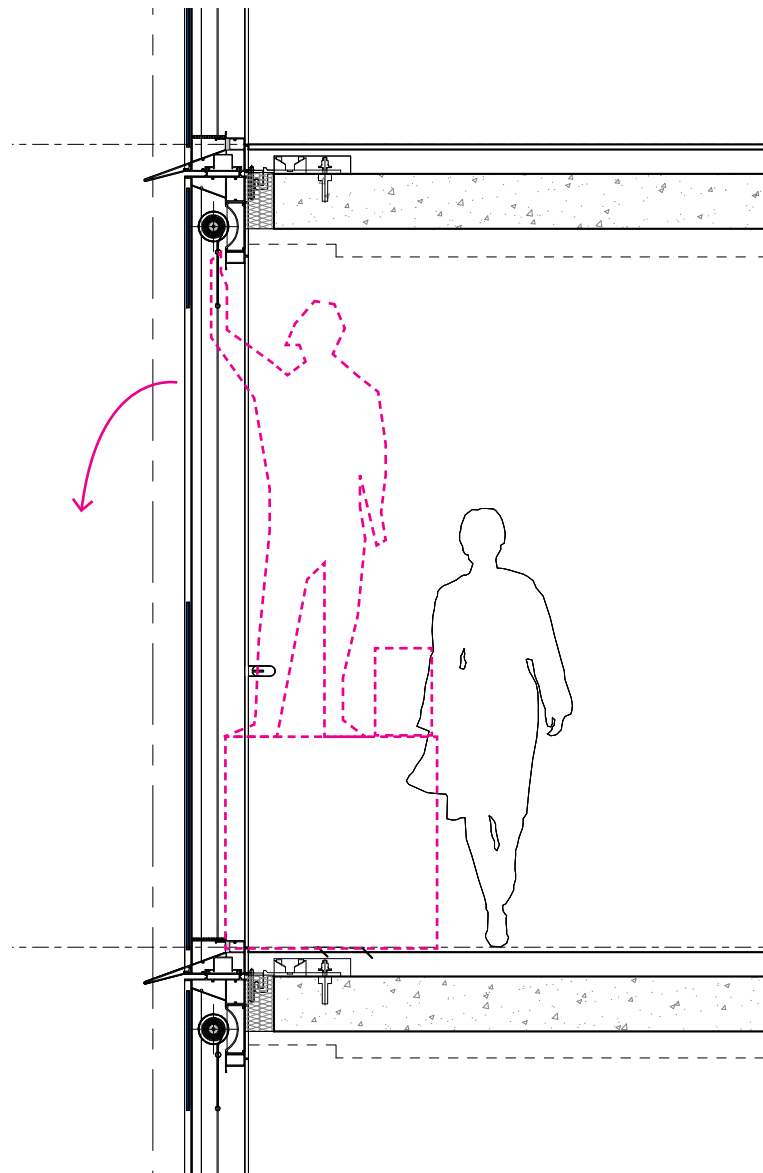
2.11 Reviewed Balcony Blinds

A safety and maintenance review of the balcony blinds has been undertaken.

The concern was that during a maintenance routine, the large balcony opening could represent a risk for the technician. To reach the blind level, a person would necessarily have to step on a platform or ladder, positioning themselves at the same level of the opening. In official maintenance routine this issue could be addressed by using safety nets and similar equipment and procedures. However, a concerning scenario would be in case of minor issues, where the residents could decide to investigate by themselves, ultimately exposing themselves without the official safety procedures. Furthermore, in both cases given the maintenance nature of the procedure it is also worth considering the risk of falling objects and tools while such work is undertaken.

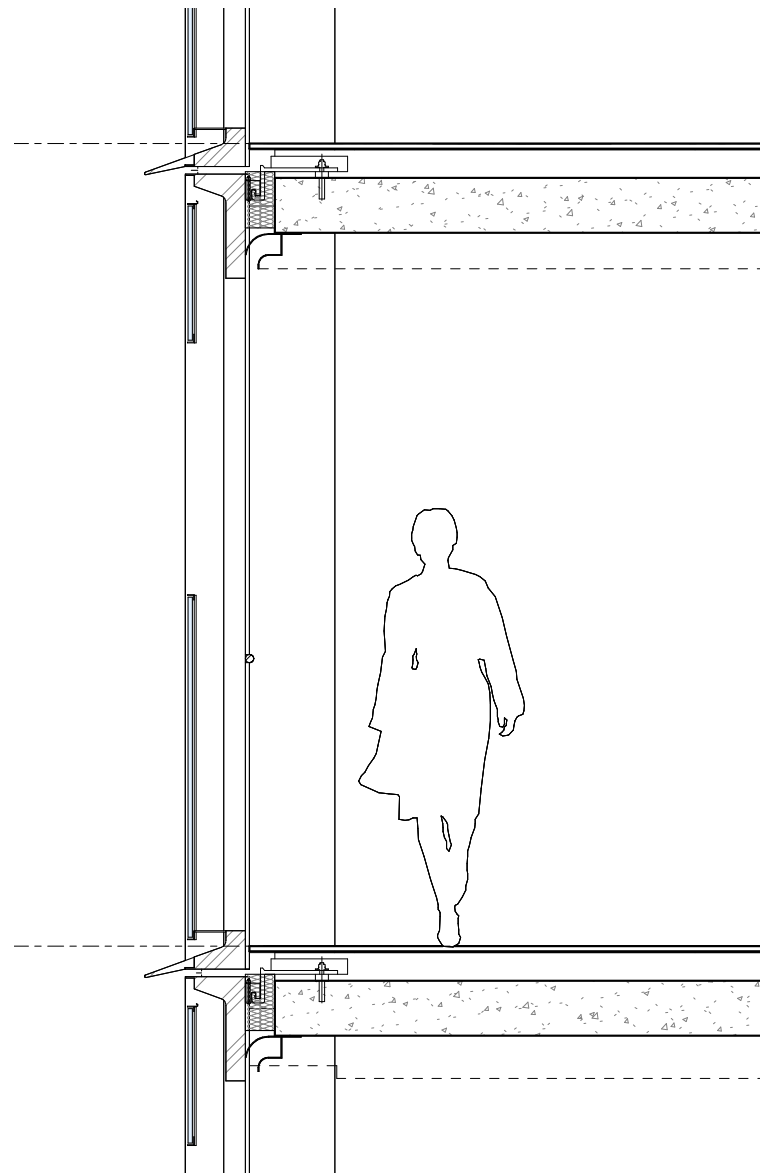
With that risk in mind, it was understood that it would be safer not to have blinds in that location, effectively removing them from all balconies and with them the associated risks listed above.

APPROVED



Approved Balcony Facade and indicative related risks

PROPOSED



Proposed Balcony Facade

2.0 Tower Refinements

2.12 Amended Facade Cladding

A minor adjustment is proposed to the facade claddings along the tower, removing their expressed horizontal “lips”.

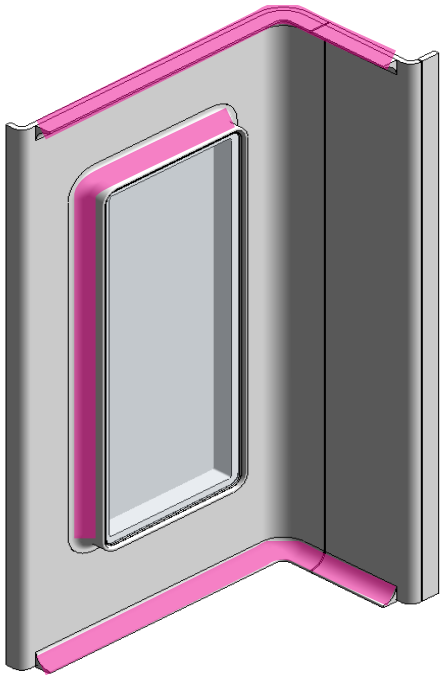
In the approved scheme, similarly to the adjoining R4A and R4B towers, such element was envisaged with bottom and upper lips as per following diagrams.

However, on these towers, such notches are different from R5's, since they feature a window element, main driver of the lip geometry (see magenta highlight in the first diagram).

