

URBAN DESIGN STUDY

Sketch Proposal

871-877 PACIFIC HIGHWAY, CHATSWOOD

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OUR PRACTICE

DISCLAIMER

The scheme (drawings, documents, information and materials) contained within this report have been prepared to provide the architectural analysis and design to support the Urban Design Study prepared by PBD Architects for 871-877 Pacific Highway, Chatswood and on behalf of client - Megland Group Pty. Ltd.

The purpose of this design report is to investigate the site’s development potential for a new build mixed-use scheme.

The following report provides a recommendation for a building envelope based on an analysis of opportunities and constraints of the potential scheme under pending planning controls, ADG driven setbacks and proposed envelope.

1.1 PROJECT SUMMARY

PBD Architects has been engaged on behalf of Megland Group P/L to provide an Urban Design Study in support of a Planning Proposal for 871-877 Pacific Highway, Chatswood.

The purpose of this document is to provide analysis of the urban context, current and future planning objectives for the site and investigate the potential for what a built-form might take.

The built-form proposal has led to a building envelope which is generally in keeping with Willoughby Council's "Chatswood CBD Planning and Urban Design Strategy", desired future context and ADG principles of design.

1.1 SITE LOCATION AND STATISTICS

The site is located at 871-877 Pacific Highway, Chatswood. The site currently contains a number of attached and detached two storey buildings.

The area surrounding the Site is typically of modest scale multi-residential buildings and commercial developments. Further to the south is the current extent of the Chatswood CBD where building scale increases significantly.

The site is approximately 500 metres walking distance from Chatswood Railway Station. It is highly accessible to nearby services and social infrastructure being the proposed northern tip of the expanded Chatswood CBD.

The broad objective of this proposal is to indicate how residential uplift can be achieved for this site in accordance with Council's "Chatswood CBD Planning and Urban Design Strategy", resulting in an increase to the maximum permissible FSR and maximum permissible building height.

LOCATION	871-877 Pacific Highway, Chatswood
SITE AREA	1,432 sqm (approx)
TARGET FSR	6:1 with Maximum GFA of 8,592 sqm
TARGET HEIGHT	Maximum 90m

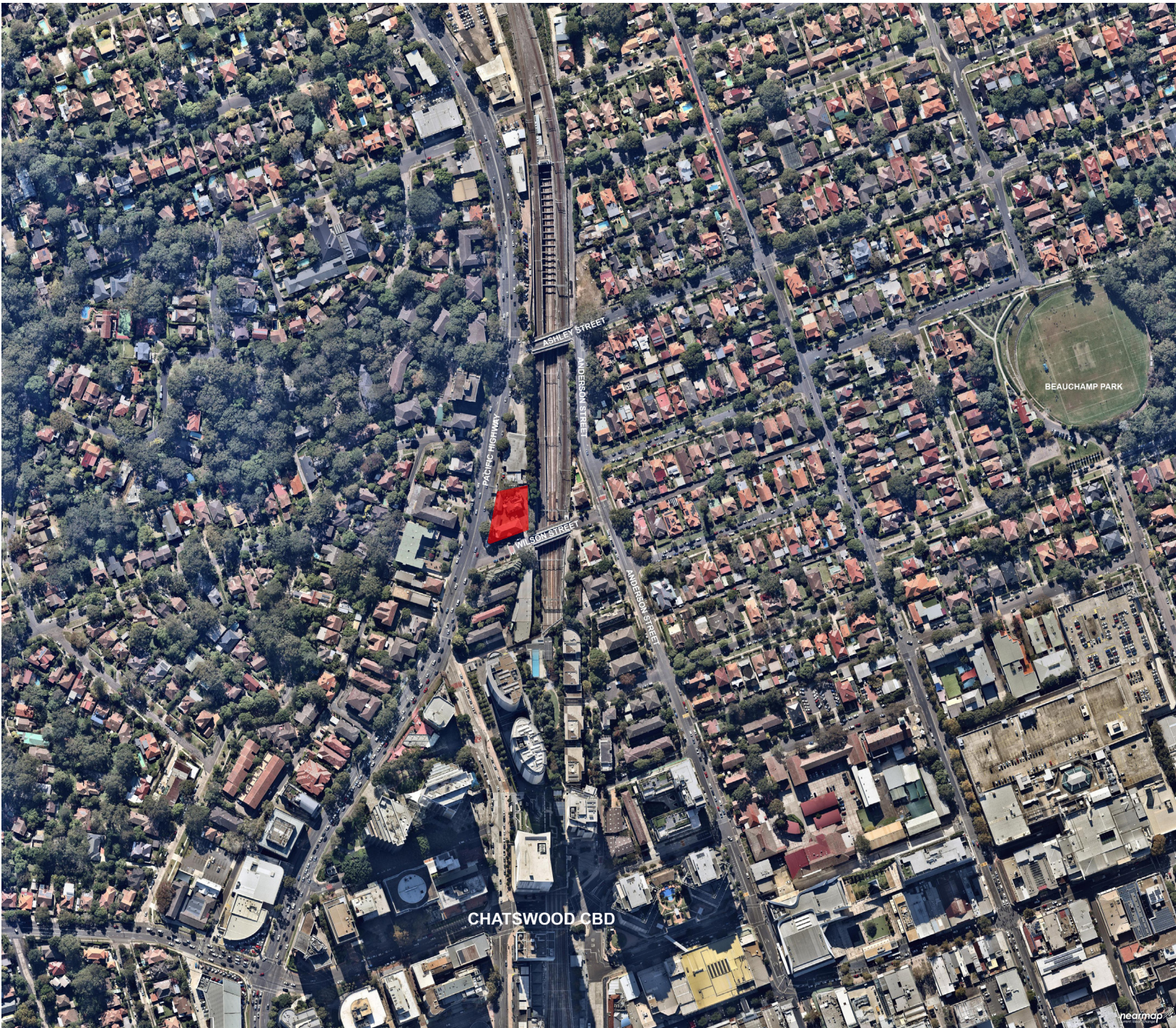


Figure 1.1 Site Location



1.0 INTRODUCTION

1.3 SITE OPPORTUNITIES

This proposal explores the opportunities and constraints of the site,

These include:

- Council supports the expansion of the Chatswood CBD
- The site has two frontages - Pacific Highway and Wilson Street, maximising residential amenities
- Create gateway development for the northern tip of the Chatswood CBD
- Accelerate the introduction of proposed Development Standards for the site.
- Appeal to the prominence of the site and the opportunity to provide a sound architectural solution for this highly accessible development site

1.4 CONTEXT

The site is located at the northern tip of the Chatswood CBD with the following relationship to significant urban infrastructure:

- Immediately adjacent to the Pacific Highway
- Approximately 500m north of Chatswood Railway Station
- Approximately 500m north of Chatswood Westfield Shopping Centre
- Approximately 700m north of Chatswood Public School
- Approximately 900m north of Chatswood High School
- Approximately 3km north of Royal North Shore Hospital



Figure 1.2 Context



1.5 ADJACENT SITES

The site is bounded by the Pacific Highway to the west, the railway line to the east, Wilson Street to the south and a Coles Express (Shell) service station to the north. This service station site to the north has been included in the Built-Form concept analysis later in this study. The purpose of its inclusion is to confirm that the development of the subject site will not result in the service station site becoming an isolated lot in the future.

As we understand it, the service station has long term lease options for up to 60 years. Therefore there is no indication at this time that development on this site is likely in the near future. The Built-Form analysis will confirm that should this site be transitioned to a mixed use development in the future it can be done without amalgamating with the site that is the subject of this Planning Proposal

To the south, on the opposite side of Wilson Street is another key site which will need to be cobnsidered in the Built-Form analysis. This site will need to be reviewed in terms of the impact our proposal will have on the existing apartment buildings as well as the likely future building envelope that ithat would be possible under the “Chatswood CBD Planning and Urban Design Strategy”, which proposes larger scale development into the future.

- PLANNING PROPOSAL SITE
- KEY NEIGHBOURS



Figure 1.3 Key Adjacent Sites



2.1 A METROPOLIS OF THREE CITIES

Under the plan, Chatswood is significant in the following key areas:

- Located in the Eastern Harbour City
- It forms part of the “Eastern Economic Corridor”
- It is a “Strategic Centre”
- Key interchange for the North West Rail Link, Northern Rail Line, Northern Beaches Bus Link and Sydney Metro Network

The plan identifies that by 2036 there will be 817,000 new jobs in Sydney compared to 2016 levels. One of the key drivers for the plan is a “30 minute city” whereby the majority of workers live within 30 minutes of their workplace.

This reinforces Willoughby Council’s proposal to expand the Chatswood CBD for mixed-use development while preserving the central CBD for commercial activity.

As indicated above, Chatswood is identified as one of Sydney’s strategic centres. The plan states that “While local centres are diverse and vary in size ..., they play an important role in providing access to goods and services close to where people live”.

Increasing the number of dwellings in close proximity to jobs, goods and services provides for the desired outcomes under the Greater Sydney Commission’s plan for the region, and more specifically, Chatswood.

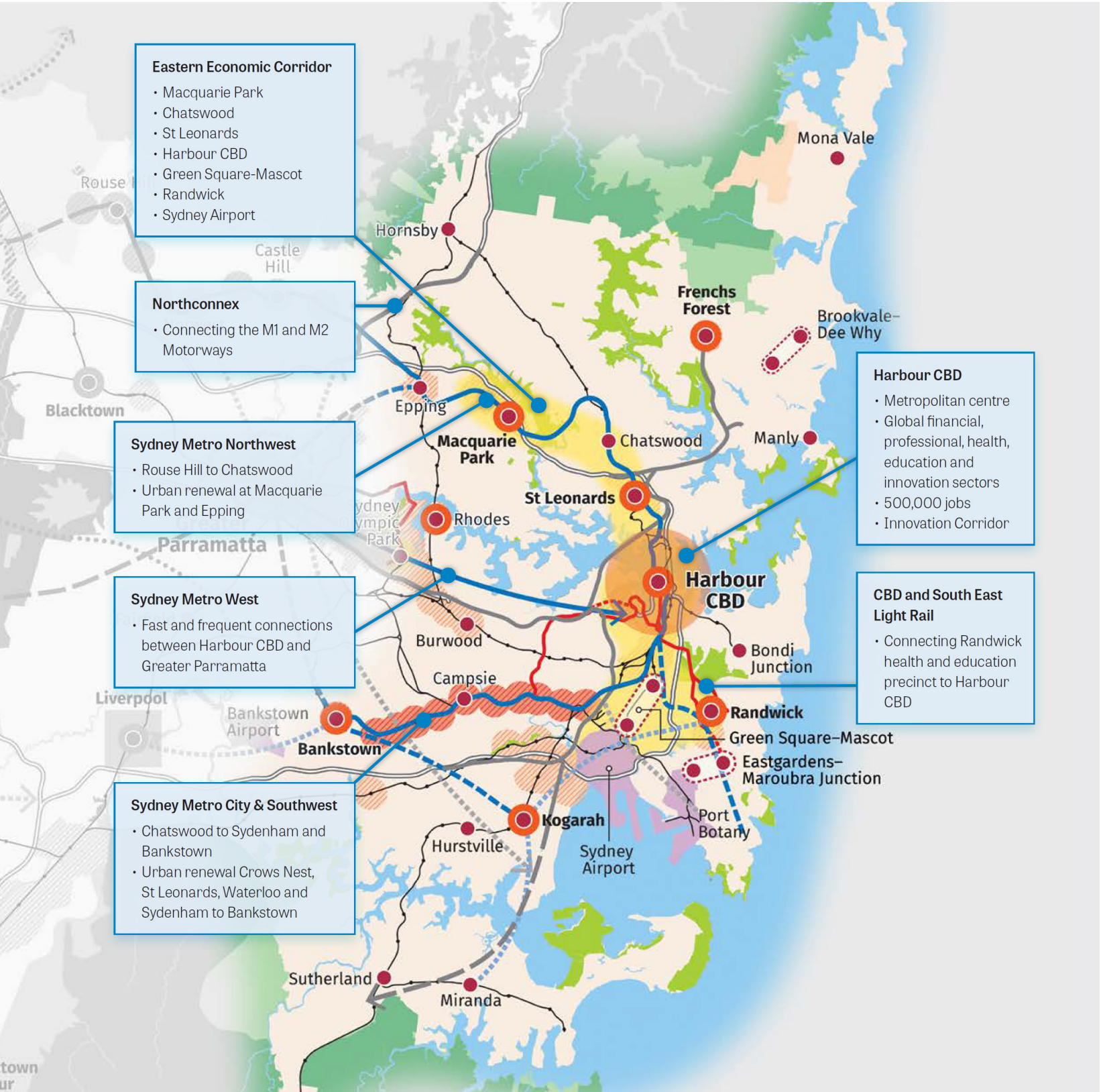


Figure 2.1 Eastern Harbour City (Source: A Metropolis of Three Cities)

2.2 NORTH DISTRICT PLAN

Under the plan, Chatswood is significant in the following key areas:

The North District Plan identifies the following key statistics for the growth of this important Sydney Region:

- Additional 92,000 dwellings in the district, representing an increase of over 20% on 2016 levels
- Willoughby Council to deliver 1,250 additional dwellings by 2021
- Increase employment from 24,700 jobs (2016) to between 31,000 and 33,000 jobs by 2036

In addition to being a centre for employment and increased housing, Chatswood is identified as a major shopping precinct with distinct dining/night-life and street-life characters.

The plan notes that “Delivering housing within a walkable distance of strategic centres encourages non-vehicle trips, which foster healthier communities.”

Furthermore, “to deliver the 20-year strategic housing target, councils should... recognise opportunities for long-term housing supply associated with city-shaping transport corridors...”

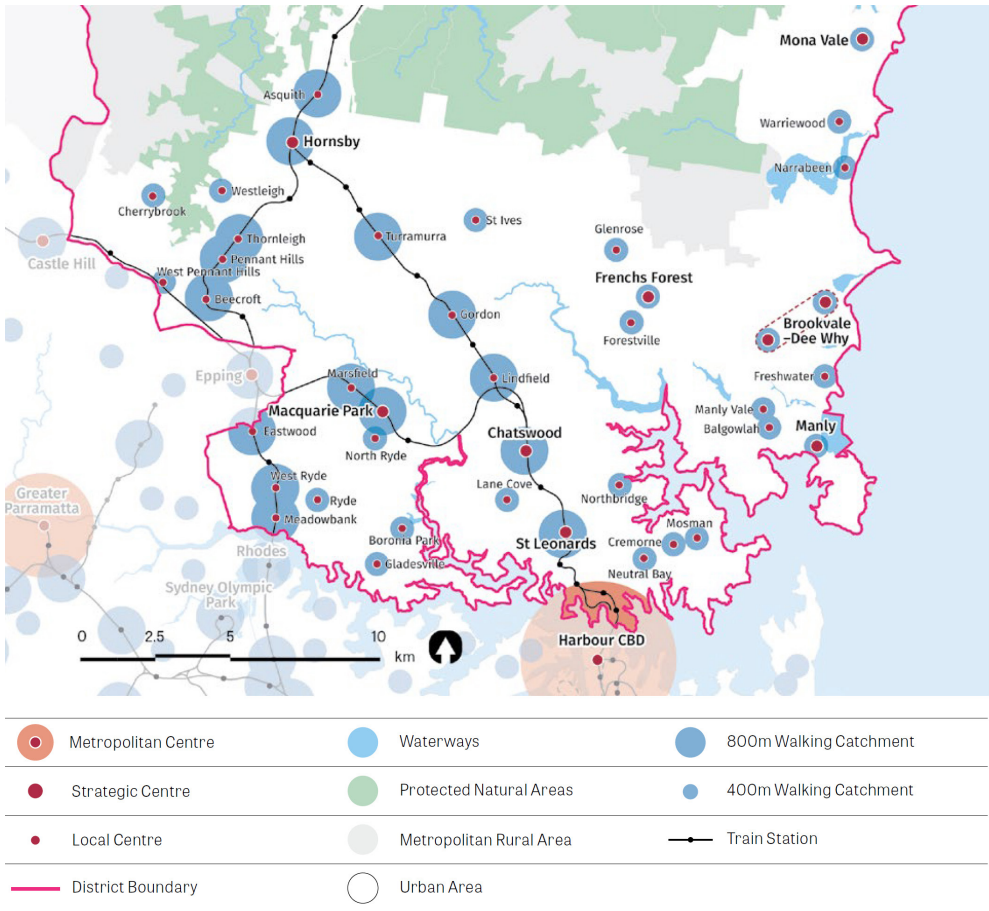


Figure 2.2 District Walking Catchments (Source: North District Plan)

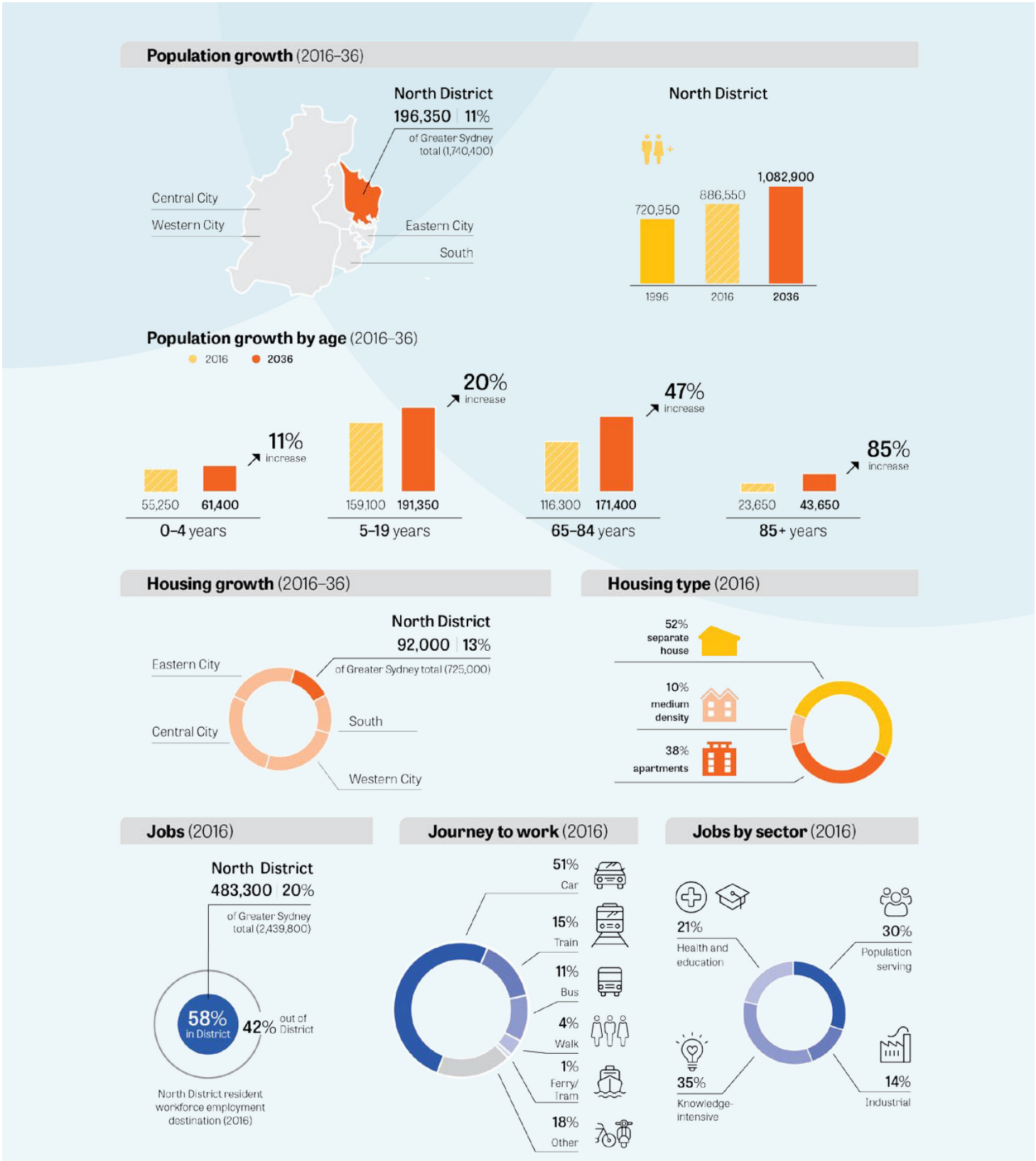


Figure 2.3 Northern District Vital Statistics (Source: North District Plan)

2.0 STRATEGIC PLANNING CONTEXT

2.3 CHATSWOOD CBD PLANNING & URBAN DESIGN STRATEGY

The strategy, approved by Council and currently with the Department of Planning for review, proposes the expansion of the Chatswood CBD to the north and to the south as indicated in the figure to the right.

Apart from expanding the CBD, the key recommendations of the strategy are as follows:

- reinforce the commercial core by restricting further residential development in this area
- rezone the majority of the expanded areas for mixed-use development to encourage residential development adjacent to the commercial core
- Allow for increased maximum FSR levels when value uplift sharing is adopted to support funding of public domain upgrades
- Increased heights in the expanded CBD areas
- Preservation of solar access to key public spaces within the CBD
- establish street frontage heights and setbacks to provide consistency in the urban form
- Minimum site size of 1,200m² for residential development within the CBD

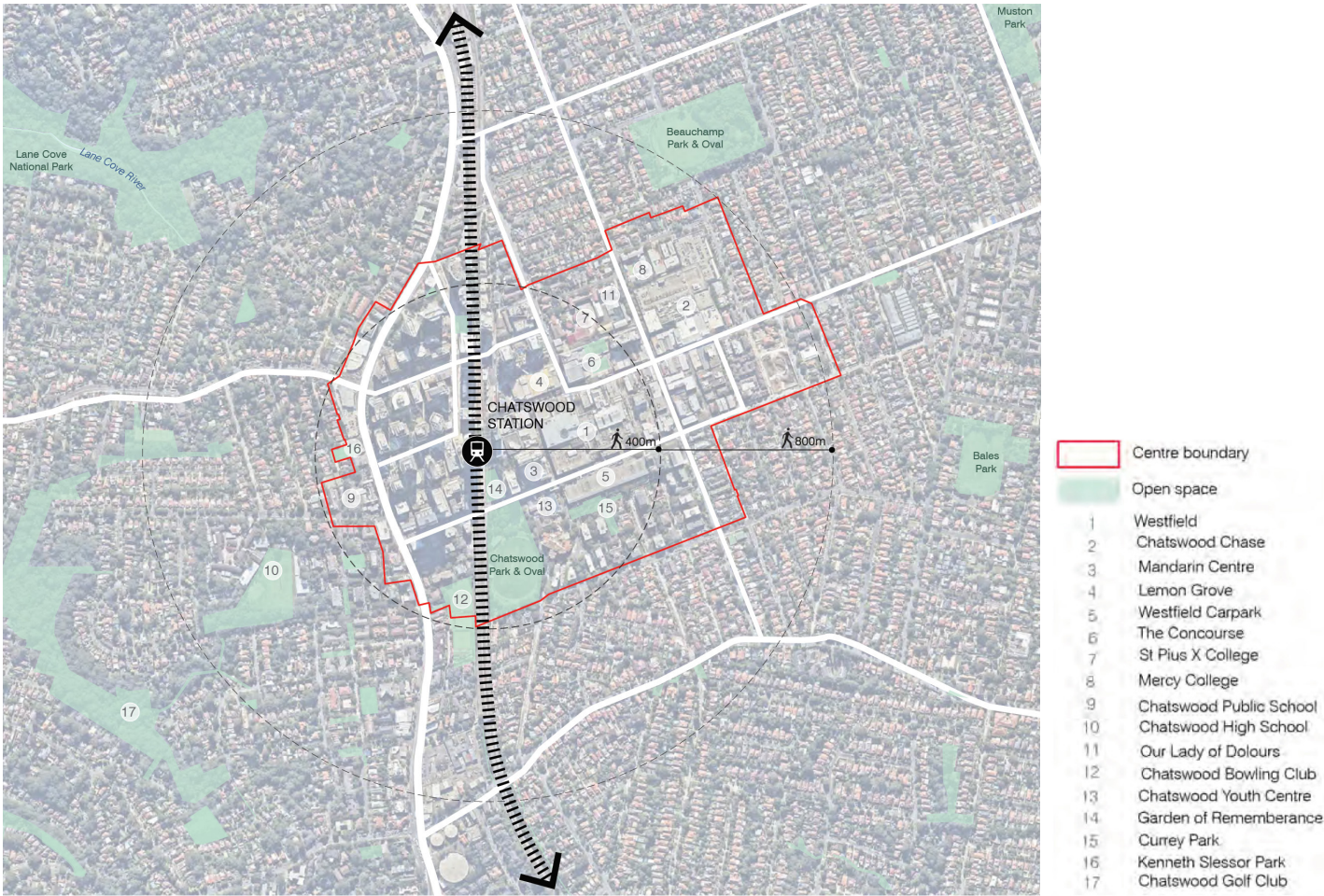


Figure 2.4 Existing extent of Chatswood CBD (Source: Chatswood CBD Planning and Urban Design Strategy)

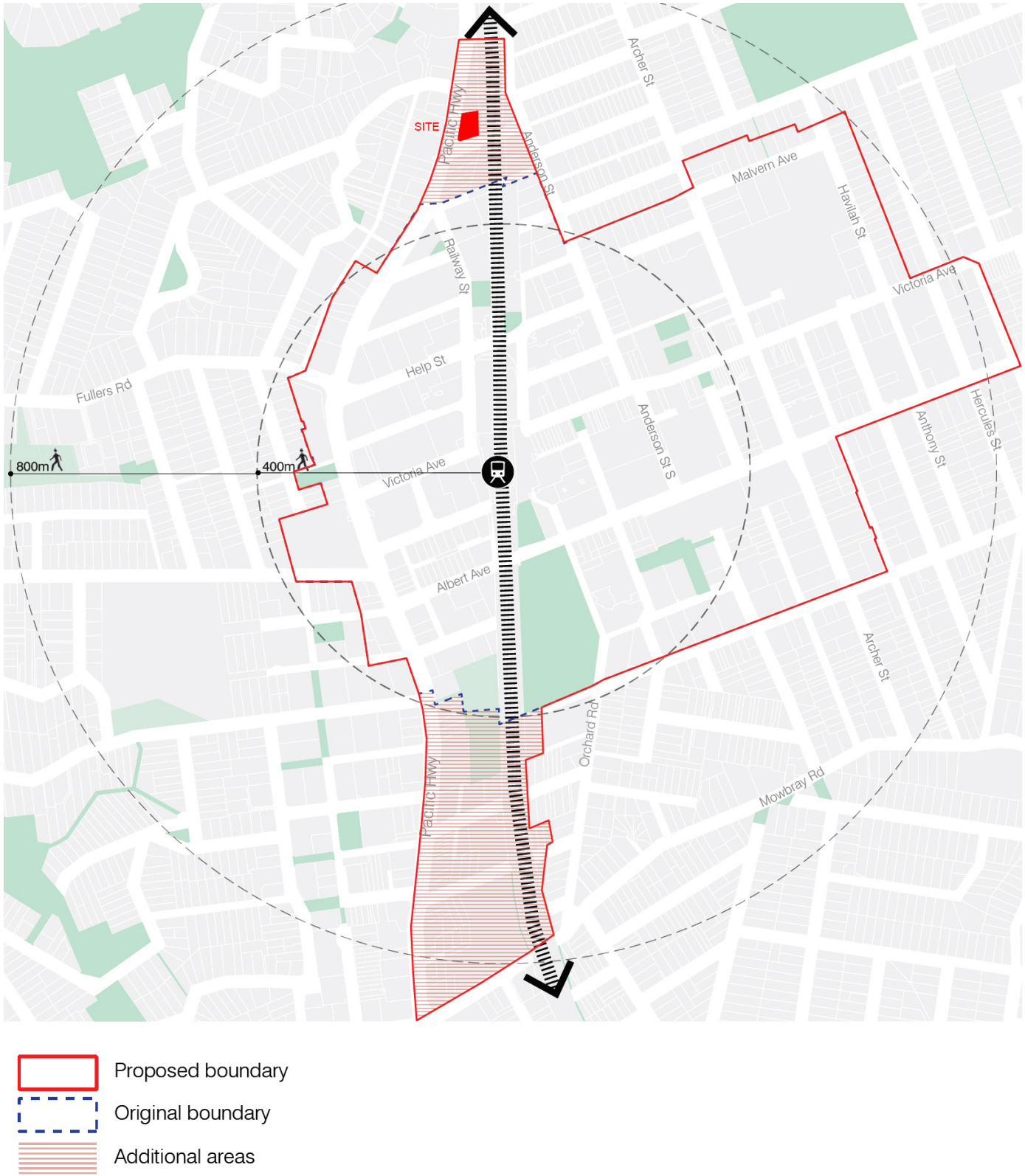


Figure 2.5 Proposed Chatswood CBD Expansion (Source: Chatswood CBD Planning and Urban Design Strategy)

2.4 WILLOUGHBY HOUSING - POSITION STATEMENT

The principles underpinning the position statement are:

- Provide sufficient and well-designed housing for the next 20 years.
- Provide for a mix of housing types to suit various community needs including affordable housing.
- Focus new housing growth in larger centres and areas of medium and high density with access to public transport to protect lower density neighbourhoods.
- Promote community health and wellbeing by locating new housing within walkable access (400m) to transport and other local services and amenities.
- Respect and promote the heritage and environmental qualities of WCC in planning for new housing.

