



242-244 BEECROFT ROAD, EPPING
MODIFICATION APPLICATION

Landcom
State Significant Development Application
JULY 2022

 **DASCO** **TURNER**

— **ACKNOWLEDGMENT**

TURNER acknowledges the Gadigal people of the Eora nation where our practice stands, and the lands of other Aboriginal and Torres Strait Islander nations where our team calls home. We pay our respects to elders past, present and emerging.

This project takes place on the land of the Wallumedegal and Wallumettagal people of Walumetta, to whom we pay our respects.

CONTENTS

1.0 INTRODUCTION

- 1.01 Project Team
- 1.02 Executive Summary

2.0 STRATEGIC ANALYSIS

- 2.01 Strategic & Local Policy
- 2.02 Metropolitan Context

3.0 URBAN ANALYSIS

- 3.01 Movement Networks
- 3.02 Urban Character & Environmental Conditions
- 3.03 History

4.0 SITE ANALYSIS

- 4.01 Site Surrounds
- 4.02 Adjacent Buildings
- 4.03 Key Views
- 4.04 Built Form and Open Space
- 4.05 Site Analysis

5.0 DESIGN FOCUS

- 5.01 Key Design Insights
- 5.02 Design Principles & Vision
- 5.03 Building Users
- 5.04 Concept Influences

6.0 DESIGN OVERVIEW / SEARS SUBMISSION

- 5.01 Approved designs review
- 5.02 Amendment objectives
- 5.03 Part B 2(a) Through Site Link
- 5.04 Part B 2(b) Beecroft Road Street Trees
- 5.05 Part B 2(c) Low Scale Buildings
- 5.06 Part C1

7.0 ADG COMPLIANCE & CPTED

- 7.01 Overview of strategy
- 7.02 Developing the controls
 - 2B Building envelopes
 - 2E Building depth
 - 2F Building separation
 - 2G Street setbacks
- 7.03 Siting the development
 - 3C Public domain interface
 - 3D Communal and public open space
 - 3E Deep soil zones
 - 3F Visual privacy
 - 3G Pedestrian access and entries
 - 3H Vehicle access
 - 3J Bicycle and car parking

- 7.04 Designing the building
 - 4A Solar and daylight access
 - 4B Natural ventilation
 - 4C Ceiling heights
 - 4D Apartment size and layout
 - 4E Private open space and balconies
 - 4F Common circulation and spaces
 - 4K Apartment mix
 - 4L Ground floor apartments
 - 4M Facades
 - 4N Roof design
 - 4O Landscape design

8.0 ARCHITECTURAL DRAWINGS

- 8.01 Floor Plans: B2-12
- 8.02 Sections
- 8.03 Elevations

1.0 INTRODUCTION

1.01 PROJECT TEAM

1.02 EXECUTIVE SUMMARY

1.01 PROJECT TEAM

Client	Beecroft Property Development Pty Ltd
Job No	21044
File Name	21044_MOD Report
Document Title	MOD Report
Date	7th July 2022
Status	Modification Application Submission

Project Manager	Iconic Management
Architect	TURNER
Planner	Think Planners
Landscape Architect	Site Image
Structure Engineer	JSBS Consulting
Civil Engineer	Northrop
Stormwater & Flood	Northrop
Services	Northrop
ESD / BASIX	Northrop
Access	iAccess
BCA	Blackett Macquire
Traffic	JMT Consulting
Heritage	GML
Acoustic	Acoustic Logic
Waste	Elephants Foot
Community Consultation	Hill PDA

QUALITY ASSURANCE

Report Contact & Author

Stuart Eaves seaves@turnerstudio.com.au

QUALITY CONTROL

This document is for discussion purposes only unless signed and dated by a Director of Turner

Reviewed by:

James McCarthy

Dated:

07.07.2022



James McCarthy
Director
Registered Architect 10759

TURNER

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Nominated NSW Registered Architect

Nicolas Turner, No. 6695

1.01 PROJECT TEAM



James McCarthy
Director

James brings to projects a strong conceptual framework that is underpinned by a wide experience of construction processes and techniques. At Turner, James has worked on a wide range of master-planning and innovative commercial, urban and affordable housing and mixed-use projects.

James believes in creating people focused designs that deliver a sense of place which is inspiring and memorable. James brings a wealth of experience, leading the design and delivery of a wide range of project types including masterplanned communities, medium to high-density apartments, social and affordable housing, retail, aged care, and increasingly, hybrid combinations of these typologies.



Theo Krallis
Associate Director



Stuart Eaves
Project Designer



Cathleen Lin
Designer



Tomas Moore
Designer



Tung Hong
Designer



Katy Zhang
Designer

1.03 EXECUTIVE SUMMARY

This report has been prepared by TURNER on behalf of Beecroft Property Development Pty Ltd as part of the Development Application for 242-244 Beecroft Road, Epping.

The proposals recognise the growing importance of Epping town centre in the Metropolitan region. As well as it's evolving character that requires consideration of the future of place, and its interaction with the local environment.

Located approximately 25km from the Sydney CBD and 10km from Parramatta CBD, with excellent road and rail connections, the site is strategically placed to make a valuable offering to wider regional success of Sydney.

Key Metrics

Site Area:	10,121m ²	10,137m ²
	Approved	Proposed
Resi. Units:	432	373
Achieved FSR:	3.8:1	3.8:1
Floor to Floor Height:	3.1m	3.15m
Residential GFA	37,720m ²	37,547m ²
Commercial GFA	762m ²	905m ²
Resi Car Parking:	288	299

Set amongst a series of generous landscaped spaces, the proposed buildings are stepped across a steep topography. The buildings show their narrow ends to the main streetscapes on the east and west of the site. The architecture seeks to create a strong legacy with high quality and low maintenance materials including brick, terracotta and natural finish concrete. Residents are provided with rooftop garden venues with views to the Blue Mountains alongside family play spaces. A diversity of housing types are supported by the large number of family friendly three bedroom apartments provided .



1.1 STRATEGIC CONTEXT

1.11 STRATEGIC POLICY

1.12 POLICY CONTROLS

1.13 METROPOLITAN CONTEXT

1.14 HISTORY

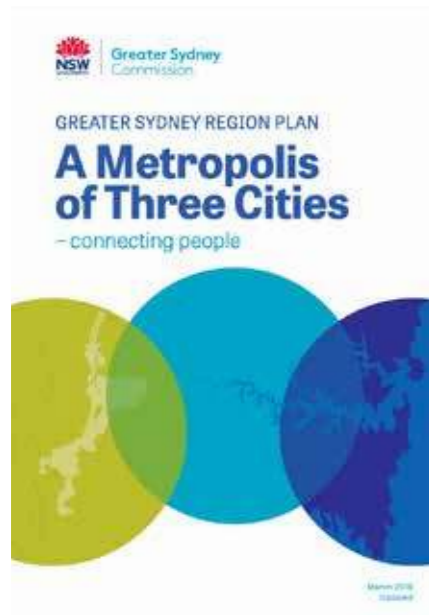


Glochidion ferdinandi var. *ferdinandi*, 'Cheese Tree'

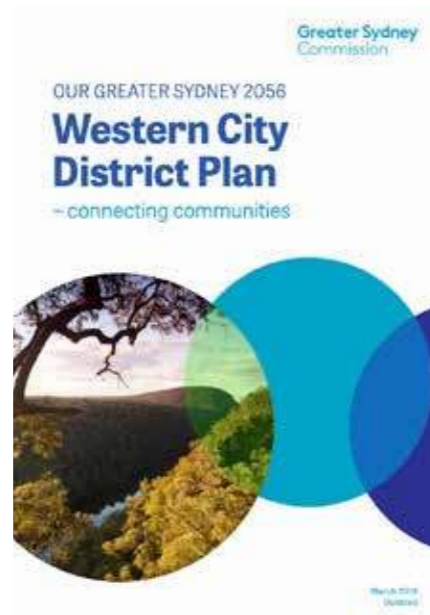
1.11 STRATEGIC POLICY

The proposal aligns with key State and Local policy documents, supporting the growth and long term success of Epping.

STATE



Regional Plan
2018



Western City District Plan
2018

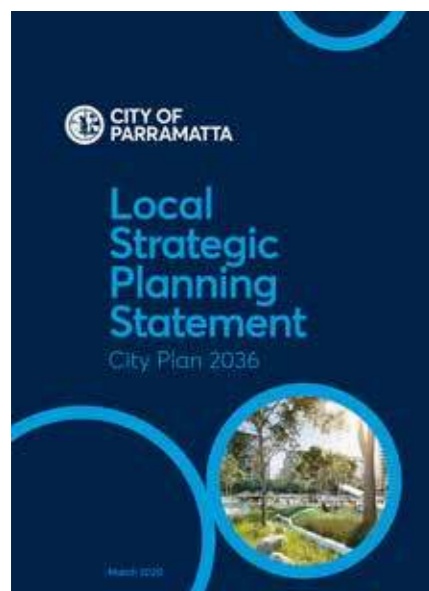


Better Placed
2017



Greener Places
2020

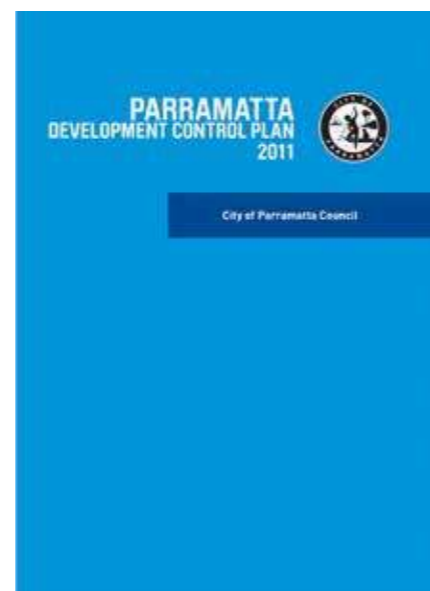
LOCAL



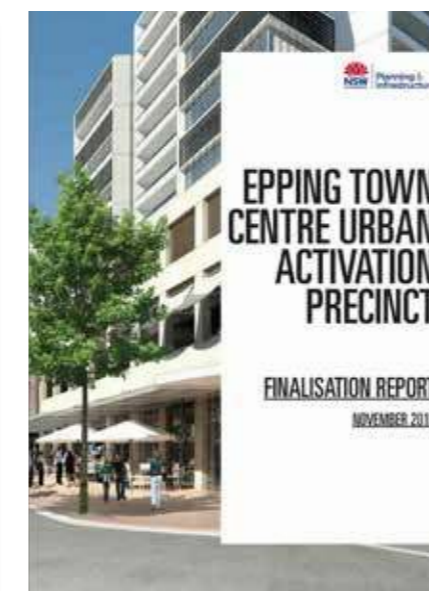
PARRAMATTA LSPS



HORNSBY SHIRE LEP



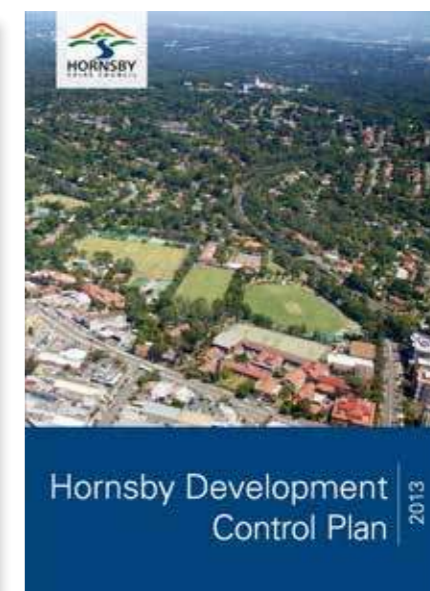
PARRAMATTA DCP



EPPING TOWN CENTRE URBAN
ACTIVATION PRECINCT



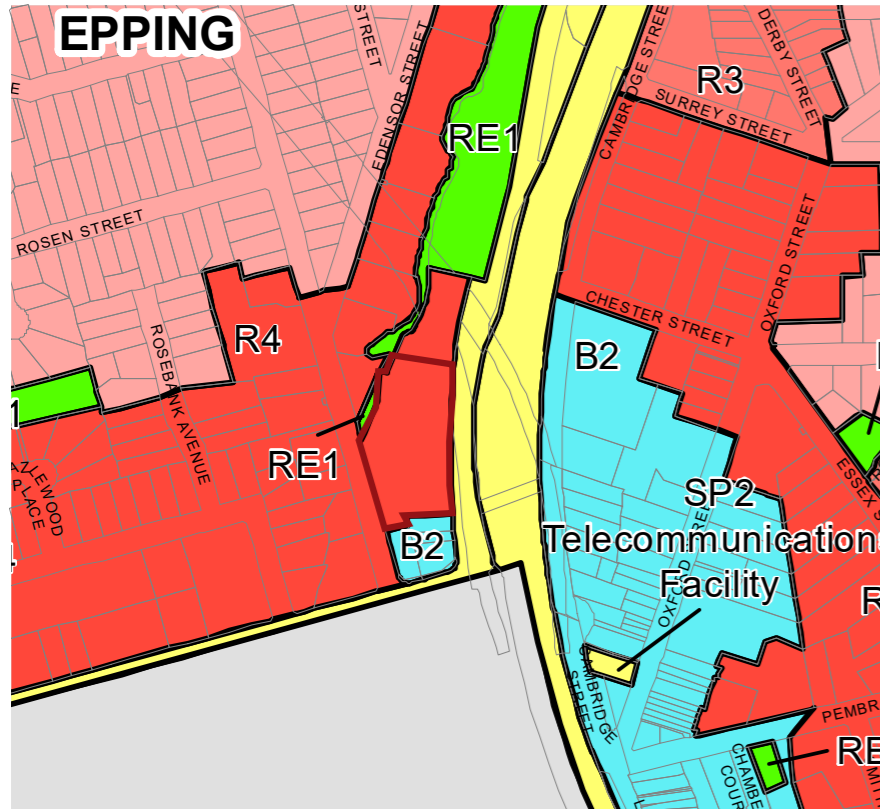
HORNSBY SHIRE LEP



HORNSBY SHIRE DCP

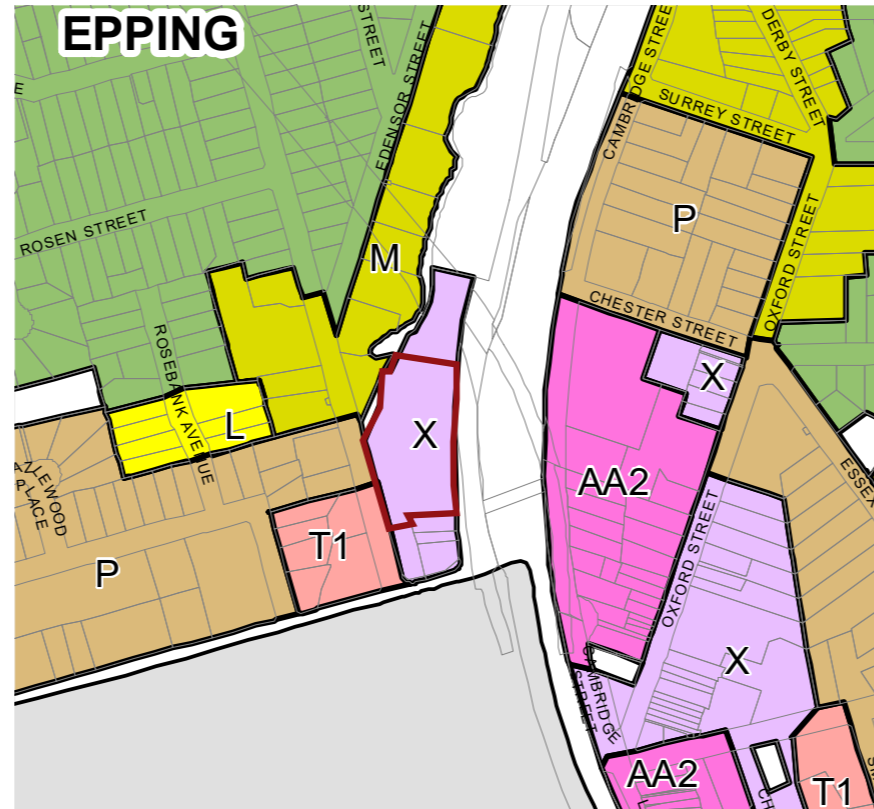
1.12 POLICY CONTROLS

HORNSBY LEP CONTROLS



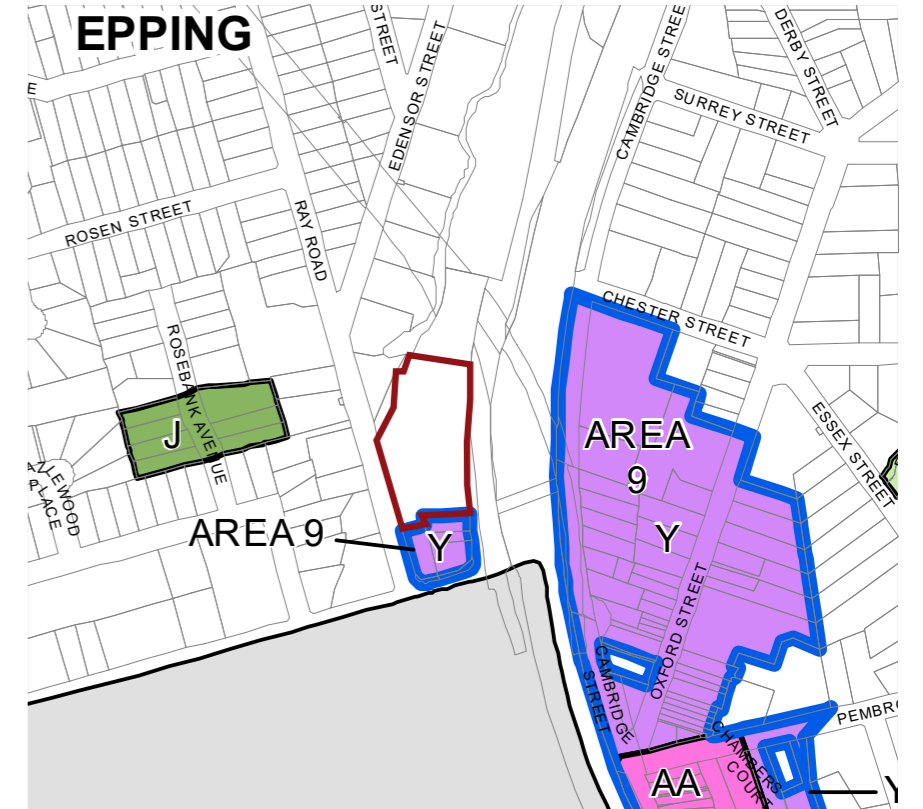
LAND USE ZONE

- B2 Local Centre
- R2 Low Density Residential
- R3 Medium Density Residential
- R4 High Density Residential
- RE1 Public Recreation
- SP2 Infrastructure



BUILDING HEIGHT

- L 11m
- M 12m
- P 17.5m
- T1 26.5m
- X 48m
- AA2 72m



FSR

- J 0.8
- Y 4.5
- AA 6.0

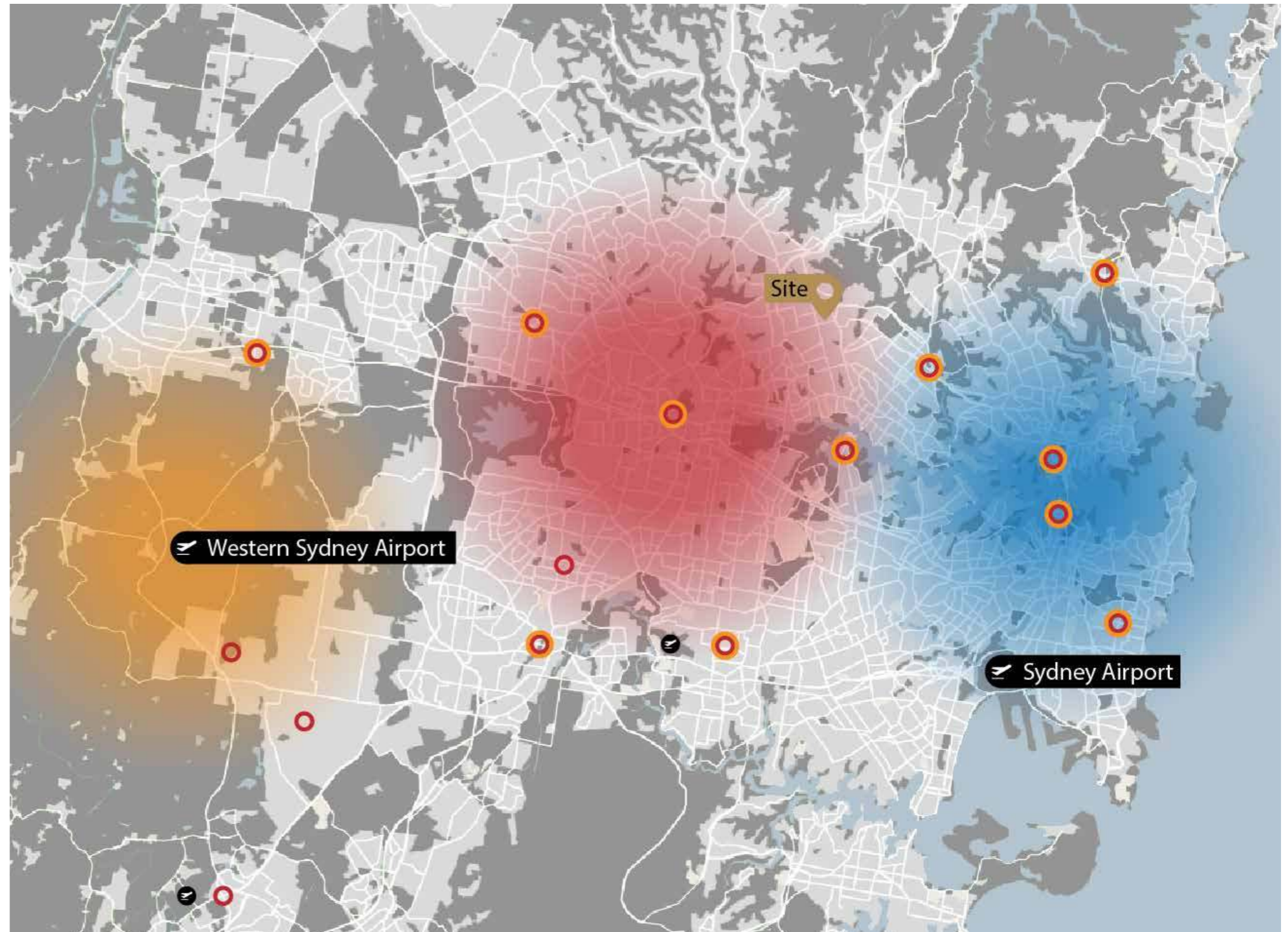
SITE 242-244 Beecroft Road

Parramatta LGA

The site is located in an R4 High Density Residential zone, with a 48m height limit with no FSR designation.

1.13 METROPOLITAN CONTEXT: THREE CITIES

Epping is well placed as a residential suburb connected into the Central River City and Eastern Harbour.



LEGEND

- Project Site
- Health & Education Precinct, Strategic Centre
- Strategic Centre
- International & Domestic Airport
- Local, Domestic Airport

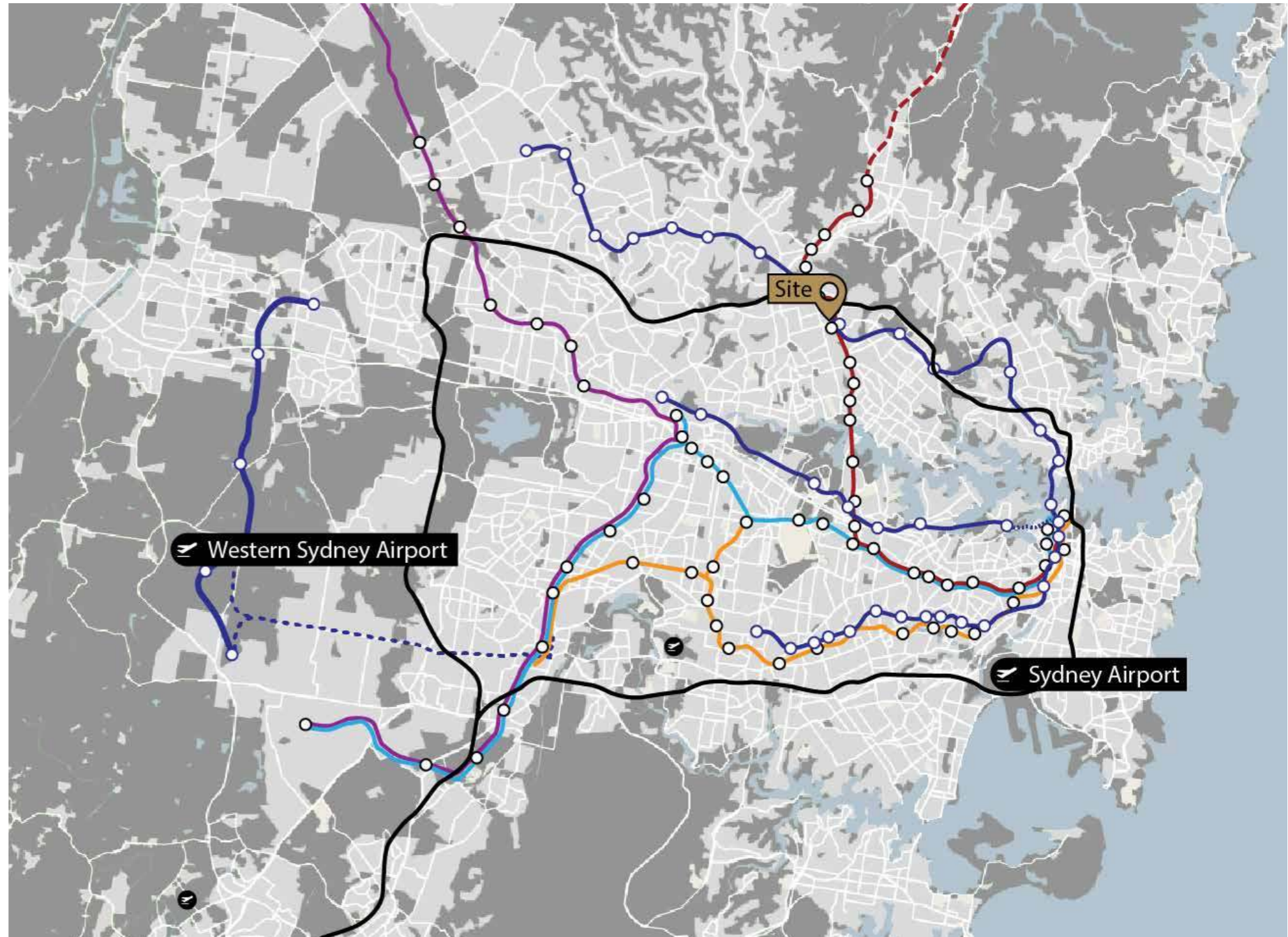
Three Cities:

- Eastern Harbour CBD
- Central River City (Greater Parramatta)
- Western Parkland City








Strategic Location of Epping.

1.13 METROPOLITAN CONTEXT: CONNECTIVITY

Existing and future connections expand Epping's sphere of influence across the metropolitan region.



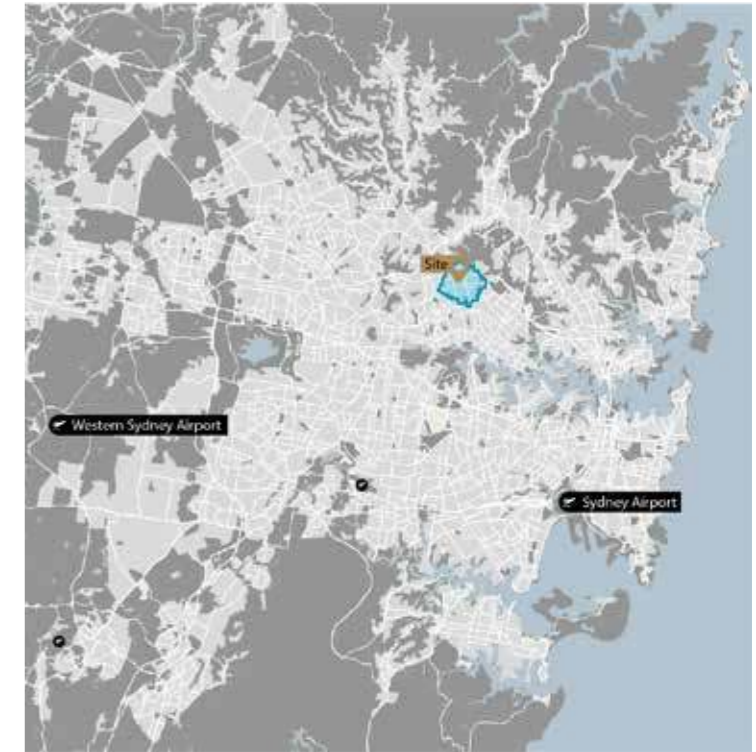
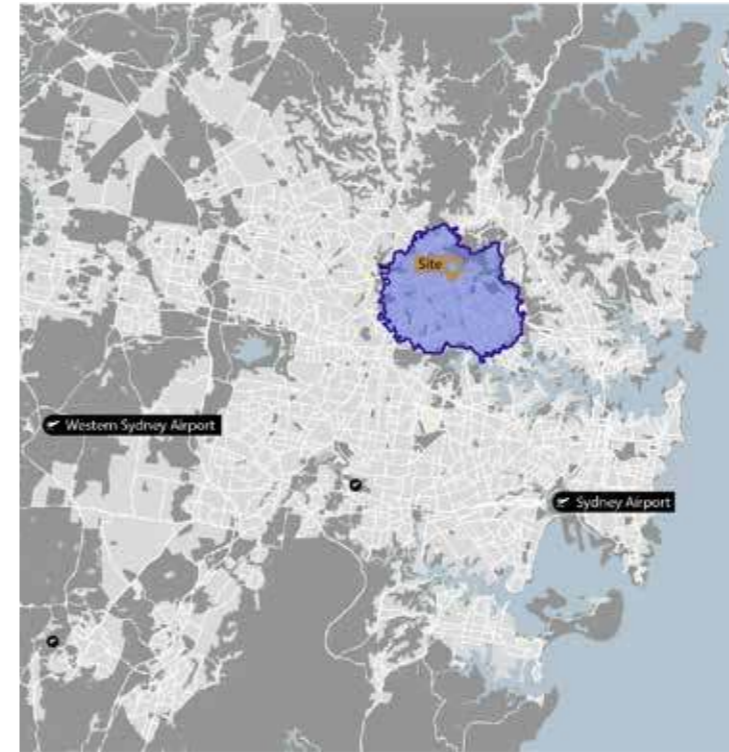
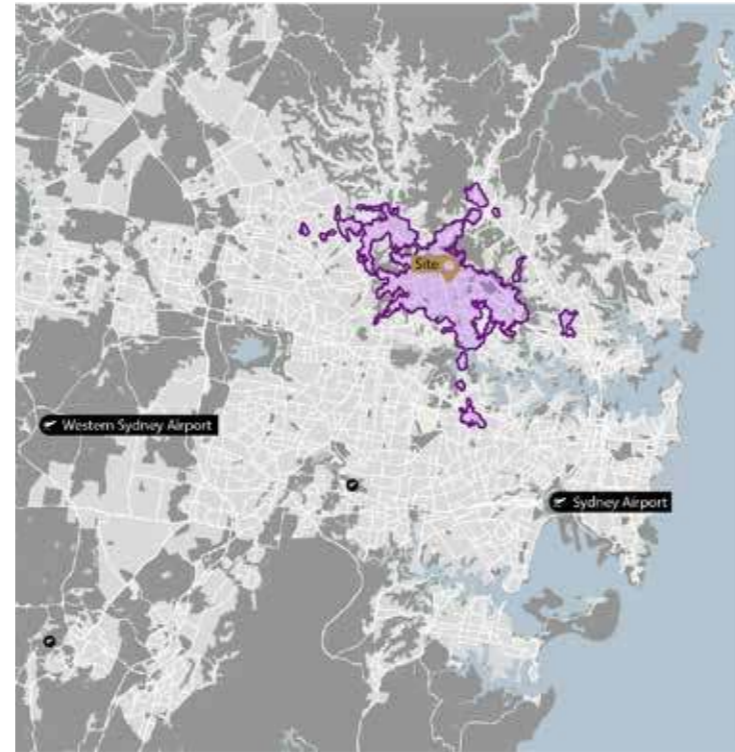
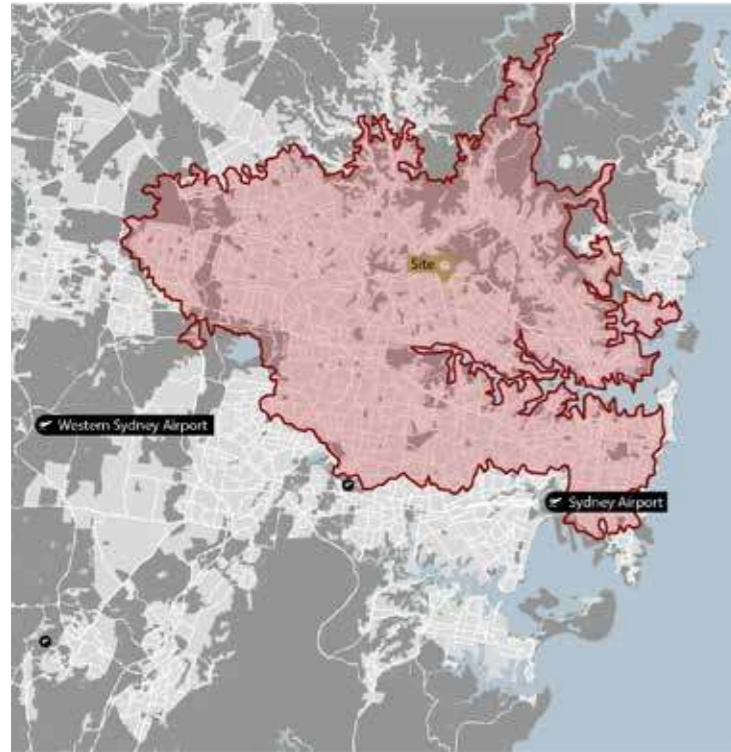
LEGEND

-  Project Site
-  'M' Motorway Ring-road
-  Metro Line & Station
-  Epping Bound Train Lines & Stations
-  15th Avenue (Future Connection)
-  International & Domestic Airport
-  Local, Domestic Airport

Metropolitan Transport Connections of Epping.

1.13 METROPOLITAN CONTEXT: 30-MINUTE CITY

A range of employment, educational and recreational destinations are within the site's range of movement.



PRIVATE CAR & TRAIN

Approximate 30minute travel range: <35km

Destinations within range:

- Parramatta CBD
- City of Sydney CBD
- Macquarie Park
- Chatswood
- Ryde
- Sydney Olympic Park
- Burwood
- Blacktown
- Norwest
- Castle Hill
- Berowra Valley National Park
- Parramatta River shoreline



BUS

Approximate 30minute travel range: <15km

Destinations within range:

- Macquarie Park
- Chatswood
- Ryde
- Sydney Olympic Park
- Burwood
- Norwest
- Castle Hill
- Parramatta River shoreline (partial)



CYCLING

Approximate 30minute travel range: <12km

Destinations within range:

- Parramatta City
- Macquarie Park
- Ryde
- Parramatta River shoreline (partial)



WALKING

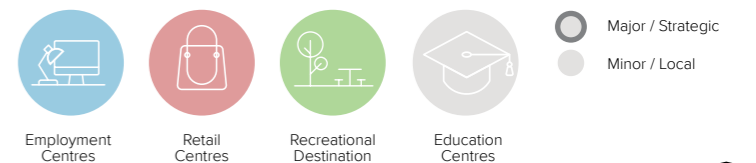
Approximate 30minute travel range: <3km

Destinations within range:

- Marsfield
- Eastwood
- Cheltenham



LEGEND



1.14 HISTORY

From a dense woodland heritage to a key residential growth area with direct connections to Sydney's two major strategic centres.

PRE- EUROPEAN

Pre-European arrival, the area was known as Walumetta, home to the Wallumedegal people, and was predominantly woodland. Their lands stretched along the Parramatta and Lane Cover rivers.

EUROPEAN ARRIVAL

The arrival of British settlers saw an initially slow expansion in the area with several small land grants made to freed convicts and then military persons made from 1792 by Governor Philip onwards. Overtime the area developed with farmland and market gardens spread throughout what was called 'Field of Mars'. By the early 1800's a convict timber camp had been established.

Orchards soon followed with fruit transported along the river to be sold in Sydney's markets.

As the Homebush-Waratah railway arrived in 1886, the area of what is now Epping began to grow steadily into a residential suburb with land holdings subdivided into individual lots.

Prior to being named Epping in 1899, the area was known as Carlingford having been changed once already from 'Field of Mars'. The name Epping is believed to be a reference to the small town of Epping in Essex, UK, on the edge of Epping forest.

MODERN ERA

After the second world war, the area expanded further with the remaining small farms and orchards subdivided for residential use.

A few small areas to the north are retained as woodlands providing a glimpse of the area's past landscape.

In 2016 the NSW State Government announced the amalgamation of a large part of Hornsby with Parramatta, including Epping town centre, transferring authority in the process. The 2020 Parramatta LSPS projects Epping to have the second largest housing growth to 2036 in the LGA.



Top Left; Epping Train Station c.1920, Bottom Left; Epping High Street c.1920, Right; Aerial of site 1943 showing Timber processing yard and mill.

1.2 URBAN ANALYSIS

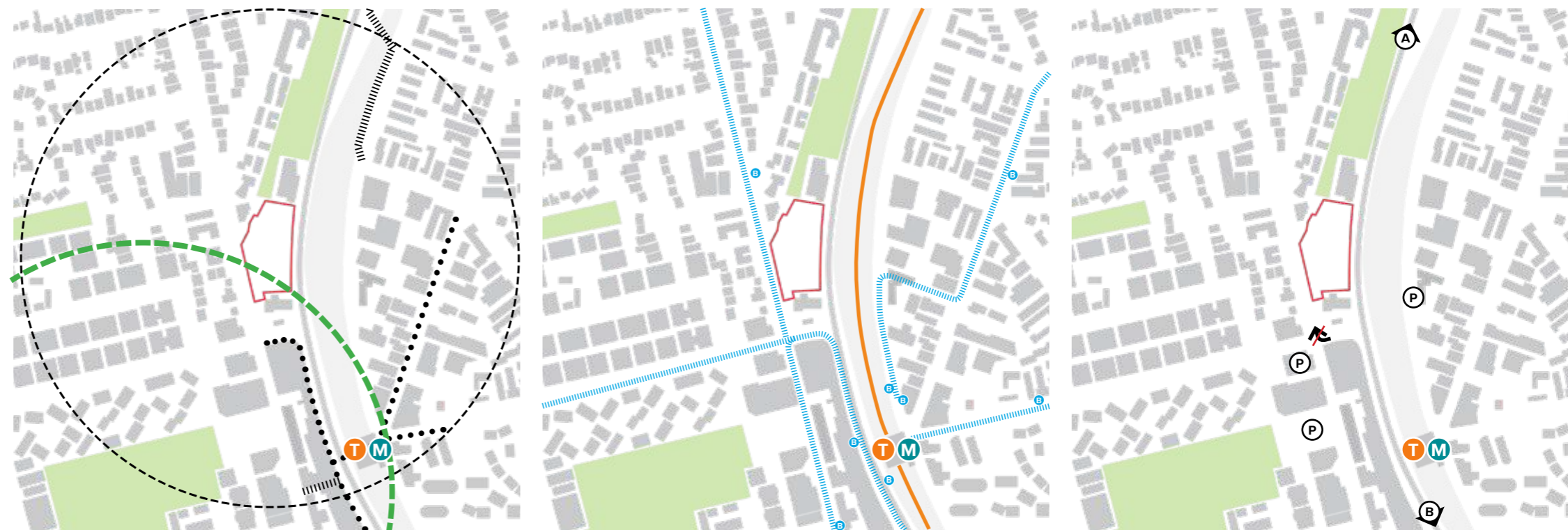
1.21 LOCAL MOVEMENT NETWORKS

1.22 URBAN CHARACTER

1.23 ENVIRONMENTAL CONDITIONS

1.21 LOCAL MOVEMENT NETWORKS

The site enjoys access to the 30-minute city standing within walking distance of commercial and recreational facilities, as well as key transport providing access to the metro-region.



