Turramurra Village

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

Turramurra NSW 2074

Design Report

Revision 6

Jan 2025

DKO

Turramurra Village

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road
Turramurra, NSW 2074

DKO

REV	DATE	DESCRIPTION
3	05.03.24	Revised Urban Design Report
4	24.05.24	Response to council's RFI
5	23.09.24	Response to council's RFI
6	30.01.25	Response to council's RFI

01

Introduction

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

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As per the Ku-ring-gai Contributions Plan:

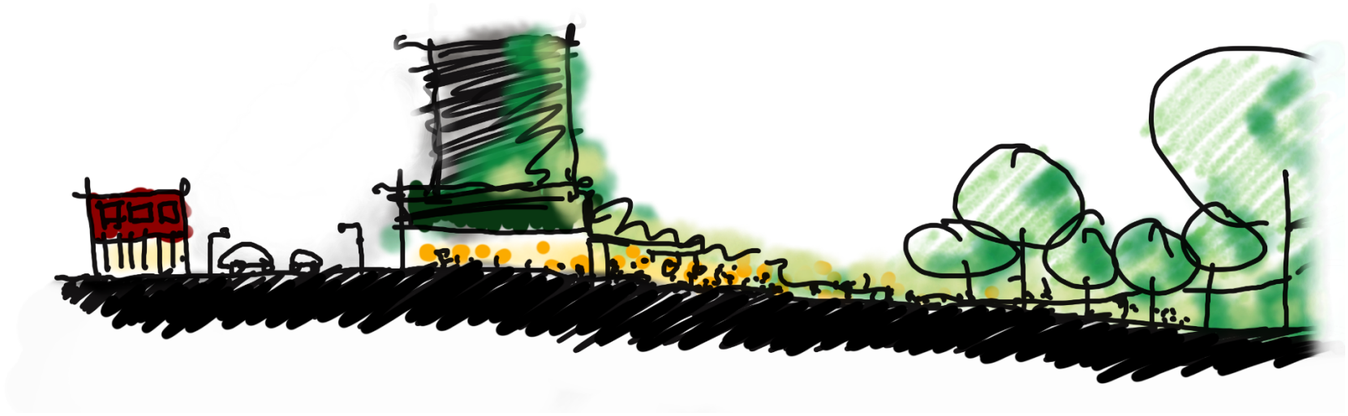
"most of the community infrastructure in Ku-ring-gai Council is unable to cater for future growth. For this reason, the council is focusing on urban consolidation along railway lines and major roads. In order to support population growth and demographic change, there is a need to revitalise local town centres and improve local amenities and accessibility."

The Turramurra Village is poised to be a catalyst for a transformative revitalization of the site. In the context of the local center, the site has an opportunity to breathe new life into the area by expanding the precinct through a comprehensive mixed-use development. This development will seamlessly integrate speciality retail, supermarkets, workplace hubs, lifestyle-focused living spaces, and contribute to the enhancement of Granny Springs Reserve through an integrated public space expansion.

Recognizing the importance of connectivity, the plan places a strong emphasis on improving linkages for pedestrians within the local center and facilitating easy access to public transportation. We aim to create a seamlessly connected environment that enhances the overall accessibility and mobility of the area.

Commitment to green spaces goes beyond mere aesthetics. We envision a harmonious connection between parks and urban greening, incorporating strategic tree planting to maximize the overall landscape of the location. This approach not only enhances the visual appeal but also contributes to a healthier and more sustainable environment.

The development concept on this site, is an opportunity to craft a contemporary "signature" for the Turramurra Local Centre. Through thoughtful design and a holistic vision, we aspire to leave a lasting impact on the community, creating a dynamic and distinctive space that reflects the essence of the contemporary Greater Sydney lifestyle.



Masterplan updated, refer to landscape drawings for detail.

| Nature in Place

It is only through re-establishing contact with the natural world, particularly trees, that cities and suburbs will function, be viable, and support their populations. The revitalised reserve and its integration with the project will enable residents and visitors to make this connection. The upgraded and extended Stonex Street will become a shared zone where the expansion of the reserve, prioritisation of pedestrians, and outdoor amenity provide a desired transition to the local centre. This brings a mix of residential, business, leisure, and open green spaces together to cultivate a thriving centre with a strong local identity.

Appreciation for open space continues to grow during the pandemic, with civic areas becoming key to our wellbeing and sense of self. Now, more than ever, accessible public open spaces are being considered essential infrastructure, where environmental benefits allow us to come together as a healthy community.

| A Connected Place

Placemaking is connection-building, and places and spaces that provide access and integration are tools to achieve this, creating a sense of character and identity. Connection to transit, services, open space and living spaces makes a place that is inclusive and serves as a catalyst for future growth. The Turramurra Village project firstly provides for future vehicular capacity and access via the adoption of the Pacific Highway widening and the extension of Stonex Street. Respectively, these project components relieve congestion at this location and enable direct access to the site without adding pressure to movement along the Highway. These proposed roadworks bring the opportunity to increase verge widths, improve street landscaping and paving that merge with new through-site pedestrian links that range in scale and activity while contributing to local centre activity.