The Position Statement reinforces Willoughby Council's commitment to affordable housing at 4% of the total floor space and that residential uses are permitted in Business Zones in the form of shop-top housing.

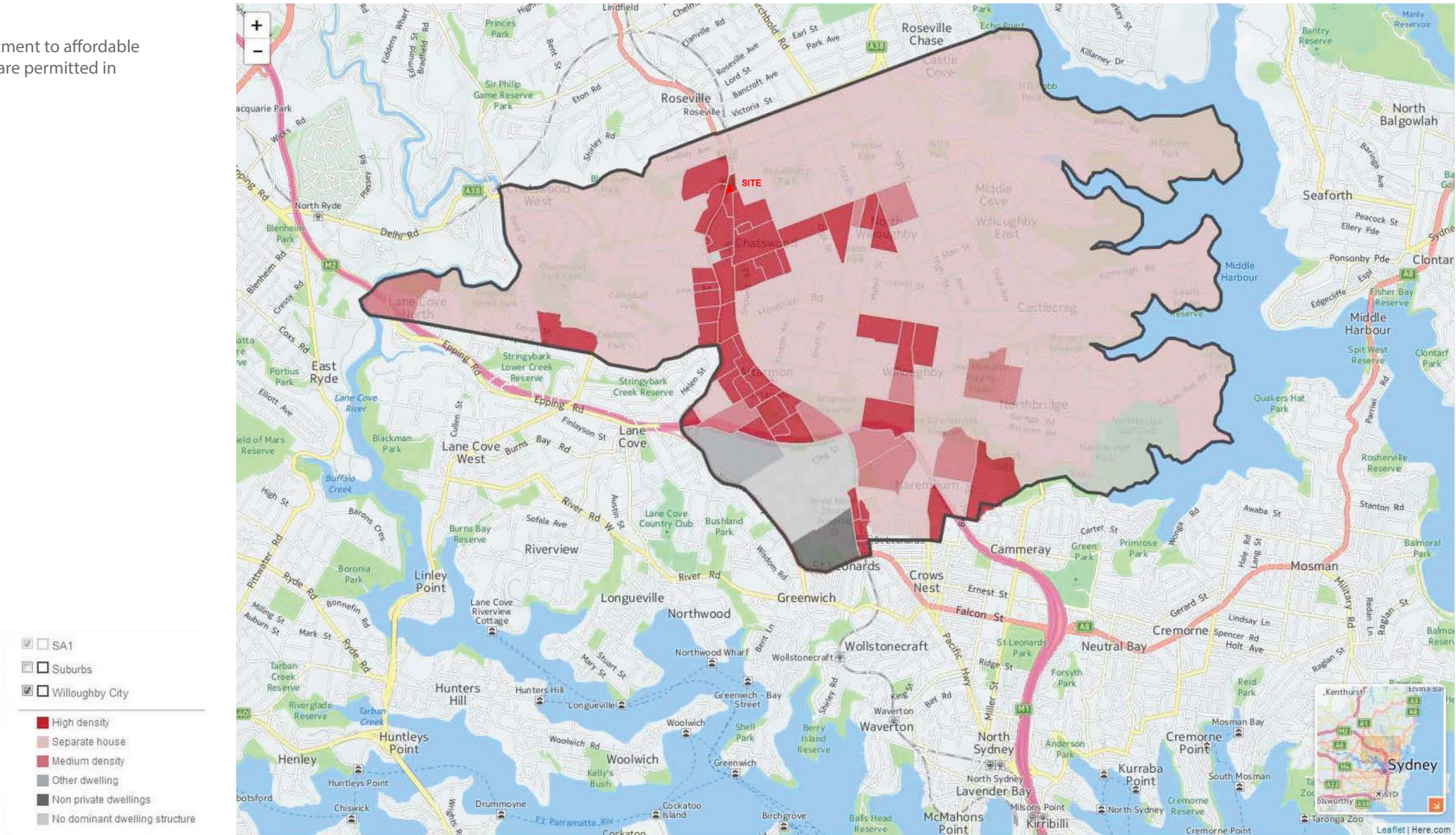


Figure 2.6 Dominant Dwelling Structure (Source: Willoughby Housing - Position Statement)

3.0 PLANNING CONTROLS

3.1 EXISTING CONTROLS

Under Willoughby LEP 2012, development on the site is subject to the below controls.

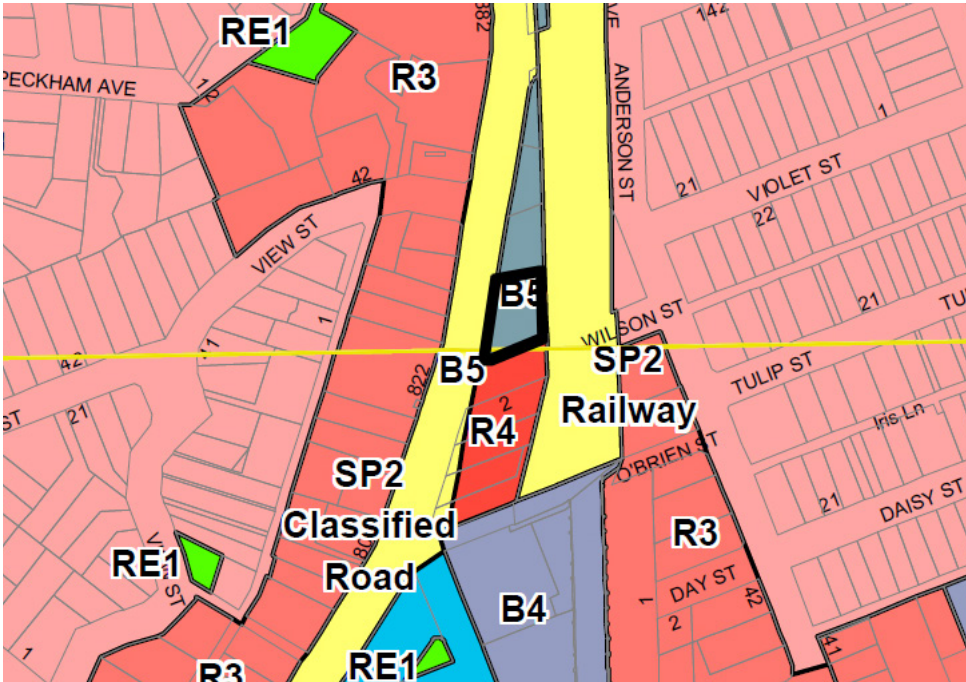


Figure 3.1 Zoning Map (Source: Willoughby LEP 2012)

Zoning:
B5 - Business Development

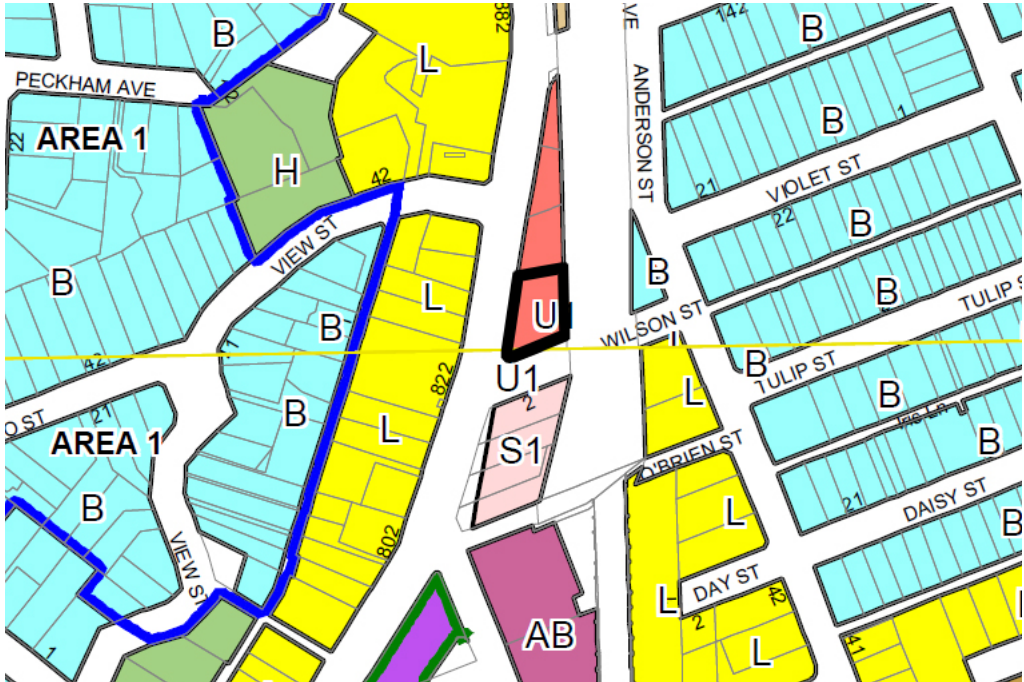


Figure 3.2 Floor Space Ratio Map (Source: Willoughby LEP 2012)

Maximum FSR:
U1- 2.5:1

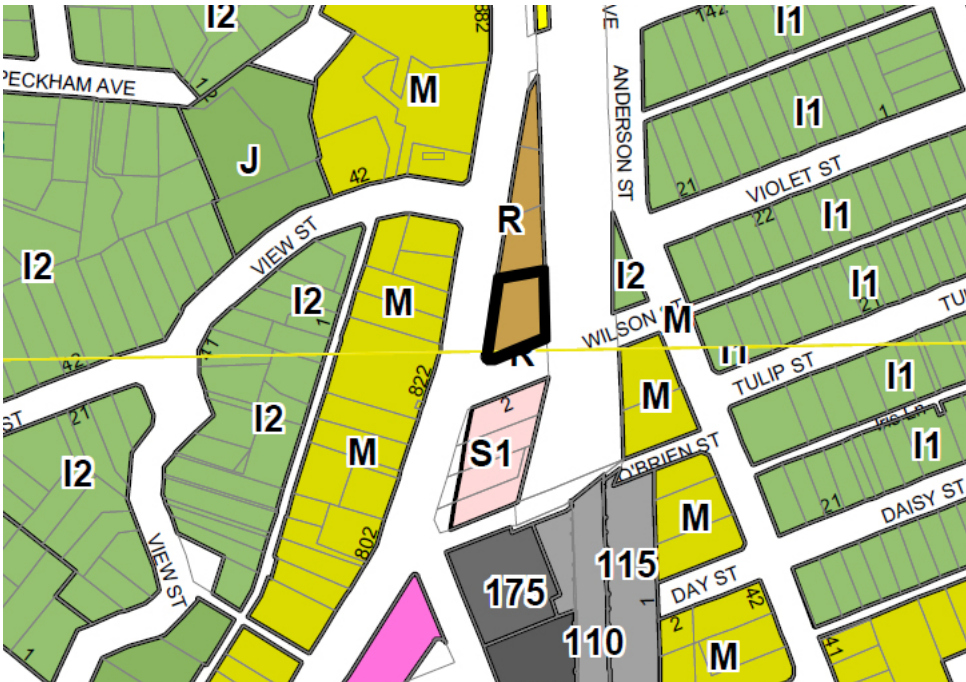


Figure 3.3 Heights Map (Source: Willoughby LEP 2012)

Maximum Height:
R - 21m

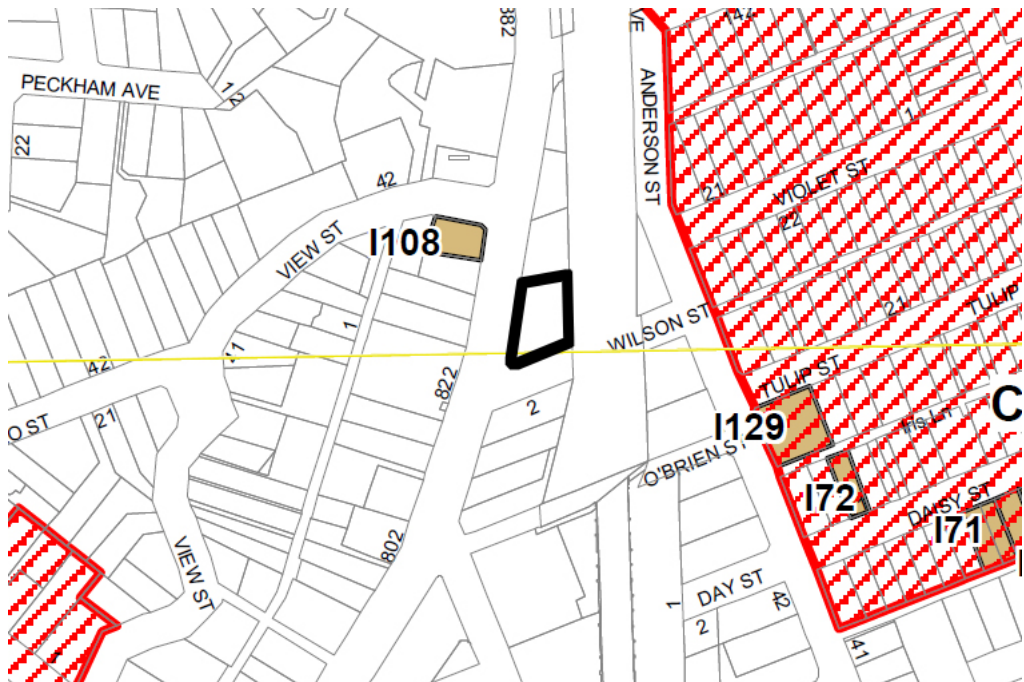


Figure 3.4 Heritage Map (Source: Willoughby LEP 2012)

Heritage:
N/A

3.0 PLANNING CONTROLS

3.2 CHATSWOOD CBD PLANNING & URBAN DESIGN STRATEGY - PROPOSED CONTROLS

Under the strategy, development on the site is proposed to be subject to the below controls.

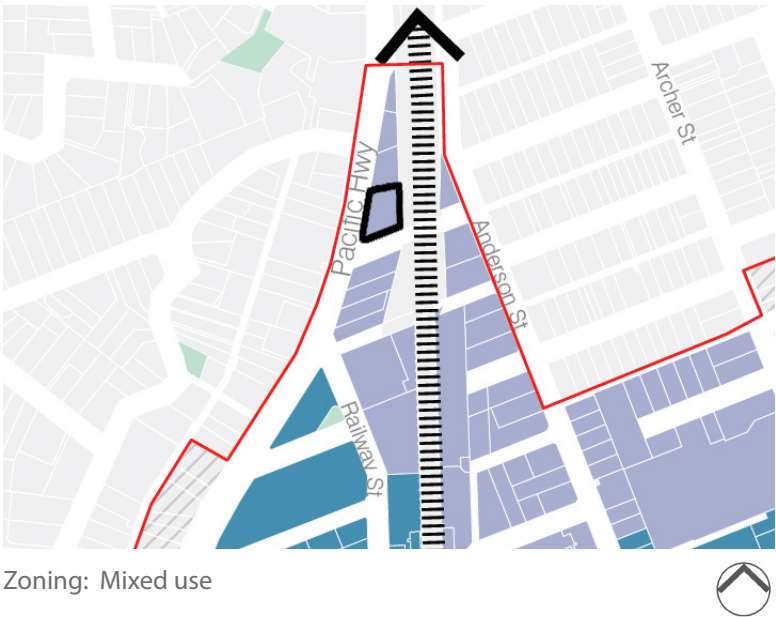


Figure 3.5 Zoning Map
(Source: Chatswood CBD Planning & Urban Design Strategy)

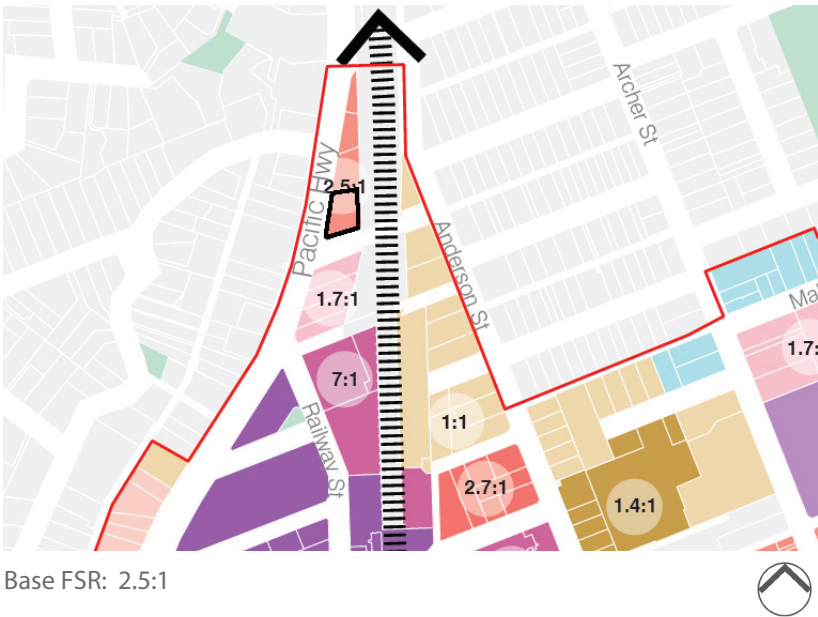


Figure 3.6 Base FSR Map
(Source: Chatswood CBD Planning & Urban Design Strategy)

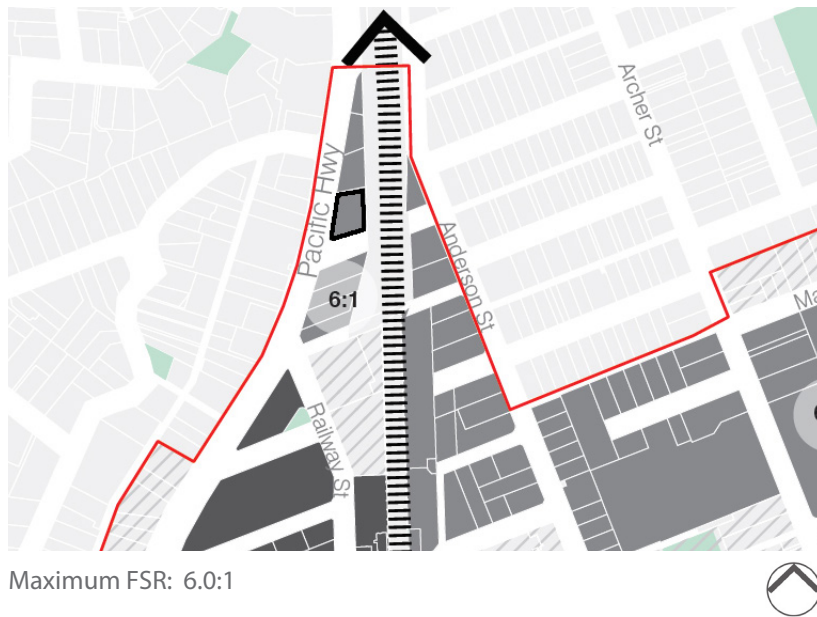


Figure 3.7 Maximum FSR Map
(Source: Chatswood CBD Planning & Urban Design Strategy)



Figure 3.8 Maximum Height Map
(Source: Chatswood CBD Planning & Urban Design Strategy)

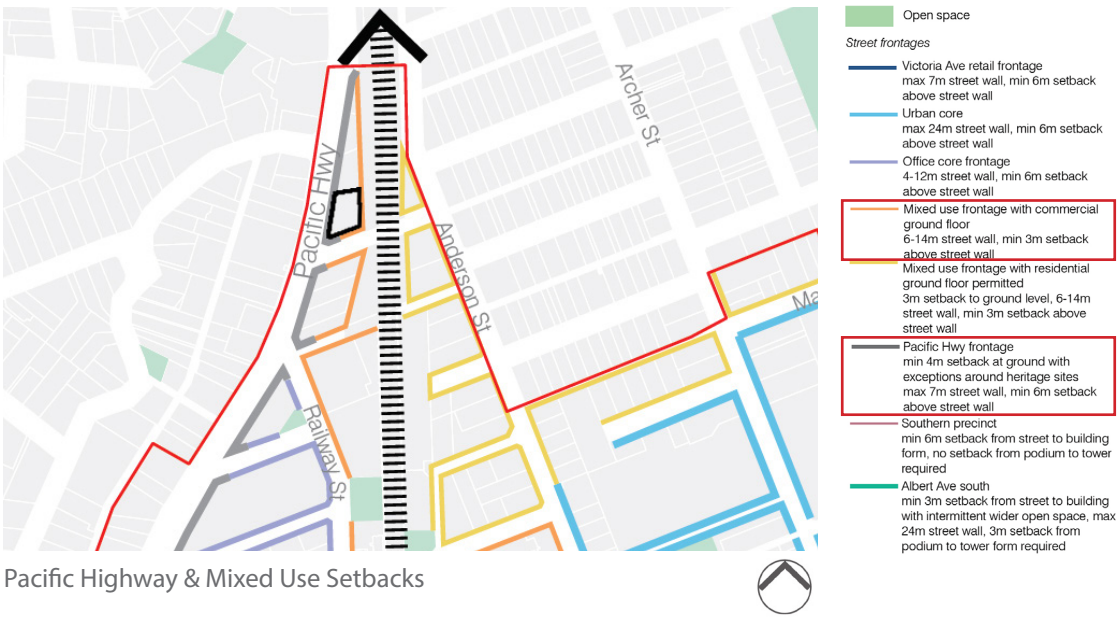


Figure 3.9 Zoning Map
(Source: Chatswood CBD Planning & Urban Design Strategy)

4.0 SITE ANALYSIS

4.1 CONTEXT

North of the site:

- Coles Express (Shell) service station

East of the site:

- Northern train line below street level

South of the site:

- Wilson Street
- Wilson Street bridge over rail line
- Apartment building at 2 Wilson Street

West of the site::

- Pacific Highway
- 822-844 Pacific Highway - mostly 3 storey apartment buildings except 844 Pacific Highway which is a detached house



Figure 4.1 Context Map



Figure 4.2 - 01 - Coles Express (Shell) service station



Figure 4.3 - 02 - Northern Railway Line in cutting below bridge



Figure 4.4 - 03 - No. 2 Wilson Street



Figure 4.5 - 03 - Wilson Street Bridge



Figure 4.6 - 04 - 822 - 830 Pacific Highway



Figure 4.7 - 04 - 832 & 844 Pacific Highway



Figure 4.8 Context Map



Figure 4.9 - 05 - 58 Anderson Street



Figure 4.10 - 06 - 56 Anderson Street



Figure 4.11 - 07 - Northern Approach to Chatswood CBD



Figure 4.12 - 08 - Northern extent of existing CBD

4.0 SITE ANALYSIS

4.2 TRANSPORT

The site is ideally located to take advantage of Public Transport. Located adjacent to the Pacific Highway there are numerous Bus routes available from bus stops on both sides of the road within less than 100m. There are also significant routes running along Anderson Street to the west. There are bus stops on either side of the road within approximately 150m of the site

At a distance of approximately 500m, the site is also well within the 800m walking catchment of Chatswood Railway Station. This station is one of the primary interchange stations of Sydney's rail network and will have increased significance into the future as the Sydney Metro network is rolled out.

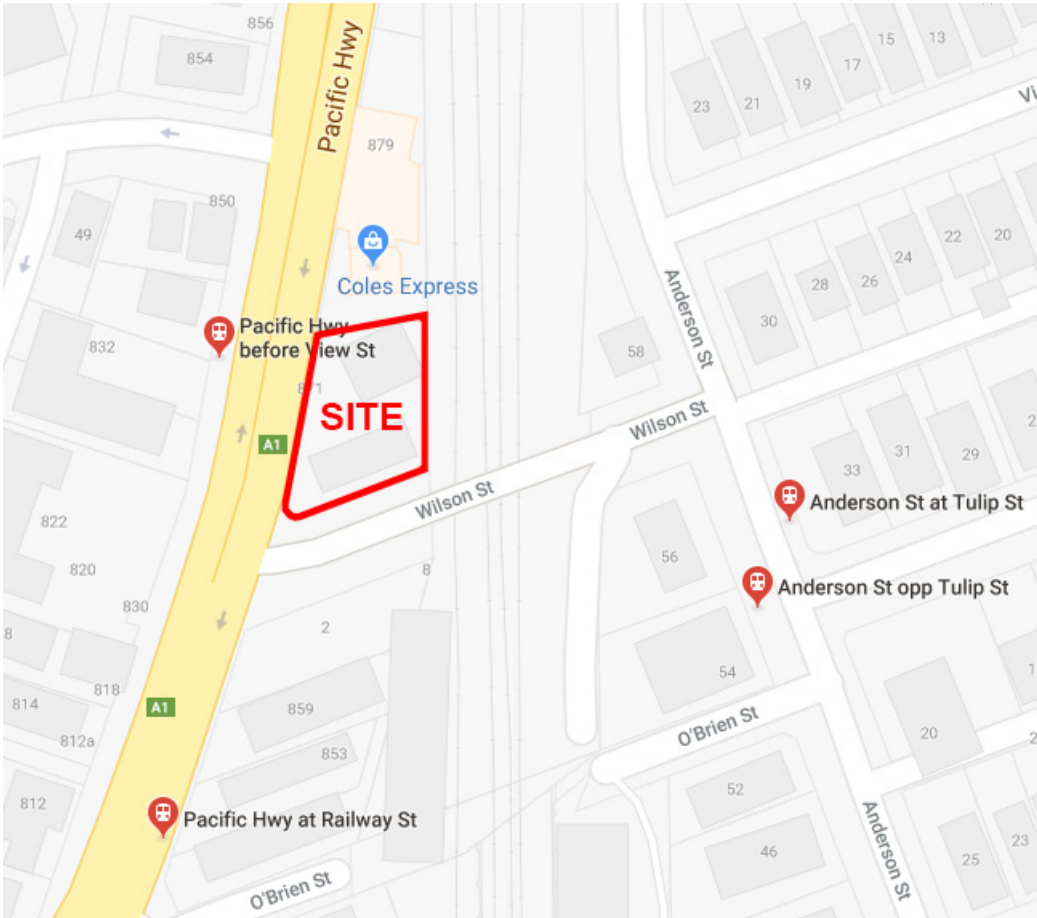


Figure 4.13 Bus Stop Map



Figure 4.14 Rail Network Map (Source: Sydney Trains)

4.0 SITE ANALYSIS

4.3 CYCLEWAYS & PEDESTRIANS

In addition to access to public transport, the site is also irectly connected to Willoughby Council's proposed Bicycle Network (Figure 4.15). The proposed off-road link running past the site stretches along the train line. The on-road network also extends east into the low scale residential precinct of Chatswood from the site at Wilson Street.

Pedestrian accessibility is assured with relatively flat footpaths along both street frontages. The footpath on Wilson Street provides a safe crossing to the south, in the direction of the station. There are very few road crossings to be negotiated on the way to the train station which is best described as a gentle descent.

The site is also in good proximity to the major shopping centre areas and also to Beauchamp park as evidenced in Figure 4.16.