PEDESTRIAN & BICYCLE

- Site
- Primary pedestrian route
- 400m from the site (5min walk)
- Bicycle Route
- 400m from Boronia Park (5min walk)

PUBLIC TRANSPORT

- Site
- T M Epping Train & Metro Station
- Trainline
- B Bus Station
- Bus route and Stop

Typical Travel Times

- T M To Parramatta CBD: 40min
To Sydney CBD: 50min
To Sydney Airport: 1hr30m
To Norwest: 30min
- B To Parramatta CBD: 40min
To Macquarie Park: 20min
To Norwest: 1hr10m

PRIVATE VEHICULAR

- Site
- ↗ Restricted turning
- A To M2 Motorway
- B To A40 Motorway
- P Car Park

Typical Travel Times

- To Parramatta CBD: 20min
- To Sydney CBD: 20min
- To Sydney Airport: 30m
- To Norwest: 20min
- To Macquarie Park: 10min

1.22 URBAN CHARACTER & ENVIRONMENTAL CONDITIONS

A predominantly dispersed residential form surrounds an increasingly dense town centre.

Epping is projected to become wetter and warmer for longer over the next 50 years.



LAND USE

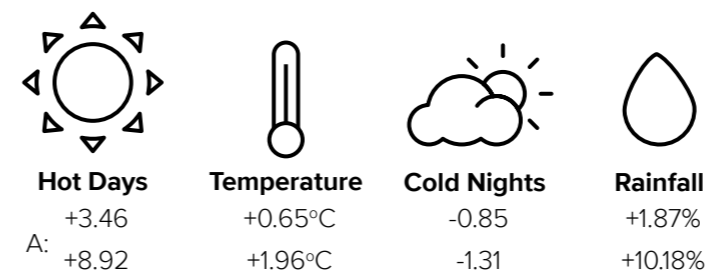
- Site
- Residential Low-Rise (1-3 Storeys)
- Residential Mid-Rise (4-6 Storeys)
- Residential High-Rise (7+ Storeys)
- Retail / Commercial
- Civic / Community / Infrastructure

DESTINATIONS & FACILITIES

- Site
- 🛒 Retail High Street
- + Medical Clinic / Surgery
- 🏫 School
- 📖 Library
- 🚉 Liverpool Train Station
- ✝️ Church
- Boronia Park
- Kent Street Reserve

SUN PATH

- Site



CLIMATE CHANGE

Change projected for Epping area (source: AdaptNSW).
A: 2020 - 2039
B: 2060 - 2079

PREVAILING WINDS

- Site
- Summer PM
- Summer AM
- Winter PM
- Winter AM

1.22 URBAN CHARACTER & ENVIRONMENTAL CONDITIONS

Low canopy cover with a high degree of dark hard surfacing contribute to a warmer local environment, expected to worsen in coming decades.



HEAT ISLAND EFFECT

- Site
- Cooler than baseline
- 0-3 degrees warmer
- 3-6 degrees warmer
- 6-9 degrees warmer
- Warmer than 9 degrees

HEAT VULNERABILITY INDEX

- Site
- 0 (no population)
- 1 (least vulnerable)
- 2
- 3
- 4
- 5 (most vulnerable)

CANOPY COVER

- Site
- Less than 10%
- 10 to 20%
- 20 to 30%
- 30 to 40%
- More than 40%

The site is recorded as enduring 3-6 degree warmer environment due to heat island effects, with a vulnerability of 2 and canopy coverage of less than 10%.

1.3 SITE ANALYSIS

1.31 SITE SURROUNDS

1.32 ADJACENT BUILDINGS

1.33 KEY SITE VIEWS

1.34 BUILT FORM & OPEN SPACE

1.35 SITE ANALYSIS

1.32 SITE SURROUNDS

Epping Town centre has a mid to high rise urban form with clustering along a north-south axis.



Aerial view from west.

1.33 ADJACENT BUILDINGS

The surrounds offer a diverse mix of architectural styles and forms reflective of each era of growth.



1 Cnr of Carlingford Road / Beecroft Road



2 Ray Road housing



3 Carlingford Road housing



4 Sydney Trains Infrastructure



5 Chester Street residential towers



1.34 KEY SITE VIEWS

The town centre skyline rises toward the station with trees lining the northern approaches from Ray Road and Beecroft Road.



1 Beecroft Road, view to south



2 Beecroft Road, view to north



3 Ray Road, view to south

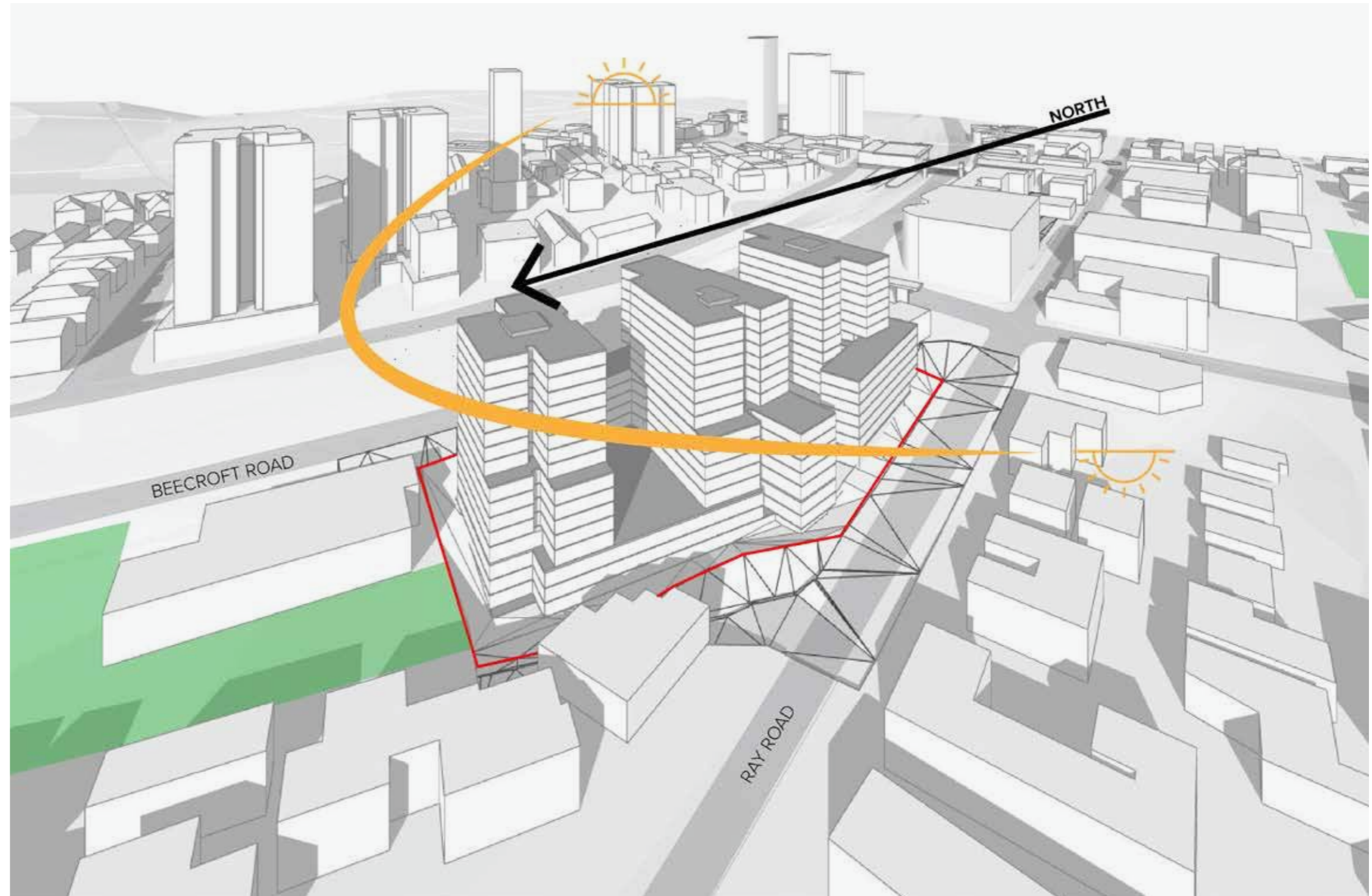


4 Ray Road, view to north



1.35 BUILT FORM & OPEN SPACE

The green grid has the potential to thread through the site, connecting surrounding habitats and green spaces.

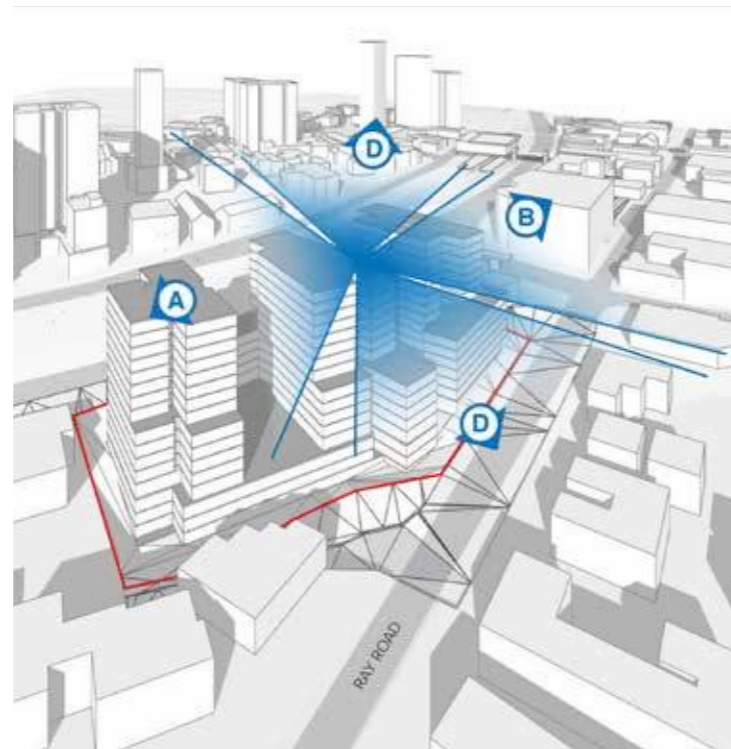


LEGEND

- Site
- Green space
- Sun path
- Metro Infrastructure
- Epping Train Station

1.36 SITE ANALYSIS

A transitional site in urban form and topography, the site has a key opportunity to support Epping Town Centre's long term future.



OUTLOOK

- Site
- Ⓐ North, Berowra Valley National Park
- Ⓑ South, Sydney Olympic Park
- Ⓒ South-East, Sydney CBD
- Ⓓ West, Blue Mountains

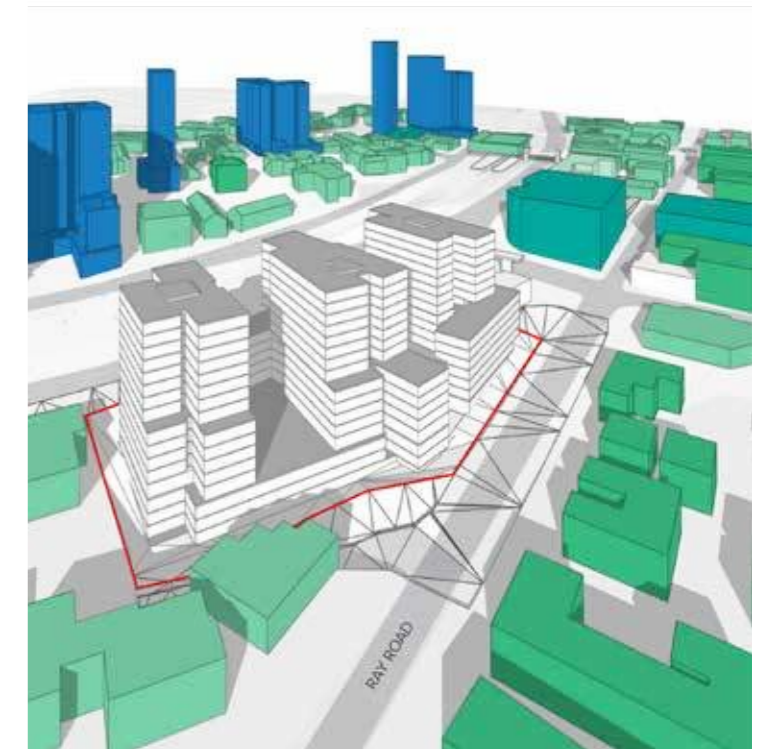


ACTIVE FRONTAGES

- Site
- Town Core, tallest buildings - mixed use
- Town Core, high rise - mixed use
- Medium rise / density - residential
- 2-3 storey shopping street

Town Core, high rise - mixed use:
"This is a transition area generally between existing residential flat development and the higher density areas."

Epping Town centre structure plan review 2012

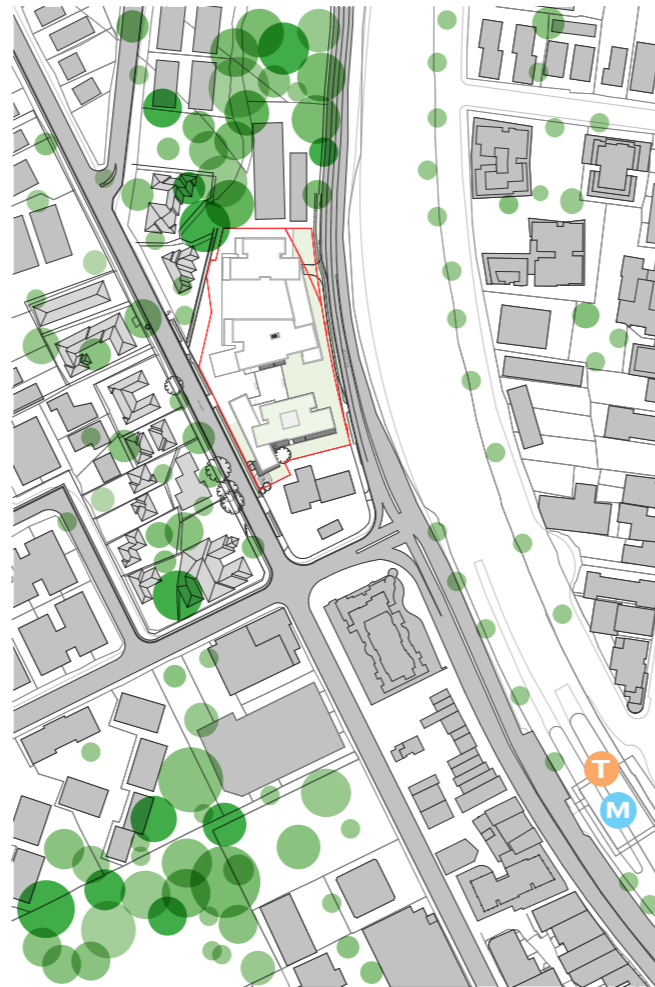


BUILT FORM

- Site
- 1 Storey
- 2-3 Storeys
- 4-5 Storeys
- 6-10 Storeys
- 11+ Storeys

1.35 SITE ANALYSIS

A transitional space between town centre and suburb, between cool-green and urban heat.



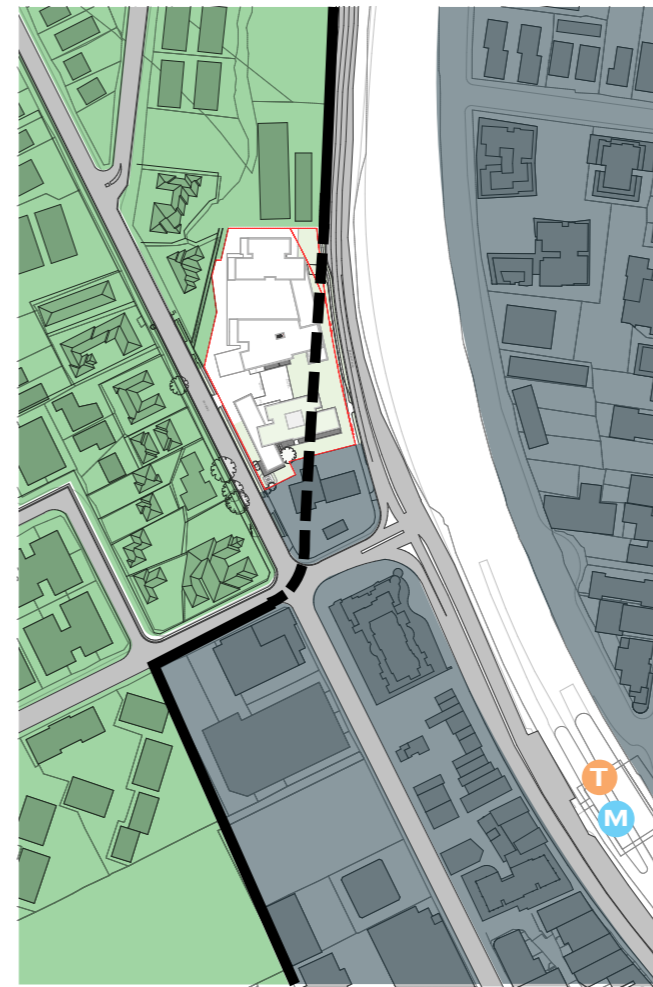
GREEN GRID

LEGEND

- Site & Approved Built Form
- Existing Trees

ANALYSIS

- Epping Town Centre has sparse tree cover and limited biodiversity.
- Key green grid spaces include Boronia Park to the south of the site, and Beecroft Road Reserve to the north.
- Low-density residential areas west of the town centre offer further canopy cover.



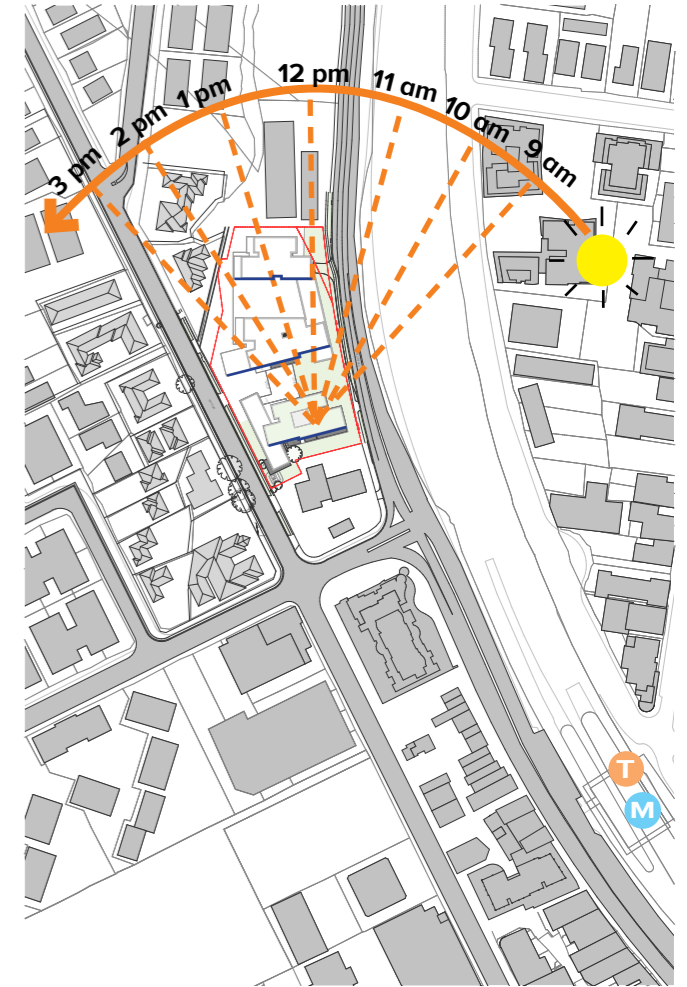
CHARACTER AREAS

LEGEND

- Site & Approved Built Form
- Dense City town centre
- Low/Mid-Density Residential
- Character Boundary
- Evolving Character Boundary

ANALYSIS

- The Town Centre:
- Offers harsh, hard materials; enabling the urban heat island.
 - Busy and congested roads are detrimental to local air quality.
- Low/Mid-Density Residential:
- Dispersed urban fabric interweaved with canopy cover reduces urban heat island.



SOLAR ACCESS

LEGEND

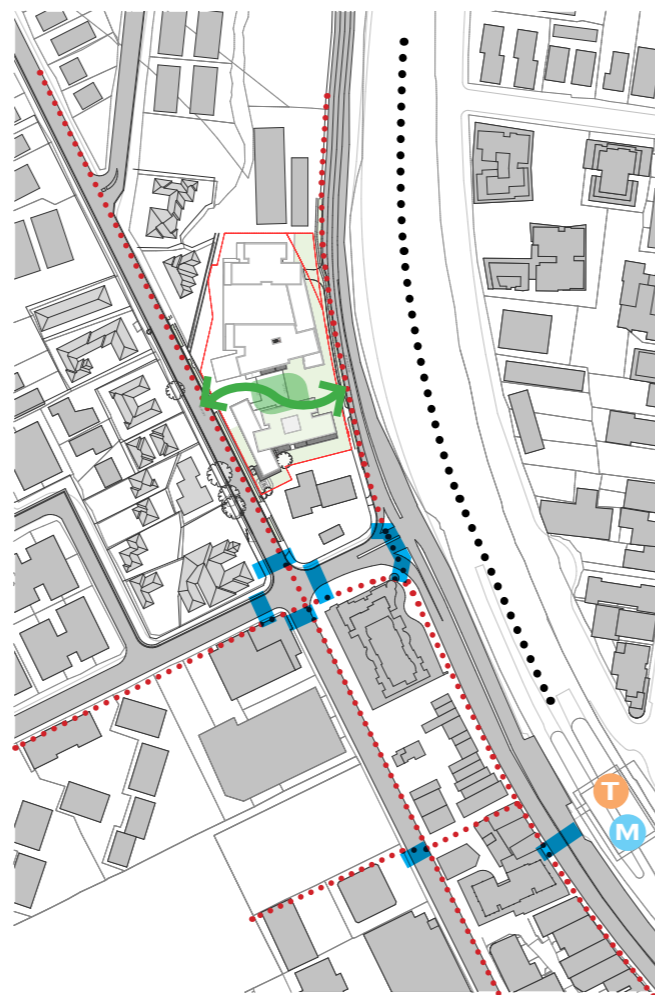
- Site & Approved Built Form
- Sun path
- Shaded facade

ANALYSIS

- Approved built form presents a long facade to the north, with slender forms to the east and west.
- Overshadowing of communal spaces and apartments is carefully considered to maximise amenity within these limits.

1.36 SITE ANALYSIS

Busy, congested with pedestrian movement as a secondary network.



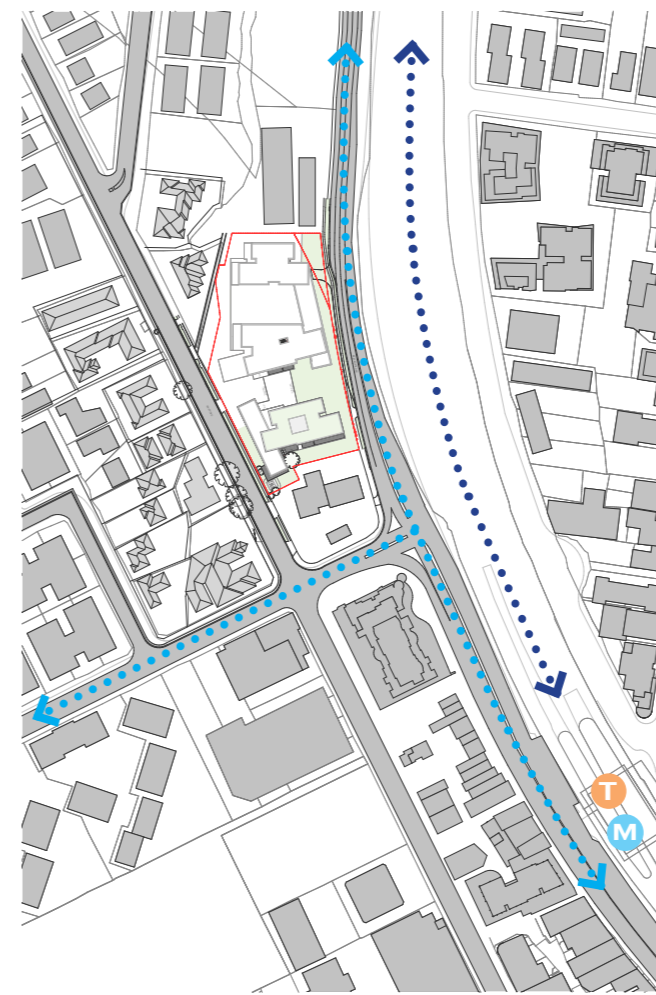
PEDESTRIAN CONNECTIVITY

LEGEND

- Site & Approved Built Form
- Movement Route
- Through-Site Link
- Pedestrian Crossing
- East & West Movement Barrier

ANALYSIS

- Beecroft Road is a busy, harsh pedestrian environment with little natural shade cover.
- Boronia Park and Ray Road offer more enjoyable routes and spaces to walk with less traffic and increased canopy cover.



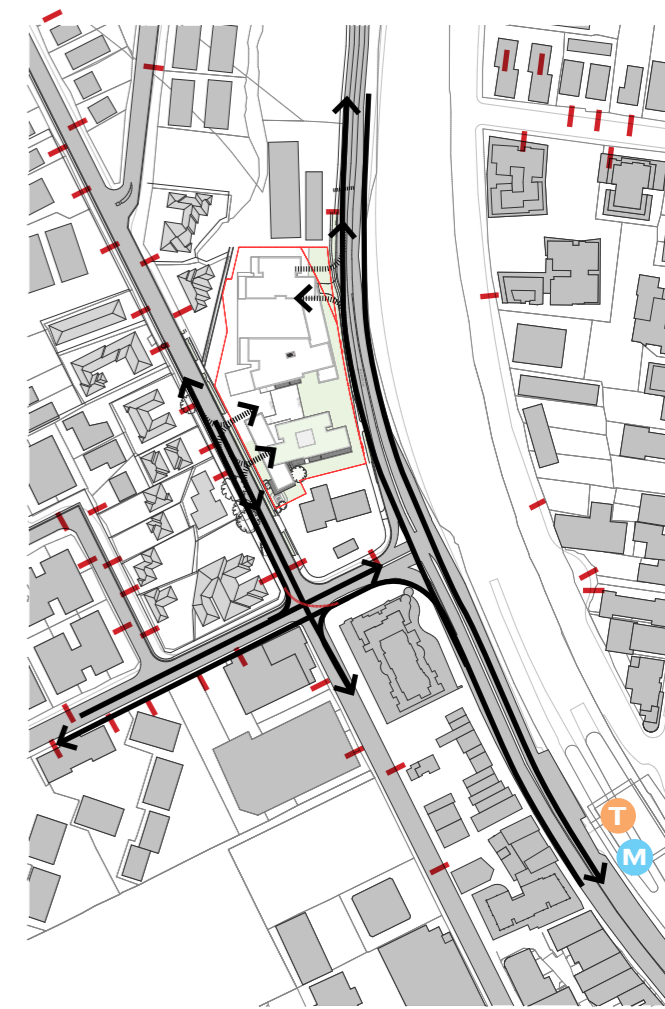
NOISE

LEGEND

- Site & Approved Built Form
- Traffic Noise Source
- Rail Noise Source

ANALYSIS

- Beecroft Road and Carlingford Road are busy congested roads of constant noise.
- The Railway also contributes to local noise pollution.



VEHICLE ACCESS AND MOVEMENT

LEGEND

- Site & Approved Built Form
- Movement Route
- Site Entry
- Driveway / Entry
- Restricted turn

ANALYSIS

- Vehicular access is provided from Beecroft Road and Ray Road. Access is restricted with left in/out only to Beecroft Road.
- Circulation toward the site is also hampered by a lack of right turn from the east on Carlingford Road northwards on to Ray Road.
- Ray Road is suburban and less busy with multiple private driveways served.

1.4 KEY DESIGN INSIGHTS

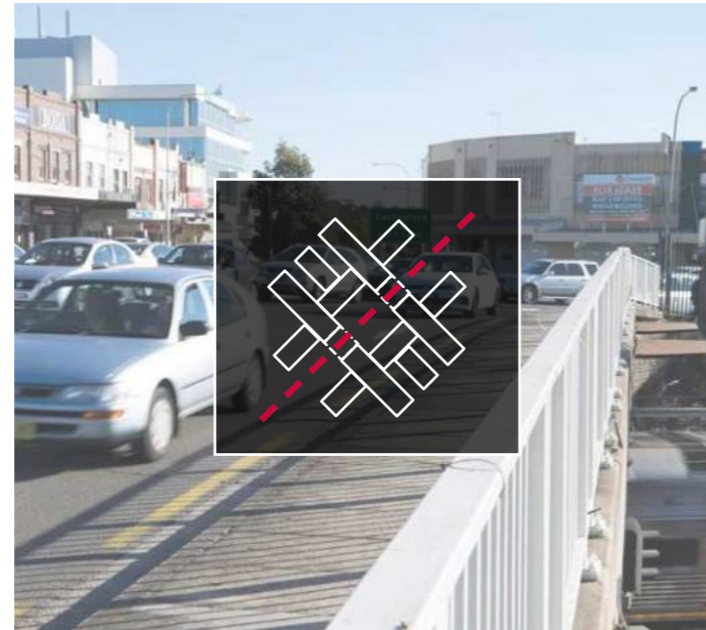
1.41 KEY DESIGN INSIGHTS

Detailed urban analysis of the existing context and approved forms offers key insights into the challenges and opportunities of the site.



LIMITED CANOPY COVER AND BIODIVERSITY

The site offers an opportunity to thread valuable canopy cover towards the town centre, connecting green spaces and supporting biodiversity.



AN UNWELCOMING AND FRACTURED PEDESTRIAN ENVIRONMENT

Surrounding pavements lack street trees and quality materials, with poor connectivity between Beecroft Road and Ray Road.



LACK OF COMMUNAL OPEN SPACES

Epping Town centre has few publicly accessible communal open spaces, with limited connectivity between.



DIVERSITY OF BUILT FORM

Scale, density and language of the town centre to the south and east forms a harsh boundary with the low-mid density residential areas to the north and west.

6.0 DESIGN OVERVIEW

6.01 APPROVED DESIGN REVIEW

6.02 AMENDMENT OBJECTIVES

6.03 DESIGN GUIDELINES

**6.04 APPROVED DESIGN REVIEW:
PART B 2(A) THROUGH SITE LINK**

**6.05 PART B 2(B) BEECROFT ROAD STREET
TREES**

6.06 PART B 2(C) LOW SCALE BUILDINGS

6.07 PART C1

6.01 APPROVED DESIGN REVIEW

APPROVED DESIGN BASELINE

The 'approved design' for 242-244 Beecroft Road relates to SSD 8784 (Lot 220 DP 1251471) as approved on 20th July 2020.

The consent establishes the following parameters for any future proposals:

- Maximum total GFA: 38,700m², consisting of 37,700m² as residential use and 750-1,000m² as non-residential use.
- Non-residential use may include offices, business, food and drink, shops and medical centres.
- Minimum 5% of residential GFA to be affordable housing.
- Basement to include car parking, motorcycle parking, bicycle parking and services areas.

APPROVED DESIGN DETAIL

Further to this and within the above metrics, the approved design (as amended) provides the following:

- Total residential units: 432
- Residential unit mix:

47	Studio
104	1 Bed
221	2 Bed
60	3 Bed
- Total non-residential GFA: 752m²
- Total basement provisions:

288	Residential car spaces
62	Residential visitor spaces
3	Car share spaces*
11	Non-residential spaces*
(364	Total car spaces)
15	Motorcycle spaces
476	Bicycle spaces

*based on Parramatta DCP

Through Parts B and C of the consent, further information and amendments are required to the proposals, of particular note are the following:

PART B OF CONSENT

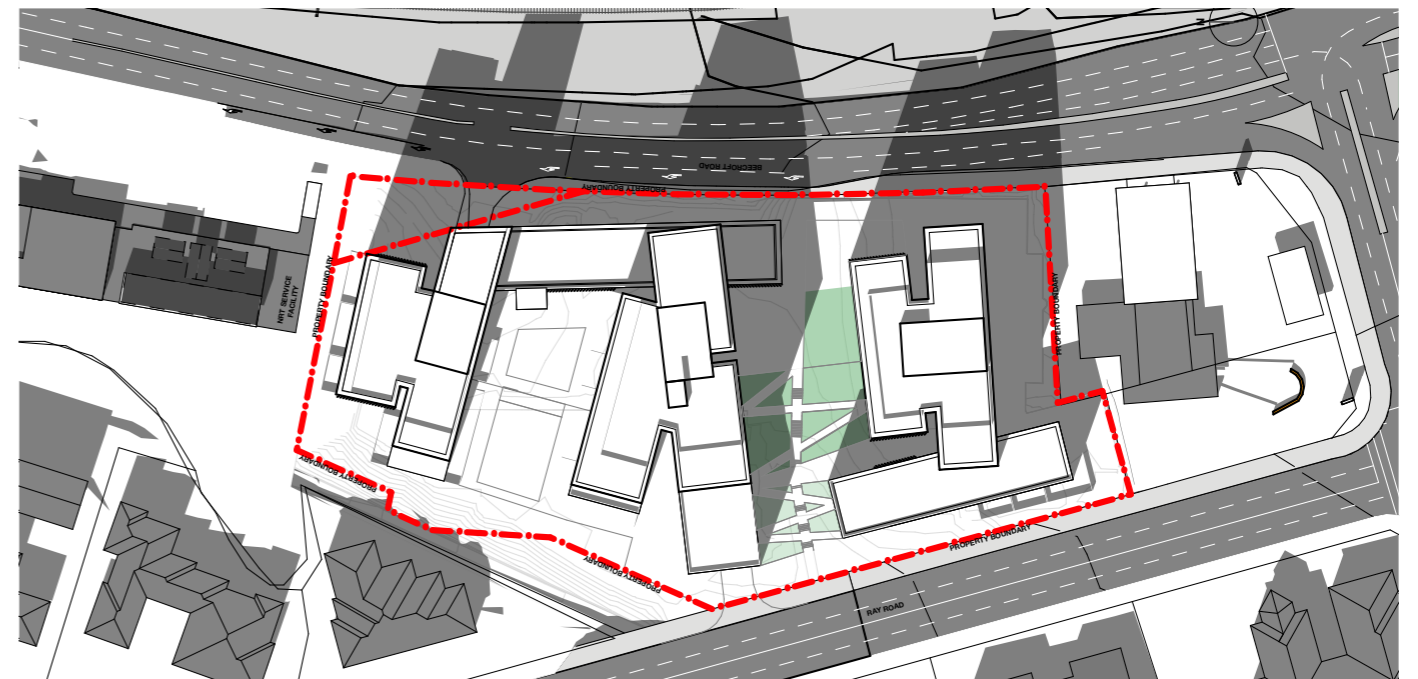
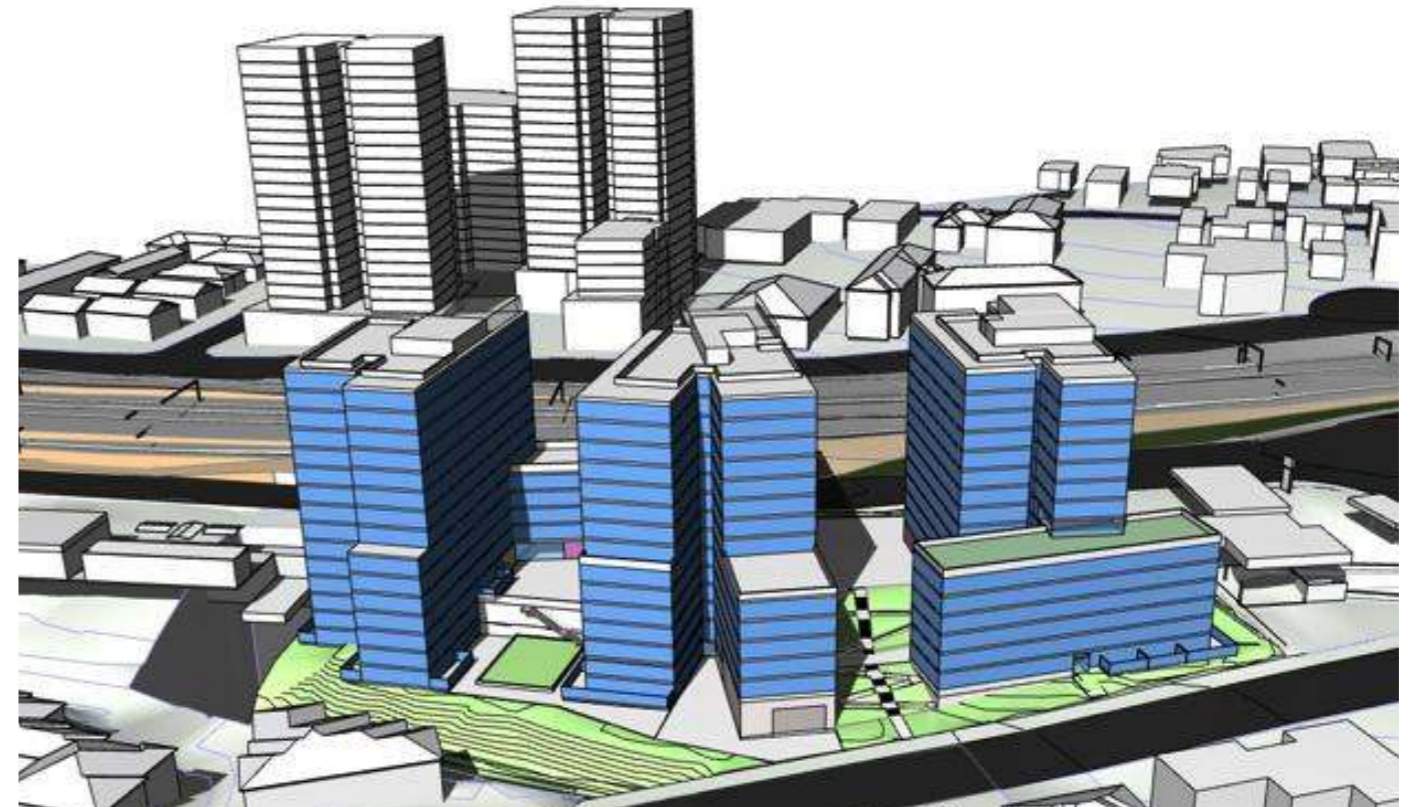
B2(a) Through-site link: The area of landscaping is to be increased, with rationalised ramps and stairs to simplify use and interfaces with building entries. This should be designed as a publicly accessible space 18-24hours a day.

