

14R References

14R.1 Lindfield Library Site Masterplan

14R.2 Turrumurra Community Hub Masterplan

14R References

14R.1 Lindfield Library Site Masterplan



Lindfield Library Precinct

**259-271 Pacific Highway
Lindfield, NSW 2070**

**Planning Proposal -
Urban Design Report**

SJB Architects



Project

Lindfield Library Precinct - Planning Proposal -
Urban Design Report
259-271 Pacific Highway,
Lindfield

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Introduction

Overview of the regional, urban and local context to provide an initial understanding of the site.

1.1 Background

SJB has been appointed by Ku-ring-gai Council to provide a concept design for the Lindfield Library Precinct located at 259-271 Pacific Highway, Lindfield, owned by Ku-ring-gai Council.

The purpose of this report is to provide an Urban Design Study to support a Planning Proposal being submitted by the Ku-ring-gai Council for the site. The Planning Proposal seeks to amend the current LEP controls in relation to zoning, height and FSR. A summary of the existing and proposed controls is listed below:

Controls	Current	Proposed
Land zoning	B2 Local Centre	R4 High density residential
Height of buildings	17.5 m	23.5m
FSR	1.3:1	2.0:1

The site is located to the eastern side of the Pacific Highway between Strickland Avenue and Beaconsfield Parade. At present, it is the location of the Lindfield Branch Library, self-contained residential units, Lindfield Community Centre, Lindfield Resource Centre, Ku-ring-gai Youth Development Services, Lindfield Community Centre tennis courts, carpark and access road. Studies undertaken by council have found that the library and associated facilities are out-dated and no longer fit for purpose. The library has been in operation on the site since 1954.

A study completed by Elton Consulting in 2013 recommended that the existing library and Seniors' Centre facilities be replaced with new facilities located on a new site on the western side of the highway. An independent project, the Lindfield Community Hub, which will incorporate these community facilities amongst other new uses currently forms a separate project for the Council.

In relocating the current uses for the site, it opens up the opportunity for new uses to be developed on the site which respond appropriately and provide the best urban outcome for Lindfield Local Centre. The analysis undertaken discusses the context of the site and provides justification for the uplift in controls to support the Planning Proposal.



Figure 01. Site Aerial (source NearMaps)

1.2 Methodology

Comprehensive analysis has been undertaken through site visits and desktop analysis, which led to a series of urban design principles, concept masterplan and three concept options.

As part of this analysis, the team has explored potential options for different uses including residential apartments, affordable housing, commercial uses and co-working spaces and childcare facilities.

These use options have been explored by JLL who have provided specialist advice in relation to the feasibility of such uses.

Council's adopted option is illustrated within this report and which responds most appropriately to the site context.



Figure 02. Site Plan (source: Near Maps)

1.3 Planning Context

LEP Controls

The site is located within the Ku-ring-gai LGA and is subject to the Ku-ring-gai LEP (Local Centres) 2012. The relevant controls in relation to height, zoning and FSR are illustrated in the Figures 3 to 5.

Through our analysis, we have reviewed the controls of the sites which immediately surround the site and how these may affect development proposals on the subject site.

The Planning Proposal seeks to make the following amendments to the controls:

Controls	Current	Proposed
Land zoning	B2 Local Centre	R4 High density residential
Height of buildings	17.5 m	23.5m
FSR	1.3:1	2.0:1

The urban design justification for this proposal is provided in the following sections of this report.

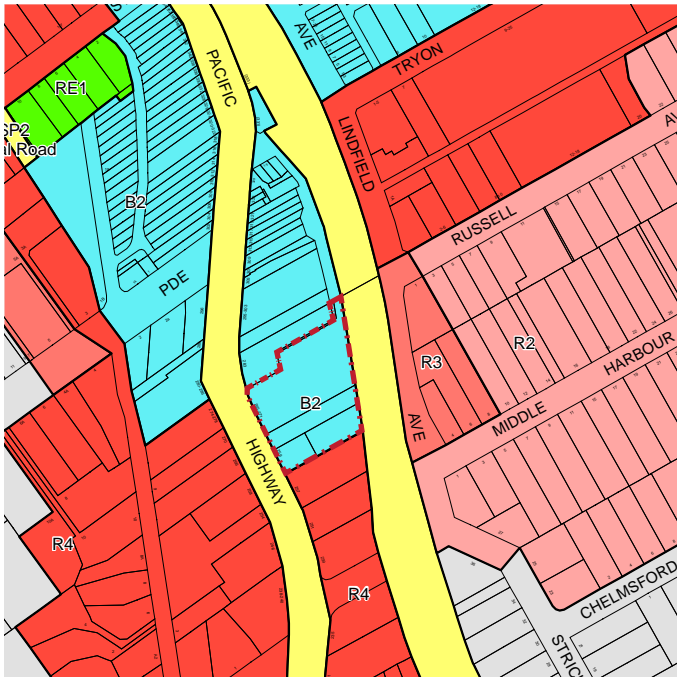


Figure 03. Land zoning



Figure 04. Height of buildings



Figure 05. FSR

- B2 Local Centre
- B4 Mixed Use
- B5 Business Development
- E2 Environmental Conservation
- E3 Environmental Management
- R2 Low Density Residential
- R3 Medium Density Residential
- R4 High Density Residential
- RE1 Public Recreation
- SP1 Special Activities
- SP2 Infrastructure

- J 9.5
- L 11.5
- N 14.5
- P 17.5
- Q 20.5
- S 23.5
- T 26.5
- V 39.5

- A1 0.2
- A2 0.3
- D 0.5
- J 0.8
- K 0.85
- N 1.0
- Q 1.3
- S1 1.6
- S2 1.8
- T1 2.0
- T2 2.3
- U1 2.5
- U2 2.8
- V 3.0
- W 3.5

Area 5

1.2.1 Zoning

Land zoning is identified as B2 Local Centre. This zoning applies to the land immediately to the north of the site. To the south of the site and to the west (on the opposite side of the Pacific Highway, R4 High Density Residential use is identified.

1.2.2 Height of Buildings

The permissible height of the subject site is 17.5 metres (5 storeys). Immediately to the north of the site a height control of 20.5 metres (6 metres) is permissible. To the south and the east, a height control of 11.5 metres is permissible (3 storeys).

1.2.3 FSR

The FSR control applicable to the site is 1.3, with a special clause for Area 5. It should be noted that this clause does not apply to the site as it exceeds 2,400 m².

To the north of the site, an FSR of 2.5 is applicable. To the south and the west, an FSR of 0.85 is applicable.

1.3 Planning Context

DCP Controls

The site is located within Lindfield Local Centre under Ku-ring-gai DCP 2012, identified on the adjacent figure. Within Volume B of the DCP, six urban precincts have been identified within the centre. The site is located directly adjacent to L3 -Tryon Place Mixed Use area, identified in Figure 06 to the right. The future character of Tryon Place Mixed Use is described:

Precinct L3: Tryon Place Mixed Use Area

This precinct is located between the Pacific Highway and the railway corridor directly adjoining the entry forecourt of the Lindfield train station at Tryon Place. Currently the precinct is somewhat isolated from other parts of the centre by the highway and rail line.

v) The area is planned to become a mixed use precinct with retail and commercial uses on the lower floors and residential apartments on the upper floors. A high quality landmark building will define the corner of Tryon Place and the Pacific Highway. The area has a high visual prominence from the rail and road and is in an important location adjoining the rail station.

vi) A new network of lanes will be created through the redevelopment process. The lanes will provide improved vehicle and service access to the area. Tryon Place will be closed to traffic (upon the completion of the new lane system) and will become a vibrant and highly visible pedestrian square for community activities such as markets.

Key aspects of proposed upgrades include:

- 1. Improvements to Tryon Lane with new footpaths and carparking;
- 2. A new town square at Tryon Place to co-incide with its location to the station.

In addition to this, the Lindfield Transport Network Study 2014 proposes an extension of Tryon Lane through the subject site to connect with the Pacific Highway. This will enable enhanced circulation within the centre as a location for kiss-and-ride associated with the rail station.

The subject site, being located directly to the south of this precinct and located between R4 residential uses forms a key transition point along the Pacific Highway corridor and in relation to the station and has an important role within the centre.

Lindfield Local Centre Precincts

The precincts, as identified in the Ku-ring-gai DCP include:

- 1. Balfour Street Retail Area
- 2. Pacific Highway Retail Area
- 3. Tryon Place Mixed Use Area
- 4. Tryon Road and Lindfield Avenue
- 5. Lindfield Community Hub
- 6. Buildings in R4 Zones

Legend

- Site
- Lindfield Local Centre
- Precincts (from Lindfield DCP)
- Mixed Use Zone
- Residential Zone
- Walking catchment

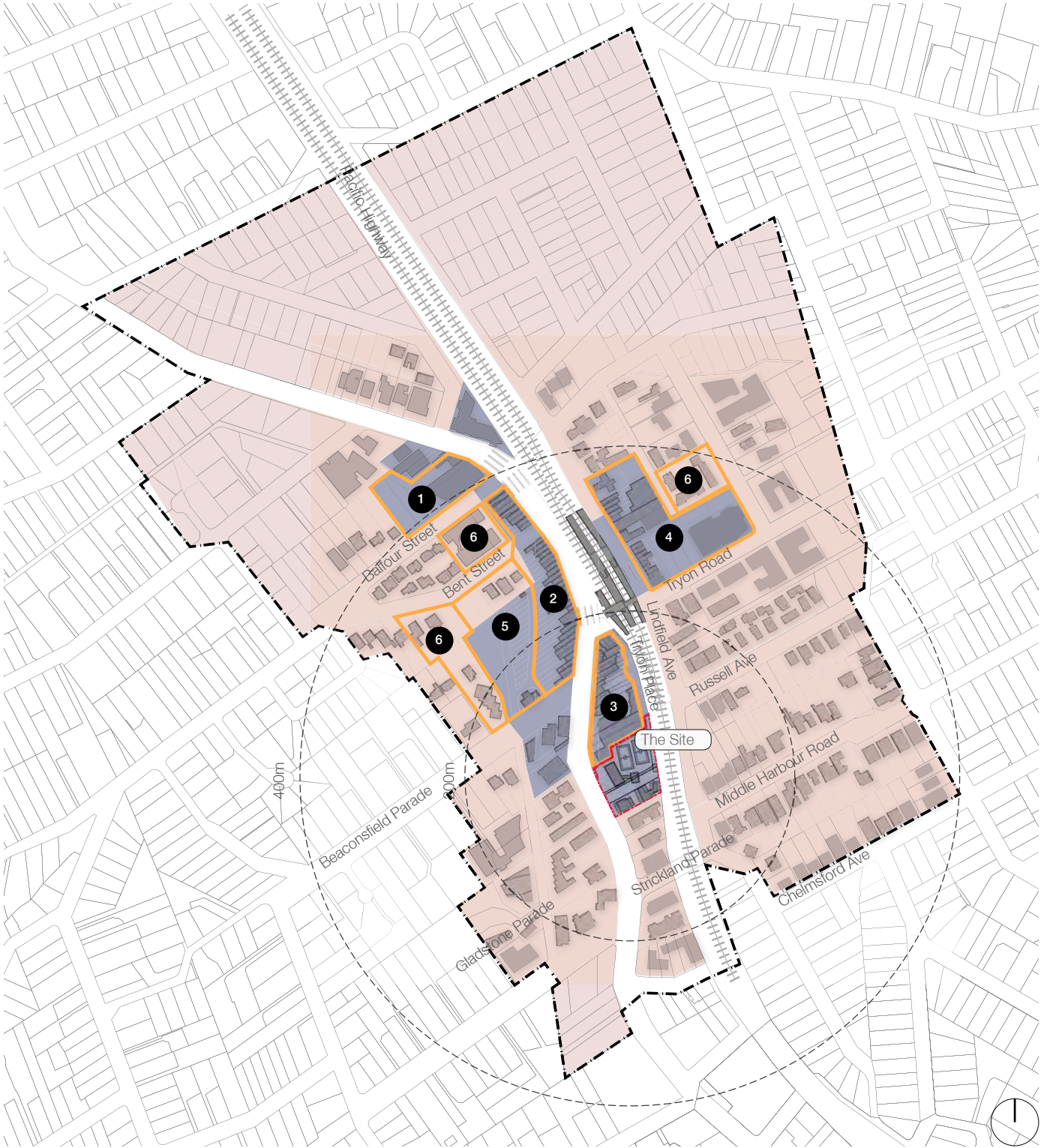


Figure 06. Lindfield Local Centre

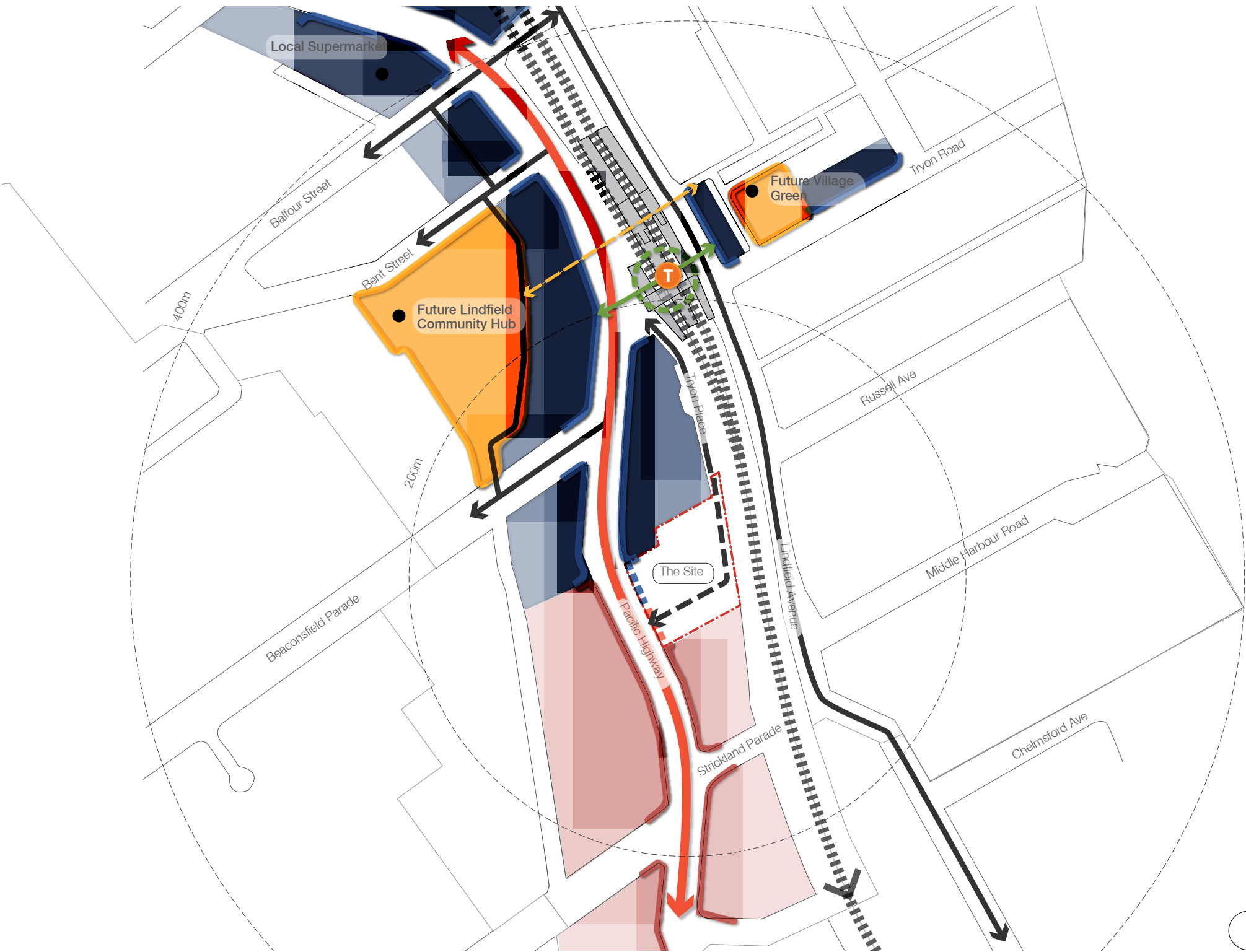
1.4 Local Centre Context

The site is located within the Lindfield Local Centre at the block situated between the Pacific Highway and the railway line.

The site is highly accessible, situated directly to the south of the mixed use commercial strip of the eastern side of the Pacific Highway and within 200 metres of the Lindfield Station.

Within the context of the local centre and surrounding uses, the site forms a key transition site with established community uses sitting between existing commercial and residential uses.

The proposed Lindfield Community Hub and the Village Green also form an integral part of this Local Centre.



- Legend
- Site
 - Commercial Frontage
 - Residential Frontage
 - Proposed Commercial Frontage
 - Proposed Residential Frontage
 - Proposed Site Link
 - Arterial Road
 - Primary Road
 - Lindfield Local Centre
 - Rail Line
 - Pedestrian Link
 - Future Development
 - Possible Pedestrian Link
 - Train Station

Figure 07. Lindfield Local Centre

1.5 Regional Context

Hierarchy of Local Centres within Ku-ring-gai

Lindfield is one of eight suburbs which are located within Ku-ring-gai LGA and located along the main Pacific Highway and Railway corridor.

A clear hierarchy exists amongst each of the suburbs and its local centre, evident through growth over the decades. The centres as established can be grouped into broad categories based on the size and amenity offered by their local centre. Alongside this is a broad review of the permissible controls within the centres of each and how this does not always align with the size of the centre. This is analysed very broadly:

1. Largest Centres

Gordon:
FSR: 3.0:1, 2.5:1 and 2:0:1
Height: 23.5m, 26.5m and 39.5m

2. Mid size Centres

Turramurra:
FSR: 2.5:1
Height: 17.5m

Lindfield:
FSR: 3.0:1, 2.5:1 and 1.3:1
Height: 26.5m, 23.5m and 20.5m

3. Small Centres

Pymble:
FSR:2.3:1 and 1.3:1
Height: 23.5m and 17.5m

Roseville:
FSR: up to 2:1
Height:up to 20.5m

Wahroonga:
FSR: 1:0:1
Height: 14.5m

4. Smallest suburbs

Killara: no local centre
FSR: 1:0:1
Height: 14.5m
Warrawee: no local centre

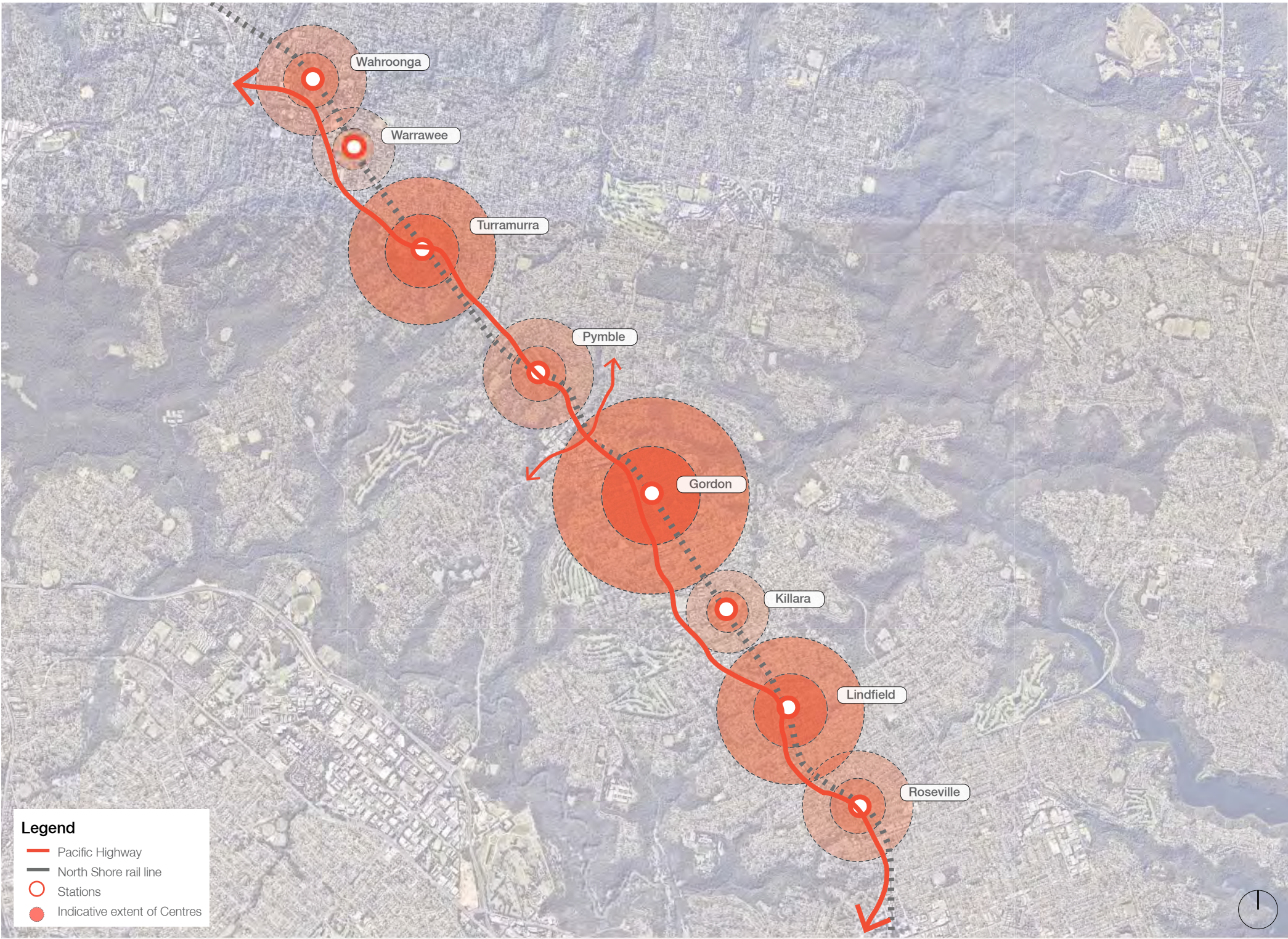


Figure 08. Hierarchy of Local Centres within Ku-ring-gai

1.6 Regional Context

The site has a strategic and important location within the context of this part of Ku-ring-gai LGA. Lindfield is located between Roseville and Killara, which are predominantly residential suburbs focused around small centres.

