

Pre-Lodgement Meeting Response

601 PACIFIC HIGHWAY

Pre-Lodgement Meeting Response

Council Advice		Architectural Response
COMMENTS 2.1 FSR	a) Minimum non-residential FSR	Justification Provided by Urbis
COMMENTS 2.2 Building Height	a) Plant levels - 8m/6m	Refer item 2.5-b for plant room strategy. The plant area has been allocated that is appropriate to achieve PCA-A grade level of servicing.
	b) Podium levels - 4m - floor to floor	Refer Item 2.2b. – Justification Provided by Arup (Please refer to Arup’s Justification Letter)
	c) Tower levels - 3.75m - floor to floor	Refer Item 2.2c. – Justification Provided by Arup (Please refer to Arup’s Justification Letter)
	d) Roof - 9.65m structure	Plant room justification for double stacked plant room + 9m lift overrun.
	e) Above roof - 10.51m void envelope	Need Client instruction – Architectural Roof Features
	f) Maximum building height should be lower than 617-621 Pacific Highway (180m) / 2036 Plan Principle	Justification Provided by Urbis
COMMENTS 2.3 Podium Heights	a) Podium height/Oversize	Refer Item 2.3. The additional floorplate depths result in requirement to increase floor to floor beyond that of a typical level. This is caused by deeper structure and deeper floorplate requiring increased ceiling heights Justification Provided by Arup (Please refer to Arup’s Justification Letter)
	b) Contextual response	Refer Item 2.3.
COMMENTS 2.4 Setback	a) Ground floor setback along Pacific Highway (3m)	Refer Item 2.4. The reference design has been amended to provide compliant setback along Pacific Highway.
COMMENTS 2.5 FSR & Tower Floorplate Area	a) GFA calculation errors (Excluding toilet, kitchenette and corridor areas)	Refer Item 2.5-a. There was no calculation error as the area highlighted by Council has been included in GFA. The blue zone on the plan referred to NLA area while the number referred to GFA (the two items were not interrelated). The design team has provided a drawing showing GFA calculation by floor for the entire development.
	b) Three plant room levels	Refer Item 2.5-b. The three plant rooms are required due to building height and additional loading caused by larger podium floor levels. The reference design assumes a traditional service solution that serves podium floor from a single low rise plant (above podium). The low rise and some high rise floors are served from mid level plant. The roof plant serves remaining high rise levels. Additionally roof plant due to floorplate reduction (caused by the solar plane) has been designed as two storey plant to accommodate lift overrun (8m+) and heat rejection on upper level. Justification Provided by Arup (Please refer to Arup’s Justification Letter)
COMMENTS 2.6 Tower Floorplate Layout	a) Blank walls treatment (Atchison St & Mitchell Plaza)	Refer Item 2.6. The ‘blank’ appearance of the core element is in fact caused by the louvre privacy screens applied to bathroom amenity windows located in the core. While the Council report states availability of view to east, the design team has prioritised privacy to neighbouring residential properties. The design will be subject to DA.
COMMENTS 2.7 Ground Level Activation	a) Fine grain retail space (Atchison St & Mitchell Plaza)	Refer Item 2.7. The reference design has been amended to include retail tenancies along side Atchison Street and Mitchell Street Plaza
COMMENTS 2.8 Mitchell Street Plaza	a) Basement levels should be consolidated beneath building footprints to allow for adequate deep soil zones	Refer Item 2.8a. The building utilised existing basement excavation and as such the proposal is constrained by the existing layout. However the diagram, refer Item 2.8, shows ample zone of deep soil planting outside of basement zone.
	b) Street trees along Mitchell Street Plaza	Refer Item 2.8b. The Amendment proposes trees / greenery along Mitchell Street Plaza in raised planters as justified in 2.8a and 2.8b.
COMMENTS 2.9 Driveway Access and Location	a) Driveway access via Atchison Street	Justification Provided by Urbis
COMMENTS 10 Wind modelling	a) Wind study identifying wind impacts between the site and the adjoining development at 617-621 Pacific Highway	To be concluded when Wind Analysis is finalised.
	b) Strategies to mitigate impacts and create pedestrian comfort at the ground plane	To be concluded when Wind Analysis is finalised.

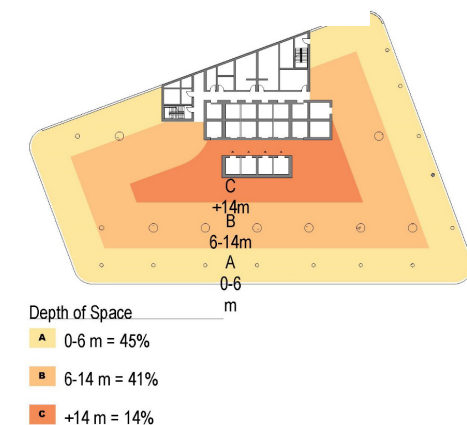
Pre-Lodgement Meeting Response

2.2b Building Height – Podium Levels

Floor to Floor Heights

The floor-to-floor heights for the podium levels are appropriate to achieve PCA A-grade quality office accommodation. The podium floors have less access to daylight and are larger in size than the tower. In order to gain adequate daylight, the floor plates require more floor-to-floor height than upper floors. It is common for floor-to-floor height of 4m at podium levels. As Council notes, 3.6m is a minimum level, thus the concept is compliant with the DCP.

Typical Podium Floor



Typical Podium floor section detail

2.2c Building Height – Tower Levels

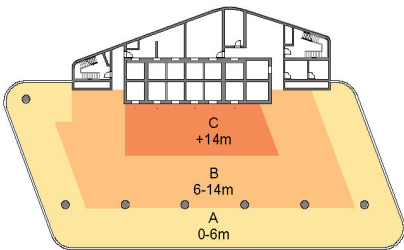
Floor to Floor Heights

The floor to floor heights are appropriate in order to achieve PCA-A grade quality office space.

Floor-to-floor heights for typical A and Premium grade office floors are 3.75 to 3.85m in order to maintain a minimum 2.7m ceiling and accommodate a 150mm raised floor, depending on the core location, floor plate size and mechanical system selection. A floor-to-floor height lower than 3.75m would limit the mechanical system selection and restrict the flexibility for a commercial office floor.