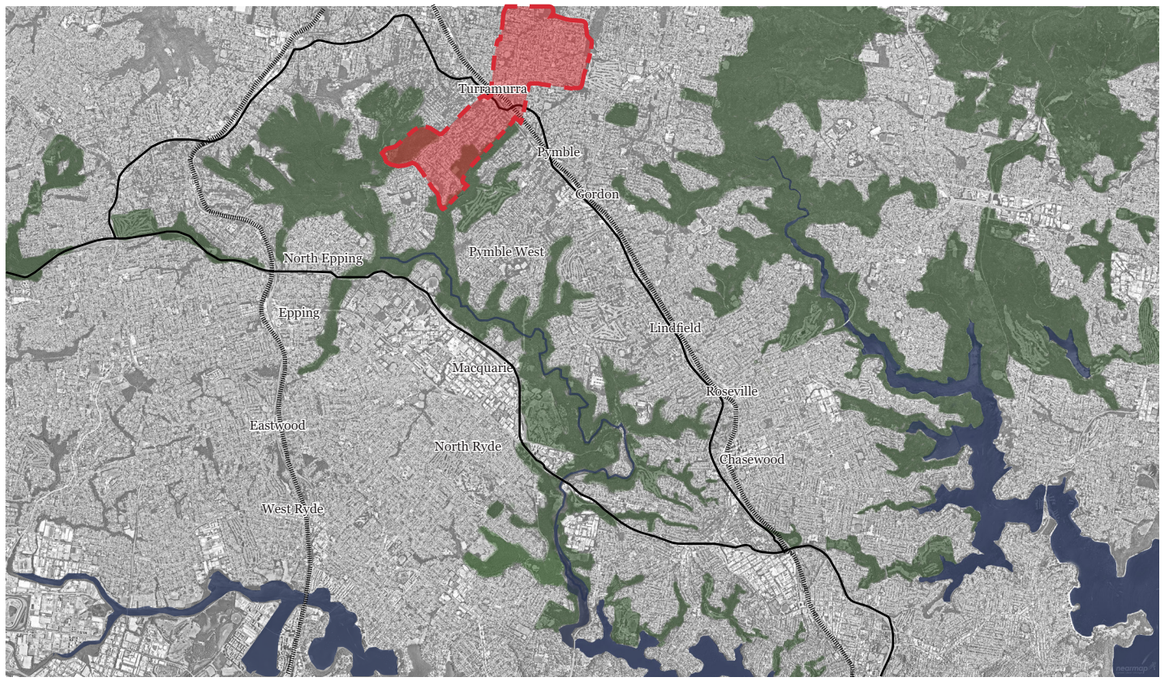
| A Lifestyle Place

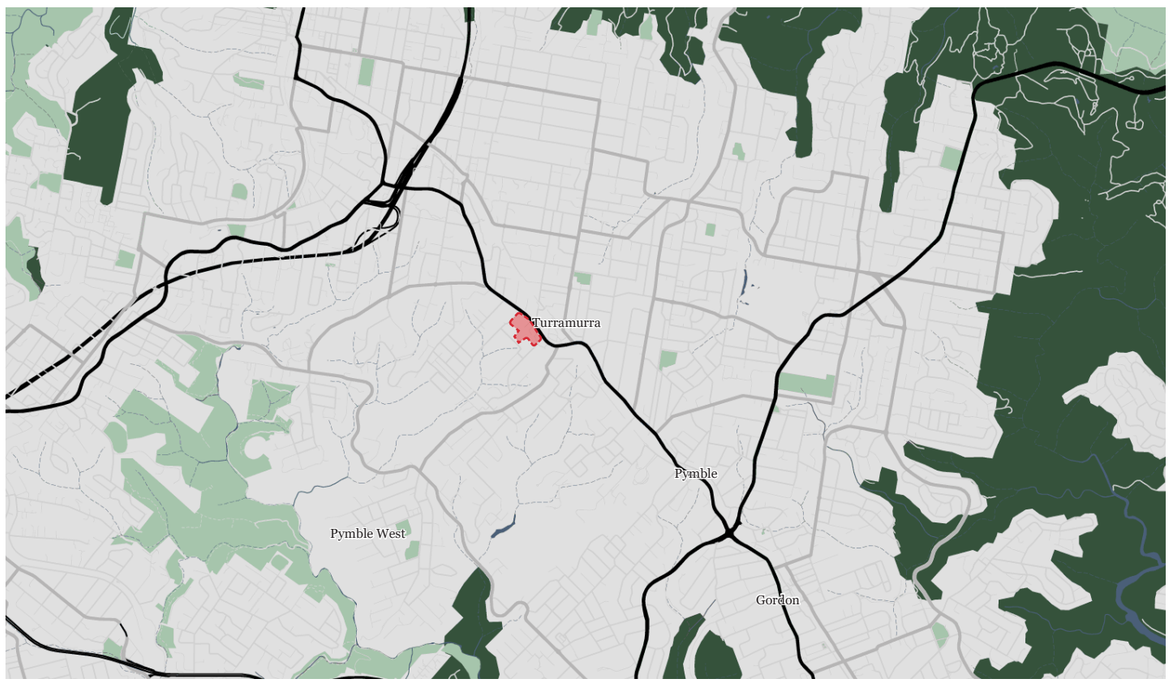
As younger generations mature and relocate from urban settings to locations such as Turramurra and still desire the experiences they enjoyed as urbanites, it has become increasingly important to provide solutions that cater to on-demand lifestyles and encourage socialisation to improve or maintain expectations and aspirations. Turramurra Village embraces the "total-experience strategy", whereby resident's and visitor's personal daily stories are catered for. This strategy drives the integrated mixed-use aspect of this project.

The project's podium ground and lower ground level spaces provide quality placemaking and provide everyday needs, services, dining and leisure experiences visually connected to the context via ample street front presentation, sensible usage adjacencies and desired alfresco experiences.

This Podium component of the project, with its capability to provide various settings, offers services designed specifically for everyday needs, leisure, and collaborative work support the provision of additional and expanded employment opportunities within the local centre.

The project's two residential towers overlook two large rooftop communal open spaces, providing great amenity and recreation spaces for residents. The towers are setback substantially from the podium edge, allowing for an expansive green buffer and landscape edge to be provided, encouraging a strong landscaped character and green outlook for the development.





Site Overview

The site is located at 1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road, Turramurra. It is located approximately 16km north-west of the Sydney CBD in Ku-ring-gai Council. It is one of the various local centres along Pacific Highway including Lindfield, Gordon, Pymble, Warrawee & Wahroonga.

The site comprises of 12 separate allotments (Lot 1 DP 656233; Lot 2 DP 502388; Lot 1 DP 500761; Lot 2 DP 500761; Lot B DP 435272; Lot 1 DP 500077; Lot 2 DP 500077; Lot A DP 391538; Lot 101 DP 714988; Lot 1 DP 629520; Lot 1 DP 550866; Lot 2 DP 16463) with a combined total area of 8,459.7m^2. These are a mix of private and council land and it is the Developer's intention to amalgamate the entire site and obtain a planning permit for a mixed-use development.

The intention of this proposal is to increase the current FSR to 3.0:1 with a maximum floor height of 9 storeys. DKO has been engaged to undertake a detailed design analysis of the subject site by informed strategic context as well as the specific characteristics of the site. The purpose of the analysis is to inform a site-specific planning proposal by determining, through detailed and considered analysis, the most appropriate design concept, for this site.

SITE	LOT/DP	AREA (M^2)	ADDRESS
A	LOT 1 DP 629520	497.5	1396 PACIFIC HIGHWAY TURRAMURRA 2074
B	LOT 2 DP 16463	234	1392 PACIFIC HIGHWAY TURRAMURRA 2074
C	LOT 1 DP 550866	246.5	1390 PACIFIC HIGHWAY TURRAMURRA 2074
D	LOT 101 DP 714988	2772	1380-1388 PACIFIC HIGHWAY TURRAMURRA 2074
E	LOT 1 DP 500077	986.5	1370-1378 PACIFIC HIGHWAY TURRAMURRA 2074
F	LOT 2 DP 500077	1461	1A KISSING POINT ROAD TURRAMURRA 2074
G	LOT A DP 391538	37.94	3A KISSING POINT ROAD TURRAMURRA 2074
H	LOT 1 DP 656233	909.3	1364 PACIFIC HIGHWAY TURRAMURRA 2074
I	LOT 2 DP 502388	69.5	1A KISSING POINT ROAD TURRAMURRA 2074
J	LOT 2 DP 500761	69.5	1A KISSING POINT ROAD TURRAMURRA 2074
K	LOT 1 DP 500761	550	1 KISSING POINT ROAD TURRAMURRA 2074
L	LOT B DP 435272	626	3 KISSING POINT ROAD TURRAMURRA 2074
TOTAL SITE AREA (M^2)		8459.7	

Subject Site

Local Overview

The subject site is located in the south-western side of Turramurra bounded by Granny Springs Reserve, the Pacific Highway, Kissing Point Road and Duff Street.

The site is characterized by the following:

- Close vicinity to the Sydney metropolitan urban region (16km)
- Proximity to Turramurra Railway Station and regular bus services (300m)
- Directly adjacent to a large Gum Forest Reserve
- High level views to South Turramurra
- Proximity to existing specialty shops and proposed Community Hub

Within this context, the site presents an ideal opportunity to revitalise the existing shopping precinct and become the main retail hub for Turramurra through a mixed-use development that incorporates specialty retail shops, supermarkets, commercial offices, shop-top housing and improved public areas for the community.

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Strategic Context

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

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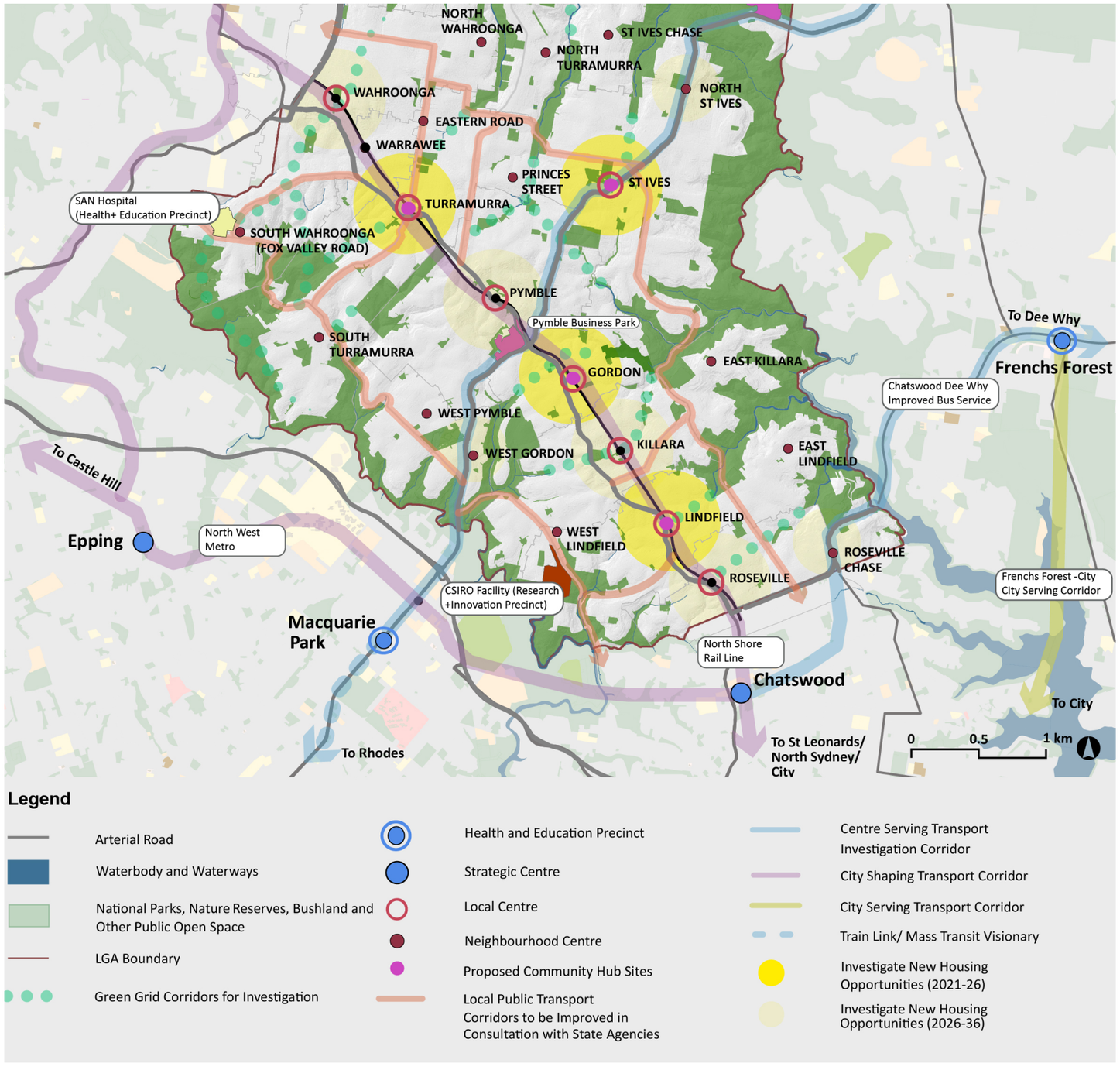


Source: Ku-ring-gai LSPS

Adopted 17 March 2020, the LSPS plans for Ku-ring-gai's economic, social and environmental land use needs from 2016 to 2036.