The Pacific Highway forms the major road corridor running through the North Shore, linking the suburbs with the city and Hornsby.

The railway line forms the other key infrastructure corridor which runs for the majority alongside the Pacific Highway.

The suburb of Lindfield and the adjacent suburbs are predominantly residential, characterised by large lots with established houses. The local centres of these suburbs have developed along the highway and around the railway line.

Within close proximity is the open amenity of Lane Cove National Park and Middle Harbour.

Chatswood, which is identified as a Strategic Centre under the Plan for Growing Sydney is located less than 2 kilometres from the site.

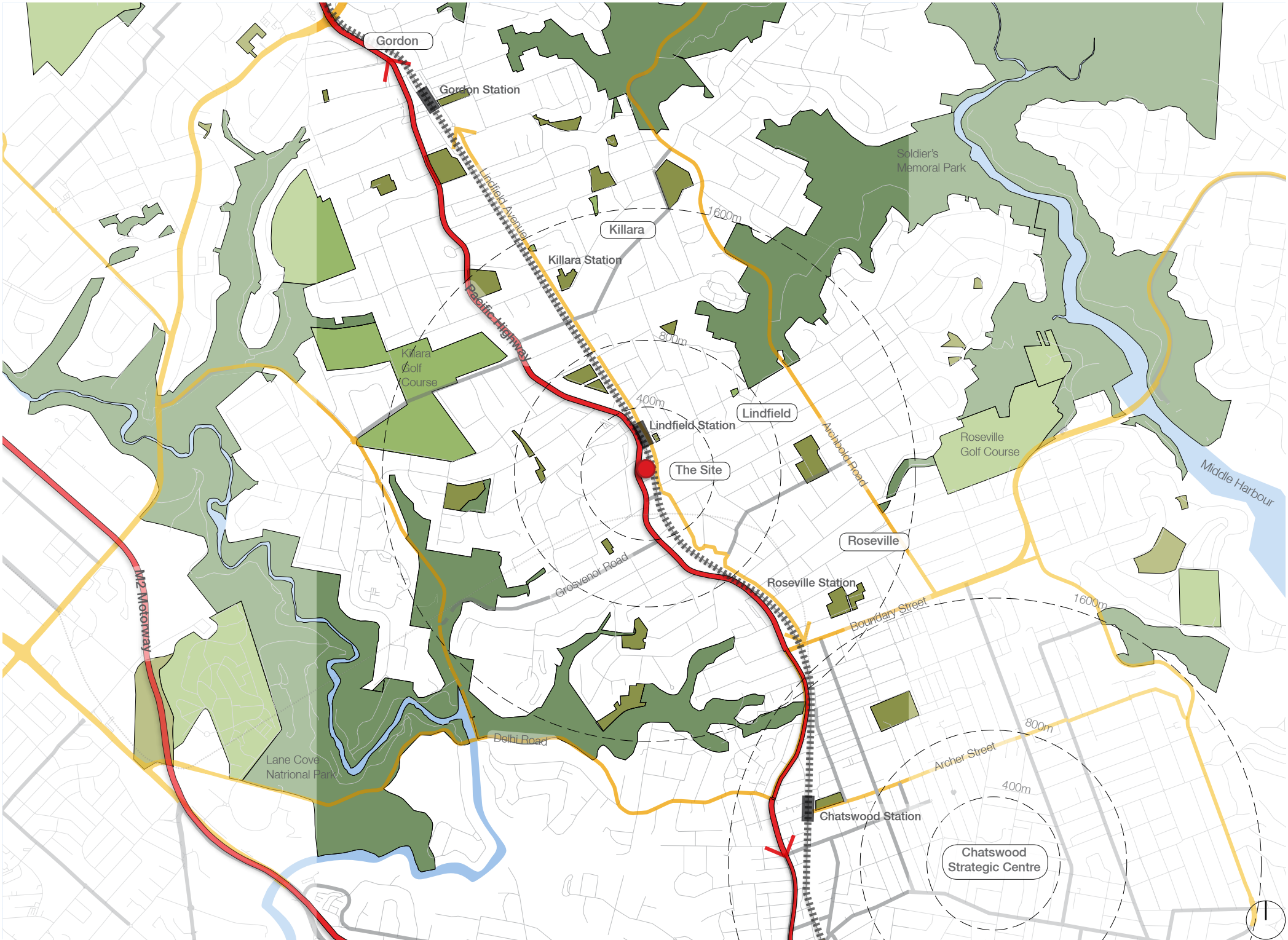


Figure 09. Regional Context

A large, stylized number '2' is positioned on the left side of the slide. It is composed of two overlapping shapes: a white shape in the foreground and a teal shape behind it, both with rounded, organic edges. The teal shape is slightly offset to the right and bottom relative to the white shape.

Site Analysis

Exploring the existing urban conditions and contexts, to assist in developing an appropriate urban response.

2.1 Local Analysis

2.3.1 Movement

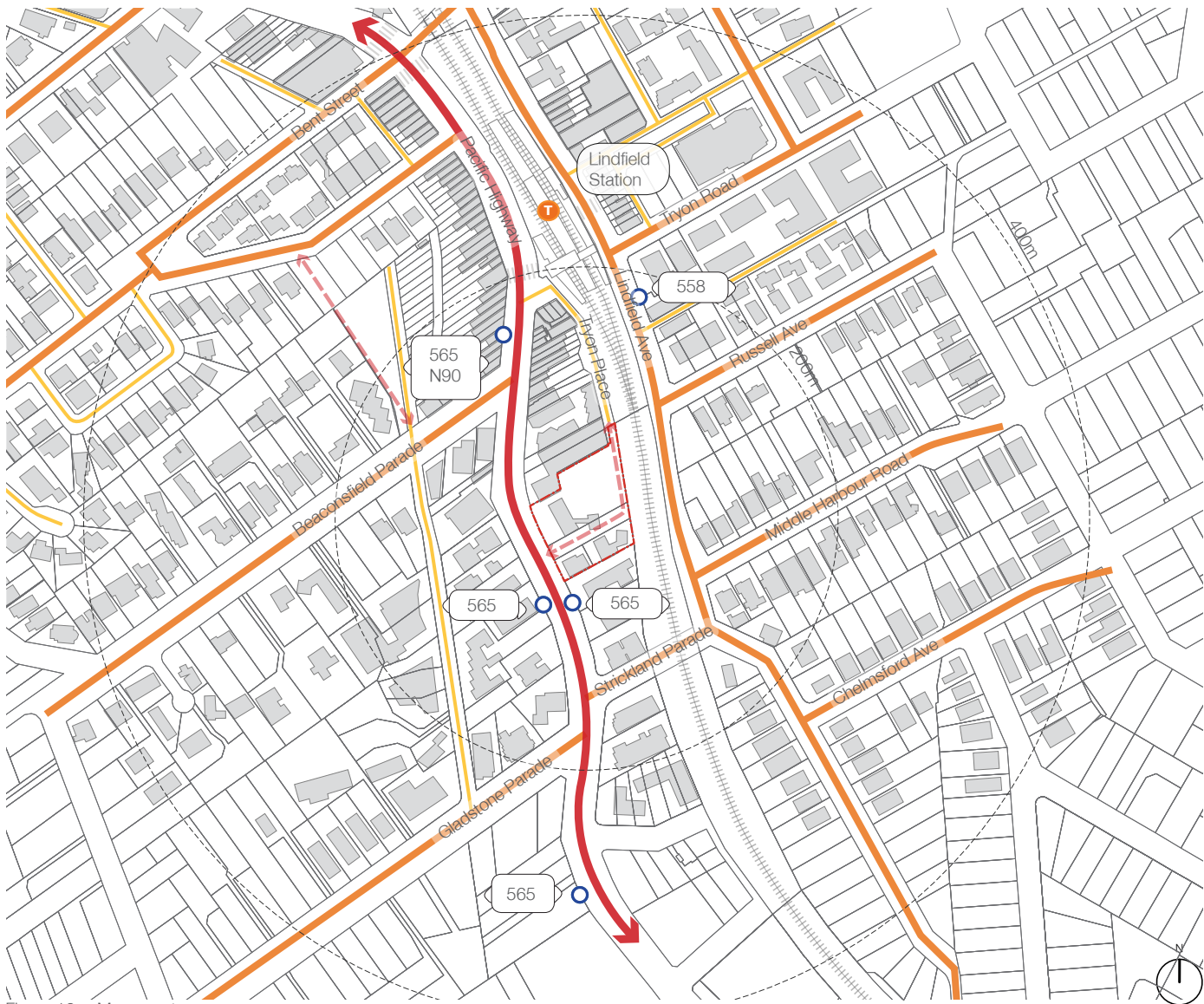


Figure 10. Movement

- Legend
- Site
 - Arterial Road
 - Primary Road
 - Secondary Road
 - Proposed Road
 - Bus stop
 - Train station

Key points

- Within 200 metres of Lindfield station.
- Located on the Pacific Highway, the main arterial route connecting the CBD with Hornsby and the north.
- Bus routes 565 and 558 run along the highway and Lindfield Avenue connecting Lindfield with Chatswood, UTS Lindfield, Macquarie Centre and Macquarie University.

2.3.2 Open Space



Figure 11. Open Space

- Legend
- Site
 - Recreational Space
 - Future Recreational Space

Key points

- Limited amount of green open space located within the 400 metre catchment of the site.
- The proposed Community Hub and the Village Green projects will provide new public open space for the wider Lindfield community.

2.3 Local Analysis

2.3.3 Building Use



Figure 12. Building Use

Key points

- The site currently incorporates community facilities.
- The site is within close proximity to the retail and commercial facilities of Lindfield Centre which are focused along the Highway.

- Legend
- Site
 - Sports and recreation
 - Local retail
 - Commercial
 - Community
 - Residential

2.3.4 Existing Building Heights



Figure 13. Building Height

Key points

- The existing surrounding heights are predominantly 1-2 storeys.

- Legend
- Site
 - 1-2 Storeys
 - 2-4 Storeys
 - 5 Storeys

2.2 Site Characteristics

The site has a total area of 5,848.6m² and is bounded by an existing car showroom to the north (289-293 Pacific Highway), the North Shore rail line to the east, a residential flat building to the south at 257 and the Pacific Highway to the west.

The key site characteristics are identified on the following page.



Figure 14. Regional Context

2.4 Site Characteristics



Figure 23. 01 View of the Library from the Pacific Highway



Figure 15. 02 View of the Ku-ring-gai Centre for Community



Figure 16. 03 View of the Ku-ring-gai Centre for Community



Figure 17. 04 View of the well located outside the library



Figure 24. 05 View looking east down access road of the site



Figure 18. 06 View of the self-contained units looking south



Figure 19. 07 View looking east towards the Community Centre and self-contained units



Figure 20. 08 View looking west towards the rear of the library & KYOS



Figure 25. 09 View of the Community Centre looking east



Figure 21. 10 View looking north towards Tryon Place



Figure 26. 11 Looking east towards tennis courts



Figure 22. 12 View along northern boundary

2.3 Context Characteristics

The following page provides an indication of the character of the surrounding area of Lindfield Local centre and the adjacent sites.

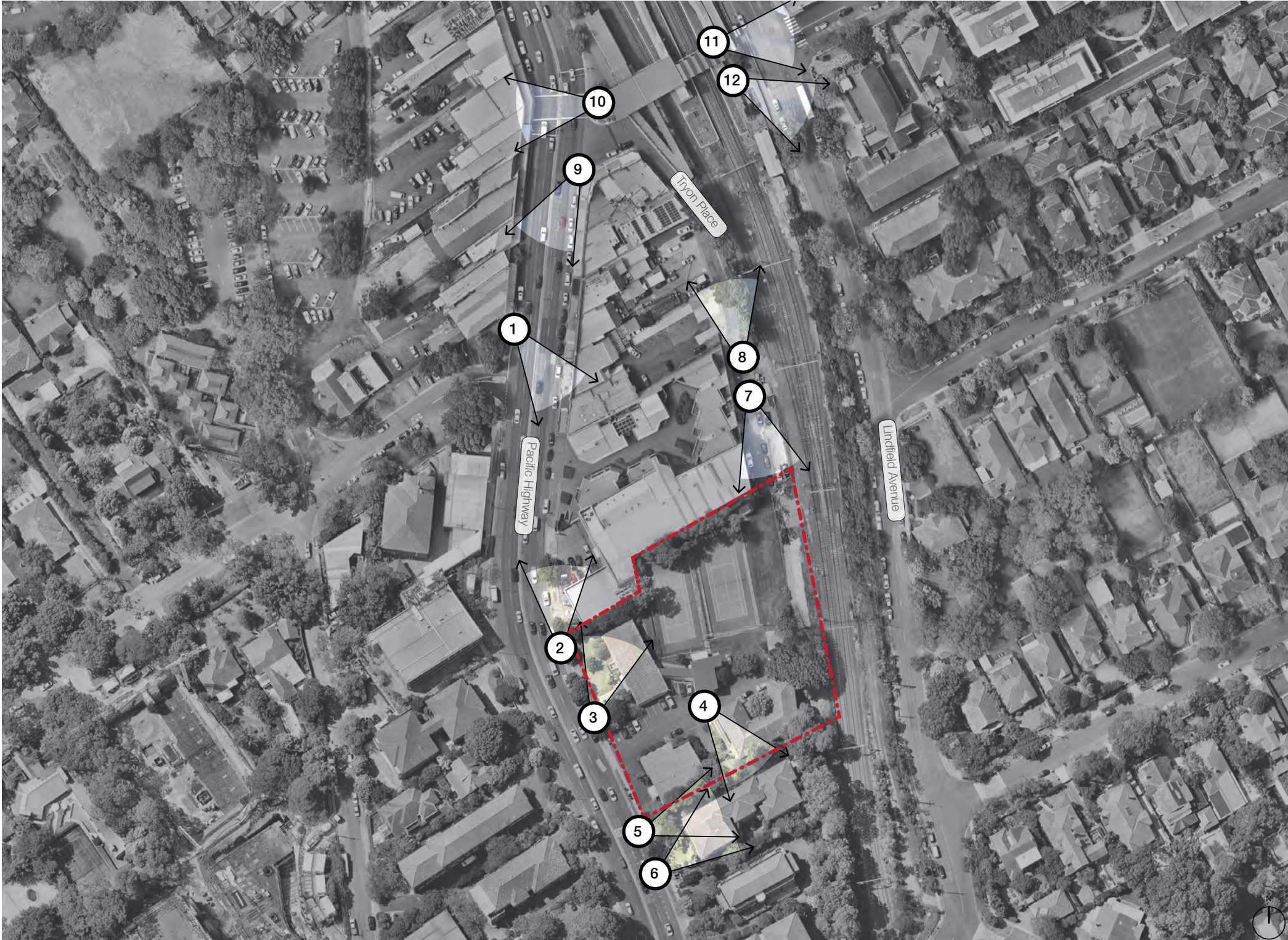


Figure 27. 12 View along northern boundary

Legend

Site

2.5 Surrounding Context



Figure 36. 01 View looking south along the Pacific Highway



Figure 28. 02 Existing car dealership directly to the north

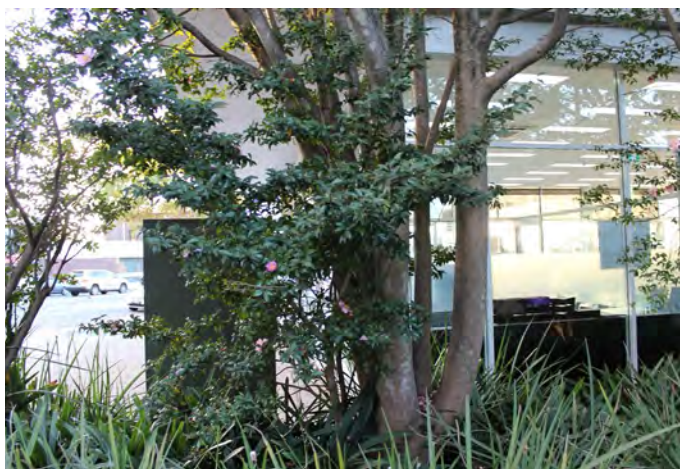


Figure 29. 03 Boundary condition with the car dealership to the north



Figure 30. 04 Existing residential flat building directly to the south



Figure 31. 05 Driveway to parking area of residential flat building to the south



Figure 32. 06 Front entry and address of residential flat building directly to the south



Figure 38. 07 Looking south along Tryon Place into the east edge of the site



Figure 39. 08 Looking north along Tryon Place towards Lindfield Station



Figure 37. 09 Local shops along the Pacific Highway looking south



Figure 33. 10 Local shops along the Pacific Highway looking west



Figure 34. 11 Local shops of Lindfield Avenue



Figure 35. 12 Local shops and St Albans Anglican Church along Lindfield Avenue

2.4 Existing Conditions

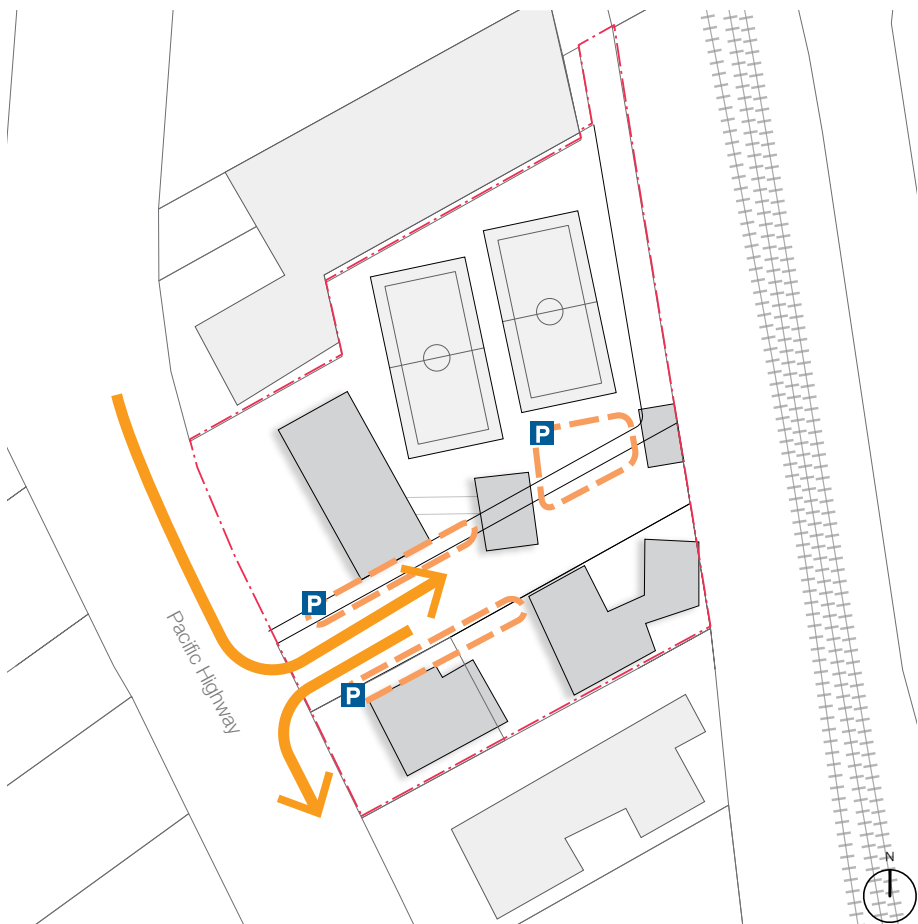


Figure 40. Site access and Parking

2.6.1 Site Access/Parking

The only access to the site is from the Pacific Highway travelling southbound.