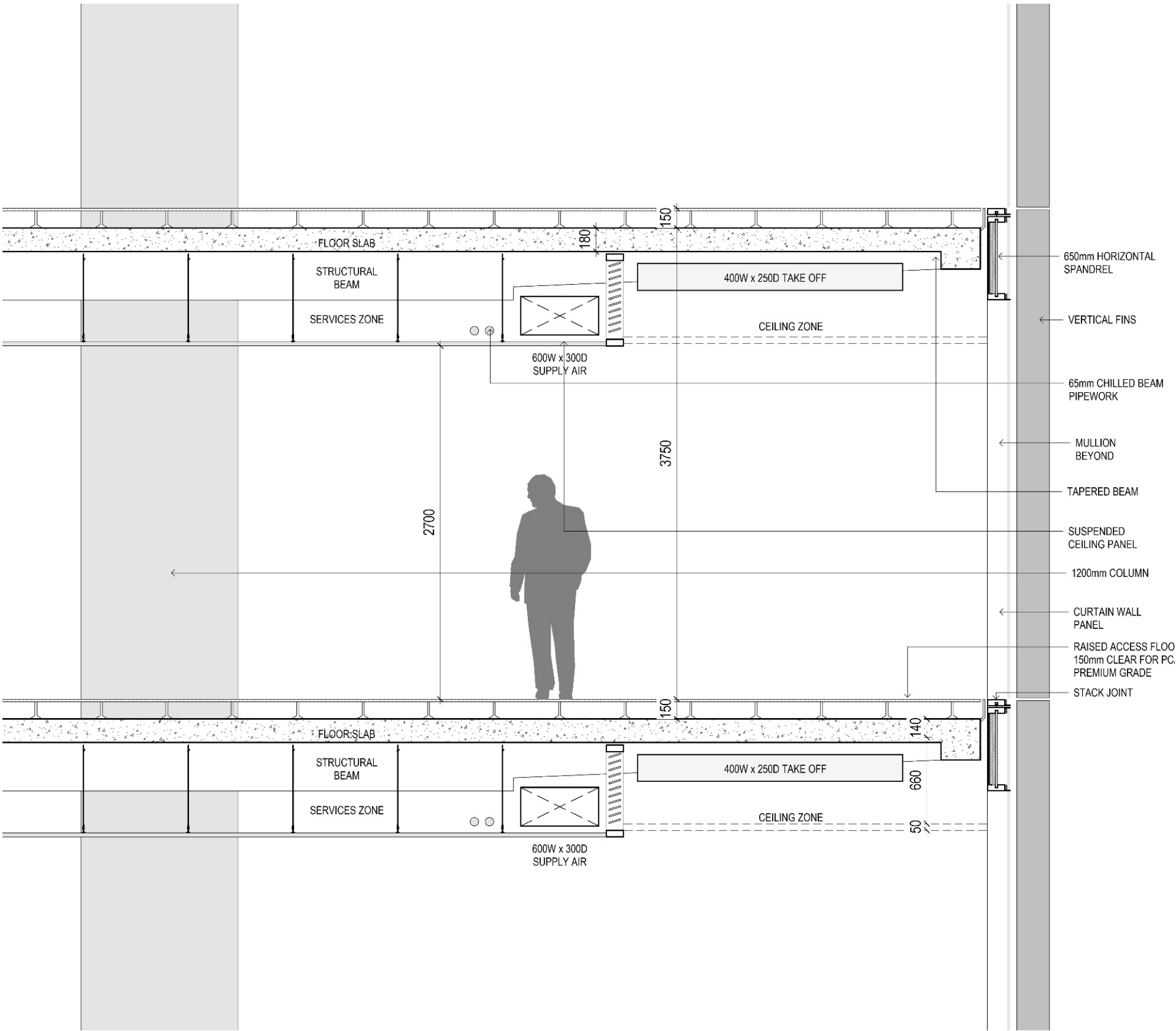
While the proposed 3.75m floor-to-floor heights are in excess of the 3.6m standard in the North Sydney DCP 2013, 3.6m would be inadequate. The proposed reference design of 3.75m floor to floor is appropriate based on likely structure sizing and is comparable to the recently approved and constructed commercial buildings of similar quality within North Sydney Council area.