B2(b) Beecroft Road landscaping: Investigation of tree planting along this frontage in consultation with RMS.

B2(c) Ray Road low-scale buildings: Investigate opportunities for activation, at grade pedestrian access, potential stepping of built form and avoidance of excessive basement wall frontages.

PART C OF CONSENT

C1 Building Envelopes: Future proposals are to be 'wholly contained within the building envelopes consistent with the plans listed in Condition A2, as modified by the conditions of this consent'.



(Above) View to east from Ray Road to Beecroft Road, (below) Roof plan.
Images: Amended and approved Design Report, 19.03.20, Bennett and Trimble.

6.02 MODIFICATION OBJECTIVES

PROPOSALS

The proposals aim to refine the approved designs, maintaining the established principles with amendments guided by the conditions of consent, ADG and requirements of 'Design Excellence'.

KEY OBJECTIVES

- Improve residential apartment amenity.
- Improve quality, distribution and accessibility of landscaped areas for both public and community use.
- Refine mix and yield to reflect local demographic demand.
- Embed ESD strategies.

This report is structured as follows:

- Over the immediate following pages, each of the noted key conditions are addressed specifically. These include Part B2(a), 2(b), 2(c) and Part C1.
- Following this, each of key ADG Design Criteria are addressed in turn, noting where modifications are proposed.

Massing and activation along Ray Road have been addressed through the relocation of the basement access, increased residential frontages and amended landscaping. Together these strategies aim to create a safer and more welcoming interface along the western boundary with Ray Road.

The amendments are considered to be in keeping with the principles of the approved development. They maintain the primary architectural form, use and general access locations, while improving the integration of these elements towards the goal of design excellence.

OUTCOME COMPARISON

Approval

Total GFA:	38,700m ²
Residential GFA:	37,700 m ²
Commercial GFA:	752m ²
Total Residential Units:	432
Affordable Units:	5%

- Residential unit mix:

151	Studio / 1 Bed	(35%)
221	2 Bed	(51.2%)
60	3 Bed	(13.9%)
- Total Basement Provisions*:

288	Residential car spaces
62	Residential visitor spaces
3	Car share spaces
11	Non-residential spaces
15	Motorcycle spaces
476	Bicycle spaces

Proposal

Total GFA:	38,452m ²
Residential GFA:	37,547m ²
Commercial GFA:	905m ²
Total Residential Units:	373
Affordable Units:	5%

- Residential unit mix:

72	1 Bed	(19.3%)
184	2 Bed	(49.3%)
117	3 Bed	(31.4%)
- Total Basement Provisions*:

299	Residential car spaces
53	Residential visitor spaces
1	Car share spaces
15	Non-res spaces (incl. access)
6	Motorcycle spaces
372	Bicycle spaces (incl. visitor)

*Based on RMS rates as required by condition of consent (0.4 per 1 bed, 0.7 per 2 bed, 1.2 per 3 bed)

6.03 DESIGN GUIDELINES

Approved

DESIGN GUIDELINES

The below pages are provided as part of the approved Design Report (SSD 8784) prepared by Bennett & Trimble. An addendum is provided over the following page in addition to these and in support of condition B2(a), (b) and (c).

DESIGN GUIDELINES

1:2500



1. INTRODUCE LOW SCALE STREET DEFINING BUILDINGS ALONG BEECROFT ROAD AND RAY ROAD

DESIGN GUIDELINES

- 1.1 Locate low scale buildings along the site's two street frontages at Ray Road and Beecroft Road
- 1.2 Buildings to meet the Apartment Design Guide
- 1.3 Apartment design to encourage passive surveillance of street, courtyards, common areas
- 1.4 Building design to incorporate balconies, facade treatments and screening to provide articulation and modelling to built form
- 1.5 Incorporate communal open space on rooftops
- 1.6 Use high quality, durable materials along public space, streets, and communal spaces
- 1.7 Architectural expression and character, to be consistent through development with variety and difference introduced through colour and material selection
- 1.8 Residential lobbies designed to be inviting and have a clear identity and entry point

2. CREATE NEW THROUGH SITE LINK TO BREAK DOWN THE SCALE OF THE URBAN BLOCK AND INCREASE AREA CONNECTIVITY.

DESIGN GUIDELINES

- 2.1 Provide an accessible route through the site for pedestrians between Beecroft Road and Ray Road
- 2.2 Use through site link to break down the length of building frontage along Ray Road and Beecroft Road
- 2.3 Use deep soil areas within through site link to provide mature trees, for shade and privacy
- 2.4 Provide clear and legible access to residential lobbies located along the through site link
- 2.5 Provide a range of areas for seating, planting, waiting.
- 2.6 Use high quality and durable materials for the public domain
- 2.7 Incorporate Water Sensitive Urban Design for the management of stormwater
- 2.8 Incorporate lighting and sightlines to ensure user safety and comply with Crime Prevention Through Environmental Design principles

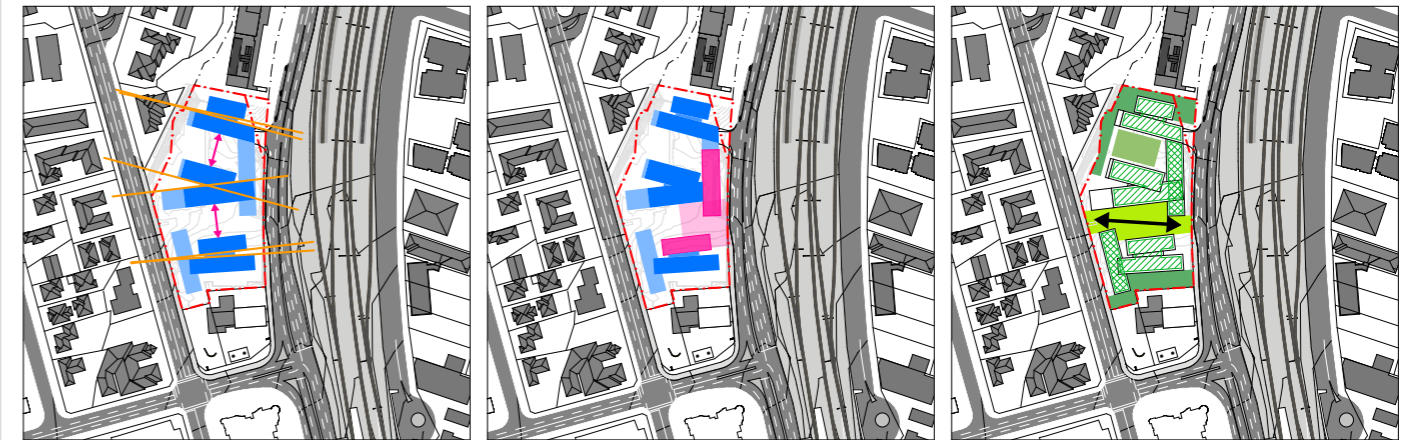
3. POSITION TALLER BUILDINGS AS A SEQUENCE OF TOWERS FOLLOWING THE SITE ORIENTATION

DESIGN GUIDELINES

- 3.1 Locate towers in a north to south arrangement along Beecroft Road
- 3.2 Orient towers east/west to present the narrow edge to the street front and to maximise daylight access to residences
- 3.3 Arrange towers with an appropriate (minimum ADG) separation to allow for daylight access, visual and acoustic privacy
- 3.4 Apartment design to encourage passive surveillance of street, courtyards, common areas
- 3.5 Building design to incorporate balconies, facade treatments and screening to provide articulation and modelling to built form
- 3.6 Incorporate communal open space on rooftops to cater to a range and variety of uses and users
- 3.7 Use high quality, durable materials
- 3.8 Architectural expression and character, to be consistent through development with variety and difference introduced through colour and material selection

DESIGN GUIDELINES

1:2500



4. SHAPE AND ORIENT TALL BUILDINGS TO MAXIMISE SOLAR AMENITY, CROSS VENTILATION, AND ASPECT, AND TO BREAK DOWN THE SCALE OF THE BUILDINGS

DESIGN GUIDELINES

- 4.1 Split towers into smaller elements to:
 - 4.1.1 allow for greater daylight access
 - 4.1.2 increase cross ventilation opportunities
 - 4.1.3 present a more slender facade area to the street
- 4.2 Use breaks in towers to provide natural daylight and ventilation to residential lobbies
- 4.3 Rotate tower elements to increase daylight access and to break down the scale of the built form

5. LOCATE NON-RESIDENTIAL USES AT GROUND LEVEL ADJACENT THE BUSY BEECROFT ROAD AND ADJACENT THE THROUGH SITE LINK

DESIGN GUIDELINES

- 5.1 Locate non-residential uses at ground level fronting Beecroft Road and the through site link
- 5.2 Provide floor to floor heights suitable for a range of non-residential uses
- 5.3 Use high quality and durable materials for non-residential spaces
- 5.4 Design of non-residential spaces and building facade to be open and inviting, and visible from the public domain
- 5.5 Public domain and common areas fronting the non-residential uses to incorporate seating, planting, and waiting areas with high quality materials and finishes.
- 5.6 Promote activation at street level along Beecroft Road frontage

6. USE LANDSCAPING TO DEFINE THE PUBLIC AND PRIVATE DOMAIN AT GROUND LEVEL - PROVIDE DEEP SOIL BUFFERS TO ADJACENT PROPERTIES - CREATE NEW ROOFTOP COMMUNAL SPACES OF VARIED CHARACTERS

DESIGN GUIDELINES

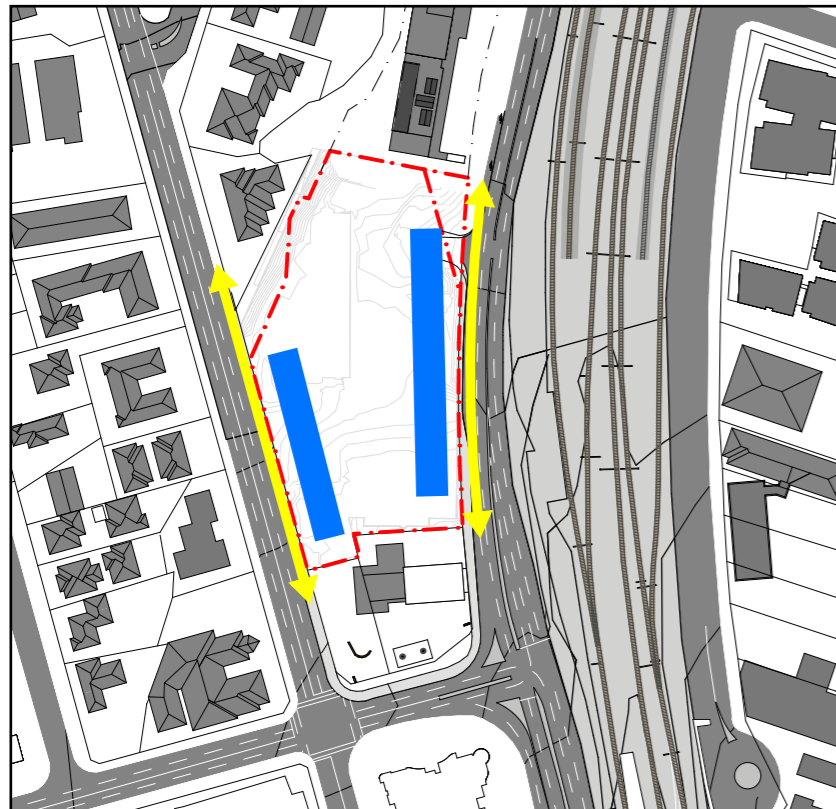
- 6.1 Provide native mature trees and plantings in deep soil areas for shade, privacy, and ecosystem development
- 6.2 Provide a range of areas for seating, planting, waiting along through site link and common areas
- 6.3 Rooftop communal spaces are to provide shading, communal productive gardens, BBQs, areas that accommodate individuals and groups, protection from wind
- 6.4 Provide clear and legible access to residential lobbies located along the through site link
- 6.5 Use high quality and durable materials for the public domain
- 6.6 Incorporate Water Sensitive Urban Design for the management of stormwater
- 6.7 Incorporate lighting and sightlines to ensure user safety and comply with Crime Prevention Through Environmental Design principles

6.03 DESIGN GUIDELINES

Addendum

DESIGN GUIDELINES

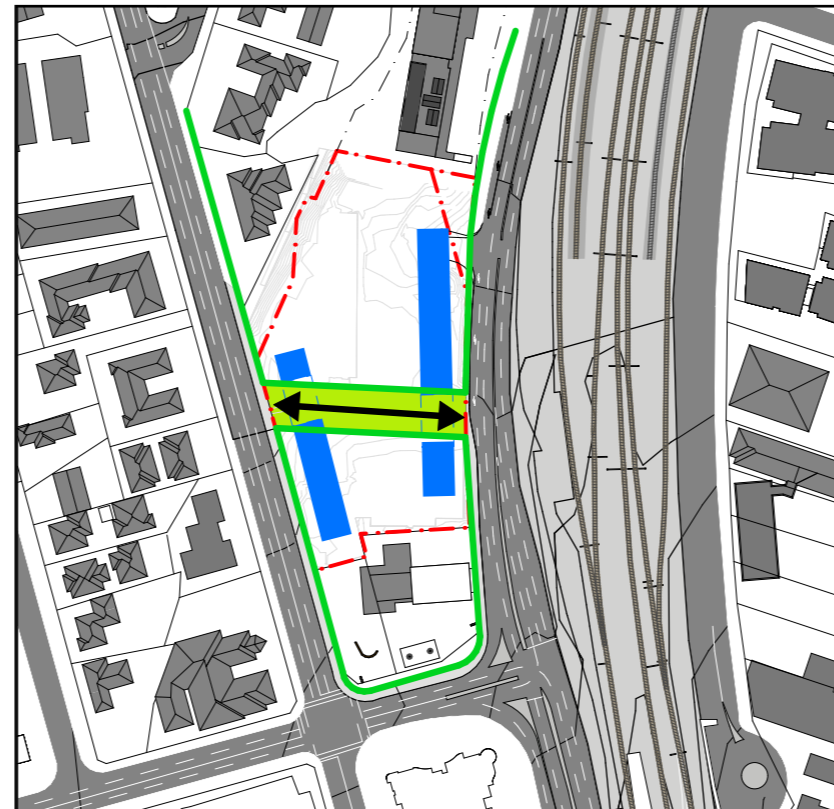
The following design guidelines are to read in addition to those of the design report provided by Bennett & Trimble and approved as part of SSD 8784. The following additional design guidelines are provided in satisfaction of condition B2 (a), (b) and (c) of the consent.



1. INTRODUCE LOW SCALE STREET DEFINING BUILDINGS ALONG BEECROFT ROAD AND RAY ROAD

DESIGN GUIDELINES

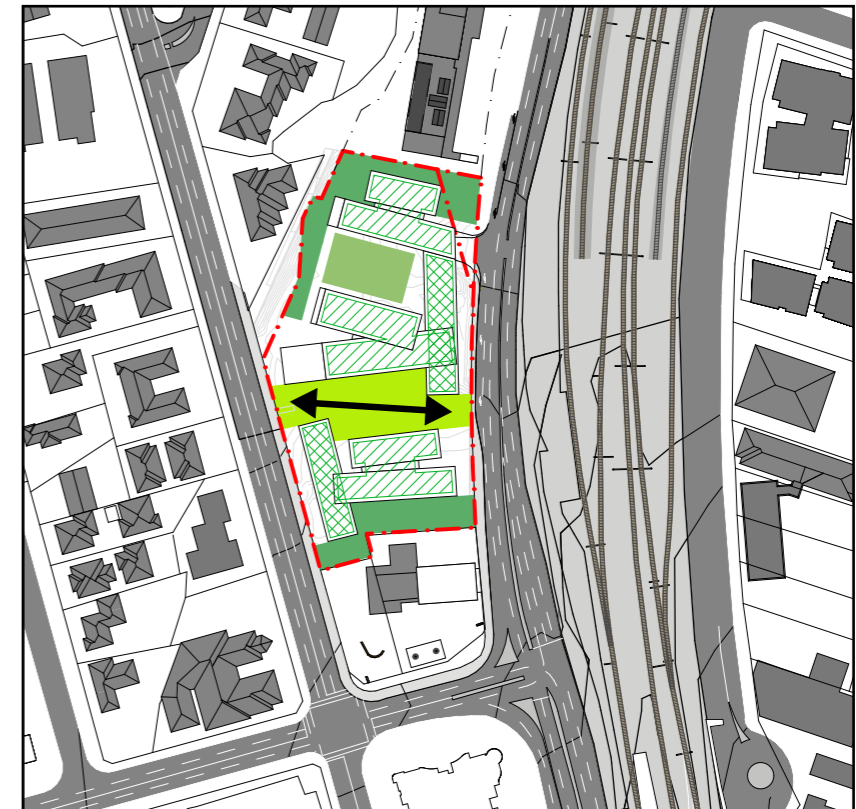
- 1.9 Investigate opportunities to step the building levels along the slope of Ray Road to provide activated frontage and provide at grade pedestrian access to ensure basement walls do not dominate the frontage.
- 1.10 Where basement walls protrude above ground and buildings are unable to be stepped, refer to section 3.10 of this report [Bennett & Trimble Design Report] for basement treatment options.



2. CREATE THROUGH SITE LINK TO BREAK DOWN THE SCALE OF THE URBAN BLOCK AND INCREASE AREA CONNECTIVITY.

DESIGN GUIDELINES

- 2.8 The design of the through site link should increase the amount of landscaped area and rationalise ramps and staircases, such as by;
 - investigate separating the staircase and ramps
 - simplify the levels at landings
 - reduce the total length of ramps
 - increase the landscaped spaces at level changes
 - consider how the path of travel for ramps will terminate near building entrances
- 2.9 Investigate design responses to keep the through site link open 18-24 hours a day.



6. USE LANDSCAPING TO
 - DEFINE THE PUBLIC AND PRIVATE DOMAIN AT GROUND LEVEL
 - PROVIDE DEEP SOIL BUFFERS ADJACENT TO PROPERTIES
 - CREATE NEW ROOFTOP COMMUNAL SPACES OF VARIED CHARACTERS

DESIGN GUIDELINES

- 6.8 Consult with Roads and Maritime Services (RMS) to explore opportunities to plant street trees along the Beecroft Road frontage, including tree setbacks from kerb, species and mature canopy height.

6.04 APPROVED DESIGN REVIEW

Part B 2(a) Through-Site Link

CONSENT CONDITION:

PART B

2(a) in Section 3.02 (Design Guidelines), sub-section 2 regarding new through site link, include the following additional design guidance in relation to the pedestrian through-site link:

(i) the design of the through-site link should increase the amount of landscaped area and rationalise ramps and staircase, such as by:

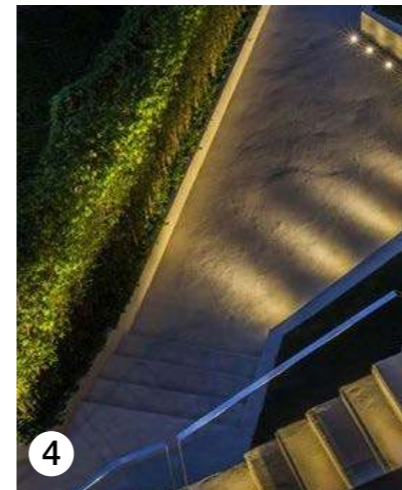
- Investigate separating the staircase and ramps
- Simplify the levels at landings
- Reduce the total length of ramps
- Increase landscaped spaces at level changes
- Consider how the path of travel for ramps will terminate near building entrances

(ii) investigate design responses to keep the through site link open 18-24 hours a day

Response to condition:

- Ramps and stairs have been spread across a wider area allowing terraces, increased landscaping and improved integration with building entries. Ramps are provided to Australian Standards.

- The stepped landscaping, plateaus and ramps integrate CPTED principles and wind mitigation strategies holistically to avoid intrusive and obstructive features such as wind baffles or security devices.

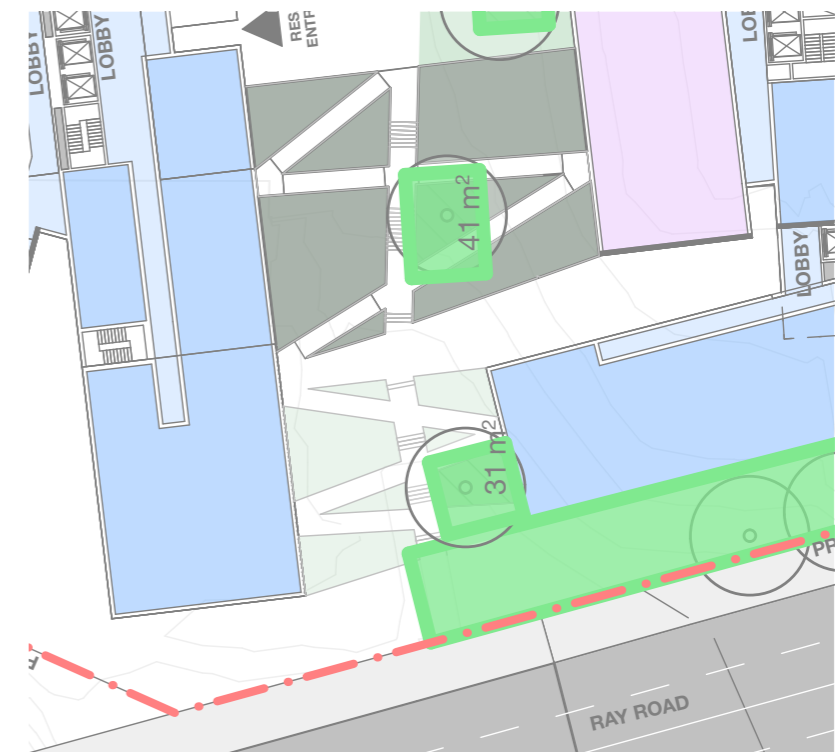
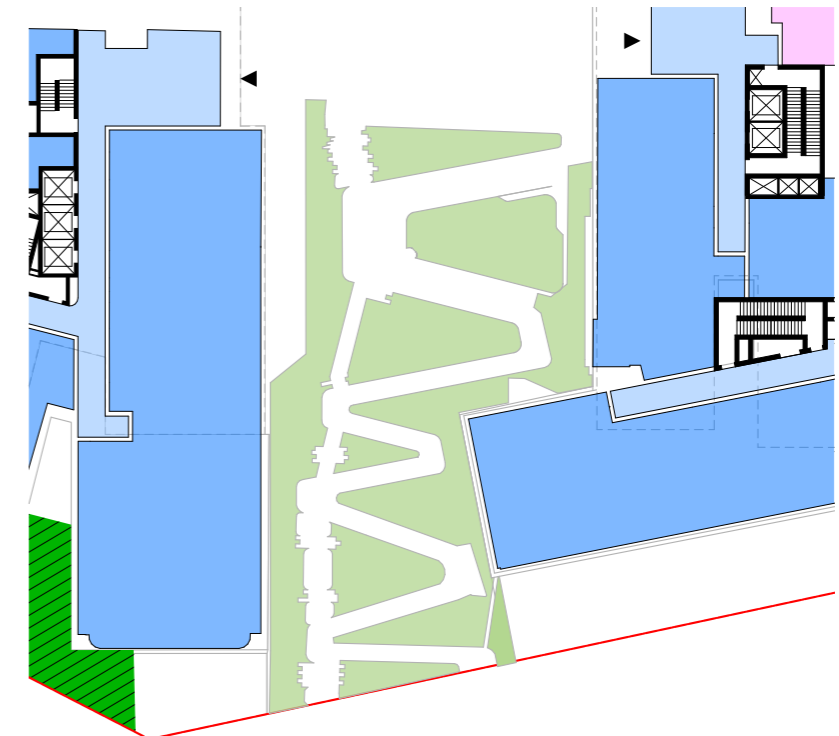


1 Entry Plaza/ Pedestrian link to GF communal ar

2 Lush planting surrounding stairs and ramp

3 Grass terracing

4 Attractive integrated lighting aiding activation



Above: Proposed through-Site Link (Site Image Landscape Architects)
Below: Approved through-site link (Bennett & Trimble Architects)

6.05 APPROVED DESIGN REVIEW

Part B 2(b) Beecroft Road Street Trees

CONSENT CONDITION:

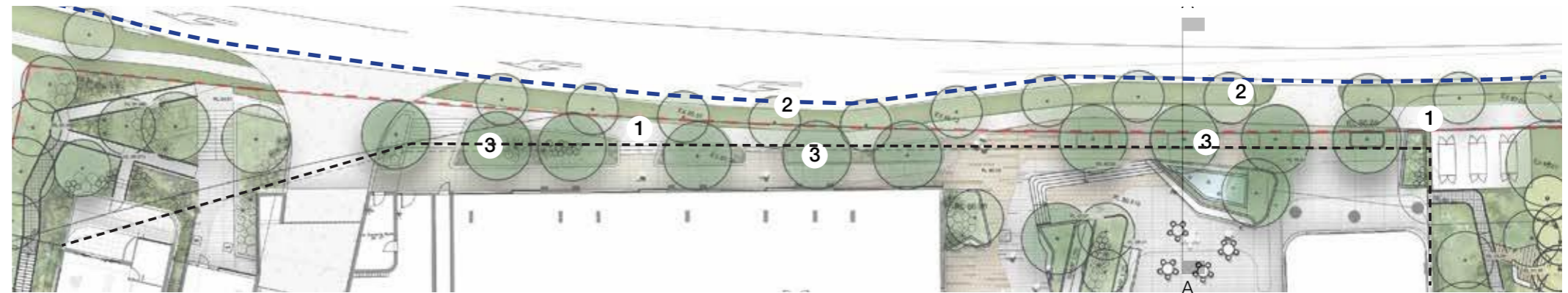
PART B
2(b) in Section 3.03 (Design Guidelines), sub-section 6 regarding landscaping, include the following design guidance in relation to the Beecroft Road frontage of the site:

(i) consult with Roads and Maritime Services (RMS) to explore opportunities to plant street trees along the Beecroft Road frontage, including tree setbacks and key species and mature canopy height.

Response to condition:

- The revised boundary line accommodating the shared slip road for entry to the adjacent Metro servicing facility and the basement car park of these proposals allows for an approximately 1.8m zone along the road verge, external to the site boundary. RMS have been engaged to further evaluate.

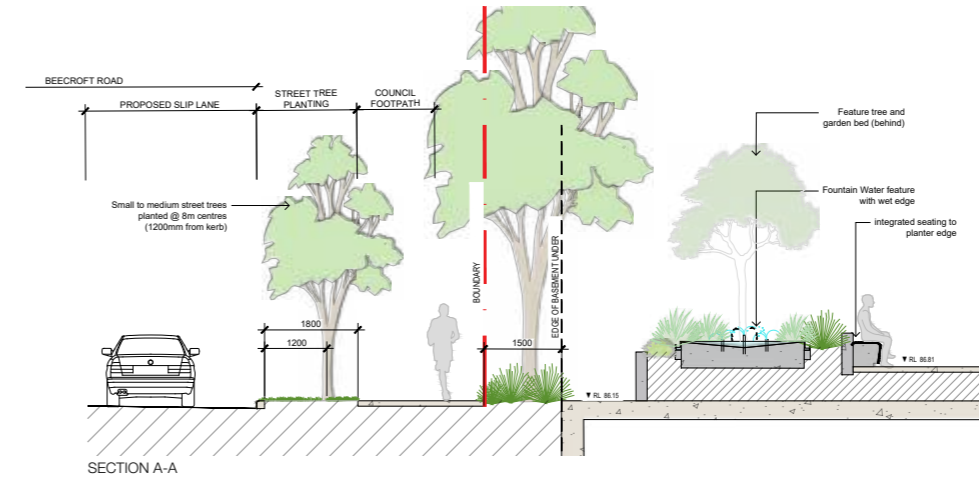
- Within the boundary several raised planter beds are formed to further support the provision of street trees along Beecroft Road.



Legend

- EDGE OF PROPOSED SLIP LANE
- SITE BOUNDARY
- EDGE OF BASEMENT

- 1 Proposed footpath upgrade
- 2 Opportunity for street tree planting to Beecroft Road
Suggested species (only one species will be selected): *Acacia parramattensis*, *Cupaniopsis anacardioides*
- 3 Additional canopy tree planting to Beecroft Road setback



Landscape Strategy

With the proposal of a new slip lane along Beecroft Road, the boundary to the development has been shifted west, allowing for a footpath and 1.8m turf verge within the public domain. In addition to the proposed trees along the Beecroft Rd frontage within the site boundary, there is opportunity for street tree planting. The constraints for street trees to Beecroft Road include overhead power lines, impact to sightlines and the need for frangible species. Using the RMS Landscape Design Guideline, 2019, the adjacent plan and section explores the opportunity for a smaller street tree species planted at 8m centres along the turf verge.



Beecroft Road existing condition

Proposed through-Site Link (Site Image Landscape Architects).

Street Tree species (suggested species)



Cupaniopsis anacardioides
Mature Height x Canopy: 8 x 4m



Acacia parramattensis
Mature Height x Canopy: 8 x 4m



Callistemon viminalis
Mature Height x Canopy: 6 x 3m



KEY PLAN

6.06 APPROVED DESIGN REVIEW

Part B 2(c) Low Scale Buildings

CONSENT CONDITION:

PART B

2(c) in Section 3.02 (Design Guidance), sub-section 1 in relation low scale buildings, include the following additional design guidance in relation to the Ray Road front of the site:

- (i) investigate opportunities to step the building levels along the slope of Ray Road to provide activated frontage and provide at grade pedestrian access to ensure basement walls do not dominate the frontage
- (ii) where basement walls protrude above ground and buildings are unable to be stepped, refer to Section 3.10 of this report for basement treatment options.

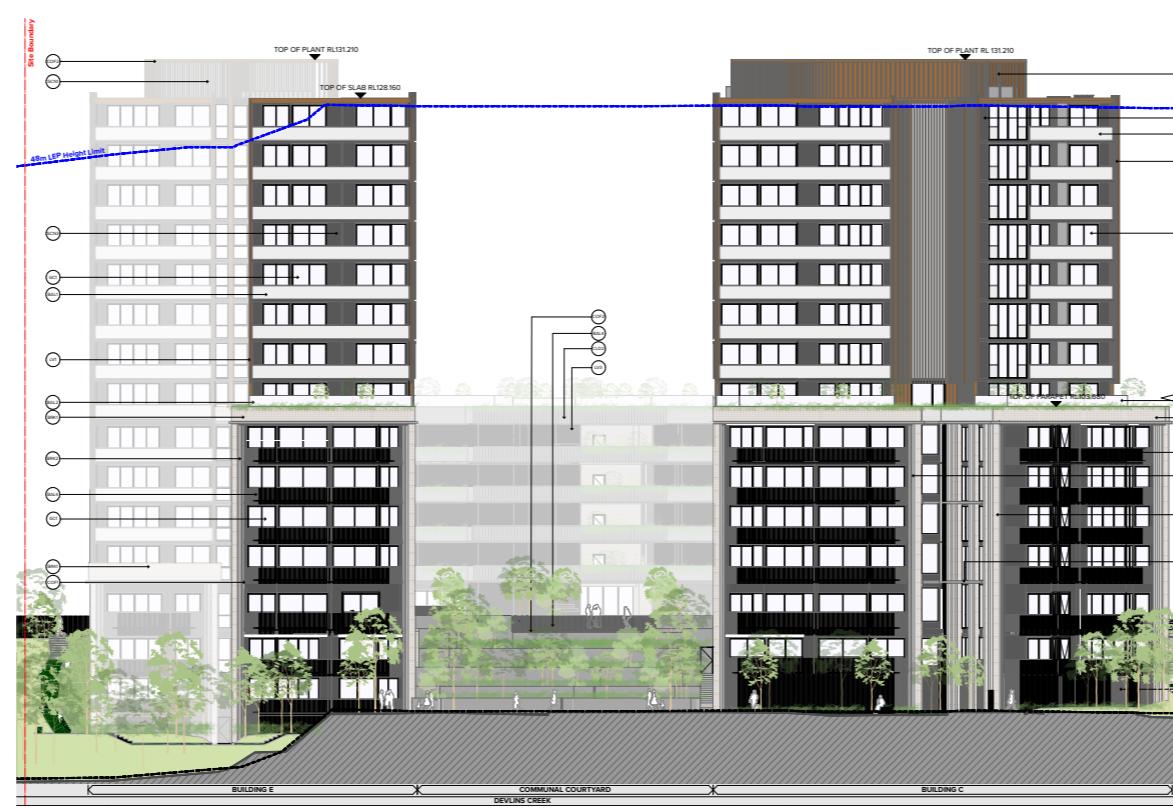
Response to condition:

- Building heights have been stepped between Buildings C and A facing onto Ray Road.

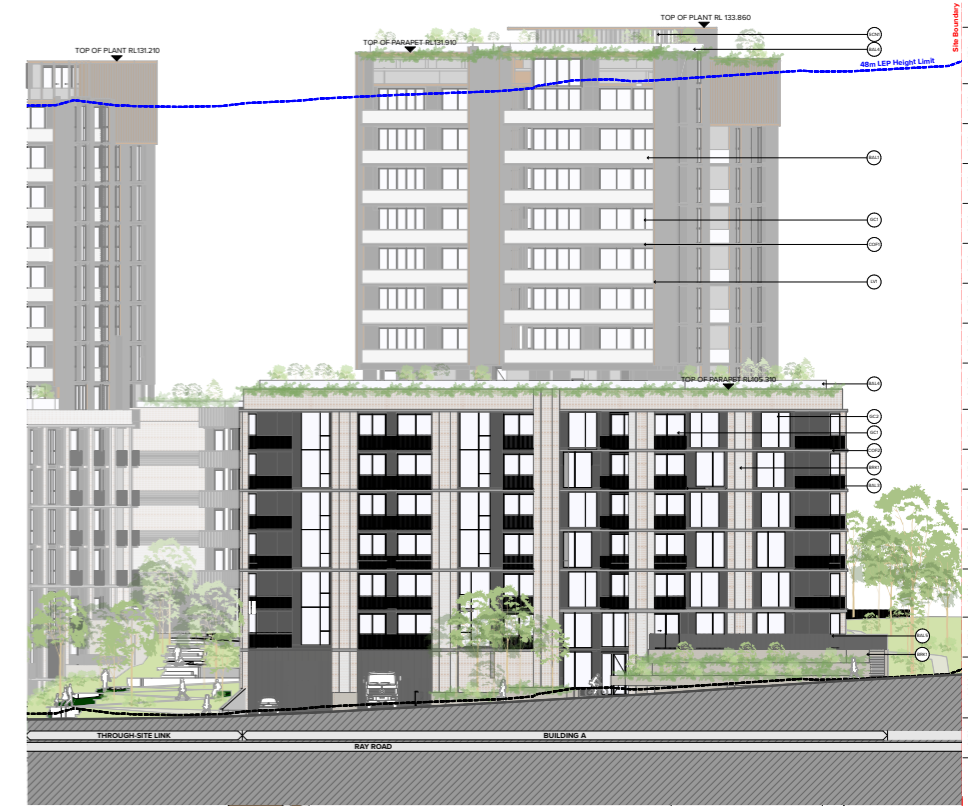
- Stepped terracing at the southern most point, Building A lobby entry, street tree planting and basement entries provide animation and activation to Ray Road.

- The through-site link provides a clear view east through the site, framed by dense endemic planting.

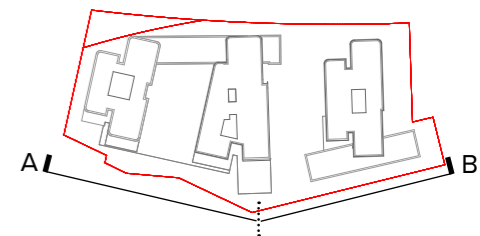
- While not directly on Ray Road, the communal courtyard is provided cascading terraces of planting to soften the glimpse views along Devlin's Creek from Ray Road as part of a site wide strategy to sleeve basement levels.



Section A



Section B



6.06 APPROVED DESIGN REVIEW

Part B 2(c) Low Scale Buildings

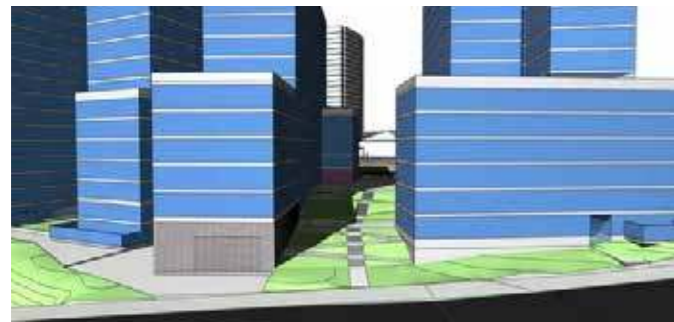
Landscaping has been modified to the western facade aid in sleaving above ground elements of the basement where the ground levels fall away. The strategy includes:

- Private open space terraces.
- Landscaped terraces.
- Cascading landscaping.

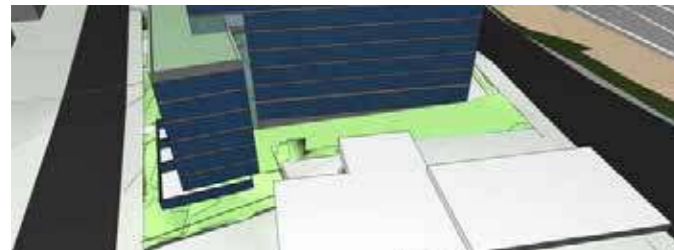
This works in tandem with the relocation of basement entry and lobby positions to bring activation to these areas.