Figure 41. Archaeology

2.6.2 Archaeology

An extant well is located on the site directly in front of the library. This is not identified as a heritage item under Ku-ring-gai LEP but is of local significance. Godden Mackay Logan have undertaken a preliminary assessment of the significance of the well, which is outlined in their report Lindfield Library Site - Historical Archaeological Assessment (June 2015)



Figure 42. Trees

2.6.3 Trees

There are numerous trees on the site. At this stage, these have been located from aerial mapping and no detail arborist survey or report has been undertaken.

Legend
- - - Site
- - - Vehicular Entry & Exit
- - - Parking

Legend
- - - Site
- - - Extant Well (Status under investigatoin)

Legend
- - - Site
- - - Trees

2.6 Existing Conditions

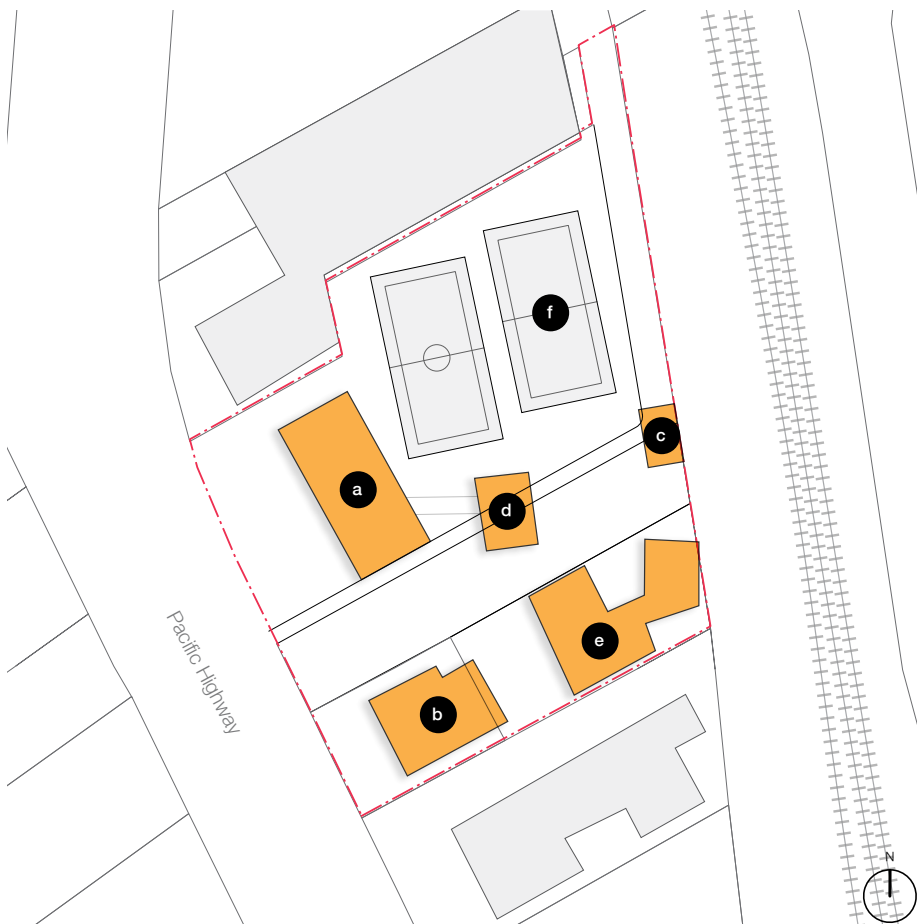


Figure 43. Existing Buildings

2.6.4 Buildings

Existing buildings on the site include the;-

- a. Lindfield Branch library;
- b. the Lindfield Community Centre;
- c. Lindfield Seniors Resource Centre
- d. Ku-ring-gai Youth Development Service
- e. Self-contained residential units (former Arrunga Aged Care) - now vacated
- f. Lindfield Community Centre tennis courts



Figure 44. Setbacks

2.6.5 Setbacks

The Pacific Highway forms the primary frontage to the site. The library and Community Centre are set back at varying distances from the boundary. Within the site, other facilities are accessed from the primary access road which runs east-west.



Figure 45. Topography

2.6.6 Topography

There is a slope on the site running downwards from the Pacific Highway to the railway line. A detailed survey has not been undertaken at this stage and contours indicate the topography.

Legend

- Site
- Existing Buildings

Legend

- Site
- Frontages

Legend

- Site
- Slope Gradient



2.5 Constraints & Opportunities



Figure 46. Constraints

2.7.1 Constraints

- 1. Traffic noise from the Pacific Highway;
- 2. Existing well to the front of the library building;
- 3. Limited access point from the Pacific Highway;
- 4. Existing trees on the site;
- 5. Setback control of 6 metres from the Ku-ring-ai Council DCP
- 6. Adjoining residential buildings with habitable rooms and balconies facing north towards the site;
- 7. Rail noise from the rail line to the east.
- 8. Existing building abutting northern boundary.

Legend

- Site
- Vehicular Entry
- Existing Buildings
- Heritage Well
- Site Setback
- Frontages
- Noise



Figure 47. Opportunities

2.7.2 Opportunities

- 1. Strengthen the existing street frontage to the Pacific Highway;
- 2. New street connecting the Pacific Highway with Tryon Place;
- 3. Active frontage to the rear lane of Tryon Place;
- 4. Existing trees on the site create a buffer between subject site and the adjoining sites with infrastructure and residential flat buildings;
- 5. Stepped built form with the site's topography;
- 6. Potential future development of the adjoining site to the north (289-293 Pacific Highway)

Legend

- Site
- Through Site Link
- Slope Gradient
- Existing Buildings
- Potential Adjoining Site Massing
- Proposed Landscaping
- Frontage

A large, stylized number '3' in a light teal color, positioned on the left side of the slide. It has a thick, rounded font style with a small gap between the top and bottom loops.

Urban Design Concepts

Design principles, response and a concept master-plan for the site.

3.1 Urban Design Principles

The following design principles provide the basis for the concept design and the evolution of the masterplan options. We will revisit these principles throughout the design process to ensure they are reflected in the outcomes.


Connectivity



Increase the movement and connectivity through the site, with the introduction of clear and identifiable through-site link. This link should allow easy navigation through the streetscape and designed in a way to prioritise pedestrians.

Vehicular access should be designed for the ease of access to both the site and the station without disrupting pedestrian activity.


Liveability



In order to create diversity across the site, housing choice should be present to create a difference and variety amongst the residential component of the scheme. This has the benefit of ensuring that the site does not become monotonous in terms of built form, and also allows housing choice which acknowledges different household/family structures, socio-economic backgrounds and levels of affordability.

A variety of well-designed dwellings are to be integrated to accommodate different household configurations.





Culture and Place



The scheme should respond to and acknowledge the established character of culture and place. The site has an important history in the urban and cultural development of Lindfield and the wider North Shore.

A historic well and other potential archaeological remains, which is located on the western side of the site near the Pacific Highway, is associated with an early landowner - Thomas Coleman and the dairy which he owned and ran there. Acknowledgement of this through interpretation is important in recognising this history.

3.1 Urban Design Principles

<div>Community</div> <div></div> <div><p>The scheme should acknowledge and respond to the community uses which have been located on the site since the 1950s to the present day.</p><p>Whilst some functions of the site are to be relocated to the new Lindfield Community Hub site on the other side of the Pacific Highway, there is the opportunity to incorporate some uses which maintain the legacy of community and acknowledge the importance of the site to the local community.</p></div>	<div>Activation & Accessibility</div> <div></div> <div><p>The site is located to the southern periphery of the Lindfield commercial strip focused around Lindfield Station and the Pacific Highway.</p><p>The mixed use zoning of the site allows for non-residential uses, which will facilitate the activation of spaces and streetscapes created within the development. These non-residential uses, which could include commercial and community uses will increase general activity and accessibility of the site through usage by the wider community.</p></div>	<div>Integration with Local Centre</div> <div></div> <div><p>The site has a very good proximity to the Lindfield Local Centre, focused around Lindfield Train Station. This includes an established centre of services and amenities, and integration with this existing amenity should be retained.</p><p>This is achieved through improved access to the centre and an appropriate mix and transition of uses across the site which relate sympathetically to the existing uses already found in the centre.</p></div>	<div>Amenity</div> <div></div> <div><p>Generous levels of amenity should be provided to the development, both to residential uses and all other uses to be considered. This includes open space - common and private open space, streetscape functionality, deep soil, solar access and daylight.</p></div>
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3.2 Urban Design Response

Building Uses

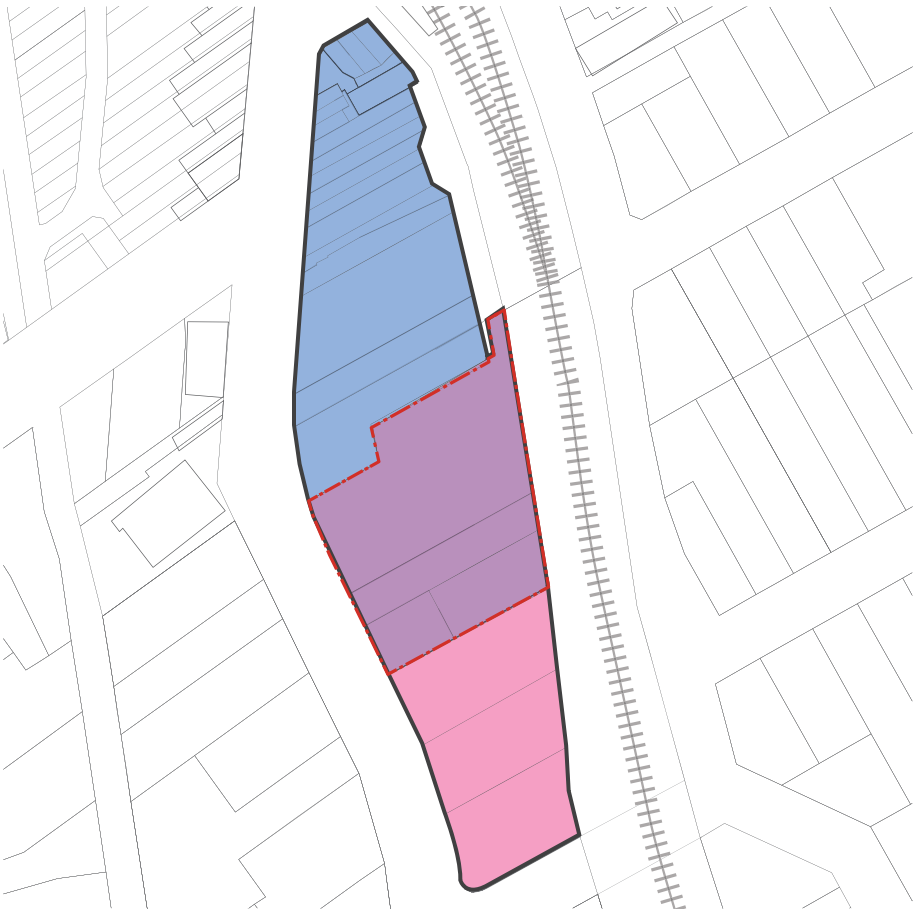


Figure 48. Building Uses

Mixed uses are located to the north of the site responding to the Local Centre function, which include commercial and retail uses. Purely residential uses are located to the south of the site.

- Legend
- Site
 - Commercial
 - Mixed Use
 - Residential

Urban Grain

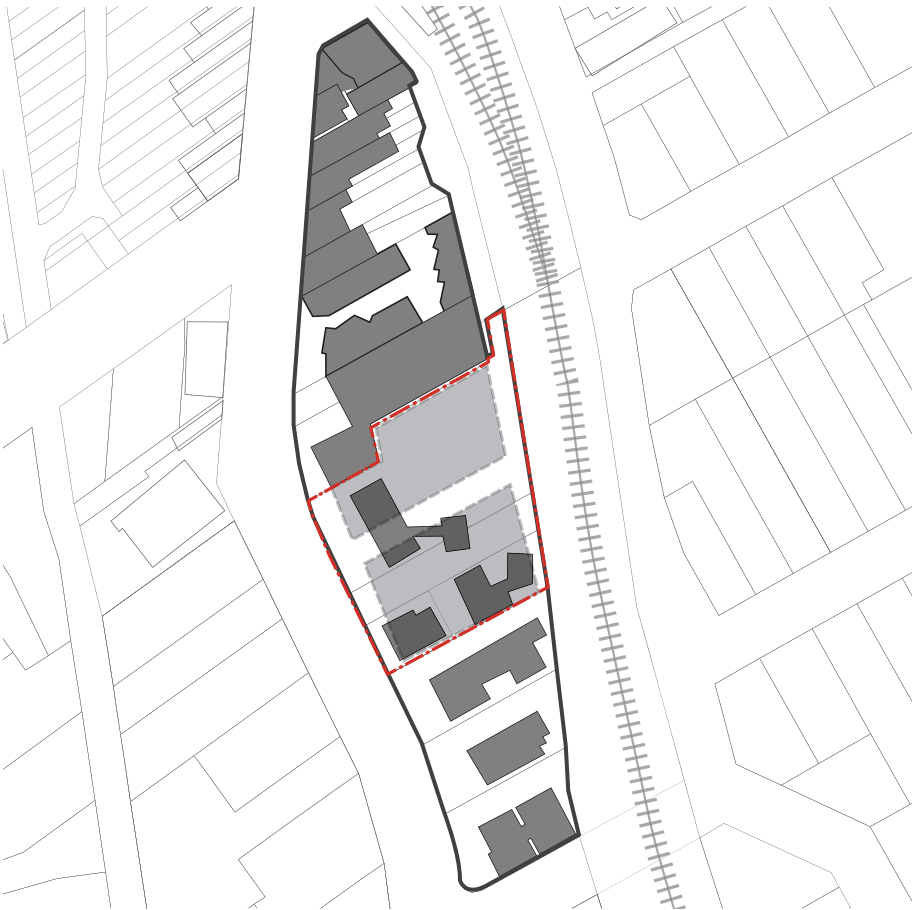


Figure 49. Urban grain

The existing urban grain of the site and its surrounding context reflects the range of land uses.

The site's response is to provide a transition in grain between the two - incorporating larger footprints which are articulated through their architecture to provide a transition between the traditional fine grain of the centre and the existing residential to the south.

- Legend
- Site
 - Existing Building Footprint
 - Proposed Building Footprint

Building Height



Figure 50. Height

Building heights to the north of the site have traditionally been low rise shop-fronts. The aspiration to increase height with a maximum height of 23.5 metres (7 storeys) reflects the importance of the Local Centre, the proximity to the station, and the benefit of increasing density within transport and local centre catchments. Variation in building height is desirable throughout this precinct and may be pursued by a DCP control for the 6 storeys (20.5 metres) along the Pacific Highway

To the south, the heights are predominantly to be retained at a maximum of 11.5 metres (3 storeys).

- The design response is to provide heights which sit between these proposed maximum and minimum of the block.
- Legend
- Site
 - 6-7 Storey
 - 3 Storey

3.3 Masterplan Concept

The following concept integrates possible development of the site at 283 Pacific Highway to provide a holistic response to this part of Lindfield Local Centre.

1. Through-site connection aligns with the subject site's northern boundary, removing the constraints associated with building interfaces along the Pacific Highway and Tryon Place frontages;
2. Open space is split into two key areas; a public space that straddles the through-site link, and a private amenity space (potentially with deep soil) at the southern boundary of the site;
3. Ground floor commercial is focused at the northern edge of the subject site, immediately to the south of the through-site link;
4. Integration with the town centre's character is focused at the northern extent of the Pacific Highway frontage;
5. Deep soil landscape setbacks along eastern/southern boundaries.

Legend

- Site
- Residential
- Commercial
- Adjoining Site (283 Pacific Highway)
- Frontage
- Open Space
- ↔ Through-Site Link
- ↔ Local Centre Frontage

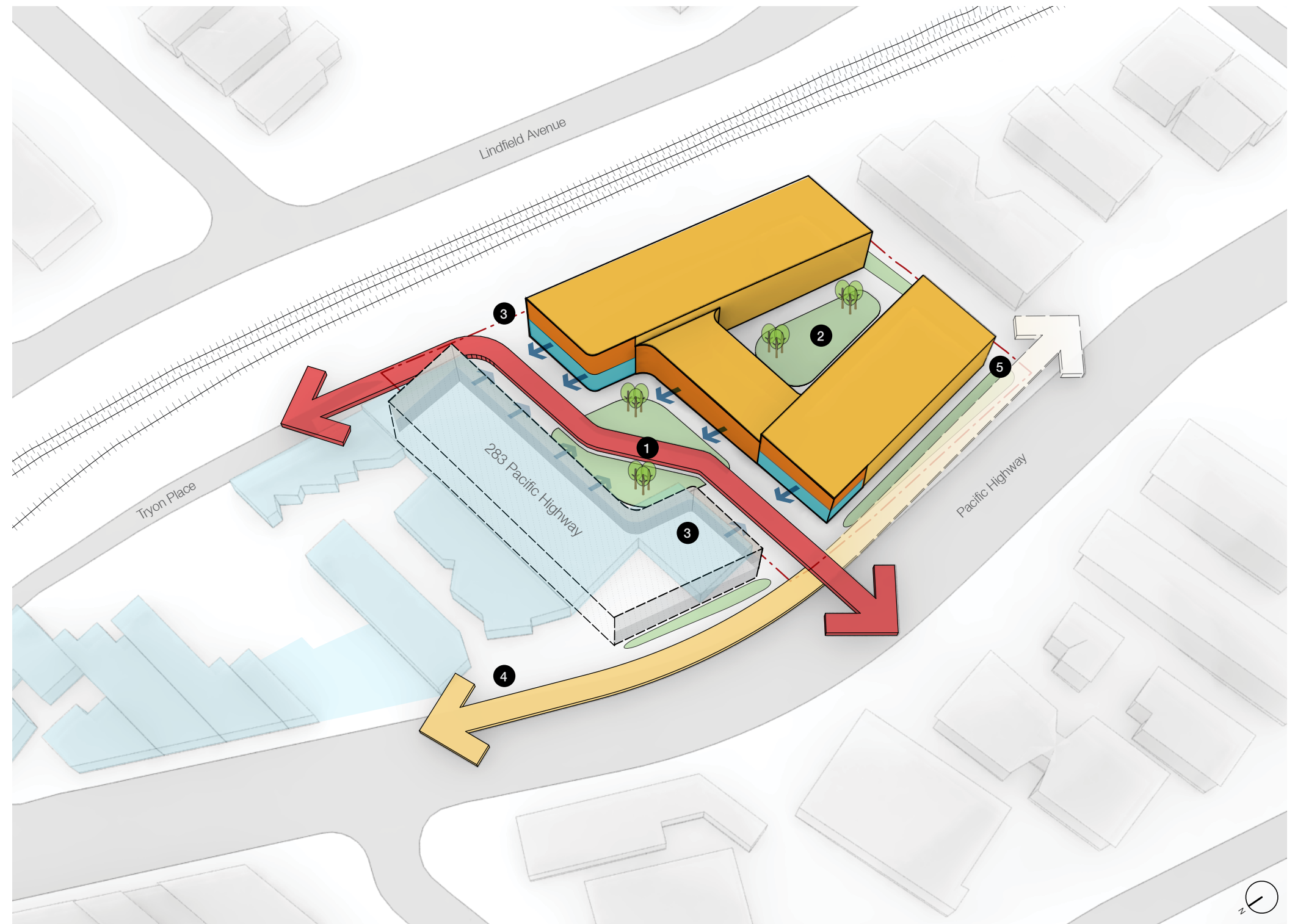


Figure 51. Concept Diagram

3.4 Masterplan Parameters

Activity and Connection

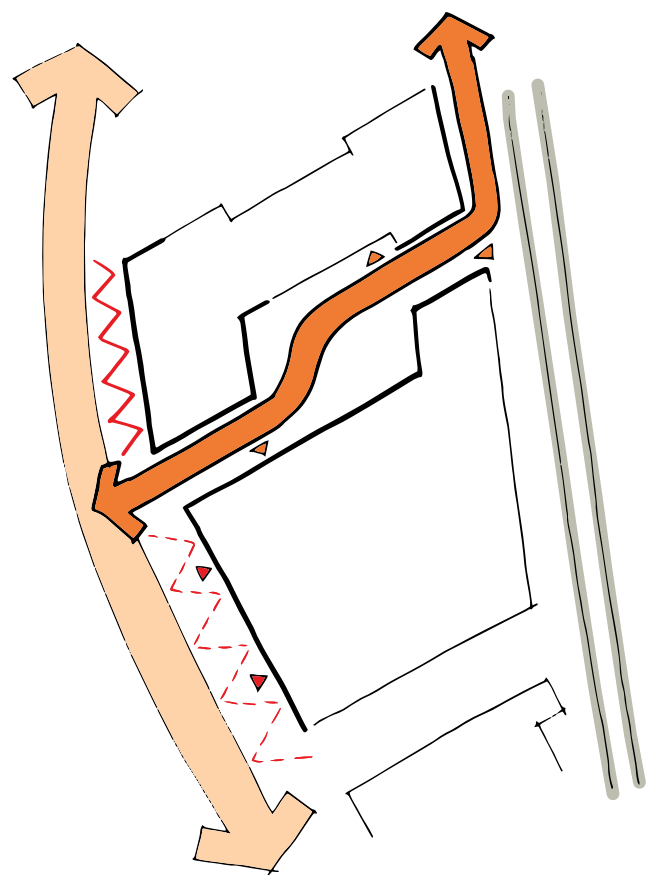


Figure 52. Connections and Activation

The through-site link aligns with the site's northern boundary, weaving through a public open space towards Tryon Place. Activation of the Pacific Highway frontage can be limited to the adjoining property (no. 283). Pedestrian access to the buildings is taken from the Pacific Highway frontage and from the through-site link.