Typical Mid-rise Floor



Depth of Space

A	0-6 m = 46%
B	6-14 m = 40%
C	+14 m = 14%



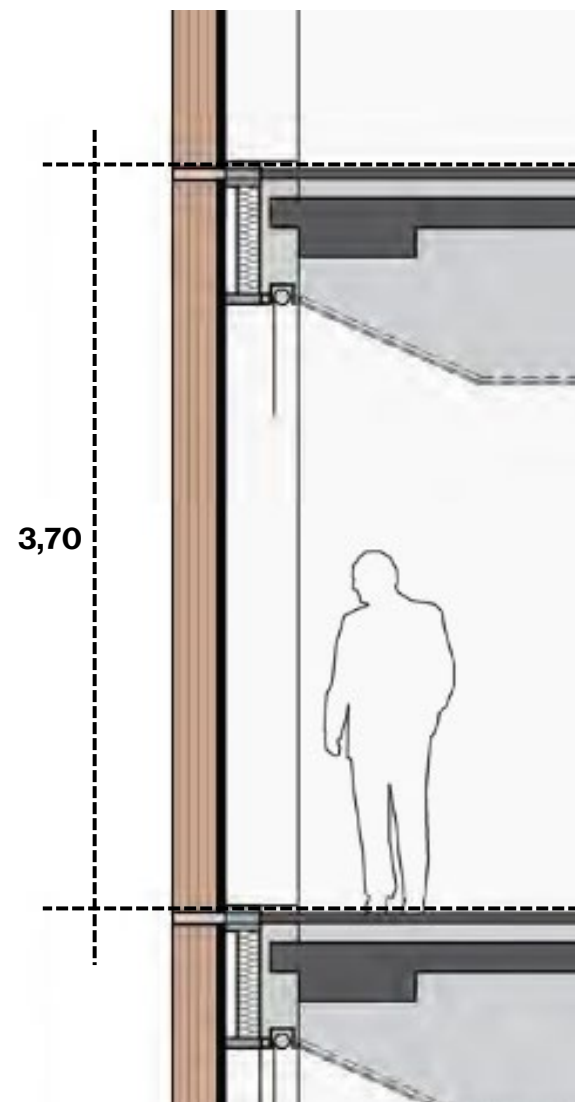
Typical Commercial floor section detail

Pre-Lodgement Meeting Response

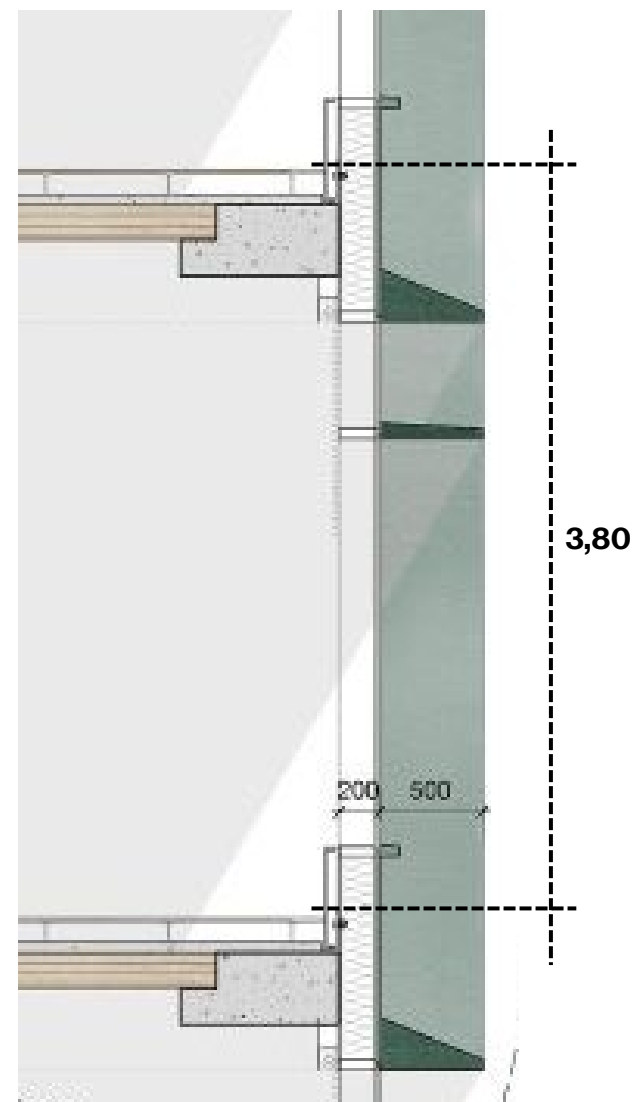
2.2c Building Height – Tower Levels

Floor to Floor Heights

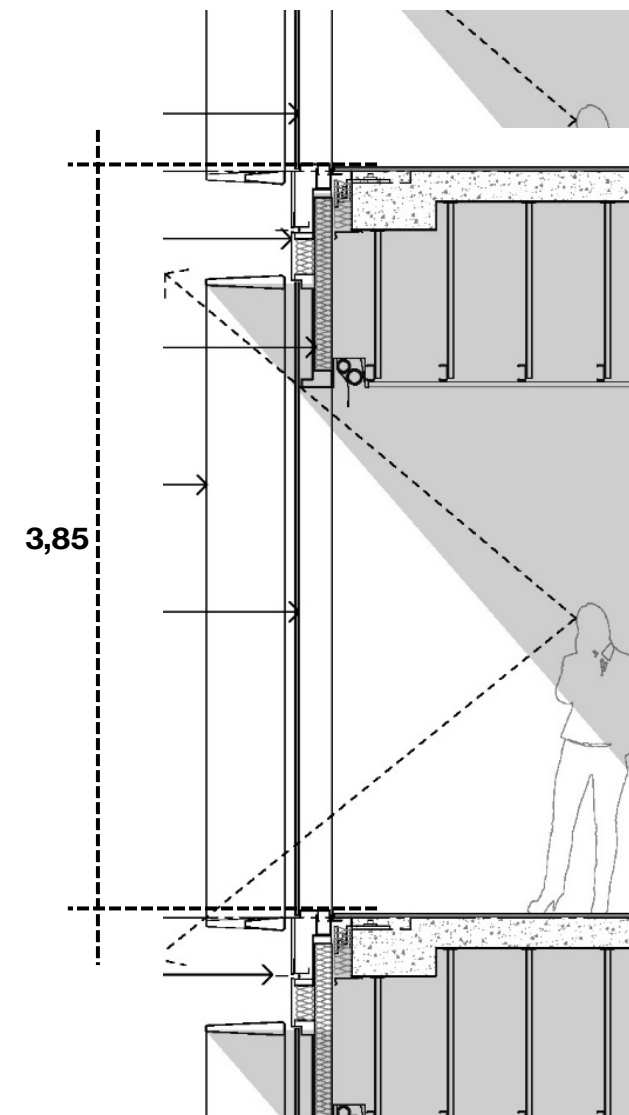
The recently approved or built developments within North Sydney Area all have substantially higher or equal floor to floor than the proposed 601 Pacific Highway Scheme. This floor to floor is necessary and the justification can be referred in the Justification Letter provided by Arup.