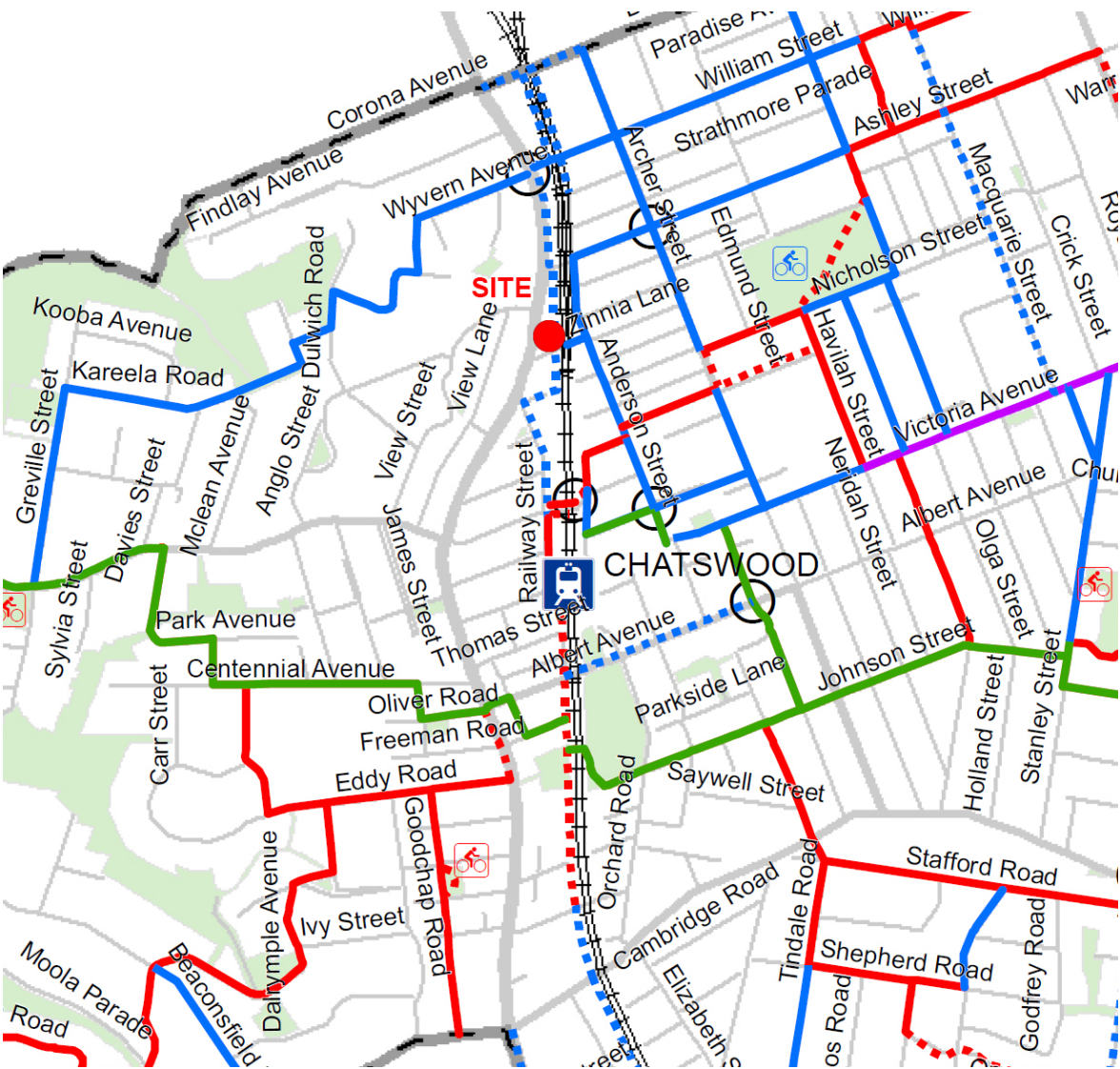


Figure 4.15 Willoughby Proposed Cycleways Map (Source: Willoughby Council)

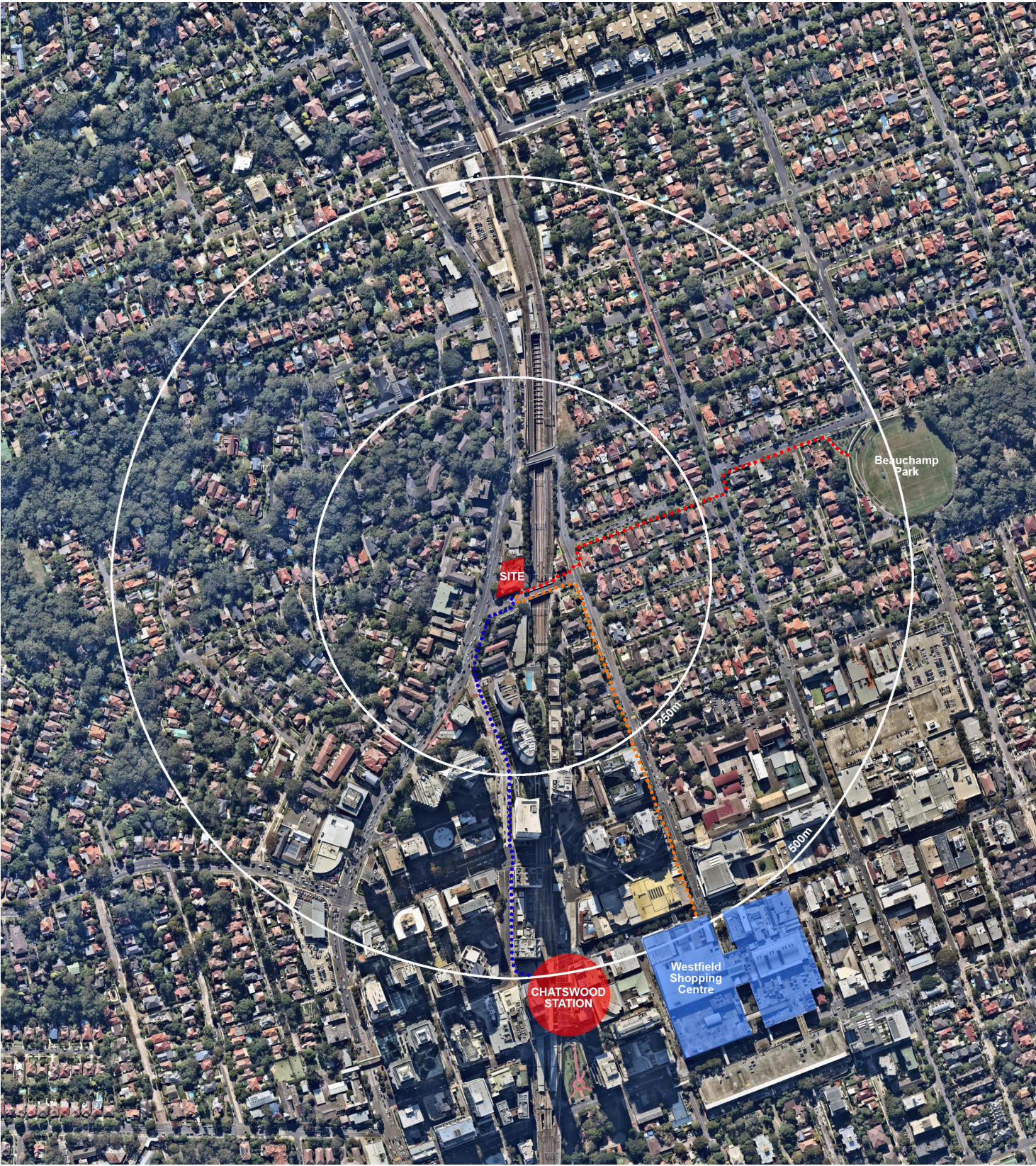


Figure 4.16 Significant pedestrian routes from the site

4.0 SITE ANALYSIS

4.4 TOPOGRAPHY

The existing site is largely flat along all boundaries. There is 0.46m fall to the south along the Pacific Highway frontage and 0.24m fall to the west along the Wilson Street frontage.

The site is located in an area of Chatswood that is slightly elevated above the CBD core levels, but typical footpath grades are below 1:14. In general terms the topography to the south and east is sloping away from the site, the topography to the north is largely flat before descending only slightly towards Ashley Street, and the topography to the west is flat for a short distance before descending towards the southern extent of Roseville and Chatswood West.

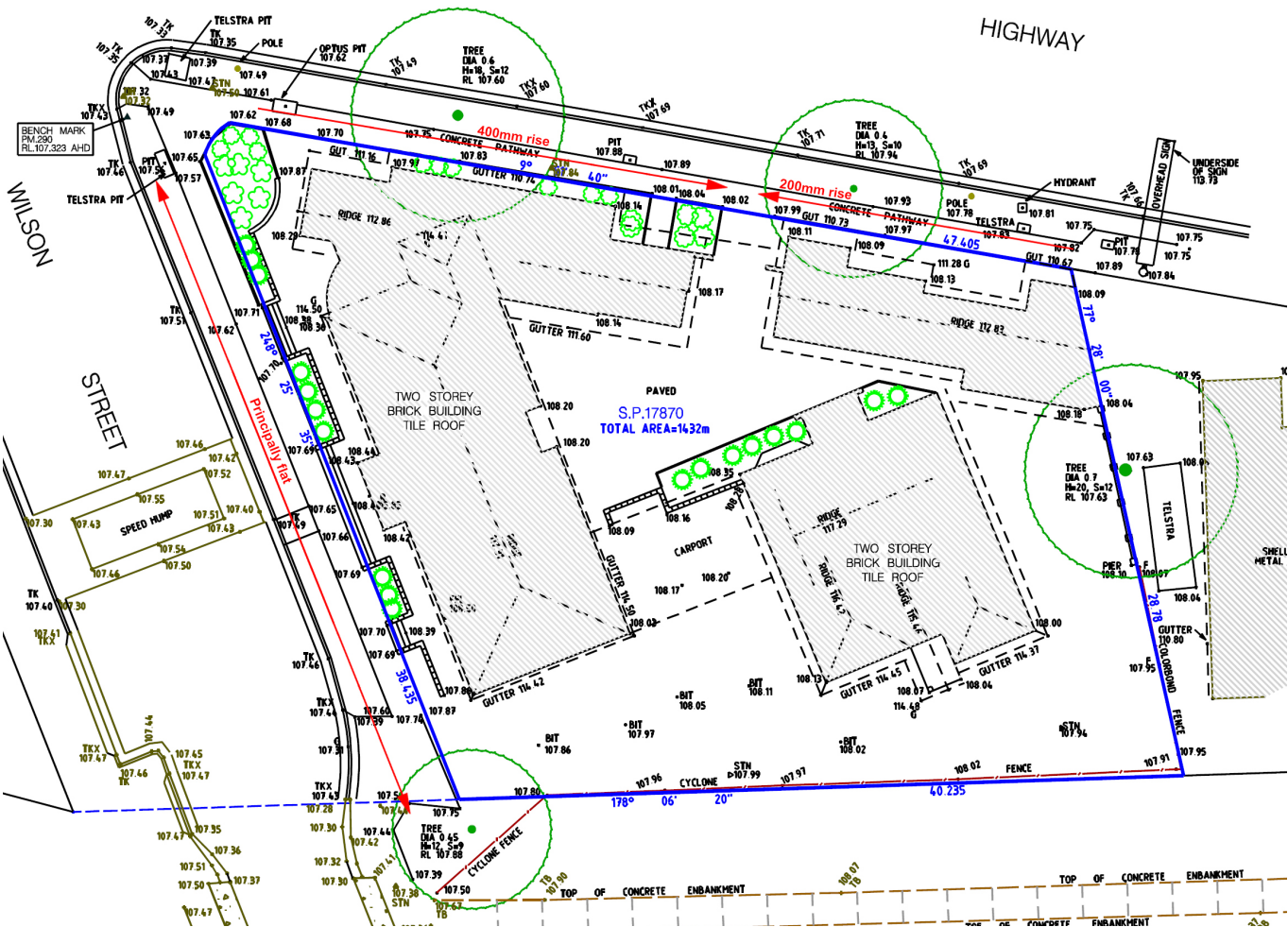


Figure 4.17 Survey Extract (Source: Detailed Site Survey - Hammond Smeallie & Co. Pty. Ltd.)

4.5 SOLAR ACCESS & IMPACTS

The sub-division pattern of this part of Chatswood results in good solar “sharing”. By virtue of the lots to the north and south being almost directly aligned towards the north means that, even with tall buildings on each lot, each site receives good solar access in the early morning and the later afternoon. In the middle of the day, taller structures cast shadows on lower storeys of development to the southbut this is for a relatively short time period.

The presence of the railway line to the east and the wide Pacific Highway to the west, there are no structures in these areas contributing to overshadowing. This is likley to persist into the future even with hanges to the planning controls consistent with Council’s CBD Strategy.

Given the historical zoning of the site, only low-scale buildings are present in this area and therefore there is no significant overshadowing of this site or adjacent sites.



Figure 4.18 Early afternoon solar access view (View source: Chatswood CBD Planning & Urban Design Strategy)

4.0 SITE ANALYSIS

4.6 TRAFFIC

The site is bounded by the Pacific Highway and Wilson Street. Vehicular access to the site is currently from Wilson Street. Given the intensity of traffic on the Pacific Highway in this area, it is anticipated that vehicular access will continue to be via Wilson Street avoiding queuing impacts on the Pacific Highway.

In any future Development Proposal, the queuing distance from any driveway(s) back to the Pacific Highway will need to be considered. In principal it is anticipated that driveway entrances will be located east of the existing speed-hump/zebra crossing located approximately central along the Wilson Street frontage.



Figure 4.19 Pacific Highway & Wilson Street Intersection (Source: Google Street-view)

4.0 SITE ANALYSIS

4.7 VIEWS TO AND FROM THE SITE

The site is in an enviable location for views. Given its location at the proposed northern tip of the CBD expansion area, the site is likely to command views to the north, east and west. While the service station site to the north may one day be developed, it is unlikely that this will occur in the near future. Even if the service station site was developed, its slim, triangular nature would ensure views to the north would be substantially retained to the north-east and north-west at least.

While any views directly south will be “obstructed” to the distance, views of the Chatswood CBD are still desirable. Any development of a larger scale to the immediate south of the site will not obstruct impressive views in a south-easterly direction towards the city or in a westerly direction towards the Blue Mountains.

In addition to having commanding views from the site, the landmark location for the site lends itself to providing a key marker for the northern tip of the Chatswood CBD. The building will announce the arrival at Chatswood to drivers heading south along the Pacific Highway.



Figure 4.20 Views from the site (View source: Chatswood CBD Planning & Urban Design Strategy)

4.0 SITE ANALYSIS

4.8 FUTURE CONTEXT

In analysing the future potential of the subject site we must inevitably consider both the existing character and scale of development in the area along with the likely future scale of the context as well. As highlighted in the introduction to this Urban Design Study, the sites immediately to the north and immediately to the south are particularly significant.

The site to the north, currently a 24hr service station, represents a particular challenge. In its current form, the service station does not engage with the context in the same manner in which other buildings relate to each other. The majority of the built environment, by virtue of consistent setbacks and the manner in which they address the street, provide a level of consistency to the urban environment. The service station is a 'stand-alone' entity serving the passing vehicular traffic. It does not provide a street 'frontage' and it does not engage with the open space around it. The precise longevity of the service station is uncertain, however, we anticipate that it will remain for decades into the future.

Given the prominence of the service station site, and the potential rezoning to mixed-use with maximum FSR of 6:1 and maximum height up to 90m, we have investigated the potential of this site in the absence of the service station. The Built-Form Concept section of this study will include demonstrations of the viability of this site.

By contrast to the service station to the north, the sites to the south, on the opposite side of Wilson Street, provide a more immediate opportunity for redevelopment. While No. 2 Wilson Street is a relatively 'new' apartment building, the other buildings on the block are reaching the end of their lifespans. Consolidation of the entire block is likely necessary to avoid the creation of isolated lots. The Built-Form Concept section of this study will include demonstrations of the viability of this site also.



5.1 SETBACK ANALYSIS

In this section of the Urban Design Study, we will be investigating the potential outcome for the subject site and, in a limited sense, also the adjacent sites to the north and south. This investigation will be based principally on adopting the proposed development controls outlined in Willoughby Council's "Chatswood CBD Planning & Urban Design Strategy" (the strategy). This will not only include the dominant controls of FSR and Height but will also include the more detailed controls for setbacks included in the strategy.

We recognise that the strategy is not only aiming to provide for the future growth of the area by dictating the overall scale, it also aims to provide a consistent urban profile that is more human in scale and provides a specific relationship to street level. Figure 5.1 to the right shows the strategy's proposal for setbacks along the eastern side of the Pacific Highway.

The two setback diagrams to the right compare options for adopting the setback alignments proposed in the strategy. Option 1 demonstrates the impact of adopting the exact setbacks proposed in the strategy. By comparison, Option 2 investigates whether an alternative structure for the setbacks is more appropriate at this northern tip of the CBD expansion area.

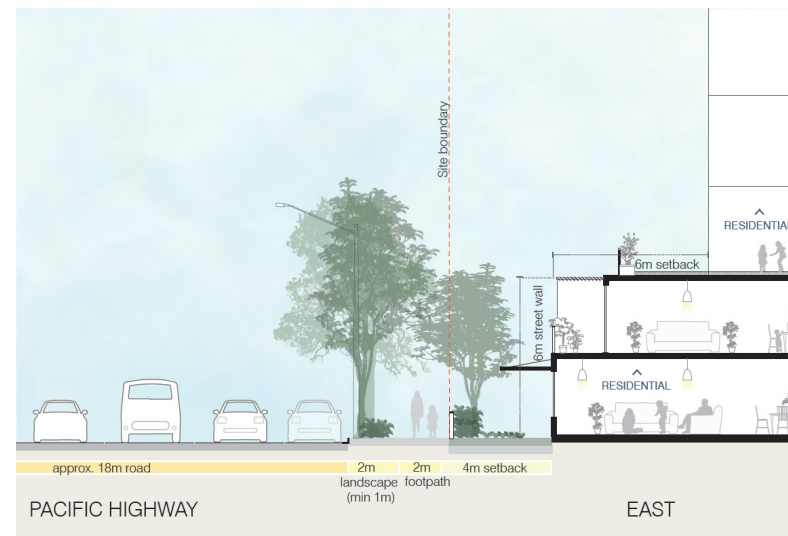


Figure 5.1 Pacific Highway Setback profile
(Source: Chatswood CBD Planning & Urban Design Strategy)

Option 1 - Strict adoption of the strategy's setbacks:

- The impact of the upper setback on the subject site is significant with the likely result of unfeasible floor plates for a building of any significant size.
- The impact of the upper setback on the northern site (current service station) is to render the site largely undevelopable with respect to any of the desired scale outcomes otherwise indicated in the strategy. The northern extent of this site is simply too narrow to accommodate the setbacks.
- The impact of the upper setback on the site to the south of the subject site is manageable. The achievable floorplates are feasible and consistent with desired outcomes under the ADG.

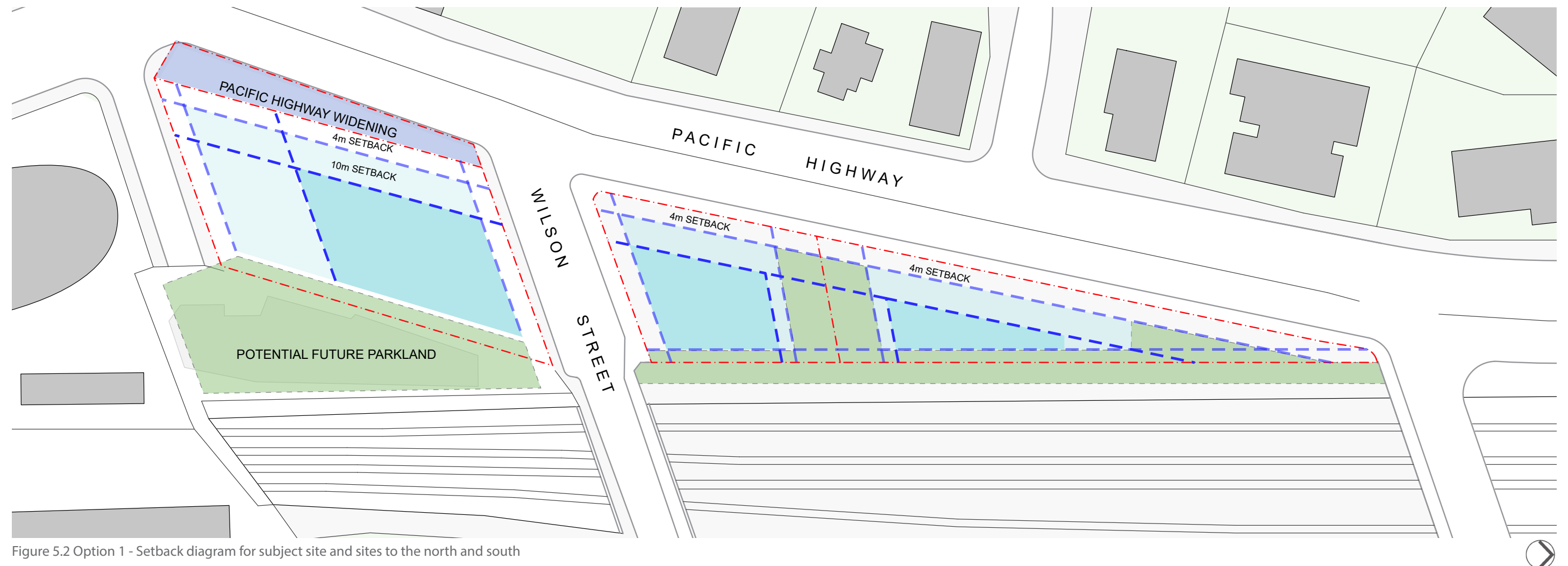


Figure 5.2 Option 1 - Setback diagram for subject site and sites to the north and south

5.1 SETBACK ANALYSIS (CONTINUED)

Option 2 - Flexible adoption of the strategy's setbacks:

- The upper setback has been reduced to zero at the leading edge of the built form on the northern site.
- The upper setback transitions from the northern site through to the strategy's prescribed setbacks on the southern side of Wilson Street.
- The reduced impact of the upper setback on the subject site relieves pressure at the northern end of the site, resulting in more feasible floor plates to allow for the realisation of the strategy's desired scale of uplift.
- The impact of the significantly reduced upper setback on the northern site is to enable the feasible redevelopment of the site into the future. The removal of the upper setback at the northern extent of the built form will give rise to the potential for a wedge-shaped building, with a prominent northern tip, to address the northern approach to the Chatswood CBD.
- The upper setback prescribed in the strategy is maintained through the extent of the block to the south without detrimental impacts on the feasibility of this site

Setback along Sydney Trains Rail Corridor

- The Chatswood CBD Planning & Urban Design Strategy identifies a zero setback for a street wall along the rail corridor with a 3m setback for areas above this level
- This Proposal includes the 3m setback to all levels to provide for a greater landscape zone to the east of the building
- This Proposal provides for the articulation of the street wall or podium fronting the Pacific Highway and Wilson Street to extend around to the eastern facade facing the rail corridor.
- A genuine podium setback on this eastern side (adopting the approach of the Strategy) would have the following negative impacts
 - Potential platform to throw items on to the train line, contrary to the requirements of Sydney Trains (no balconies allowed in this zone)
 - Reduces the potential for landscaping connecting the proposed landscape link along the rail corridor to the site
 - Removes the capacity for significant canopy tree planting along the rail corridor
- The removal of the street wall to the eastern boundary and instead providing a consistent 3m setback along the rail corridor is a positive approach to improve the landscape setting of the proposal.

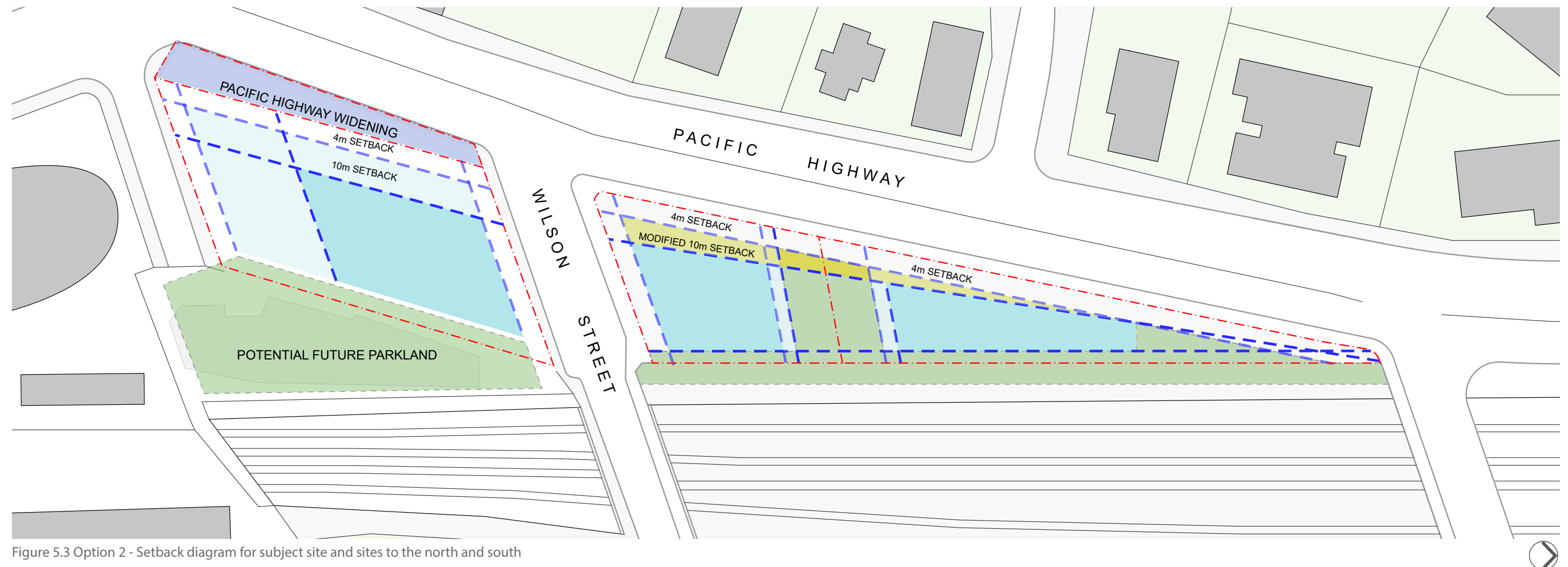


Figure 5.3 Option 2 - Setback diagram for subject site and sites to the north and south

5.1 SETBACK ANALYSIS (CONTINUED)

Option 2 - Flexible adoption of ADG setbacks between lots:

- Figure 5.4 below demonstrates conventional ADG setbacks to the northern boundary. This results in irregular building footprints on both lots that are difficult to plan for practical apartment layouts.
- Figure 5.5 demonstrates modified ADG setbacks to the northern boundary. These modified setbacks maintain ADG separation and maintain the available footprint area on the northern site. The modified setbacks improve the practical development of both sites by providing square setbacks relative to the eastern boundary.
- No negative impacts on the local environment.
- No negative impacts on the potential for development on the northern (service station) lot.

1:20 Setback requirements under Chatswood CBD Planning & Urban Design Strategy

In addition to the setbacks required under the ADG (as discussed on the left), the Chatswood CBD Planning & Urban Design Strategy also identifies a 1:20 ratio for the minimum setbacks to all boundaries. The only setback not addressed elsewhere by the street wall geometry, is the northern boundary. The Proposal addresses the northern setback as follows:

- 1:20 ratio for northern setback would be 4.5m for a 90m height limit
- The tower portion of the proposed envelope will be setback approximately 10m minimum from the northern boundary providing more than double the 1:20 setback
- Podium level setback proposed to be zero to positively address the proposed landscape open space between the Pacific Highway and the commercial ground floor.
- To setback the building on the commercial levels by 4.5m would provide a weak connection between the open space and the active frontage of the commercial level resulting in a negative outcome overall.
- A 4.5m setback on the northern boundary will not provide additional amenity to the service station lot in its current configuration.
- Future development of the service station lot is anticipated to provide a landscape link along this boundary providing an opportunity for further enhancement of the landscape setting for both sites.