This change is important when it is considered that that R5 has several differently shaped cladding elements in its arrangement, some of which, the lip's expression produced rather odd results given their small dimensions such as, but not limited to, the Hickson Road notch, where lips in the area renders the compressed space unnecessarily cluttered, as depicted in the following images.

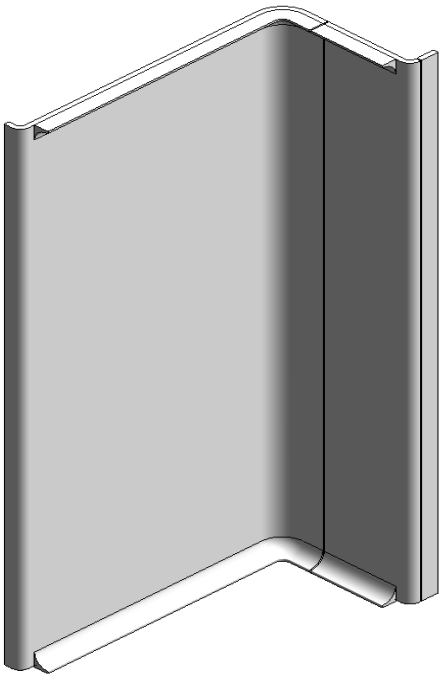
By removing these lips and adopting a clean and simple folded element all around R5, we more adequately address the tower's specific steps and notches, highlighted in the schematic plan. We believe by doing so, we are able to affirm R5's uniqueness while still preserving a direct connection to the remaining precinct towers.

R4A / R4B's



R4A / R4B Cladding, the lips concept is strengthen by the lip framed window.

APPROVED



Approved R5 Cladding, no window element causes the lips to lose conceptual clarity and risk becoming a gratuitous gesture

PROPOSED



Proposed R5 Cladding, simple folded element, more adequate to suit the various steps and notches



R5's Unique steps and corner claddings.



Approved View to Hickson Road notch



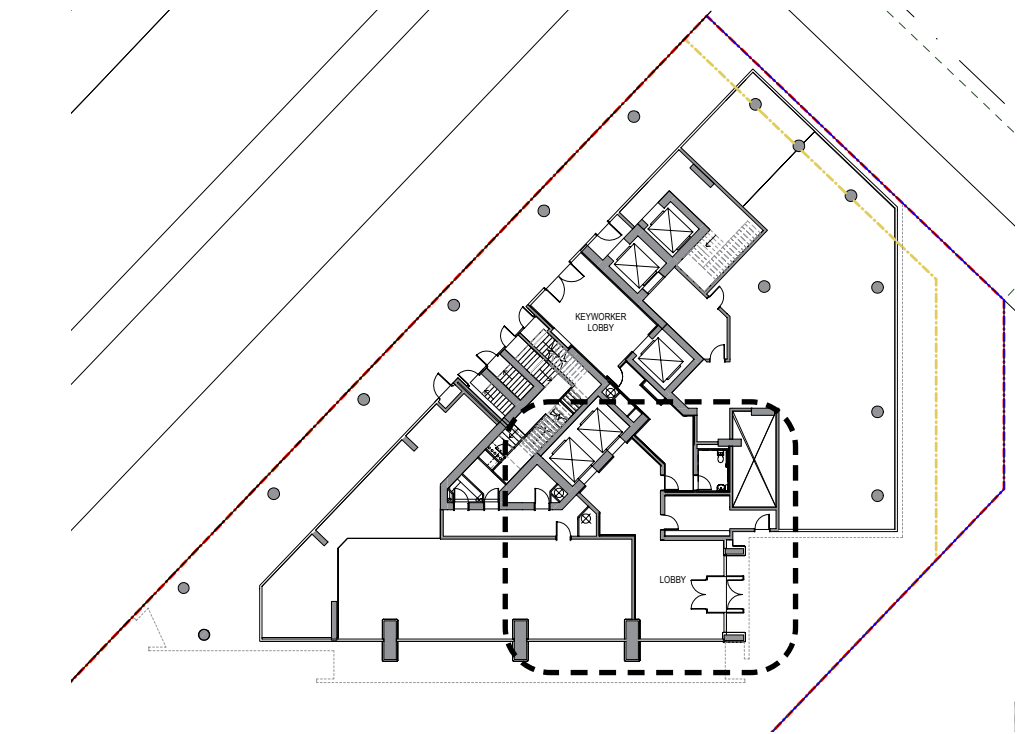
Proposed View to Hickson Road notch

3.0 Podium Modifications

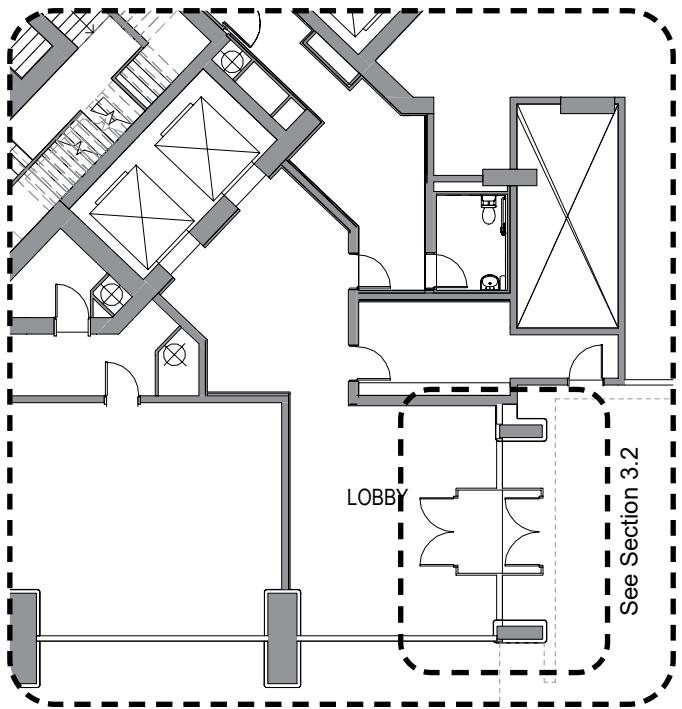
3.1 Ground Floor and Lobby Refinements

To maintain consistency across the precinct towers, the R5 Ground Floor Plan has been revisited and refined to align with the design principles including:

- 1. Re-configuring the On-Market residential lobby to define a hierarchy of space between the lift lobby and the waiting area and improve the sequence of entry
- 2. Geometry and proportion of the spaces was improved increasing user amenity
- 3. Consistency of scale and volume of the lobby with R4A and R4B
- 4. Relocation of the Retail lift core to increase flexibility in the division of retail tenancies
- 5. Redevelopment of the column cladding to the park facade to line with the revised facade alignment of the tower above.