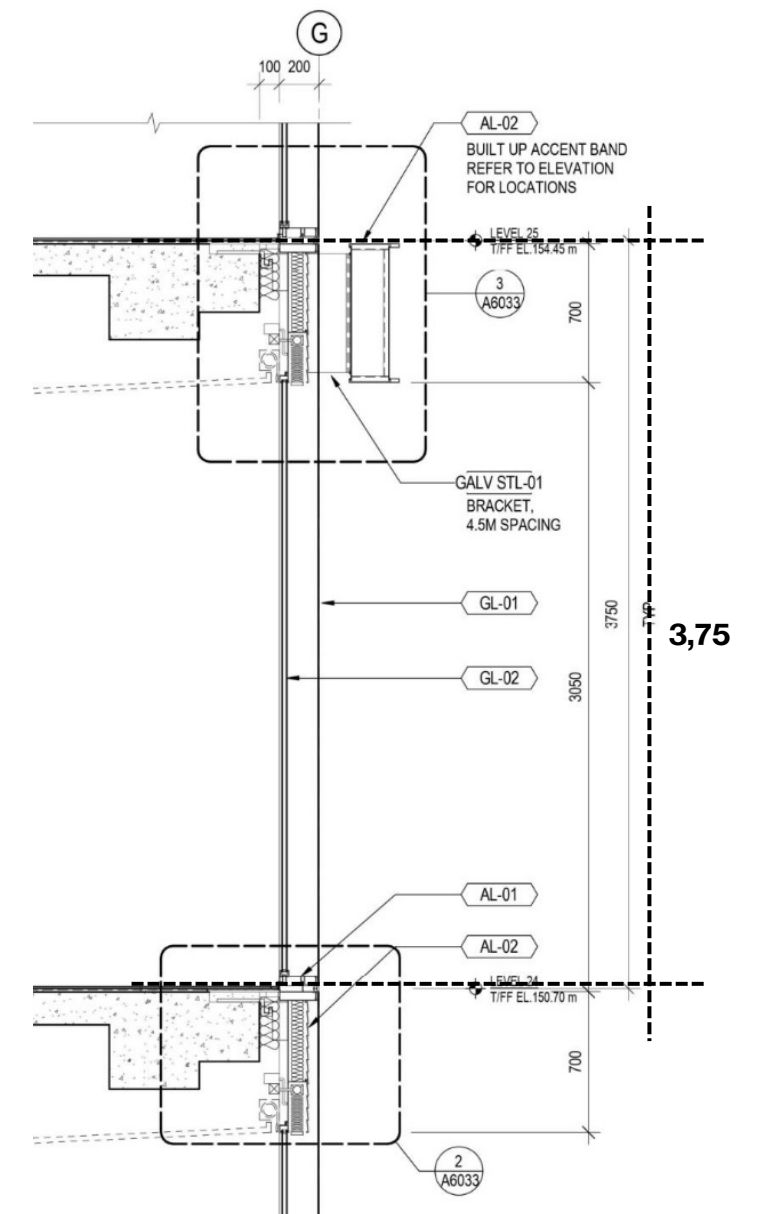
110 Walker Street



100 Walker Street



63-83 Walker Street



100 Mount Street

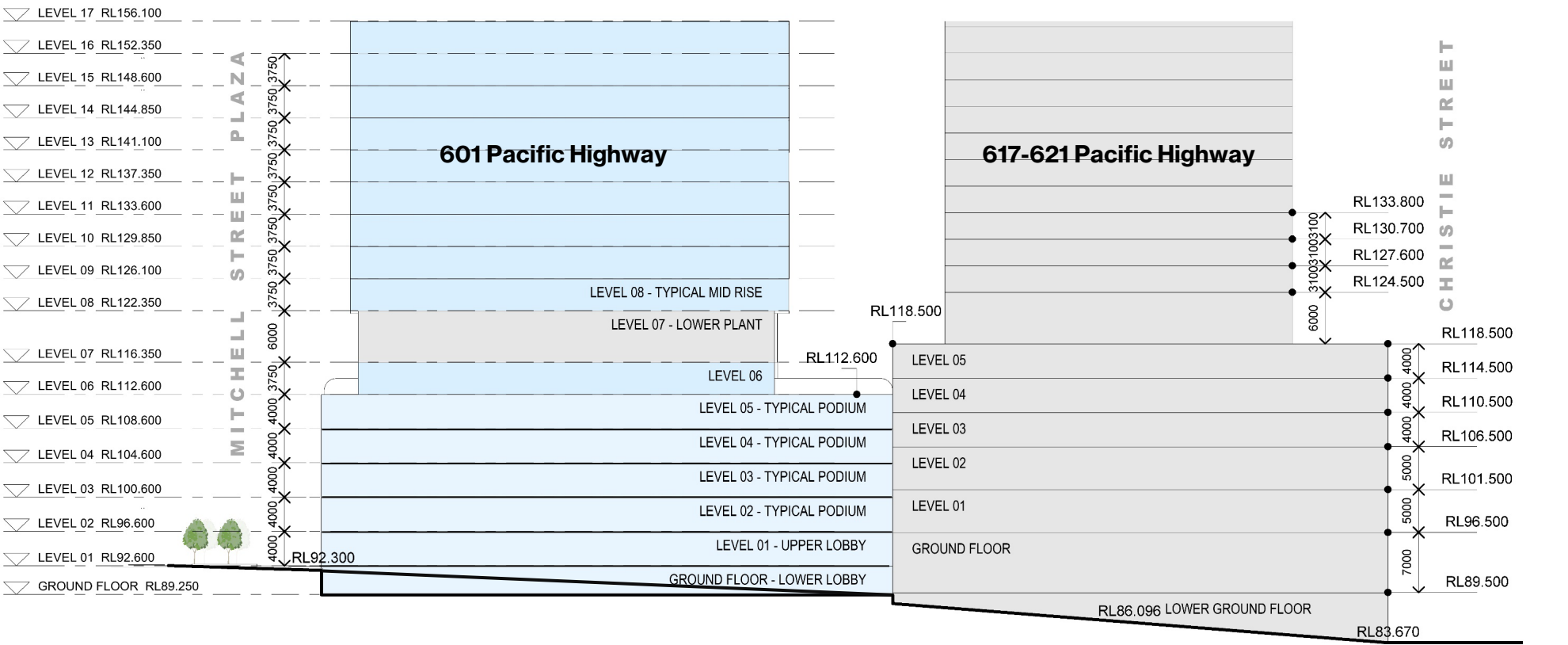
2.3 Podium Heights

Podium Heights

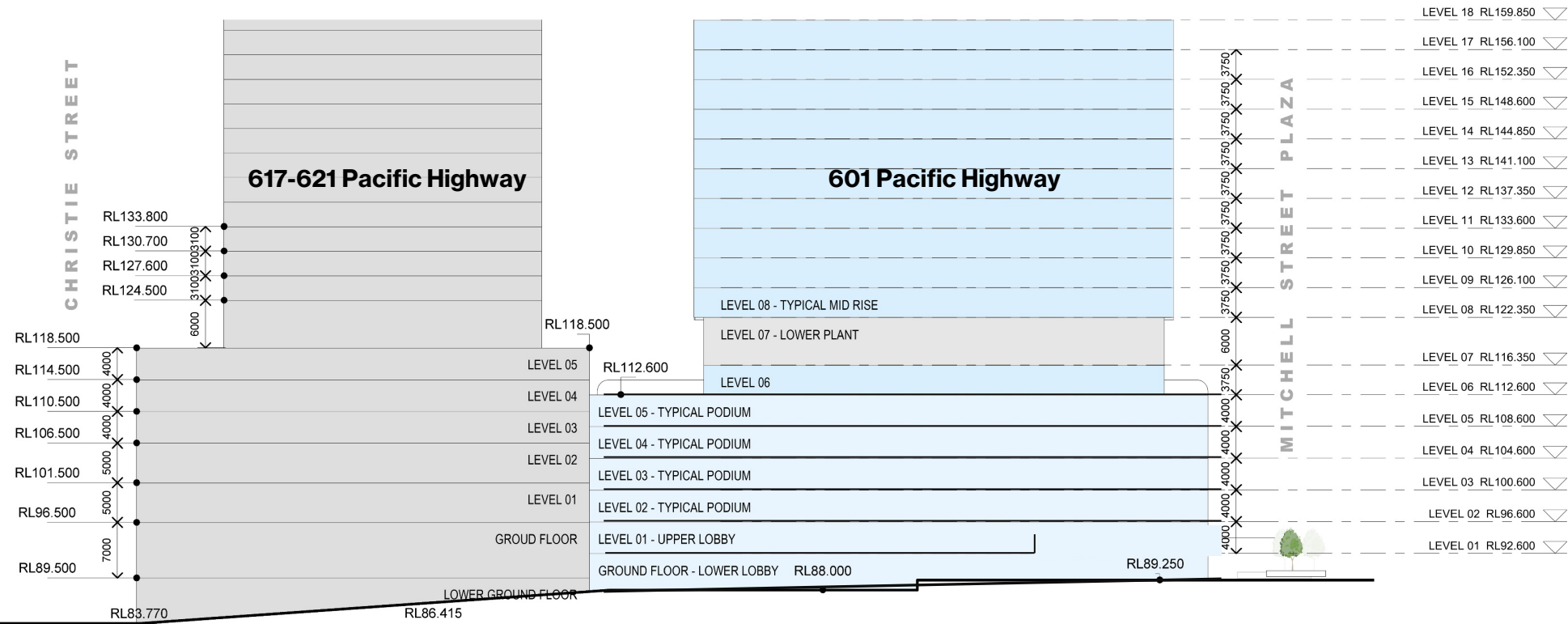
The 2036 Plan incorporates specific built form parameters for the subject site that have been informed by detailed urban design analysis. It is considered that the built form parameters of the 2036 plan prevail to the extent of any inconsistency with the DCP 2013 particularly given the terms of the Ministerial Direction .

The indicative concept proposal has been designed to achieve compliance with the 2036 Plan podium street wall heights controls. However, the site’s topographical conditions do not allow strict compliance with the five storey street wall height. The varied podium height is a direct response to the gradient, which falls from the north-east by 2.5 metres to the south and 3.5 metres to the west. This is a long accepted urban design response to site conditions.

Notwithstanding the minor variance, at the site’s most visible and prominent frontage to the intersection of Atchison Street and Mitchell Street, the podium expression establishes a five storey street wall height. This is consistent with the 2036 Plan and establishes a consistent podium datum line that aligns to the prevailing streetscape in the surrounding locality.



Atchison Street Elevation



Pacific Highway Elevation



Artist impression

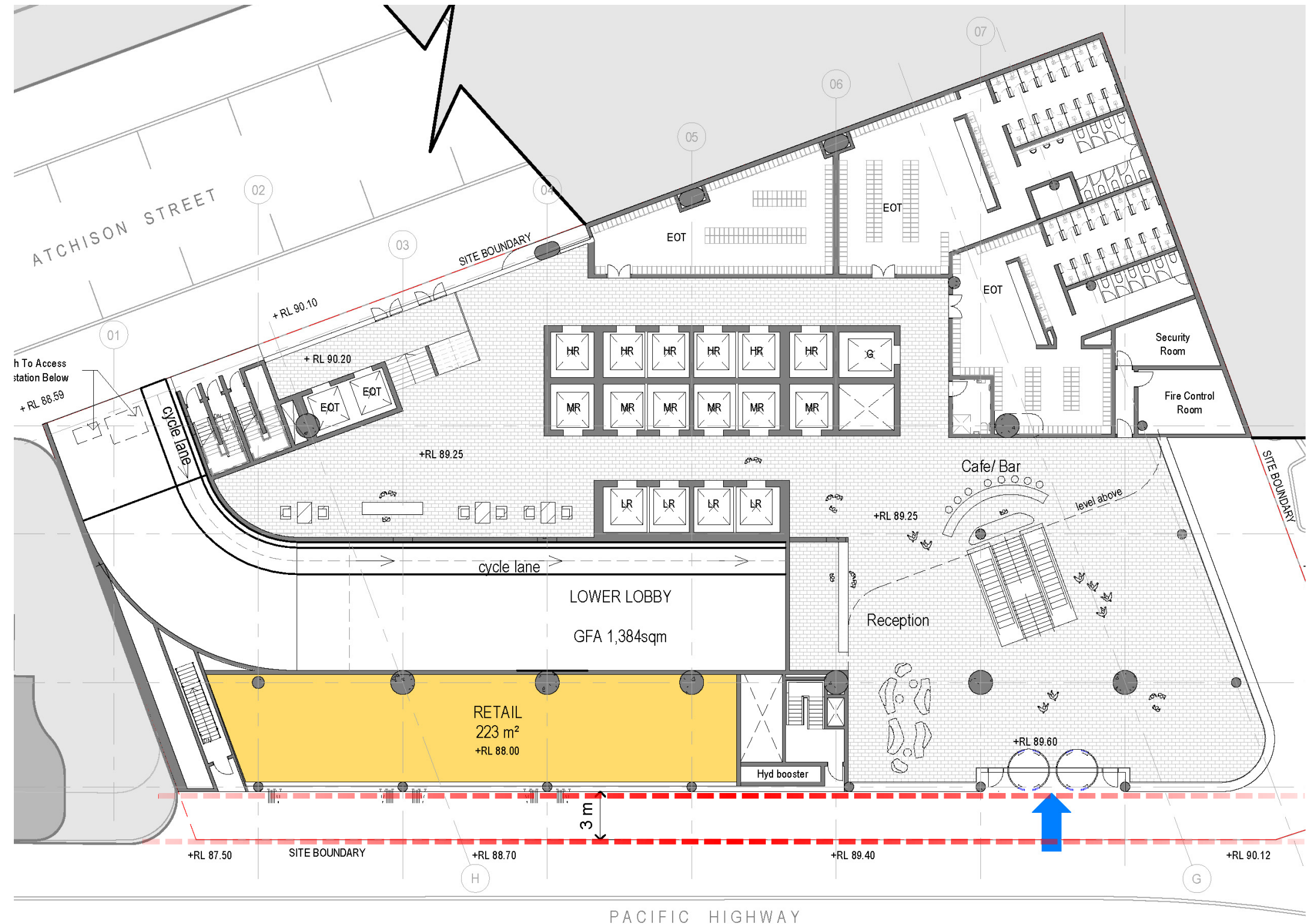
2.4 Setbacks

Ground Floor setback alongside Pacific Highway.

The Proposed design has been modified in order to comply with minimum requirements in the 2036 Plan and NSDCP 2013.

The proposed Lower Ground Floor has been amended by removing all podium architectural features, the Hydrant Booster Valve and the columns from the 3m setback zone. These were relocated in order to comply with the requirements in the NSDCP 2013 and 2036 Plan and obviously to provide a more generous and continuous footpath along Pacific Highway.