Open Space

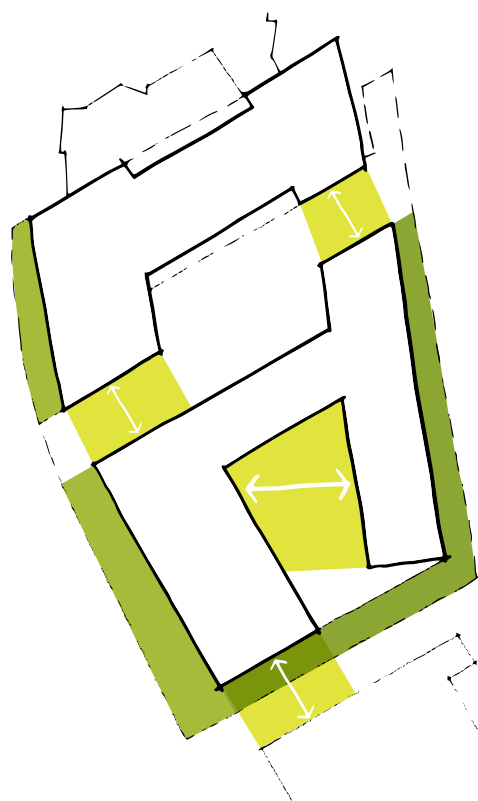


Figure 53. Open Spaces

The realignment of the through-site link removes the potential conflicts of the building interfaces between the subject site and neighbouring 283 Pacific Highway. The setback to the Pacific Highway frontage is a minimum of 6 metres adjacent to the town centre and increasing to 10 metres at the southern boundary in response to the surrounding residential grain. A minimum of 6 metres along the southern boundary allows for deep soil landscaping.

Building separation distances align with the requirement of the Council's DCP.

Built Form

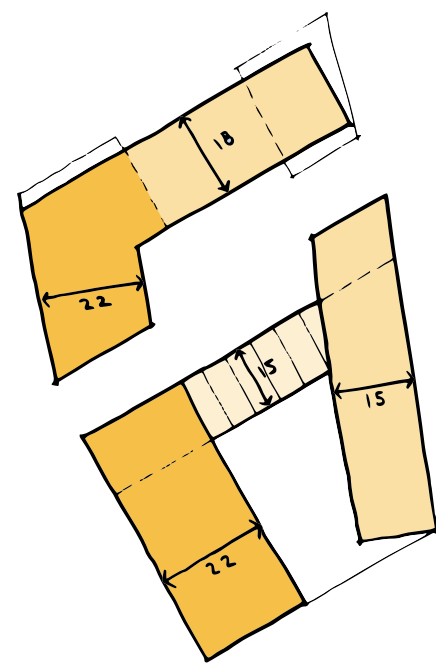


Figure 54. Built Form

A range of building lengths and depths are proposed in order to achieve the desired urban, amenity and development outcomes. The 22 metre blocks allows for double-loaded corridors and apartments that orientate to all frontages. The 18 metre deep blocks assume a single aspect apartment layout, typically oriented to maximise residential amenity.

3.5 Visualisation



Figure 55. Illustrative view of the proposed new street

3.6 Illustrative Plan

Lindfield Library Site Precinct 259-271 Pacific Highway

Block	Storey (Total)	Land Use	GBA total (m ²)	GFA (m ²)	NSA (m ²)	Dwellings (units)
A1	7	Commercial	300	270	230	-
		Residential	7,160	5,585	4,747	59
A2	4	Commercial	-	-	-	-
		Residential	1,480	1,154	981	12
A3	6	Commercial	-	-	-	-
		Residential	6,000	4,680	3,978	50
Total			14,940	11,689	9,936	121
Site Area			5,848.6			
FSR			2.0:1			
Car Parking			171			

283 Pacific Highway

Block	Storey (Total)	Land Use	GBA total (m²)	GFA (m²)	NSA (m²)	Dwellings (units)
B1	6	Commercial	600	540	459	-
		Residential	3,400	2,652	2,254	28
B2	4	Commercial	920	828	704	-
		Residential	1,600	1,248	1,061	13
Total			6,520	5,268	4,478	41
Site Area			2,105			
FSR			2.5:1			
Car Parking			88			

- Notes
- 1. Apartments:GBA to GFA = 78%; GFA to NSA = 85%
 - 2. Commercial: GBA to GFA = 90%; GFA to NSA =85%
 - 3. Average unit size = 80m²
 - 4. Car Parking - Commercial = 1space/ 33m2-45m2 of GFA (40m2 Average)
 - 5. Car Parking - Residential = Average of 1.19 spot/dwelling. Visitor spot 1 per 6 Dwelling
 - 6. All areas are approximate and subject to further design development.