The Ku-ring-gai Structure Plan (opposite) highlights the key productivity, liveability and sustainability elements. It identifies Turramurra as a:

- **Proposed community hub site**
- **Local centre**
- **Area to investigate new housing opportunities (2021 - 2026)**

Turramurra centre is identified as suitable for additional housing given:

- • Proximity to public transport (rail / bus)
- • 30 minute access criteria
- • Inclusion of community hub project.

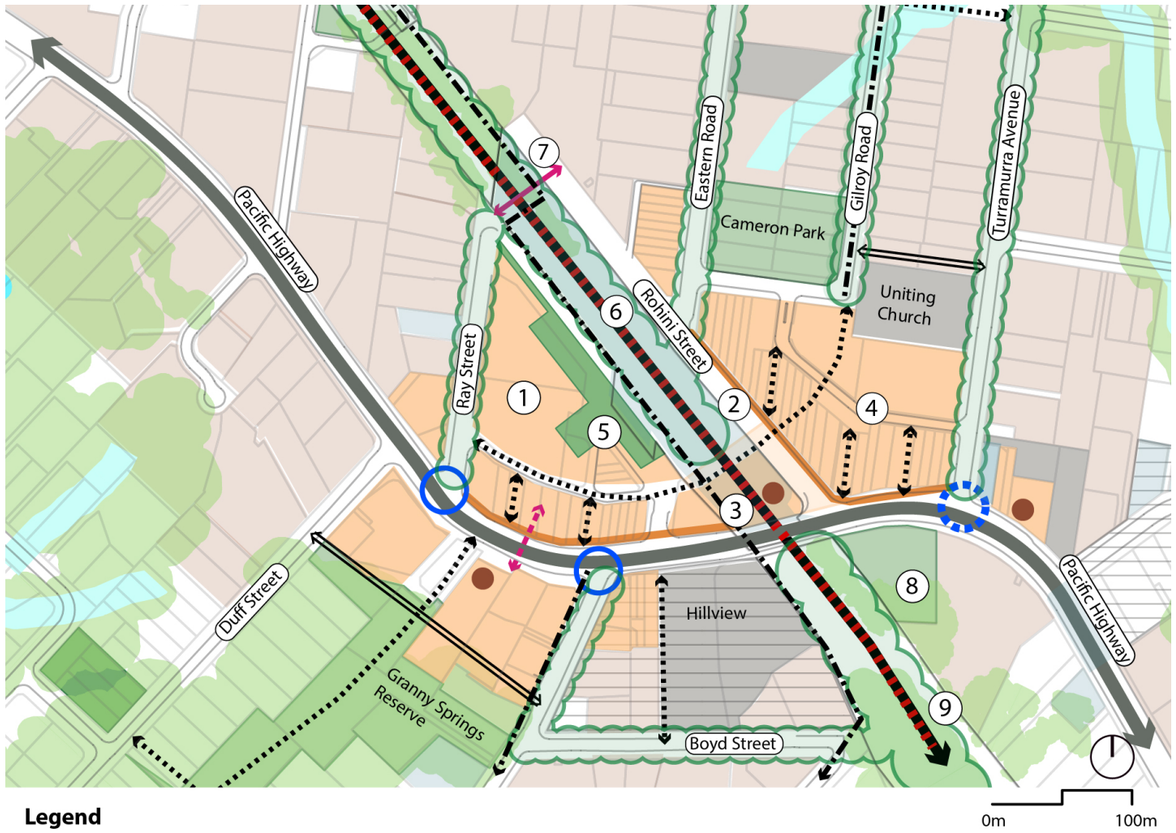
The Planning Priority for the Turramurra Local Centre is to support the growth and revitalisation of:

'Turramurra as a family focused urban village'

"Turramurra will become a well-connected and attractive place to live, work and shop. The centre's village atmosphere will be enhanced through the provision of new parks, public spaces and community facilities, where local families can meet and spend leisure time."

STRATEGIC CONTEXT

2.1 LOCAL STRATEGIC PLANNING STATEMENT



Legend

- Proposed Mixed Use Development
- Existing Special Uses and Infrastructure
- Biodiversity
- Riparian Corridors
- Key Landmark Sites
- Fine Grain Low Scale Shop Top Housing
- Existing Strata Apartments and Town houses/Existing medium and high density zones
- Heritage Items
- Heritage Conservation Area
- New or Proposed Park
- Existing Park
- Proposed Green Grid Corridor for Investigation
- Proposed Cycleway
- Opportunity for New Through Site Links
- Opportunity for New Pedestrian Bridge (Subject to Funding)
- Proposed Bridge Over Rail Line
- Proposed New Streets
- Railway Line
- Existing Traffic Signals with Pedestrian Crossings to be Retained
- Proposed Traffic Signals with Pedestrian Crossing

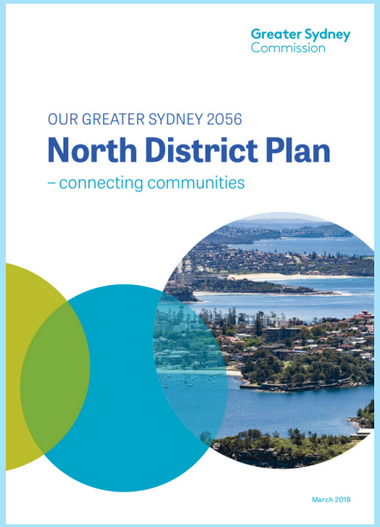
1. Planned Precinct - Turramurra Community Hub including New Library and Community Centre
2. Main Street Revitalisation
3. Potential Land Bridge
4. Planned Precinct - Gilroy Lane
5. New Town Square and Park
6. Upgrade Existing Bus Interchange
7. Proposed Bridge over Rail Line
8. Existing Community Garden
9. Shared pedestrian/cycle path along rail line

Source: Ku-ring-gai LSPS

The LSPS identifies an opportunity to renew the shops on the southern side of the Highway (including the site) and improve connectivity across the highway.

The LSPS structure plan (opposite) identifies key elements to support the growth and revitalisation of Turramurra Centre:

- Site identified as a **Key Landmark Site**
- Site identified for **Mixed Use Development**
- Opportunity for a **New Through Site Link** within western boundary (extending into Granny Springs Reserve)
- **New street** within southern boundary
- A **Proposed Cycleway** along the east boundary
- Opportunity for **New Pedestrian Bridge** across the Pacific Highway. (subject to funding)



Our Greater Sydney 2056

North District Plan

Greater Sydney Commission

March 2018

This 20-year plan gives effect to "A Metropolis of Three Cities", the Region Plan, and seeks to manage growth by setting out planning priorities and actions for the North District. The proposal aligns with key priorities set out in the plan, including:

— Infrastructure and Collaboration
— Liveability
— Productivity
— Sustainability

INFRASTRUCTURE AND COLLABORATION

N1	Planning for a city supported by infrastructure	☑
N2	Working through collaboration	☑

LIVEABILITY

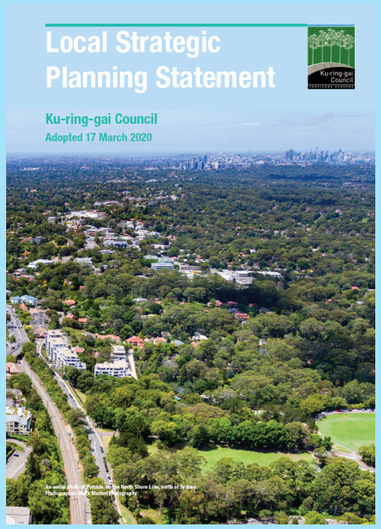
N3	Providing services and social infrastructure to meet people's changing needs	☑
N4	Fostering healthy, creative, culturally rich and socially connected communities.	☑
N5	Providing housing supply, choice and affordability with access to jobs, services and public transport	☑
N6	Creating and renewing great places and local centres, and respecting the District's heritage.	☑

PRODUCTIVITY

N10	Growing investment, business opportunities and jobs in strategic centres	☑
N12	Delivering integrated land use and transport planning and a 30-minute city.	☑

SUSTAINABILITY

N16	Protecting and enhancing bushland and biodiversity	☑
N17	Protecting and enhancing scenic and cultural landscape	☑
N18	Better managing rural areas	☑
N19	Increasing urban tree canopy cover and delivering Green Grid Connections	☑
N20	Delivering high quality open space	☑
N21	Reducing carbon emissions and managing energy, water and waste efficiently	☑