This amendment also provides continuous weather protection and amenity along this stretch of Pacific Highway which overall results in a superior and more friendly pedestrian experience along the busy Pacific Highway.



3m Compliant Setback Area

Lower Ground Plan

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2.5-a FSR & Tower Floorplate Area

GFA

The adjacent image shows the GFA outline for the typical mid-rise floor which confirms the accuracy of the conducted GFA measurement. It includes toilets, kitchenette and corridors.

GFA: 1,387 sqm



Typical Mid-rise floor

Pre-Lodgement Meeting Response

2.5-a FSR & Tower Floorplate Area

GFA

The adjacent image shows the GFA outline for the typical high-rise floor which confirms the accuracy of the conducted GFA measurement. It includes toilets, kitchenette and corridors.

GFA: 1,459 sqm



Typical High-rise floor

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2.5-b Three Plantroom Levels

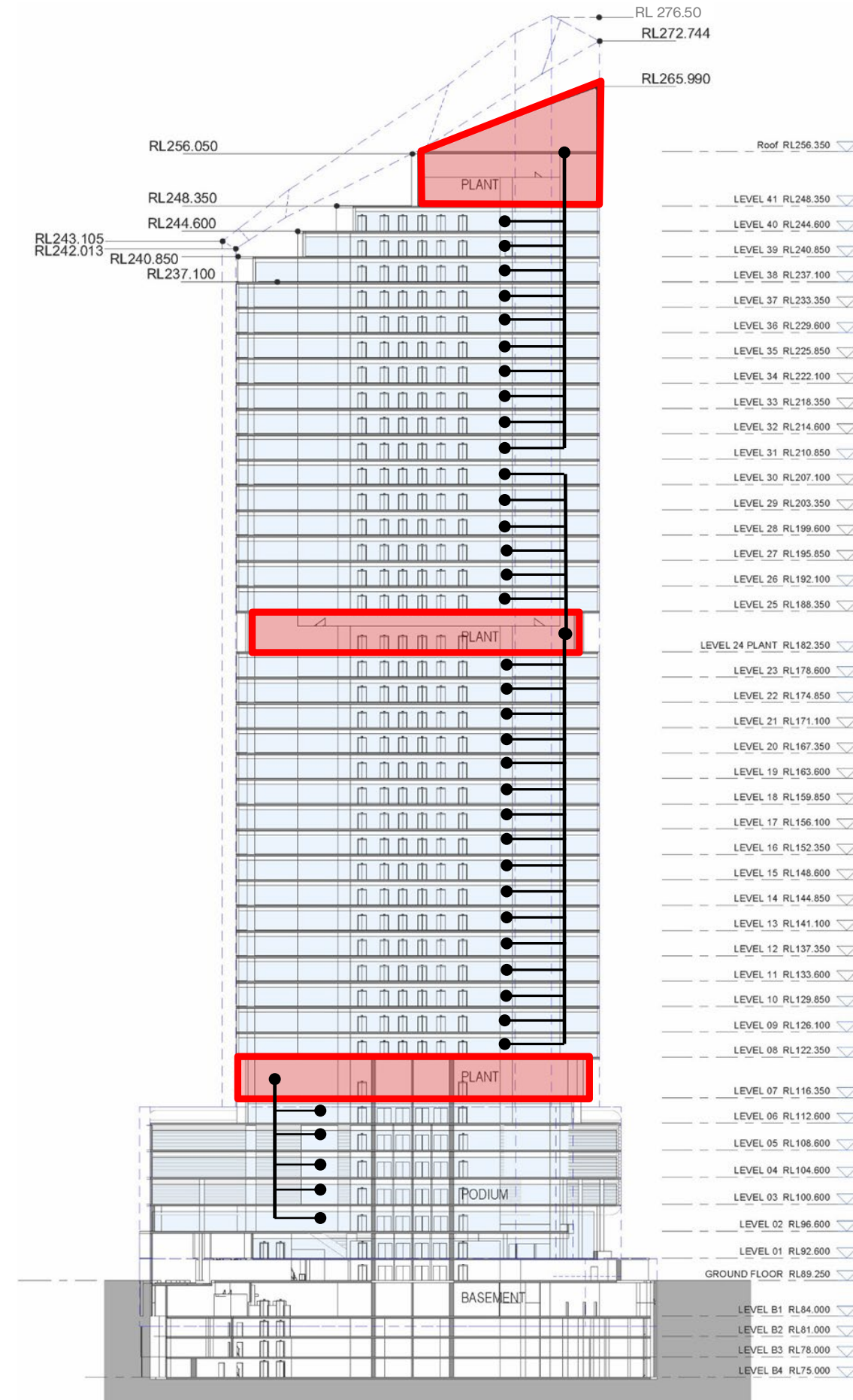
Mid level plantroom:

The driving item for the mid plant room height is the upper chamber substation as Ausgrid's standard (NS113) mandates 4.2m clear height - 3.2m for the substation and 1m for the cabling or trench. In addition, it is necessary to hoist transformers to ground level for replacement which at this height will need a lifting beam or drum depth of circa 1.2m. If we consider the sum of these 2 dimensions (5.4m) plus structure (slab and beam thickness), it is possible to conclude that 6m is the appropriate height for the mid level plant room. It is also pertinent to refer that at this level the plant rooms are proposed as double stacked for the other half of the floor plate by having ventilation plant on top of chilled water plant and switch rooms. In conclusion, 6m is tight if structure is to be considered.

Low level plantroom:

The purpose of this low level plant room is to accommodate ventilation plant. The necessary equipment (Air Handling Units and duct work) require a minimum of 5m clear headroom. Subsequently, it is necessary to consider the floor structure (slab, beams, raised floors) and for this reason 6m is also considered as the adequate height for the low level plant room.