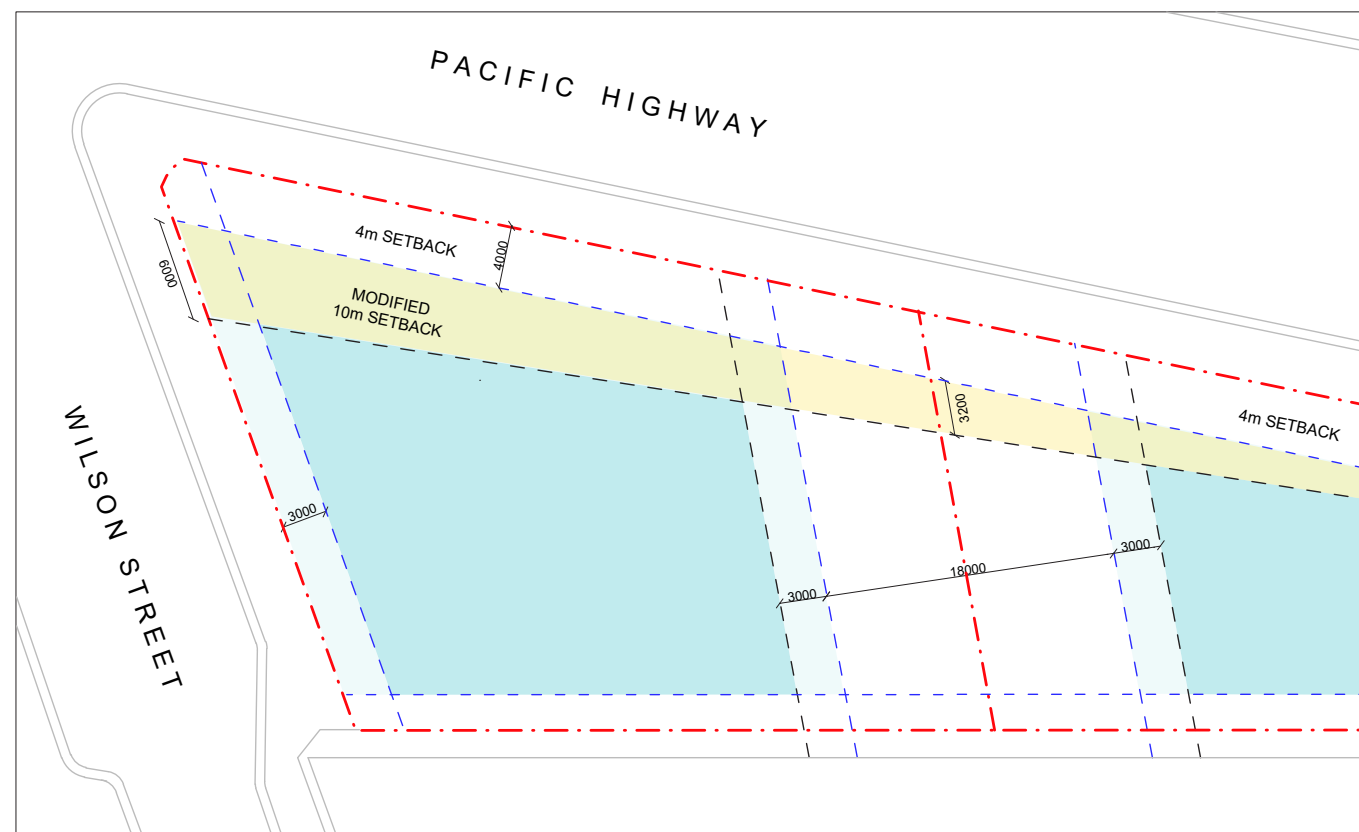


Figure 5.4 Conventional ADG setback alignment with setbacks parallel to northern boundary