Local Strategic Planning Statement

Ku-ring-gai Council

March 2020

This statement is to draw together the priorities and actions for future land use planning . The proposal aligns with key priorities set out in the statement, including:

— Infrastructure and Collaboration
— Liveability
— Productivity
— Sustainability

INFRASTRUCTURE AND COLLABORATION

K1	Providing well planned and sustainable local infrastructure to Support growth and change.	☑
K2	Collaborating with State Government Agenties and the community to deliver infrastructure projects.	☑

LIVEABILITY

K3	Providing housing close to transport, services and facilities to Meet the existing and future requirements of a growing and changing community.	☑
K4	Providing a range of diverse housing to accommodate the changing structure of families and households and enable ageing in place	☑
K5	Providing a range of diverse housing to accommodate the changing structure of families and households and enable ageing in place.	☑
K6	Revitalising and growing a network of centres that offer unique character and lifestyle for local residents.	☑
K7	Facilitating mixed-use developments within the centres that achieve urban design excellence.	☑
K10	Promoting Turramurra as a family-focused urban village.	☑
K11	Managing change and growth in a way that conserves and enhances Ku-ring-gai's unique visual and landscape character.	☑
K12	Identifying and conserving Ku-ring-gai's environmental heritage.	☑

PRODUCTIVITY

K17	Providing a broad range of open spaces, sporting and leisure facilities to meet the community's diverse and changing needs.	☑
K21	Prioritising new development and housing in locations that enable 30 minute access to key strategic centres.	☑
K22	Providing improved and expanded district and regional connection through a range of integrated transport and infrastructure to enable effective movement to, from and within Ku-ring-gai	☑
K23	Providing safe and convenient walking and cycling networks within Ku-ring-ga.	☑
K25	Providing for the retail and commercial needs of the local community within Ku-ring-gai's centres.	☑
K26	Fostering a strong local economy That provides future employment opportunities for both residents and workers within key industries.	☑

SUSTAINABILITY

K27	Ensuring the provision of sufficient open space to meet the need of a growing and changing community .	☑
K34	Improving connections with natural areas including river and creek corridors, bushland reserves and National Parks.	☑

Ku-ring-gai's housing future liveable for life

Ku-ring-gai Housing Strategy to 2036

December 2020 (revised)

This report states how Ku-ring-gai council will provide housing to cater for the changing needs of our current residents to the year 2036. The proposal aligns with key priorities set out in the report, including:

— Diversity
— Liveability
— Quality

DIVERSITY

Provide a variety of housing types and sizes to suit the changing needs of the community. ☑

Enable people to live in the area through changing life stages and circumstances. ☑

Enable people of all ages and abilities to continue to live independently, close to networks and age in place. ☑

LIVEABILITY

Locate housing to create connected communities living in healthy neighbourhoods with amenity, safety and open space. ☑

Provide new housing within a 10 minute walk to frequent train and bus services, close to cycle routes, and having regard to traffic flow and parking. ☑

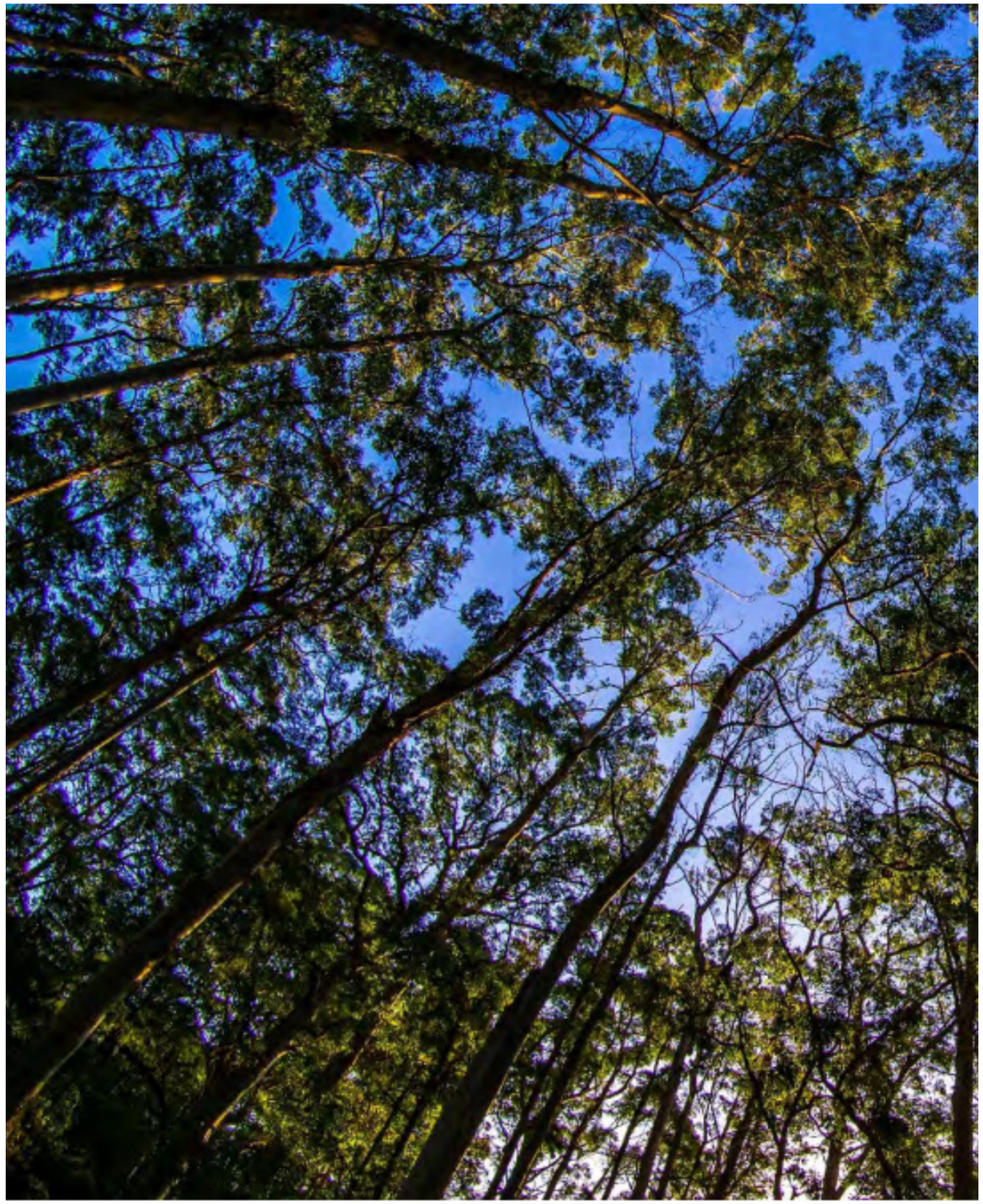
Provide key services and facilities to support and engage our community. ☑

QUALITY

Provide high quality, well design homes that consider streetscape, context and building scale. ☑

Ensure housing respects local character, and is compatible with heritage and biodiversity values. ☑

Deliver environmentally sustainable homes that are resilient to a changing climate. ☑



Ku-ring-gai 2016

Population

An estimated resident population of
126,046
(2018, ABS ERP)

19,350
residents aged 10-19

21,700
residents aged 65+

30,223
people work in Ku-ring-gai

56% live outside Ku-ring-gai
44% live in Ku-ring-gai

Main local industries include *Health Care and Social Assistance* and *Education and Training*

Land

3rd largest LGA in the North District

8 train stations

4,596 ha of residential land

627 ha of Heritage Conservation Areas

3,356ha of open space

Housing

Separate dwellings is the dominant housing type.

42,511
dwellings

41,200
households

23%
flats / apartments

4%
townhouse / terrace

73%
separate houses

78%
home ownership

17% homes rented

22,700
households with children

Growth 2006-2016

+18,022
population increase

1.6%
average annual growth

73%
increase in housing stress

96%
increase in median sale price

36%
increase in median rental price

+9,000
international migration
(2011-2016)

+38,000
national migration
(2011-2016)

Ku-ring-gai 2036

Population

A projected resident population of
147,809
(2036, DPIE Projections)

22,517
residents aged 10-19

30,245
residents aged 65+

Growth 2016-2036

+25,337
more people by 2036

0.94%
average annual growth

52% female
48% male

21%
population increase

+1,267
more people each year

Housing

Improved housing choice; more medium and high density dwellings

54,095
implied dwellings

51,004
projected households

8,806
projected lone person households

12,639
projected couple only households

26,880
projected households with children

A growing proportion of older people.

Number of people aged 65+ projected to increase by
39%
by 2036

+10,660
more implied dwellings

+10,427
more projected households

Household Type	Ku-ring-gai 2016	% increase to 2036
Families with children	21,776 or 55%	23% increase
Couples only	9,589 or 24%	32% increase
Lone person	6,157 or 15%	43% increase

Housing Priority H1

Manage and monitor the supply of housing in the right locations

Housing Objectives
» To monitor the delivery of housing within areas close to services, cultural and community facilities, and within a 10 minute walking distance to key public transport nodes.
» To provide homes in areas that can support the creation and growth of vibrant Local Centres and a thriving local economy.
» To ensure the delivery of housing is in coordination with provision of local and state infrastructure and services.