Approved Ground Floor Plan

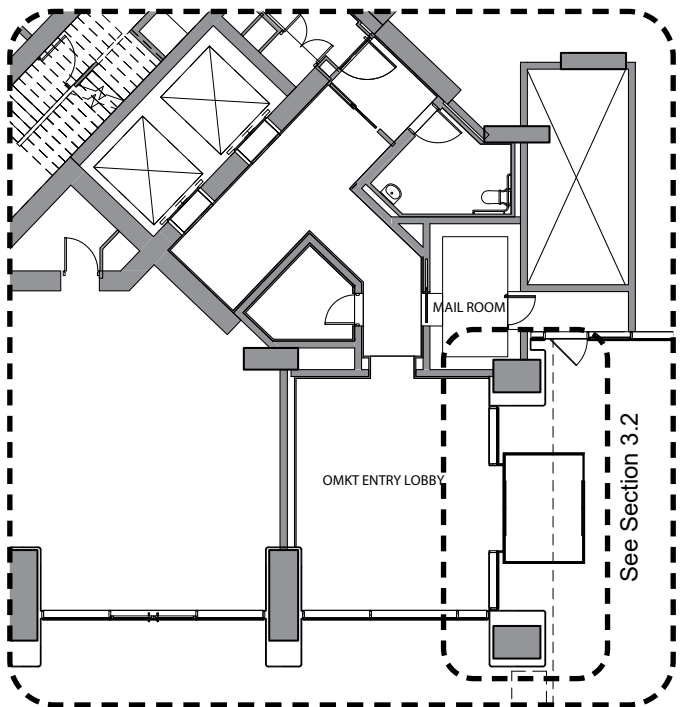


Approved Residential Lobby Blow up

APPROVED



Proposed Ground Floor Plan



Proposed Residential Lobby Blow up

PROPOSED

- Park Facade Columnnade Amendments
- Shift in retail lift

3.0 Podium Modifications

3.2 Amended Entry Vestibule Design

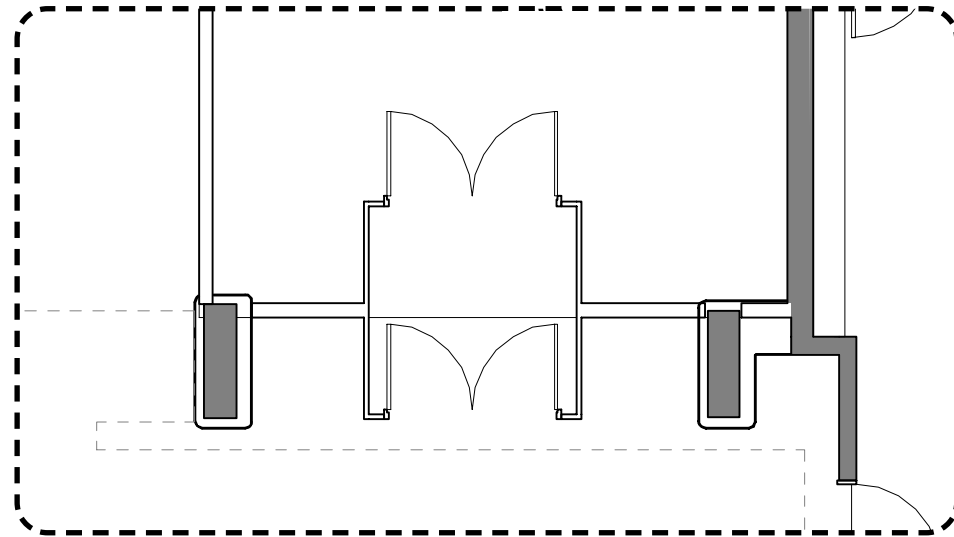
A pedestrian comfort and safety study was undertaken during the initial stages of the design development.

This study indicated that the wind conditions precluded the use of swing doors in the zone immediately outside the residential entrance due to the occurrence of periodic high wind events within the precinct.

As a consequence, the configuration of the entrance vestibule was investigated and the attached images describe the revised design proposal which has simplified and improved the architectural response of this facade component.

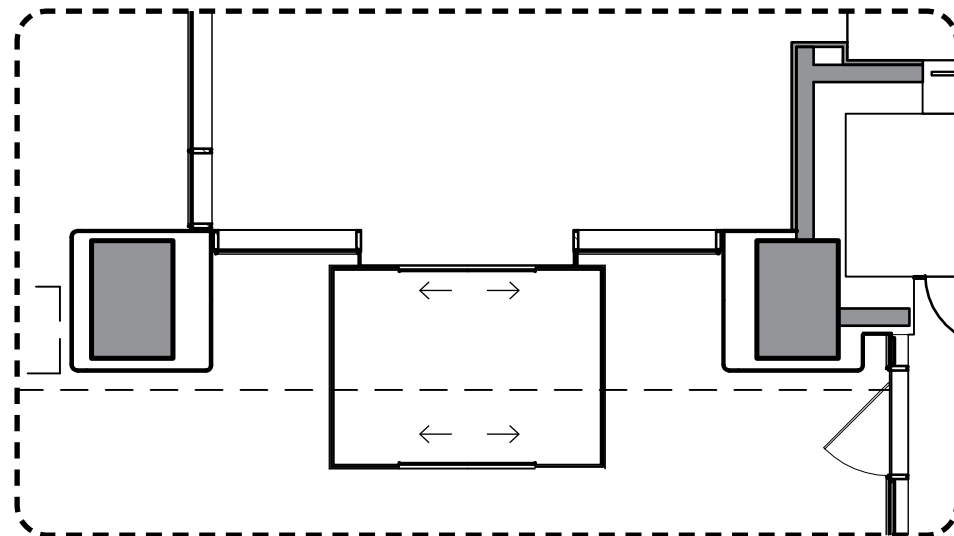
Automated sliding doors have been integrated in lieu of swing doors, improving safety as well as creating a seamless transition from outside to the on market lobby interior.

This amendment has resulted in a minor adjustment to the dimensions of the lobby vestibule. This amendment has been integrated into the modulation, proportion and geometry of the facade to provide a design response that meets the design standards of the precinct architecture.