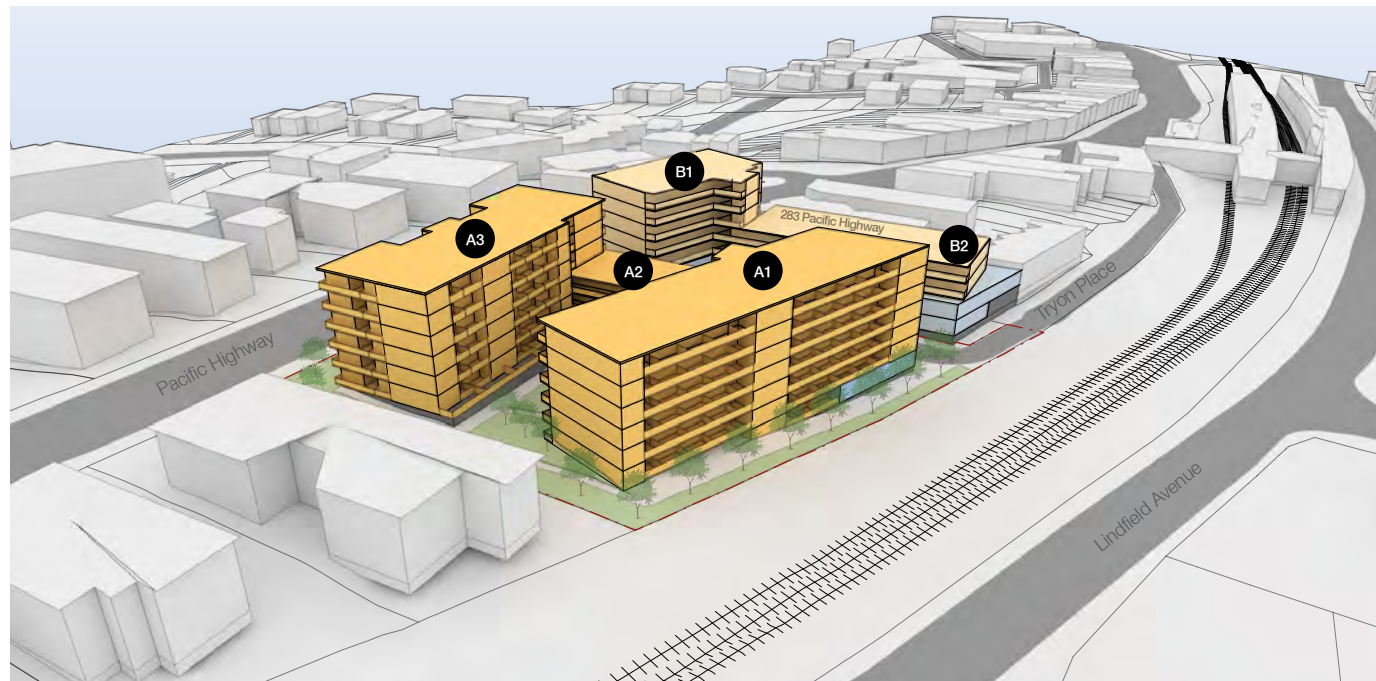
3.13 Ground Floor Plan



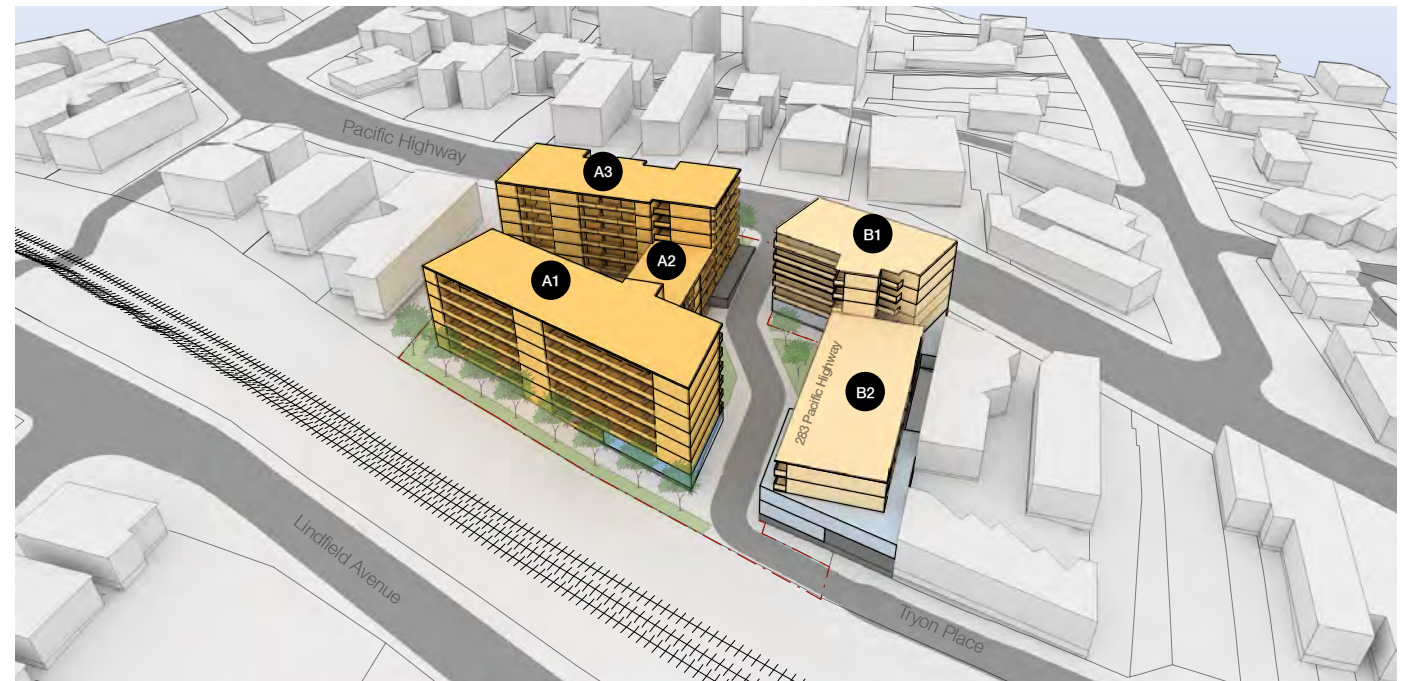
3.13 Basement and Typical Upper Plan



3.7 Massing



View from the South



View from the East

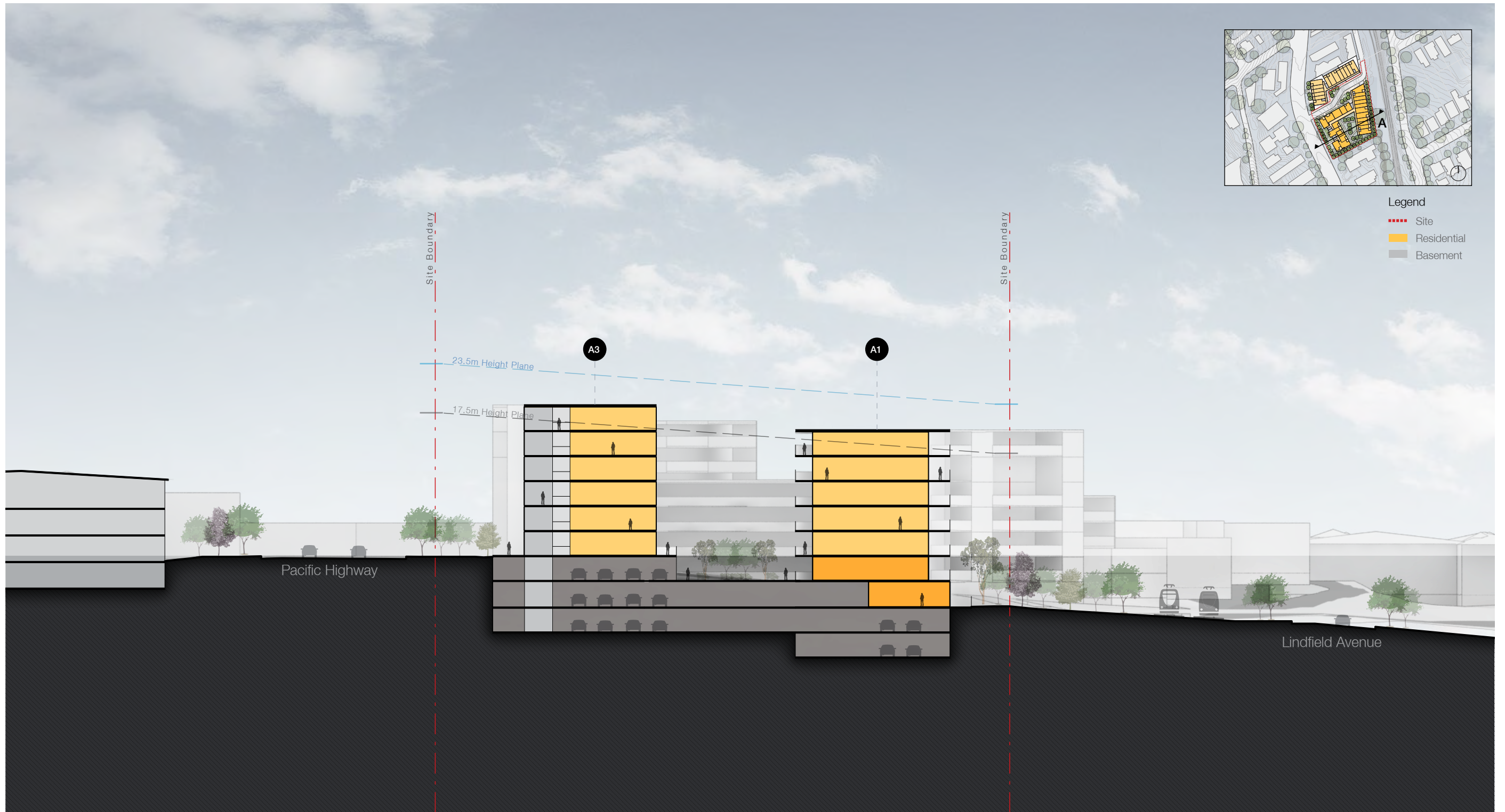


View from the North West

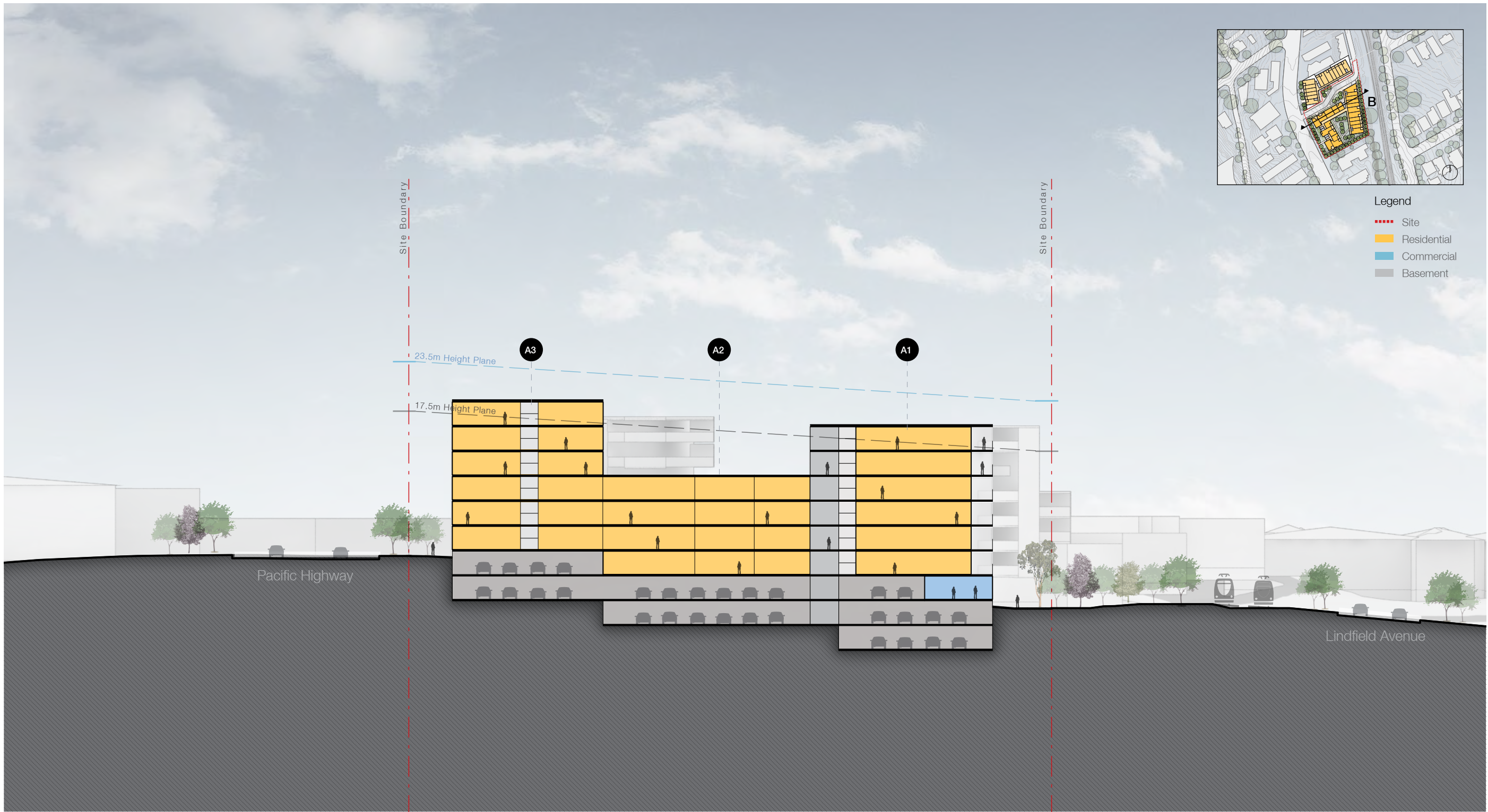


View from the South West

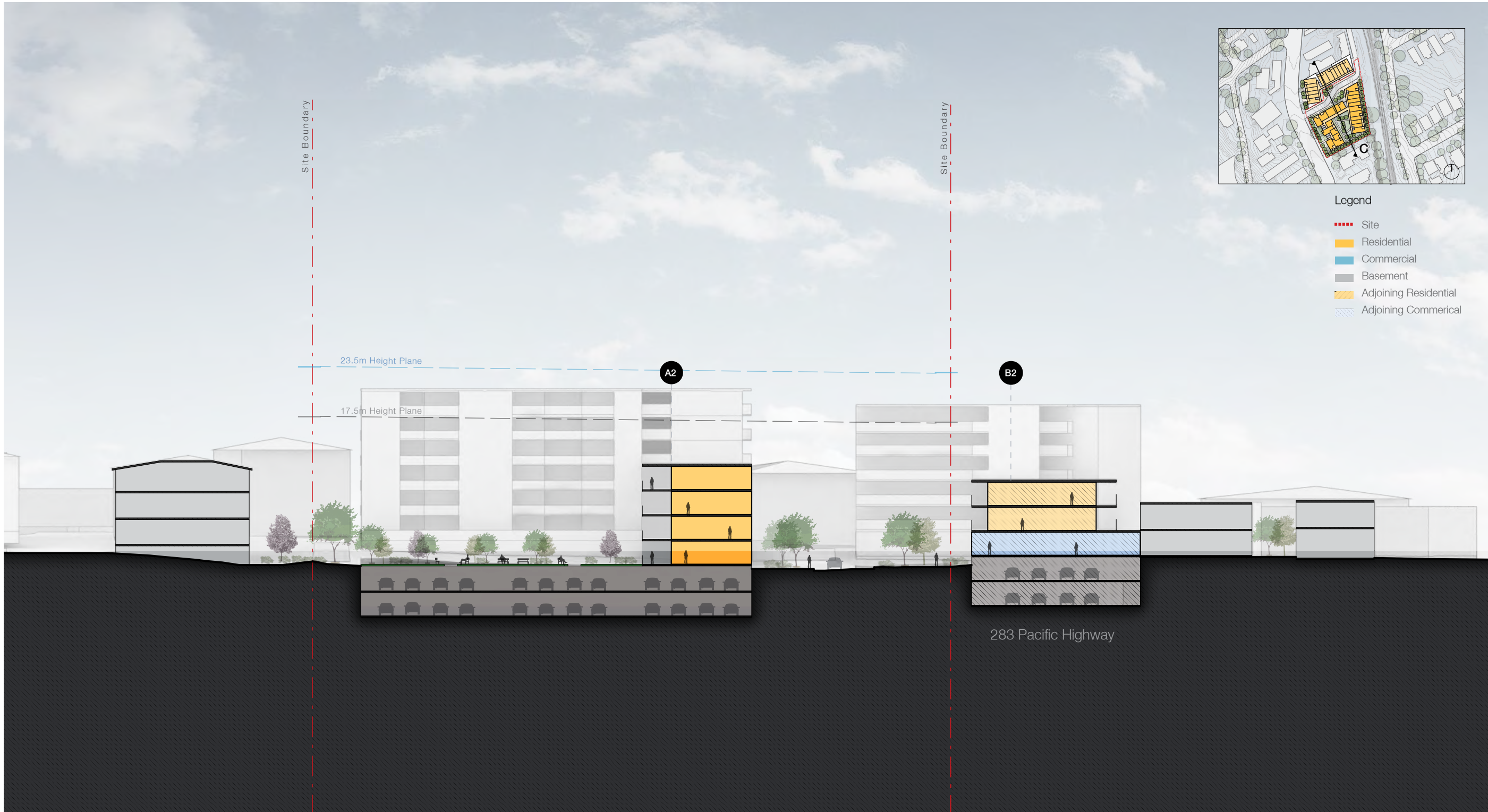
3.8 Section A



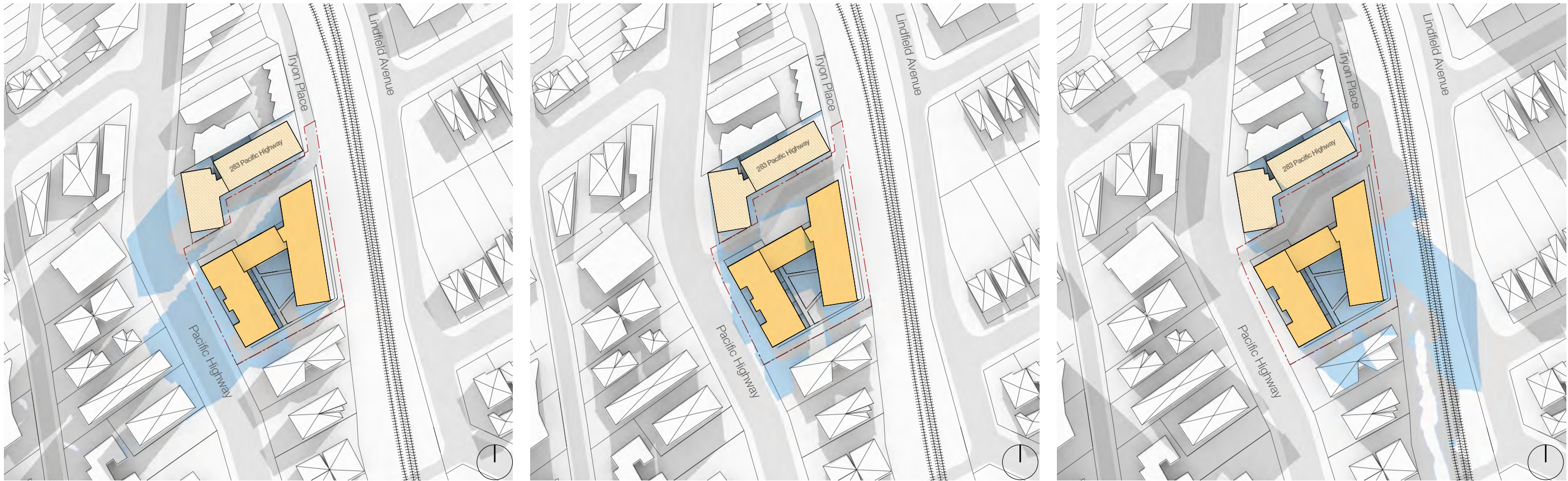
3.15.1 Section B



3.15.1 Section C



3.9 Shadow Analysis



21 June - 9 am

21 June - 12 pm

21 June - 3 pm

- Legend
- Site
 - Site Footprint
 - Adjoining Site
 - Proposed Shadow
 - Existing Shadow



Conclusion

A conclusion and recommendation in response to the site.

4.1 Conclusion

Based on the urban analysis undertaken, this Urban Design report presents a concept masterplan for the site based on the following key parameters:

- Predominantly residential uses and the inclusion of a childcare centre which contributes commercial and community uses to the site;
- A range of heights with a maximum height of 23.5 metres;
- A maximum FSR of 2:1.

In addition, a new one-way street is proposed which is to extend from Tryon Place to the east to the Pacific Highway to the west.

The proposed changes to the LEP as outlined in the report and detailed in the Planning Proposal are considered appropriate and are outlined below:

Changes to Height and FSR

The site is located within 200 metres of Lindfield station and one of the key precincts of centre (Tryon Place Precinct). This proximity to transport and local centre amenity warrants an increase in population, which will be generated from the increase height to support higher densities living near these facilities. The inclusion of a new street to form part of improved connections to the stations, also further supports this argument.

The site is located on a block that incorporates a range of heights which respond to the Local Centre location and character. At the northern end of the block, closest to the station, the proposed maximum height is 23.5 metres (7 storeys), which forms a key gateway site. This height is proposed to the extend through to the subject site. To the south of the site, the height control is 11.5 metres (3 storeys). Therefore the site has a role to play in providing transition from the local centre to the residential areas to the south. . The proposed heights on the site have been organised in a way to take advantage of the topography and ensure impacts to the residential dwellings to the south are mitigated.

Changes to Land Use

The site is located within a transition zone. Mixed uses, including retail and commercial uses are located to the north of the site within the Tryon Place precinct, which fall under the B2 Local centre zoning. To the south of the site, full residential uses are incorporated under R4 high density residential use. The site has had community uses on it since the early 1960s, which has supported the has a transitioning role between land uses to the north and south.

The current zoning of the site is B2 Local Centre, which suggests an alignment with the patterns of development occurring directly to the north. However, the site is located on the edge of an exisiting mixed centre and is located just outside of the identified Tryon Place precinct.

The B2 zoning permits commercial, community and retail uses along with shop-top housing, and whilst the aspiration to incorporate these uses is intended and supported, the economic reality of providing a large amount of non-residential uses to the ground floor of development at this edge of centre location is questioned.

The existing community use of the library is to be relocated to the other side of the Pacific Highway within the new Lindfield Community Hub project. Along with community uses, this project incorporates retail, commercial residential uses.

Detailed analysis of the market for Lindfield reveavls that the subject site will not be able to support commercial uses which will be able to function independently of those new uses proposed on the Lindfield Community Hub project.

With this in mind, the project team has limited the amount of the non-residential uses on the site to respond to this advice. There is a high demand for childcare facilities in the area, on both sides of Lindfield Local Centre, and for this reason, a childcare facility has been proposed to be located within the scheme. It is located on the new street near Tryon Place and is considered to be an appropriate location close to the proposed kiss n’ride route for the station.

Recommendation

In conclusion, based on the analysis and argument presented, this Urban Design Study supports the Planning Proposal with the following changes to Ku-ring-gai LEP 2012.

Controls	Current	Proposed
Land zoning	B2 Local Centre	R4 High density residential
Height of buildings	17.5 m	23.5m
FSR	1.3:1	2.0:1



The background features a large, abstract geometric design. On the left, a large white trapezoid is set against a teal background. Inside this white trapezoid is a smaller teal triangle. Below the white trapezoid is a teal trapezoid. To the right of these shapes, the word 'Appendix' is written in a large, bold, black sans-serif font. Below the title, a paragraph of text in a smaller, black sans-serif font describes the content of the appendix.

Appendix

Study of projects that feature similar characteristics to those outlined in the masterplan options

A1 - Streets



Casba, Sydney



Erko Apartments, Sydney



Accordia, Cambridge

A2 - Spaces



Erko Apartments, Sydney



Gantry Apartments, Sydney

A3 - Mixed Use



St. Margarets, Sydney



Gantry Apartments, Sydney



St. Margarets, Sydney

A4 - Childcare



Lodève, France



Guardian Childcare Centre, Sydney

A5 - Built Form



Erko Apartments, Sydney



Gantry Apartments, Sydney



North Eveleigh Affordable Housing, Sydney

SJB Architects



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14R References

14R.2 Turramurra Community Hub Masterplan



TURRAMURRA COMMUNITY HUB MASTERPLAN

CONTENTS

PAGE	SECTION
5	1.0 DESIGN STATEMENT
6	2.0 THE SITE AND ITS SURROUNDS
8	3.0 DESIGN PRINCIPLES
10	4.0 ARTIST'S IMPRESSION
12	5.0 DESIGN CONCEPTS
15	6.0 LANDSCAPE MASTERPLAN
16	7.0 KEY SPACES
20	8.0 SITE SECTIONS
26	9.0 ARTIST'S IMPRESSIONS
	APPENDIX A - ARCHITECTURAL DRAWINGS

1.0
DESIGN STATEMENT

The 12,300sqm Ray Street Precinct makes up roughly one fourth of the combined Turramurra Local Centre. The triangular site is the result of an orthogonally organised village centre that was at one point divided on a 45 degree angle by the North Shore rail line corridor. The site, however, abounds in assets. A train station, bus interchange, parking, library and supermarket have already resulted in an active village centre despite lack of quality public domain. The brief consists of a new library and community centre building, European scale public piazza, full-line supermarket, parklands, commuter parking and connections to existing rail network. The purpose of the feasibility study has been to determine how to self-fund the development by the provision of mixed use housing and retail tenancies.

Turramurra has experienced a mixed history with multi-residential projects, most failing to truly retain the area’s well-known leafy, village character. The project is an opportunity to create an exemplary village centre without compromising on intimacy of scale in the buildings and public spaces.

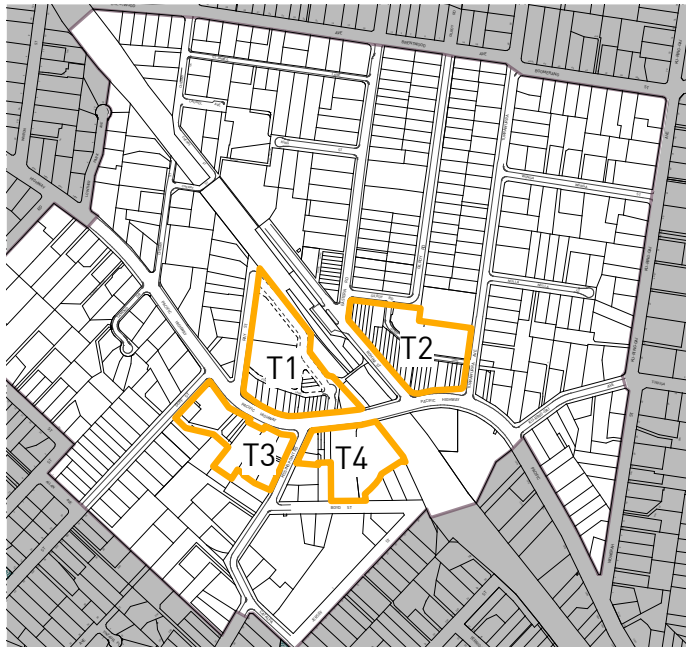
The strategy was to utilise the natural valley running across the site in order to partially bury the supermarket whilst still allowing outlook and viability. Parking also goes underground. This creates an accessible platform above with access to district views, tree canopy and sunlight throughout the day. The platform is the site for low scale housing and retail as well as a wide variety of crafted and specific public open spaces. The public spaces are designed to be differing in character including narrow laneways, streets, a european scale Piazza, heritage botanical gardens, linear park. These spaces collectively build a ‘place’ that will attract a lively community,

Building design focused on place-making through the creation of activated ground floor public space, human-scale residential units, a mixed use building and a landmark in a position of prominence on the Highway.

The urban design focused on separating large buildings into more singular building blocks to each be designed with a highly individual character.

2.0

THE SITE AND ITS SURROUNDS



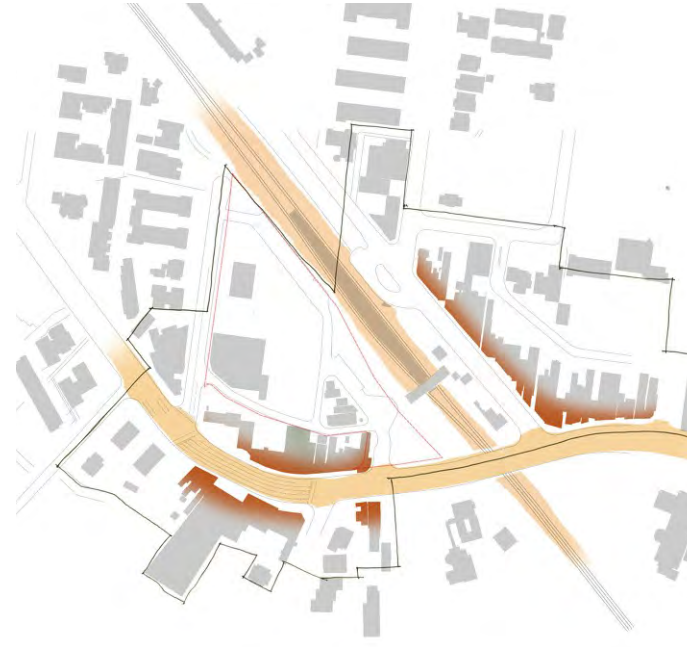
THE SITE AND SURROUNDS

Ku-Ring-Gai Council's centre hierarchy defines Turramurra as a 'Local Centre' characterised by 'a group of retail, office or business premises reinforcing appropriately scaled and integrated urban fabric'. The zoning controls within the LEP are consistent with this definition and hence the current controls have become the planning context for the Turramurra Community Hub Master Plan. The Local Centres DCP map depicts Turramurra Local Centre as 4 precincts. While the master plan study has considered this broader context, the physical proposal is confined to precinct T1.



VISION DCP

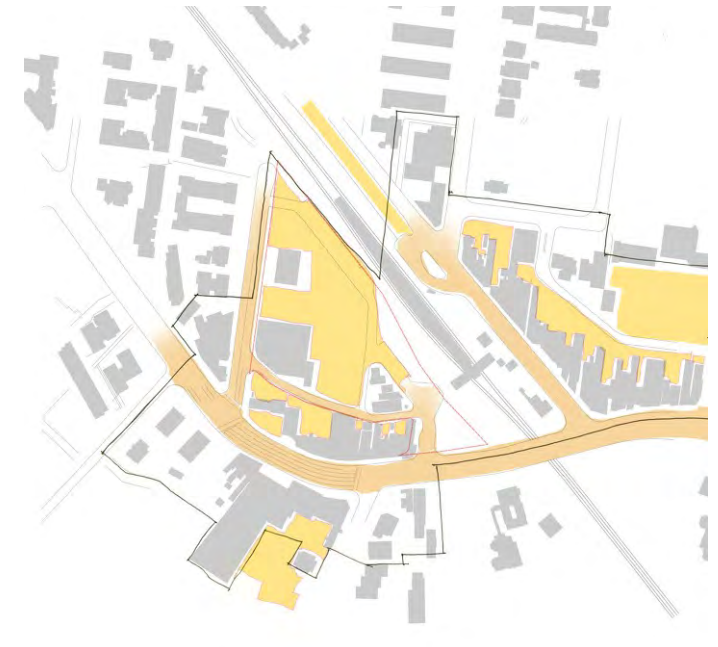
The focus of the Turramurra Community Hub Masterplan is only part of the larger 'town centre' of Turramurra. We will firstly consider the site in its larger context and the scope as the latest stage in a longer project to revitalise the town centre. The Sydney Metropolitan Plan earmarks Turramurra to retain its characteristics as a "group of retail, business or office premises reinforcing appropriately scaled and integrated urban fabric. For this reason the Masterplan will opt to retain the zoning controls set out in the LEP for height and FSR.



BARRIERS

The town centre is split into three parts by the Pacific Highway and the rail line. With limited opportunities to cross these barriers, the parts do not benefit from the whole.

These barriers are reinforced by inactive retail frontages. It is evident that the retail frontages facing the Pacific Highway are suffering from a lack of pedestrian amenity along this corridor.



PARKING AND TRAFFIC

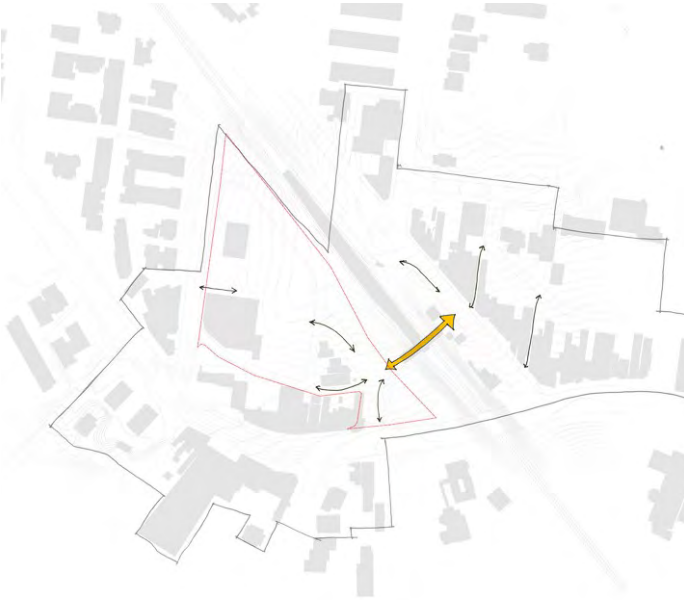
This diagram is evidence of the space given over to the automobile. The vast majority of the town centre is dedicated to parking or road, which has resulted in an unattractive environment despite the services on offer. Although it is difficult to curb the vehicular activity on the Pacific Highway, understanding its effect and creating spaces removed from this will be important.