VIEW 1



VIEW 2

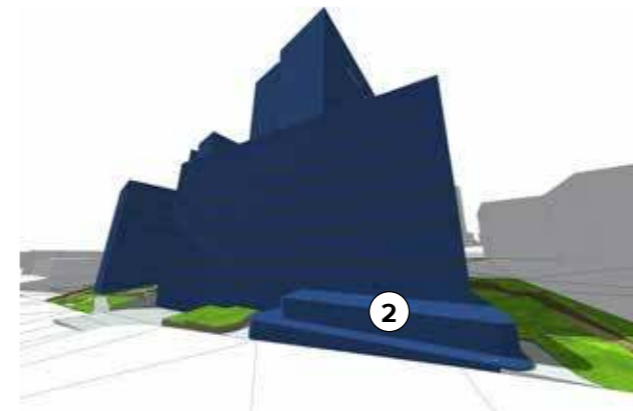
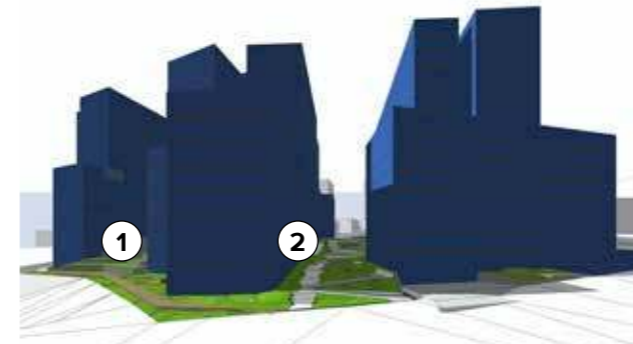
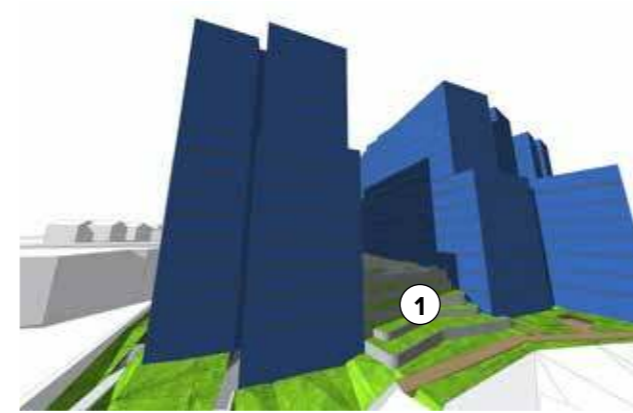


VIEW 3

APPROVED

LEGEND

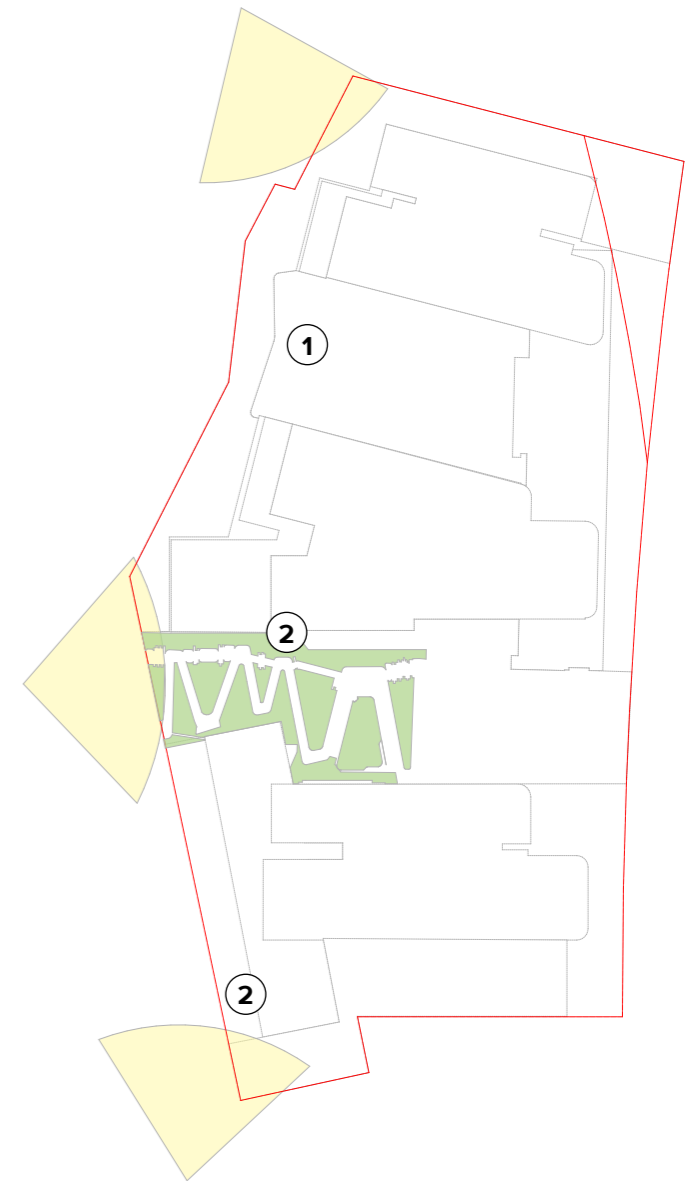
- Above ground basement with solid wall/ Architectural treatment.
- Above ground basement with deep soil landscape in front.
- Above ground basement with natural ventilation to basement and deep soil landscaping in front.



PROPOSED

LEGEND

- ① Cascading landscape terraces.
- ② Terraced private open space and public landscaping



6.07 APPROVED DESIGN REVIEW

Part C 1

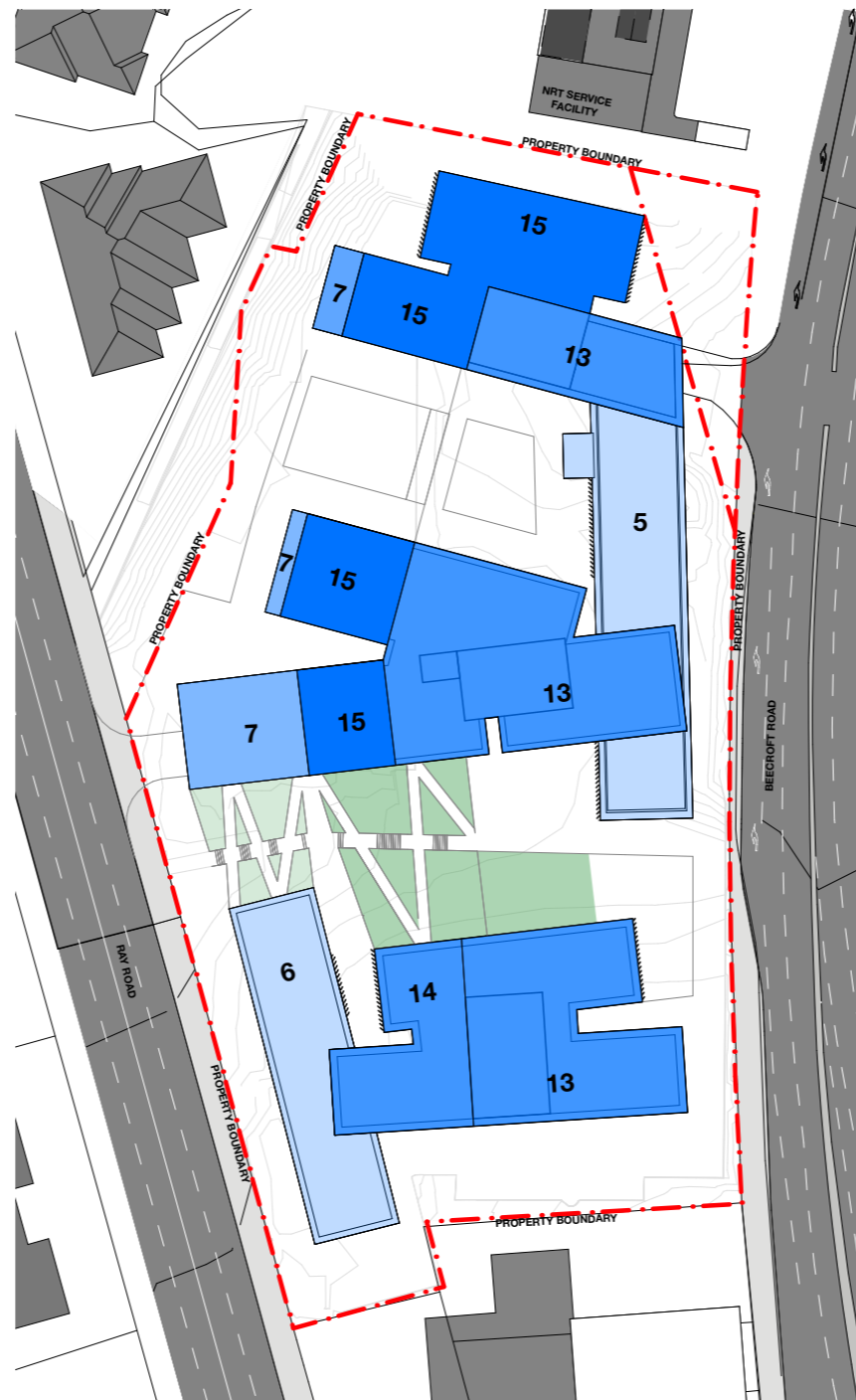
CONSENT CONDITIONS:

PART C

1. Future development applications must demonstrate that the buildings are wholly contained within the building envelopes consistent with the plans listed in Condition A2, as modified by the conditions of the this consent.

Response to condition:

- The principle of approach and strategy of the consent has been maintained through orientation and extent of foot print.
- The modifications proposed are primarily driven by realisation of appropriate amenity and efficient function of the floor plan.



APPROVED

Building envelope areas (BEA) have been designed 'tight' with an approximate 20% difference over GFA (below the ADG guidance of the 25-30%).



PROPOSED - BASE

Amendments to the building footprint seek to maintain the principle of the approved massing, with recesses and infills determined to assist in internal efficiency, ADG compliance and buildability.

LEGEND

- Area decrease from approved BEA
- Area increase to approved BEA
- Outline of Approved SSDA

7.0 ADG COMPLIANCE & CPTED

7.01 OVERVIEW OF STRATEGY

Site Plan

7.02 DEVELOPING THE CONTROLS

2C Building height

2F Building separation

2G Street setbacks

7.03 SITING THE DEVELOPMENT

3B Orientation

3C Public domain interface

3D Communal and public open space

3E Deep soil zones

3G Pedestrian access and entries

3H Vehicle access

3J Bicycle and car parking

7.04 DESIGNING THE BUILDING

4A Solar and daylight access

4B Natural ventilation

4C Ceiling heights

4K Apartment mix

4N Roof design

4O Landscape design

7.05 Basement Treatment

7.06 Envelope

7.01 VISION & STRATEGY

VISION

“A vibrant extension of Epping town centre, connecting a growing community to place through an activated street plane, and safe, green spaces.”

STRATEGY

The approved design establishes a baseline for the site with the following key features:

- Residential lead, mixed use
- Three primary tower forms, with two secondary low rise forms
- Two central open spaces, one as a public through site link, the second as a communal courtyard
- Two vehicular entry / exit points, one from Beecroft Road, one from Ray Road
- Strategies to integrate with changing topography
- Three stories of basement
- A variety of communal and landscape spaces

The modifications proposed seek to address the floor plan inefficiencies, support the amenity of apartments and alleviate areas of ADG non-compliance.

The proposals also seek to establish a strong landscaping strategy and embed opportunities for improved sustainable outcomes across the site in support of Design Excellence.

The strategy will be achieved through the following:

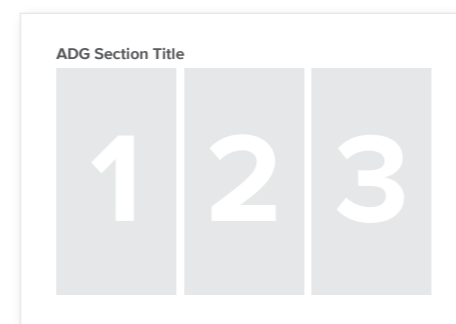
- Analysis of ADG compliance to guide floor plan, massing and facade amendments.
- Analysis of landscape distribution and alternative opportunities.
- Analysis of local demand in parallel to GFA allowance and ADG compliance.
- Embed ESD principles through the targeting Green Star ‘Design & As Built’ 5 Star.



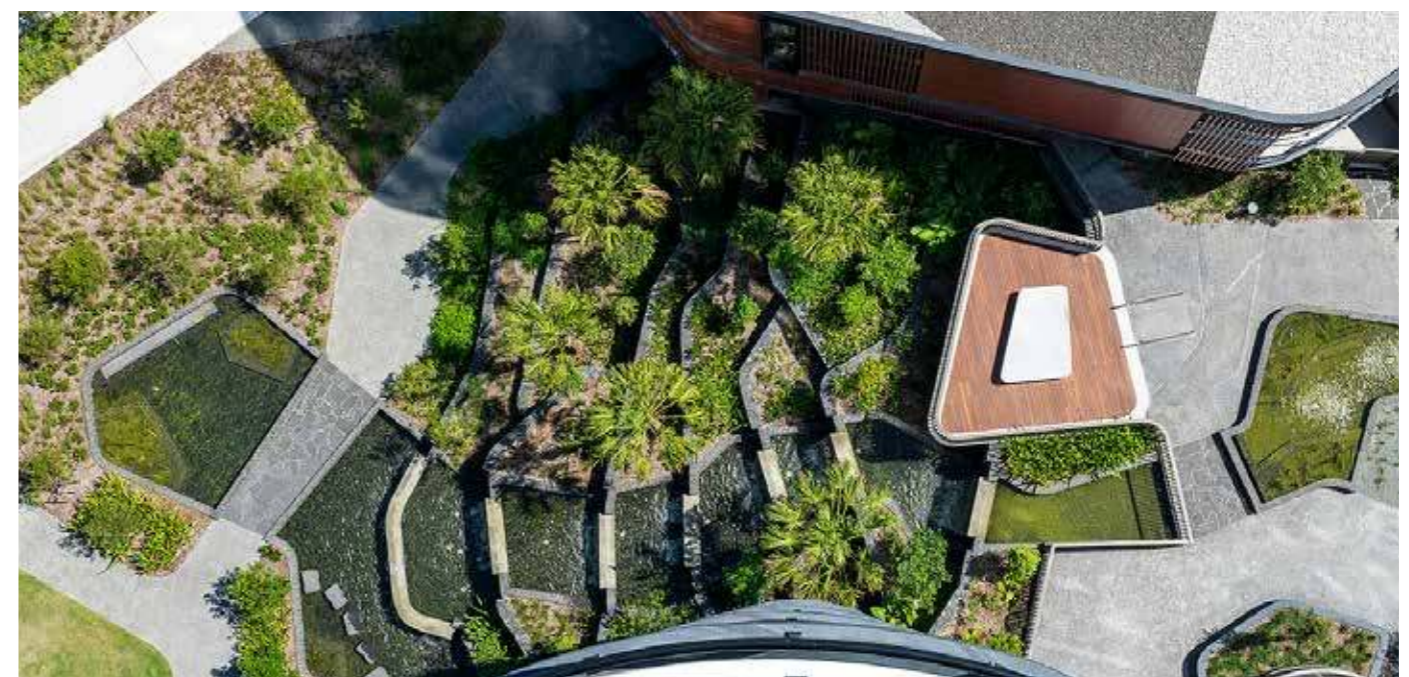
DOCUMENT LAYOUT

The following pages review the approved designs against relevant ADG and consent objectives, with proposed amendments where necessary using the following typical layout:

1. ADG / Consent Objective
2. Approved Design
3. Proposed Design



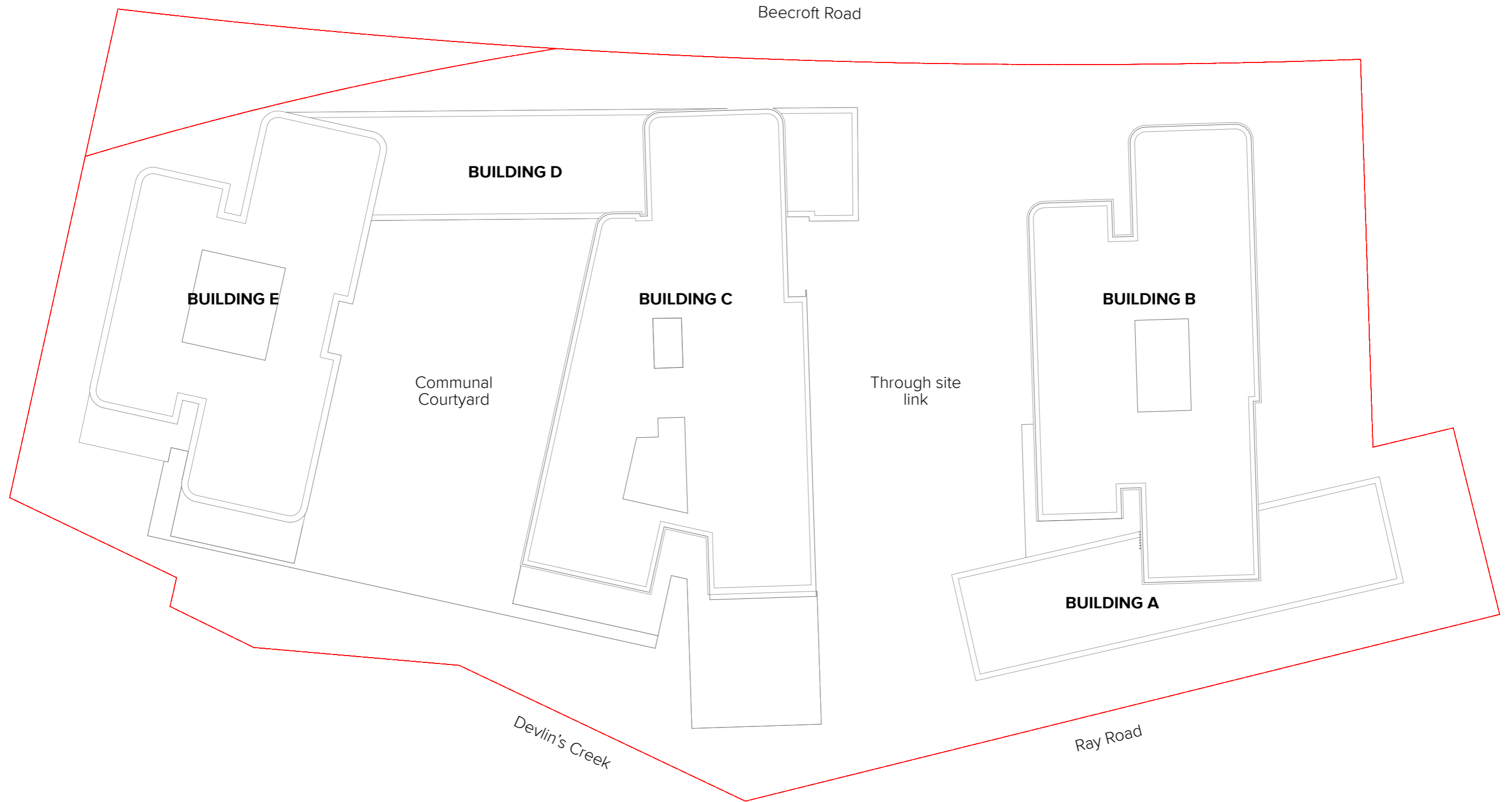
Typical page layout.



Precedents of design intent.

(Above left) Harbord Diggers, Chrofi Architects (Above right) Uhrig Street, BVN (Below) Sanctuary The Landing, TURNER

7.01 SITE PLAN



BUILDING LOCATIONS



7.02 DEVELOPING THE CONTROLS

2B Building Envelopes

ADG NOTE

Aims

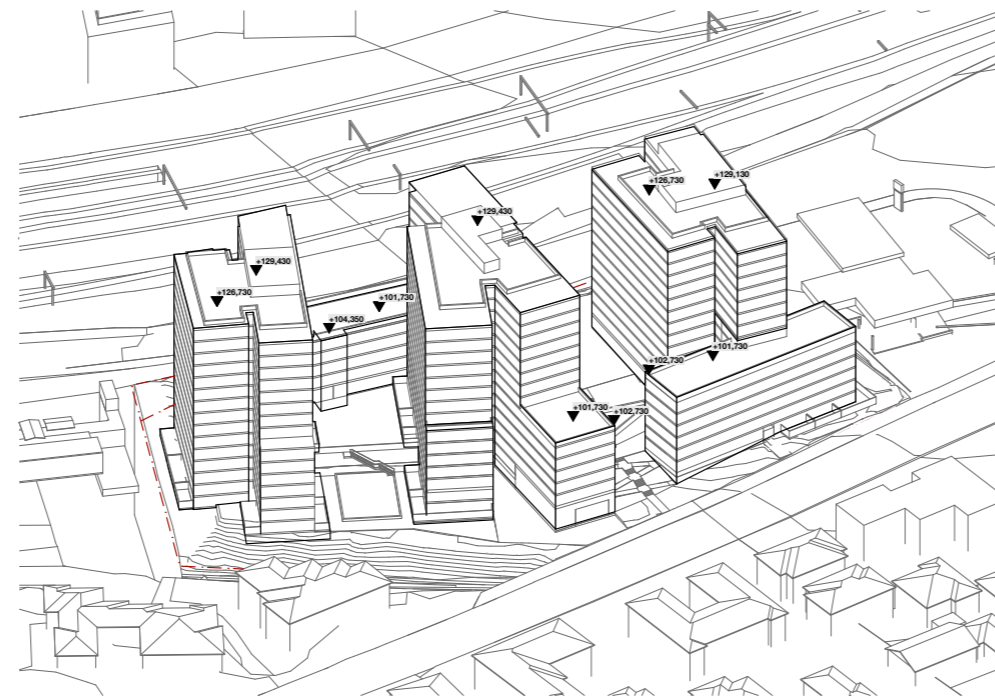
- Define the three dimensional form of buildings and wider neighbourhoods.
- Inform decisions about appropriate density for a site and its context.
- Define open spaces and landscape areas.
- Test the other primary controls to ensure they are coordinated and achieve the desired outcome.
- Demonstrate the future mass, scale and location of new development.

MODIFICATION:

- Building heights have followed the principle of the approved massing, with localised penetrations of the height plane due to complex topography of the site and realisation of an efficient and compliant built form.

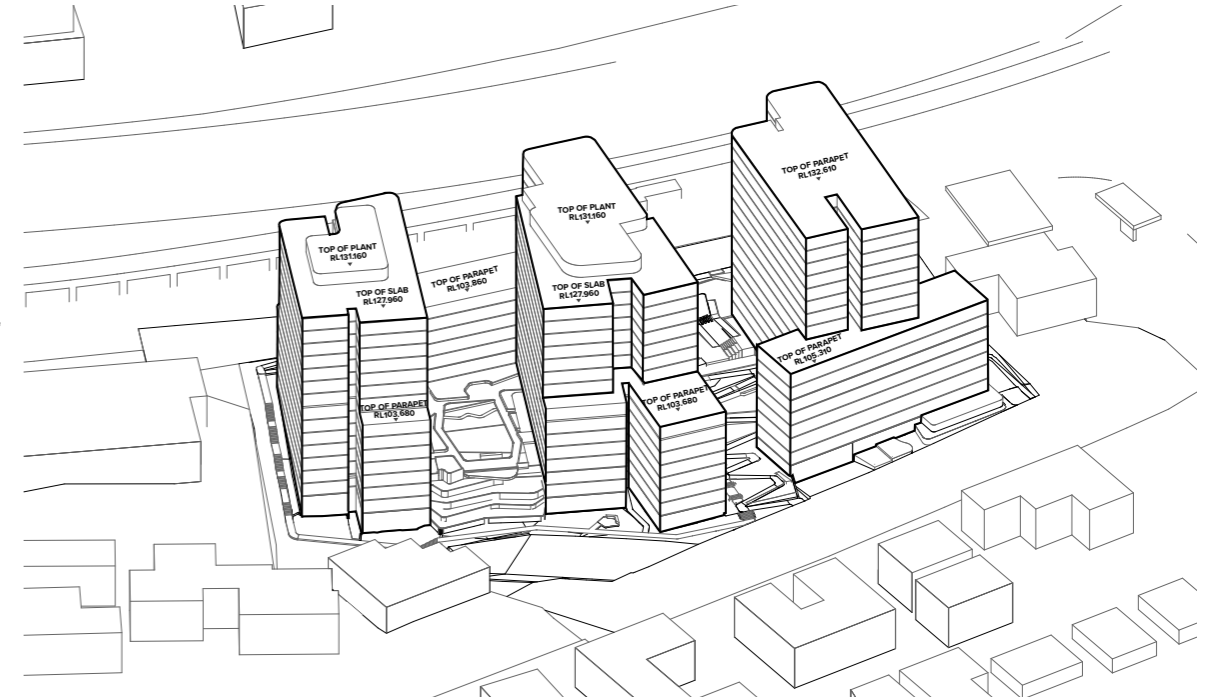
- Modifications relate to relocating L13 rooftop communal spaces to Building B only, allowing for PV arrays to Buildings C and E along with necessary plant space.

- Modifications also relate to requirements of NCC waterproofing to increase floor to floor height to min. 3.15m.



APPROVED

Building envelope areas (BEA) have been designed 'tight' with an approximate 20% difference over GFA (below the ADG guidance of the 25-30%).



PROPOSED

Amendments to the building footprint seek to maintain the principle of the approved massing, with recesses and infills determined to assist in internal efficiency, ADG compliance and buildability.

7.02 DEVELOPING THE CONTROLS

2C Building heights

ADG NOTE

- Aims
- Building height controls ensure development responds to the desired future scale and character of the street and local area
 - Building height controls consider the height of existing buildings that are unlikely to change (for example a heritage item or strata subdivided building)
 - Adequate daylight and solar access is facilitated to apartments, common open space, adjoining properties and the public domain
 - Changes in landform are accommodated
 - Building height controls promote articulated roof design and roof top communal open spaces, where appropriate.

HORNSBY LEP

As identified on HLEP Height of Buildings Map - Sheet HOB_011 of 48m across the site.

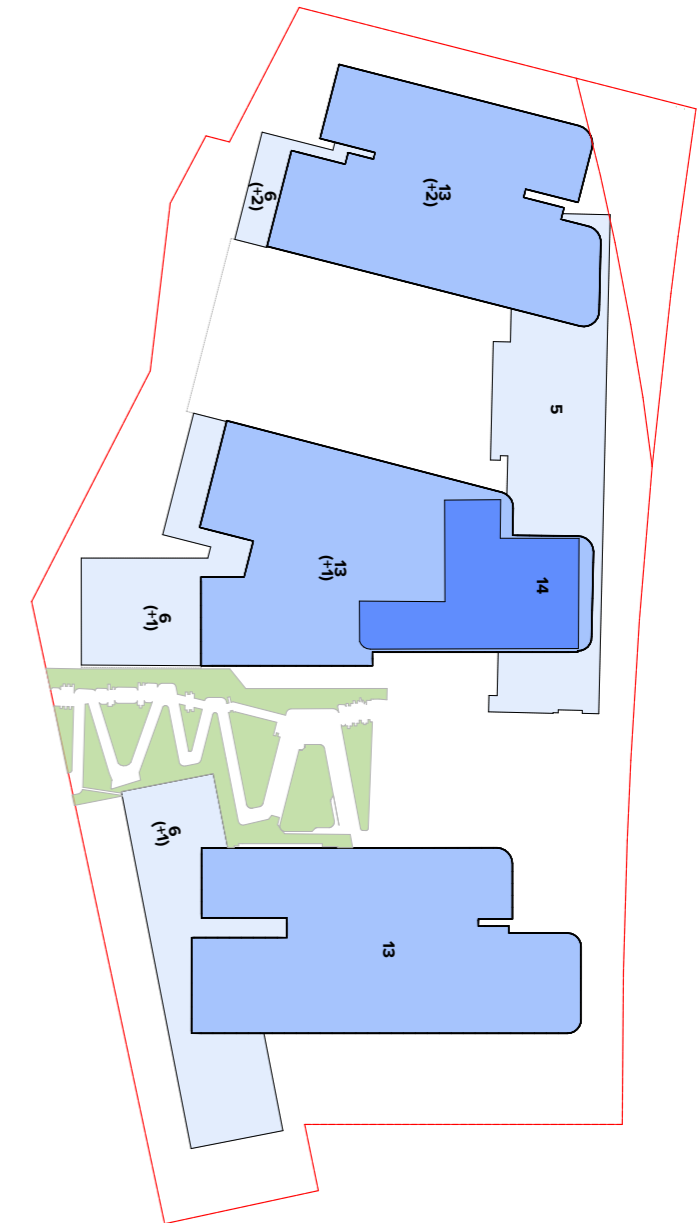
MODIFICATION:

- Building heights have followed the principle of the approved massing, with localised penetrations of the height plane due to complex topography of the site and realisation of an efficient and compliant built form.
- Modifications relate to relocating L13 rooftop communal spaces to Building B only, allowing for PV arrays to Buildings C and E along with necessary plant space.
- Modifications also relate to requirements of NCC waterproofing to increase floor to floor height to min. 3.15m.



APPROVED

Building envelope areas (BEA) have been designed 'tight' with an approximate 20% difference over GFA (below the ADG guidance of the 25-30%).



PROPOSED

Amendments to the building footprint seek to maintain the principle of the approved massing, with recesses and infills determined to assist in internal efficiency, ADG compliance and buildability.



north

7.02 DEVELOPING THE CONTROLS

2F Building separation

ADG NOTE

- Aims
- Ensure that new development is scaled to support the desired future character with appropriate massing and spaces between buildings.
 - Assist in providing residential amenity including visual and acoustic privacy, natural ventilation, sunlight and daylight access and outlook.
 - Provide suitable areas for communal open spaces, deep soil zones and landscaping.

Building Separation	
9 Storeys and above	12+24m
Up to 8 storeys	9-18m
Up to 4 storeys	6-12m

Gallery access circulation areas should be treated as habitable space, with separation measured from the exterior edge of the circulation space.

MODIFICATION:

- Building separation has been maintained inline with the approval.

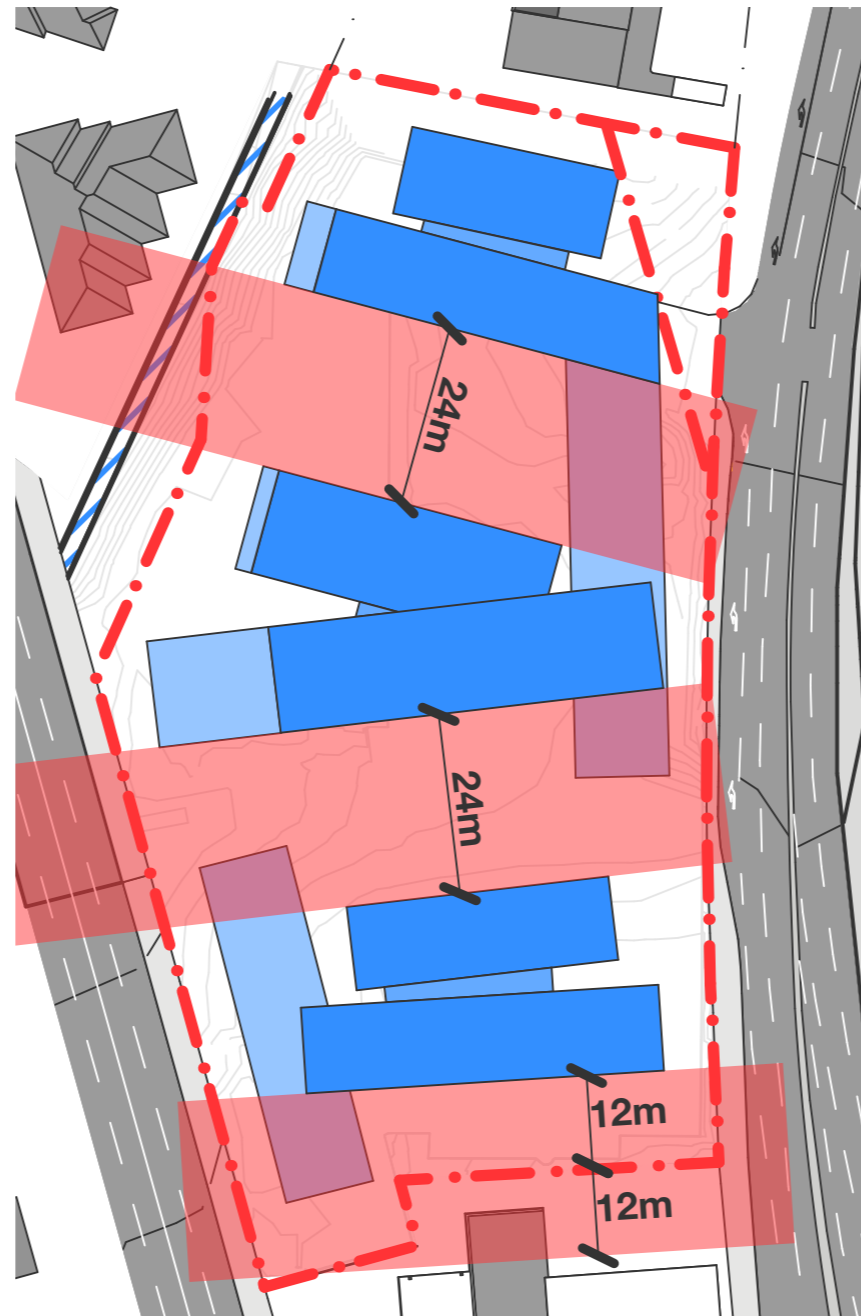
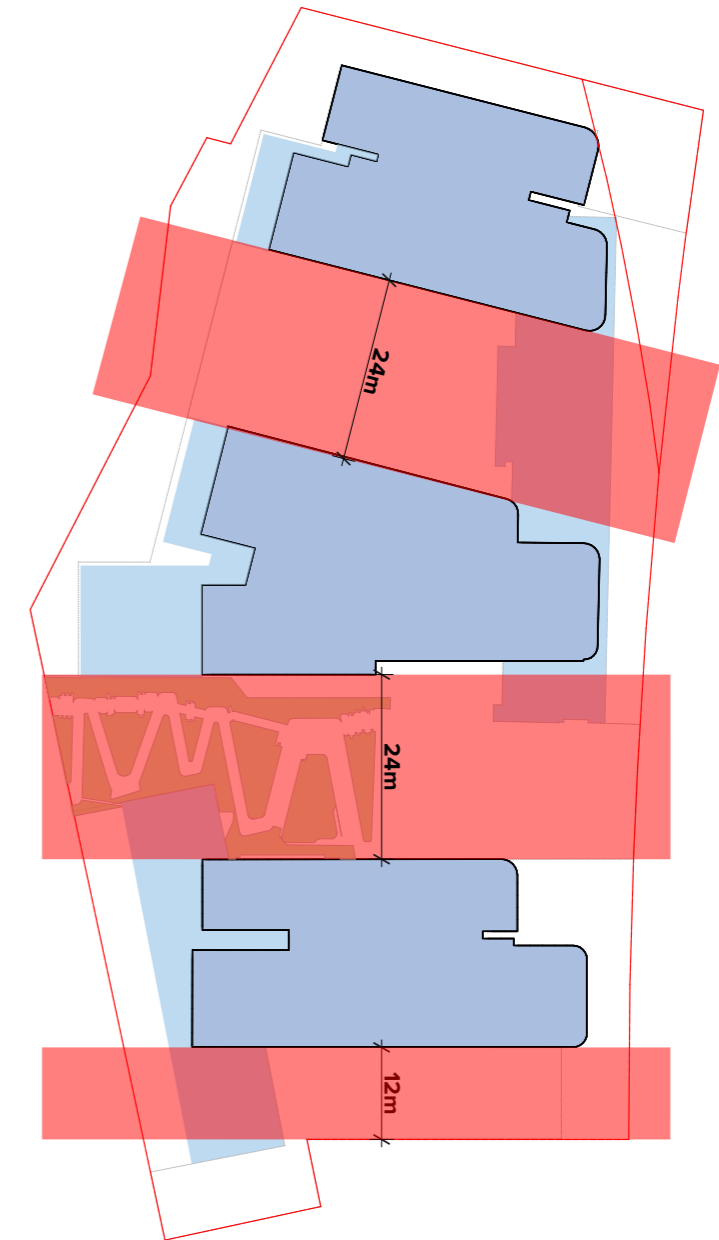


Image: Section 4.01, Building Separation. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

ADG building separation compliance is achieved.



PROPOSED

Building realignment maintains the building separation compliance.

LEGEND

- Massing over 9 storeys
- Massing up to 9 storeys
- Building separation zone



7.02 DEVELOPING THE CONTROLS

2G Street setbacks

ADG NOTE

- Aims
- Establish the desired spatial proportions of the street and define the street edge
 - Provide space that can contribute to the landscape Character of the street where desired
 - Create a threshold by providing a clear transition between the public and private realms
 - Assist in achieving visual privacy to apartments from the street
 - Create good quality entries to lobbies, foyers or individual dwellings
 - Promote passive surveillance and outlook to the street.

HORNSBY DCP OBJECTIVE

(Residential Amended 6 August 2021)

3.5.5 Setbacks

Front Boundary: 10m, which can be reduced to 8m for a maximum of 1/3 of the building width.

Side Boundary: 9m, which can be reduced to 7m for a maximum of 1/3 of the building width.

Rear Boundary: 10m, which can be reduced to 8m for a maximum of 1/3 of the building width.

Basement Parking Setback: 7m from front boundary, and 6m from side and rear boundaries, to allow for deep soil landscaping.

MODIFICATION:

- Interaction with setbacks follows the approved form principles, with minor localised modifications only.