Housing Priority H2

Encourage diversity and choice of housing

Housing Objectives
» To encourage a mix of dwelling types and sizes.
» To investigate housing affordability.
» To ensure new homes are accessible and meet mobility needs.

Housing Priority H3

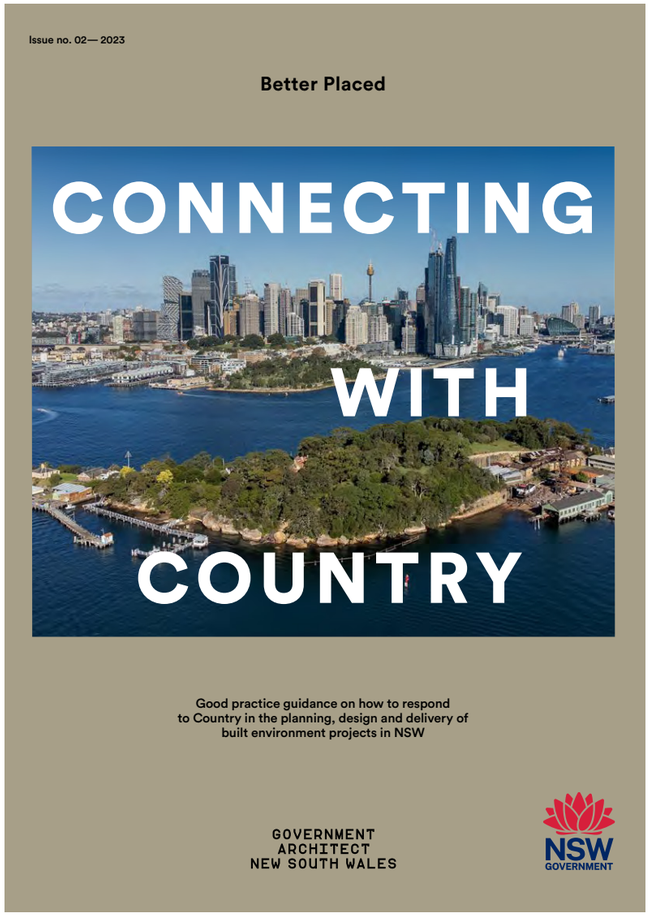
Increasing liveability, sustainability and area character through high-quality design

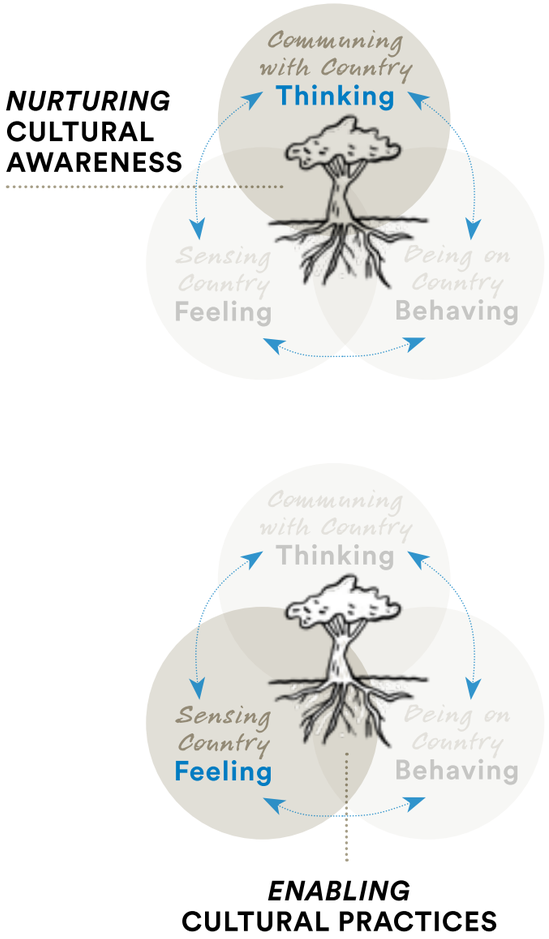
Housing Objectives
» To encourage housing that contributes to healthy and active neighbourhoods.
» To facilitate high quality housing that is responsive to Ku-ring-gai's local character.
» To promote housing that meets high sustainability performance targets.

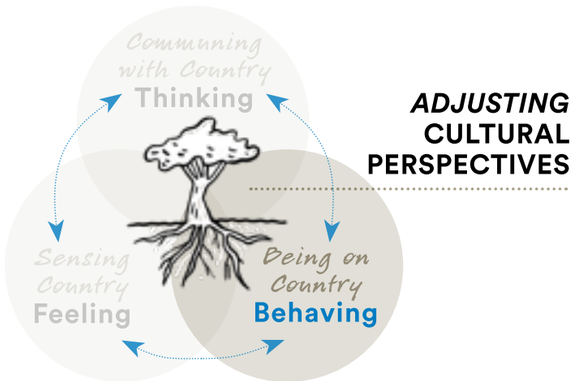
The Ku-ring-gai Housing Strategy (Endorsed September 2020) is a 20 year plan to guide the quantity, location and type of future residential development in the LGA to 2036.

To Note:

- To be referred in conjunction with DPE Letter of Approval
- Strategy outlines priorities, objectives and actions for housing (see chart)
- Housing is to be supplied:
- - close to services, cultural and community facilities
- - within 10 minutes walking of public transport.
- Homes are to be provided in areas that can support the growth of vibrant Local Centres and a thriving local economy and are to be coordinated with infrastructure services.
- A diversity of housing types is encouraged with a mixture of dwelling types and sizes, affordable housing opportunities and accessible homes.







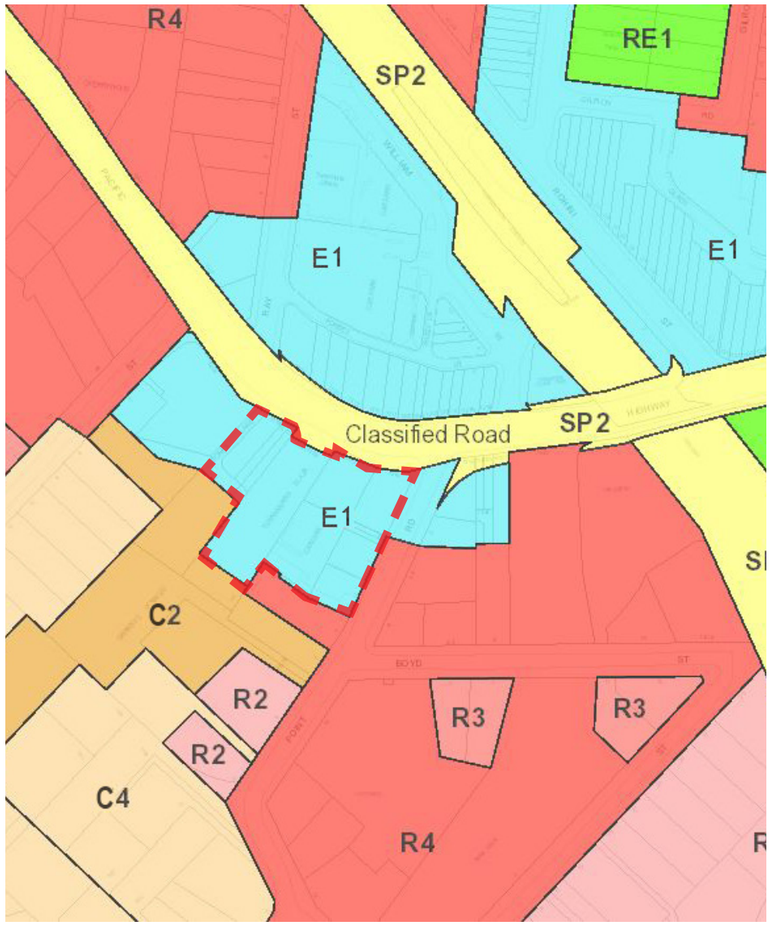
Developing cultural awareness through thinking is the first step towards adopting a Country-centred approach.