2.0
THE SITE AND ITS
SURROUNDS



OPEN SPACE CONTEXT

The green, leafy character of Turramurra is renowned. The site is surrounded by important green spaces including the Look Out Community Gardens, the railway curtilage corridor and Cameron Park. Generally Turramurra enjoys an abundance of biodiversity and significant mature trees that are interspersed in the built environment and contribute greatly to the amenity of the place.



CONNECTIONS

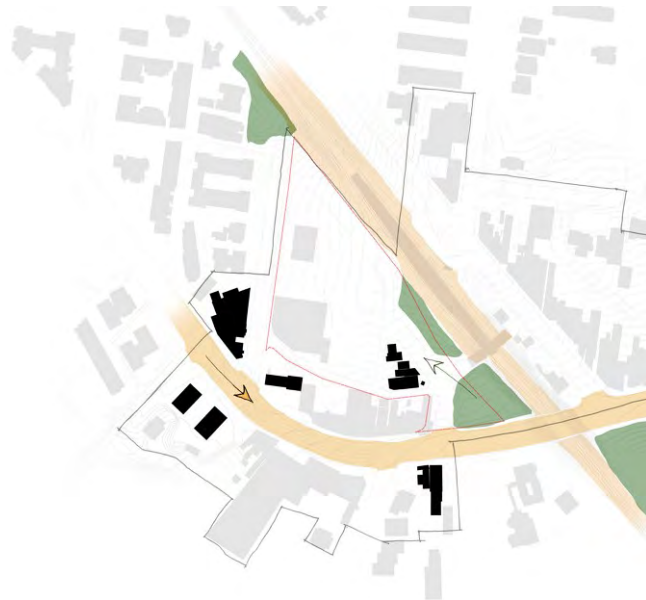
Two issues effect the free flow of pedestrians in the town centre - infrastructure and topography. Firstly the rail line and highway block the path of travel, secondly the approximate 5m drop across the site makes it inaccessible to some users. If the town centre is to function as a whole this needs to be addressed.



ASSETS

The Ray Street Precinct has potential to be the centrepiece of the town centre spatially as well as functionally. The site boasts a number of assets that an ideal town centre needs.

- Mass transport in the heritage railway station allows thousands of commuters to use the site every day
- The supermarket is one of the few in the upper north shore and has capacity to expand
- The Forbes Lane shop-top buildings hold potential for a fine grain retail spine. Replay Cafe is already taking advantage of this



LANDMARKS

The experience of Turramurra is currently defined by the road and rail infrastructure with a lack of any signature landmarks buildings. There is a great opportunity to capitalise upon the centre's location on the ridge line and the high number of people passing though the centre each day creating a landmark development as signature for a revitalised Local Centre.

3.0 DESIGN PRINCIPLES



PLACE MAKING

Turramurra Centre is largely characterised by its low scale pattern of development and the convergence of the Pacific Highway and Northern Rail Line.

The site has been isolated by both the road and the rail. It is primed to become a revitalised centre that capitalises upon its proximity to the rail station.

The following Design Principles would contribute to making Turramurra a recognisable, loved and sustainable place into the future.



RETAINING THE VILLAGE CHARACTER

Reinforcing the delightful village character of Turramurra will require design principles to be adhered to. Most of the masterplan will be new so this implies a sophisticated design with the constant ambition to respect human scale and the intimacy of spaces.



VIBRANT RETAIL MIX

A lively and healthy suite of ground floor retail spaces is a key part of place making. It is a great way to activate spaces, attract people, make a memorable and destinational user experience for the local community and visitor. The Turramurra Community Hub Masterplan already has the infrastructure to deliver enough people to meet retail demand in the area, however, the type and quality of these tenants will be influenced by a number of factors including building design, location and orientation.



A VARIETY OF PUBLIC URBAN SPACES

The brief requires generous public urban spaces to compliment the community and retail uses. It is vital however to consider a range of individual spatial types, scales and experiences. Larger open spaces are essential for events and more intimate public spaces are critical to people feeling a sense of ownership and comfort. A variety of spaces also attract a variety of tenants into ground floor retail spaces bringing a vibrancy to the place.

3.0
DESIGN PRINCIPLES



ACTIVE GREEN SPACE

Trees and green space are integral to the sense of place in Turramurra. The key will be to introduce a complementary green open space to the suite of already impressive gardens and parks on offer. The space also has the potential to connect the pre-existing green spaces surrounding the site to increase for biodiversity and assist with WSUD and acoustic effects of the train line.



CONNECTING THE TOWN CENTRE

Accessibility is important for the ease of use for locals and visitors. The masterplan implements a decisive strategy that creates a level platform to traverse the site. The plan also considers a bridge proposal connection Ray Street and Rohini Street to make it easier for the northern catchment of Turramurra and Warrawee to access the site without having to pass through the Pacific Highway.



DENSITY DONE RIGHT

Some additional density will prime the public spaces and help provide surveillance while making the project financially sustainable. The site has the potential to support many families using the amenity of the railway station, supermarket, retail, community hub building and public open spaces. Considerations will be made for scale, overlooking and overshadowing.



A GREAT COMMUNITY BUILDING

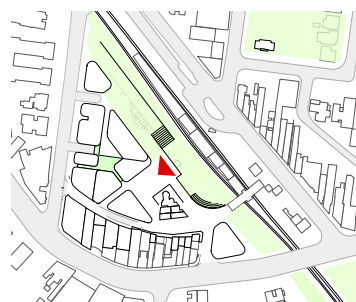
The 'Ku-ring-gai Community Facilities Strategy' and the 'Turramurra Community Facilities Study' outline the requirement for a new library and community facility for Turramurra. The combination of these facilities into a building will undoubtedly become a beacon for the community on the site and act as a welcoming building.

4.0

ARTIST'S IMPRESSION

CENTRAL PIAZZA

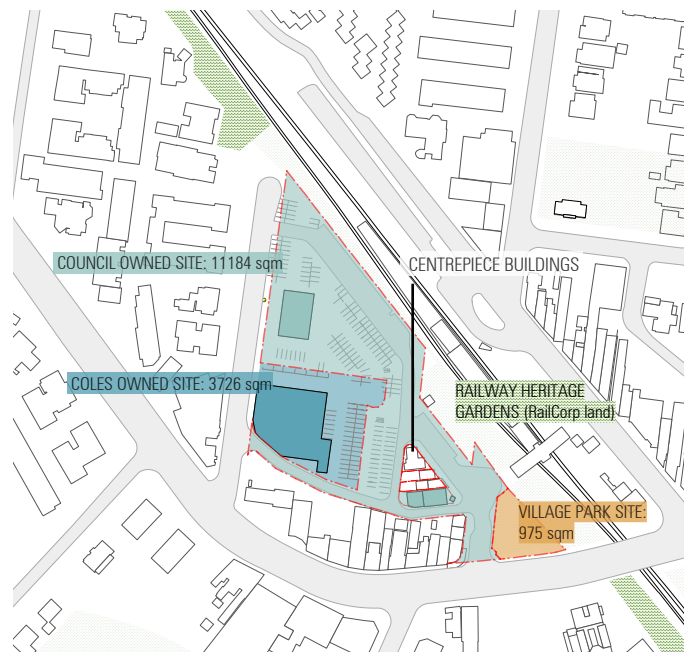




View looking south along Forbes Arcade to Forbes Lane

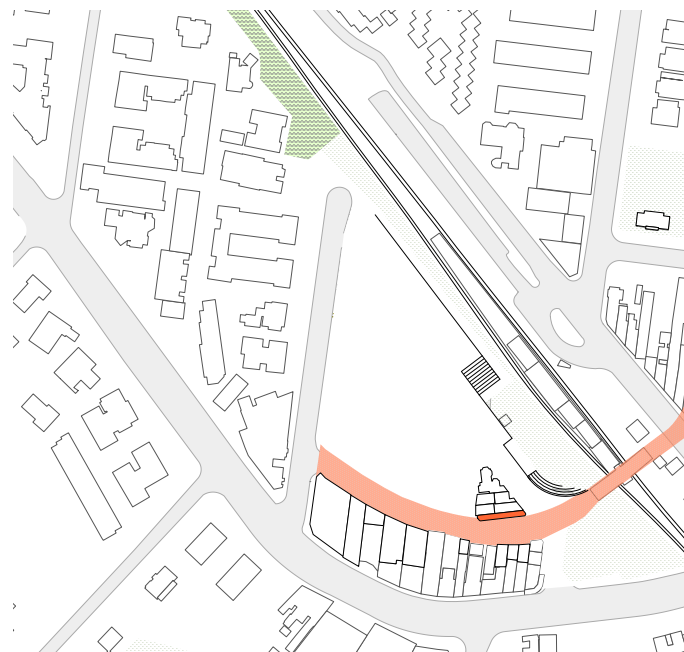
Artists impression shows a likely scene in the main public Piazza at Turramurra. A social and vibrant space built to become a platform for gathering. The space is naturally the spatial epicentre of the masterplan and needs to fulfil the expectations set by the brief and the above design principles. Note the 'Centrepiece' buildings to the left of the frame. These have been retained in order to carry some of the familiar, village character into the new scheme. The entrance to the 'Lower Ground' Supermarket would exist to the right, with alfresco dining in the North-East facing cafes and restaurants on the ground floor.

5.0 DESIGN CONCEPTS



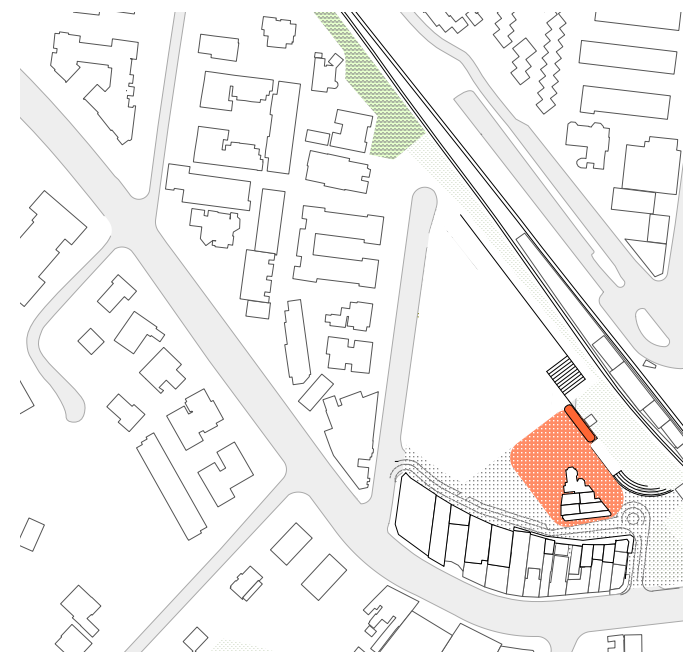
1. THE NATURE OF THE SITE

The Ray Street Precinct is the focus of this masterplan. The roughly triangular space, including the Turramurra Village Park, is owned by Council except for the Coles supermarket site and 'centrepiece buildings'. The plan uses the whole site with the provision for a new supermarket.



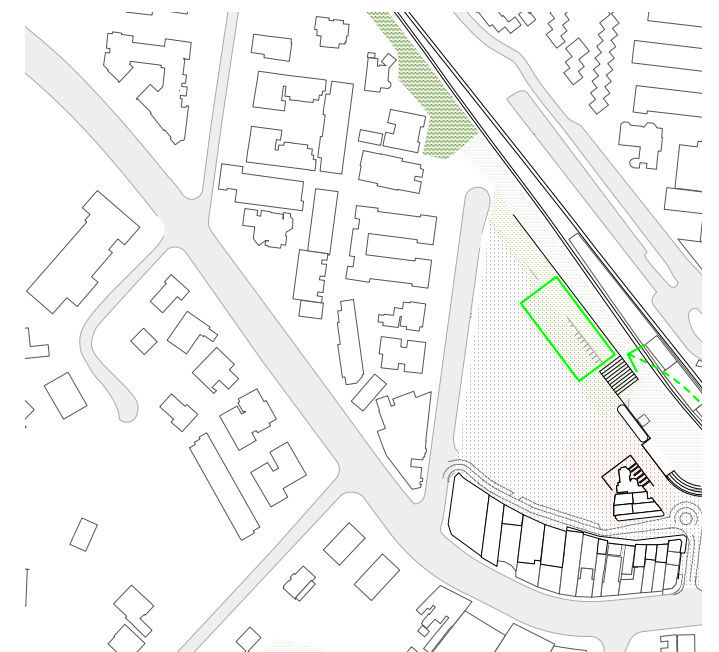
2. FORBES LANE "NAKED STREET"

Currently Forbes Lane is under-utilised as a loading zone. We imagine the existing Pacific Highway shops capitalising on the northern aspect towards a new 'Naked Street'; a shared space for vehicles and pedestrians. This is the backbone of the masterplan connecting seamlessly over the rail footbridge to Rohini St and beyond.



3. CENTRAL PIAZZA

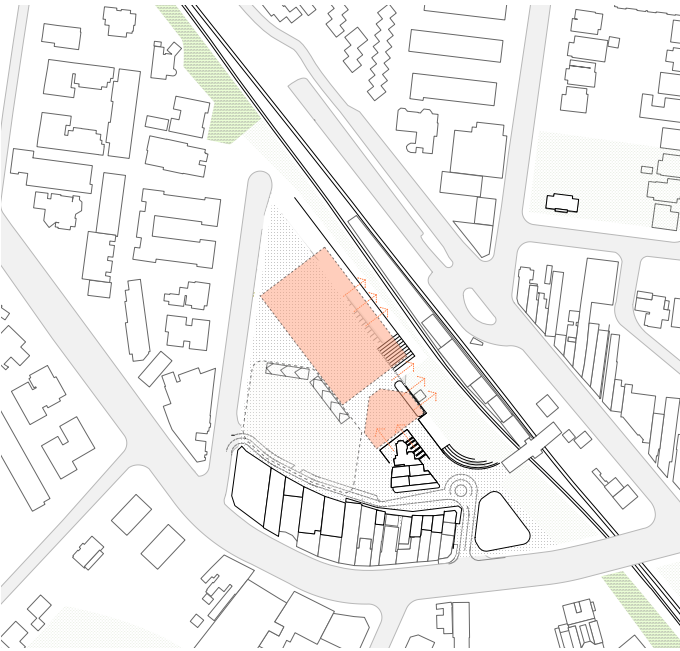
The 'centrepiece' buildings will be retained to bring preexisting character into the new scheme. They form the central feature for a new Central Piazza that will host the public life of the Turramurra Community and feed off the activity of Forbes Lane. The Piazza is on grade with Forbes Lane, north-east facing and elevated above the natural ground to provide vistas over the district.



4. LINEAR PARK

The railway corridor has a number of established trees that provide character and amenity to the site whilst buffering noise from the trains. Also, the railway heritage gardens dovetail into the edge of the site and contain a botanical richness. By opening these gardens and extending the open space into an active park we benefit from these latent conditions and provide another great space for the community.

5.0
DESIGN CONCEPTS



5. LOWER GROUND RETAIL

The main public space is elevated creating an accessible surface across the entire site. Below this platform we are able to fit our largest components of the brief. The new full line supermarket, trailing retail and parking fit comfortably and enjoy the north-eastern aspect across the rail corridor and heritage railway gardens. We are able to replace public parking spaces as well as provide enough for the supermarket.



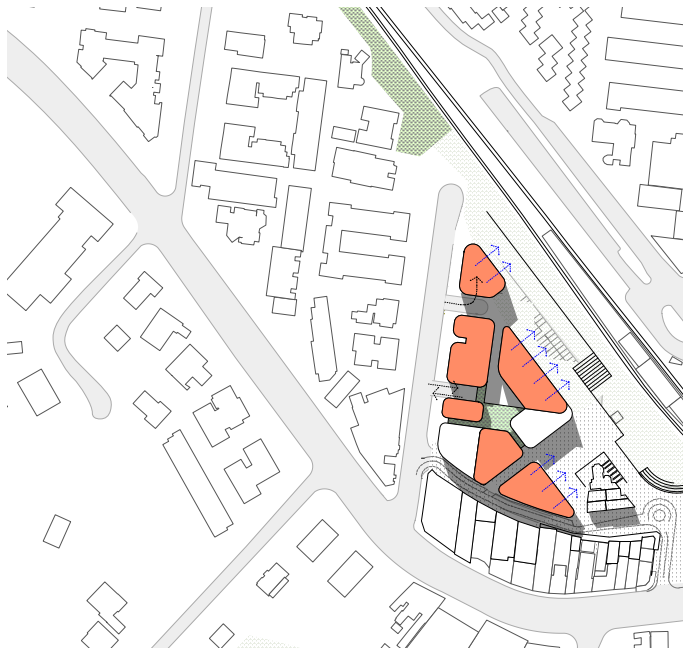
6. LANDMARK SITE

The Village Park has long been under utilised, suffering from proximity to the highway and a sloping site. By replacing and adding green open space within the site, the Village Park site can become the home of a new beacon for the locals, a site for a landmark building containing retail and residential units. The contemporary building will contribute to a sense of place for the town centre.



7. ACTIVATE THE PUBLIC SPACE

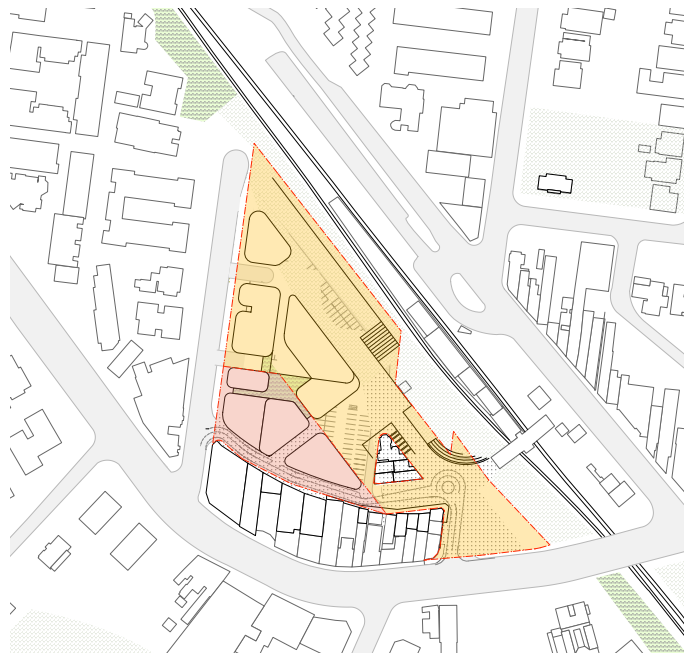
The new public spaces will be lined by exciting shops, cafes, restaurants and bars that will activate the public domain at street level and stimulate a local economy. This built form also acts to frame the public space and create a series of more intimate, individual spaces associated with the more dominant central piazza, Forbes Lane and park.



8. RESIDENTIAL DWELLINGS AND THE COMMUNITY HUB

Residential dwellings and the Community Hub Building form the final component of the built form. They are 3, 4 and 5 storey volumes that are positioned so they do not overshadow the active public spaces. Key considerations are also the scale and rhythm of the established buildings on Ray Street and the orientation of the apartments to achieve amenity and views.