East West Section



Pre-Lodgement Meeting Response

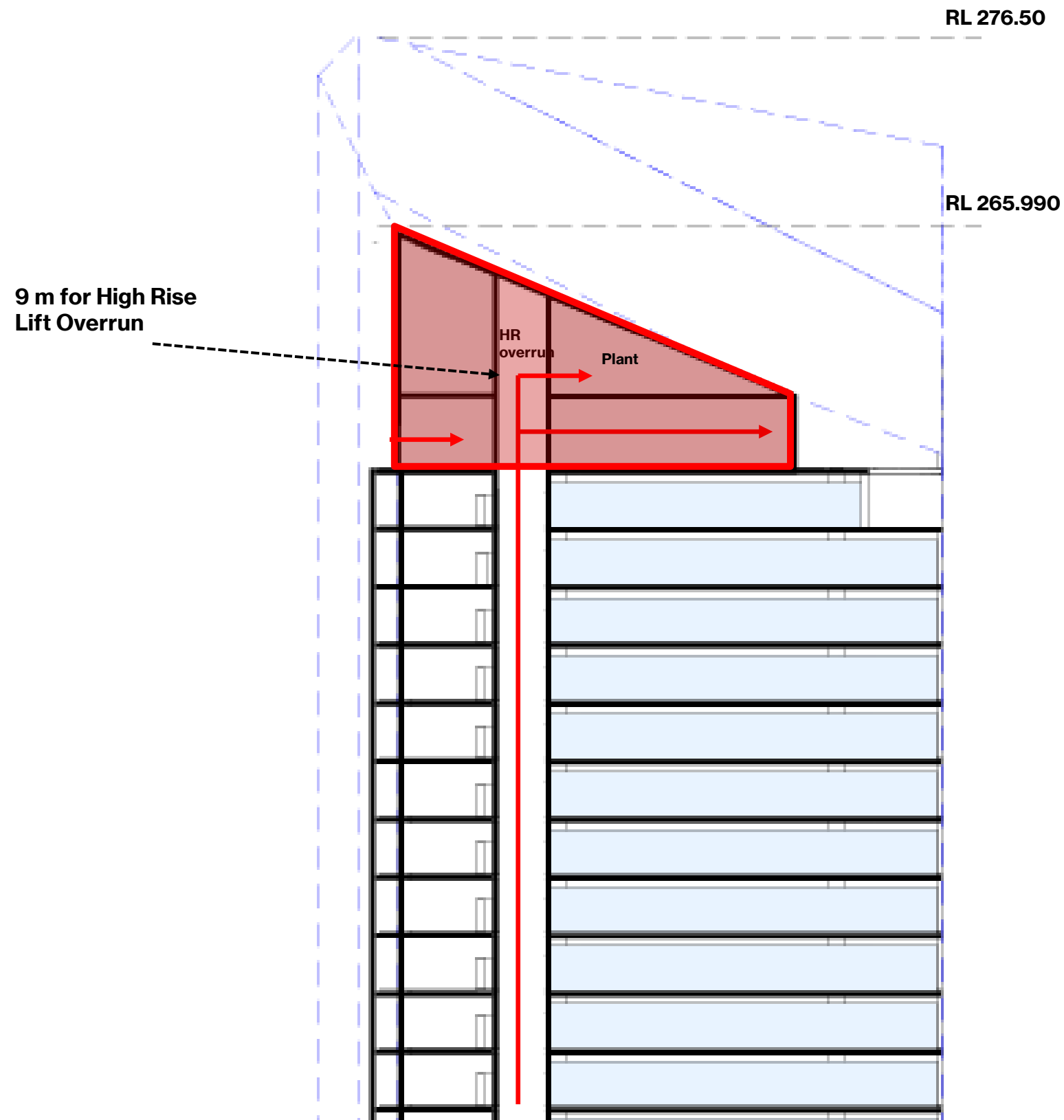
2.5-b Three Plantroom Levels

Top plant room

This is effectively two plantroom floors. On the lower level it is necessary to accommodate tanks and ventilation plant with cooling towers and heat pumps on the level above, hence, 8m height cannot be considered a generous dimension for the top plantroom. The ventilation plant requires 3m clear minimum, necessary for duct work across the floorplate at high level to risers plus 2.1m clear for access per unit space beneath. On the top level, 5m for cooling towers (incl deck/structure), which is tight as normally the recommended headroom is 6m+.

The plant room volume for the proposed scheme is also justified for the fact that it should incorporate the lift overrun. It allows access to each stepped landscaped open space on the roof. The required overrun for high rise lift is 9m.

Lastly, the plantroom and roof were designed as an architectural feature that will add to St. Leonards Skyline. As stated and requested on the NSDCP Part B, point 2.4.6, the roof has been designed to provide character to the building and to St. Leonards Skyline. The roof design is integral part of the overall design of the building and the rooftop plant room is contained in a single structure and is not perceptible from any point on the ground floor.



East West Tower Crown Section

Pre-Lodgement Meeting Response

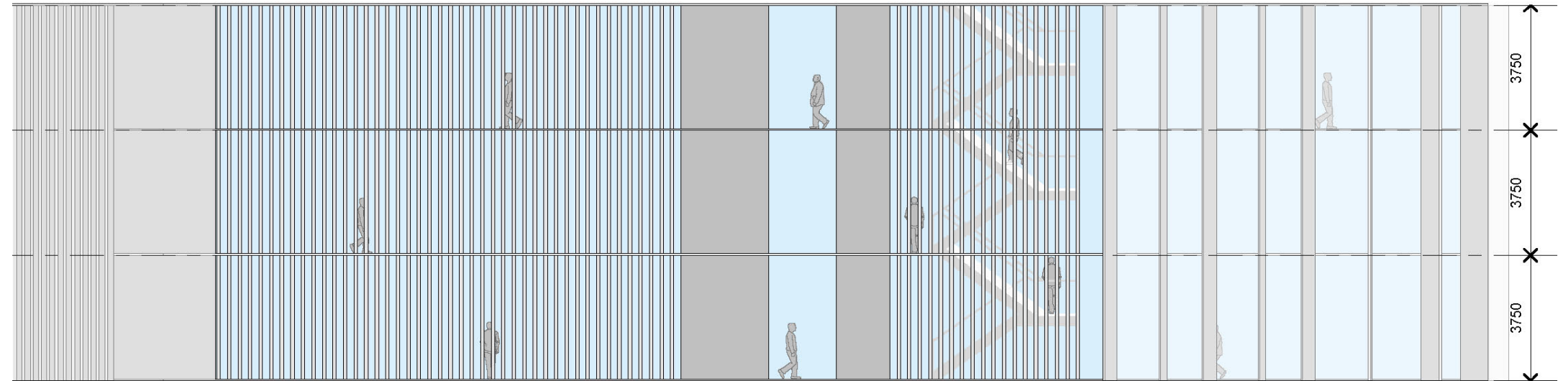
2.6 Tower Floorplate Layout

North Façade

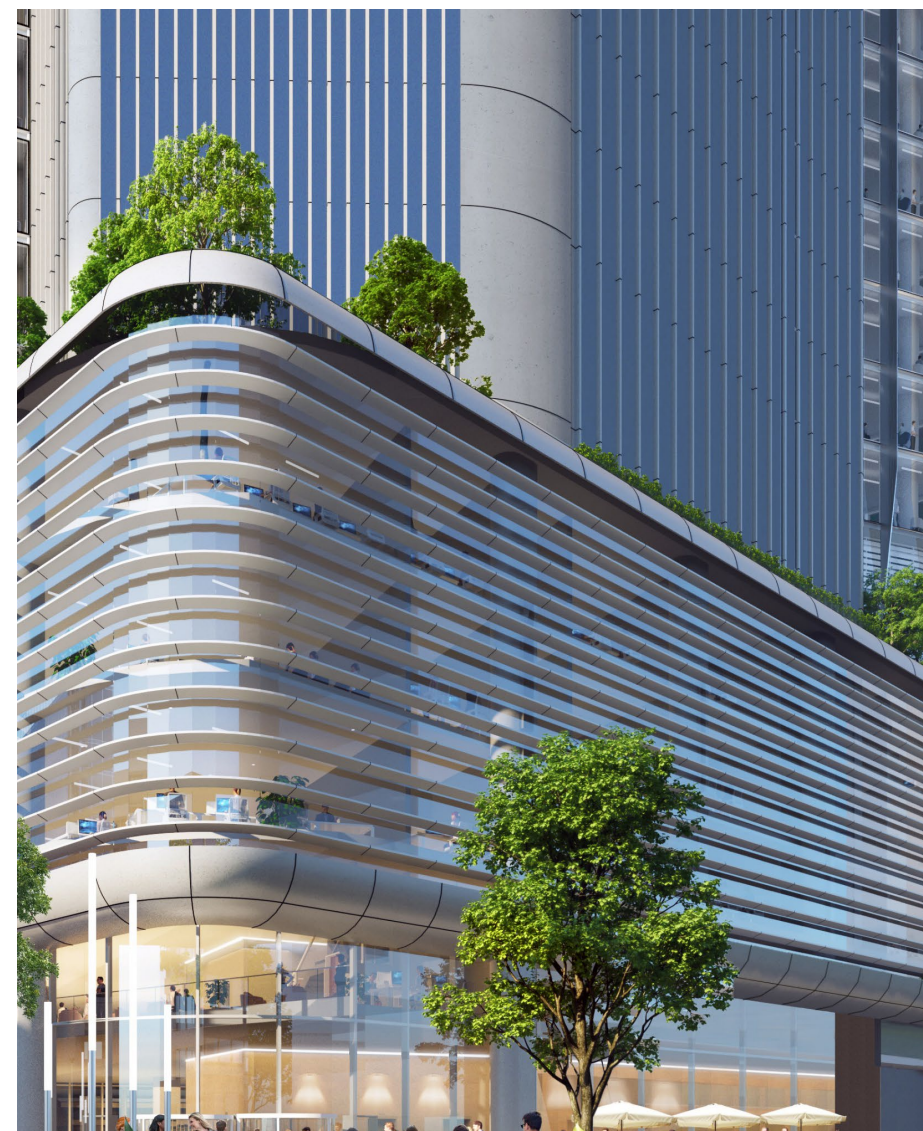
The North façade treatment is part of the general façade treatment for the tower which concept provides an elegant vertical expression delivering a floor-to-ceiling window solution providing view access to the city below and maximizes daylight deep into the floor.