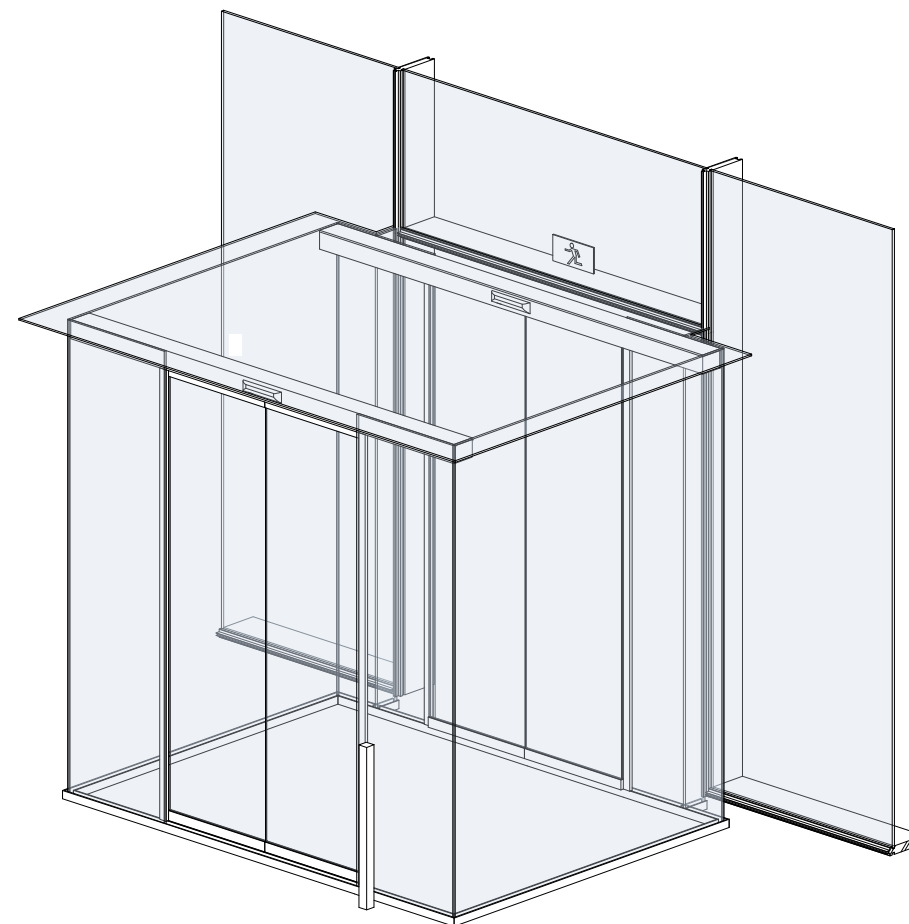
APPROVED

Approved Entry Vestibule



PROPOSED

Proposed Entry Vestibule



PROPOSED

Proposed Entry Vestibule


3.0 Podium Modifications

3.3 Additional Signage Zones

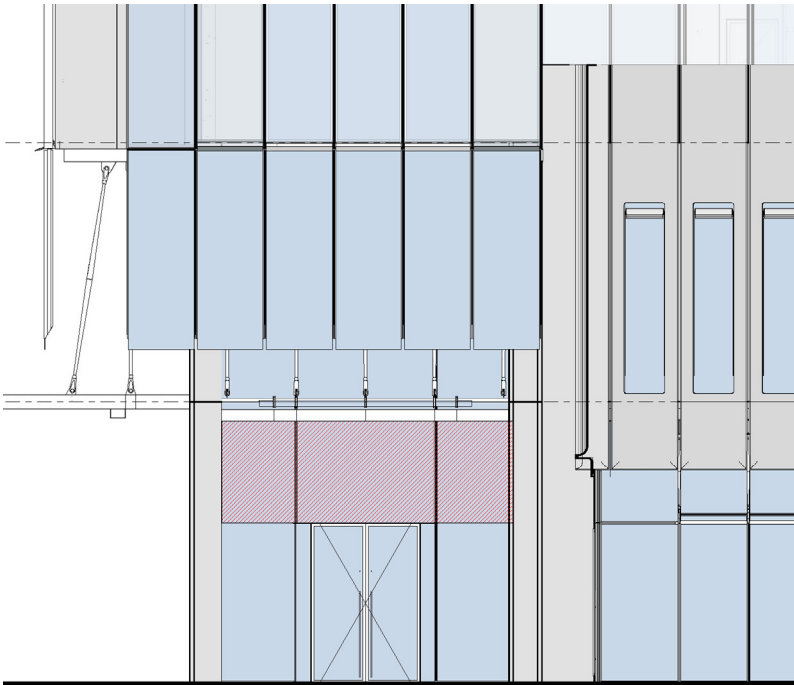
Following developments on R4A and R4B towers and a comprehensive consideration of the signage within the precinct, an amendment is proposed to R5 building signage zones. An additional signage zone is proposed to be located vertically against an opaque surface adjoining both the On Market and Key Worker Housing lobby entrances.

The inclusion of two signage zones for each lobby provides flexibility in the choice of the location, guaranteeing a final sign consistent with the remaining towers. However, in accordance with the Concept Plan, only one sign per elevation (per lobby) will be provided.

The proposed final sign will be individual lettering on the opaque cladding in the signage zone.

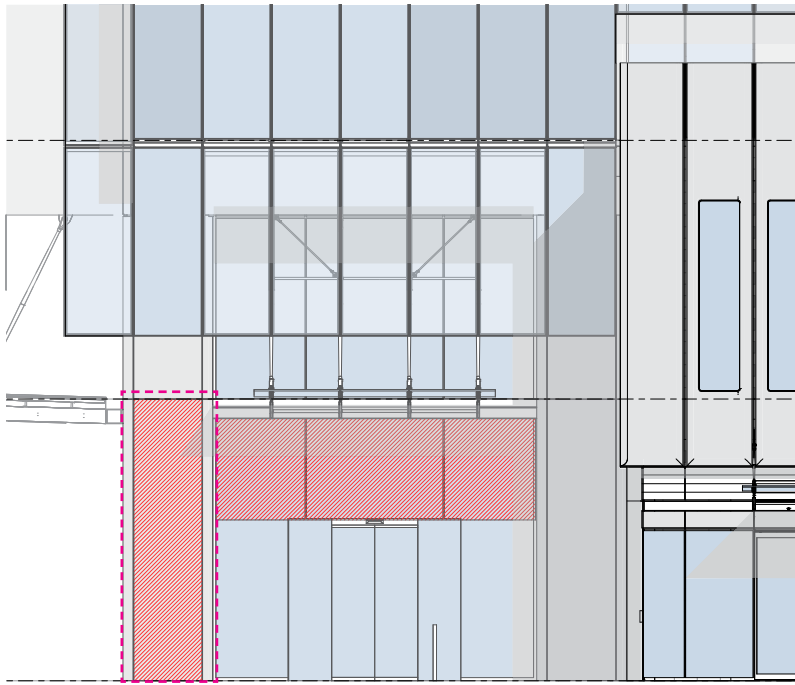
 Additional Building Address Zone

APPROVED

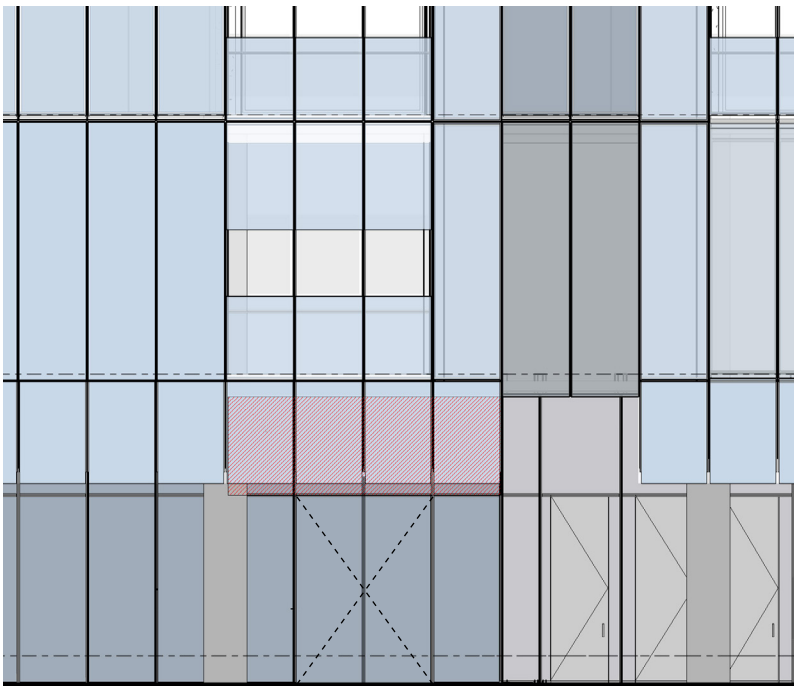


Approved Signage Zone - On Market Lobby

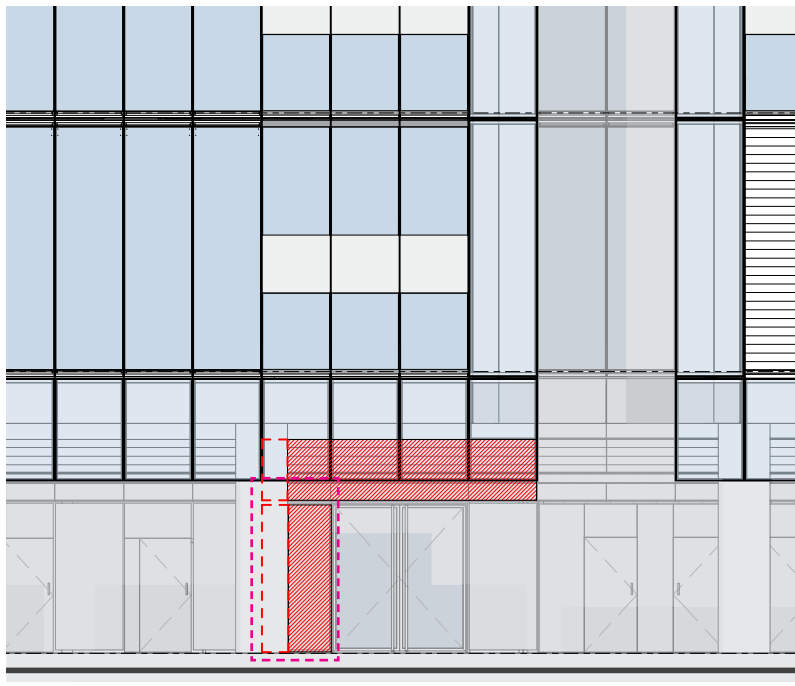
PROPOSED



Proposed Signage Zone - On Market Lobby



Approved Signage Zone - Key Worker Housing Lobby



Proposed Signage Zone - Key Worker Housing Lobby

3.0 Podium Modifications

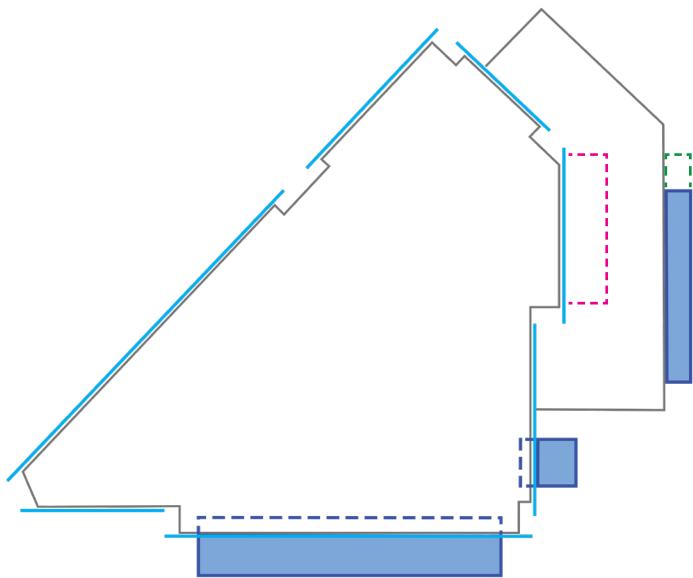
3.4 Updated Awning Extensions

All awning geometry was reviewed to be consistent with R4A and R4B as per the following schematic sections.