5.0 DESIGN CONCEPTS



9. STAGING

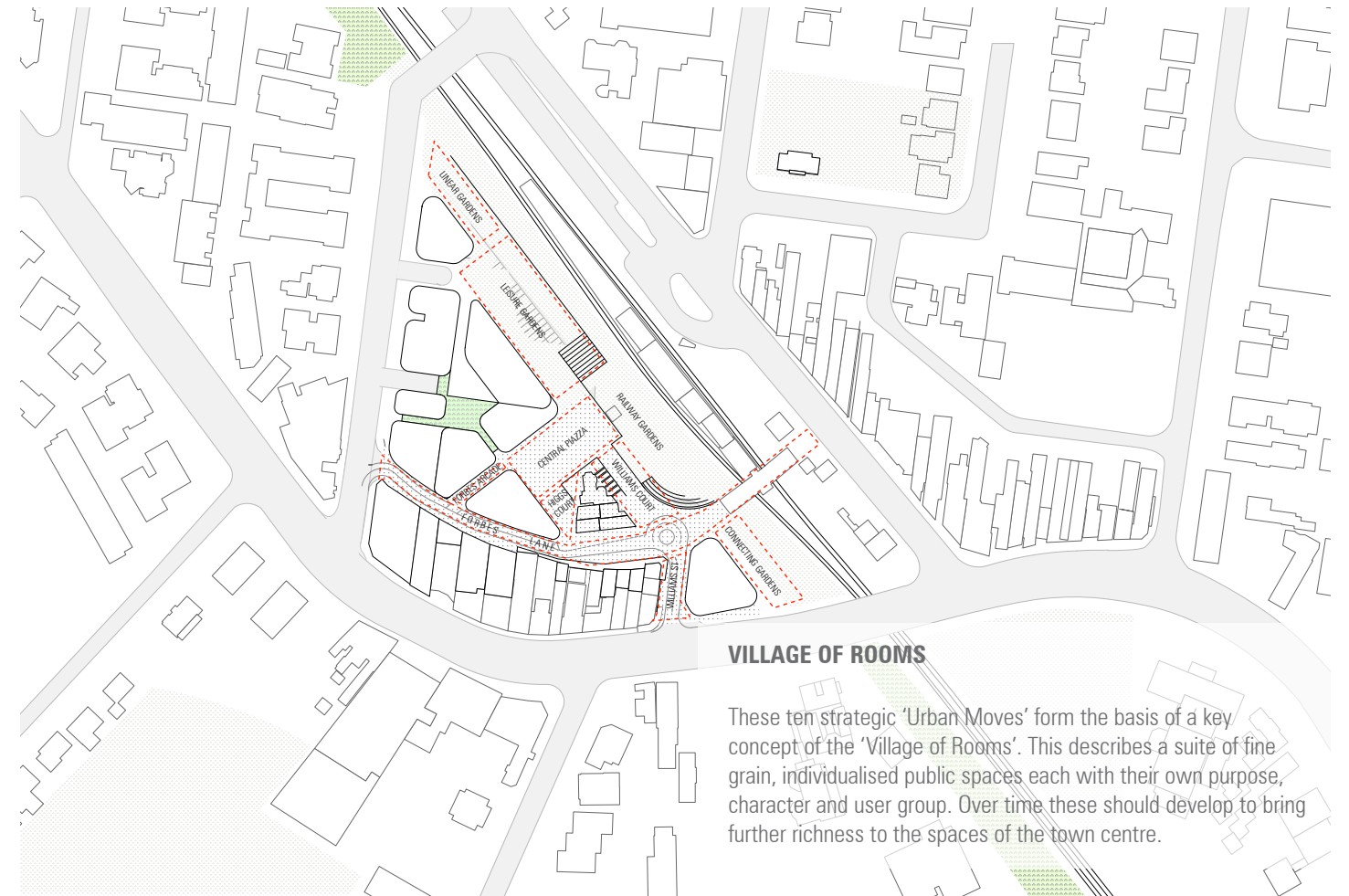
The redevelopment is proposed in two stages to ensure a supermarket can operate continuously throughout and the development can be financially sound.



10. RAY STREET BRIDGE

The final infrastructural element of the scheme is the Ray Street Bridge. This is an opportunity to connect the northern catchment of Turramurra to the site without the necessity of travelling via the Pacific Highway.

Currently the primary access to the scheme is through the Pacific Highway and Ray Street with a secondary entry through Williams St into a one-way loop along Forbes Lane.



VILLAGE OF ROOMS

These ten strategic 'Urban Moves' form the basis of a key concept of the 'Village of Rooms'. This describes a suite of fine grain, individualised public spaces each with their own purpose, character and user group. Over time these should develop to bring further richness to the spaces of the town centre.

6.0

LANDSCAPE MASTERPLAN

- 01 LINEAR GARDENS
- 02 LEISURE GARDENS
- 03 GRAND STEPS
- 04 CENTRAL PIAZZA
- 05 FORBES ARCADE
- 06 HIGGS COURT
- 07 LOWER CAFE COURT
- 08 ALFRESCO DINING CURTILAGE
- 09 WILLIAMS COURT
- 10 CONNECTING GARDENS
- 11 MIXED USE BUILDING
- 12 COMMUNITY HUB BUILDING
- 13 CENTREPIECE BUILDINGS
- 14 SUPERMARKET ENTRY
- 15 RESIDENTIAL COURTYARD
- 16 BASEMENT PARKING ENTRY
- 17 LOADING ENTRY
- 18 RESIDENTIAL BUILDING



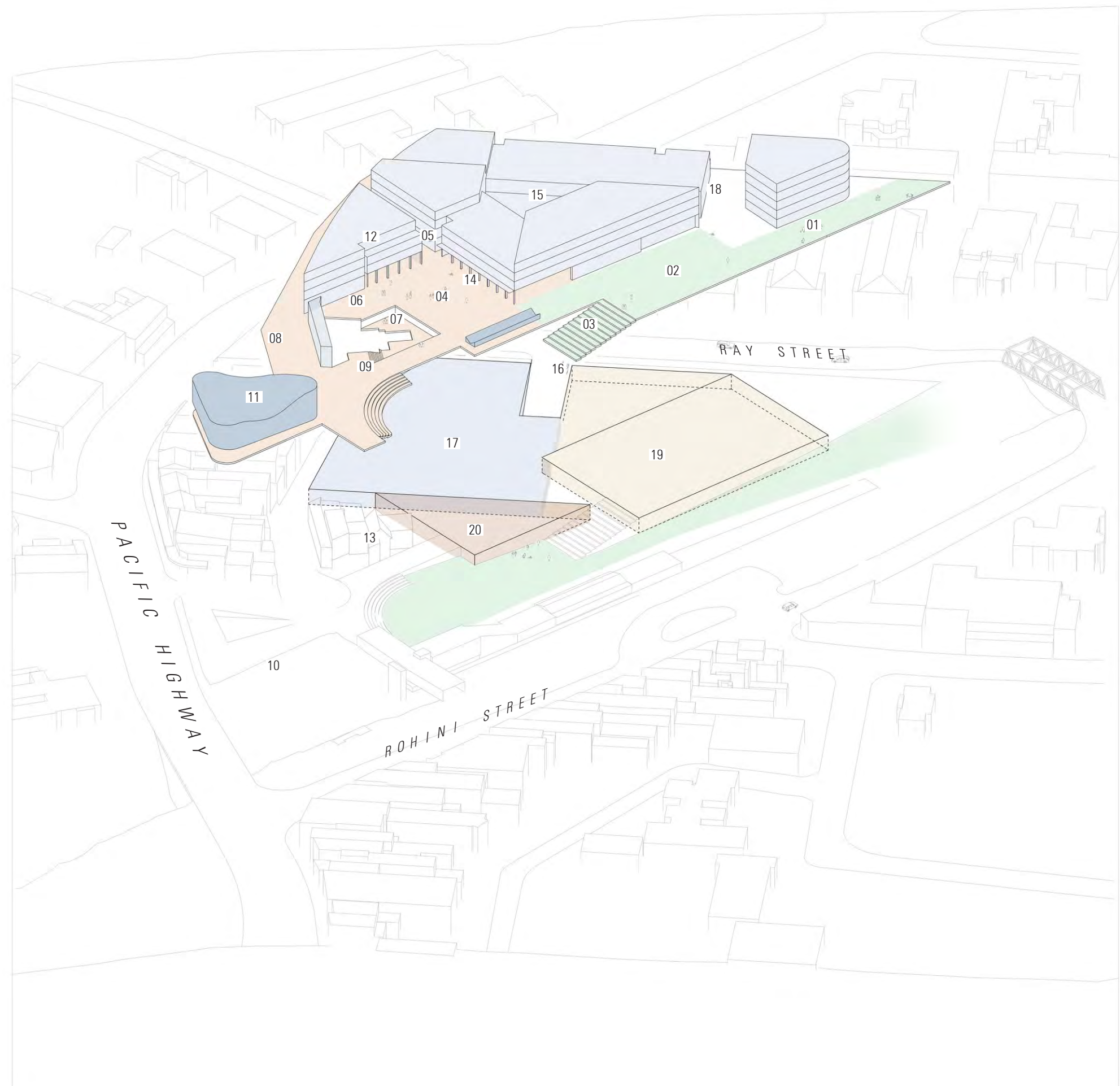
7.0

KEY SPACES

AXONOMETRIC DIAGRAM

& AREA SCHEDULE

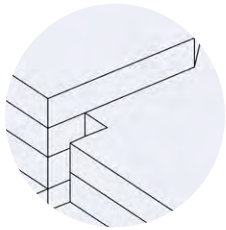
- 01 LINEAR GARDENS
- 02 LEISURE GARDENS
- 03 GRAND STEPS
- 04 CENTRAL PIAZZA
- 05 FORBES ARCADE
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- 07 LOWER CAFE COURT
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- 13 CENTREPIECE BUILDINGS
- 14 SUPERMARKET ENTRY
- 15 RESIDENTIAL COURTYARD
- 16 BASEMENT PARKING ENTRY
- 17 PARKING
- 18 LOADING ENTRY
- 19 SUPERMARKET
- 20 LOWER GROUND RETAIL





Public Open Space

Central Piazza	2300 sqm
Forbes Lane	1690 sqm



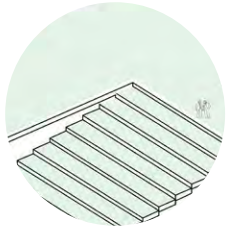
Residential

20485 sqm (GFA)



Public Buildings

Library	1750 sqm
Community Centre	1500 sqm
Multi-purpose Pavilion	90 sqm
Pop-Up Gallery	133 sqm



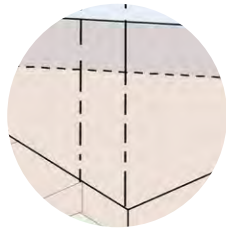
Green Open Space

Linear Park	2090 sqm
Railway Gardens	1190 sqm



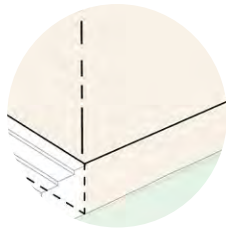
Parking Spaces

Public	131
New Residential	200
Supermarket	160



Retail

2316 sqm



Supermarket

4000 sqm

7.0

KEY SPACES

DETAILED DESCRIPTIONS



CENTRAL PIAZZA

Central Piazza is a platform for community exchange and large events. At 41m x 25m the space is large enough to hold around 700 people standing comfortably. The space will be an active and safe place throughout the day with passive surveillance of apartment residents, supermarket shoppers, restaurant goers, and commuters.

The space has four active edges, each with a different purpose. To the North-West is the entrance to the Lower Ground supermarket, retail and car parking activated a fresh food retailer. To the South-West is the alfresco dining zone with cafes and restaurants enjoying the morning to afternoon sun and district vistas. To the South-East are the Centrepiece buildings, including a stunning pitched roof building that has a first floor that will address the Piazza whilst its Ground Floor will address an intimate courtyard to the Lower Ground retail shops. To the North-East is public Multipurpose Pavilion, a flexible building like a permanent marquee and can be used in a variety of ways depending on the use in the square.



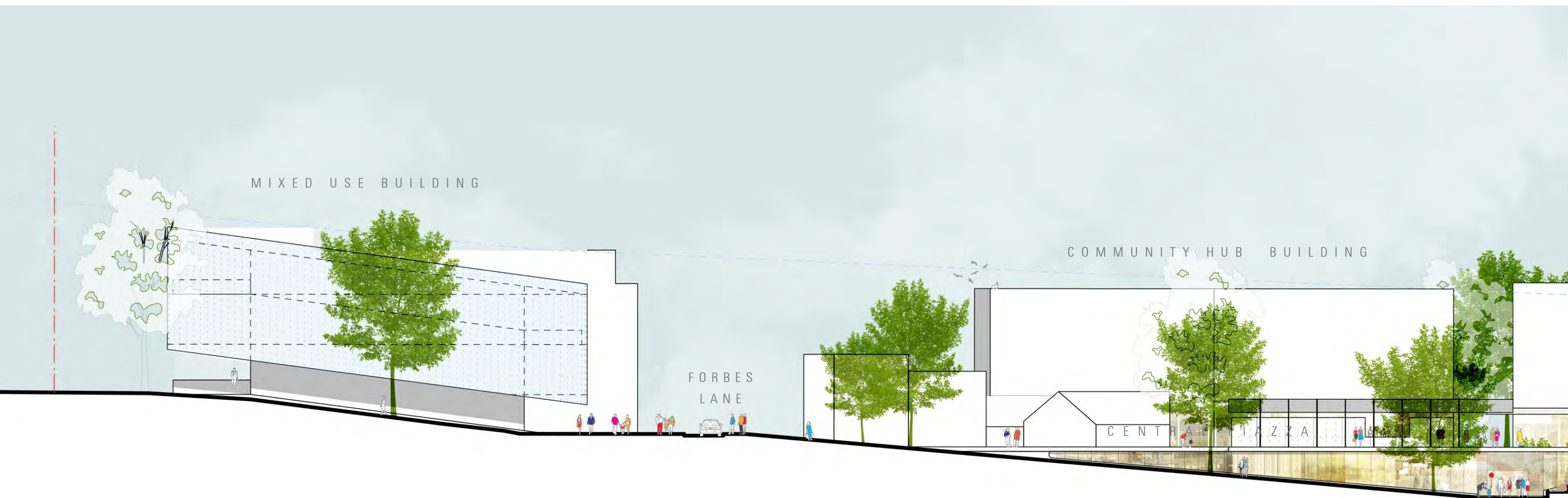
GREEN OPEN SPACES

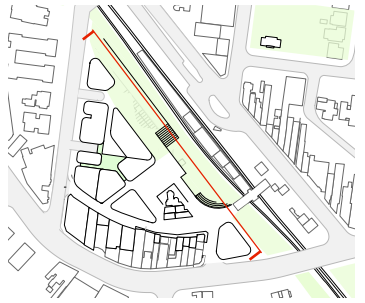
Turramurra is blessed with great green open spaces. The suite of gardens this Masterplan delivers will expand that again. A key opportunity is to formalise a new park utilising the mature trees and landscape curtilage along the rail corridor. However, there are a number of decisions to be made by the local community as to the purpose of these spaces:

1. Railway Gardens - This space is currently fenced-off, but will be open to the public for this Masterplan. It is a scenic and picturesque garden with a variety of species. It is a largely sedentary space that will act as an outlook for the supermarket and Lower Ground retail.
2. Connecting Gardens - This space will be closely associated with the mixed use building facility. The space will need to be designed to minimise traffic noise from the pacific highway, however it should a great way to connect to the station and be a pleasant place to enjoy a book or newspaper whilst enjoying vista over the railway gardens.
3. Linear Gardens - This space crucially connects the Leisure Gardens to the Ray St bridge and has the potential to link to linear green spaces and bicycle paths as far as Warrawee Station.
4. Leisure Gardens - This space 26m x 55m space is big enough to host three basketball courts.

8.0

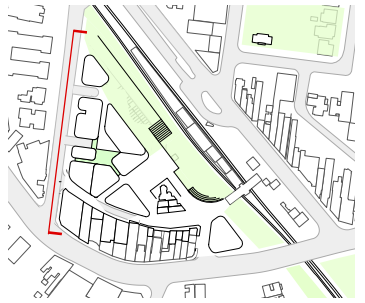
SITE SECTIONS





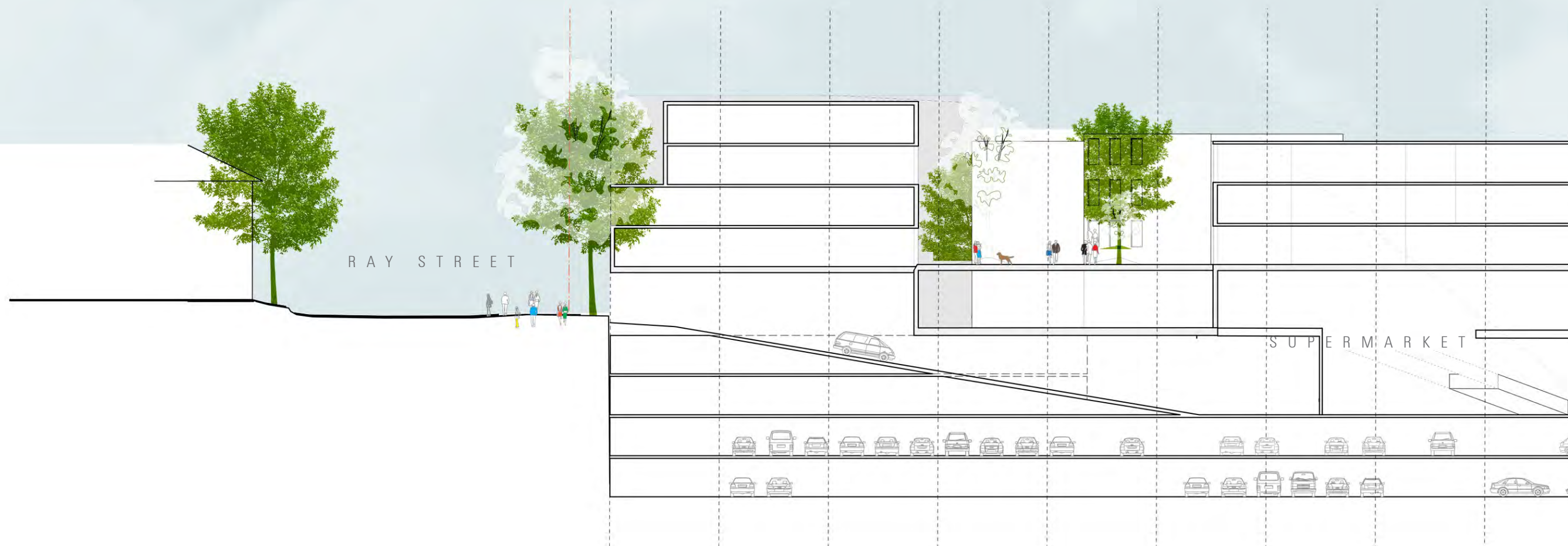
8.0 SITE SECTIONS

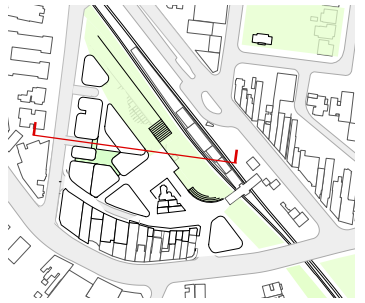




8.0

SITE SECTIONS





9.0

ARTIST'S IMPRESSIONS

MASTERPLAN



Turramurra Community Hub Masterplan

An aerial perspective showing the scheme in its entirety. The generous open spaces and greenery sit above a conveniently located full line supermarket and parking.



9.0

ARTIST'S IMPRESSIONS

FORBES LANE SHARED WAY



Forbes Lane

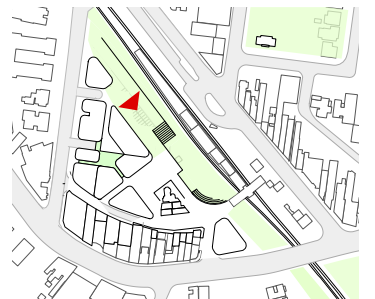
This perspective looking north-east towards the station entrance imagines a weekend flower market in which the lane is closed to traffic and open to a public event. Note the new public buildings in the two storey pop-up community gallery and mixed use building.



9.0

ARTIST'S IMPRESSIONS

LEISURE GARDENS & GRAND STEPS



Leisure Gardens & Grand Steps

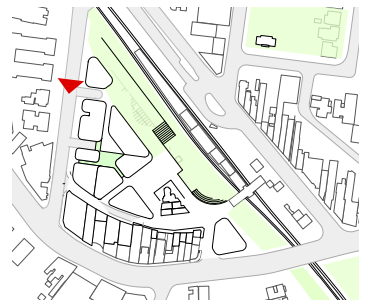
A perspective image showing the Leisure Park looking towards the mixed use, landmark building. The tree lined park is pictured as an open flexible space but has further potential for a variety of uses in the future.