The design of the north façade proposes a simple conceptual approach that requires solid portions to help protecting the privacy of the building to the North (20-22 Atchison Street). The images to the left depict the proposed design of the North façade with an appropriate proportion between vertical louvers and glazing. This façade treatment as previously said, protects privacy, passively shades the tower (reducing solar heat gain and energy consumption) but most importantly avoids creating a solid, sterile wall.

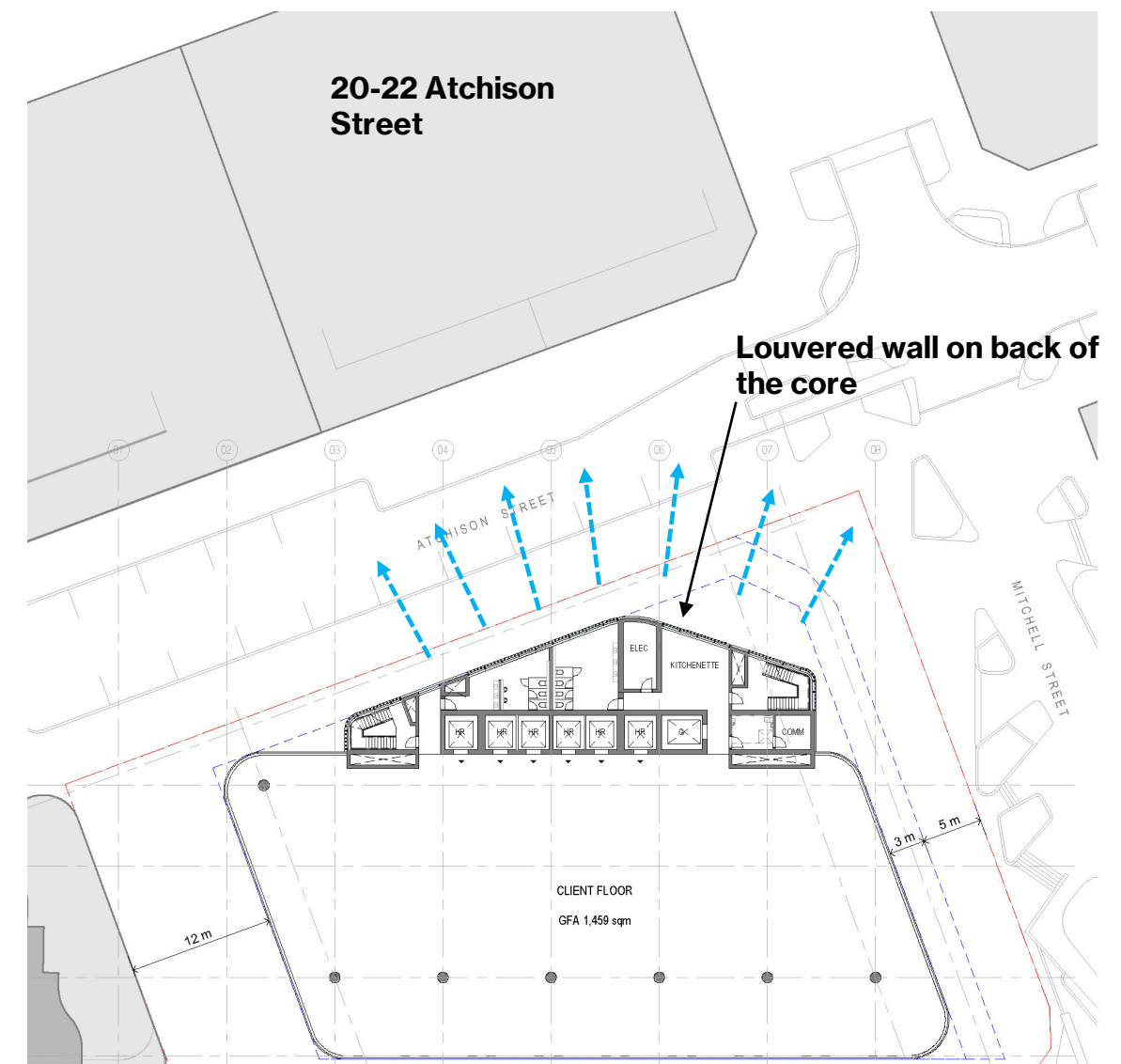
The north façade is envisaged as a careful, active and dynamic element of the tower that balances privacy, performance, views and activation to the adjacent urban environment essential to deliver a great tower outcome for St. Leonards.



North Façade detail



Louvered façade View



Typical highrise plan

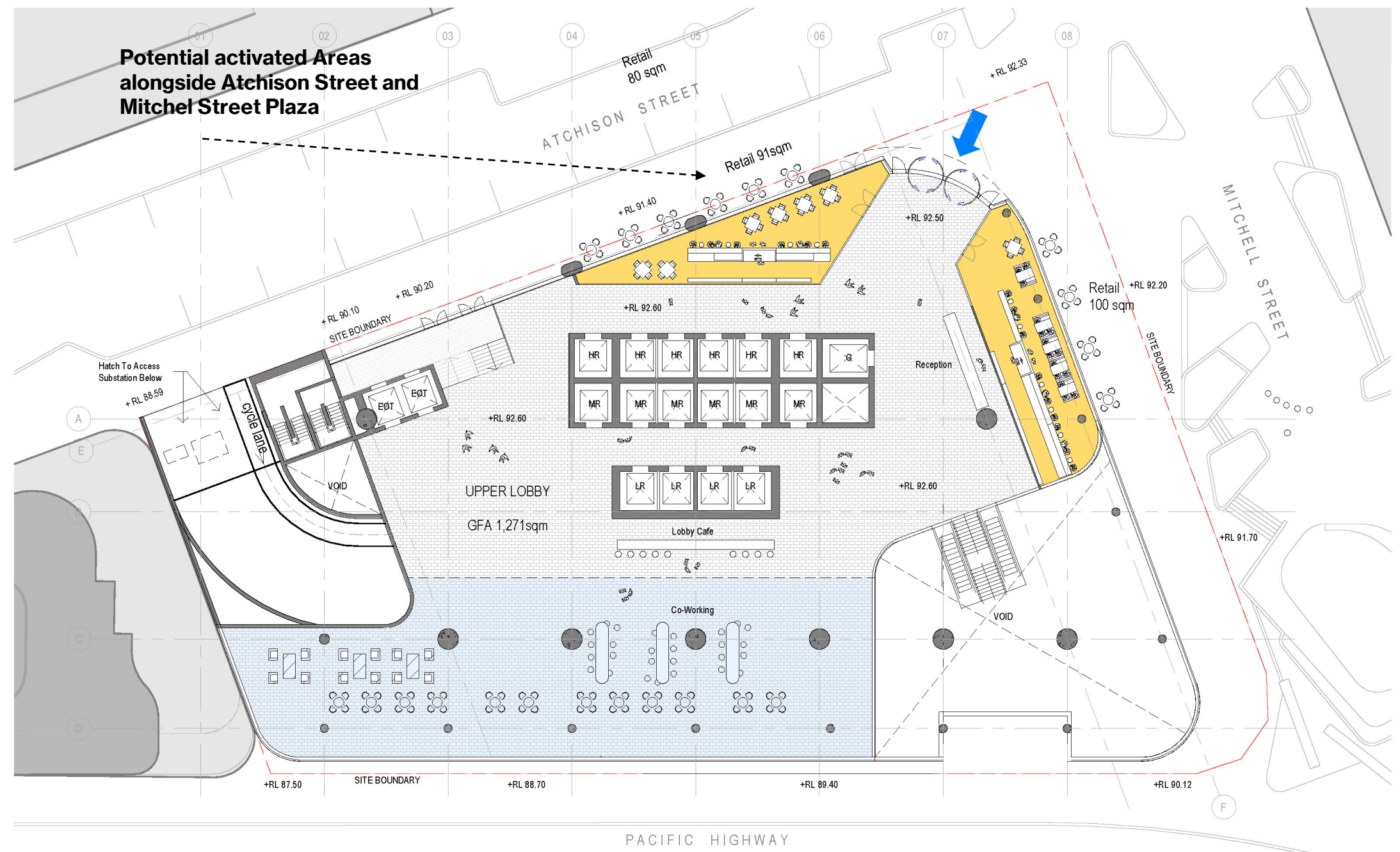
2.7 Ground Level Activation

Fine Retail Space (Atchison Street and Mitchell Plaza)

The proposed design amendments respond to Council's raised concerns regarding the St. Leonards Crowns Nest Precinct 2&3 Planning Study. In this study, Atchison Street is envisaged as a "Civic high Street" with high degree of activation at ground level. The amendments, include food and drinks or retail tenancies that will activate the precinct both on Atchison Street and Mitchell Street Plaza.