The retail awning on the south-west podium facade is proposed to be extended towards Watermans Quay, allowing for an increased awning covered area and locating the canopy symmetrically on the retail facade.

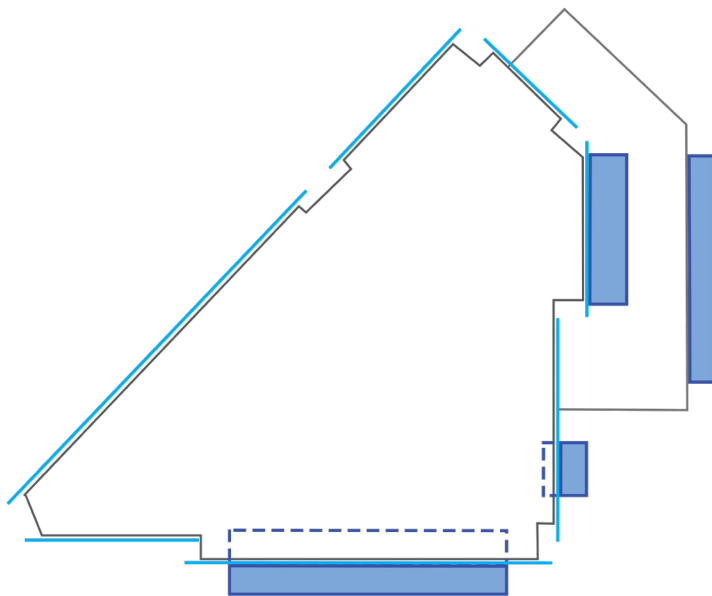
A new awning is proposed on the podium terrace at P02. This is envisaged to maintain consistency with the solution adopted on R4B, where the awning creates a buffer area between the covered amenities and the exterior terrace, additionally working to protect the users from adverse weather (both wind and driven rain).

APPROVED

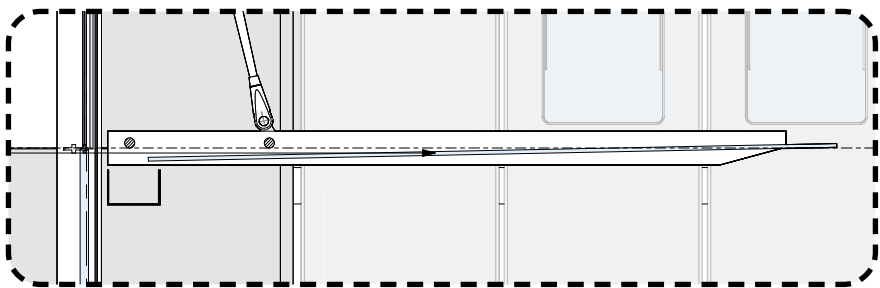


Approved Awning scheme

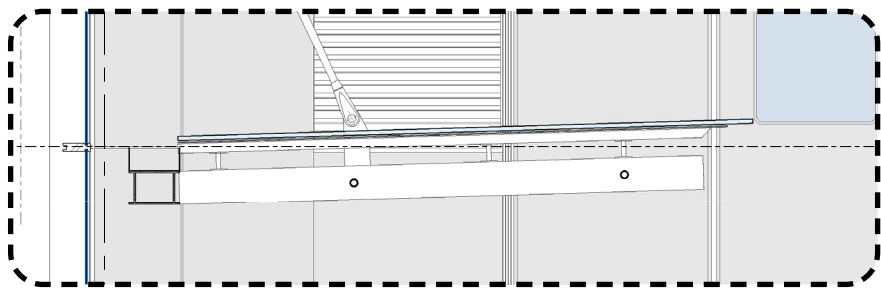
PROPOSED





Proposed Awning scheme



Approved Awning design



Proposed Awning design

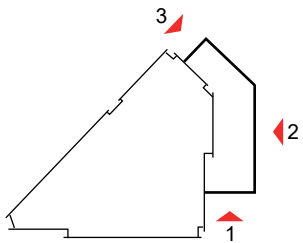
-  Extended retail awning
-  Added Awning at P02

3.0 Podium Modifications

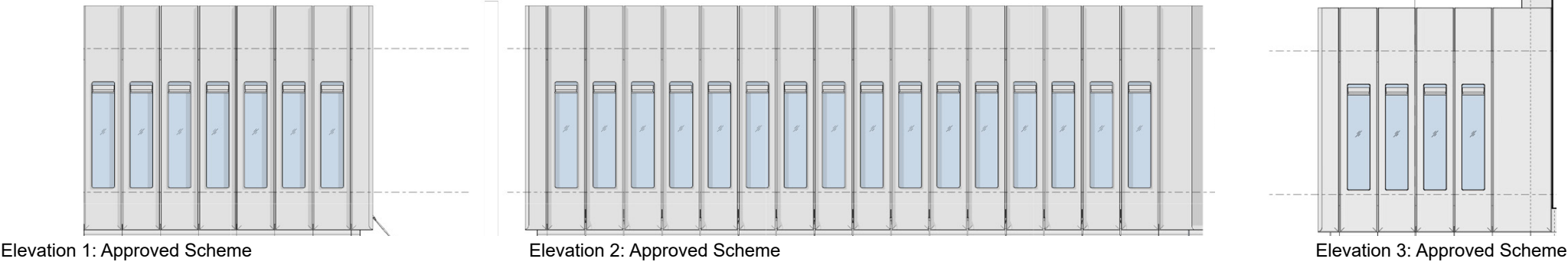
3.5 Podium GRC Panels Layout

The window layout on the four podium facades were re-studied with the aim to have more robust edges, and a symmetrically balanced window arrangement. The proposed design includes changes to three facades as described in the following diagrams.

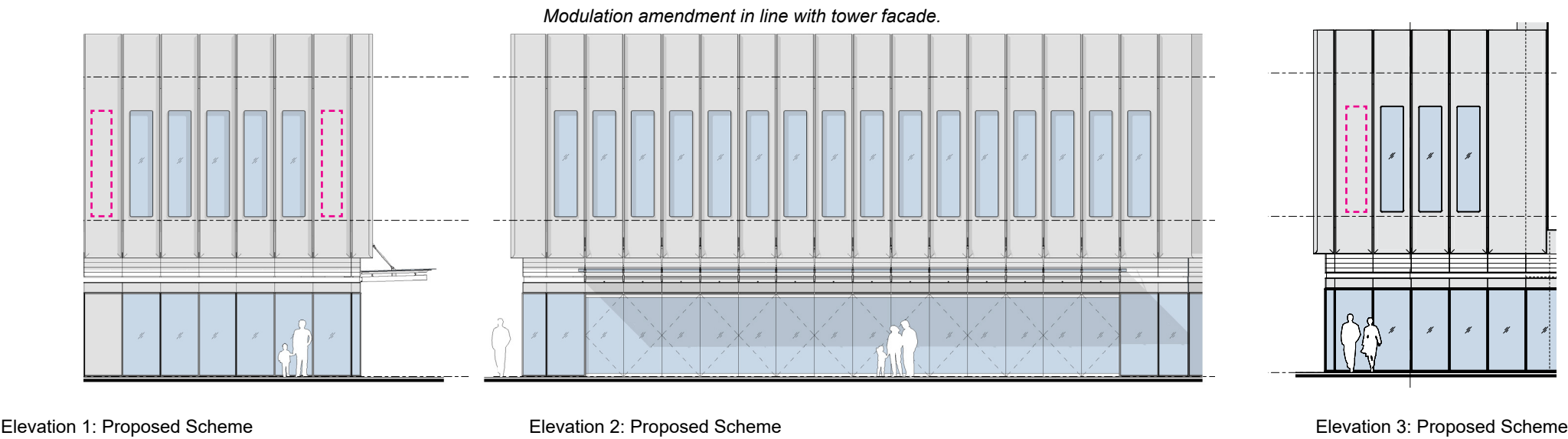
External roller blinds have been removed from the facade and internal ones are proposed instead. This change is consistent with the approved R4B building, and is in response to the precincts environmental conditions.