9.0

ARTIST'S IMPRESSIONS

RAY STREET



Ray Street

A revitalised Ray Street is characterised by low scale, residential building with a village scale, materiality and articulation. The street will facilitate the entry and egress of vehicles to the loading bay and underground carpark.



APPENDIX A ARCHITECTURAL DRAWINGS



FIRST FLOOR PLAN

TURRAMURRA COMMUNITY HUB

0 10 50

SCALE 1:1000

DATE

09.11.2016

ISSUE F

APPENDIX A
AF
DRAWING



UPPER GROUND FLOOR PLAN
TURRAMURRA COMMUNITY HUB
SKETCH RESPONSE TO COLES - OPTION 2

0 10 50 SCALE 1:1000

DATE 09.11.2016 ISSUE F

APPENDIX A

ARCHITECTURAL

DRAWINGS



LOWER GROUND FLOOR PLAN
TURRAMURRA COMMUNITY HUB

0 10 50

SCALE 1:1000

DATE

09.11.2016

ISSUE F

APPENDIX A ARCHITECTURAL DRAWINGS



BASEMENT ONE FLOOR PLAN
TURRAMURRA COMMUNITY HUB

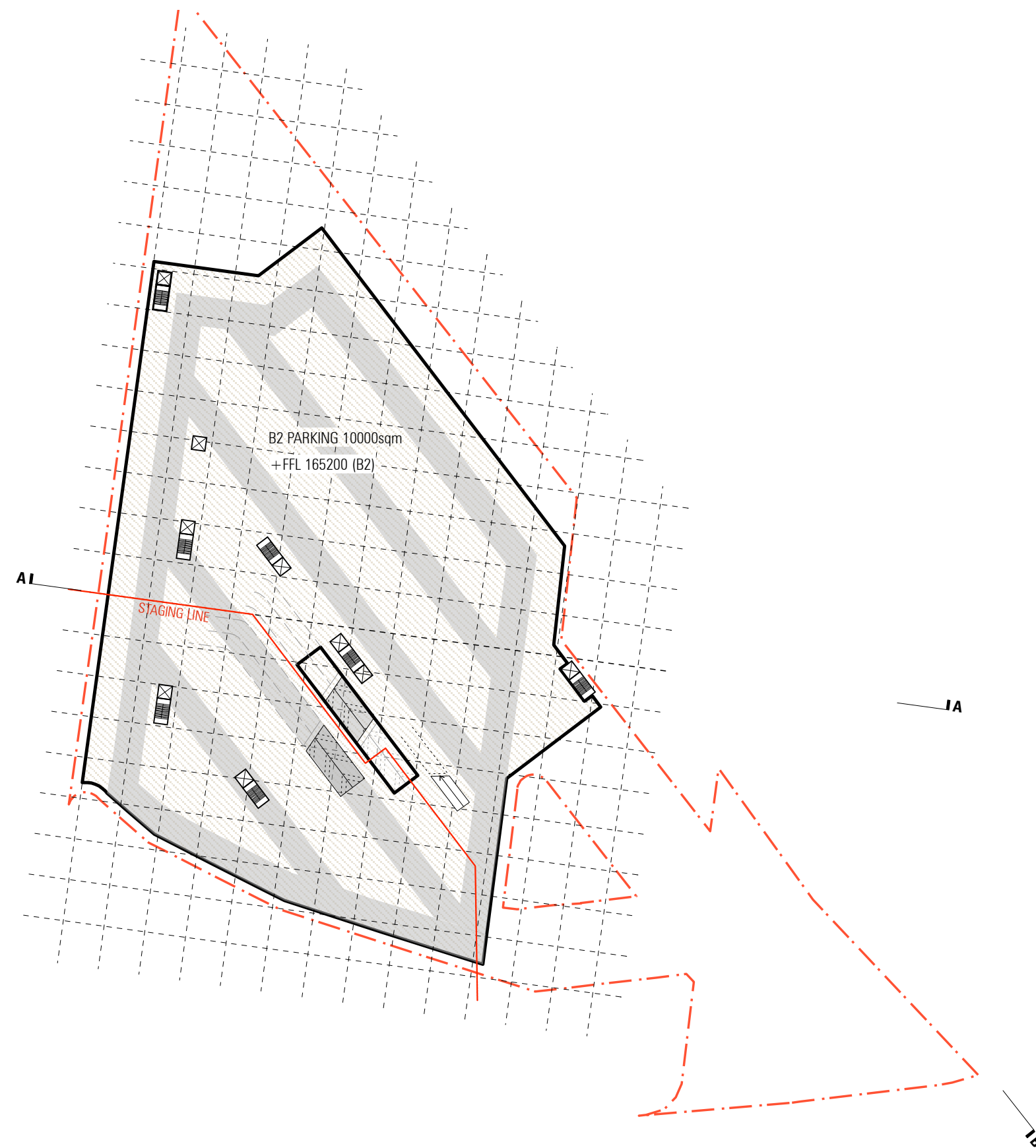
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DATE 09.11.2016 ISSUE F

APPENDIX A

ARCHITECTURAL

DRAWINGS

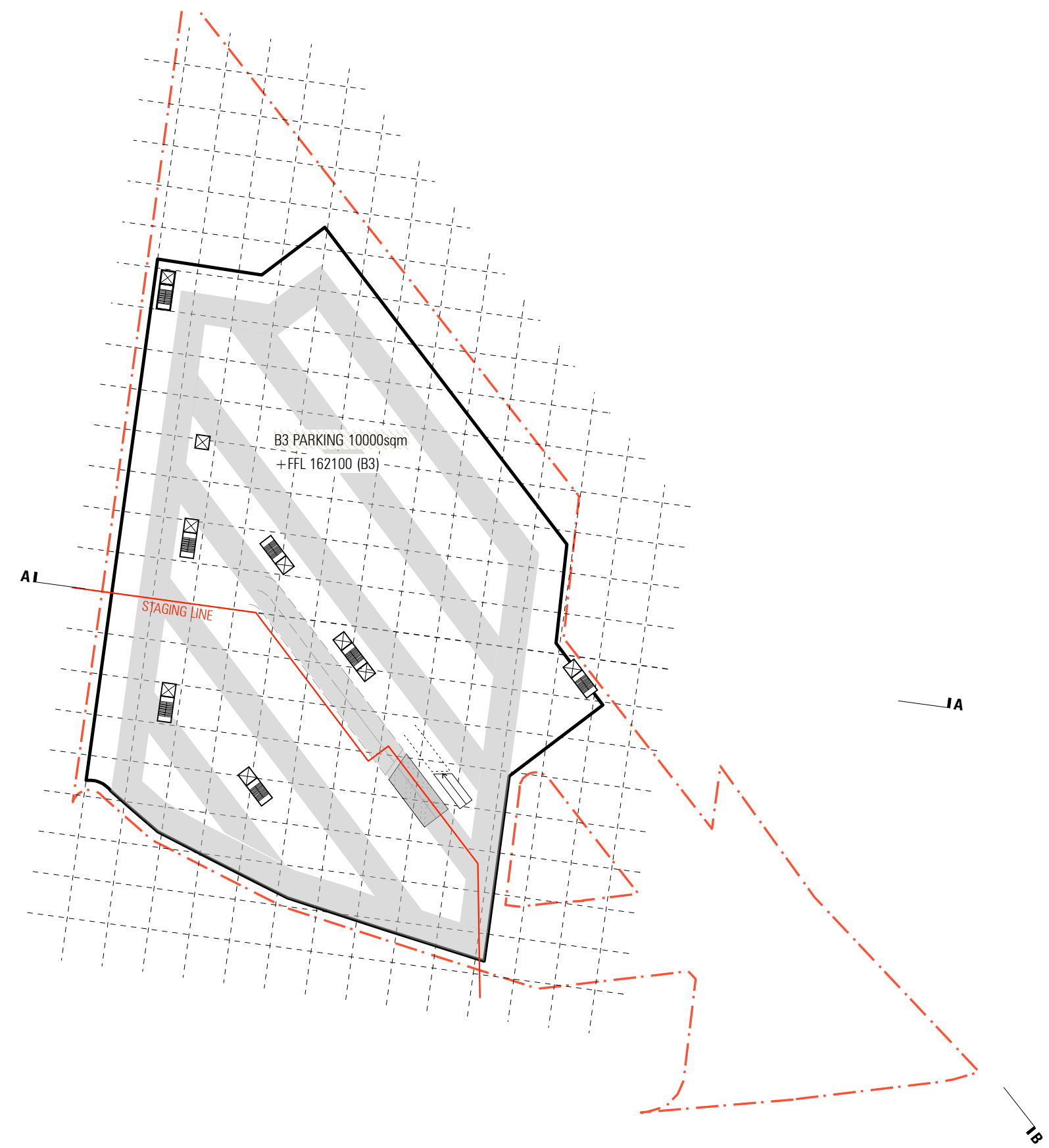


BASEMENT TWO FLOOR PLAN
TURRAMURRA COMMUNITY HUB

0 10 50 SCALE 1:1000

DATE 09.11.2016 ISSUE

APPENDIX A
ARCHITECTURAL
DRAWINGS



BASEMENT THREE FLOOR PLAN
TURRAMURRA COMMUNITY HUB

0 10 50 SCALE 1:1000

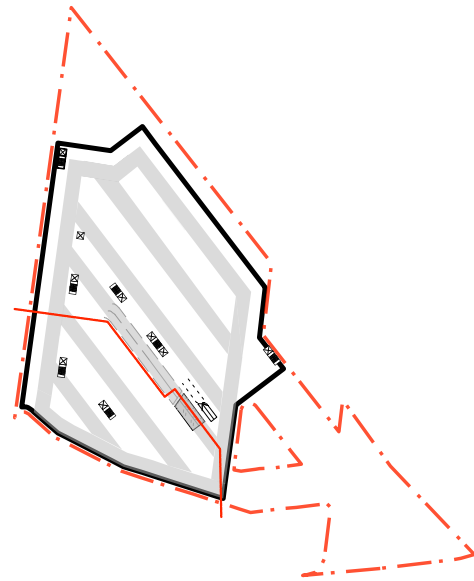
DATE 09.11.2016 ISSUE

APPENDIX A

ARCHITECTURAL

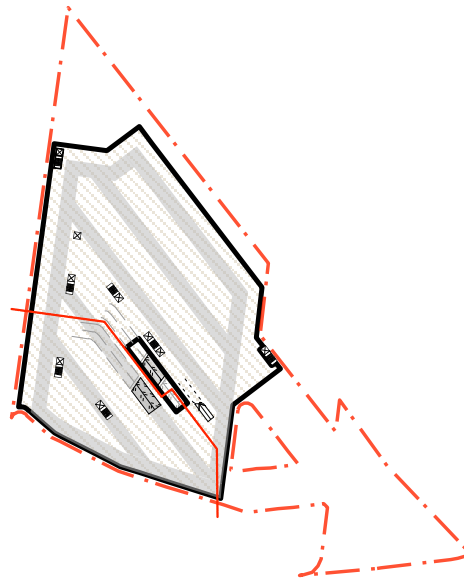
DRAWINGS

B2 PARKING 10000sqm

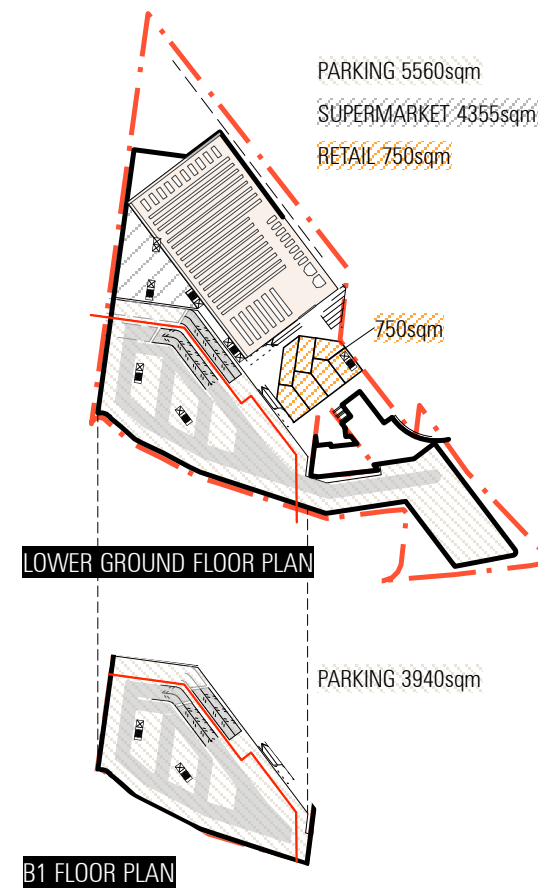


B3 FLOOR PLAN

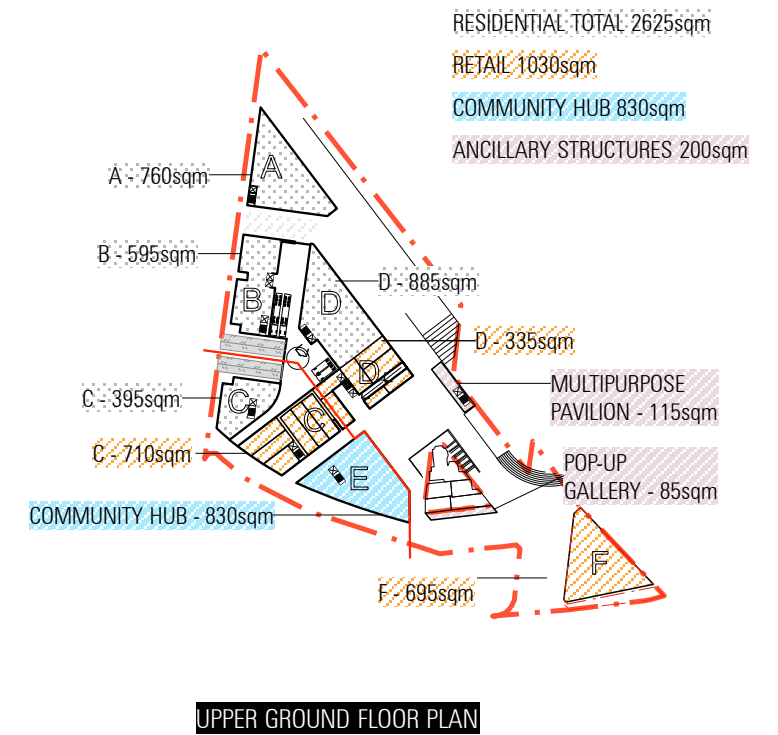
B1 PARKING 10000sqm



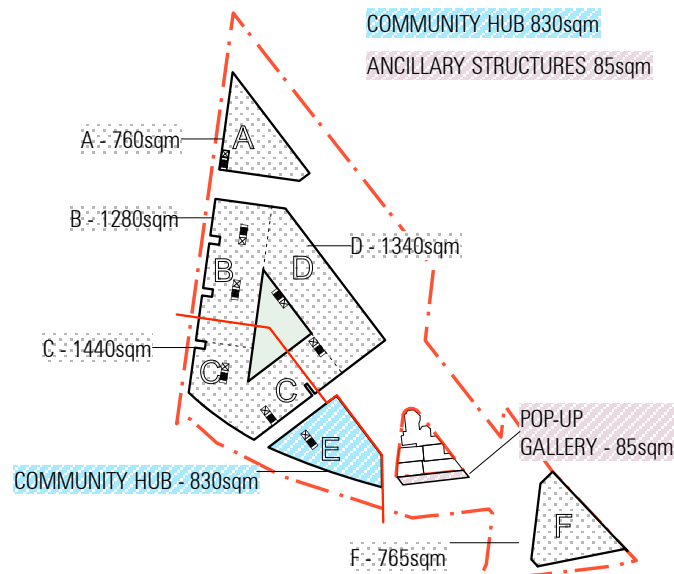
B2 FLOOR PLAN



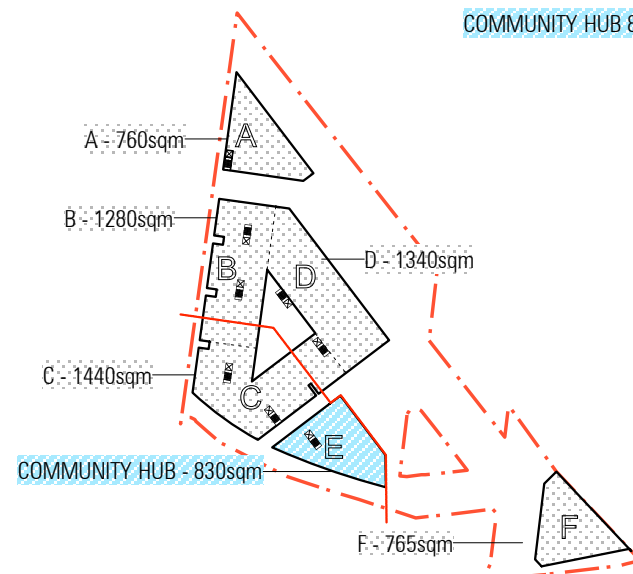
GRAND TOTAL RESIDENTIAL 22025sqm
GRAND TOTAL COMMUNITY HUB 4150sqm



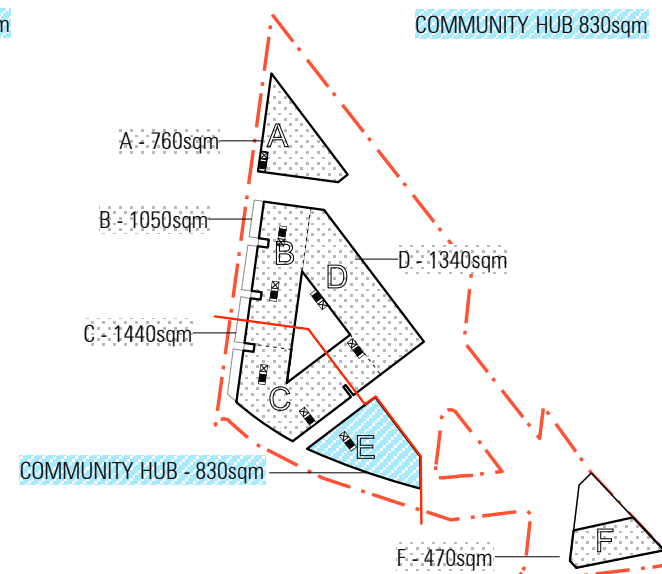
RESIDENTIAL TOTAL 5585sqm
COMMUNITY HUB 830sqm
ANCILLARY STRUCTURES 85sqm



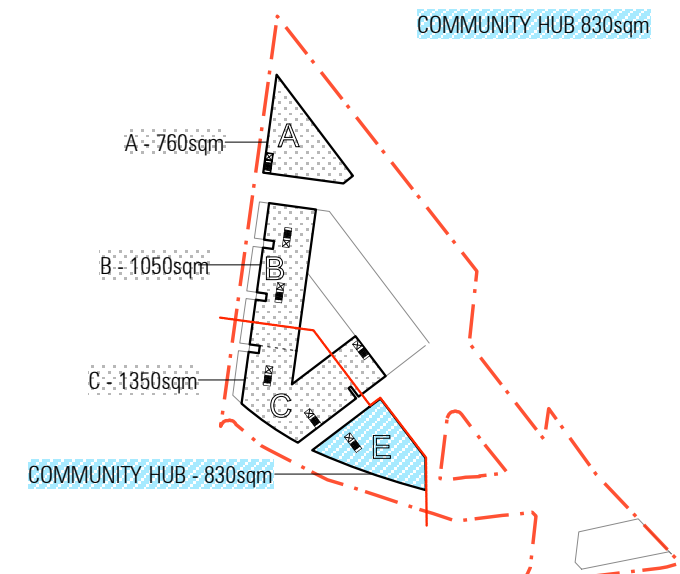
RESIDENTIAL TOTAL 5585sqm
COMMUNITY HUB 830sqm



RESIDENTIAL TOTAL 5060sqm
COMMUNITY HUB 830sqm



RESIDENTIAL TOTAL 3160sqm
COMMUNITY HUB 830sqm



GBA TOTALS
TURRAMURRA COMMUNITY HUB

SCALE 1:3000



DATE 09.11.2016 ISSUE F

APPENDIX A ARCHITECTURAL DRAWINGS