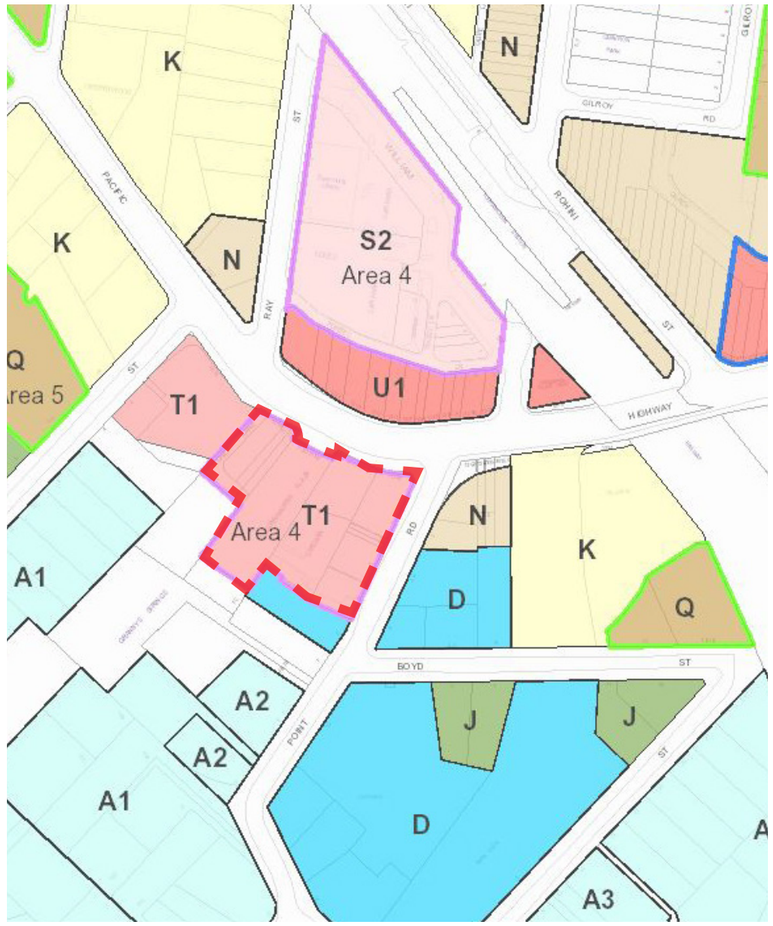
Knowledge gained from thinking and learning about communing with Country can be deepened by immersion and exposure to cultural practice described in this section – sensing Country.

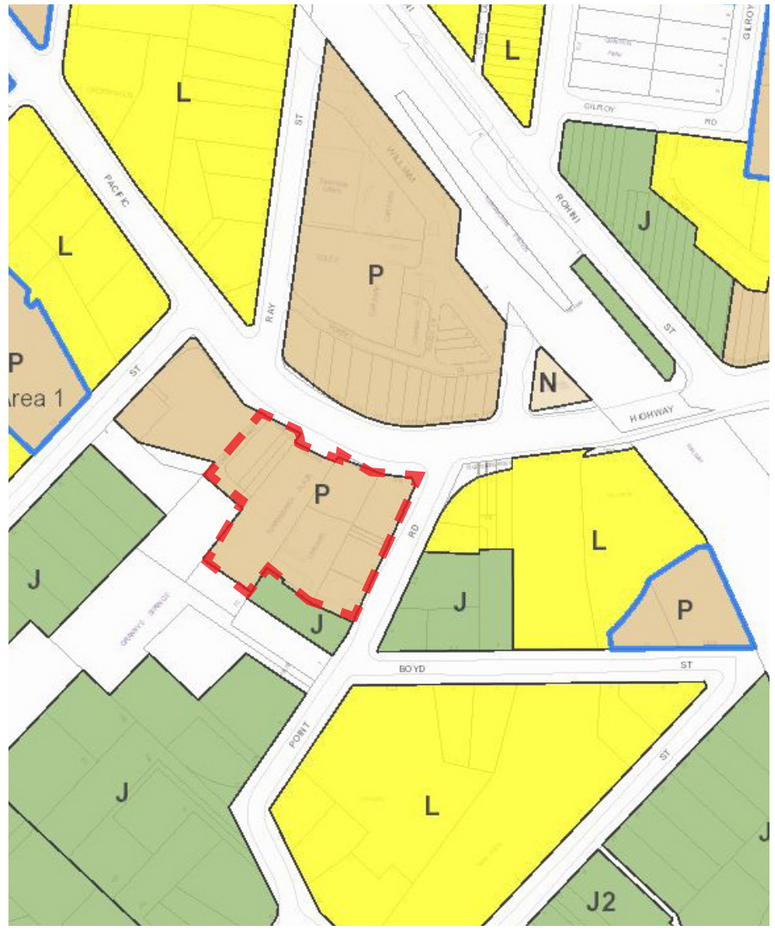
The outcome of this process of shifting our thinking, feeling and behaving in relation to Country is behavioural change, enabling a new way of working.

STRATEGIC CONTEXT

2.5 LEP MAPS







Land Zoning

B1	Neighbourhood Centre
E1	Local Centre
B4	Mixed Use
B5	Business Development
B7	Business Park
C1	National Parks & Nature Reserves
C2	Environmental Conservation
C3	Environmental Management
C4	Environmental Living
R1	General Residential
R2	Low Density Residential
R3	Medium Density Residential
R4	High Density Residential
R5	Large Lot Residential
RE1	Public Recreation
RE2	Private Recreation
SP1	Special Activities
SP2	Infrastructure
W1	Natural Waterways

Floor Space Ratio

A1	0.2
A2	0.24
A3	0.3
A4	0.36
A5	0.37
B	0.4
D	0.5
G	0.65
I	0.75
J	0.8
K	0.85
N1	1.0
N2	1.05
Q	1.3
S1	1.6
S2	1.8
T1	2.0
T2	2.3
U1	2.5
U2	2.8
V	3.0
W	3.5
Area 1	
Area 2	
Area 3	
Area 4	
Area 5	

Height of Buildings

J1	9
J2	9.5
L	11.5
M	12
N	14.5
O	16
P	17.5
Q1	20
Q2	20.5
S	23.5
T	26.5
U	32.5
V1	38.5
V2	39.5
Area 1	

COMMUNITY

To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.

EMPLOYMENT OPPORTUNITIES

To encourage employment opportunities in accessible locations.

ACCESS

To maximise public transport patronage and encourage walking and cycling.

DIVERSITY

To encourage mixed use buildings that effectively integrate suitable commercial, permitted residential development and other uses.

03

Turramurra Local Centre Plans

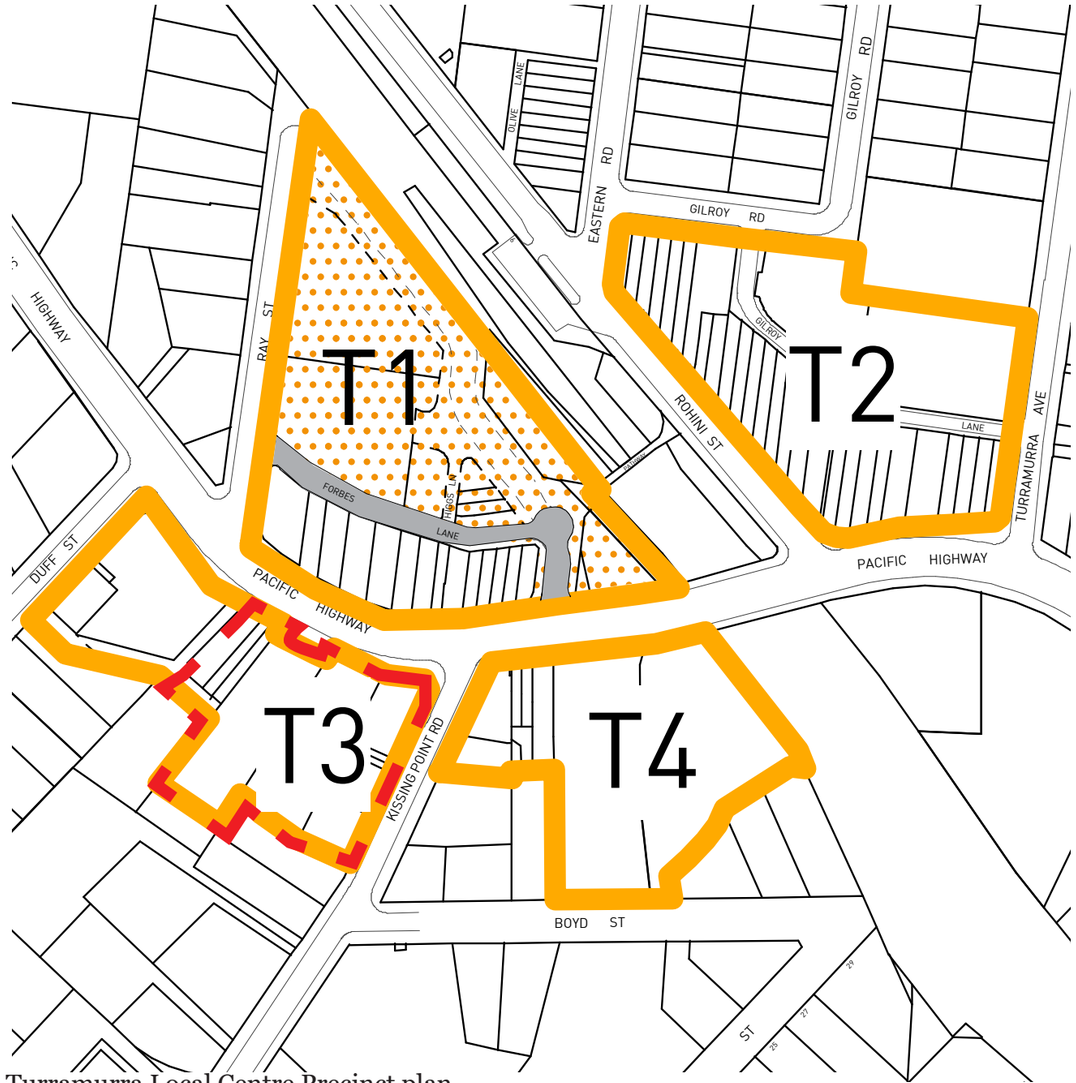
1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

DKO

All development within the Turramurra local centre is to be designed to support and enhance the planned future character of the centre. This is to be done through the general requirements and precinct specific requirements as stipulated in this DCP.