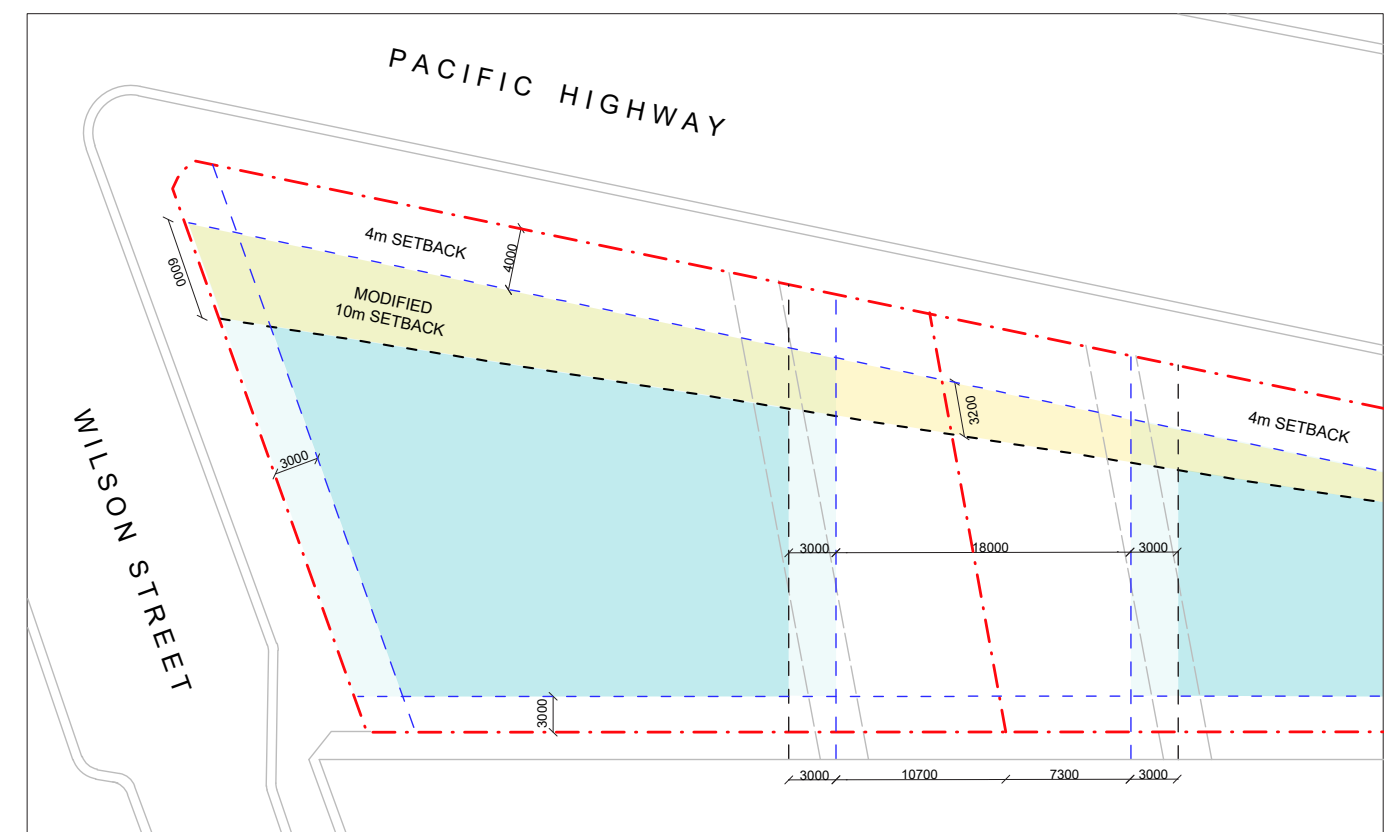


Figure 5.5 Modified ADG setback alignments relative to northern boundary



5.2 INDICATIVE GROUND FLOOR PLAN



Figure 5.6 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

5.2 INDICATIVE LEVEL 1 FLOOR PLAN

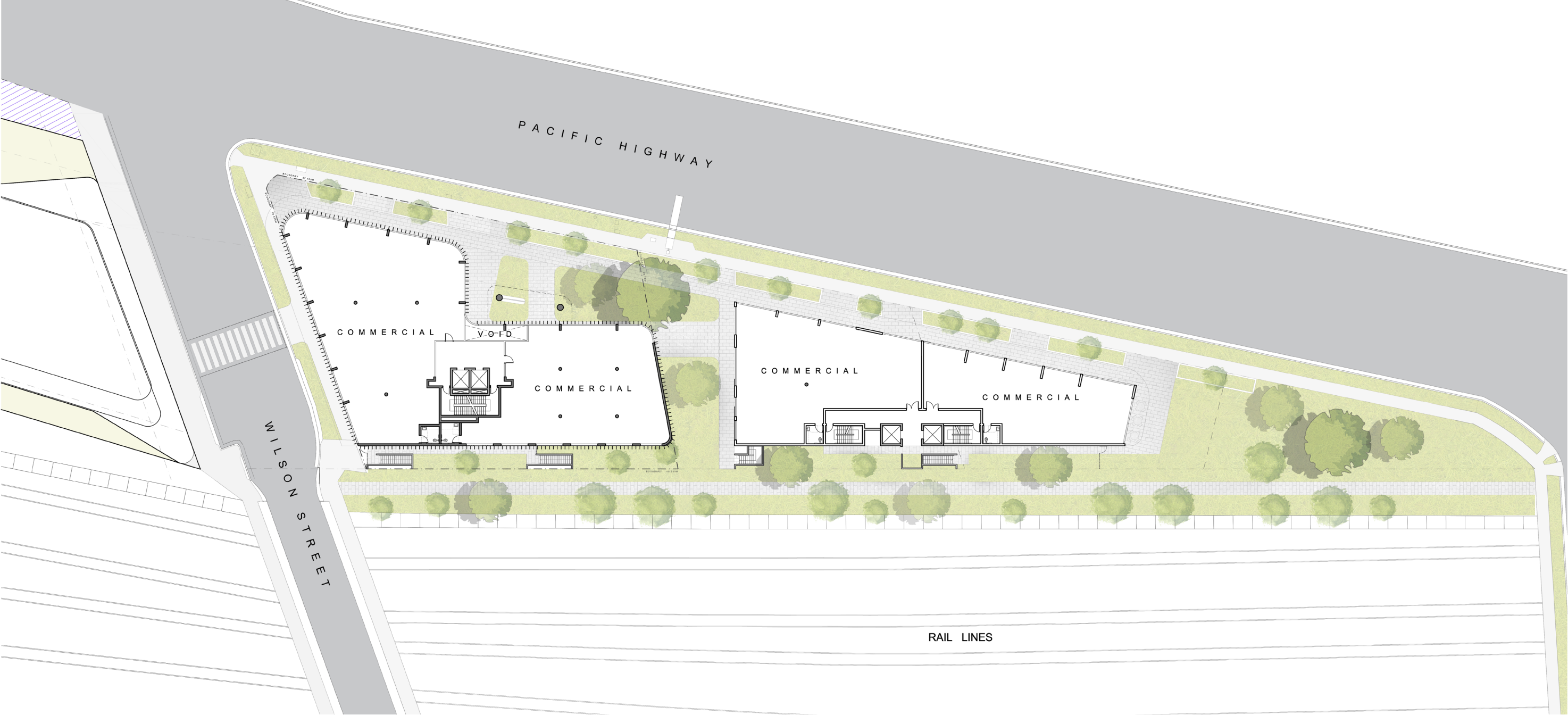


Figure 5.7 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

5.2 INDICATIVE LEVEL 2 / PODIUM FLOOR PLAN

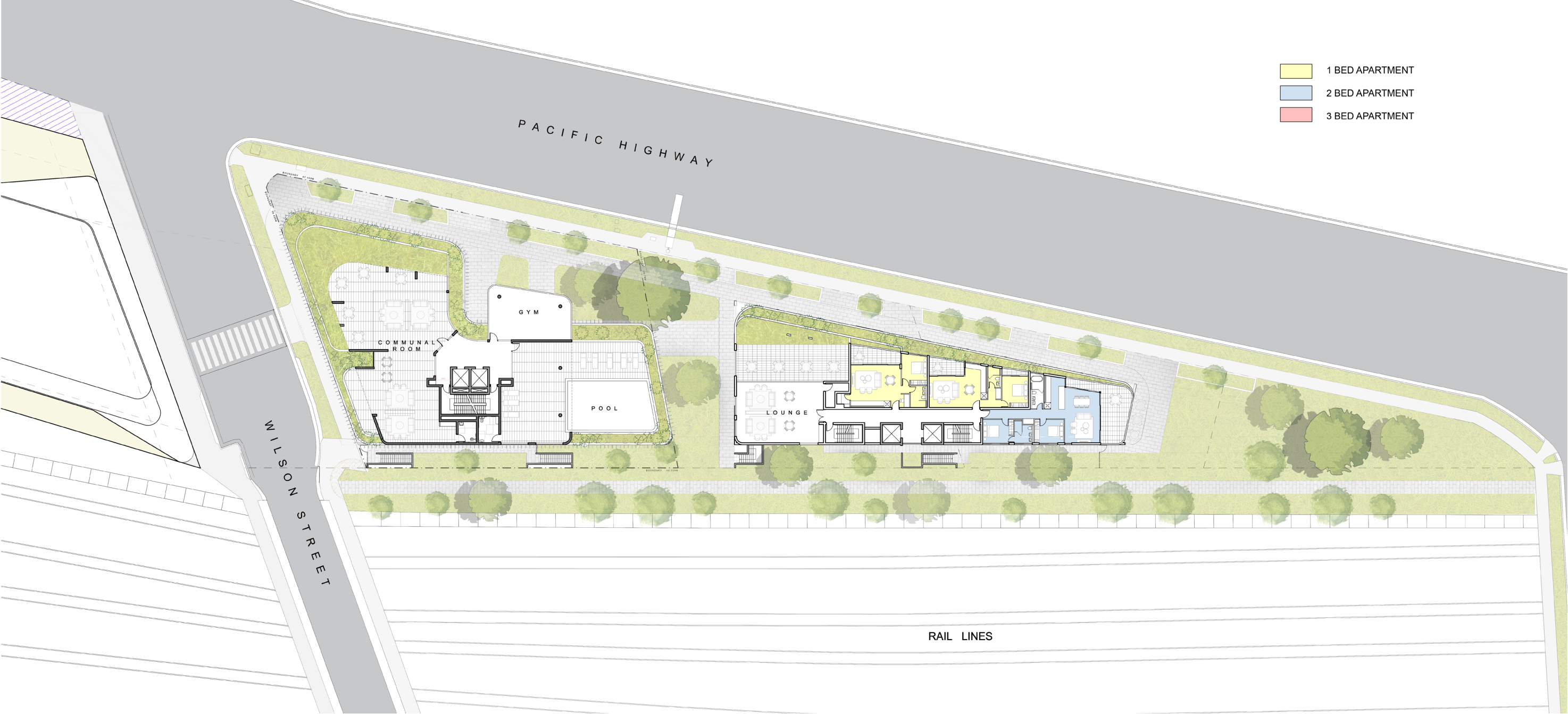


Figure 5.8 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

5.2 INDICATIVE TYPICAL FLOOR PLAN - TYPE 1

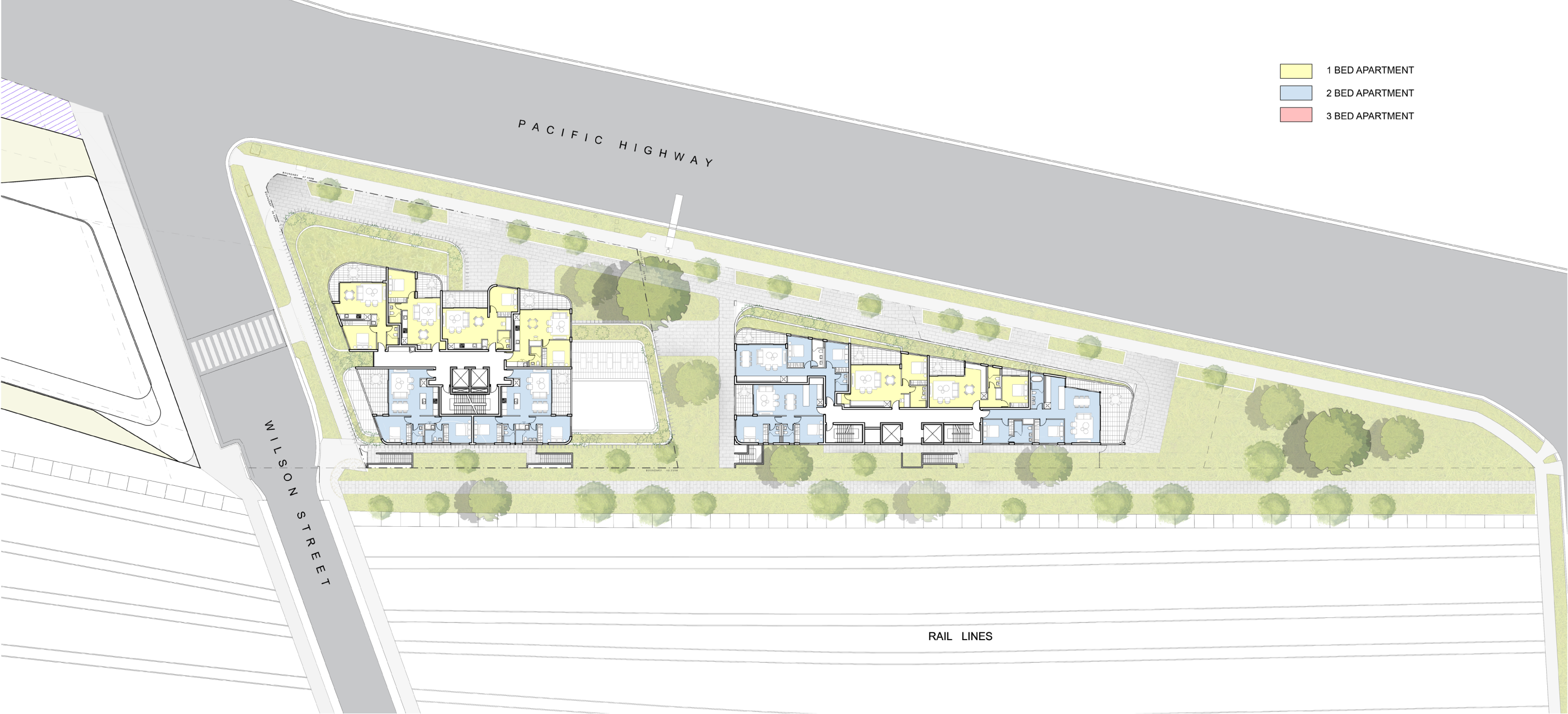


Figure 5.9 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

5.2 INDICATIVE TYPICAL FLOOR PLAN - TYPE 2

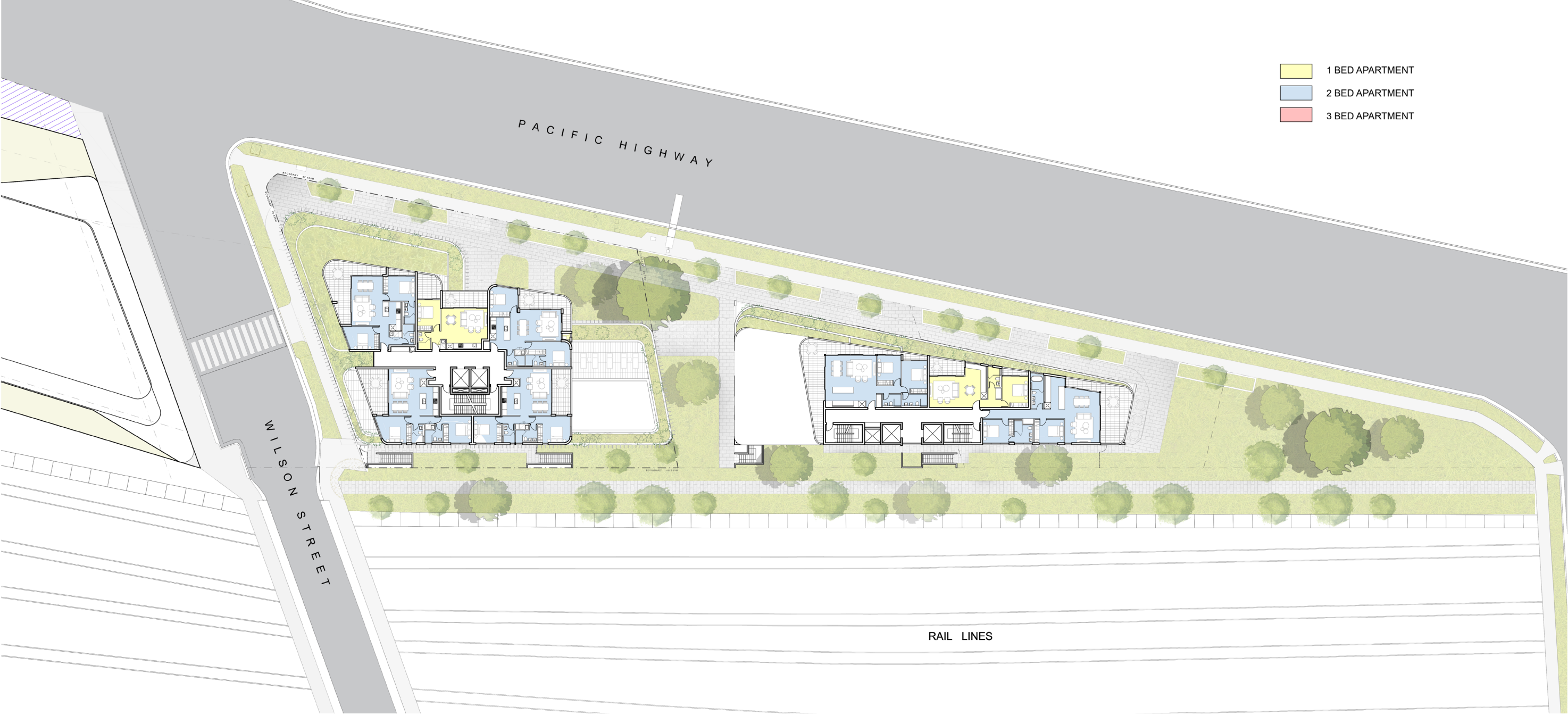


Figure 5.10 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

5.2 INDICATIVE TYPICAL FLOOR PLAN - TYPE 3

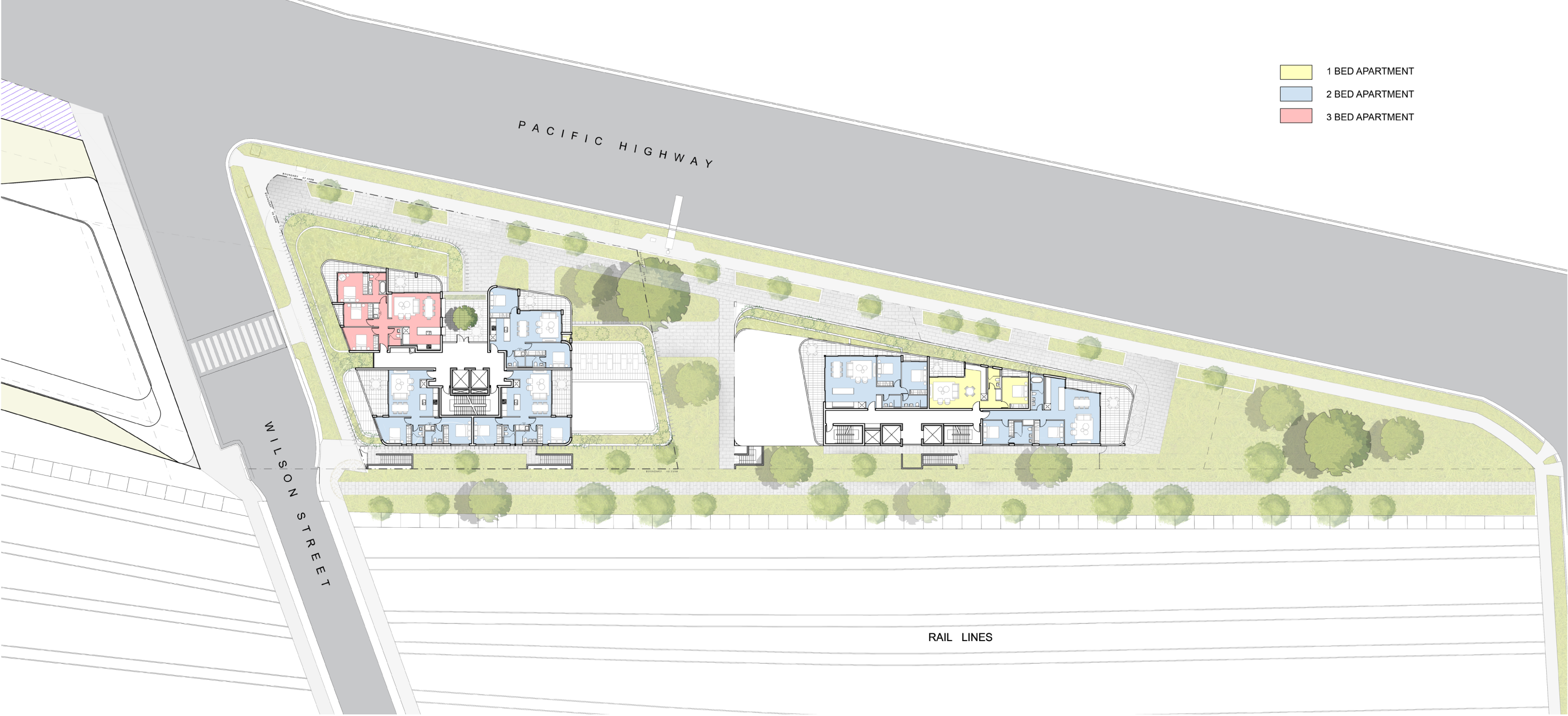


Figure 5.11 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

5.2 INDICATIVE TYPICAL UPPER FLOOR PLAN - TYPE 4

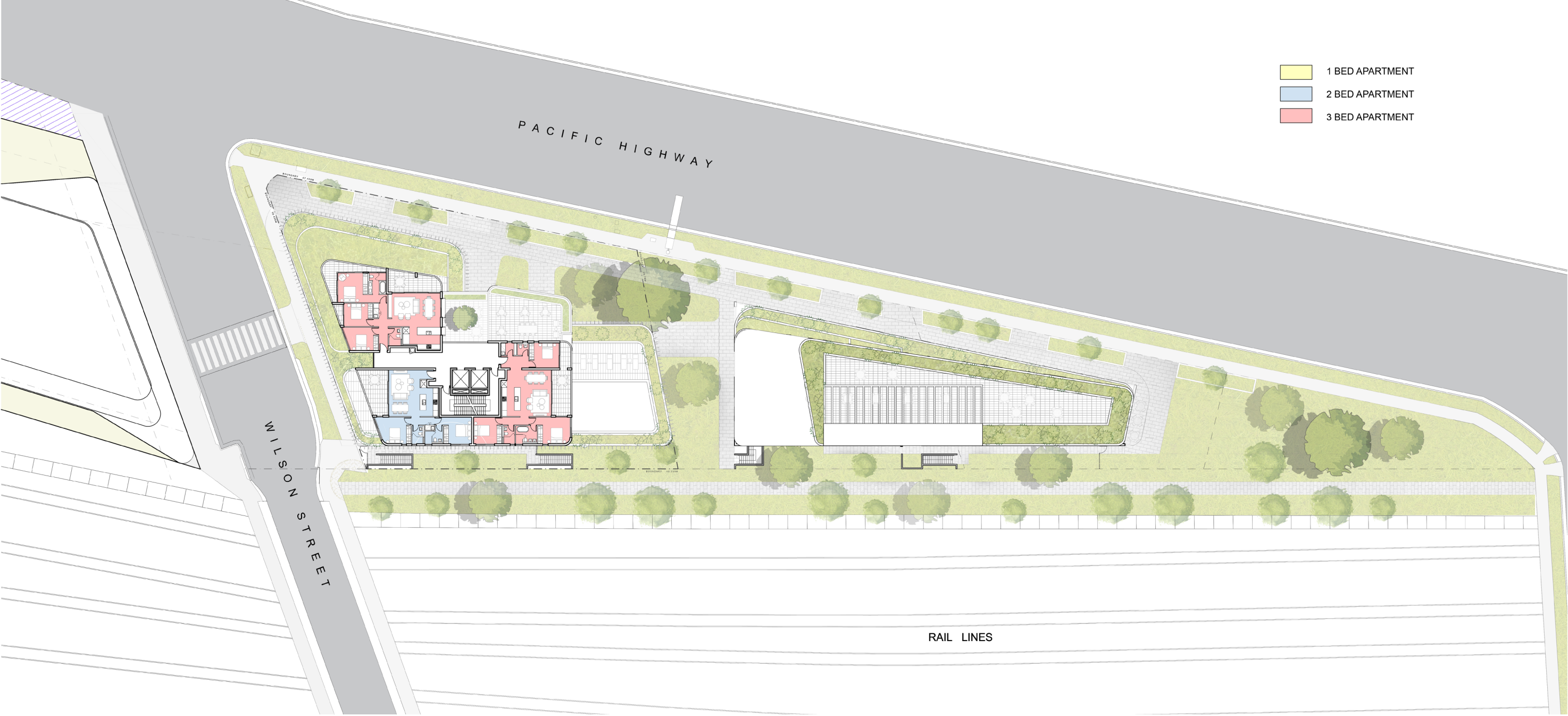


Figure 5.12 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

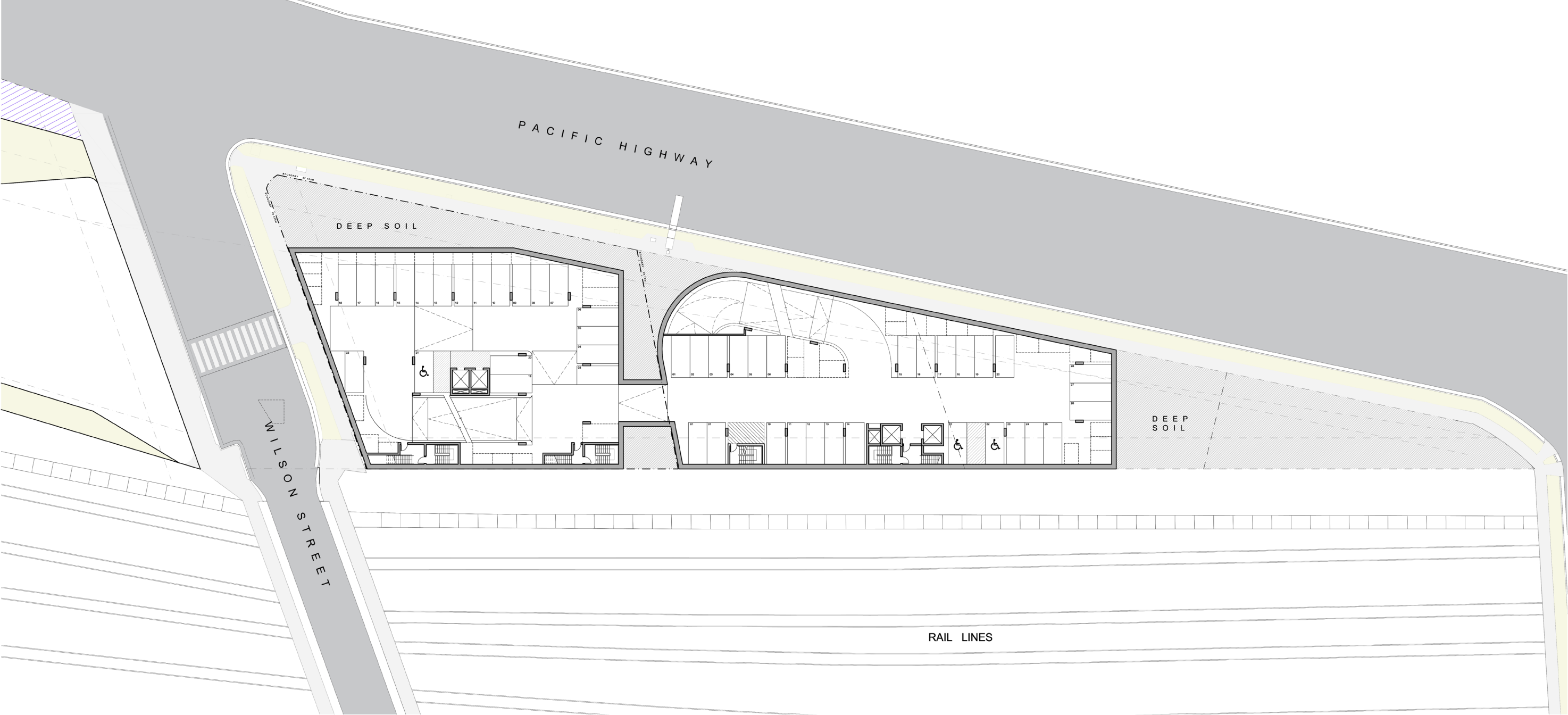


Figure 5.13 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

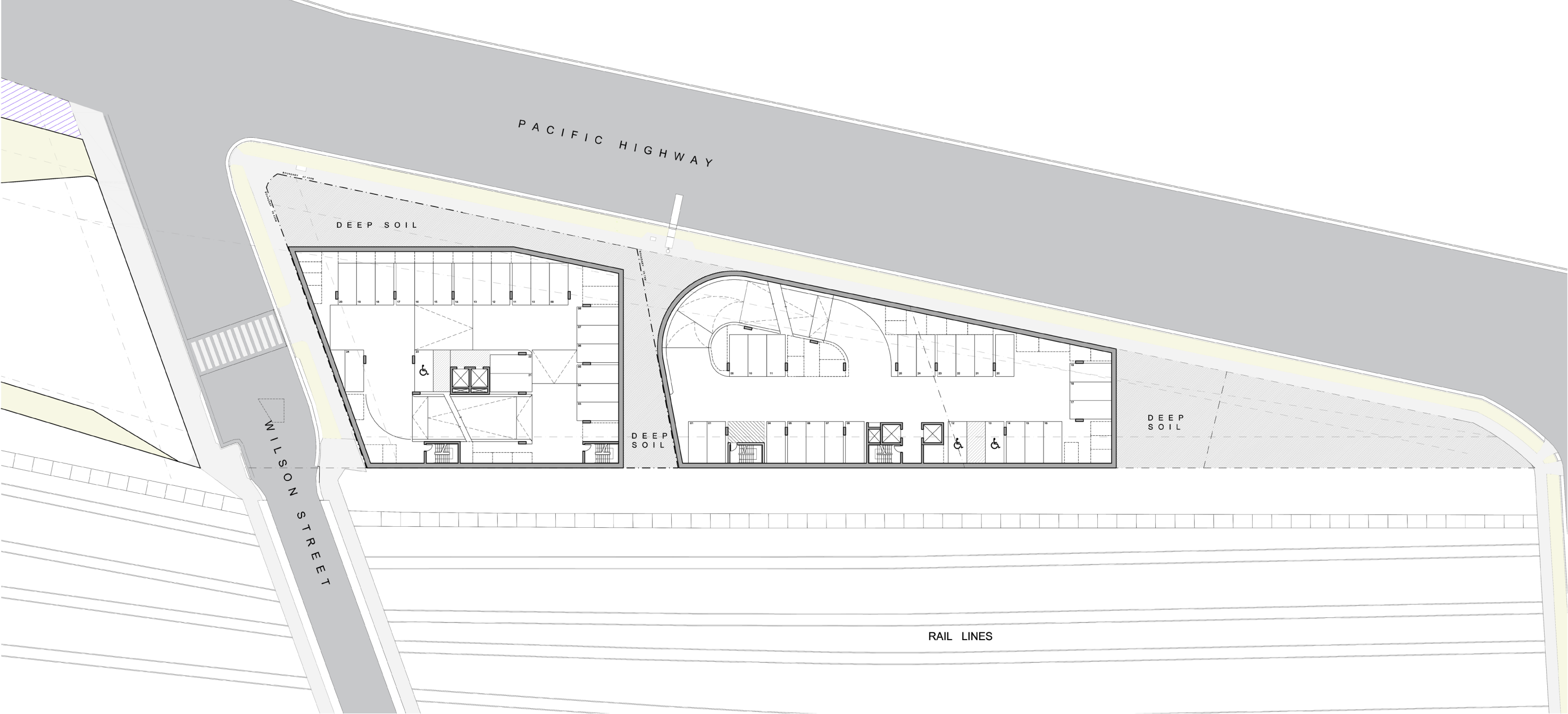


Figure 5.14 Indicative plan for subject site and potential future development of Service Station Site



SCALE 1:500

5.3 INDICATIVE BUILDING SECTION

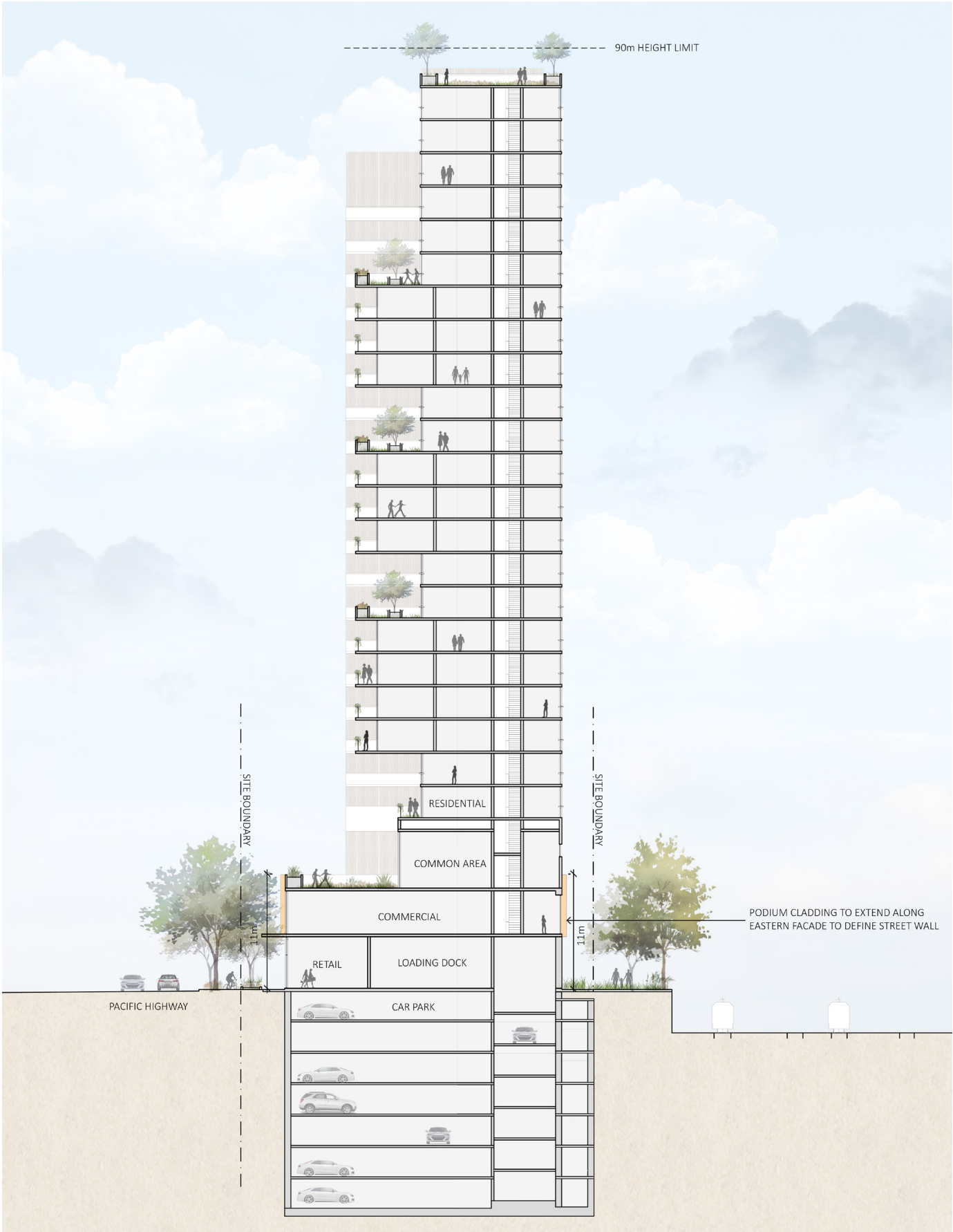


Figure 5.17 Indicative section for subject site showing relationship to Pacific Highway and Northern Railway Line

SCALE 1:500

5.4 INDICATIVE PODIUM SECTION & ANALYSIS

Through the development of the indicative proposal, PBD Architects have analysed the quantitative and qualitative aspects of the proposed Street Wall cross-section as identified in Section 5.1 above. We completely agree that a consistent Street Wall should be identified for use through the various sites discussed in this proposal, however, we believe that the height of the Street Wall should be modified for the following reasons:

- The ground floor storey should be a taller storey to allow for an appropriate scale to be used for the commercial frontages
- To achieve the desired 1:1 GFA for commercial development, there is inevitably a need for a second storey (at least) of commercial space. This space should be included as part of the street wall envelope and not be setback to the upper level alignments. This will promote the engagement of the commercial space with the street.
- Podium level setbacks should allow for roof gardens which should then be bounded by solid construction to retain the necessary soil/growing medium.

The net result of the above, is that the Street Wall should be approximately 11m in height rather than the 6-7m height shown in the CBD strategy. We expect the CBD Strategy section is limited in detail due to the wide scope of the study. In the detail of developing an appropriate wholistic response for mixed-use proposals we believe the taller street wall will be the more appropriate response.

We propose that the prescribed street wall and setback regime be amended to an appropriate scale that promotes landscaped podiums and promotes high-quality commercial spaces to be included for the Ground Floor and First Floor levels.

The comparison of the Strategy’s proposed Street Wall section and PBD’s proposed Street Wall section, on the right, clearly shows that the proposed geometry produces a desirable outcome with a landscaped podium above good quality commercial floors.

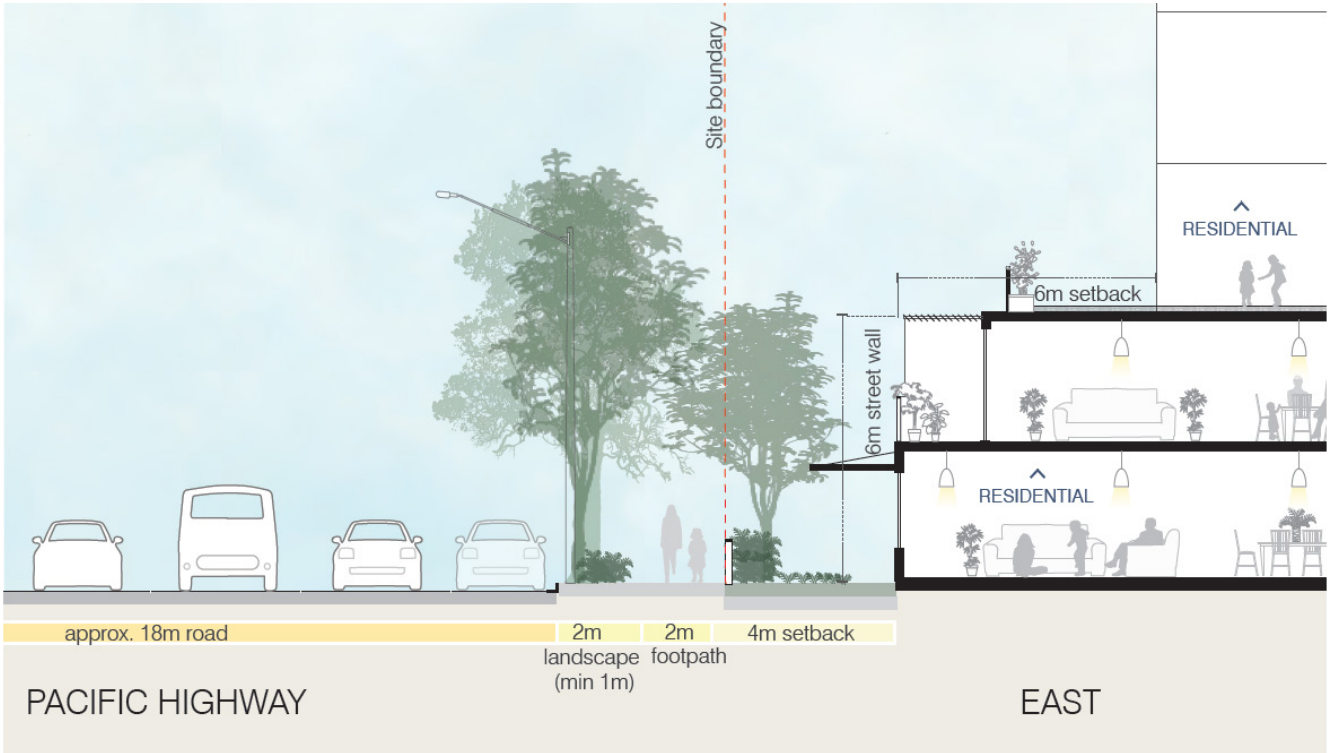
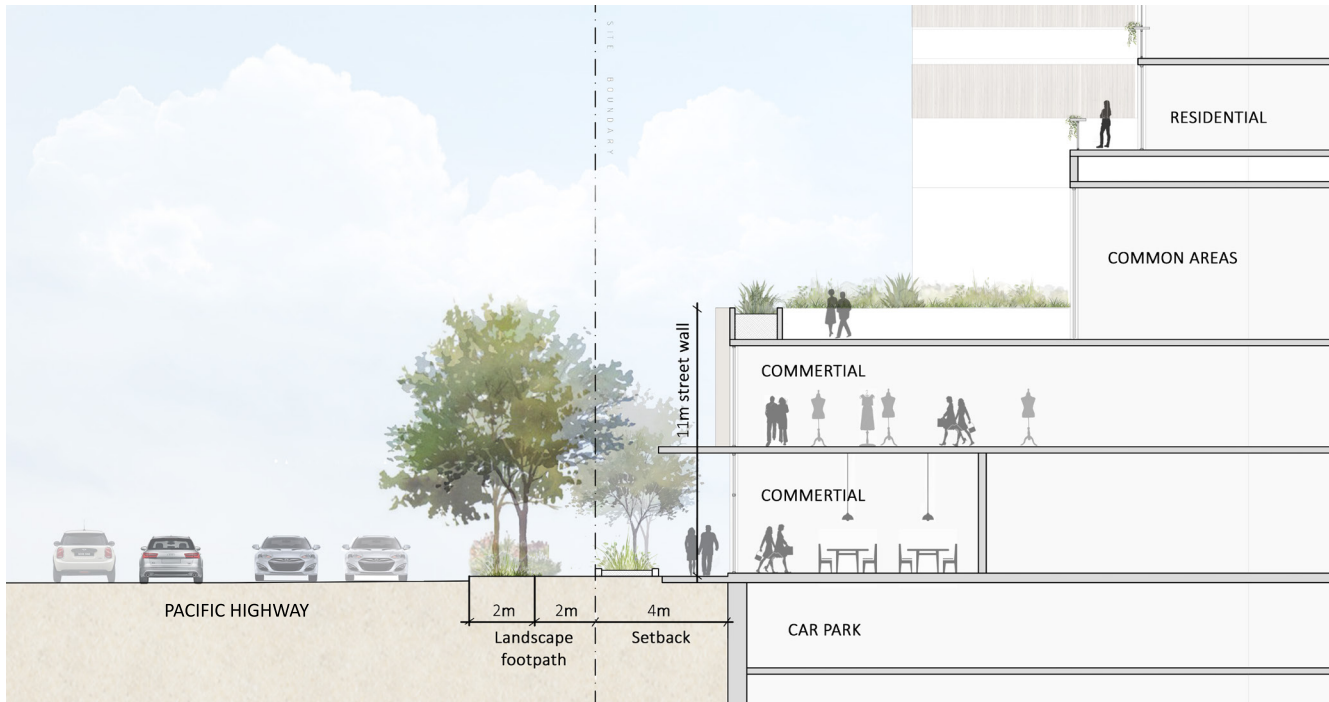


Figure 5.18 Pacific Highway Setback profile
(Source: Chatswood CBD Planning & Urban Design Strategy)



NOT TO SCALE

5.0 BUILT-FORM CONCEPT

5.5 LANDSCAPE CONCEPT PLAN

As per Figure 5.15 below, the Proposal includes a number of key landscape features as follows:

- Principal Public Open Space extending across both lots.
- Secondary Public Open space anticipated for the northern tip of the Service Station Site.
- Proposed landscape link along the train line (current Sydney Trains land)
- Proposed pedestrian and cycle link through landscape link
- Landscape zone along Pacific Highway in accordance with CBD Expansion strategy

As per Figure 5.16 on the right, the Proposed Principal Open Space will have the following key features:

- Major portion of Open Space to be provided on the subject lot.
- Secondary portion of Open Space to be provided on adjacent site in the future to connect sites and provide linkage to pedestrian and cycle link along rail line
- Major public space to be connected to retail frontages to provide an active Public Open Space.



Figure 5.16 Concept Landscape Plan for Principal Public Open Space

SCALE 1:200

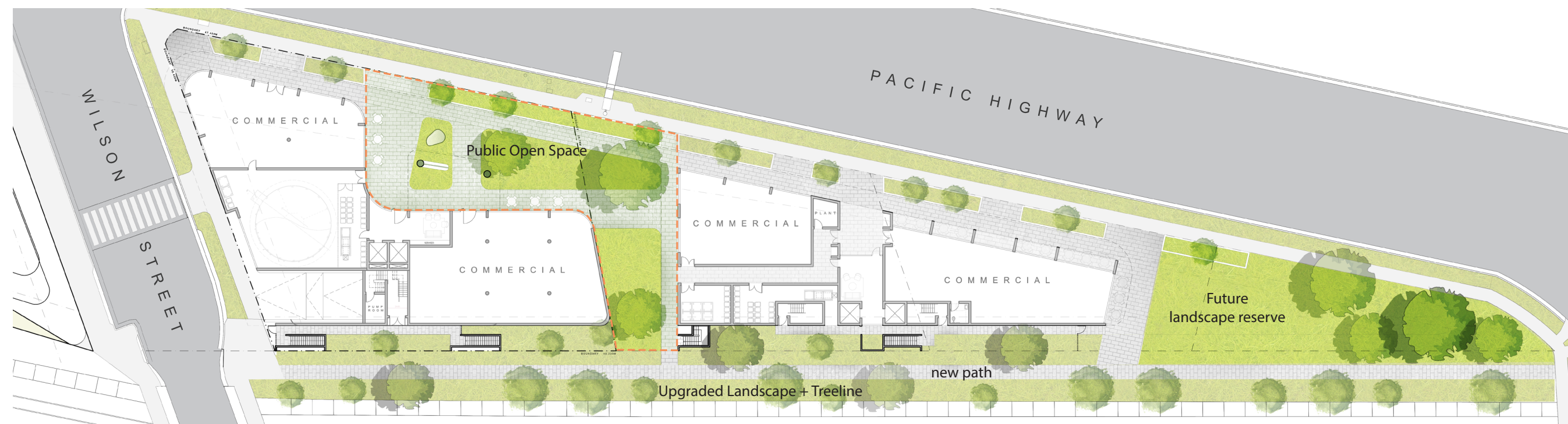


Figure 5.15 Concept Landscape Plan for subject site and potential future development of Service Station Site

SCALE 1:500

5.6 BUILT-FORM STATISTICS

The following provides details of the built-form proposal in terms of critical statistics for Apartment Mix, GFA/FSR, Height and so on.

Site Area 1432 sqm

Returnable Schedule	
Total Apartment Number:	94
Total Car Parking	136
Total Visitor Parking	14
Total Bicycle Parking	32
Total Storage Cages/ Type	94
Total Motorcycle Parking	6
Total Area Calculations:	
Proposed FSR	6.0 :1
GFA	8592

Assumed Apartment Sizes	
19 x 1 Bed @ Approx 52 -58 sqm	
61 x 2 Bed @ Approx 75 -85 sqm	
14 x 3 Bed @ Approx 95 -120 sqm	

	1 Beds	2 Beds	3 Beds	Retail (m2)	Parking #
Basement Level 7					6
Basement Level 6					22
Basement Level 5					22
Basement Level 4					22
Basement Level 3					22
Basement Level 2					22
Basement Level 1					20
Ground Floor				517	
Level 1				915	
Level 2					
Level 3	4	2			
Level 4	4	2			
Level 5	4	2			
Level 6		3	1		
Level 7		3	1		
Level 8		3	1		
Level 9	1	4			
Level 10	1	4			
Level 11	1	4			
Level 12	1	4			
Level 13		3	1		
Level 14		3	1		
Level 15		3	1		
Level 16	1	4			
Level 17	1	4			
Level 18	1	4			
Level 19		3	1		
Level 20		2	1		
Level 21		2	1		
Level 22		1	2		
Level 23		1	1		
Level 24			2		
Level 25 (Roof Terrace)					
Total #	19	61	14		136
Total %	20%	65%	15%		

6.1 SHADOW DIAGRAMS - EXISTING CONTEXT

These shadow diagrams show the hourly intervals for the subject building within the existing context. Please refer to the following diagrams in section 6.2 for the shadows relative to a potential future context based on the Chatswood CBD Expansion Strategy



Figure 6.1 Shadows - June 21, 9am



Figure 6.2 Shadows - June 21, 10am



Figure 6.3 Shadows - June 21, 11am



Figure 6.4 Shadows - June 21, 12pm

Shadow cast by proposed built-form

6.1 SHADOW DIAGRAMS - EXISTING CONTEXT

These shadow diagrams show the hourly intervals for the subject building within the existing context. Please refer to the following diagrams in section 6.2 for the shadows relative to a potential future context based on the Chatswood CBD Expansion Strategy

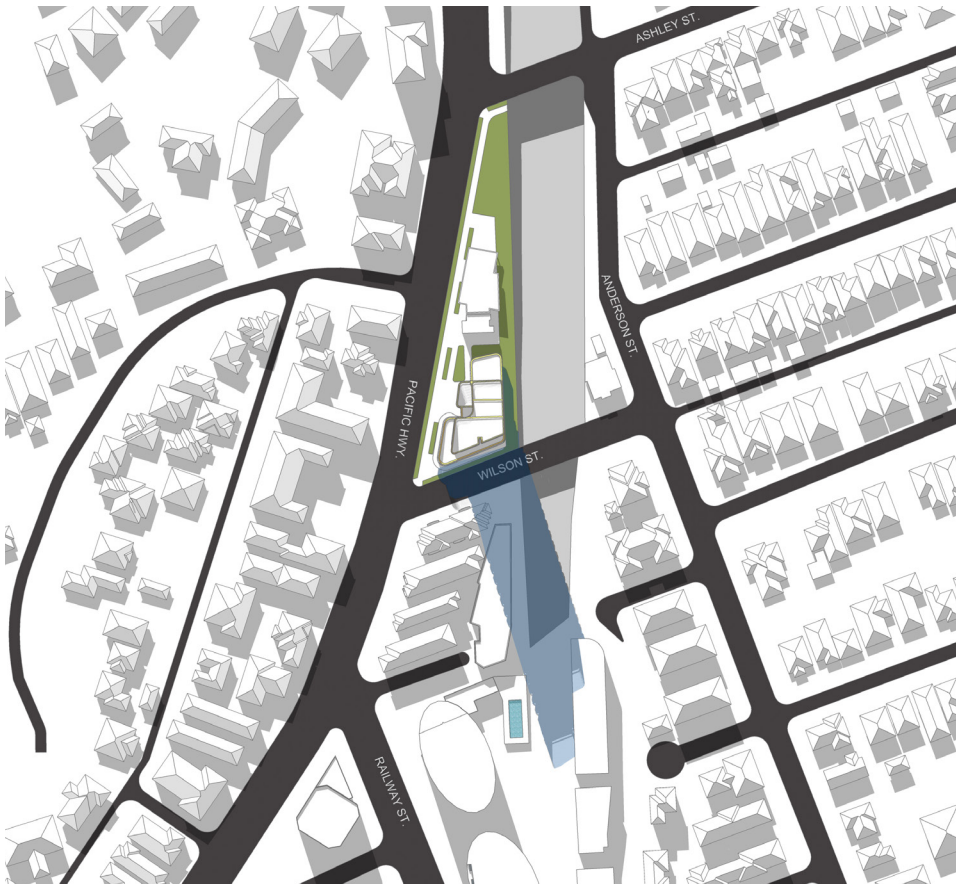


Figure 6.5 Shadows - June 21, 1pm

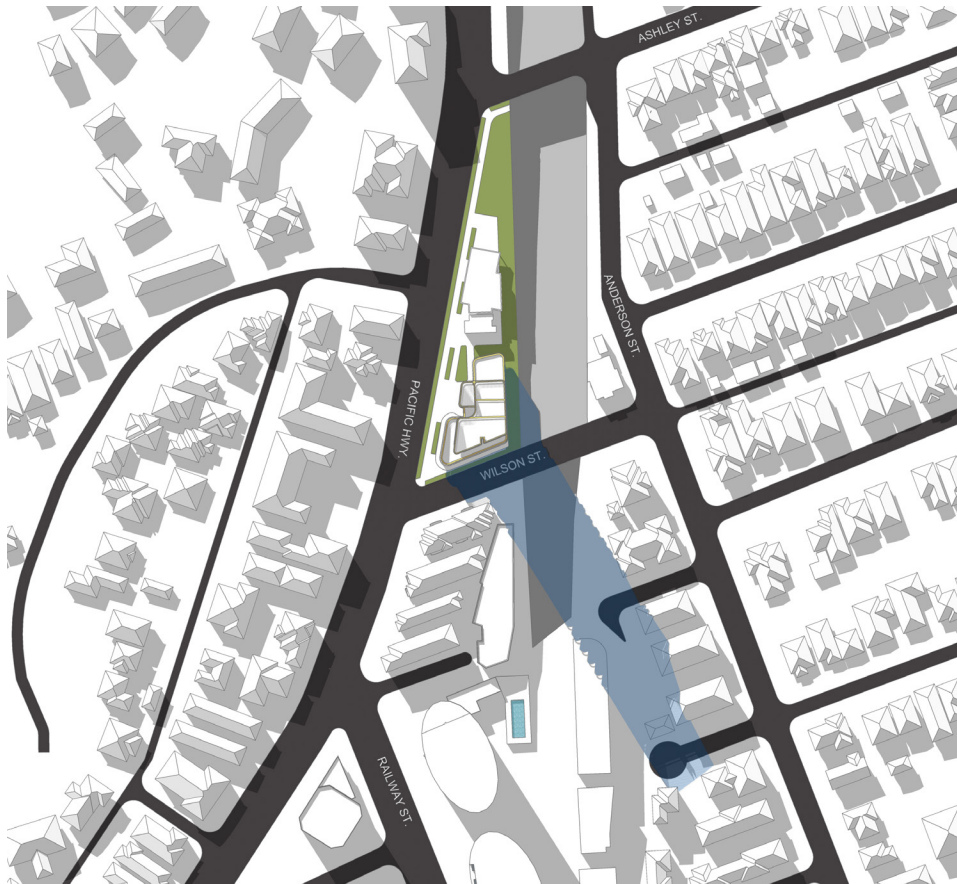


Figure 6.6 Shadows - June 21, 2pm



Figure 6.7 Shadows - June 21, 3pm

Shadow cast by proposed built-form

6.2 SHADOW DIAGRAMS - FUTURE CONTEXT

These shadow diagrams show the hourly intervals for the subject building within the anticipated future context based on the Chatswood CBD Expansion Strategy. Please refer to the previous diagrams in section 6.1 or the shadows relative to the existing context.