APPROVED



PROPOSED



 Removed Window

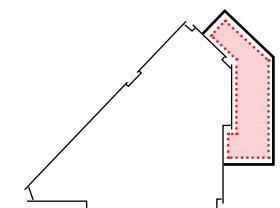
3.0 Podium Modifications

3.6 Amended Podium Amenities and Terrace

In response to the additional GFA made possible under the Barangaroo Concept Plan Modification 10, the P02 Key Worker Amenities area has been revised under this modification to provide a superior outcome for the Key Worker residents.

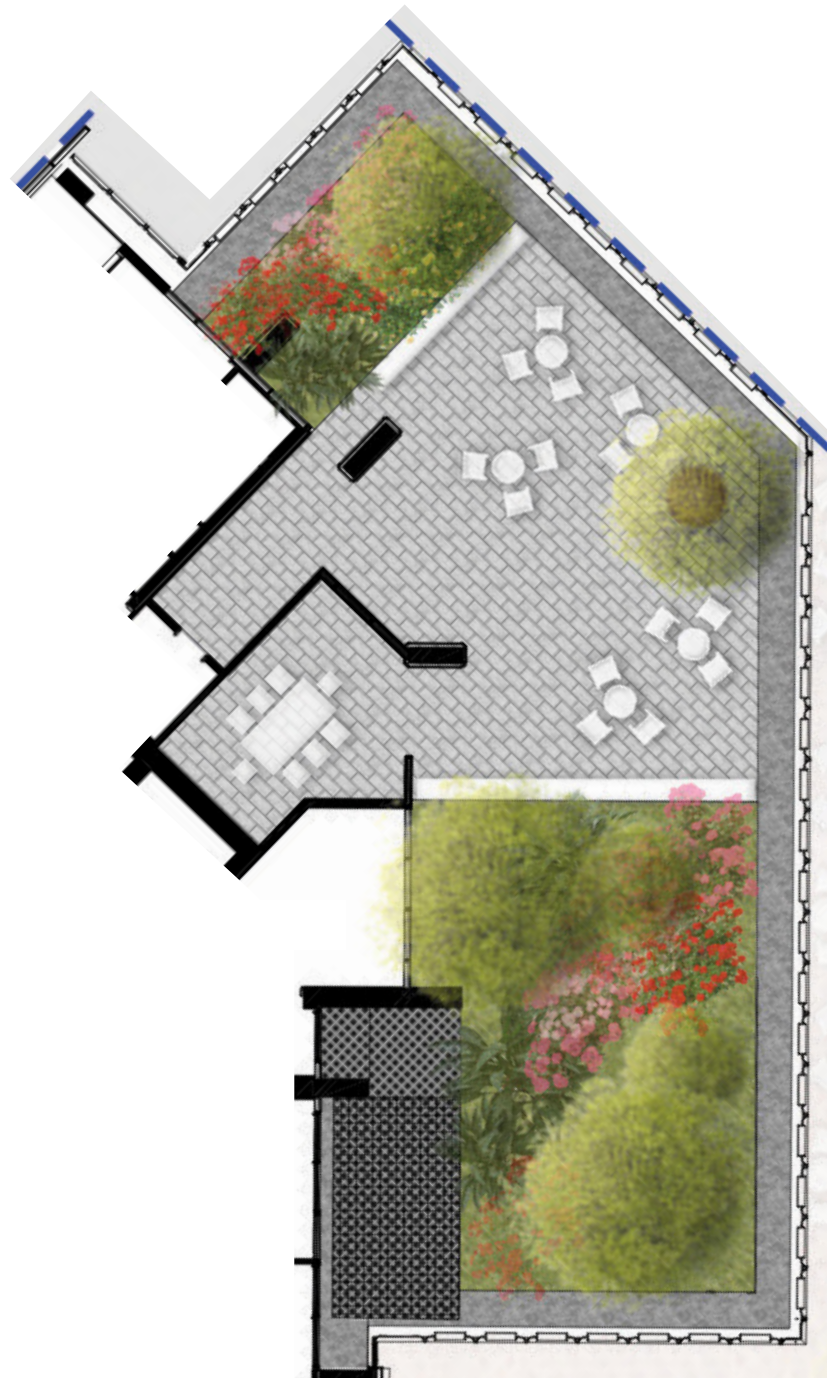
The proposed amenities include a fully enclosable space, which will allow for the area to be used year-round, regardless of the weather. Bathroom amenities have now also been included.

The exterior open space was also reviewed, with the introduction of the awning (see section 3.4), and with an amended landscaped proposal as per following sketch.