The inclusion of these tenancies directly addressed to the public domain ensures lively and activated street frontages which are flexible in terms of area and can operate as F&B or Retail spaces and also can be fragmented in smaller scale tenancies providing a more diverse offer to public.

As previously mentioned there are opportunities for different retail activities in these tenancies hence the suggested fit outs should be considered as indicative only and are subject to a separate tenant fit out Development Application.



Proposed activated areas

Upper Ground Floor

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2.7 Ground Level Activation

architectus™



Artist impression

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2.8a Mitchell Street Plaza

Basement Extent

As mentioned by the Council in the Pre-Lodgement Meeting the introduction of trees is envisaged in order to create “green street” which are part of the 2036 Plan.

Council has raised interest in densifying biophilia in Mitchell Street Plaza most specifically on the Western side along 601 Pacific Highway frontage by introducing deep soil planting on the 5m setback zone.

The proposed design for 601 Pacific Highway retains the car park structure of the existing building and the diagram to the left illustrates the extension of the existing car park comparatively with the 601 site area. It is possible to understand that there is not enough area for deep soil planting hence another solution for introducing landscape must be considered.

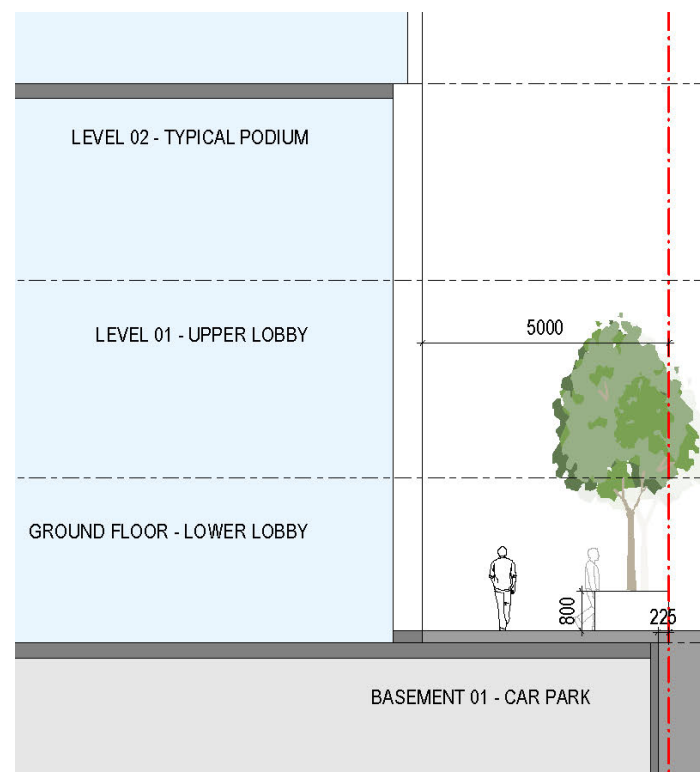


2.8a Mitchell Street Plaza

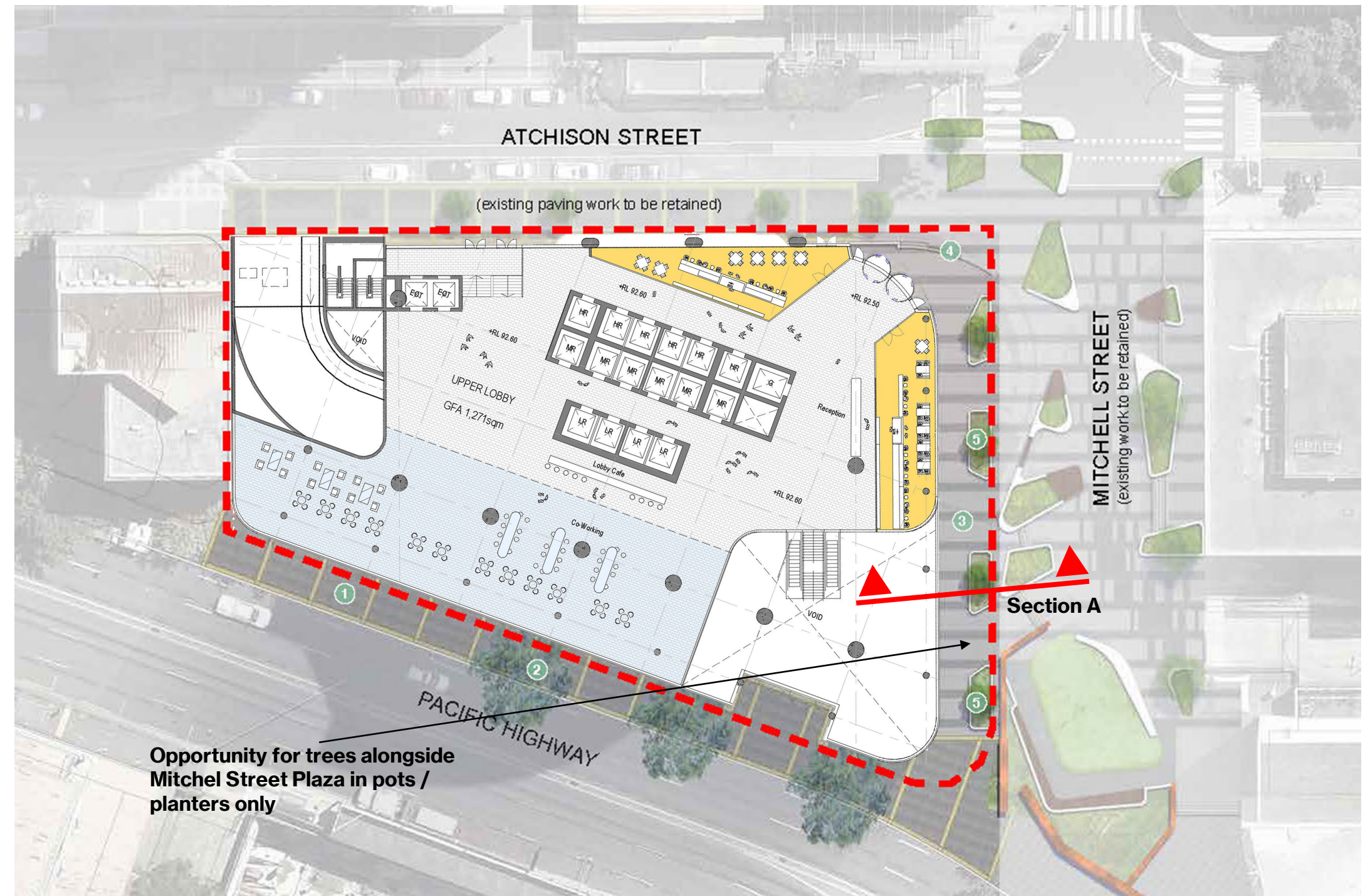
Street Trees along Mitchell Street Plaza

The proposed amendment can include trees along side Mitchell Street Plaza in a responded to Council's request to promote a "greener" Mitchell Street Plaza. This amendment will provide shade, amenity and a more aesthetically pleasant urban environment for pedestrians. As previously demonstrated, it is not possible to promote deep soil planting on Mitchell Street Plaza frontage due to the existing basement structure which is meant to be retained.

The plan to the left depicts the opportunity to include planting along Mitchell Street Plaza in pots or planters and is indicative only. The amendment is subject to further landscape design.



Section A - Mitchell Street Plaza frontage section



Upper Ground Floor landscape plan



Artist impression

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