LEGEND

- 7m street front setback
- 6m side setback
- Approved setback incursion

- Additional setback incursion
- Approved extents of setback incursion reduced
- Approved extents of setback maintained

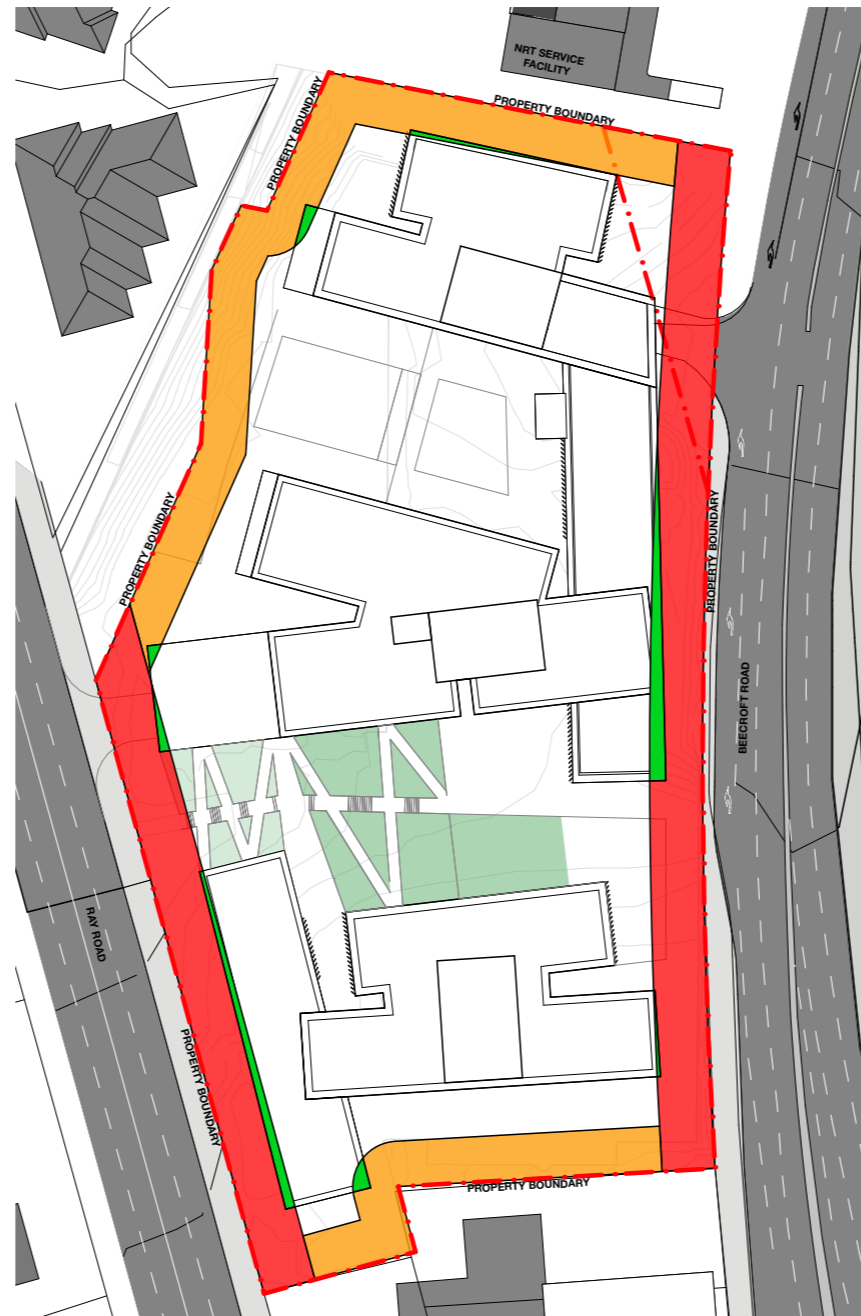
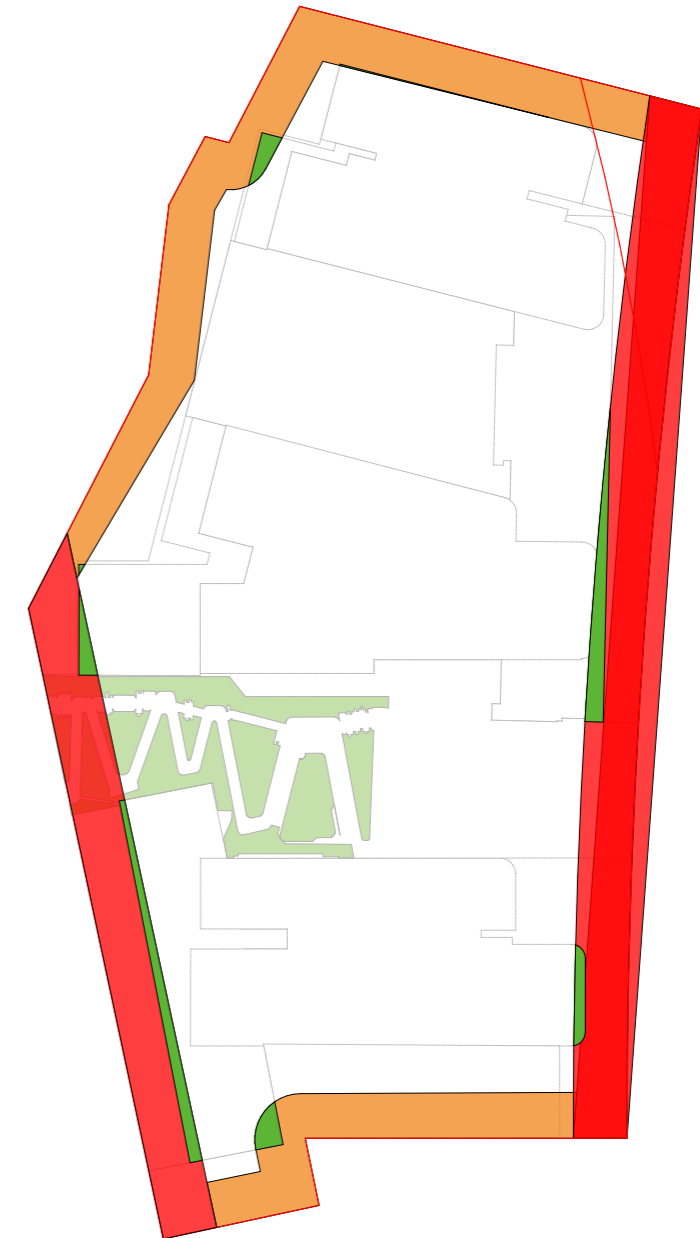


Image: Section 3.06 Setbacks and Alignments. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Massing and built form establish a clear street edge, with setbacks from the boundary line enabling pedestrian movement and landscaping of varying forms.

Minor incursions into the DCP setback zones as approved.



PROPOSED

Realignment of buildings maintains the principle arrangement, establishing a clear street edge while enabling pedestrian movement and planting.

Building setbacks are generally consistent in area and general form with the approved.

7.03 SITING THE DEVELOPMENT

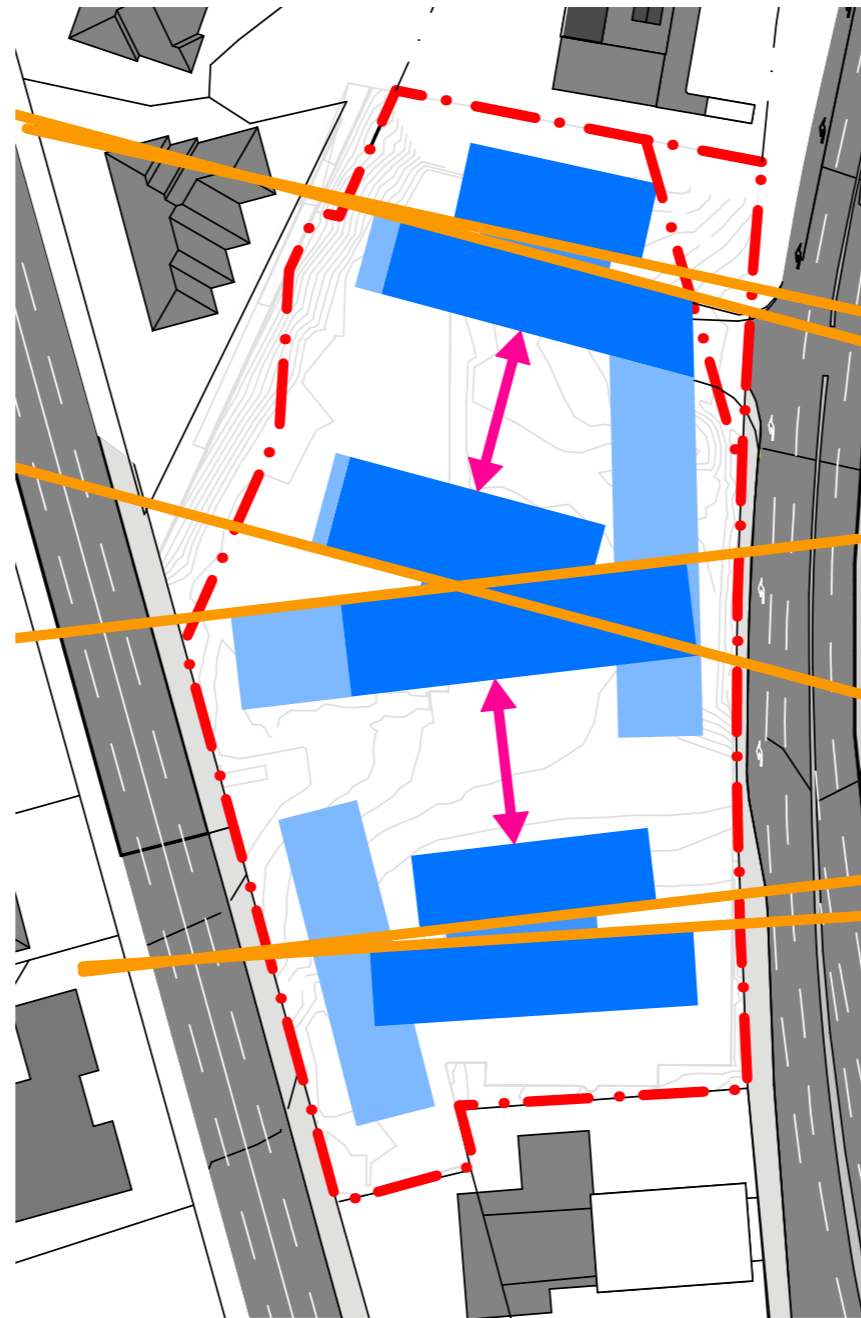
3B Orientation

ADG OBJECTIVE

- Aims
- Responding to desired streetscape character
 - Promoting amenity for both the proposed development and neighbouring properties
 - Providing for the enjoyment of significant views
 - Retaining trees and locating open spaces
 - Responding to the topography and contextual constraints such as overshadowing and noise

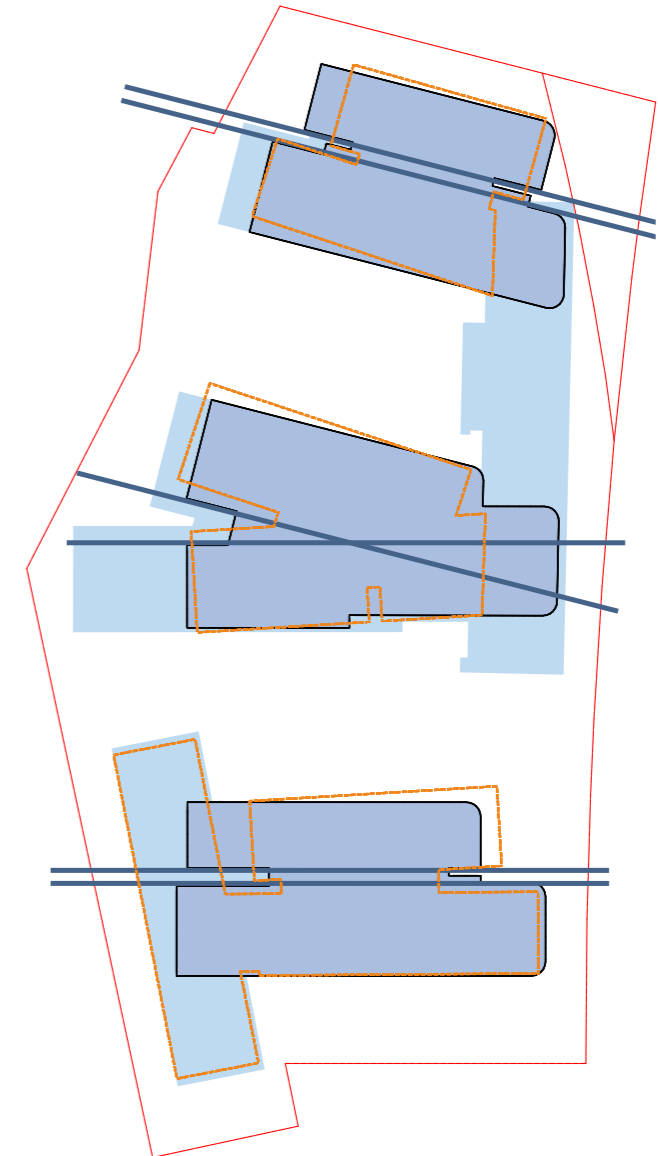
MODIFICATIONS:

- Minor reorientation aims to balance a rationalisation of floor plan with maintaining the principle of the approved form. Primarily buildings are realigned to stand parallel to the north and south boundaries and reduce the number of building angles.



APPROVED

Building orientation forms multiple unrelated angles, complex floor plans and complex built form junctions.



PROPOSED

Building realignment simplifies massing orientation whilst supporting the approved massing form.



north

7.03 SITING THE DEVELOPMENT

3C Public domain interface

ADG OBJECTIVE

Objective 3C-1

Transition between private and public domain is achieved without compromising safety and security.

Objective 3C-2

Amenity of the public domain is retained and enhanced.

RELEVANT CONSENT CONDITIONS:

PART B

2(a) in Section 3.02 (Design Guidelines), sub-section 2 regarding new through site link, include the following additional design guidance in relation to the pedestrian through-site link:

(i) the design of the through-site link should increase the amount of landscaped area and rationalise ramps and staircase, such as by:

- Investigate separating the staircase and ramps
- Simplify the levels at landings
- Reduce the total length of ramps
- Increase landscaped spaces at level changes
- Consider how the path of travel for ramps will terminate near building entrances

(ii) investigate design responses to keep the through site link open 18-24 hours a day

MODIFICATIONS:

- Landscaping aims to increase canopy cover, native planting and soften site edges, including through street trees.
- Through-site link movement is facilitated via ramp and stair access in line with relevant AS standards, incorporating CPTED principles, clear site lines and resting places.
- Increased active commercial frontage to Beecroft Road provides for spill-out seating.

LEGEND

- Landscaping (incl. deep soil)
- Publicly accessible
- New pedestrian footpath
- Commercial active frontage
- Non-residential public space
- Residential entries
- Communal open space
- Approved basement entry from Ray Road
- Proposed basement entry from Ray Road

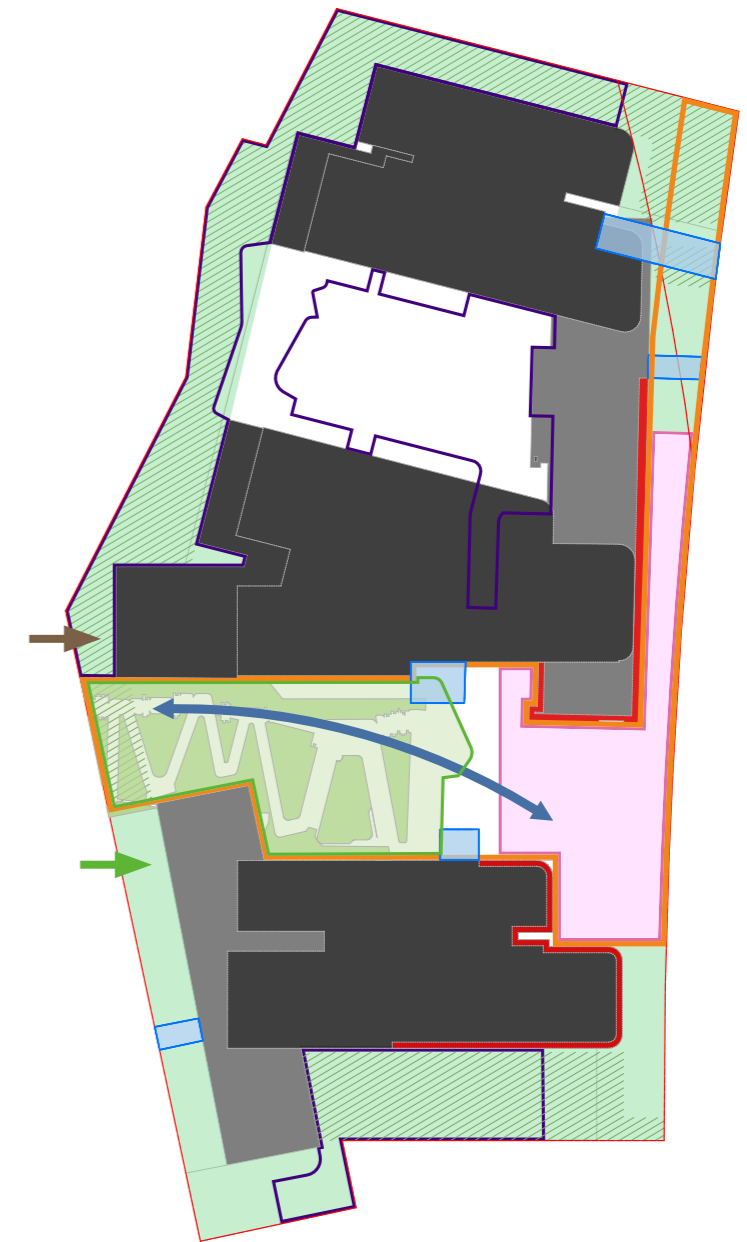


Image: Section 3.04 Public Domain and Landscape. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Commercial frontages and apartment locations facilitate passive surveillance generally.

The basement entry location requires a large expanse of blank walls with minimal activation at the western base of Building C.



PROPOSED

Street activation is improved and increased through:

- Relocation of basement entry and insertion of residential units to the base of Building C (west facade).
- Relocation of entry to Building C onto through-site link.
- Extension of street tree planting along Ray Road and Beecroft Road.
- Diverse landscaping with a focus on canopy cover and native planting.
- Increased commercial frontage to Beecroft Road.

7.03 SITING THE DEVELOPMENT

3D Communal and public open space

ADG OBJECTIVE

Objective 3D-1

An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.

Design Criteria

- Communal open space has a minimum area equal to **25% of the site**.
- Developments achieve a minimum of **50% direct sunlight** to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter).

Objective 3D-2

Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.

Objective 3D-3

Communal open space is designed to maximise safety.

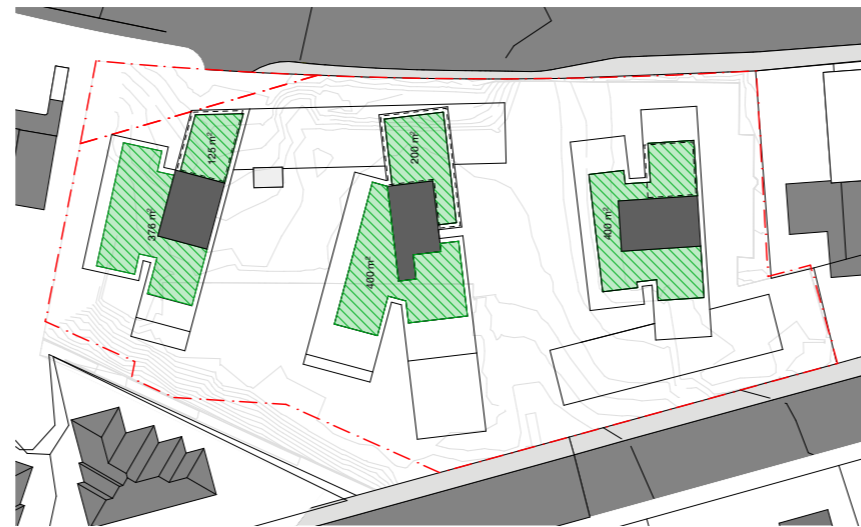
Objective 3D-4

Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.

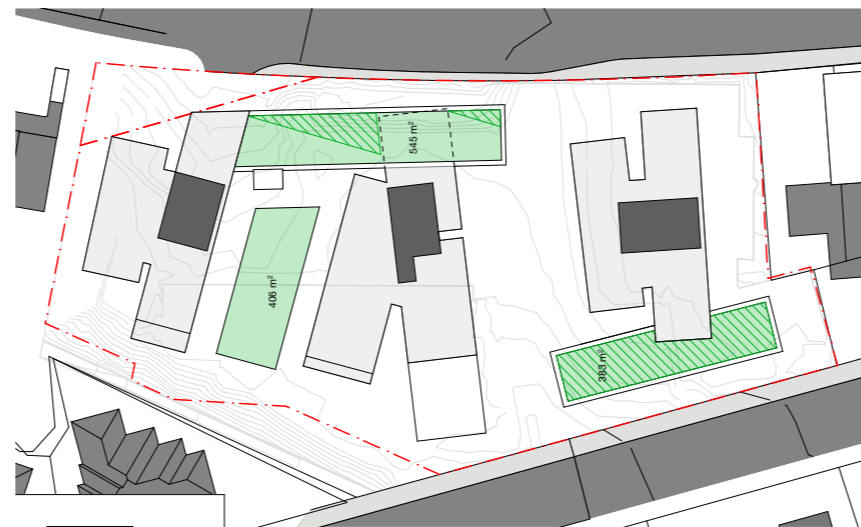
MODIFICATIONS:

- Communal open space is provided at ground level to the site perimeter, at ground level within a communal courtyard, at level 5 rooftops to Buildings A and D, and L13 to the rooftop of Building B.

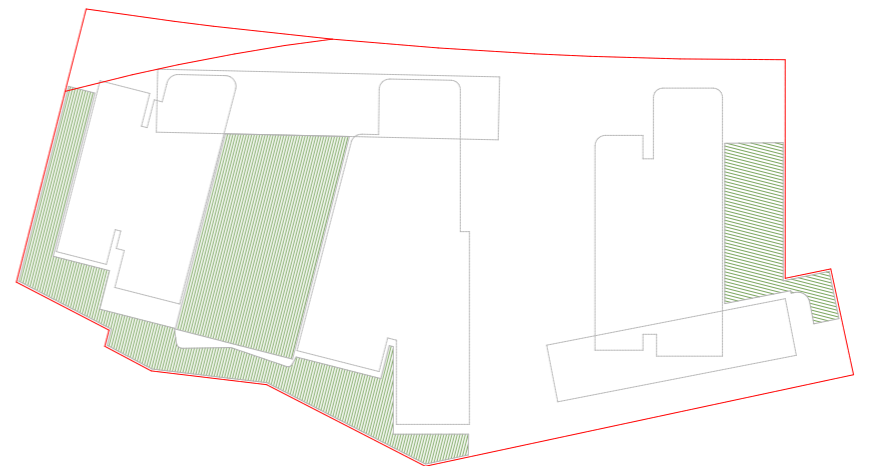
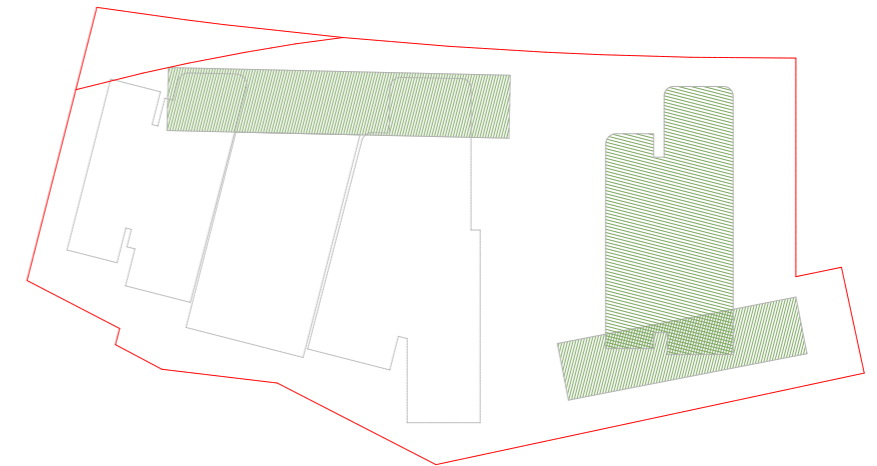
- Rooftops of Buildings C and E are provided for PV arrays and to reduce impact on the 48m height limit.



Upper Levels



Lower Levels



Images: Section 4.02 ADG - Communal Open Space. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

LEGEND

Communal open space



APPROVED

Communal open space is provided to the stepped communal courtyard at ground level (between buildings C and E) and rooftops of buildings A, B, C, D and E. Rooftops B, C and E are accessed via a two storey 'shuttle lift' adjacent to the main core.

Total Communal Open Space	2,710m²	(26%)
Achieving min. 2hrs solar access	1,955m²	(72%)

PROPOSED

Rearrangement of communal open space aims to remove use of two-storey shuttle lifts to improve floor plan efficient while reducing penetrations of the 48m floor height limit over Buildings C and E.

Total Communal Open Space	4104m²	(40%)
Achieving min. 2hrs solar access	2673m²	(65%)

7.03 SITING THE DEVELOPMENT

3E Deep soil zones

ADG OBJECTIVE

Objective 3E-1

Deep soil zones provide 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 Zone 7% of Site Area

RELEVANT CONSENT CONDITIONS:

PART B
2(b) in Section 3.03 (Design Guidelines), sub-section 6 regarding landscaping, include the following design guidance in relation to the Beecroft Road frontage of the site:

(i) consult with Roads and Maritime Services (RMS) to explore opportunities to plant street trees along the Beecroft Road frontage, including tree setbacks and key, species and mature canopy height

MODIFICATION:

- Deep soil is provided to the north, west and southern boundaries.

- The revised share slip lane amends the eastern boundary line. Street trees are to be provided within the site within raised planters. External to the boundary, a 1.8m wide planted verge provides a further opportunity for street trees. RMS have been engaged to review.



Image: Section 4.03 ADG - Deep Soil. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Deep soil zones are located on the northern and southern boundaries, with pockets along the through-site link and communal courtyard.

Total Deep Soil 1,880m² (18.6%)

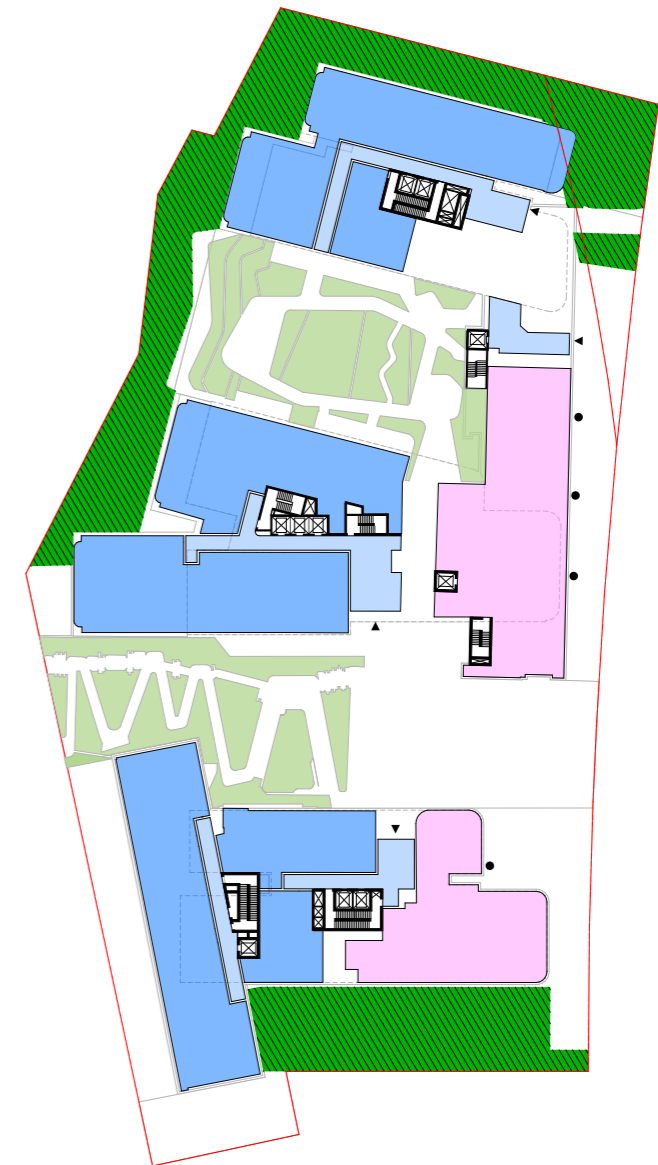
LEGEND

■ Deep soil zone

NOTE Total Site Area 10,121m²



north



PROPOSED

The northern and southern deep soil zones are extended along the western boundaries. Deep planters will also be provided through-out the through site link, communal courtyard and rooftop spaces in support of increased canopy cover.

Total Deep Soil 1889m² (19%)

7.03 SITING THE DEVELOPMENT

3G Pedestrian access and entries & 3H Vehicle access

ADG OBJECTIVE

Objective 3G-1

Building entries and pedestrian access connects to and addresses the public domain.

Objective 3G-2

Access, entries and pathways are accessible and easy to identify.

Objective 3G-3

Large sites provide pedestrian links for access to streets and connection to destinations.

Objective 3H-1

Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.

RELEVANT CONSENT CONDITIONS:

PART B

2(c) in Section 3.02 (Design Guidance), sub-section 1 in relation low scale buildings, include the following additional design guidance in relation to the Ray Road front of the site:

- (i) investigate opportunities to step the building levels along the slope of Ray Road to provide activated frontage and provide at grade pedestrian access to ensure basement walls do not dominate the frontage
- (ii) where basement walls protrude above ground and buildings are unable to be stepped, refer to Section 3.10 of this report for basement treatment options.

MODIFICATIONS:

- Ray Road vehicular entry has been relocated to reduce exposed blank walls and increased active frontages facing west and onto the through-site link.

LEGEND

- Through site link
- Ray Road shared on road bike path
- Indicative accessible path
- Pedestrian access
- Residential entries
- Vehicular entries
- Residential lobbies

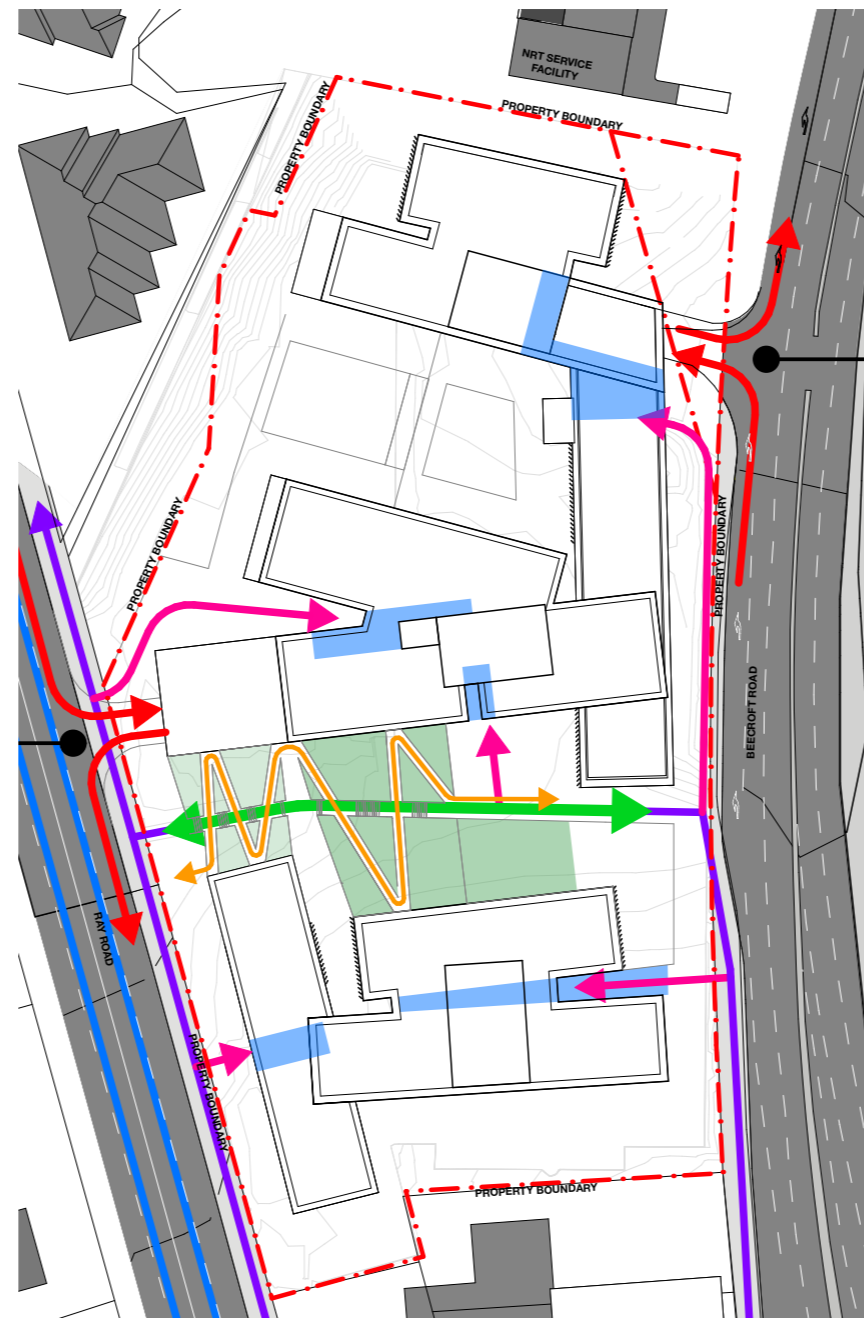
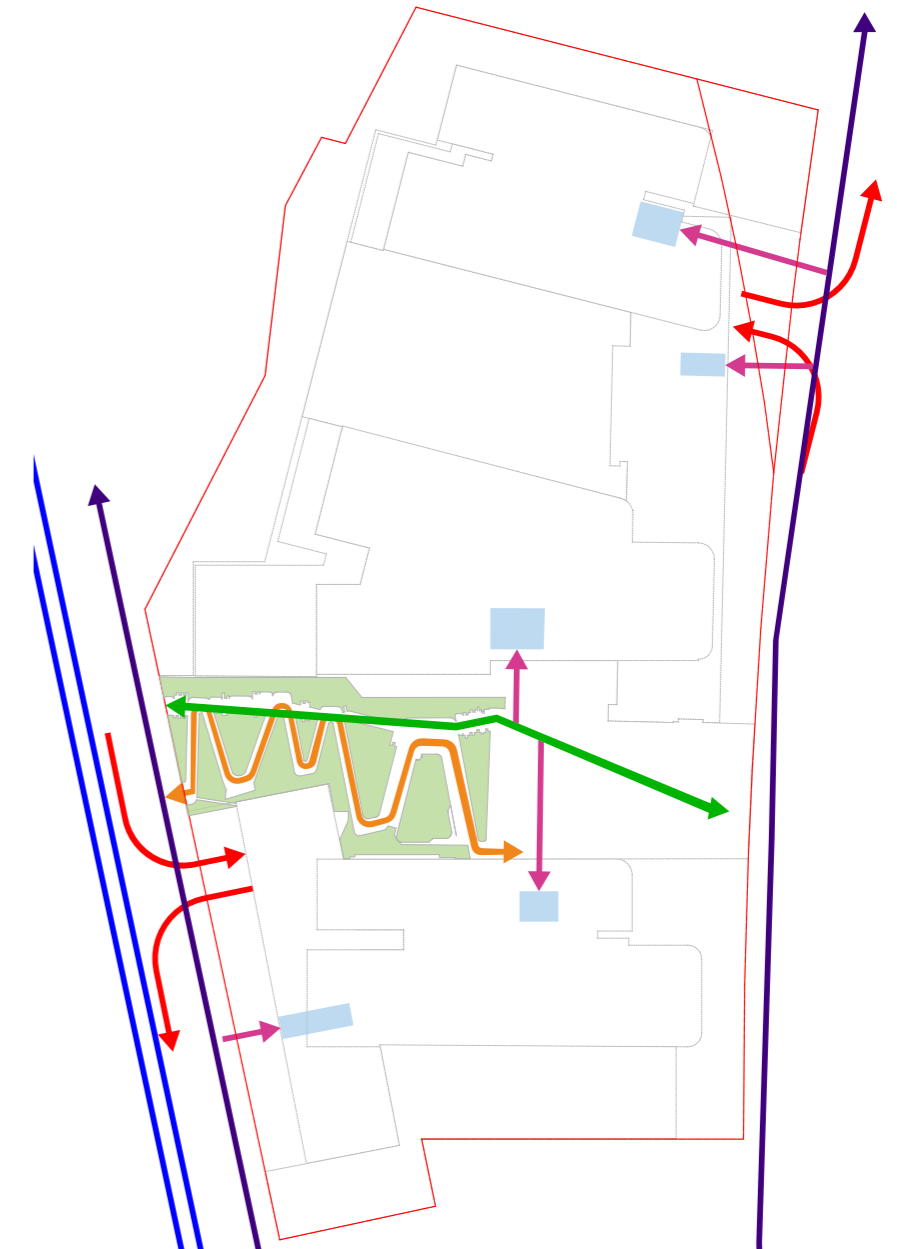


Image: Section 3.05 Access and Connectivity, Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Residential entrances are distributed across the site, with Building C requiring split entries via a central recess in the built form.



PROPOSED

Ray Road vehicular access has been relocated from Building C to A to increase ground activation at the west end of through site link, and comply with flood safety requirements.

Pedestrian entry of Building C is now solely from the through-site link, supporting its activation. An undercroft link adjacent provides a controlled access and visual link from the through site link and communal courtyard.

7.03 SITING THE DEVELOPMENT

3J Bicycle and car parking

ADG OBJECTIVE

Objective 3J-1

Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas.

Objective 3J-2

Parking and facilities are provided for other modes of transport.

Objective 3J-3

Car park design and access is safe and secure.

Objective 3J-4

Visual and environmental impacts of underground car parking are minimised.

Objective 3J-5

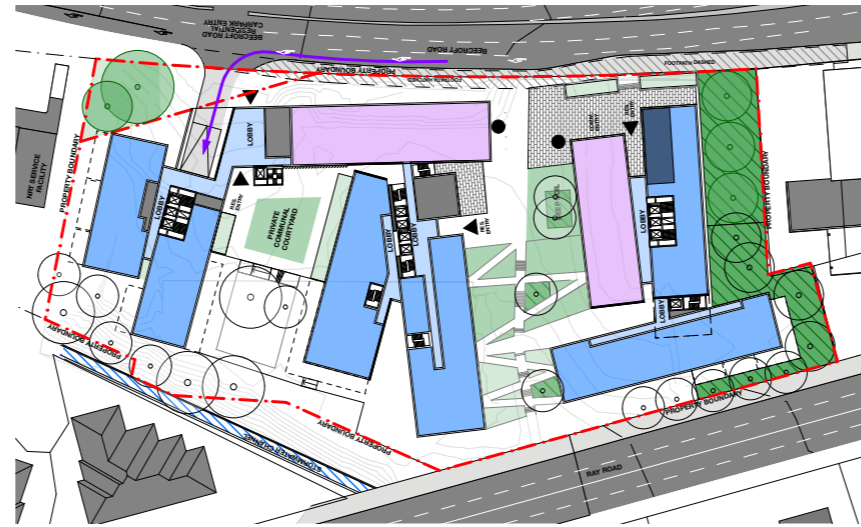
Visual and environmental impacts of on-grade car parking are minimised.

Objective 3J-6

Visual and environmental impacts of aboveground enclosed car parking are minimised.

MODIFICATIONS:

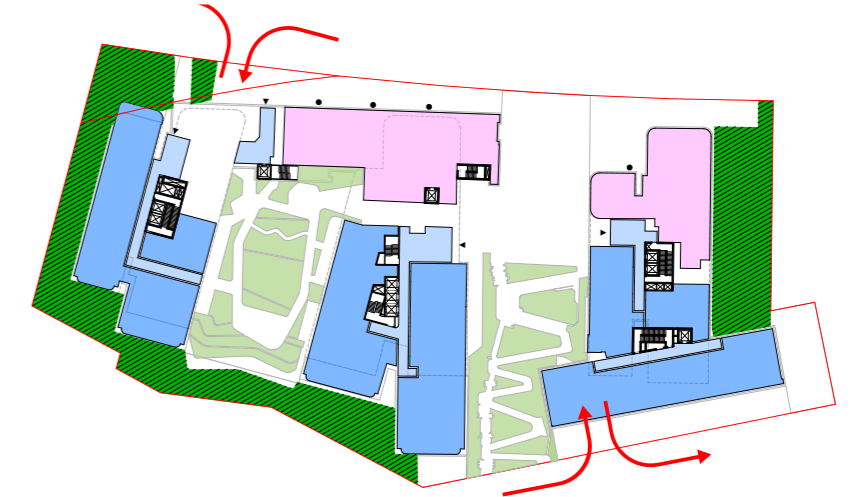
- Parking is provided as per RMS rates as per the approved due to proximity to good public transport links.
- End of trip and electric vehicle charging facilities are also provided to meet Green Star 5 Star requirements.



Ground Level



Lower Ground Level



LEGEND

- Vehicular access
- Service access
- Non-residential parking
- Residential visitor parking
- Residential parking
- End of trip facilities
- Residential bicycle parking
- Residential visitor bicycle parking

STATUS FROM APPROVED DOCUMENTS:

AMENDED



Image: Section 5.07 Plans - LG & GF. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Car parking rates are based on RMS requirements.

Residential Private Car	288	Residential Bicycle	476
Residential Visitor Car	62	(incl. Visitor)	
Commercial Car	11	Motorcycle	15
Car Share	3		

PROPOSED

RMS parking rates have been applied to the revised mix and yield.

Residential Private Car	299	Residential Bicycle	372
Residential Visitor Car	53	Residential Visitor	40
Commercial Car	15	End of Trip (incl. vis)	8
Car Share:	1	Motorcycle	6

7.03 SITING THE DEVELOPMENT

3J Bicycle and car parking

ADG OBJECTIVE

Objective 3J-1

Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas.