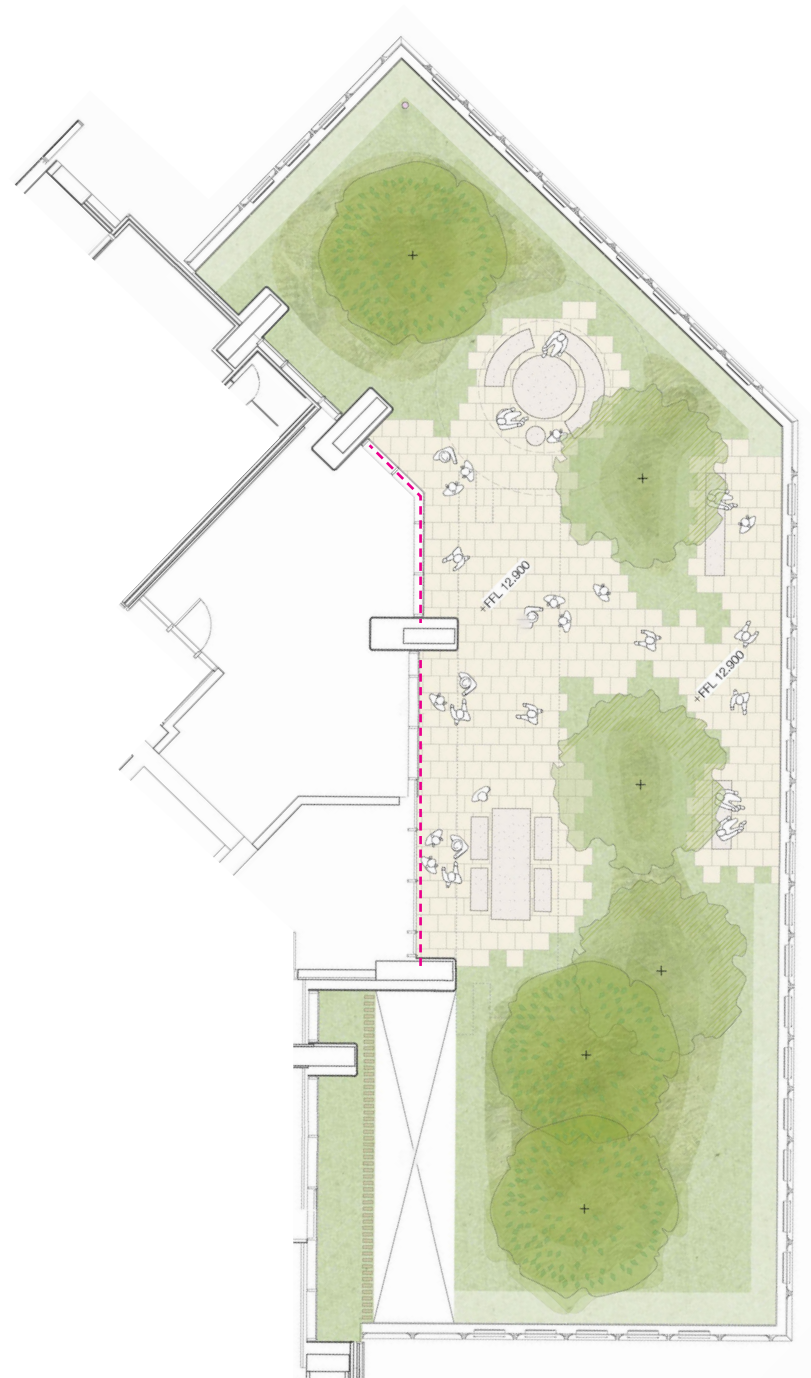


--- Enclosable Facade

APPROVED



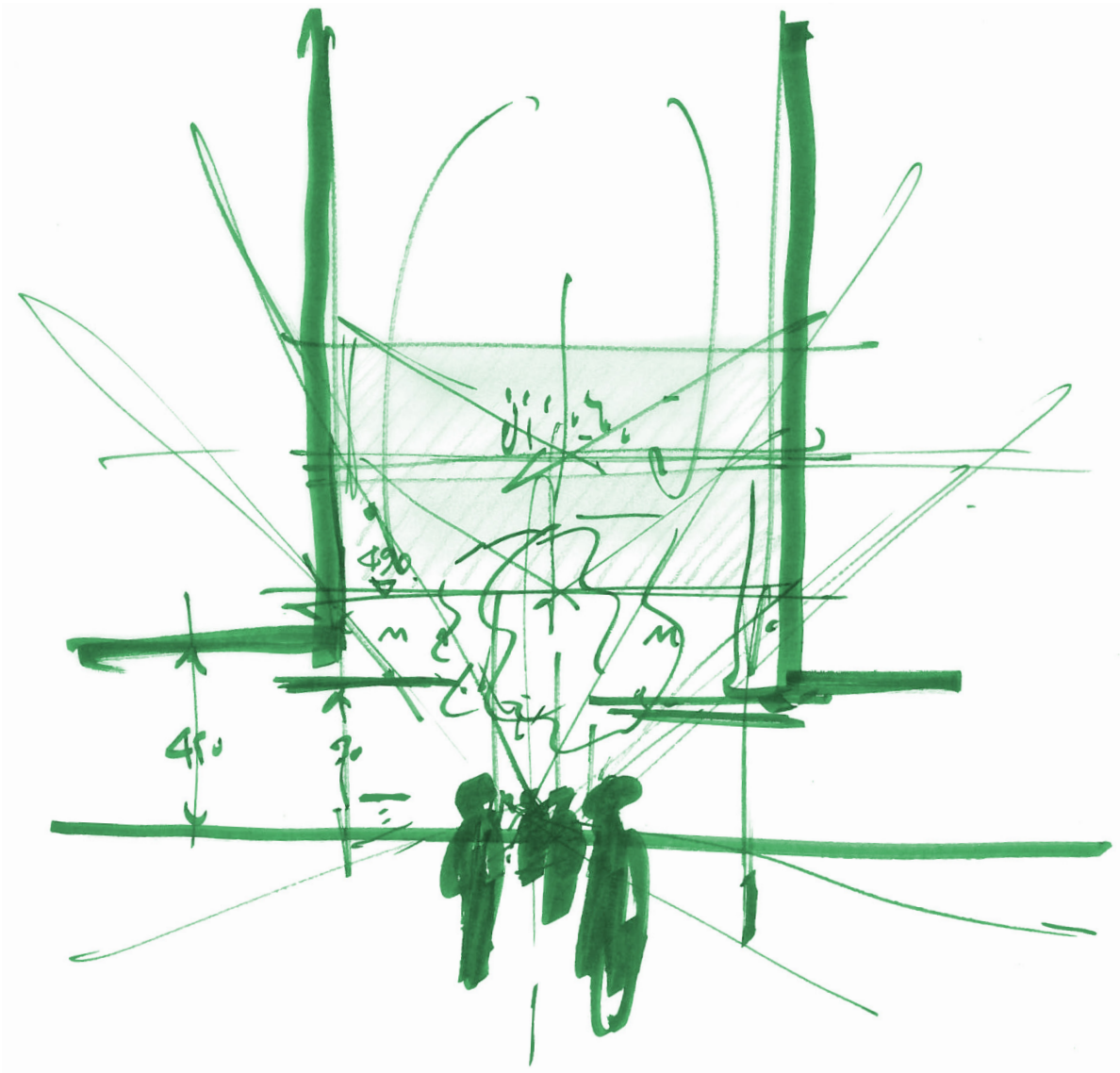
PROPOSED



4.0 Design Quality, Amenities and ADG Schedules

The changes presented within this S4.55 modification (however minor in nature) do not compromise in any way the high level of design quality and amenity with the building provides for both residents and visitors, and are expected to contribute to the perceived quality and architectural merit of the One Sydney Harbour development.

Alignment with SEPP 65 requirements through compliance with the Apartment Design Guide design principles is tabulated in the following pages. These tables are supported by GFA diagrams within the accompanying architectural documentation.



DA Level	Unit	No. of Bedrooms	No. of Bathrooms	GFA (m2)	Balcony Area (m2)	Balcony Depth (m)	Master Bed Area (m2)	Additional Bed Area(s) (m2)	Minimum Bed Dimension (m)	Habitable Room Depth (m)	Living Room Width (m)	Storage Internal (m3)	Storage External (m3)	2 Hours Solar 9am-3pm (Hours)	Any Solar 9am-3pm (Hours)	Cross Ventilation	Minimum Floor to Ceiling Height (m)
26-27	DA501	4	3	221.0	12.1	2.5	34.2	17.1 - 13.1 - 11.4	3.0	4.6	5.8	15.3	0.0	6.00	6.00	DEEMED	2.7
26-27	DA502	3	3	161.9	22.8	2.5	23.8	16.6 - 15.3	3.0	6.2	4.5	12.3	0.0	5.50	5.50	DEEMED	2.7
26-27	DA503	4	3	199.0	17.2	2.5	30.2	17.3 - 16.2 - 14.7	3.1	7.1	6.7	20.6	0.0	5.50	5.50	DEEMED	2.7
26-27	DA504	3	3	181.4	29.0	2.5	39.3	20.9 - 12.7	3.0	7.5	5.9	24.6	0.0	5.50	5.50	DEEMED	2.7
25	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
25	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
25	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
25	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
25	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
25	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
25	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
25	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7
24	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
24	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
24	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
24	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
24	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
24	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
24	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
24	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7
23	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
23	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
23	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
23	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
23	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
23	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
23	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
23	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7
22	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
22	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
22	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
22	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
22	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
22	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
22	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
22	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7
21	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
21	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
21	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
21	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
21	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
21	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
21	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
21	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7
20	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
20	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
20	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
20	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
20	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
20	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
20	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
20	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7