Figure 6.8 Shadows - June 21, 9am



Figure 6.9 Shadows - June 21, 10am



Figure 6.10 Shadows - June 21, 11am



Figure 6.11 Shadows - June 21, 12pm

Shadow cast by proposed built-form

6.2 SHADOW DIAGRAMS - FUTURE CONTEXT

These shadow diagrams show the hourly intervals for the subject building within the anticipated future context based on the Chatswood CBD Expansion Strategy. Please refer to the previous diagrams in section 6.1 or the shadows relative to the existing context.



Figure 6.12 Shadows - June 21, 1pm



Figure 6.13 Shadows - June 21, 2pm



Figure 6.14 Shadows - June 21, 3pm

 Shadow cast by proposed built-form

6.3 SUN-EYE VIEWS - EXISTING CONTEXT

These sun-eye views show the hourly intervals for the subject building within the existing context. Please refer to the following diagrams in section 6.4 showing shadows relative to a potential future context based on the Chatswood CBD Expansion Strategy

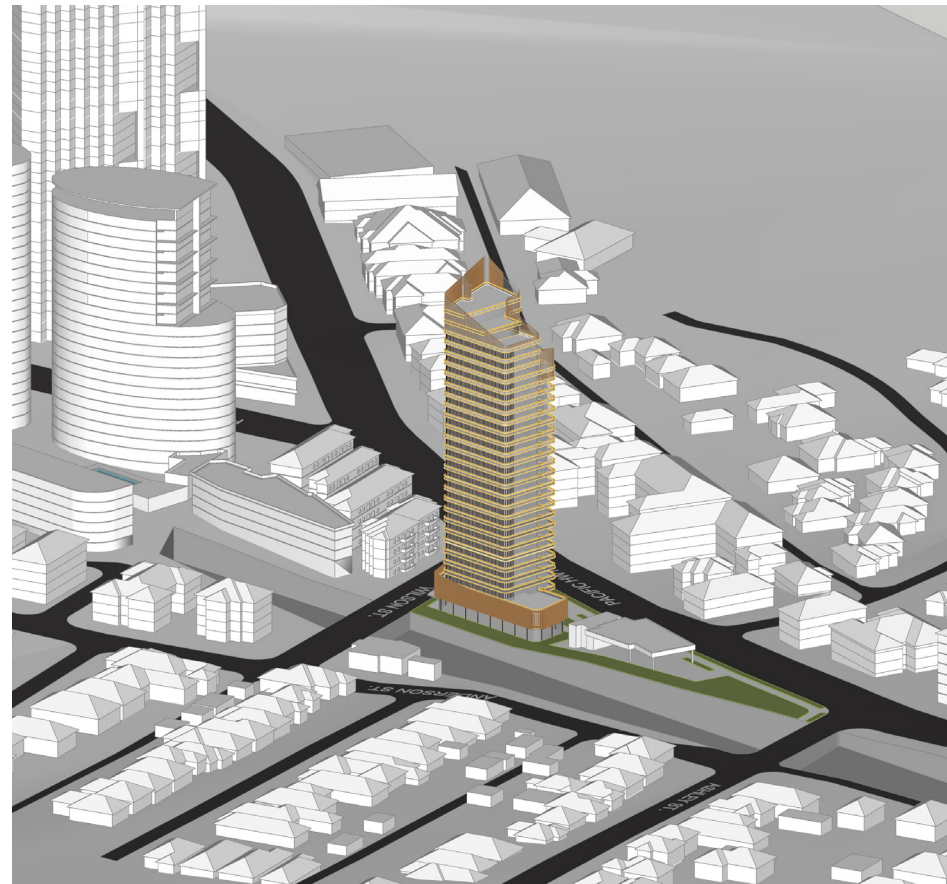


Figure 6.15 Shadows - June 21, 9am

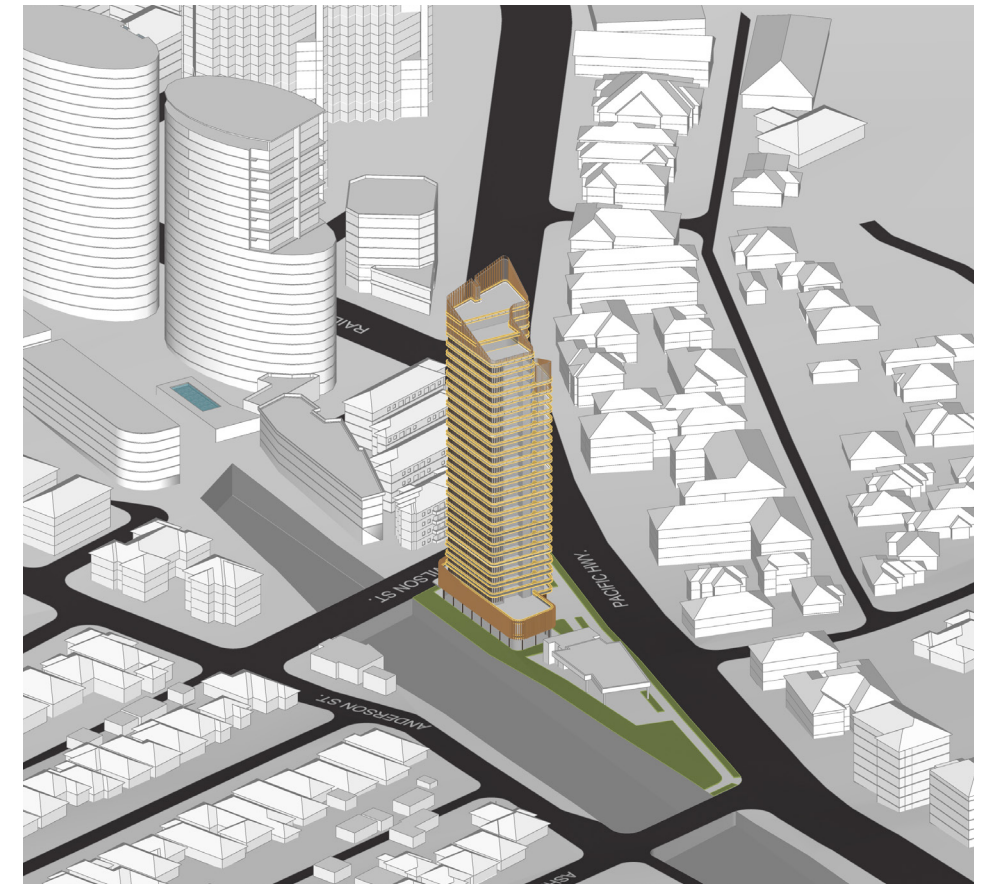


Figure 6.16 Shadows - June 21, 10am

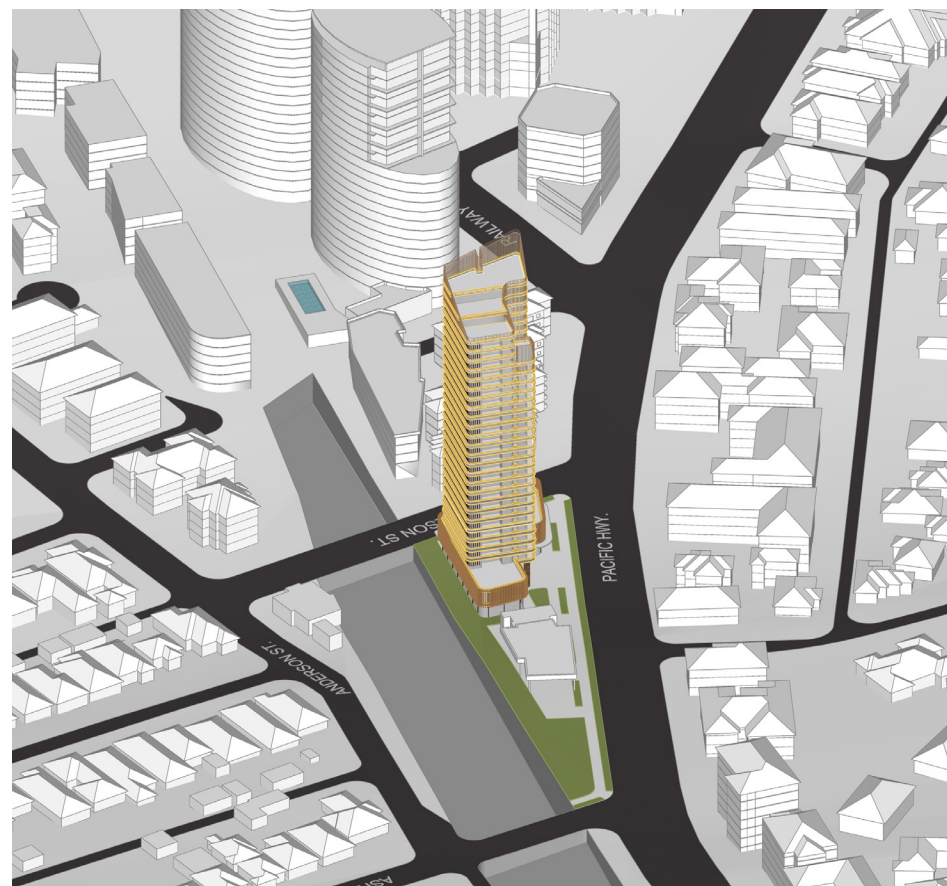


Figure 6.17 Shadows - June 21, 11am



Figure 6.18 Shadows - June 21, 12pm

6.3 SUN-EYE VIEWS - EXISTING CONTEXT

These sun-eye views show the hourly intervals for the subject building within the existing context. Please refer to the following diagrams in section 6.4 showing shadows relative to a potential future context based on the Chatswood CBD Expansion Strategy

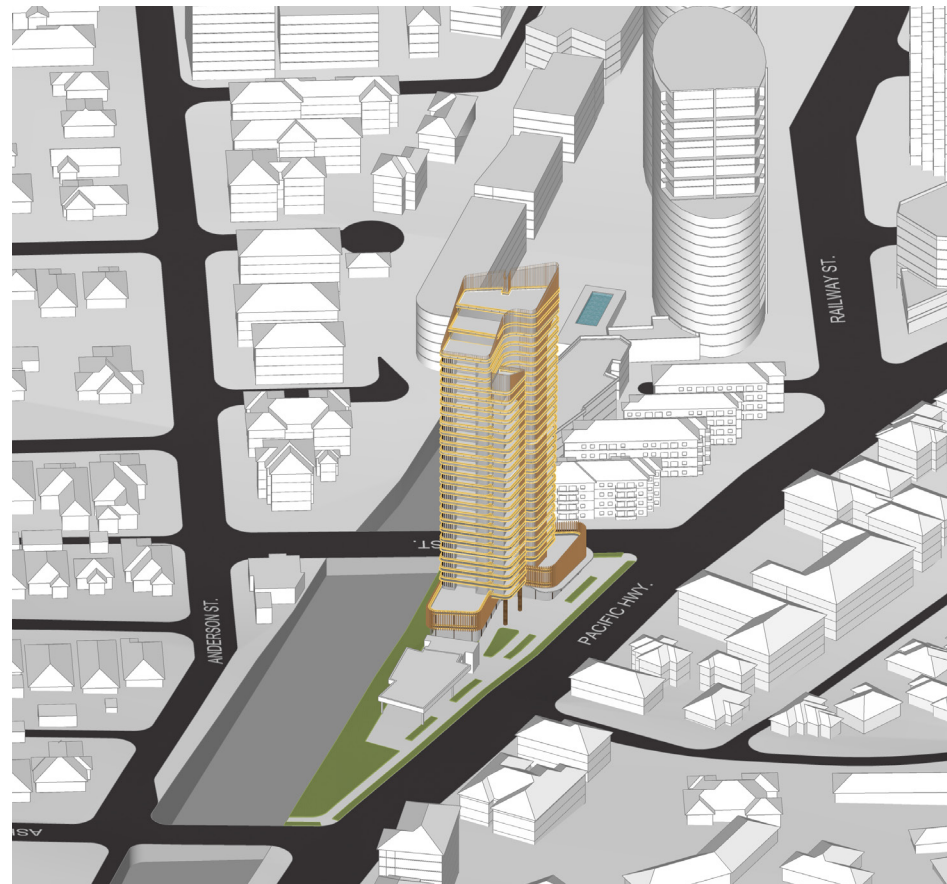


Figure 6.19 Shadows - June 21, 1pm

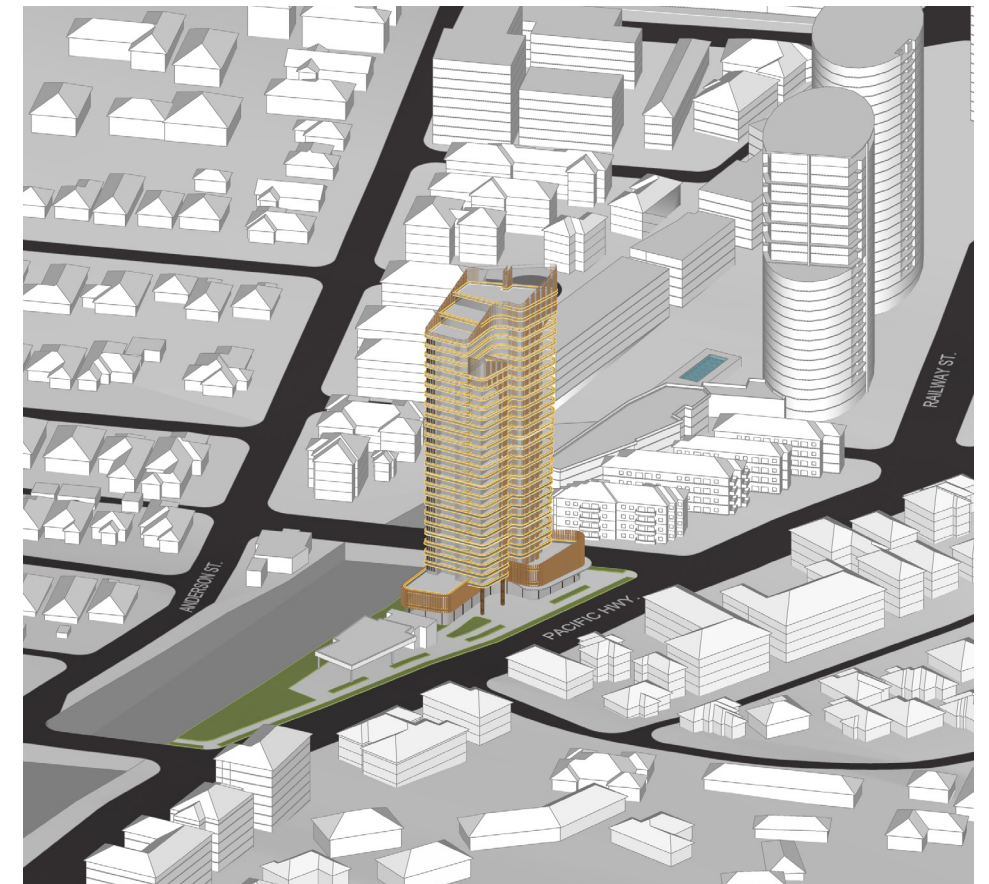


Figure 6.20 Shadows - June 21, 2pm

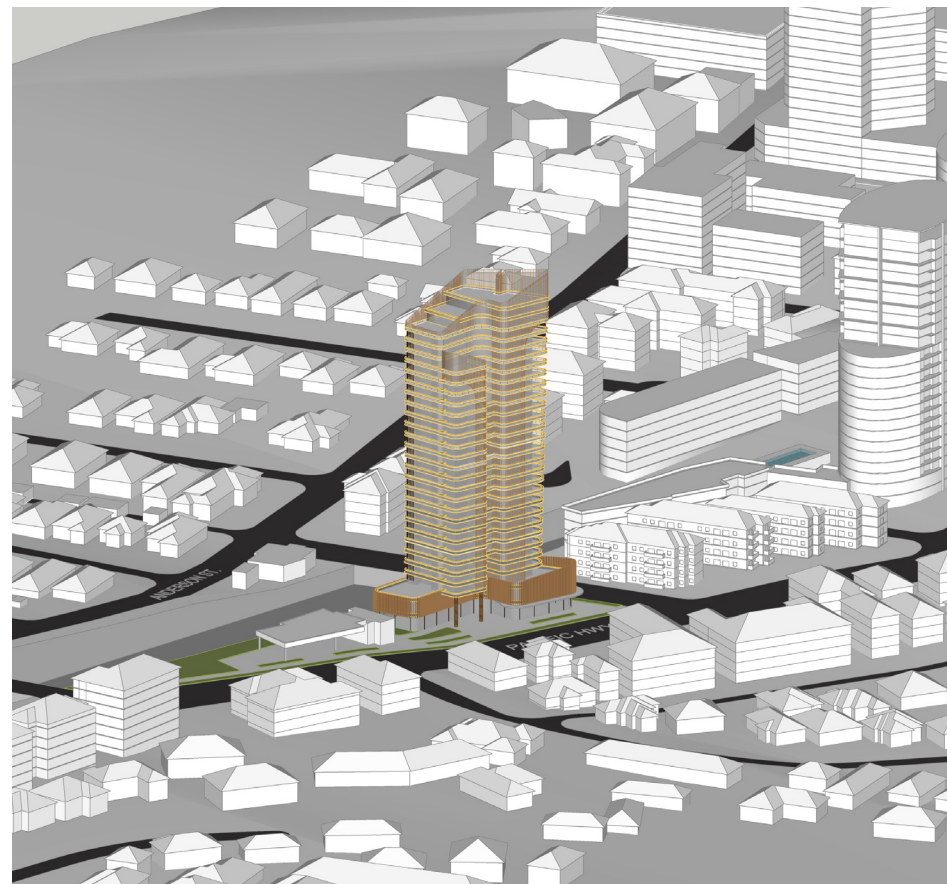


Figure 6.21 Shadows - June 21, 3pm

6.4 SUN-EYE VIEWS - FUTURE CONTEXT

These sun-eye views show the hourly intervals for the subject building within the anticipated future context based on the Chatswood CBD Expansion Strategy. Please refer to the previous diagrams in section 6.3 for the shadows relative to the existing context.

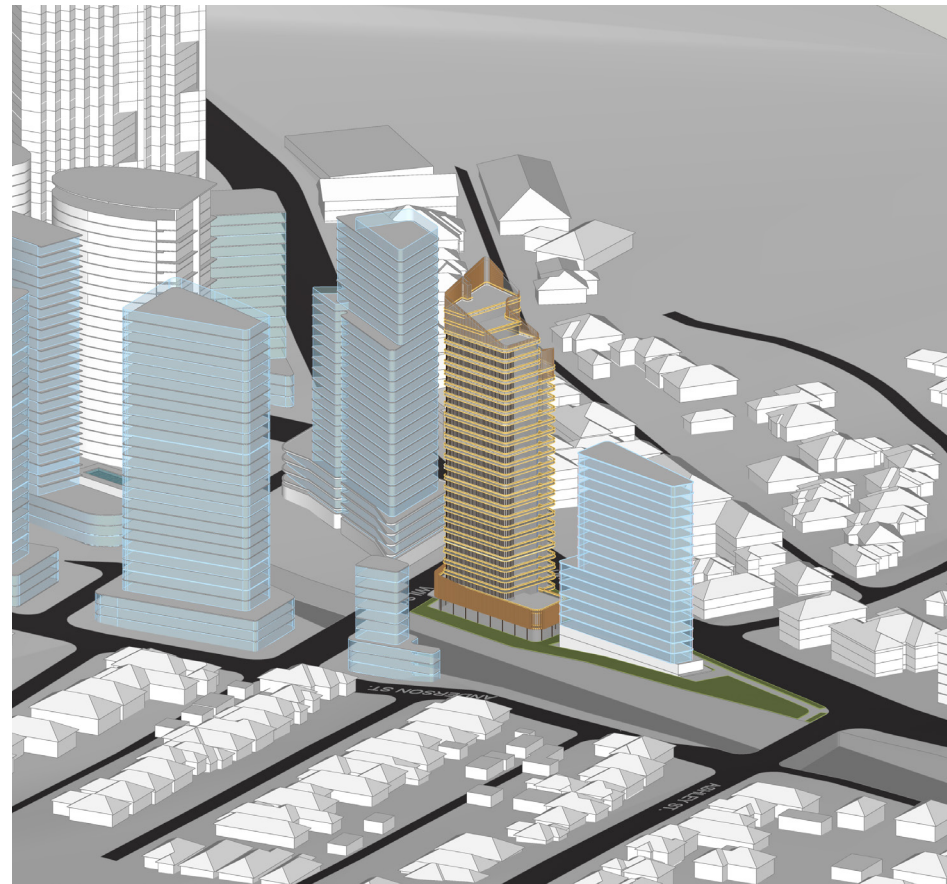


Figure 6.22 Shadows - June 21, 9am

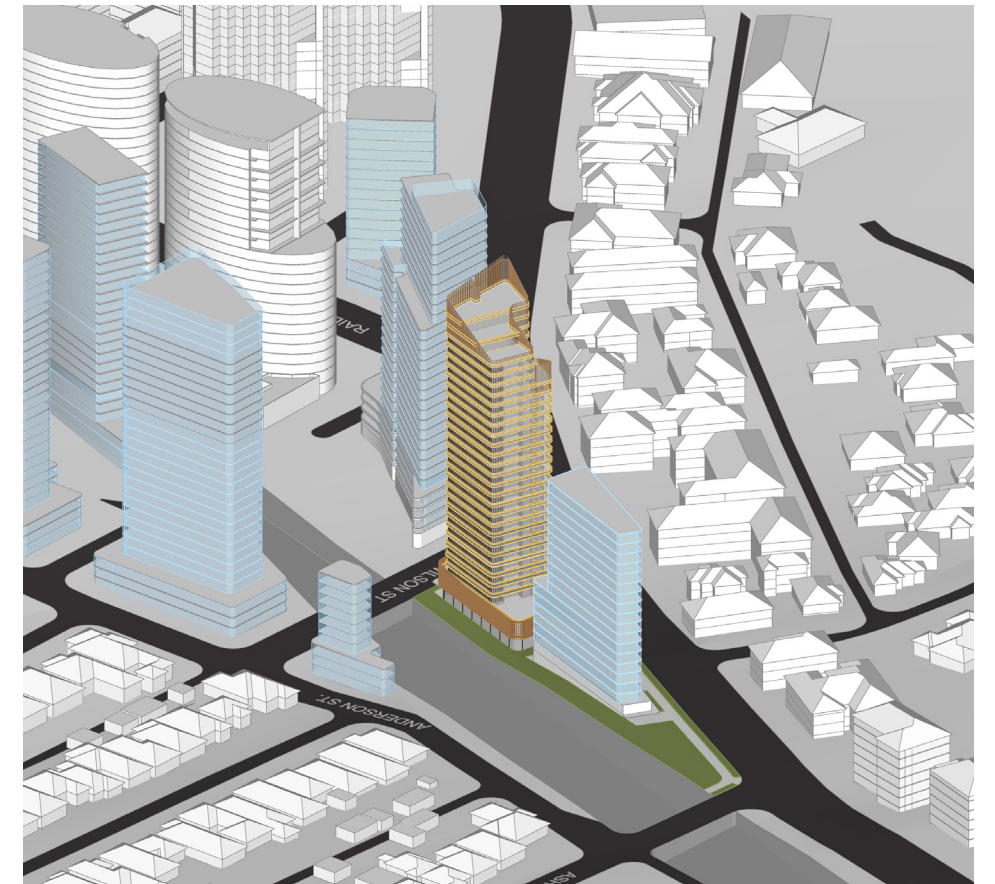


Figure 6.23 Shadows - June 21, 10am

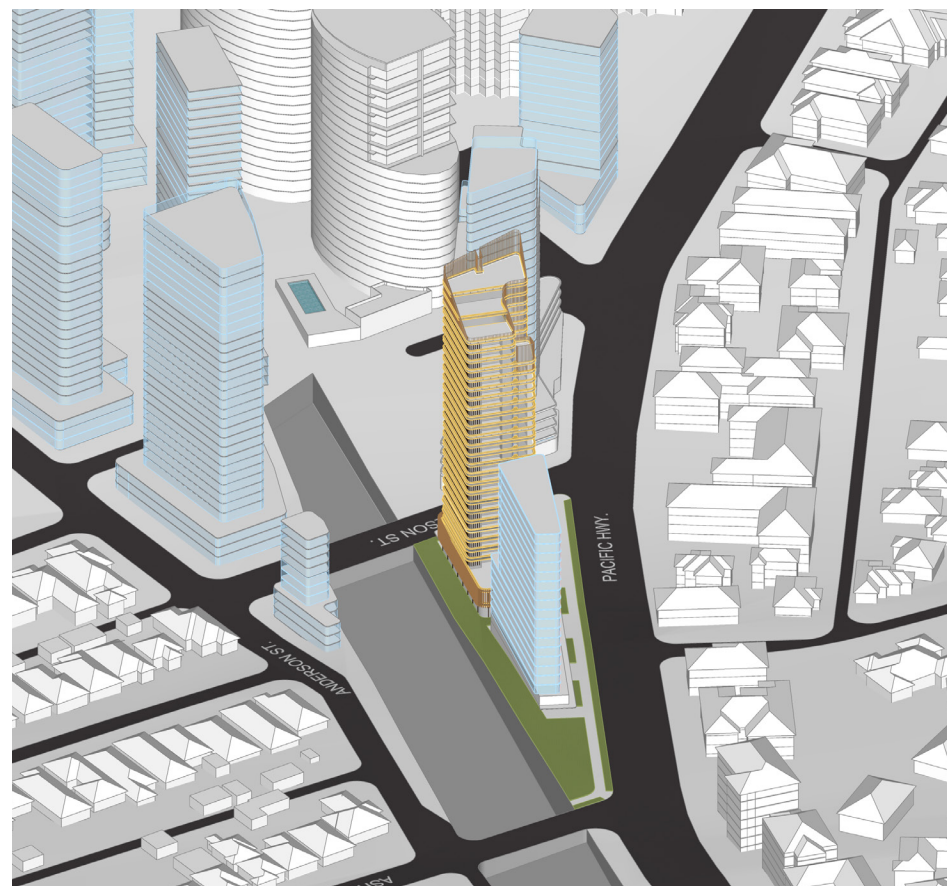


Figure 6.24 Shadows - June 21, 11am

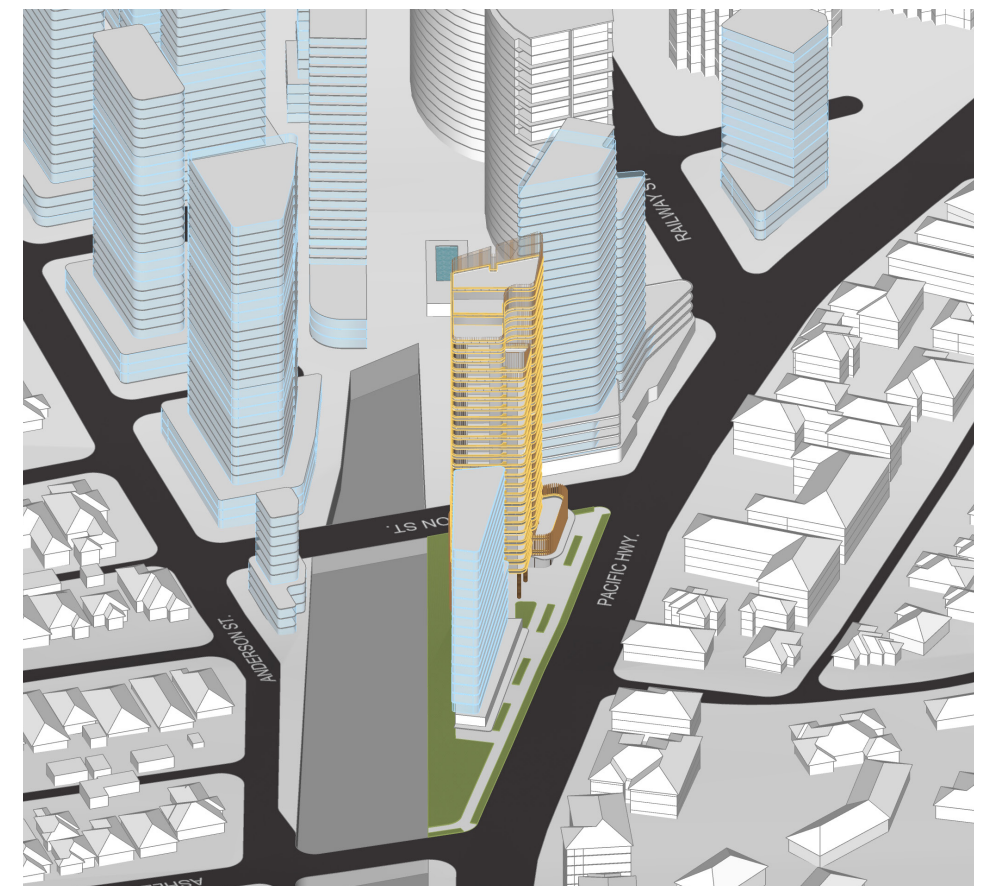


Figure 6.25 Shadows - June 21, 12pm

6.4 SUN-EYE VIEWS - FUTURE CONTEXT

These sun-eye views show the hourly intervals for the subject building within the anticipated future context based on the Chatswood CBD Expansion Strategy. Please refer to the previous diagrams in section 6.3 for the shadows relative to the existing context.