Objective 3J-2

Parking and facilities are provided for other modes of transport.

Objective 3J-3

Car park design and access is safe and secure.

Objective 3J-4

Visual and environmental impacts of underground car parking are minimised.

Objective 3J-5

Visual and environmental impacts of on-grade car parking are minimised.










Objective 3J-6

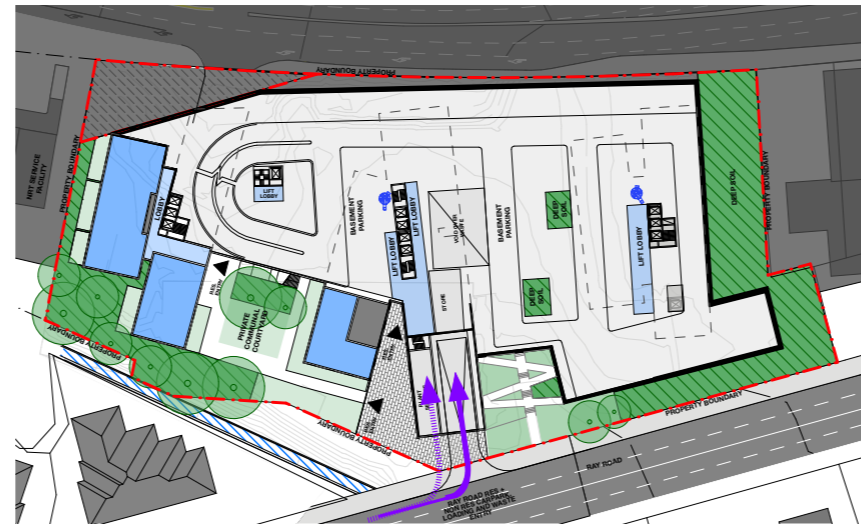
Visual and environmental impacts of aboveground enclosed car parking are minimised.

MODIFICATIONS:

- Parking is provided as per RMS rates as per the approved due to proximity to good public transport links.
- End of trip and electric vehicle charging facilities are also provided to meet Green Star 5 Star requirements.

LEGEND

-  Vehicular access
-  Service access
-  Loading dock
-  Non-residential parking
-  Residential visitor parking
-  Residential parking
-  End of trip facilities
-  Residential bicycle parking
-  Residential visitor bicycle parking



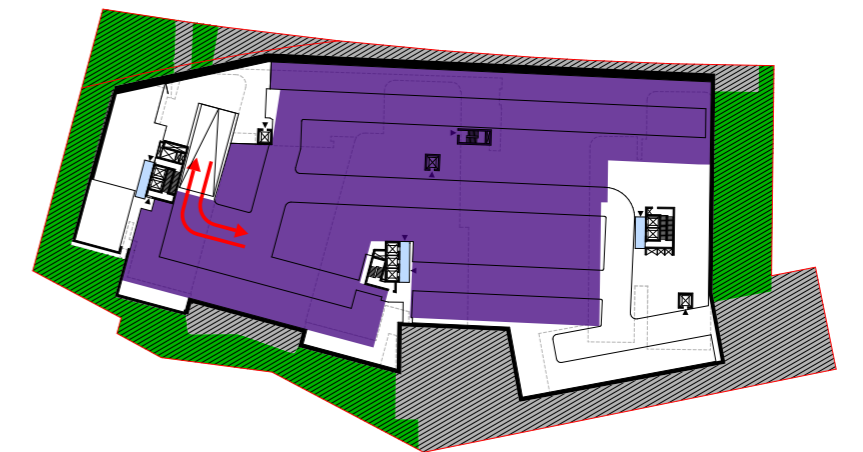
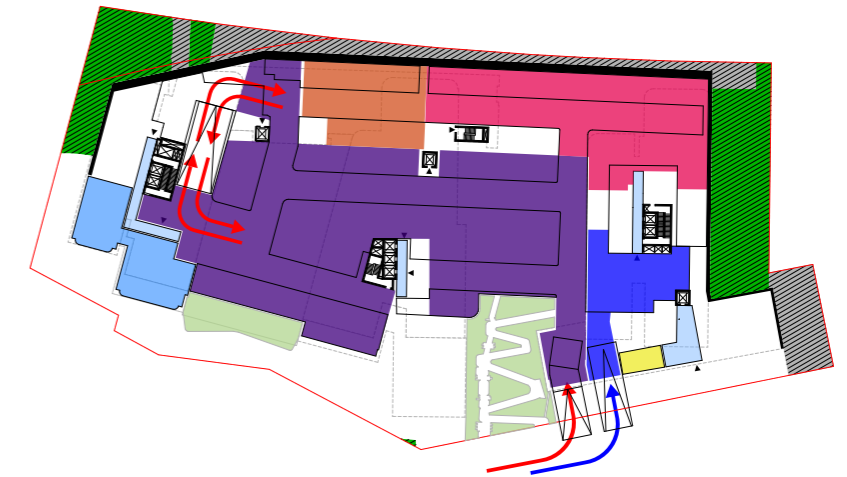
Basement 1



Basement 2

Image: Section 5.06, Plans - P2 & P1. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED



PROPOSED

7.04 DESIGNING THE BUILDING

4A Solar and daylight access

ADG OBJECTIVE

Objective 4A-1

To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space

Design criteria –

Living rooms and private open spaces of **at least 70% of apartments** in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at midwinter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas – A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at midwinter.

Objective 4A-2

Daylight access is maximised where sunlight is limited.

Objective 4A-3

Design incorporates shading and glare control, particularly for warmer months.

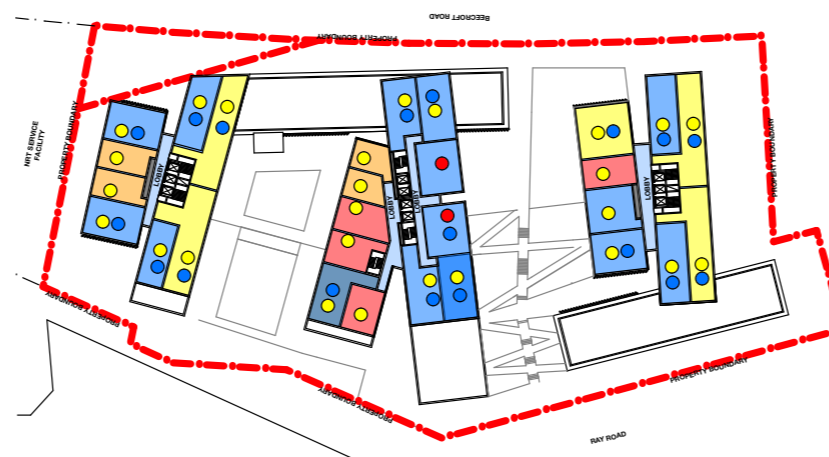
MODIFICATIONS:

- Yield and arrangement of units has been directly informed by achieving amenity standards, in particular solar, daylight and cross-ventilation compliance, as well as providing efficient floor plans.

- The proposals specifically aim to reduce the number of 'no direct sunlight' apartments to improve overall amenity.



Typical Levels 1-4



Typical Levels 6-11



Image: Section 4.04 ADG - Ventilation and Solar Access. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

77.6% +2hrs of direct sunlight, 9am-3pm, June 21st
20.1% No direct sunlight, 9am-3pm, June 21st

PROPOSED

72.4% +2hrs of direct sunlight, 9am-3pm, June 21st
17.7% No direct sunlight, 9am-3pm, June 21st

LEGEND

- +2hrs sunlight, 9am-3pm June 21st
- <2hrs sunlight, 9am-3pm June 21st
- No direct sunlight, 9am-3pm June 21st



north

7.04 DESIGNING THE BUILDING

4B Natural ventilation

ADG OBJECTIVE

Objective 4B-1

All habitable rooms are naturally ventilated.

Objective 4B-2

The layout and design of single aspect apartments maximises natural ventilation.

Objective 4B-3

The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents.

Design criteria –

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 – Overall depth of a cross-over or cross through apartment does not exceed 18m, measured glass line to glass line.

MODIFICATIONS:

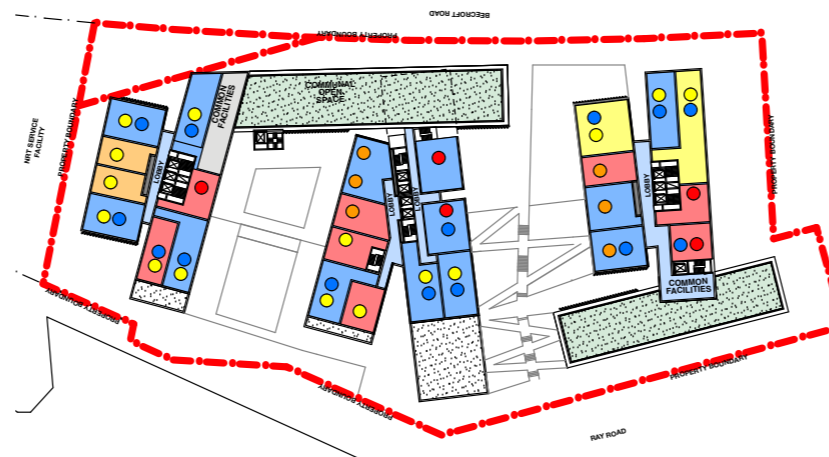
- Yield and arrangement of units has been directly informed by achieving amenity standards, in particular solar, daylight and cross-ventilation compliance, as well as providing efficient floor plans.



Typical Levels 1-4



Typical Levels 1-4



Typical Levels 5



Levels 5

Image: Section 4.04 ADG - Ventilation and Solar Access. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

54% Units of first 9 storeys marked as cross-ventilated
 Detailed review removing non-compliant cross-ventilated units:
28% Units of first 9 storeys are cross-ventilated

PROPOSED

60.2% Units of first 9 storeys are cross-ventilated

LEGEND

● Naturally cross-ventilated



north

7.04 DESIGNING THE BUILDING

4C Ceiling heights

ADG OBJECTIVE

Objective 4C-1

Ceiling height achieves sufficient natural ventilation and daylight access.

Design criteria –

Measured from finished floor level to finished ceiling level, minimum ceiling heights are:

- Habitable rooms: 2.7m.
- Non-habitable: 2.4m.
- For 2 storey apartments: 2.7m for main living area floor; 2.4m for second floor, where the area does not exceed 50% of the apartment area.
- If located in mixed use area: 3.3m for ground and first floor to promote flexibility.

Objective 4C-2

Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms.

Objective 4C-3

Ceiling heights contribute to the flexibility of building use over the life of the building.

HORNSBY LEP

Height of Buildings Map Sheet HOB_011: Zone 'X' 48m.



LEGEND

- Residential
- Residential Lobby
- Non-Residential

APPROVED

Residential ceiling heights are generally consistent at 2.7m with localised increases at Ray Road basement entry and pedestrian entries.

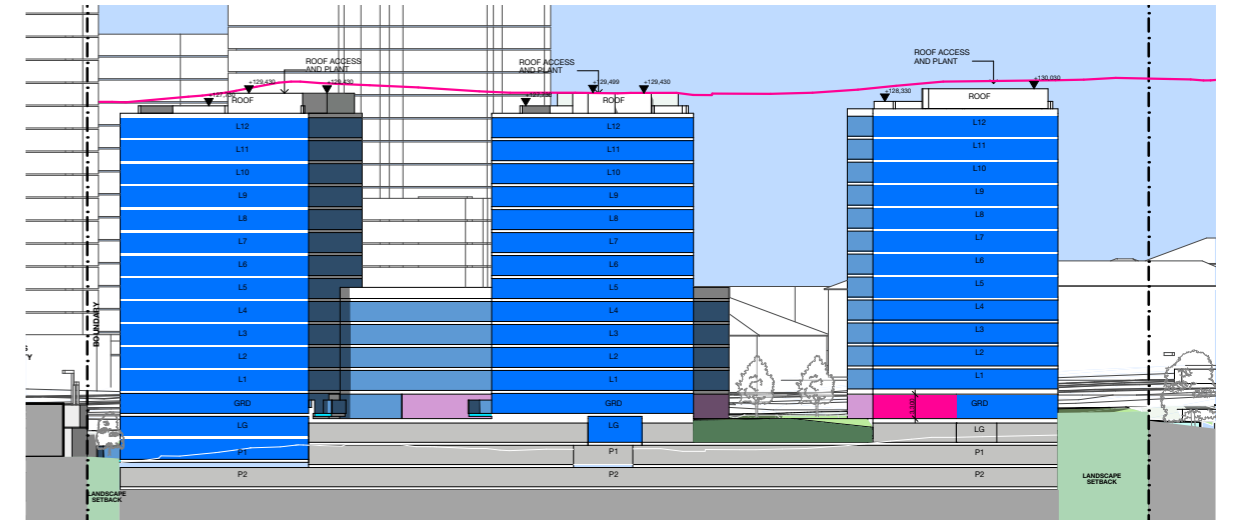
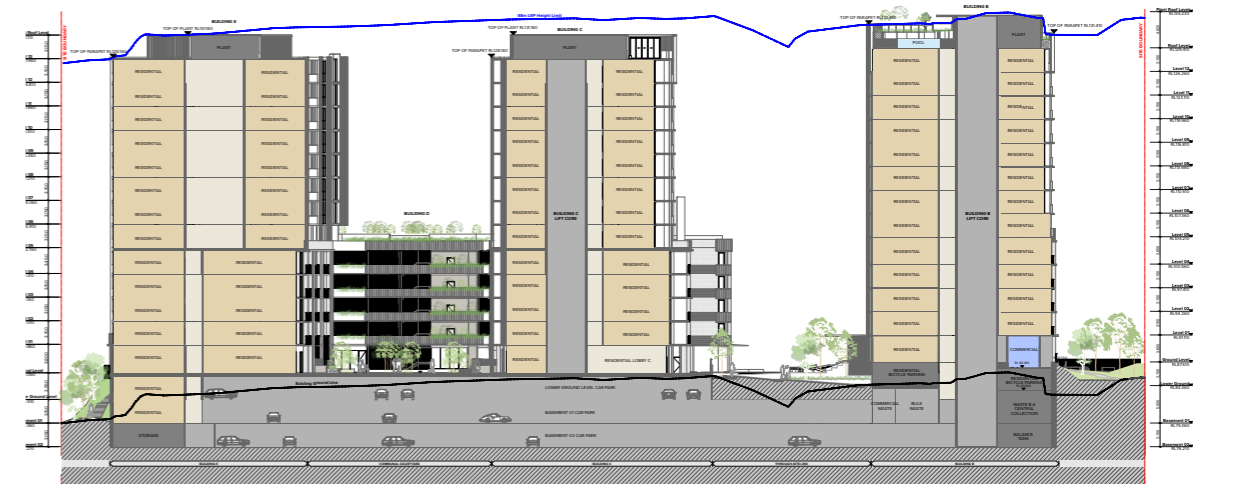


Image: Section 5.10 East/West Section. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

PROPOSED

Residential ceiling heights are generally maintained at 2.7m, with a floor to floor height of 3.15m.

At ground level ceiling heights increased.



7.04 DESIGNING THE BUILDING

4K Apartment mix

ADG OBJECTIVE

Objective 4K-1

A range of apartment types and sizes is provided to cater for different household types now and into the future.

Objective 4K-2

The apartment mix is distributed to suitable locations within the building.

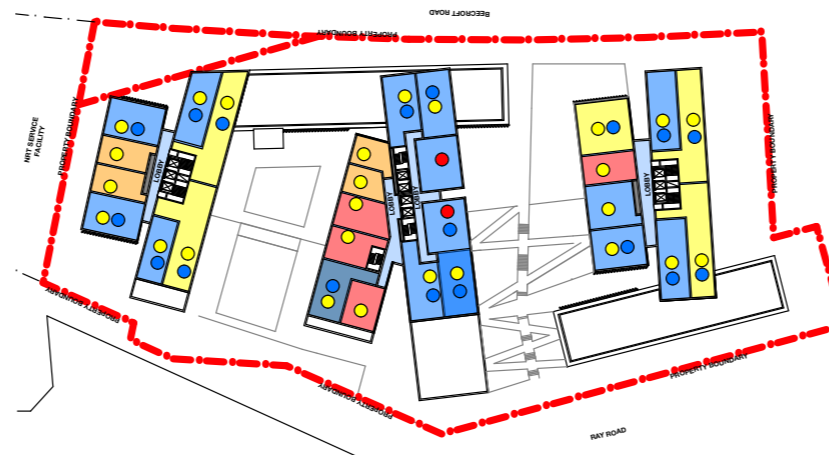
MODIFICATIONS:

- Yield and arrangement of units has been directly informed by achieving amenity standards, in particular solar, daylight and cross-ventilation compliance, as well as providing efficient floor plans.

- A revised mix has been driven in order to provide demographic diversity within the development.



Typical Levels 1-4



Typical Levels 6-11

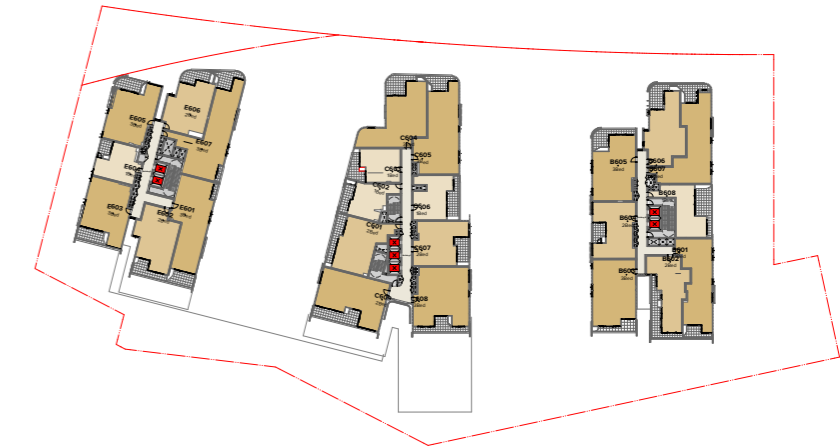


Image: Section 4.04 ADG - Ventilation and Solar Access. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Approved mix:	
Studio & 1 Bed	35% (47 & 104),
2 Bed	51.2% (221),
3 Bed	13.8% (60)
TOTAL UNITS:	432

PROPOSED

Proposed Mix:	
1 Bed	19.3% (72)
2 Bed	49.3% (184)
3 Bed	31.4% (117)
TOTAL UNITS:	373

LEGEND

- Studio
- 1 Bed
- 2 Bed
- 3 Bed



Revised mix is reflective of amendments to achieve ADG compliance and local demographic demand providing a larger proportion of larger homes in the city centre for young families and downsizing couples.

7.04 DESIGNING THE BUILDING

4N Roof design

ADG OBJECTIVE

Objective 4N-1

Roof treatments are integrated into the building design and positively respond to the street.

Objective 4N-2

Opportunities to use roof space for residential accommodation and open space are maximised.

Objective 4N-3

Roof design incorporates sustainability features.

MODIFICATIONS:

- Communal rooftop spaces have been relocated from the approved location of Building C and E rooftops, to ground levels. This reduces impact on the 48m height limit and makes roof space available to the use of photovoltaic panels.
- Communal rooftop spaces remain to L5 of Buildings A and D, as well as L13 of Building B.
- The rooftop access strategy removes the requirement for two-storey shuttle lifts of the approved.

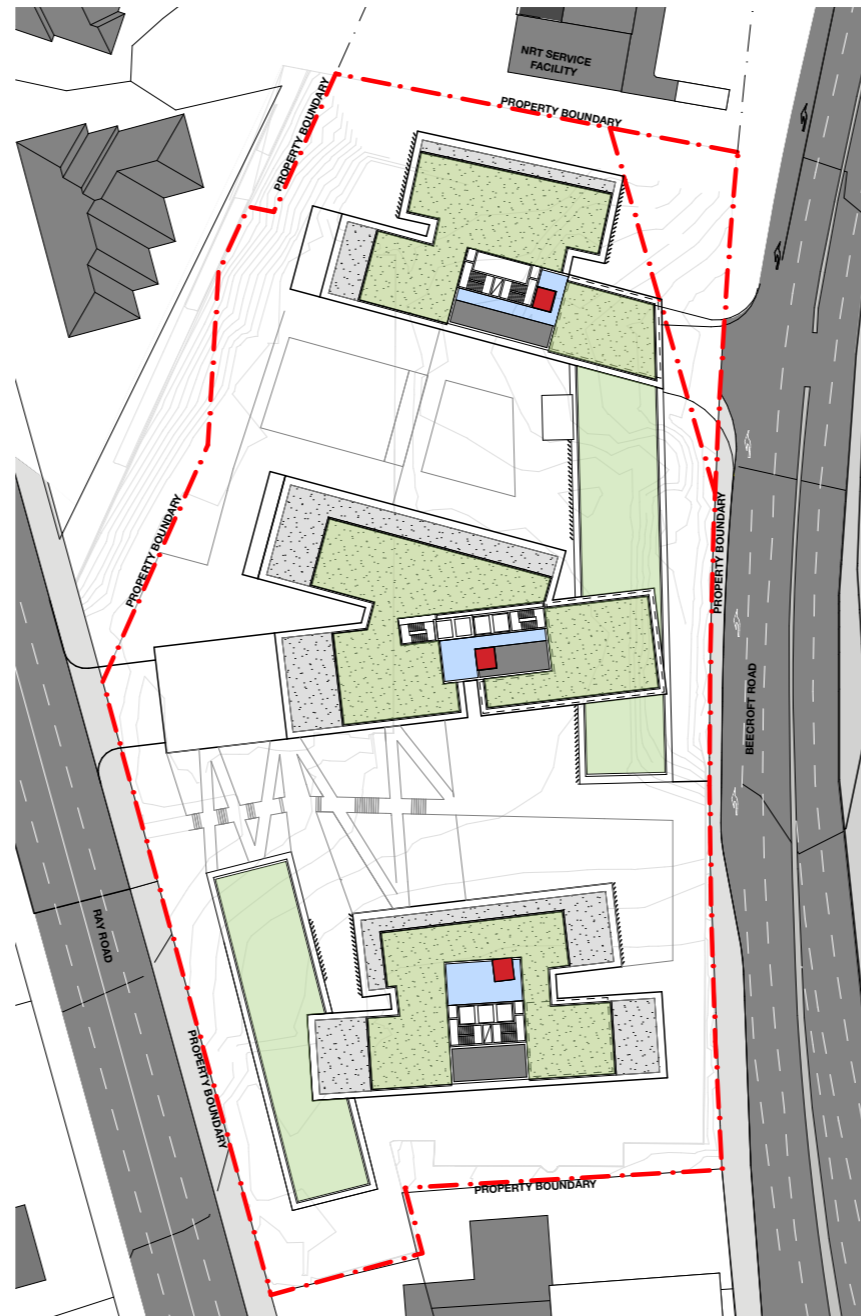
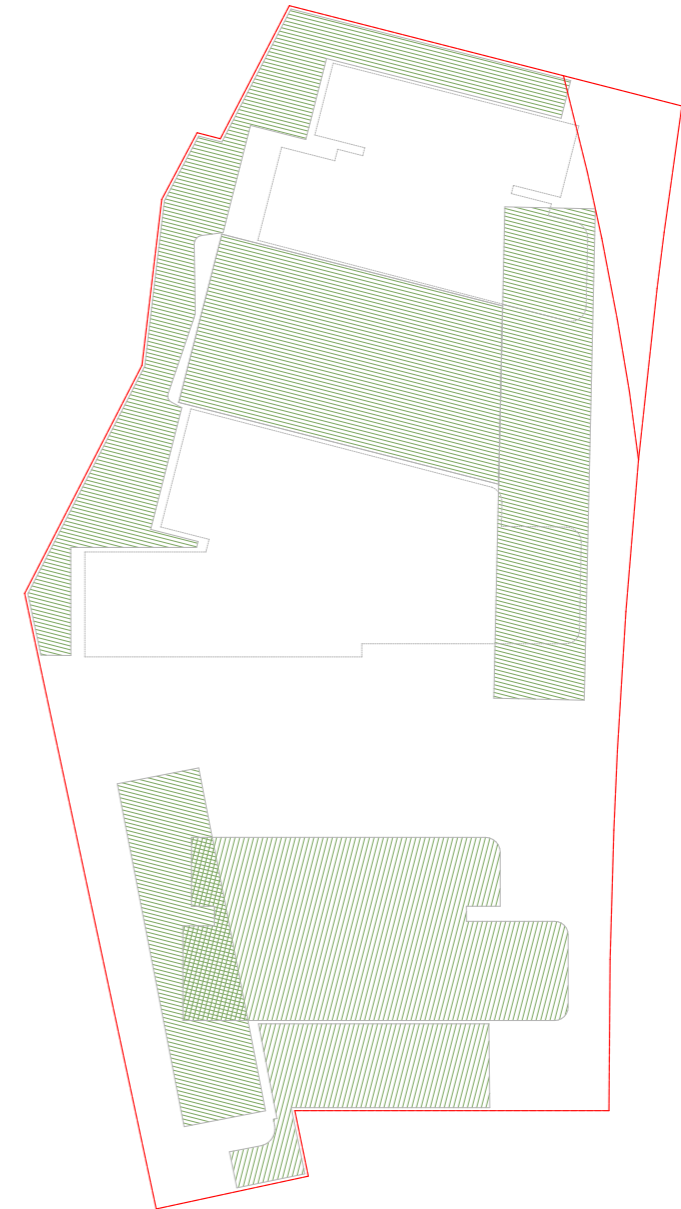


Image: Section 5.09 Plans - Tower. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Rooftops of Buildings B, C and E are provided with communal open spaces, each accessed by two storey shuttle lifts.

Rooftops of Buildings A and D are also provided as communal open spaces.



PROPOSED

Communal rooftops are relocating from Buildings C and E, replaced with photovoltaics. Communal rooftops are retained at Building A and D L5, and L13 of Building B.

LEGEND

- Shuttle lift
- Photovoltaics
- Communal open space



7.04 DESIGNING THE BUILDING

40 Landscape design

ADG OBJECTIVE

Objective 40-1

Landscape design is viable and sustainable.

Objective 40-2

Landscape design contributes to the streetscape and amenity.

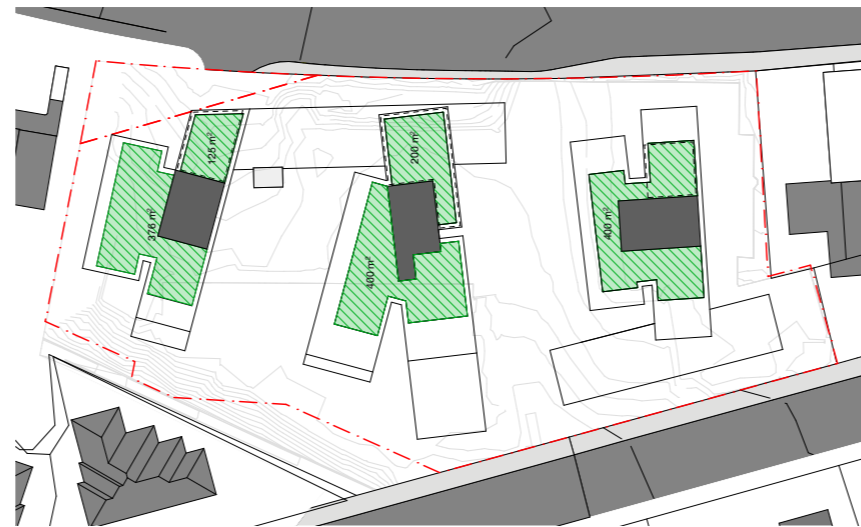
MODIFICATIONS:

- Ground levels (B1-Ground) have been integrated further into the landscape strategy with communally accessible walkways and native planting introduced along the west boundary with Devlin's Creek.

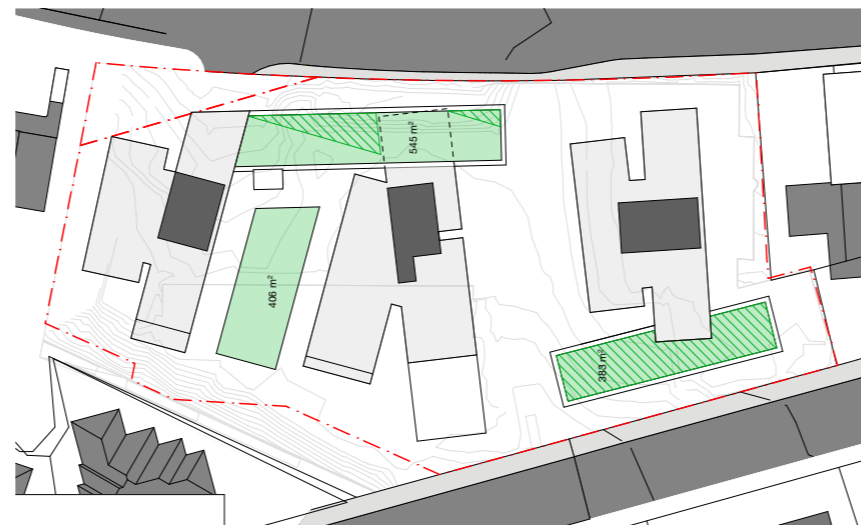
- Rooftops of Buildings C and E and be reallocated to provide for photovoltaics, no longer acting as communal open space, aiding in compliance with HLEP height limit.

LEGEND

- 1. A family and events space** (Communal Open Space)
A grassed neighbourhood green, adjacent to, and supporting, the community room, a dense planted western edge with seating as meeting places.
- 2. The 'through-site link'** A 24hr publicly accessible space: the primary public domain, embedded with CPTED principles, diverse planting, canopy cover and seating.
- 3. Communal spaces incorporating deep soil** (Communal Open Space & Deep Soil) 'Eco-park' edges with canopy cover and walkways connecting spaces.
- 4. Street trees and planting** (Beecroft Road to investigate to feasibility with RMS).
- 5. Social hosting spaces** (Communal Open Space)
Rooftop terraces with a considered programme and features such as vegetable gardens, rooftop cinema, meeting places all benefiting from natural and man made shading.
- 6. Private reflective and workout spaces** (Communal Open Space) Further programmed rooftops with yoga deck, outdoor gyms and gardens.



Upper Levels



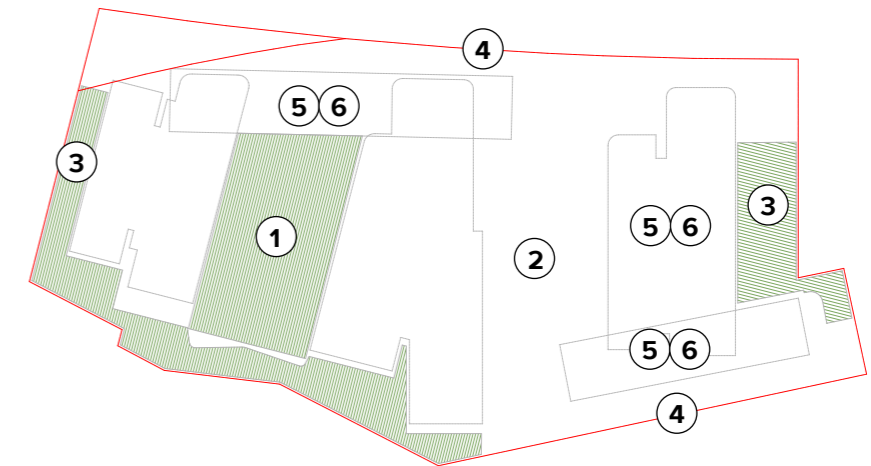
Lower Levels

Image: Section 4.02 ADG - Communal Open Space. Amended and approved Design Report, 19.03.20, Bennett and Trimble.

APPROVED

Unspecified at approval.

Communal Open Space 1,955m² (+2hrs solar access)
Deep Soil 1,880m²



PROPOSED

A diverse offering of 6 typologies for public and resident use, with each building core able to access a communal open space.

Communal Open Space 2,673m² (+2hrs solar access)
Deep Soil 1,889m²



north

8.0 ARCHITECTURAL DRAWINGS

8.01 FLOOR PLANS

8.02 ELEVATIONS

8.03 SECTIONS

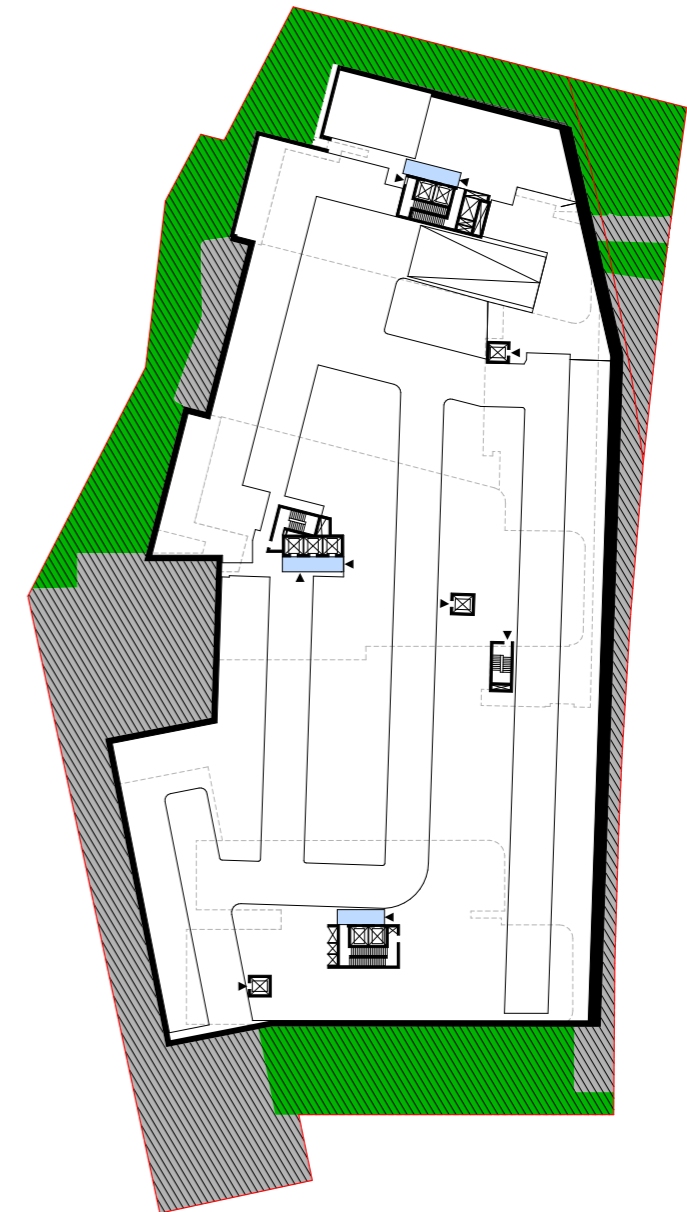
8.04 SUN STUDIES

8.01 FLOOR PLANS

Basement 2



APPROVED



PROPOSED

LEGEND

- Commercial Unit
- Residential
- Landscape
- Residential Entry
- Non Residential Entry

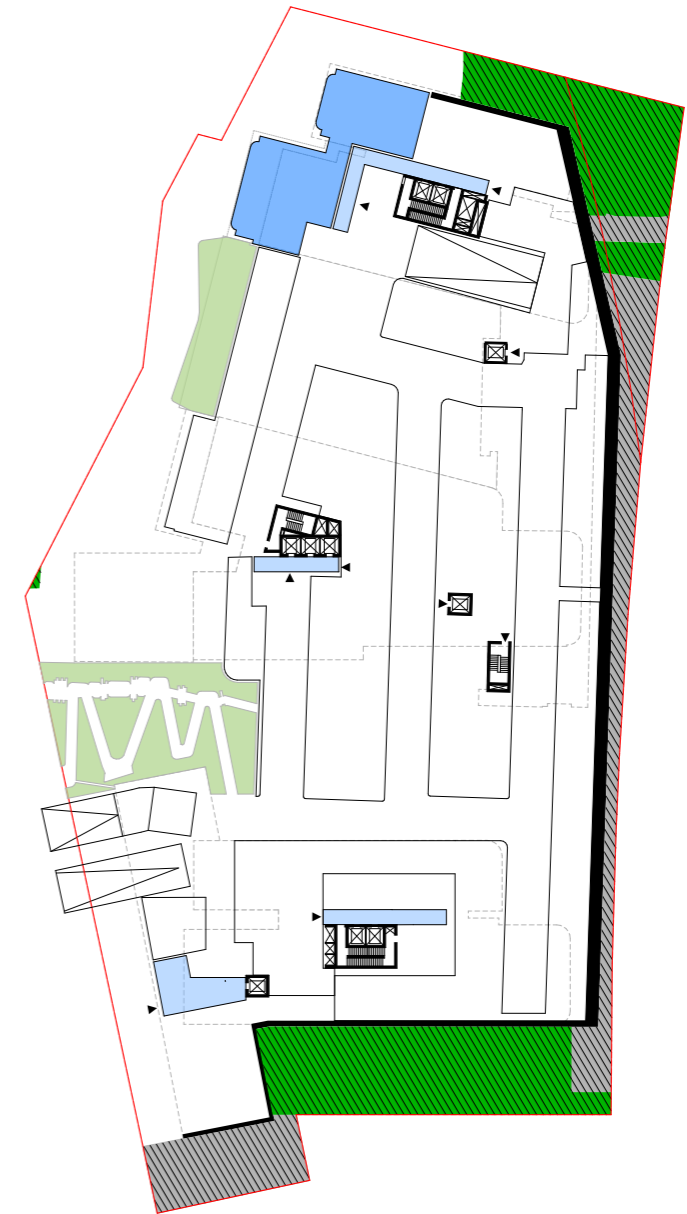
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.01 FLOOR PLANS

Basement 1



APPROVED



PROPOSED

LEGEND

- Commercial Unit
- Residential
- Landscape
- Residential Entry
- Non Residential Entry

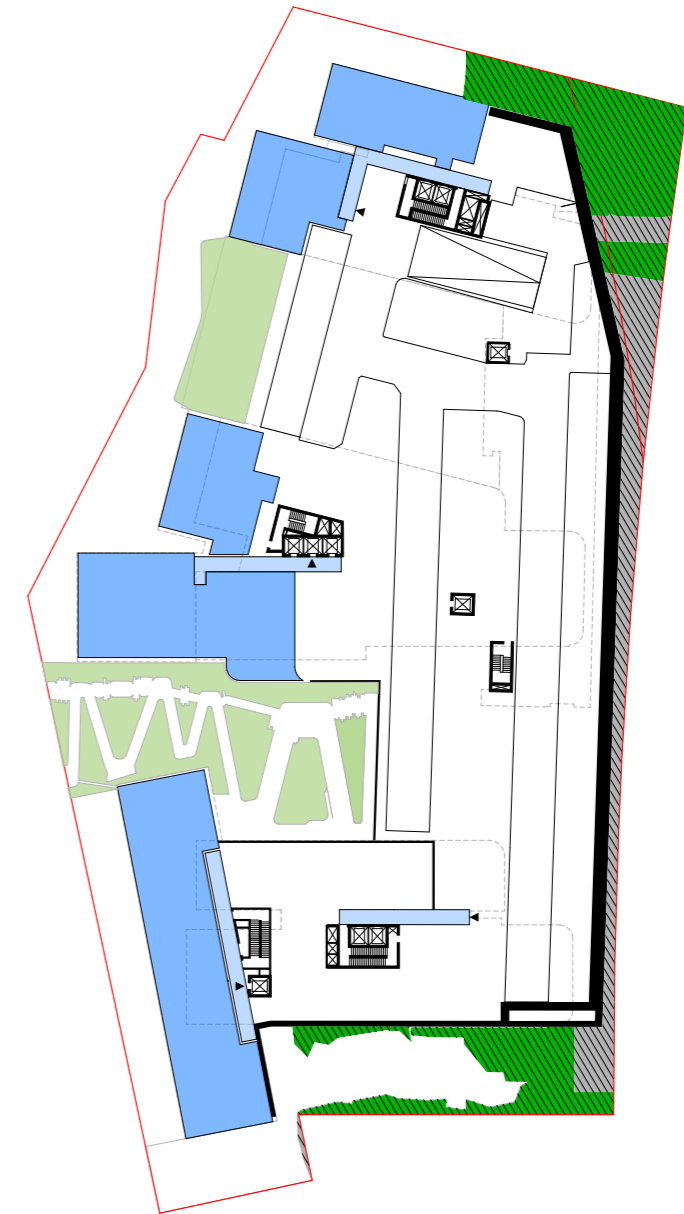
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.01 FLOOR PLANS