Objectives:

- To create distinct retail precincts that provide a range of services, facilities and experiences.
- To create a village centre for Turramurra.
- To create a vibrant local centre with distinctive and memorable character.
- To retain the distinctive scale and character of Rohini Street as a local shopping street.
- To encourage restaurants, cafes, outdoor dining and offices fronting on to rear lanes and new public spaces to contribute to increased activity and passive surveillance.
- To provide opportunities for new supermarkets to support and anchor the local centre.



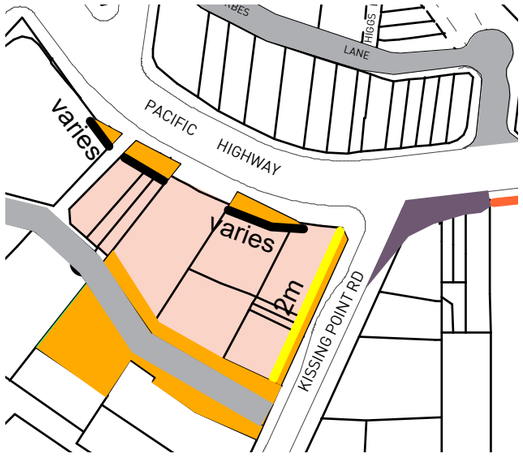
Turramurra Local Centre Precinct plan

Source: Turramurra DCP

Legend

- Core Urban Precinct (B2 and B4 zones)
- Masterplan Site

Setback

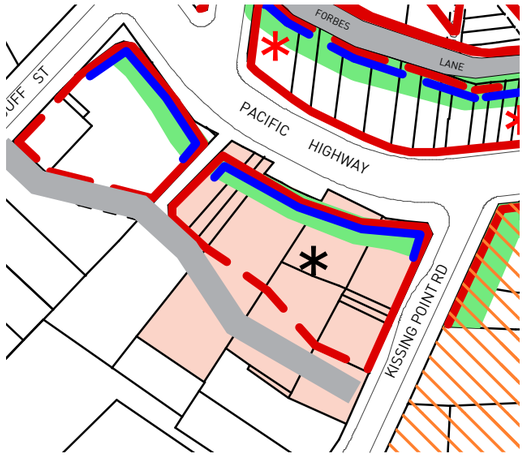


Legend

- 2m setback
- Variable setback
- Land dedication
- Proposed RMS Acquisition
- Modified Road
- Subject Site

- Provide a 2m setback to the Kissing Point Road frontage. The land is to be dedicated to Council at no cost.
- Property 1380-1388 is to provide rear setbacks to achieve a minimum 15m wide right-of-way at the rear of the property that connects with the existing road way to the west from Duff street and to the proposed road to the south-east from Kissing Point Road. The land is to be dedicated to Council at no cost.
- Properties 1364-1408 Pacific Highway are to have front setbacks in accordance with RMS requirement

Built form

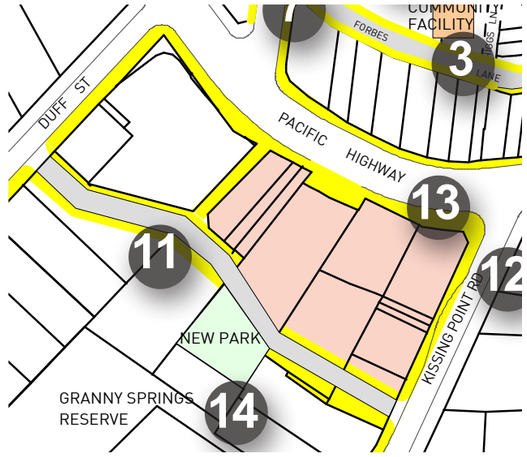


Legend

- Primary active frontage
- Secondary active frontage
- 3 storey street wall
- 2m upper level setback above street wall height
- 4m upper level setback above street wall height
- Landmark building
- Subject Site

- Create a consistent street wall of 3 storeys built parallel to the street alignments of Pacific Highway, Kissing Point Road, and Stonex Lane.
- Provide active street frontages to Pacific Highway, Kissing Point Road and Stonex Lane. Active street frontages are to be provided on the new street and Duff street where possible.
- Design residential development over the commercial podium to minimise the width of residential facades facing the bushfire prone areas.
- Provide a setback of 4m to all levels above the street wall height along the frontages of the Pacific Highway, Kissing Point Road and Stonex Lane.
- Provide generous landscape courtyards on the podium between buildings for residential amenity.

Proposed Community Infrastructure



Legend

- Footpath Embellishment
- New park or existing park to be upgrade
- Council Pedestrian Accessways
- Modified Road
- Subject Site

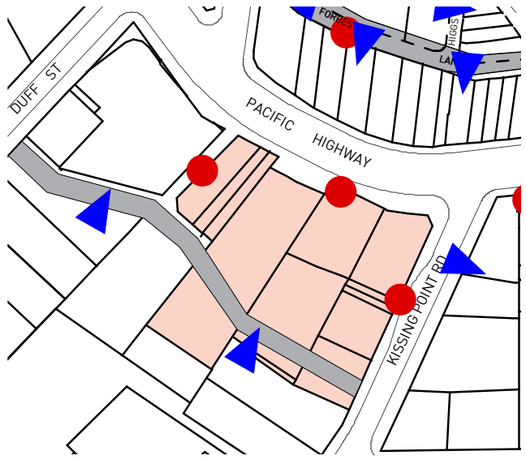
11 A new public street connecting Kissing Point Road and Duff Street with two way traffic, on–street parking (one side); and footpaths (both sides). The land is to be dedicated to Council as part of redevelopment. The road will be a minimum of 15 metres wide and will function as an Asset Protection Zone (APZ). In addition the new street will be designed to aid fire fighting and incorporate access specifications identified in *Planning for Bushfire Protection 2019;* and designed to minimise impact on adjoining Blue Gum High Forest.

12 Improvements to Kissing Point Road including a new dedicated left-turn lane from Kissing Point Road to the highway.

13 Embellishment of all the footpath areas along all streets within the Centre.

14 Construction and embellishment of a new urban park

Building Entries, Car parking and service area

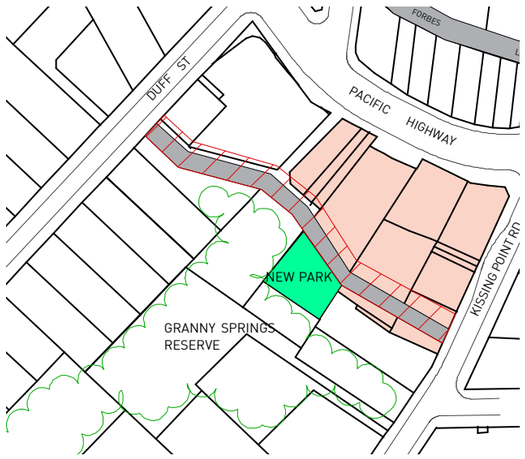


Legend

- Vehicular access to site
- Pedestrian access to site
- Modified Road
- Subject Site

- Provide a new public street at the rear of site connecting Kissing Point Road and Duff street
- Vehicle access to car parking, service and loading areas is to be provided via the new street
- All service access to the new street must be via Kissing Point Road. Access or exit via Duff Street is prohibited
- Residential foyers and lobbies are to be located on Stonex Lane, Kissing Point Road and the Pacific Highway

Environmental Protection and Protection

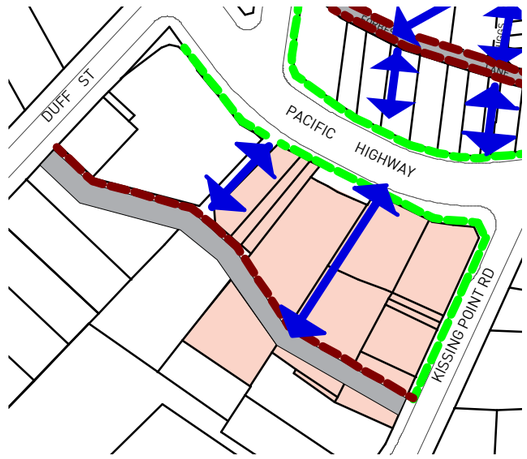


Legend

- 15m buffer zone
- Modified Road
- Subject Site

- A minimum 15m buffer from the new building to the adjacent Blue Gum High Forest is to be provided in the form of a new Street
- The new road is to be built on an elevated structure to minimise impacts from earthworks
- New development must not encroach on the adjoining bushland reserve