DA Level	Unit	No. of Bedrooms	No. of Bathrooms	GFA (m2)	Balcony Area (m2)	Balcony Depth (m)	Master Bed Area (m2)	Additional Bed Area(s) (m2)	Minimum Bed Dimension (m)	Habitable Room Depth (m)	Living Room Width (m)	Storage Internal (m3)	Storage External (m3)	2 Hours Solar 9am-3pm (Hours)	Any Solar 9am-3pm (Hours)	Cross Ventilation	Minimum Floor to Ceiling Height (m)
19	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
19	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
19	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
19	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
19	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
19	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
19	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
19	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7
18	UA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
18	UA502	1	1	62.8	8.1	2.4	12.1	N/A	3.1	8.0	4.5	4.5	1.5	2.25	2.25	DEEMED	2.7
18	UA503	1	1	55.1	8.1	2.4	13.5	N/A	3.0	7.2	4.0	4.4	1.6	2.25	2.25	DEEMED	2.7
18	UA504	1	1	60.1	8.2	2.4	13.3	N/A	3.2	7.4	3.7	4.1	1.9	3.00	3.00	DEEMED	2.7
18	UA505	2	2	89.0	10.4	2.6	19.7	14.6	3.0	6.5	4.3	8.3	0.0	0.00	0.00	DEEMED	2.7
18	UA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
18	UA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
18	UA508	2	2	108.4	11.3	2.5	20.3	12.5	3.2	8.0	4.6	5.4	2.6	5.50	5.50	DEEMED	2.7
17	LO501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
17	LO502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	2.25	2.25	DEEMED	2.7
17	LO503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	2.00	2.00	DEEMED	2.7
17	LO504	1	1	52.8	8.2	2.4	13.4	N/A	3.3	6.1	3.8	5.1	0.9	2.75	2.75	DEEMED	2.7
17	LO505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	5.1	2.9	0.00	0.00	DEEMED	2.7
17	LO506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
17	LO507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
17	LO508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
16	MA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
16	MA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	2.25	2.25	DEEMED	2.7
16	MA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	2.00	2.00	DEEMED	2.7
16	MA504	1	1	56.0	8.2	2.4	13.4	N/A	3.3	6.1	3.8	6.0	0.0	2.00	2.00	DEEMED	2.7
16	MA505	2	1	74.4	10.4	2.6	14.1	12	3.0	6.9	5.8	5.7	2.3	0.00	0.00	DEEMED	2.7
16	MA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
16	MA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
16	MA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
15	MA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
15	MA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	2.25	2.25	DEEMED	2.7
15	MA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	2.00	2.00	DEEMED	2.7
15	MA504	1	1	56.0	8.2	2.4	13.4	N/A	3.3	6.1	3.8	6.0	0.0	2.00	2.00	DEEMED	2.7
15	MA505	2	1	74.4	10.4	2.6	14.1	12	3.0	6.9	5.8	5.7	2.3	0.00	0.00	DEEMED	2.7
15	MA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
15	MA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
15	MA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
14	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
14	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	DEEMED	2.7
14	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	DEEMED	2.7
14	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	DEEMED	2.7
14	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	DEEMED	2.7
14	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
14	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
14	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
13	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
13	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	DEEMED	2.7
13	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	DEEMED	2.7
13	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	DEEMED	2.7
13	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	DEEMED	2.7
13	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
13	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
13	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7

DA Level	Unit	No. of Bedrooms	No. of Bathrooms	GFA (m2)	Balcony Area (m2)	Balcony Depth (m)	Master Bed Area (m2)	Additional Bed Area(s) (m2)	Minimum Bed Dimension (m)	Habitable Room Depth (m)	Living Room Width (m)	Storage Internal (m3)	Storage External (m3)	2 Hours Solar 9am-3pm (Hours)	Any Solar 9am-3pm (Hours)	Cross Ventilation	Minimum Floor to Ceiling Height (m)
12	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
12	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	DEEMED	2.7
12	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	DEEMED	2.7
12	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	DEEMED	2.7
12	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	DEEMED	2.7
12	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
12	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
12	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
11	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
11	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	DEEMED	2.7
11	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	DEEMED	2.7
11	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	DEEMED	2.7
11	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	DEEMED	2.7
11	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
11	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
11	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
10	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
10	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	DEEMED	2.7
10	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	DEEMED	2.7
10	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	DEEMED	2.7
10	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	DEEMED	2.7
10	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
10	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
10	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
09	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
09	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	DEEMED	2.7
09	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	DEEMED	2.7
09	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	DEEMED	2.7
09	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	DEEMED	2.7
09	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
09	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
09	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
08	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	DEEMED	2.7
08	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	DEEMED	2.7
08	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	DEEMED	2.7
08	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	DEEMED	2.7
08	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	DEEMED	2.7
08	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	DEEMED	2.7
08	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	DEEMED	2.7
08	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	DEEMED	2.7
07	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	YES	2.7
07	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
07	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
07	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	YES	2.7
07	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	YES	2.7
07	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	YES	2.7
07	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	PLENUM	2.7
07	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	NO	2.7
06	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	YES	2.7
06	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
06	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
06	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	YES	2.7
06	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	YES	2.7
06	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	YES	2.7
06	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	PLENUM	2.7
06	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	NO	2.7

DA Level	Unit	No. of Bedrooms	No. of Bathrooms	GFA (m2)	Balcony Area (m2)	Balcony Depth (m)	Master Bed Area (m2)	Additional Bed Area(s) (m2)	Minimum Bed Dimension (m)	Habitable Room Depth (m)	Living Room Width (m)	Storage Internal (m3)	Storage External (m3)	2 Hours Solar 9am-3pm (Hours)	Any Solar 9am-3pm (Hours)	Cross Ventilation	Minimum Floor to Ceiling Height (m)
05	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	YES	2.7
05	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
05	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
05	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	YES	2.7
05	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	YES	2.7
05	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	YES	2.7
05	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	PLENUM	2.7
05	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	NO	2.7
04	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	YES	2.7
04	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
04	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
04	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	YES	2.7
04	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	YES	2.7
04	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	YES	2.7
04	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	PLENUM	2.7
04	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	NO	2.7
03	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	YES	2.7
03	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
03	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
03	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	YES	2.7
03	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	YES	2.7
03	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	YES	2.7
03	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	PLENUM	2.7
03	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	NO	2.7
02	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	YES	2.7
02	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
02	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
02	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	YES	2.7
02	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	YES	2.7
02	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	YES	2.7
02	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	PLENUM	2.7
02	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	NO	2.7
01	LA501	3	3	150.9	12.1	2.5	18.5	13.5 - 12.3	3.0	5.1	5.9	7.8	2.2	4.50	4.50	YES	2.7
01	LA502	1	1	62.8	8.1	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
01	LA503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
01	LA504	1	1	52.5	8.2	2.4	13.4	N/A	3.3	6.1	4.4	6.2	0.0	0.00	1.50	YES	2.7
01	LA505	2	1	72.4	10.4	2.6	14.7	12.0	3.0	6.9	4.2	8.0	0.0	0.00	0.00	YES	2.7
01	LA506	2	2	103.0	8.5	2.5	16.9	10.6	3.0	7.3	6.9	8.1	0.0	4.75	4.75	YES	2.7
01	LA507	1	1	67.6	8.3	2.5	14.6	N/A	3.1	8.3	3.6	5.9	0.1	4.75	4.75	PLENUM	2.7
01	LA508	2	2	108.3	11.3	2.5	20.0	12.6	3.2	8.0	4.6	4.4	3.6	4.50	4.50	NO	2.7
P2	PO501	3	3	149.4	12.1	2.5	18.2	13.4 - 12.3	3.0	5.1	5.9	6.7	3.3	4.50	4.50	YES	2.7
P2	PO502	1	1	62.8	8.0	2.4	12.4	N/A	3.1	8.0	4.5	4.1	1.9	0.00	1.50	NO	2.7
P2	PO503	1	1	54.3	8.1	2.4	11.9	N/A	3.1	6.0	4.4	7.1	0.0	0.00	1.25	NO	2.7
P2	PO504	1	1	67.8	8.2	2.4	17.1	N/A	3.1	7.4	4.4	6.2	0.0	0.00	1.50	YES	2.7
P2	PO505	3	3	165.0	16.8	2.5	19.3	18.8 - 14.4	3.3	7.1	5.8	15.6	0.0	4.75	4.75	YES	2.7
P2	PO506	2	2	108.3	11.3	2.5	20.1	12.6	3.2	8.0	4.6	6.9	1.1	4.50	4.50	NO	2.7
P1	PO503	1	1	51.6	8.1	2.5	11.3	N/A	3.1	6.0	3.6	6.0	0.0	0.00	1.25	NO	2.7
P1	PO504	1	1	68.5	8.1	2.4	16.9	N/A	3.1	7.0	4.2	7.6	0.0	0.00	1.25	YES	2.7



Renzo Piano



Emanuela Baglietto