Lower Ground



APPROVED



PROPOSED

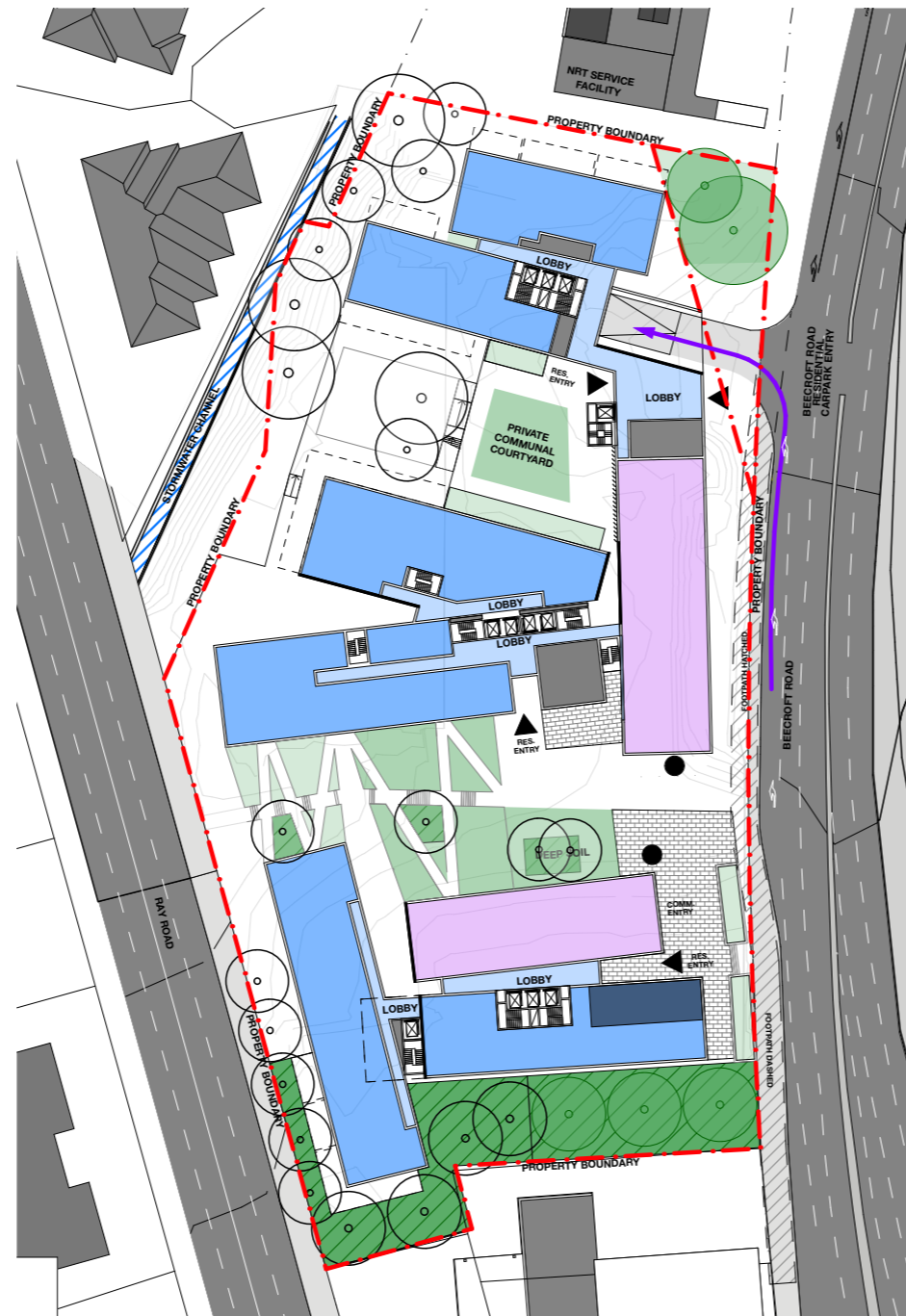
LEGEND

- Commercial Unit
- Residential
- Landscape
- Residential Entry
- Non Residential Entry

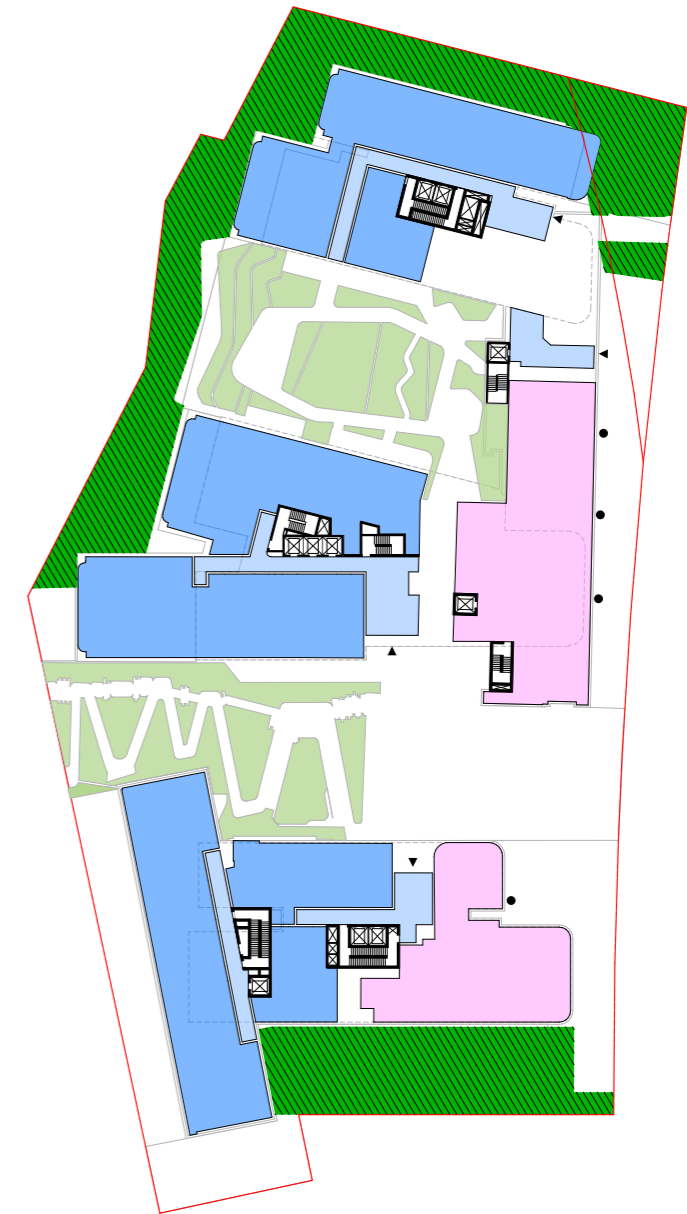
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.01 FLOOR PLANS

Ground



APPROVED



PROPOSED

LEGEND

- Commercial Unit
- Residential
- Landscape
- Residential Entry
- Non Residential Entry

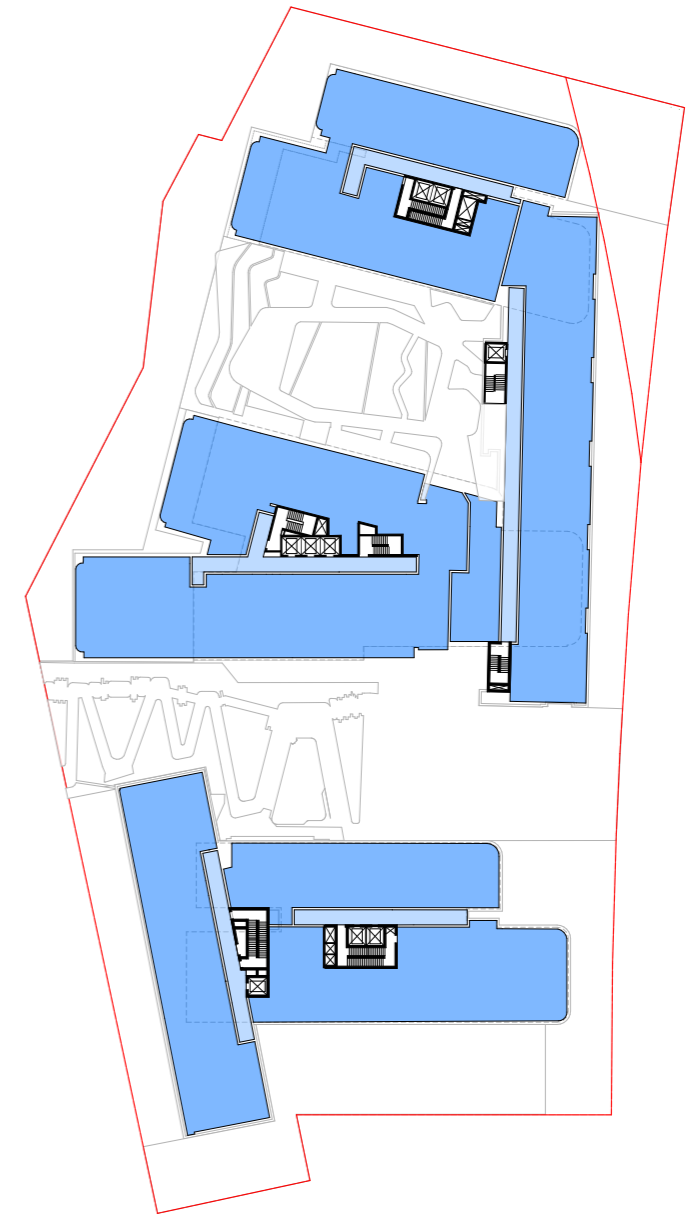
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.01 FLOOR PLANS

Lower Level (01-04)



APPROVED



PROPOSED

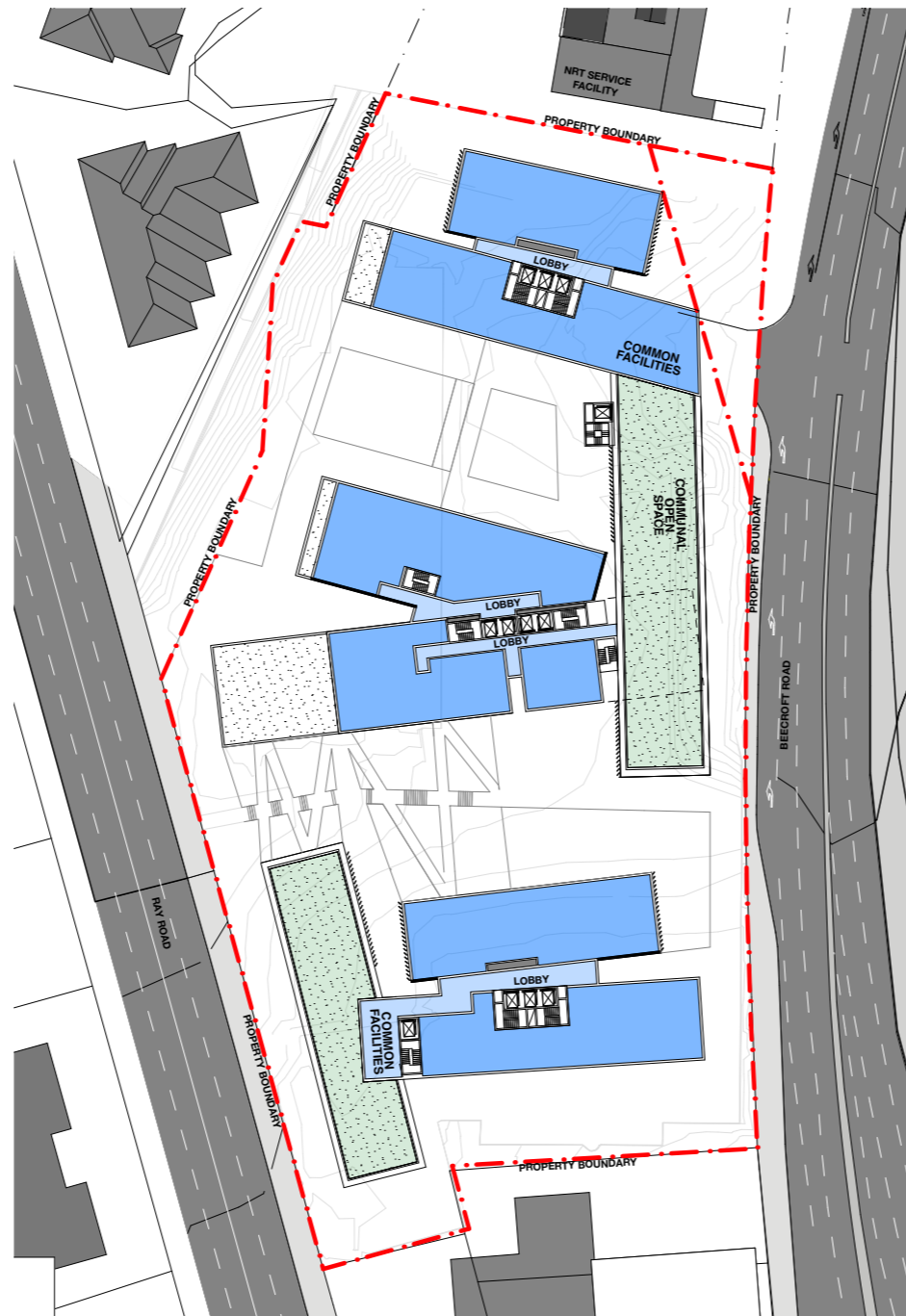
LEGEND

Residential

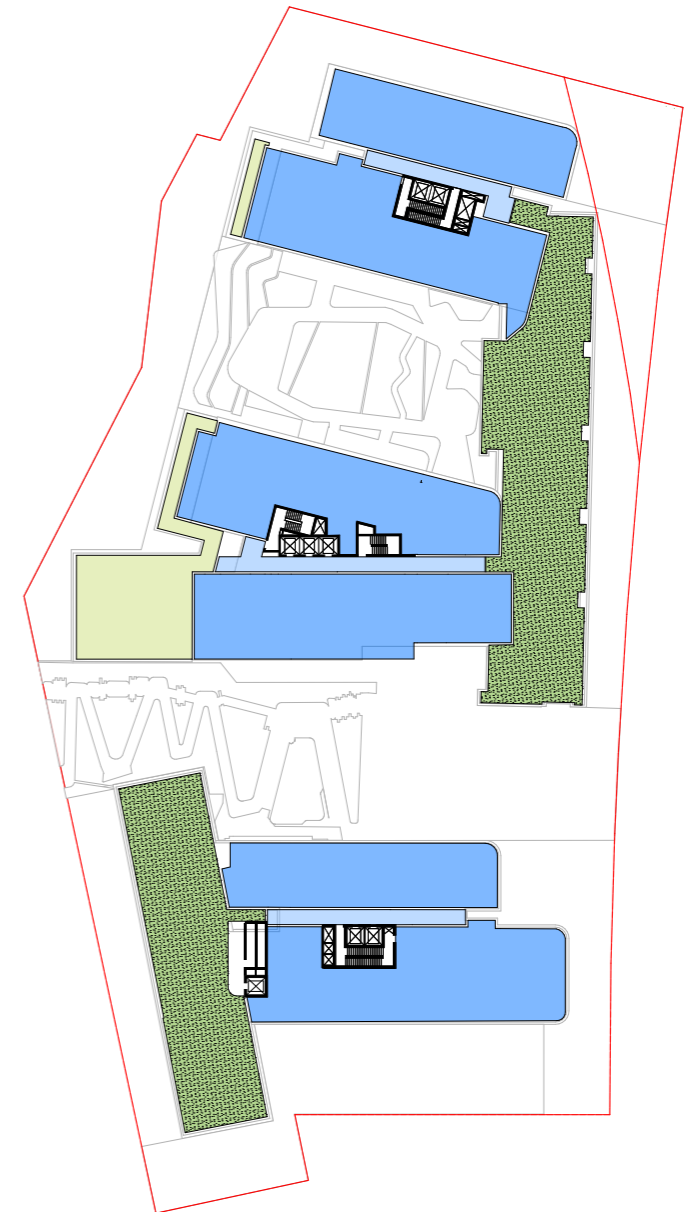
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.01 FLOOR PLANS

Level 05



APPROVED



PROPOSED

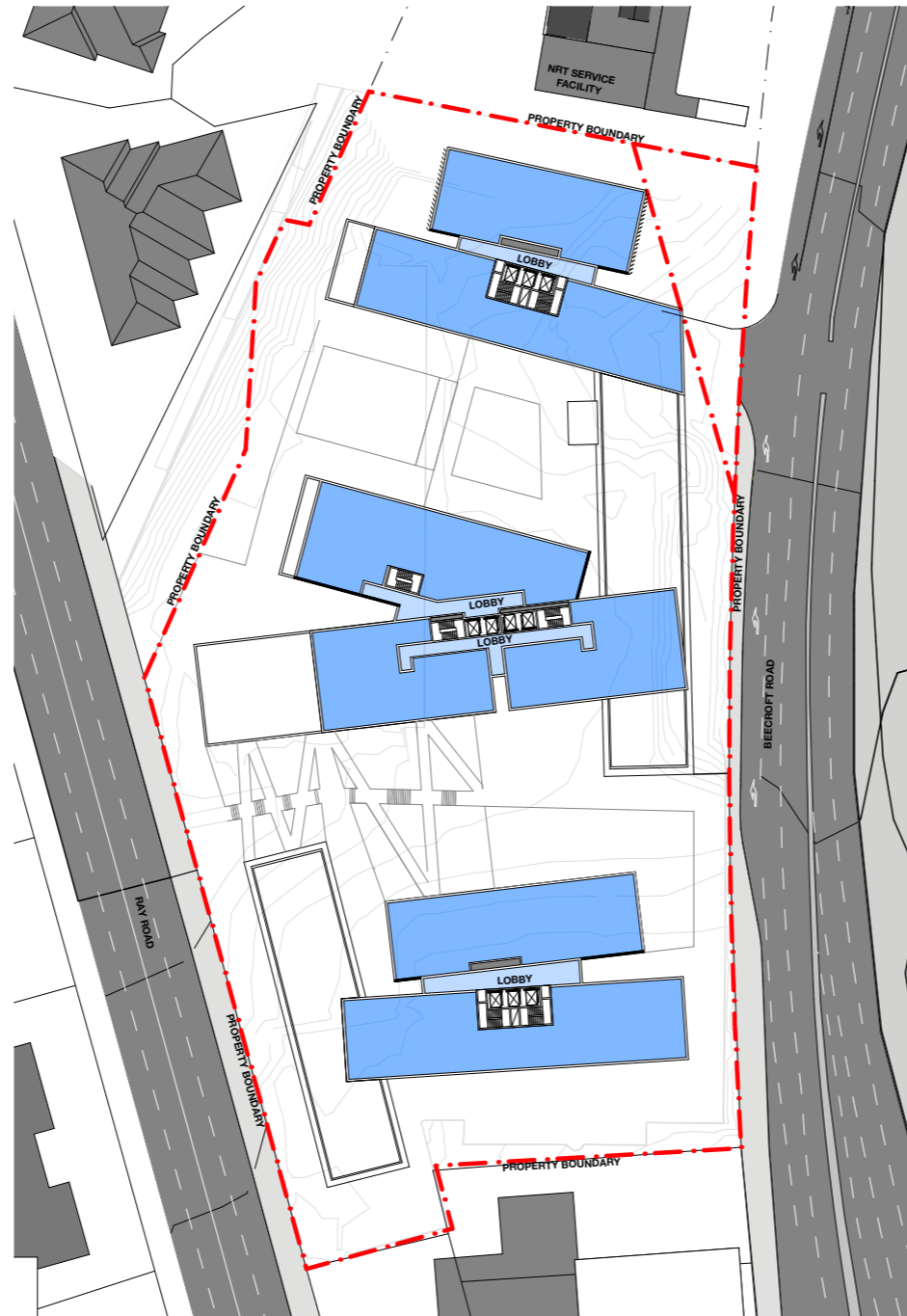
LEGEND

- Commercial Unit
- Residential
- Communal Rooftop

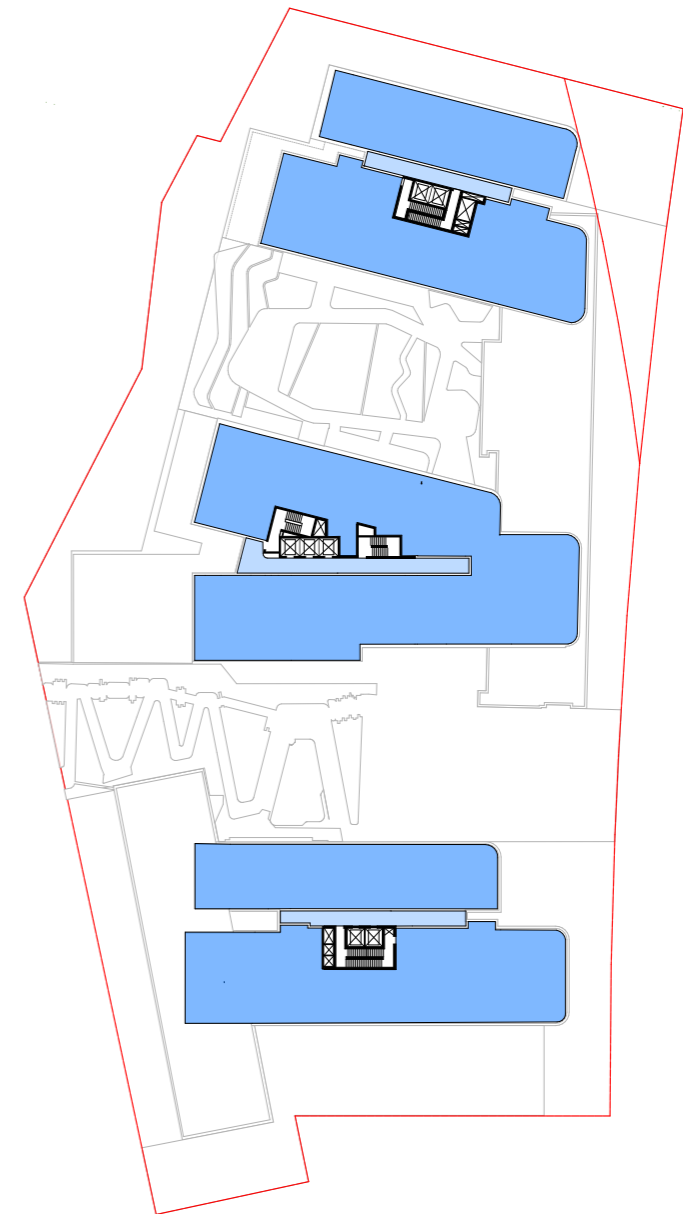
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.01 FLOOR PLANS

Upper Level (06-12)



APPROVED



PROPOSED

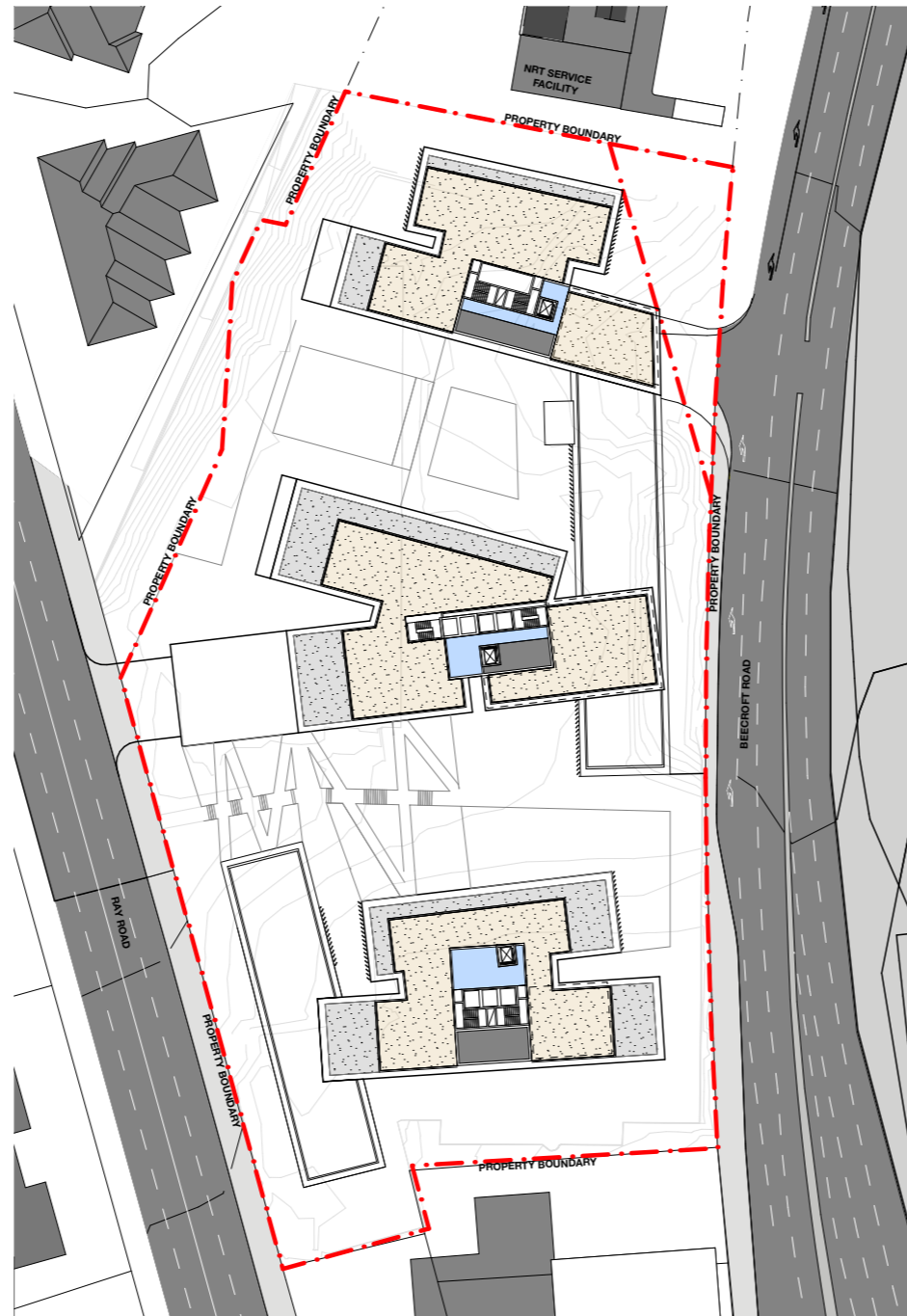
LEGEND

Residential

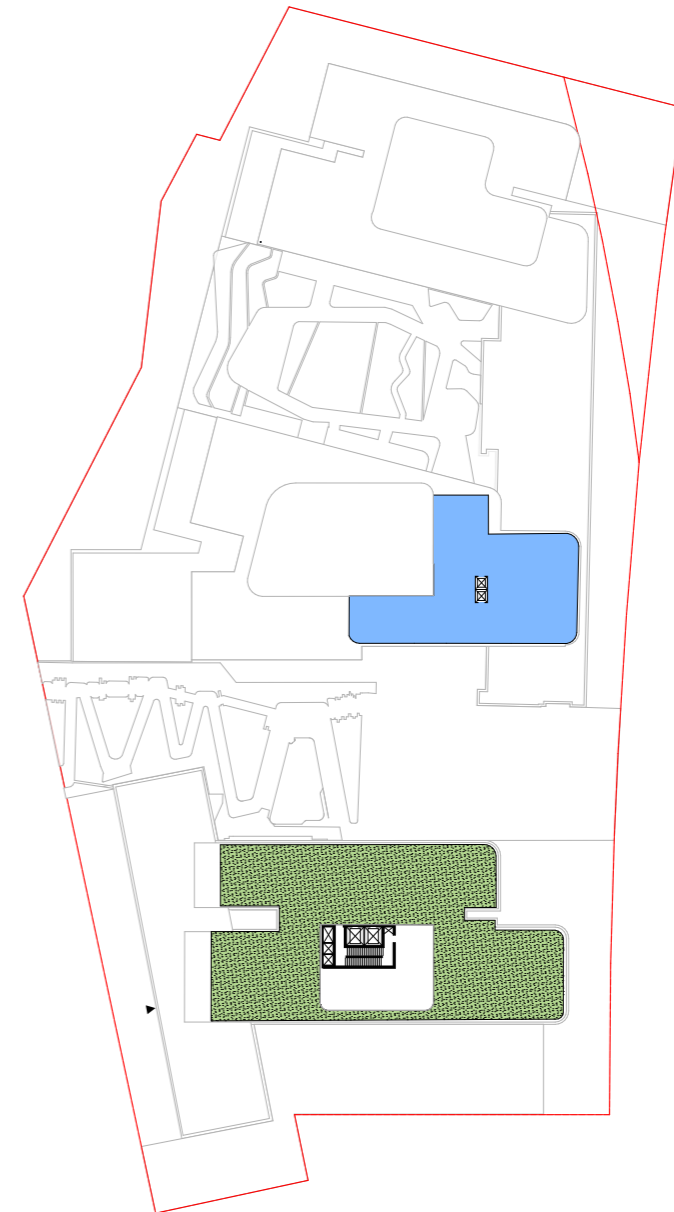
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.01 FLOOR PLANS

Roof



APPROVED



PROPOSED

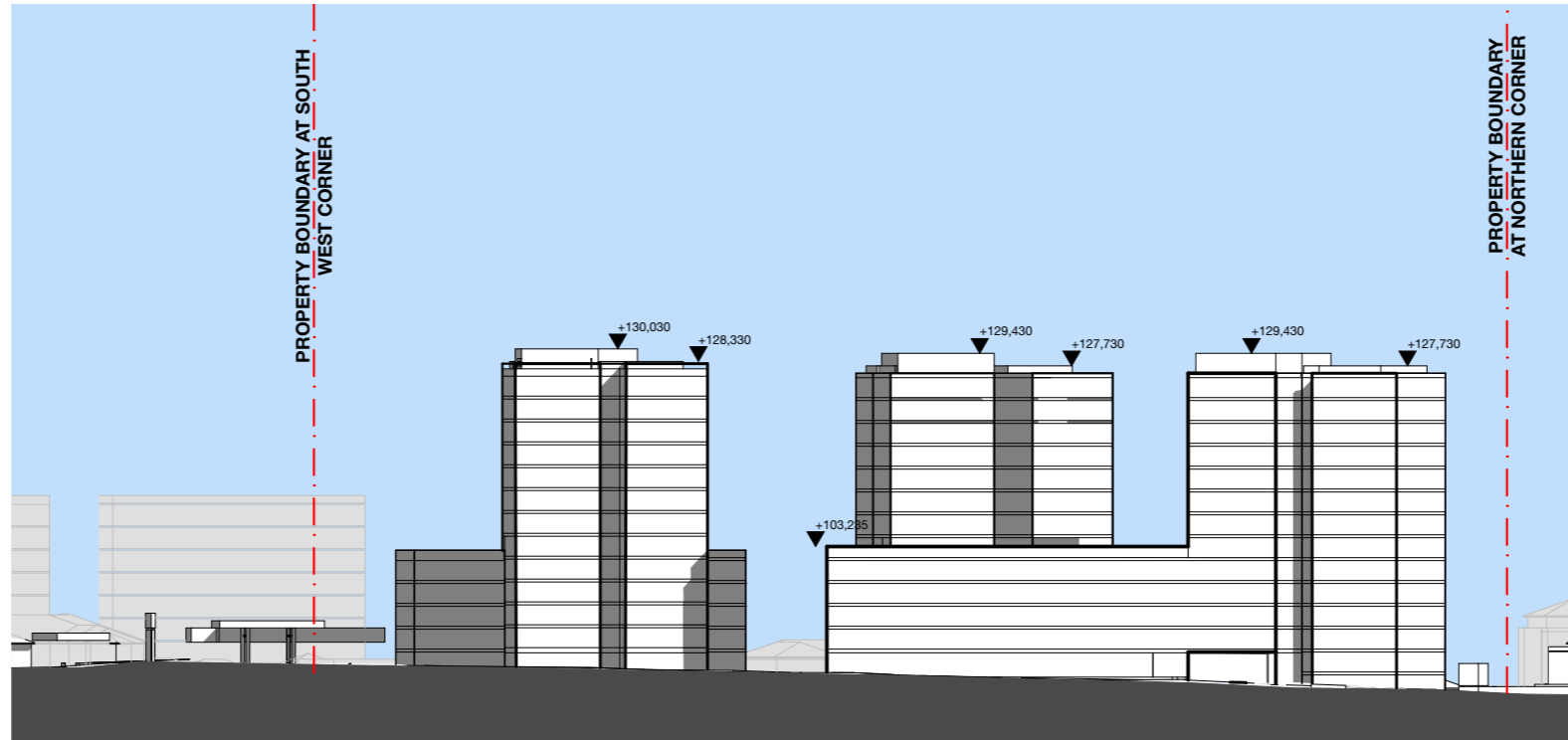
LEGEND

■ Residential

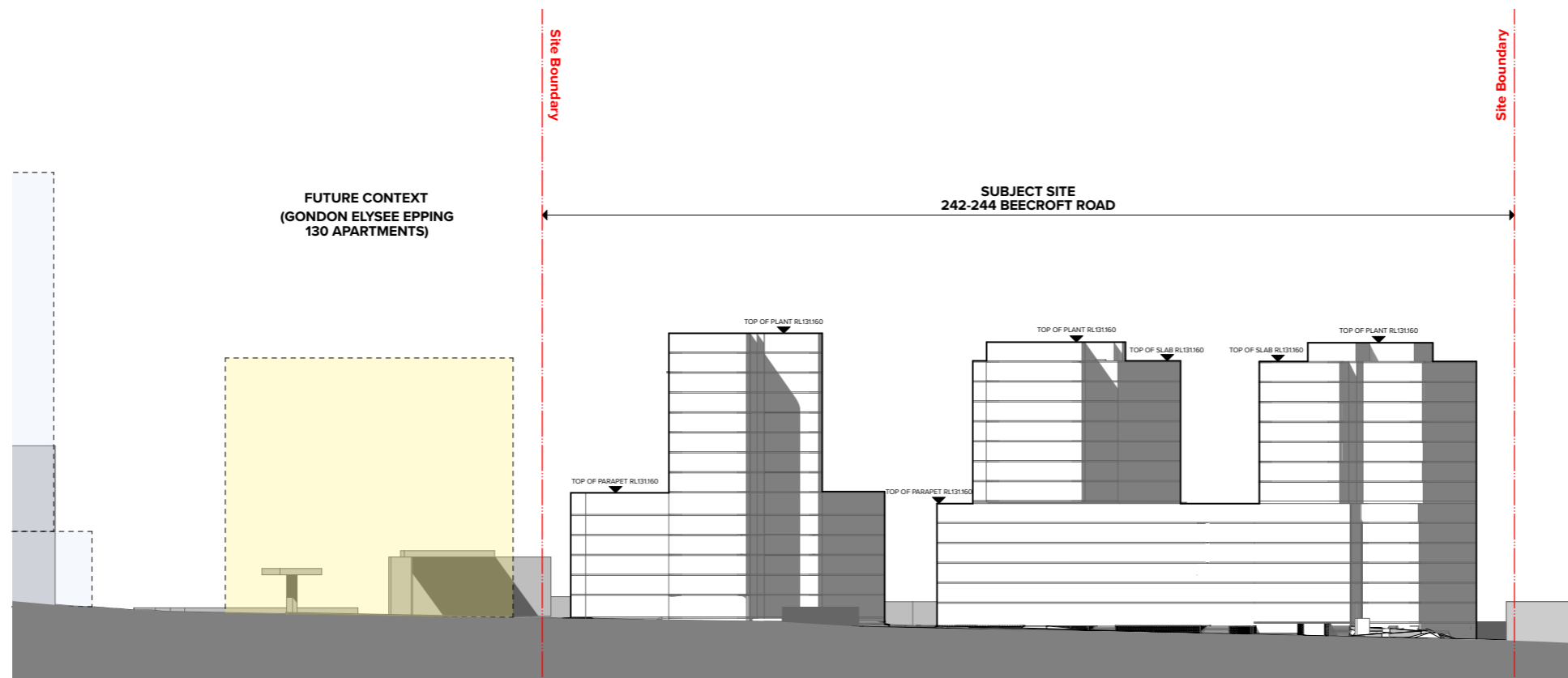
NOTE All plans are indicative and subject to design development with consultant and planning officer input.