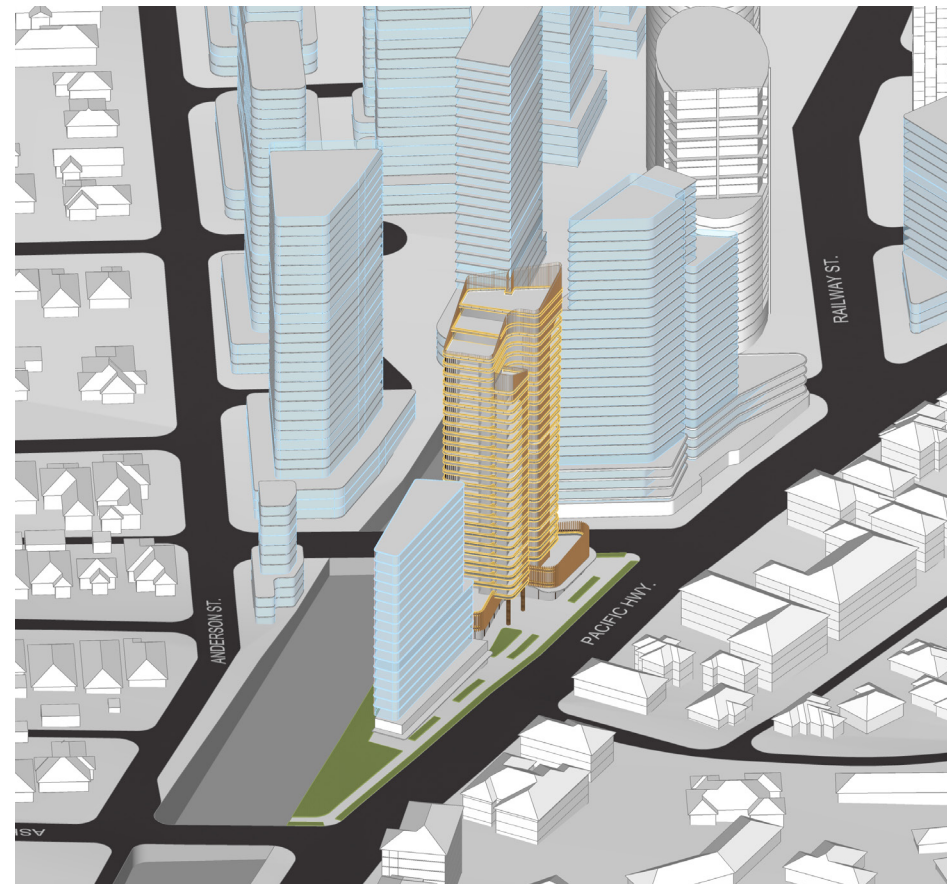


Figure 6.26 Shadows - June 21, 1pm

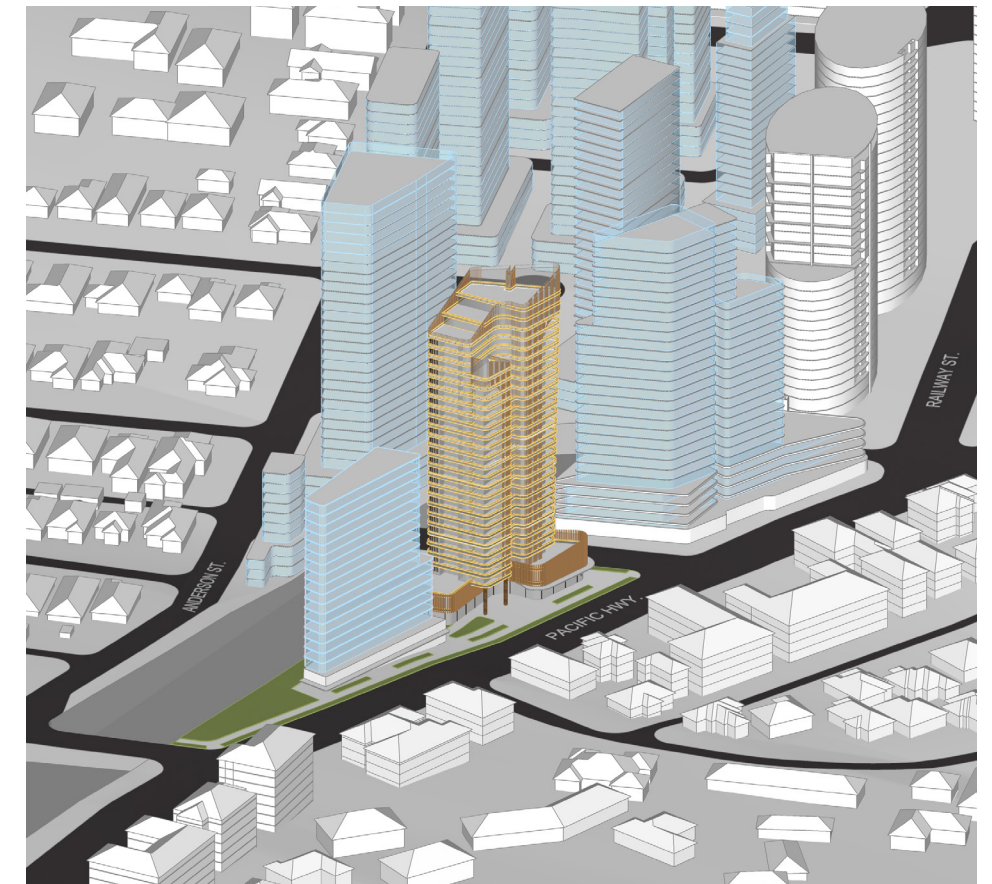


Figure 6.27 Shadows - June 21, 2pm

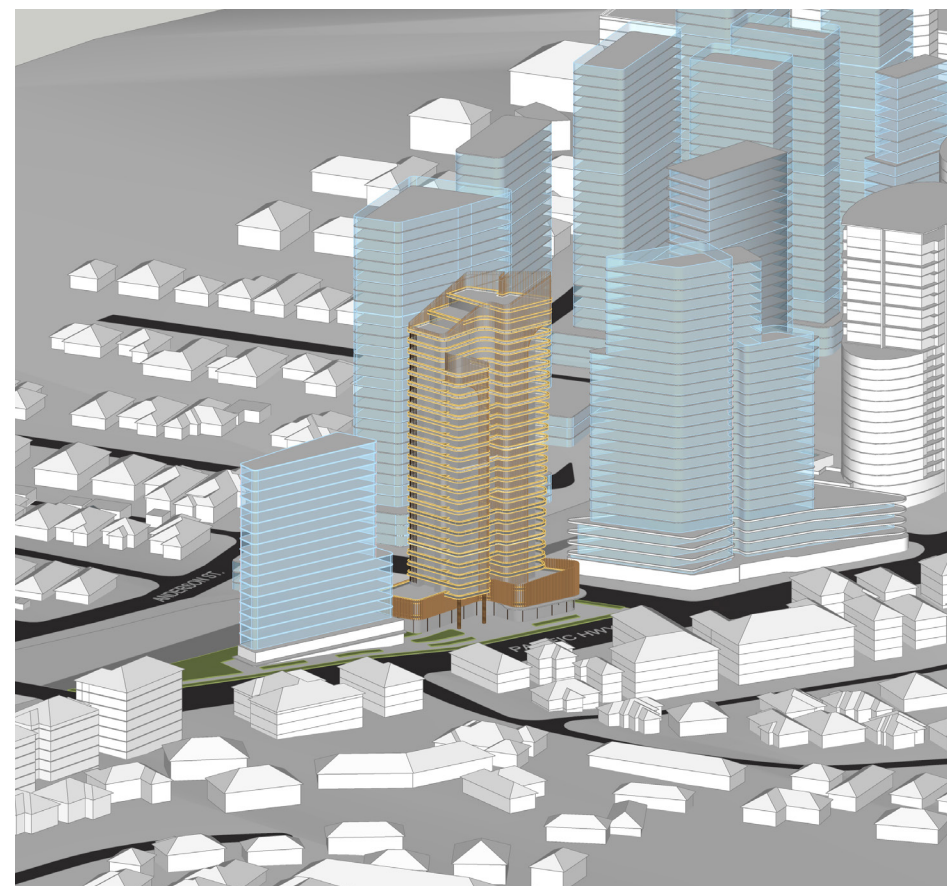


Figure 6.28 Shadows - June 21, 3pm

7.1 3D VIEWS - EXISTING CONTEXT

The following images provide an impression of the proposed built-form in the existing context.

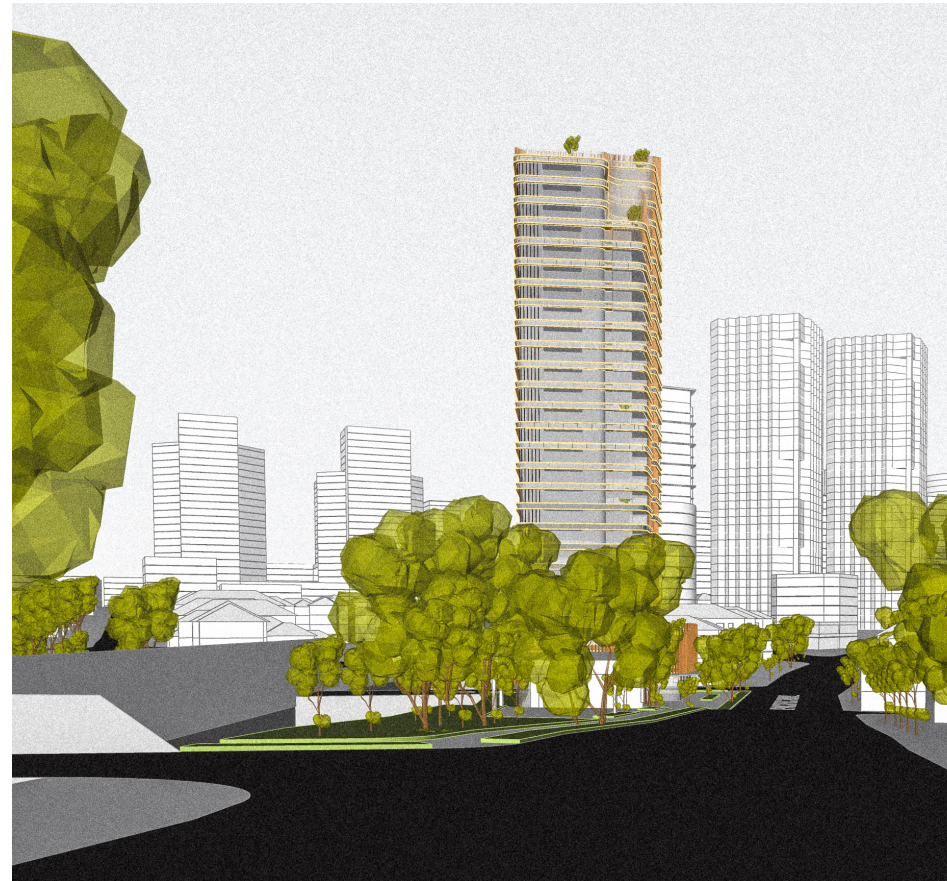


Figure 7.11 South direction street view from Pacific Highway

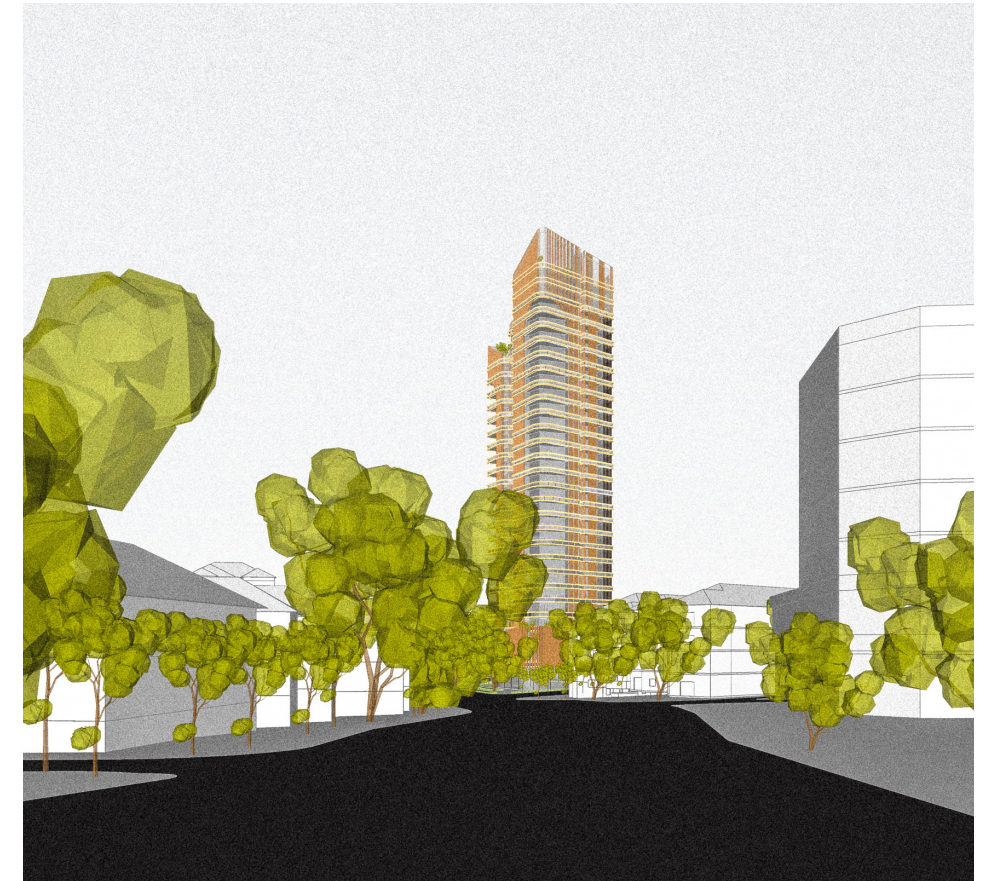


Figure 7.12 North direction street view from Pacific Highway



Figure 7.13 South direction street view from Ashley Street

7.2 3D VIEWS - FUTURE CONTEXT

The following images provide an impression of the proposed built-form in the anticipated future context.

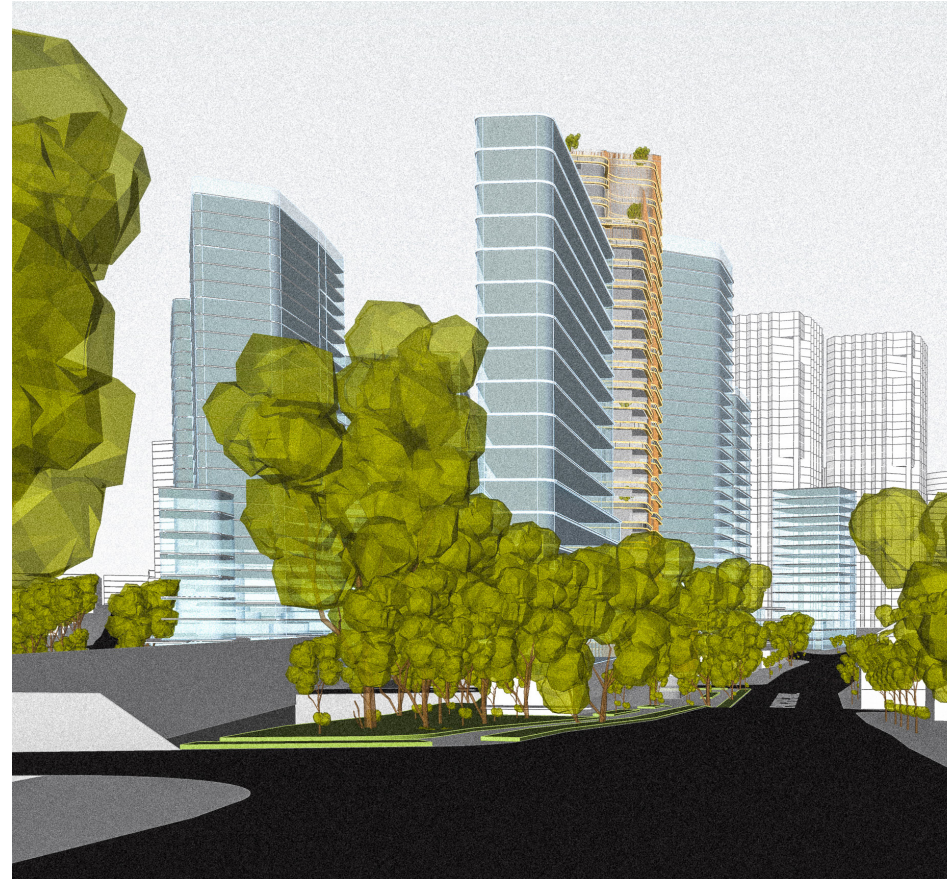


Figure 7.21 South direction street view from Pacific Highway

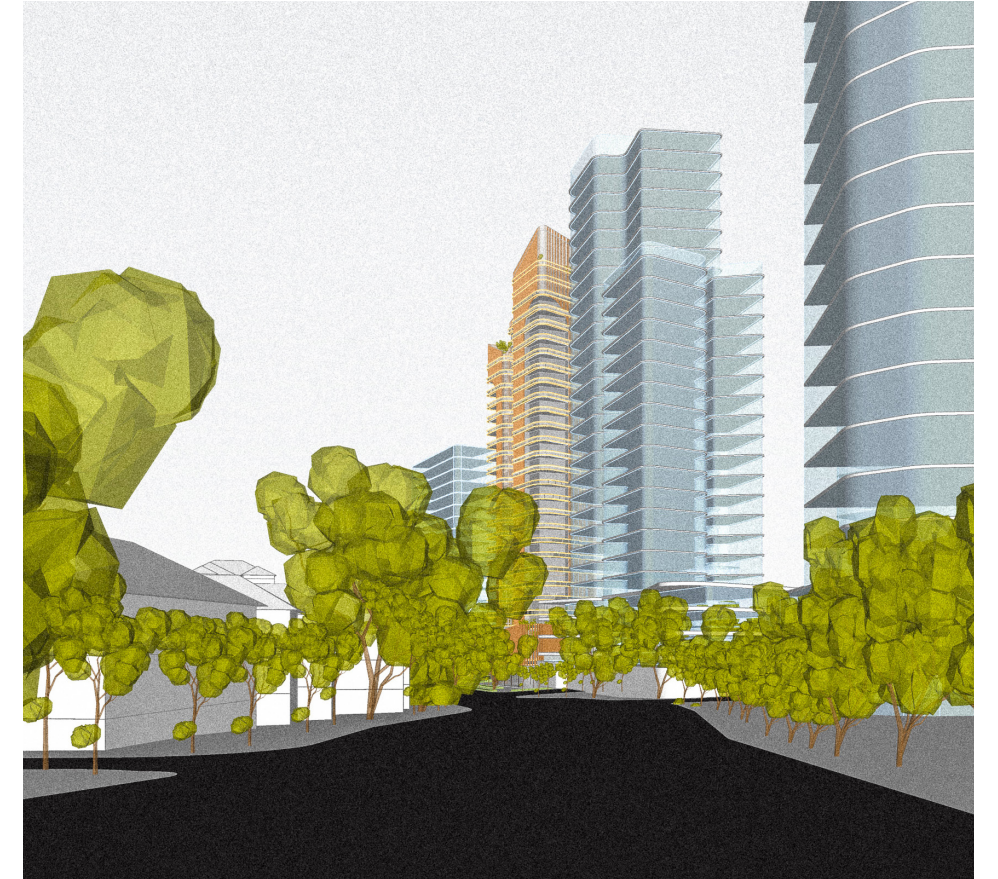


Figure 7.22 North direction street view from Pacific Highway

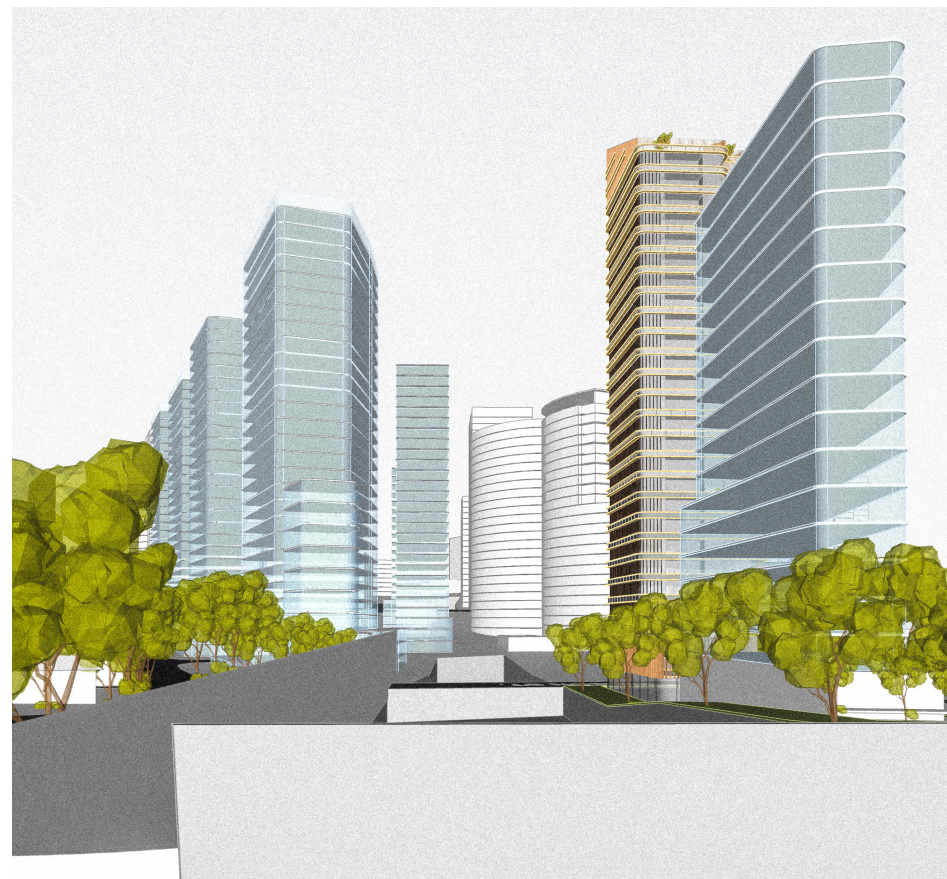


Figure 7.23 South direction street view from Ashley Street

8.1 COMPLIANCE CHECKLIST

OBJECTIVE		DESIGN CRITERIA	PROPOSED	COMMENT
Part 3 - Siting the Development				
3A Site Analysis	Objective 3A-1 Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and the relationship to the surrounding context		Complies	Built-form considers neighbouring context with adequate setbacks where required.
3B Orientation	Objective 3B-1 Building types and layouts respond to the street and site while optimizing solar access within the development		Complies	The orientation of the built-form maximizes solar access.
	Objective 3B-2 Overshadowing of neighbouring properties is minimized during mid-winter		Complies	Building position relative to neighbours minimises solar impacts.
3C Public Domain Interface	Objective 3C-1 Transition between private and public domain is achieved without compromising safety and security		Complies	Apartments are secure from the street and are accessed through a central lobby.
	Objective 3C-2 Amenity of the public domain is retained and enhanced		Complies	A new public square is proposed to significantly improve the amenity of the public domain.
3D Communal and Public Open Space	Objective 3D-1 And adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	1. Communal open space has a minimum area equal to 25% of the site	Complies	Required – 358 sqm, Proposed GF 234.5 sqm, L2 569 sqm, Total 803.3 sqm
		2. Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm on 21 st June (mid-winter)	Complies	Ground floor open space provides landscaping and enhances the public domain. Residential communal area is located on unobstructed Podium terrace achieving more than 2 hours direct sun light.
	Objective 3D-2 Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting		Complies	The principal Communal Open Space on the podium provides a variety of outdoor areas with different orientations. There is the potential for a BBQ area, associated seating, a gym,
	Objective 3D-3 Communal open space is designed to maximize safety		Complies	Residential communal open space is private and accessed via lift or stairs. Only tenants have access to this area.
	Objective 3D-4 Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood		Complies	Ground floor landscaping provides a connection with the landscaped street setback to the Pacific Highway corridor, consistent with the CBD Strategy. The public open space, improves the amenity of both residents and the general public.

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA			PROPOSED	COMMENT	
Part 3 - Siting the Development						
3E Deep Soil Zone	Objective 3E-1 Deep soil zone provides areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality	Deep soil zones are to meet the following minimum requirements:			Satisfactory	The development site is within the proposed northern precinct of the Chatswood CBD expansion area and has a site area of 1,432m ² . As a proposed B4 zone site, deep soil areas are anticipated to be limited as the delivery of appropriate commercial and public interfaces are significant aspects of the proposal. Furthermore, the constrained site geometry makes basement parking difficult if large areas of the site are set aside for Deep Soil. The proposal balances public open space, landscaped communal and private areas to provide an appropriate response.
		Site Area	Min. Dimensions	Deep Soil Zone (% of the site area)		
		Less than 650m ²	-	7%		
		650m ² - 1500m ²	3m	7%		
		Greater than 1500m ²	6m	7%		
Greater than 1500m ² with significant tree cover	6m	7%				
3F Visual Privacy	Objective 3F-1 Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of	Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:			Complies	The site is separated from other properties by roads and the rail line to the south, east and west. The only adjoining property is to the north. This property is currently a service
	external and internal visual privacy. Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room.	Building Height	Habitable rooms and balconies	Non-habitable rooms		station of a low scale. The proposal considers the existing and potential future scale of development on this northern neighbouring site and provides for equitable separation
		Up to 12m (4 storeys)	6m	3m		
		Up to 25m (5-8 storeys)	9m	4.5m		The distance between the proposed residential tower and the adjoining property are consistent with the ADG as documented elsewhere in this report.
		Over to 25m (9+ storeys)	12m	6m		
	Objective 3F-2 Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space.				Complies	Façade articulations, balconies and landscaping are multi-purposed in providing separation and privacy, whilst enhancing living environments.

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 3 - Siting the Development			
3G Pedestrian Access and Entries	Objective 3G-1 Building entries and pedestrian access connects to and addresses the public domain	Complies	Pedestrian entry is from the primary street frontage and connected to the public open space. Secure access is also available via the basement levels for those arriving by car.
	Objective 3G-2 Access, entries and pathways are accessible and easy to identify	Complies	A strong break in front façade and landscape plaza on ground floor indicates street entrances. The landscaped public open space is directly in front of the foyer and commercial spaces.
	Objective 3G-3 Large sites provide pedestrian links for access to streets and connection to destinations	Complies	The site is not a long site at present, however, should further development of the northern adjoining property occur, the proposal includes a landscape link along the railway corridor and a landscaped separation between buildings to connect this link to the public open space.
3H Vehicle Access	Objective 3H-1 Vehicle access points are designed and located to achieve safety, minimize conflicts between pedestrians and vehicles and create high quality streetscapes.	Complies	The vehicle access point has been located in a discrete location that minimises impacts on existing traffic movement and is integrated with the building. The dominant pedestrian movement along the Pacific Highway is unaffected and the entrances to the car park and loading dock have good visibility. The vehicle entries have minimal impact on streetscapes.

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 3 - Siting the Development			
3J Bicycle and Car Parking	Objective 3J-1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	For development in the following locations: <ul style="list-style-type: none">On sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; orOn land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use of 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.	Complies A Traffic Report, prepared by Varga Traffic, has been submitted with the Planning Proposal. 136 spaces required and 136 provided = 122 residential, 14 visitor spaces.
	Objective 3J-2 Parking and facilities are provided for other modes of transport	Complies	Bicycle racks and lockers and motorcycle parking are to be provided
	Objective 3J-3 Car park design and access is safe and secure	Complies	Secure basement car park with lift access to all residential levels.
	Objective 3J-4 Visual and environmental impacts of underground car parking are minimised	Complies	The vehicle entries have minimal impact on streetscapes.
	Objective 3J-5 Visual and environmental impacts of on-grade car parking are minimised	Complies	No on-grade parking provided
	Objective 3J-6 Visual and environmental impacts of above ground enclosed parking are minimised	Complies	No above ground parking provided

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 4 – Designing the Building			
4A Solar and Daylight Access	Objective 4A-1 To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.	1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours of direct sunlight between 9am and 3pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas	73/94 apartments = 78% Receive at least min 2hr direct sunlight to living rooms and private open space.
		2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9am and 3pm at mid-winter	
		3. A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm mid winter.	
	Objective 4A-2 Daylight access is maximized where sunlight is limited		0/94 apartments = 0% Solar access to bedrooms of south-eastern apartments. Living areas and balconies separated from train line to prevent issues with Sydney Trains’ requirements.
	Objective 4A-3 Design incorporates shading and glare control, particularly for warmer months		Full height balcony windows/ doors to maximize daylight access.
			Typically balconies overhang balconies below providing good solar control. A DA scheme may include screening devices to eastern and western facades in particular.
4B Natural Ventilation	Objective 4B-1 All habitable rooms are naturally ventilated		
	Objective 4B-2 The layout and design of single aspect apartments maximizes natural ventilation		
	Objective 4B-3 The number of apartments with natural cross ventilation is maximized to create a comfortable indoor environment for residents	1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	Very few single aspect apartments. Single aspect apartments are proposed to have wide living areas and shallow open plan living areas to minimise “dead air” zones.
		2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	24/30 apartments = 80% (first nine stories)
			No cross-over apartments

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA		PROPOSED	COMMENT		
Part 4 – Designing the Building						
4C Ceiling Heights	Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: Minimum ceiling height for apartment and mixed use buildings		Complies	Ceiling heights proposed are consistent with ADG recommendations: - 2.7 habitable - 2.4 non-habitable 3100 mm floor to floor provided	
		Habitable Rooms	2.7m			
		Non-Habitable	2.4m		assuming 200mm thick slab, 30mm for flooring and 110 for ceiling – 2700. Services to be maintained in non-habitable spaces to maximise ceiling heights in habitable areas.	
		For 2 Storey Apartments	2.7m for main living area floor 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 30 degree minimum ceiling slope			
		If located in mixed use areas	3.3m for ground and first floor to promote future flexibility			
	Objective 4C-2 Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms		Complies	Habitable rooms are located directly adjacent to openings and private open spaces where ceiling is maximized. Bulkheads are minimised where possible and services occupy ceiling spaces of non-habitable rooms to prevent unnecessary reduced ceiling heights.		
	Objective 4C-3 Ceiling heights contribute to the flexibility of building use over the life of the building				Complies	Provided more than 4m of ceiling height at ground floor to allow flexibility in future conversion of occupancy use.
	4D Apartment Size and Layout	Objective 4D-1 The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity	1. Apartments are required to have the following minimum internal areas:			
			Apartment Type	Minimum Internal Area		
Studio			35m ²			
1 bedroom			50m ²			

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA		PROPOSED	COMMENT	
Part 4 – Designing the Building					
		2 bedroom	70m ²	Complies	
		3 bedroom	90m ²		
		The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m ² each. A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m ² each			
		2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms			
	Objective 4D-2 Environmental performance of the apartment is maximised	1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height	Complies	All habitable room depths are less than 2.5x the ceiling height	
		2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Complies	Window to kitchen dimension in open plan living ranges between 4m to 6m. The maximum depth to the face of tall cabinetry is 8m	
	Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs	1. Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)	Complies	Master bedrooms are all in excess of 10m2 and all other bedrooms are minimum 9m2	
		2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Complies	All bedrooms have minimum width/length of 3m	
		3. Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none">3.6m for studio and 1 bedroom apartments4m for 2 & 3 bedroom apartments	Complies	Living spaces to all 2 & 3 bedroom apartments have minimum width of 4.0m Living spaces to all 1 bedroom apartments have minimum width of 3.6m	
		4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	N/A	No cross-over apartments	

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA			PROPOSED	COMMENT	
Part 4 – Designing the Building						
4E Private Open Space and Balconies	Objective 4E-1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity	1. All apartments are required to have primary balconies as follows:			Complies	All balconies in this development comply with the minimum depth of 2m or 2.4m as applicable and relevant minimum areas.
		Dwelling Type	Minimum Area	Minimum Depth		
		Studio Apartments	4m ²	-		
		1 Bedroom Apartments	8m ²	2m		
		2 Bedroom Apartments	10m ²	2m		
		3+ Bedroom Apartments	12m ²	2.4m		
		The minimum balcony depth to be counted as contributing to the balcony area is 1m 2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m2 and a minimum depth of 3m			Complies	Areas have been calculated with minimum 1m widths
	Objective 4E-2 Primary private open space and balconies are appropriately located to enhance liveability for residents			Complies	Private open spaces are directly adjacent to living spaces, orientated to allow for maximized solar access and ventilation	
	Objective 4E-3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building			Complies	Balconies and private open spaces are integrated with the building form and facades	
	Objective 4E-4 Private open space and balcony design maximises safety			Complies	Apartments balconies will be detailed to maintain safety for children and adults	
4F Common Circulation and Spaces	Objective 4F-1 Common circulation spaces achieve good amenity and properly service the number of apartments	1. The maximum number of apartments off a circulation core on a single level is eight 2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40		Complies	Two lifts will be provided for a max. of 6 apartments on a single level. A total number of apartments of 94 averaging 47 apartments per lift.	
				Satisfactory		
	Objective 4F-2 Common circulation spaces promote safety and provide for social interaction between residents			Complies	Centralized lift lobby encourages social interaction and provides amenity for doing so.	

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 4 – Designing the Building			
4G Storage	Objective 4G-1 Adequate, well designed storage is provided in each apartment	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	
		Dwelling Type	Storage Size Volume
		Studio apartments	4m ²
		1 bedroom apartments	6m ²
		2 bedroom apartments	8m ²
		3+ bedroom apartments	10m ²
	At least 50% of the required storage is to be located within the apartment		
4H Acoustic Privacy	Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout		
	Objective 4H-2 Noise impacts are mitigated within apartments through layout and acoustic treatments		
4J Noise and Pollution	Objective 4J-1 In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings		
	Objective 4J-2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission		
4K Apartment Mix	Objective 4K-1 A range of apartment types and sizes is provided to cater for different household types now and into the future		

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 4 – Designing the Building			
	Objective 4K-2 The apartment mix is distributed to suitable locations within the building	Complies	A mix of 1, 2 and 3 bedroom apartments spread over the residential floors
4L Ground Floor Apartments	Objective 4L-1 Street frontage activity is maximised where ground floor apartments are located	N/A	No ground floor apartments.
	Objective 4L-2 Design of ground floor apartments delivers amenity and safety for residents	N/A	No ground floor apartments.
4M Facades	Objective 4M-1 Building facades provide visual interest along the street while respecting the character of the local area	Complies	The facades have been carefully designed with a mix of materials. The podium will be clearly defined and street walls created consistent with the future desired character identified in the Chatswood CBD expansion strategy.
	Objective 4M-2 Building functions are expressed by the facade	Complies	
4N Roof Design	Objective 4N-1 Roof treatments are integrated into the building design and positively respond to the street	Complies	
	Objective 4N-2 Opportunities to use roof space for residential accommodation and open space are maximised	Complies	The top floors of the various elements of the building will be utilised for private or communal open spaces with integrated landscape elements.
	Objective 4N-3 Roof design incorporates sustainability features	Complies	Landscape areas introduced to roof level areas.
4O Landscape Design	Objective 4O-1 Landscape design is viable and sustainable	Complies	Landscaping and native plant selection provides shading and privacy and contributes to the local climate. Selection of native and low water usage trees will reduce water usage and maintenance.
	Objective 4O-2 Landscape design contributes to the streetscape and amenity	Complies	Landscaping has been integrated into the proposal from Ground level through to the roof level. Opportunities for mid-rise break-out communal spaces and

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 4 – Designing the Building			
			large balconies will enable the inclusion of significant landscape areas throughout the building. Public Open space and Communal Open space areas will have integrated landscape components.
4P Planting on Structures	Objective 4P-1 Appropriate soil profiles are provided	Complies	To future DA/CC details
	Objective 4P-2 Plant growth is optimised with appropriate selection and maintenance	Complies	To future DA/CC details
	Objective 4P-3 Planting on structures contributes to the quality and amenity of communal and public open spaces	Complies	Communal areas on the podium will have extensive planting.
4Q Universal Design	Objective 4Q-1 Universal design features are included in apartment design to promote flexible housing for all community members	Complies	To future DA/CC details
	Objective 4Q-2 A variety of apartments with adaptable designs are provided	Complies	To future DA/CC details
	Objective 4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle needs	Complies	All apartments have open plan living allowing flexibility in the use.
4R Adaptive Reuse	Objective 4R-1 New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	N/A	New development
	Objective 4R-2 Adapted buildings provide residential amenity while not precluding future adaptive reuse	N/A	New development
4S Mixed Use	Objective 4S-1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	Complies	The proposal includes active frontages to streets and the proposed public open space.
	Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	Complies	

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 4 – Designing the Building			
4T Awnings and Signage	Objective 4T-1 Awnings are well located and complement and integrate with the building design	Complies	Podium design and awnings provide protection/cover and are integrated with the overall building expression.
	Objective 4T-2 Signage responds to the context and desired streetscape character	Complies	To future DA/CC details
4U Energy Efficiency	Objective 4U-1 Development incorporates passive environmental design	Complies	Adequate solar access and cross-ventilation to all habitable rooms.
	Objective 4U-2 Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	Complies	To future DA/CC details
	Objective 4U-3 Adequate natural ventilation minimises the need for mechanical ventilation	Complies	Apartments designed with appropriate depths, ceiling heights and planning to promote airflow and natural ventilation.
4V Water Management and Conservation	Objective 4V-1 Potable water use is minimised	Complies	Water reducing fixtures and low water usage landscaping implemented
	Objective 4V-2 Urban storm-water is treated on site before being discharged to receiving waters	Complies	Refer to hydraulic engineer’s reports and drawings
	Objective 4V-3 Flood management systems are integrated into site design	Complies	Refer to hydraulic engineer’s reports and drawings
4W Waste Management	Objective 4W-1 Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	Complies	Waste storage is located adjacent to the loading dock and does not affect the streetscape.
	Objective 4W-2 Domestic waste is minimised by providing safe and convenient source separation and recycling	Complies	To future DA/CC details
4X Building Maintenance	Objective 4X-1 Building design detail provides protection from weathering	Complies	Materials proposed will be robust and hard wearing to minimise maintenance. Building detailing will provide protections to openings.

8.1 COMPLIANCE CHECKLIST (CONTINUED)

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 4 – Designing the Building			
	Objective 4X-2 Systems and access enable ease of maintenance	Complies	Generally, maintenance of the building can be directly accessed via individual units, internal lobbies or back of house facilities.
	Objective 4X-3 Material selection reduces on-going maintenance costs	Complies	Materials proposed will be robust and hard wearing to minimise maintenance. Building detailing will provide protections to openings.

9.0 PROPOSED CONTROLS

9.1 PROPOSED LEP CONTROLS

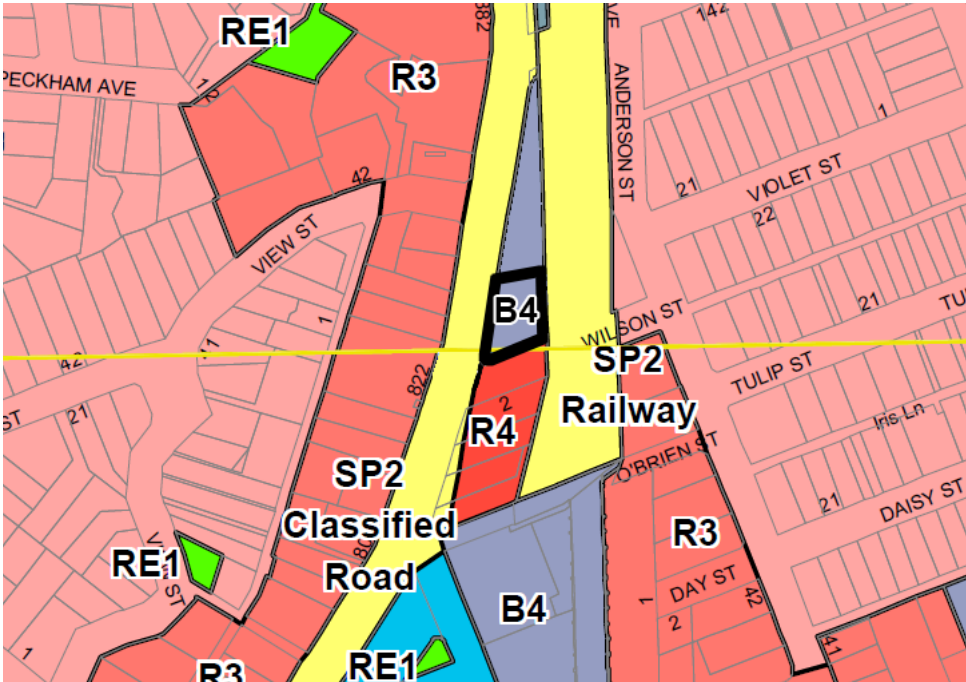


Figure 9.11 Zoning Map

Zoning:
B4 - Mixed Use

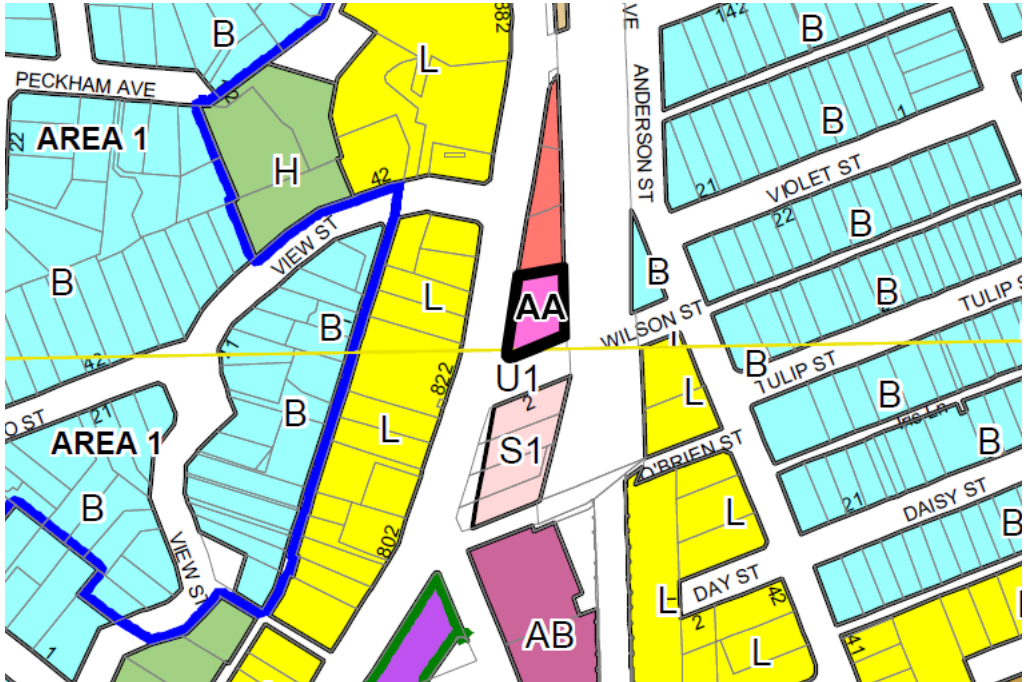


Figure 9.12 Floor Space Ratio Map

Maximum FSR:
AA- 6:1

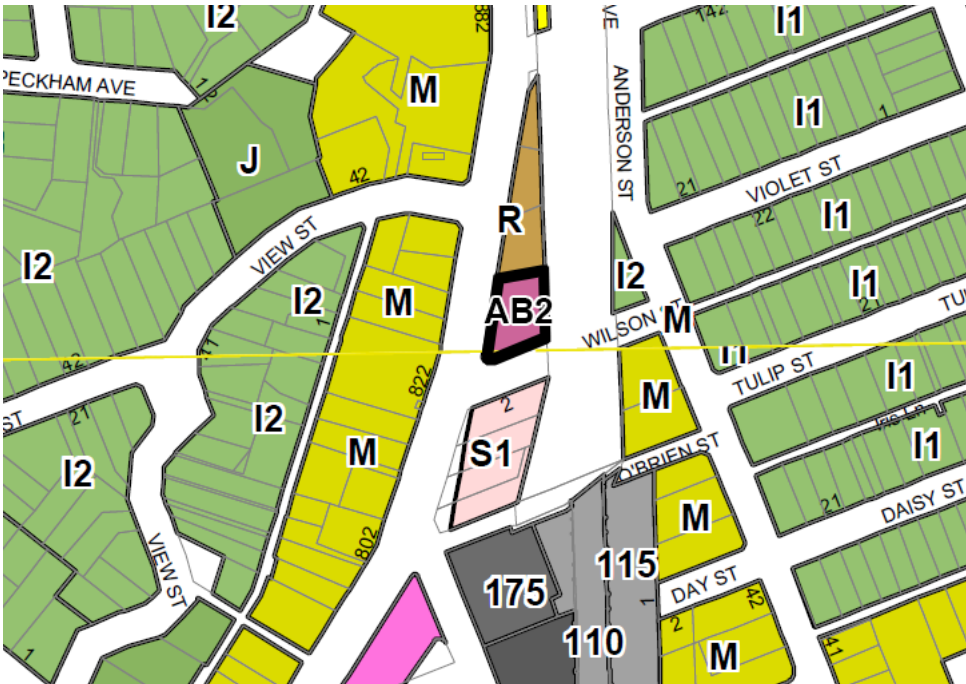
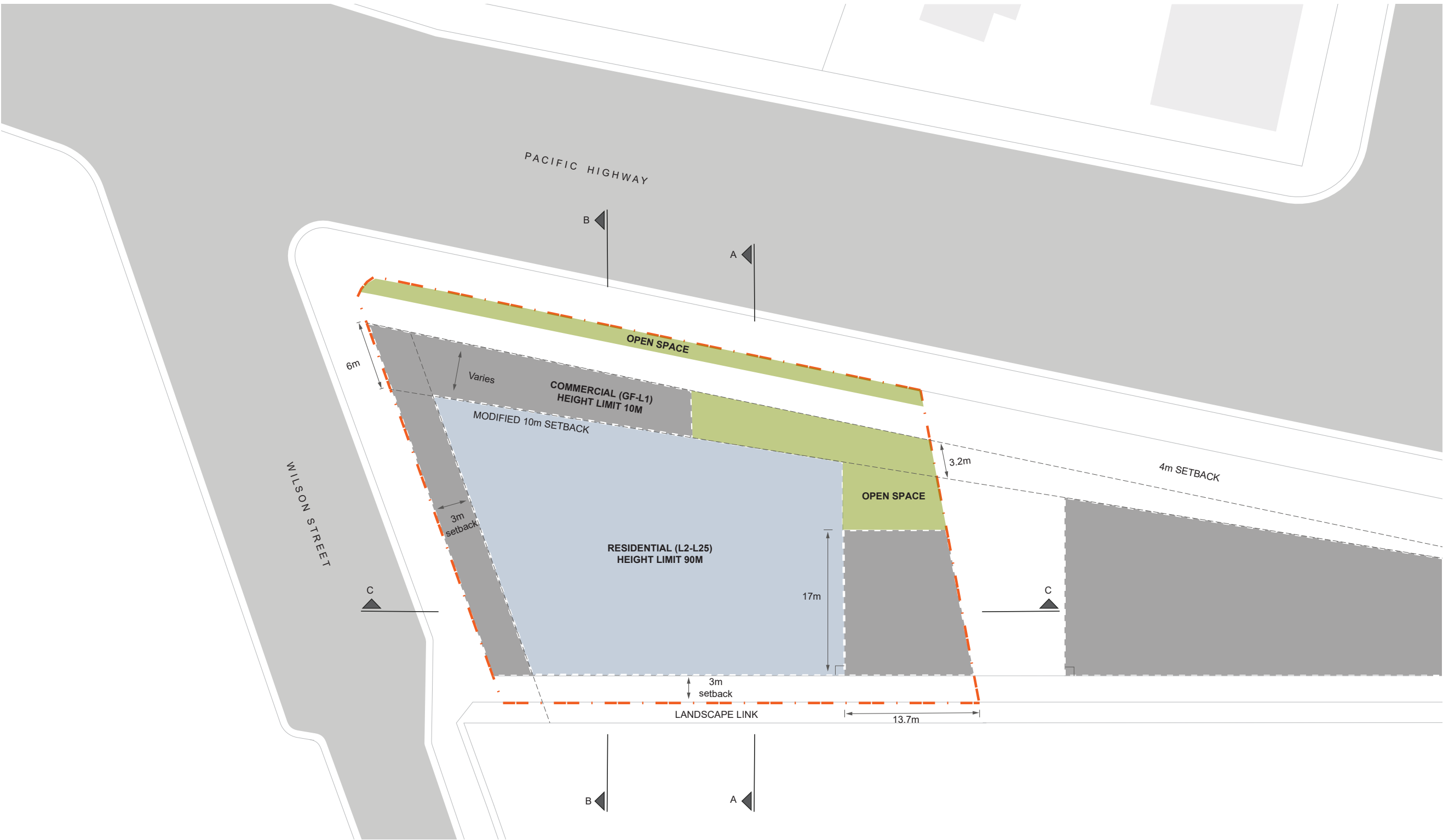


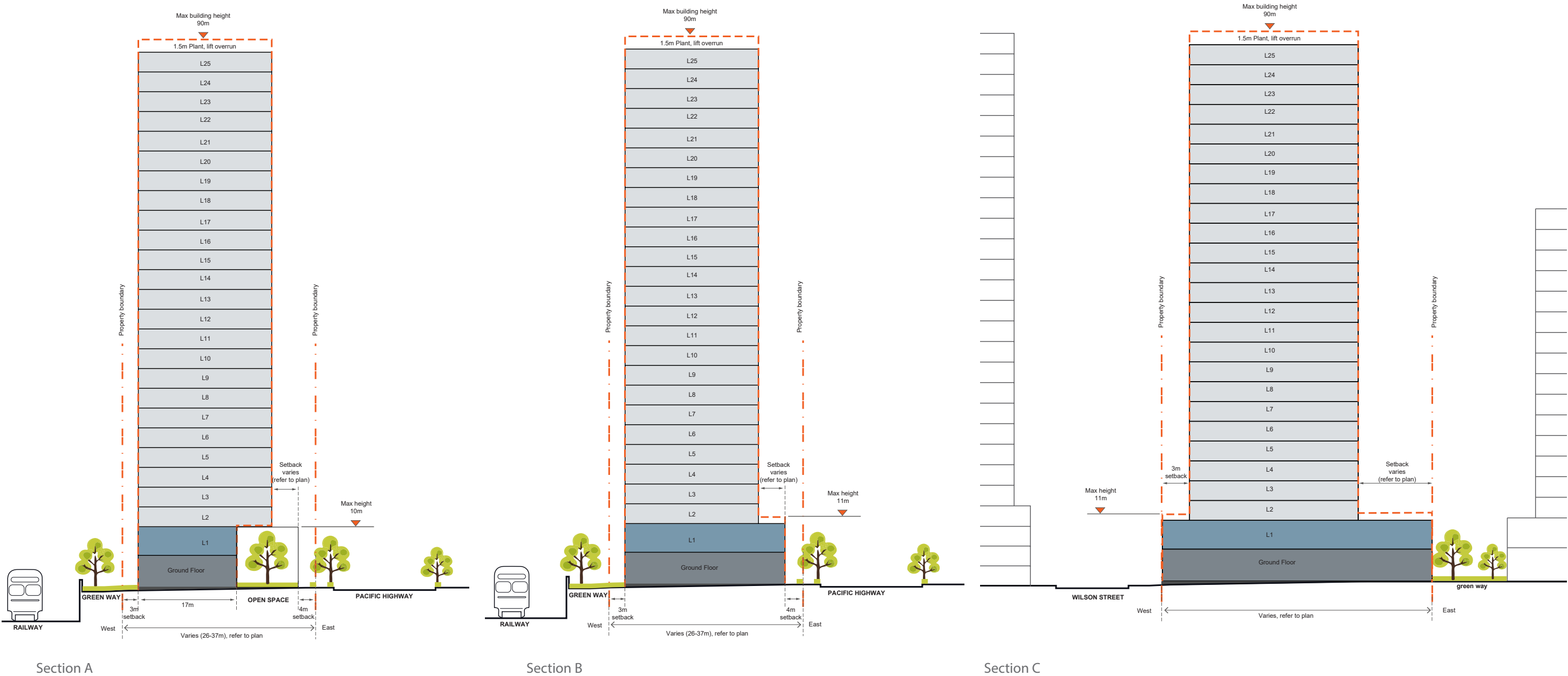
Figure 9.13 Heights Map

Maximum Height:
AB2 - 90m

9.2 PROPOSED DCP CONTROLS



9.2 PROPOSED DCP CONTROLS





PBD | ARCHITECTS



PROFILE | OUR PRACTICE

PBD Architects and Project Managers is a multi-disciplined Design/ Development Management practice committed to creating buildings that meet objectives of the project brief and adhere to the highest Architectural standard.

With the experience and delivery capability to take projects through from inception to completion PBD are often engaged to prepare initial feasibility studies on raw sites generating both a design concept and financial plan for building procurement.

The practice has established links to a network of clients ranging from individual investors, local development companies and major international listed development corporations. These relationships have seen PBD Architects & Project Managers, manage the interests of international clients for potential projects in the vicinity of \$350mil.

PROFILE | OUR PEOPLE

Experience within the PBD team stems from all facets of the construction industry including Design/ Architecture, Project/ Development Management, Contract Administration and Technical Support. This combined knowledge ensures a holistic approach to design and building procurement.

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We are committed to providing an honest, reliable and personalized service in which meeting the financial and management goals of our clients become our primary concern.