8.02 ELEVATION

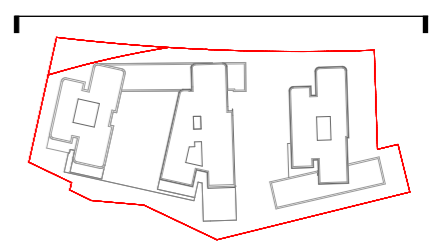
Beecroft Road



APPROVED



PROPOSED



DRAWING NOT TO SCALE

8.02 ELEVATION

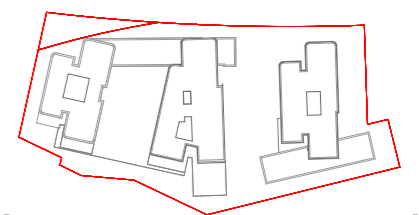
Ray Road



APPROVED



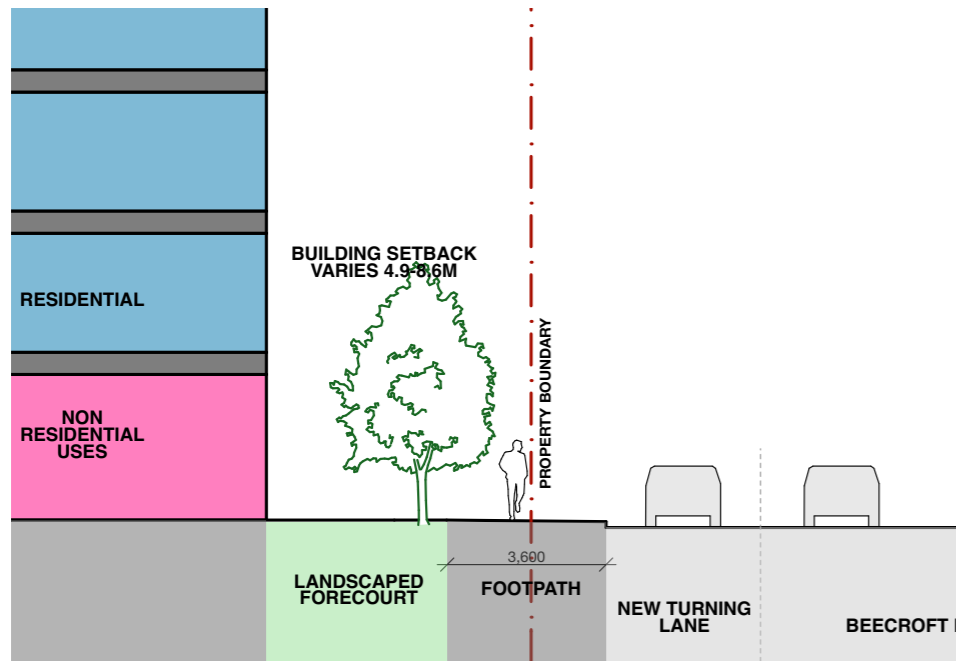
PROPOSED



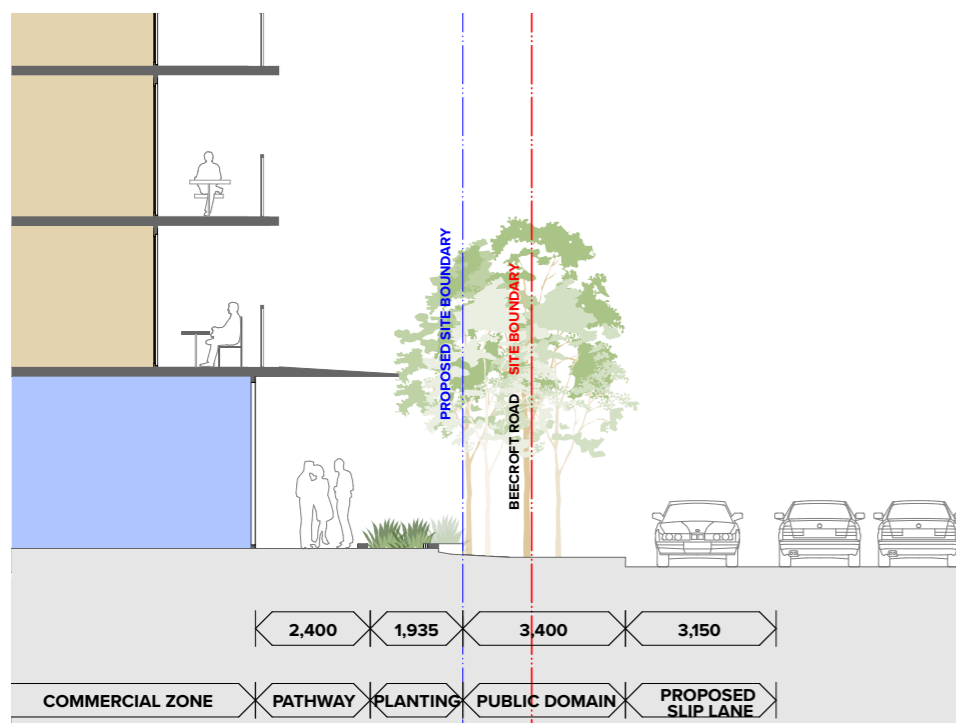
DRAWING NOT TO SCALE

8.03 SECTIONS

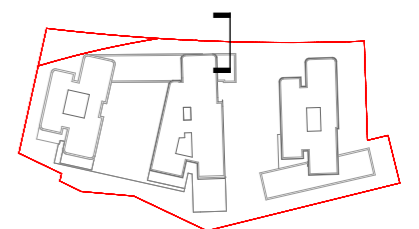
Beecroft Road Street Section, Building D



APPROVED



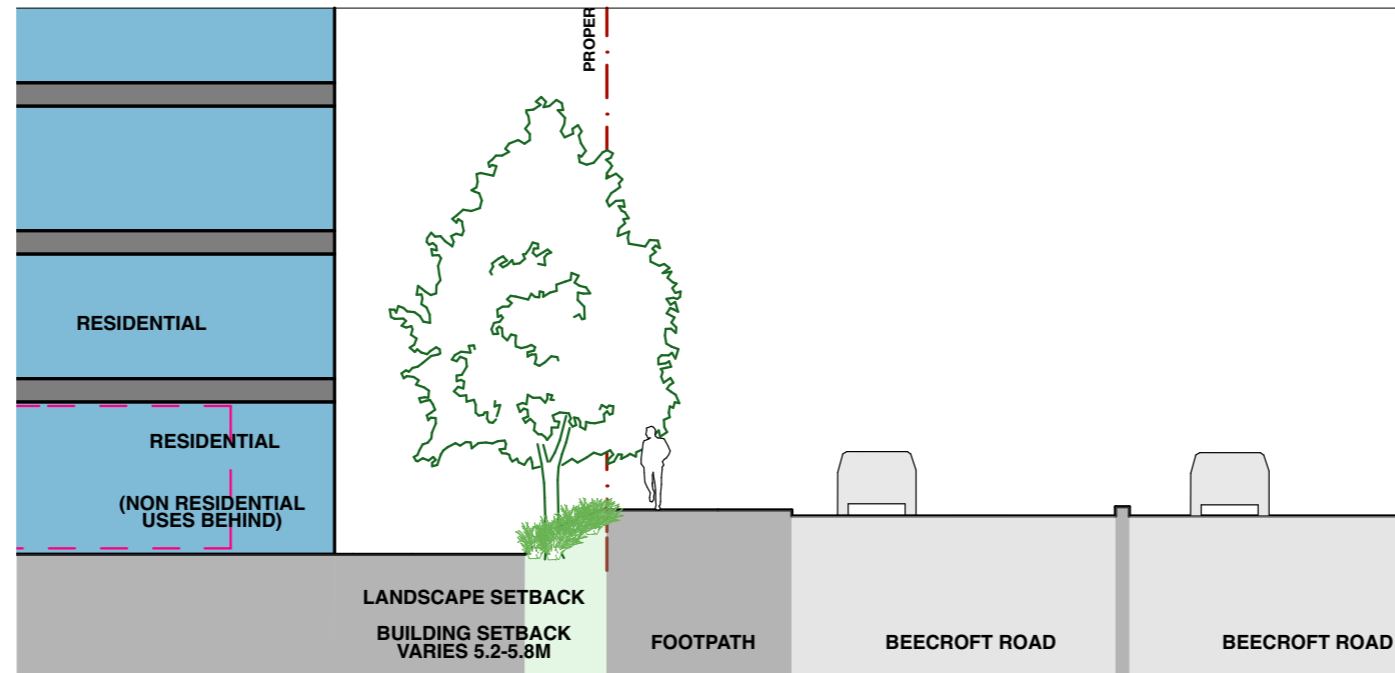
PROPOSED



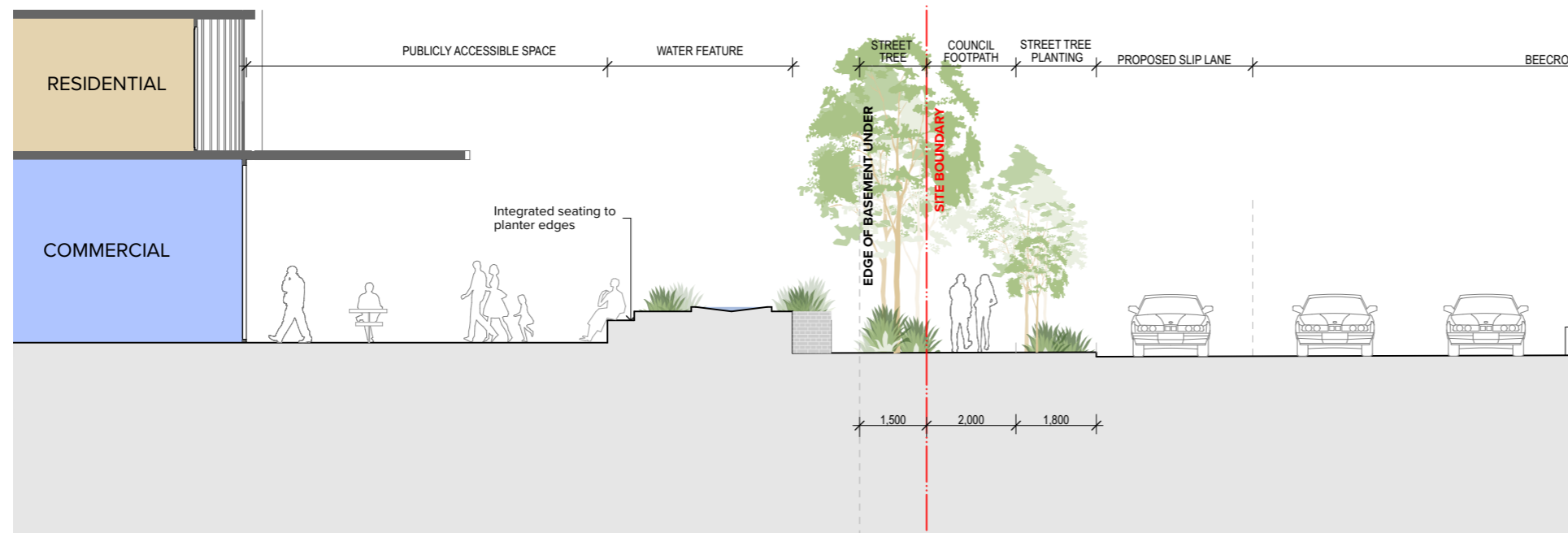
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8.03 SECTIONS

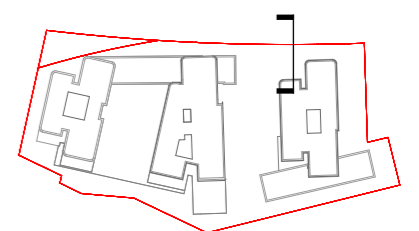
Beecroft Road Street Section, Building B



APPROVED



PROPOSED

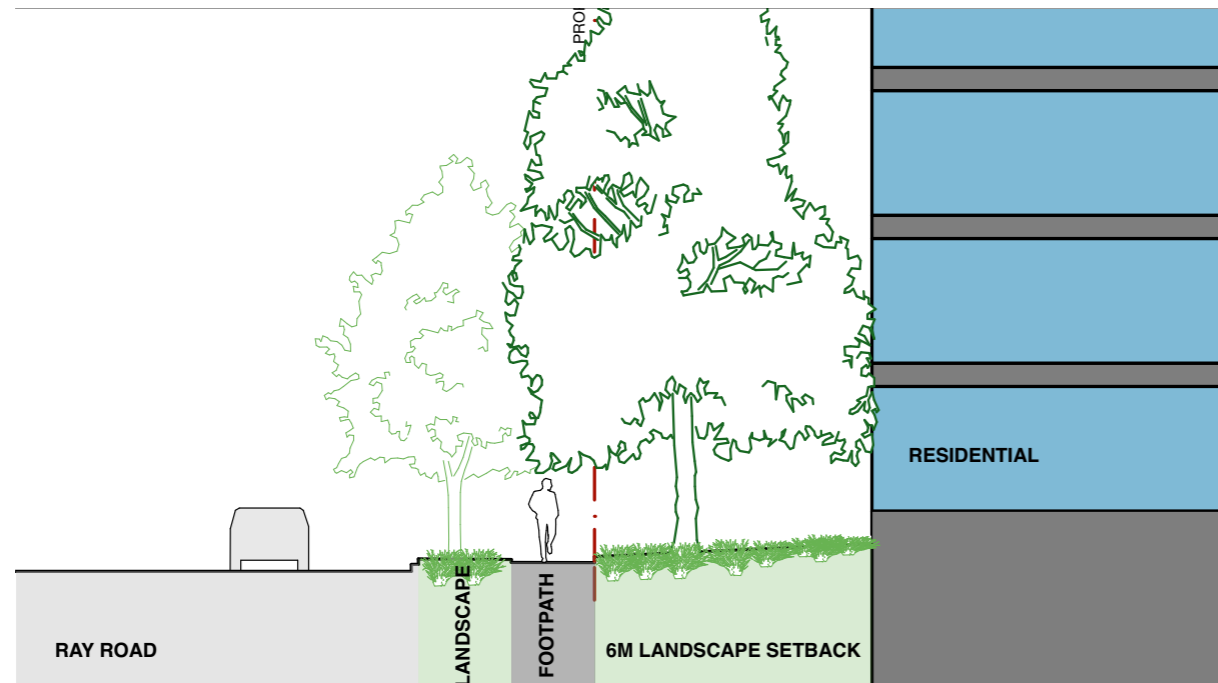


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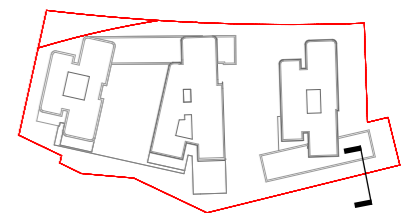
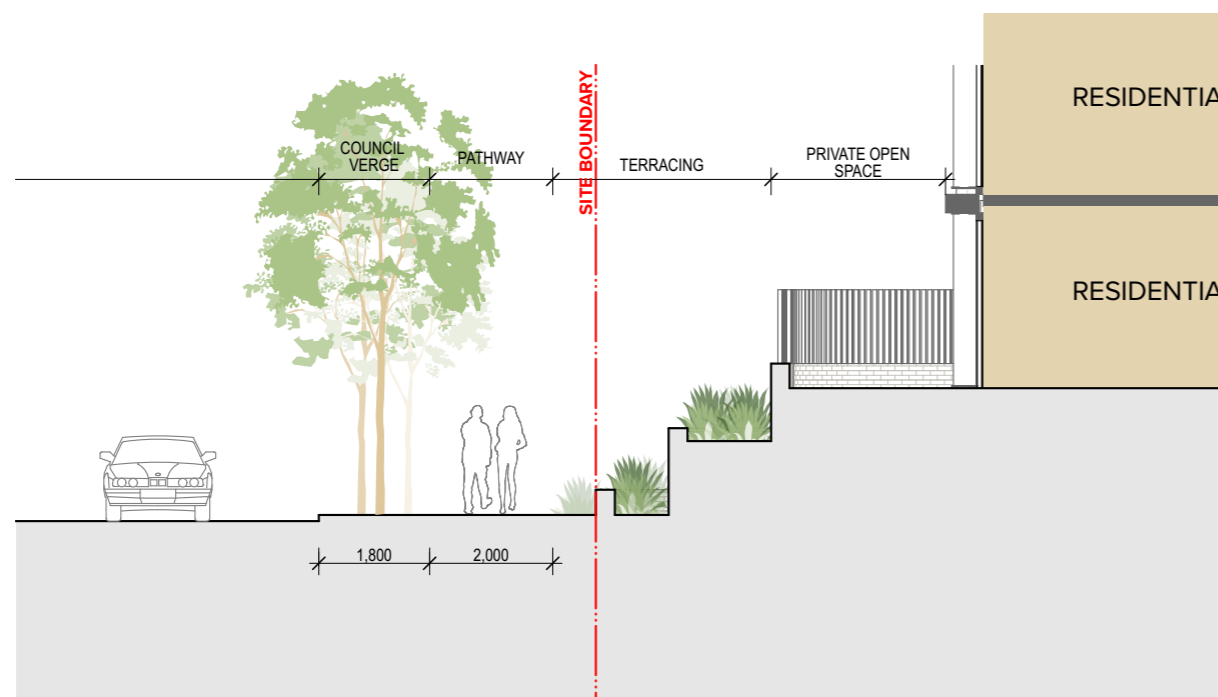
8.03 SECTIONS

Ray Road Section, Building A

APPROVED



PROPOSED

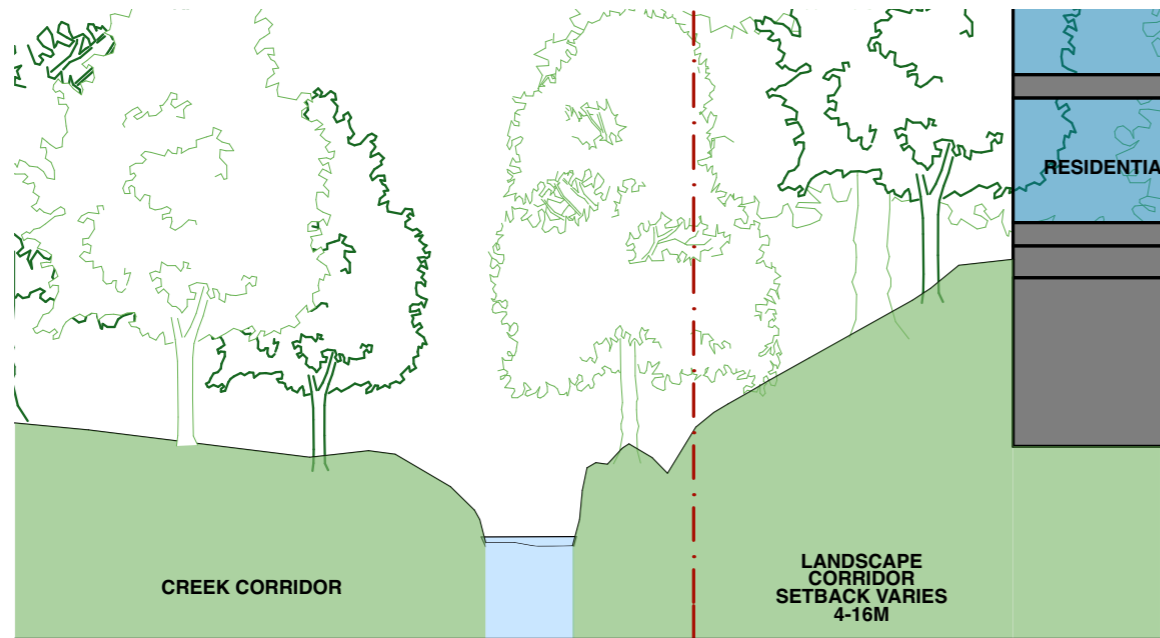


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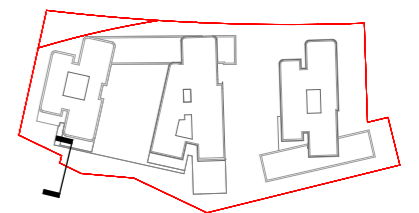
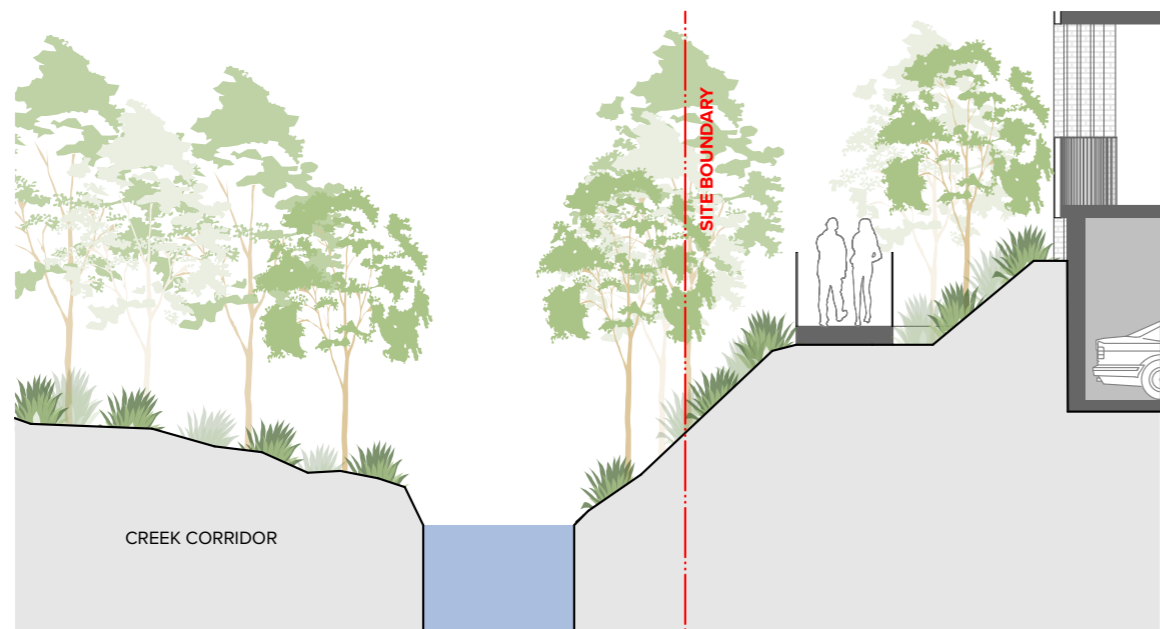
8.03 SECTIONS

Devlin's Creek Section, Building E

APPROVED



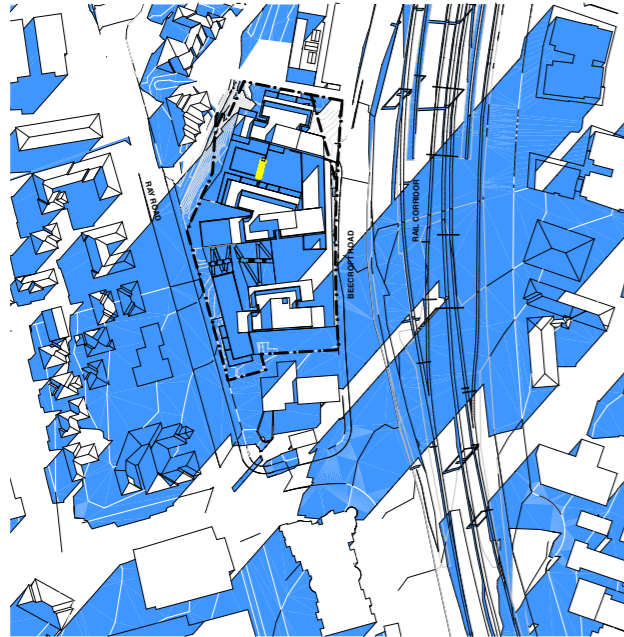
PROPOSED



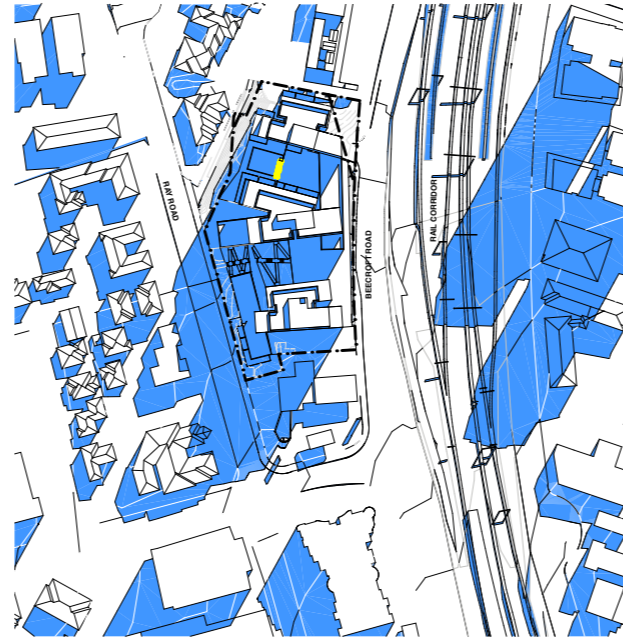
DRAWING NOT TO SCALE

8.04 SUN STUDIES

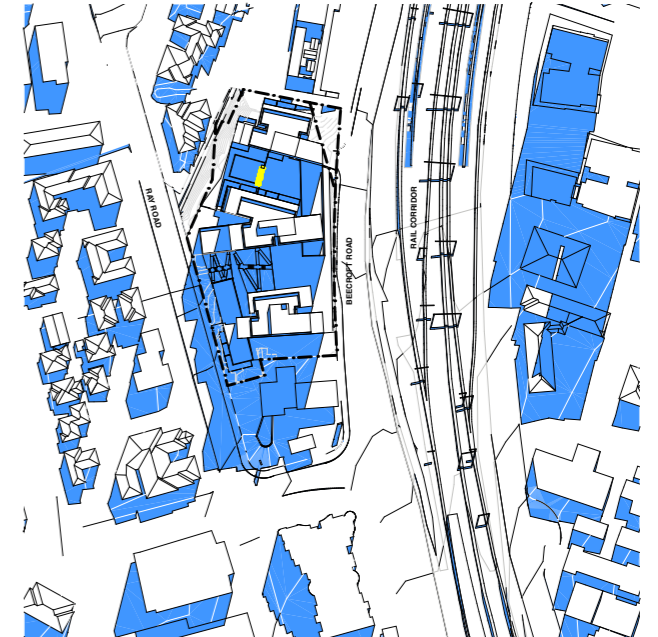
APPROVED



9AM

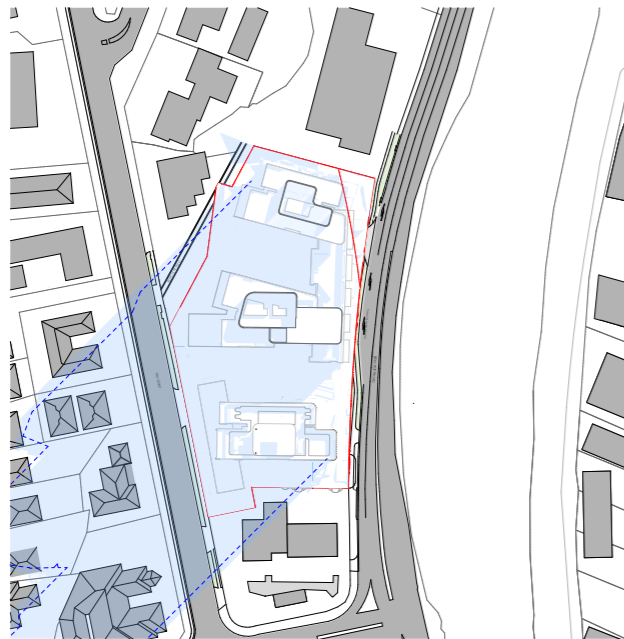


10AM

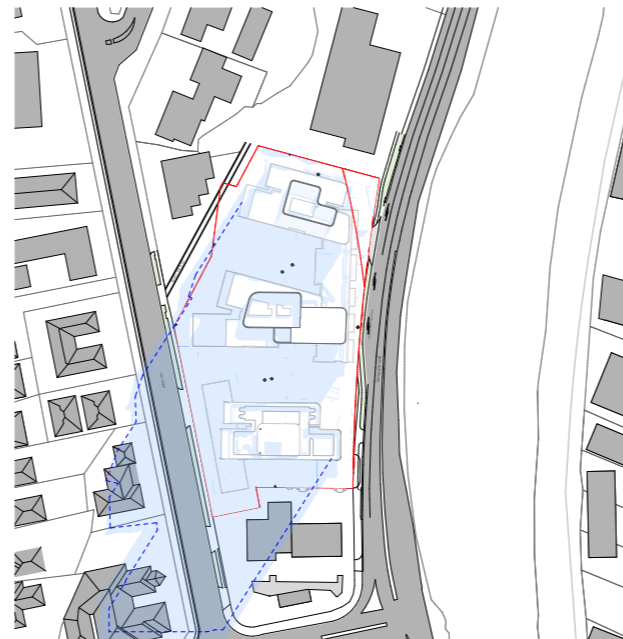


11AM

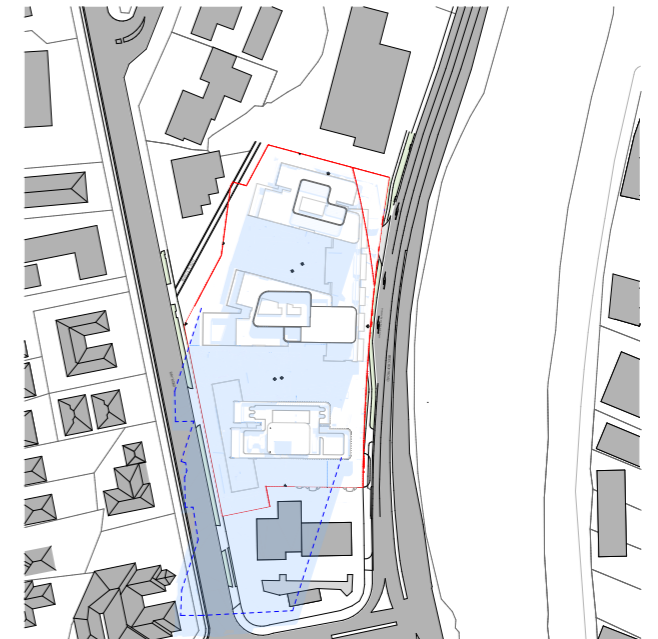
PROPOSED



9AM



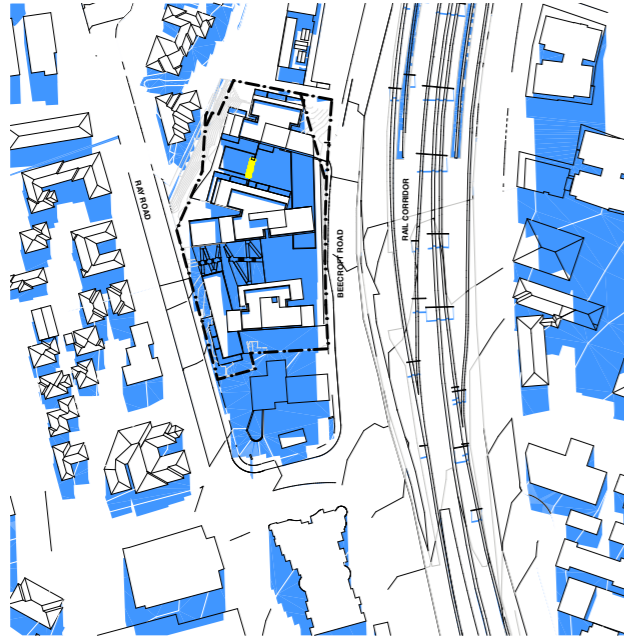
10AM



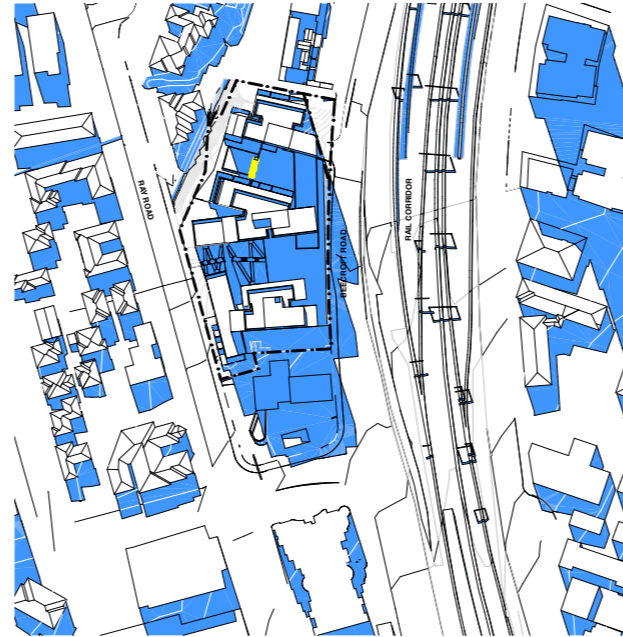
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8.04 SUN STUDIES

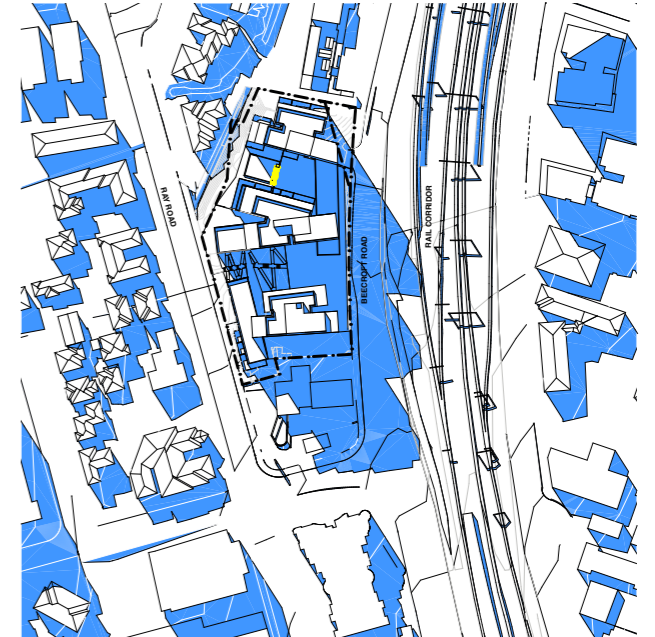
APPROVED



12PM

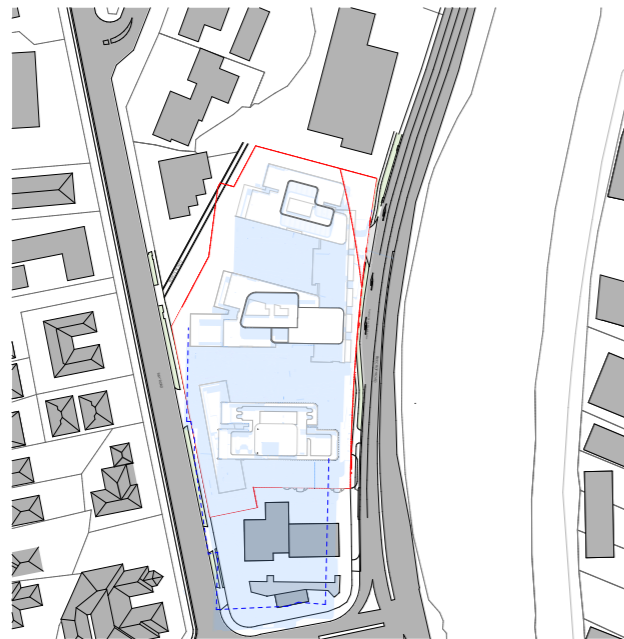


1PM

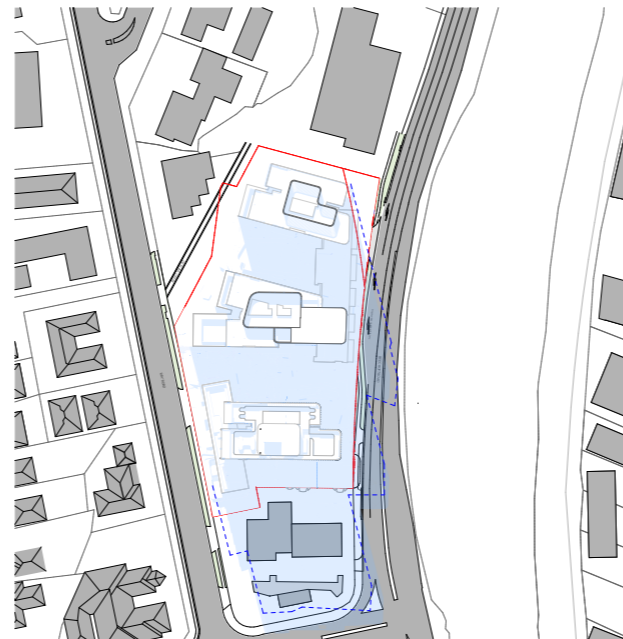


2PM

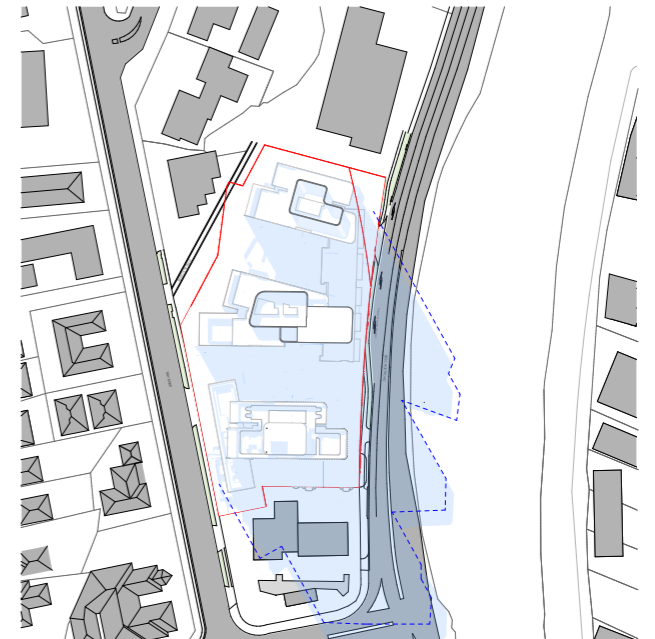
PROPOSED



12PM



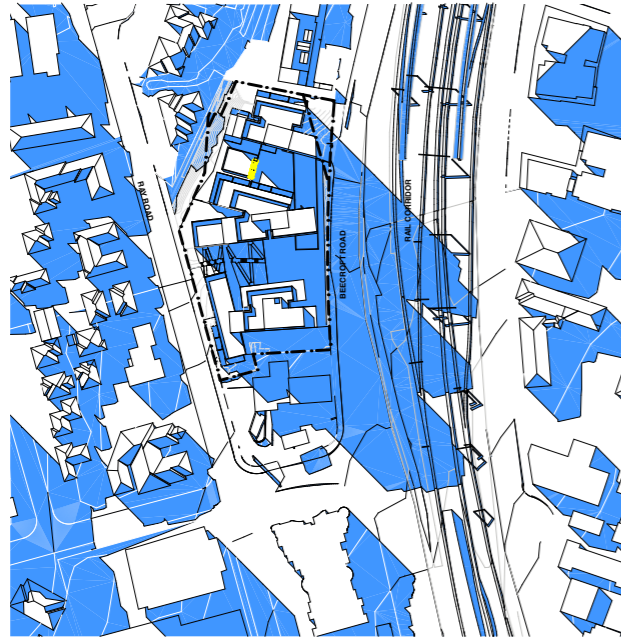
1PM



2PM

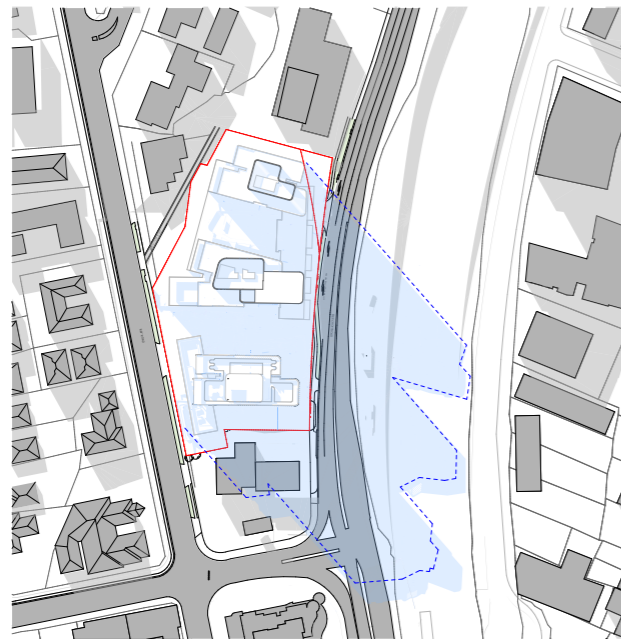
8.04 SUN STUDIES

APPROVED



3PM

PROPOSED



3PM



TURNER