Public Domain and Pedestrian Access



Legend

- Pedestrian through site link
- Continuous awnings
- Continuous awnings where possible
- Modified Road
- New Bridge
- Subject Site

- Retain and upgrade Stonex Lane as an open-air pedestrian lane way with active frontages
- Provide a new public street linking Duff Street and Kissing Point Road
- Provide an internal shopping arcade linking the Pacific Highway and the new street
- Provide continuous awnings to the Pacific Highway and Kissing Point Road
- Provide awnings to the new street wherever possible

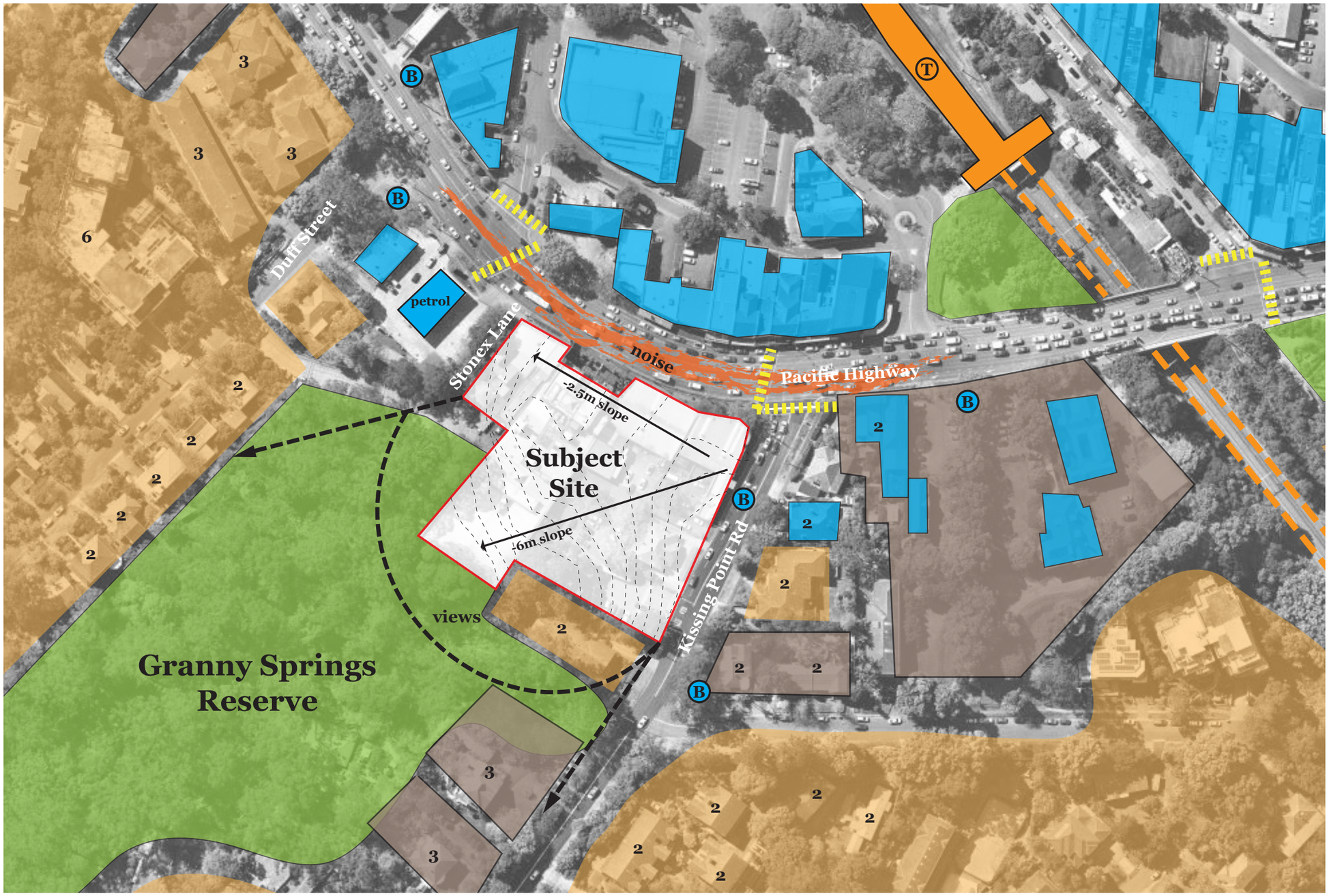
Legend

- 2m Land Dedication
- New Public Street
- New Park (Land Dedication)
- Active Frontage (provide awnings)
- Supporting Frontage (awnings were possible)
- Through-site links
- 3 storey street wall (11.5m) (4m setback above)
- Vehicular Access
- Pedestrian Access
- Landmark corner building

Forbes Lane

Turramurra Community Hub

New two-way street with pedestrian walkways & landscape buffers



Legend

- Low - Density Residential
- Heritage
- Retail & Commercial
- Turramurra Train Station
- Bus Stop
- Traffic Noise
- Landscape Areas
- Street Crossings

04

Context Analysis

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

DKO

CONTEXT ANALYSIS
4.1 THE SITE AND ITS SURROUNDS

Open space and landscape

- Trees
- Park
- Car Parking

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

Barriers

- Traffic noise
- Main Road
- Town centre street
- Residential Street

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

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

Heritage

- Heritage Conservation Area

Source: DCPLC _ Turramurra Community Hub Masterplan

Source: Ku-ring-gai Council Town Centres Public Domain Plan 2010

CONTEXT ANALYSIS
4.1 THE SITE AND ITS SURROUNDS

Pedestrian link to Station

Pedestrian link through Turramurra Station
Key pedestrian link (public) - existing/enhance
Traffic Signal with pedestrian

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

Assets

Trees
Park
Car Parking

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

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

Landmarks

The Pacific Hwy
Potential Landmark

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

Source: DCPLC _ Turramurra Community Hub Masterplan

Source: Ku-ring-gai Council Town Centres Public Domain Plan 2010

Ku-ring-gai & the Metropolitan Strategy

Most of the community infrastructure in Ku-ring-gai Council is unable to cater for future growth. For this reason, the council is focusing on urban consolidation along railway lines and major roads. In order to support population growth and demographic change, there is a need to revitalise local town centres and improve local amenities and accessibility.

(Ku-ring-gai Contributions Plan 2010)

Opportunities:

- Create spaces for new supermarkets to support and anchor the local centre
- Provide active frontages and new public spaces along rear lanes
- Create through site links that add permeability through the retail centre
- Extend the retail character of Rohini Street as a local shopping street
- Create a landmark building with mixed uses to attract people from Turramurra Station to a new and vibrant retail centre
- Retain the village character of Turramurra
- Support biodiversity by integrating community parks within urban developments

Supermarket
Church
Library
Forest Reserve
School
Train Station
Retail & Dining
Petrol Station
Medical Centre
Dining
Retail
Park

Ku-ring-gai Housing Strategy (Endorsed September 2020)

The current development plans for Turramurra allow for a maximum development height of **17.5m.** However, recent studies suggest that developments of this height will not be able to sustain the projected population growth of the next 20 years.

Population Targets:

By 2036, Ku-ring-gai Council expects a population growth of 25,000 people. In order to accommodate the growing population of Ku-ring-gai, the Housing Strategy developed the following design vision:

Principles:

- Develop no higher than **7-9 storeys (34.5m height)**
- Concentrate higher density development along local centres
- Develop a variety of housing types
- Blend the interfaces between new housing and surrounding environment
- Provide additional open/green space in denser housing developments
- Include multi-purpose social spaces in every development

Opportunities:

- Provide high density housing in proximity to Turramurra Station and existing infrastructure
- Provide a mixed-use development that extends the retail character of Turramurra Village
- Integrate the adjacent Ecological Reserve with additional open/green space for the community

9.5m (2-3 storeys)

11.5m (3 storeys)

17.5m (4-5 storeys)

Landscape Area

1 Old Commonwealth Bank (Art Deco)

2. 1358-1360 Pacific Hwy (Federation Shops)

3. Hillview Conservation Area (Federation)

4. 8 Kissing Point Rd

5. 11 Kissing Point Rd

6. 9 Kissing Point Rd (Victorian)

Heritage Building

Conservation Area

Granny Springs Bushland Reserve

The subject site sits adjacent to the Granny Springs Reserve, a Bushland that contains some of the largest Blue Gum trees in the district.

The high forest is mainly comprised of Sydney Blue Gum and Blackbutt trees. Other species include Celery Wood, Lillypilly & Native Quince.

The Reserve is listed as an endangered ecological community under the provisions of the *NSW Threatened Species ACT 1995*, and is critically endangered under the *Environmental Protection and Biodiversity Act 1999*. It is currently maintained by Ku-ring-gai Municipal Council & volunteers of the Bushcare Program.

Blackbutt - Eucalyptus pilularis

Sydney Blue Gum - Eucalyptus saligna

View 01
View from Train Station looking south

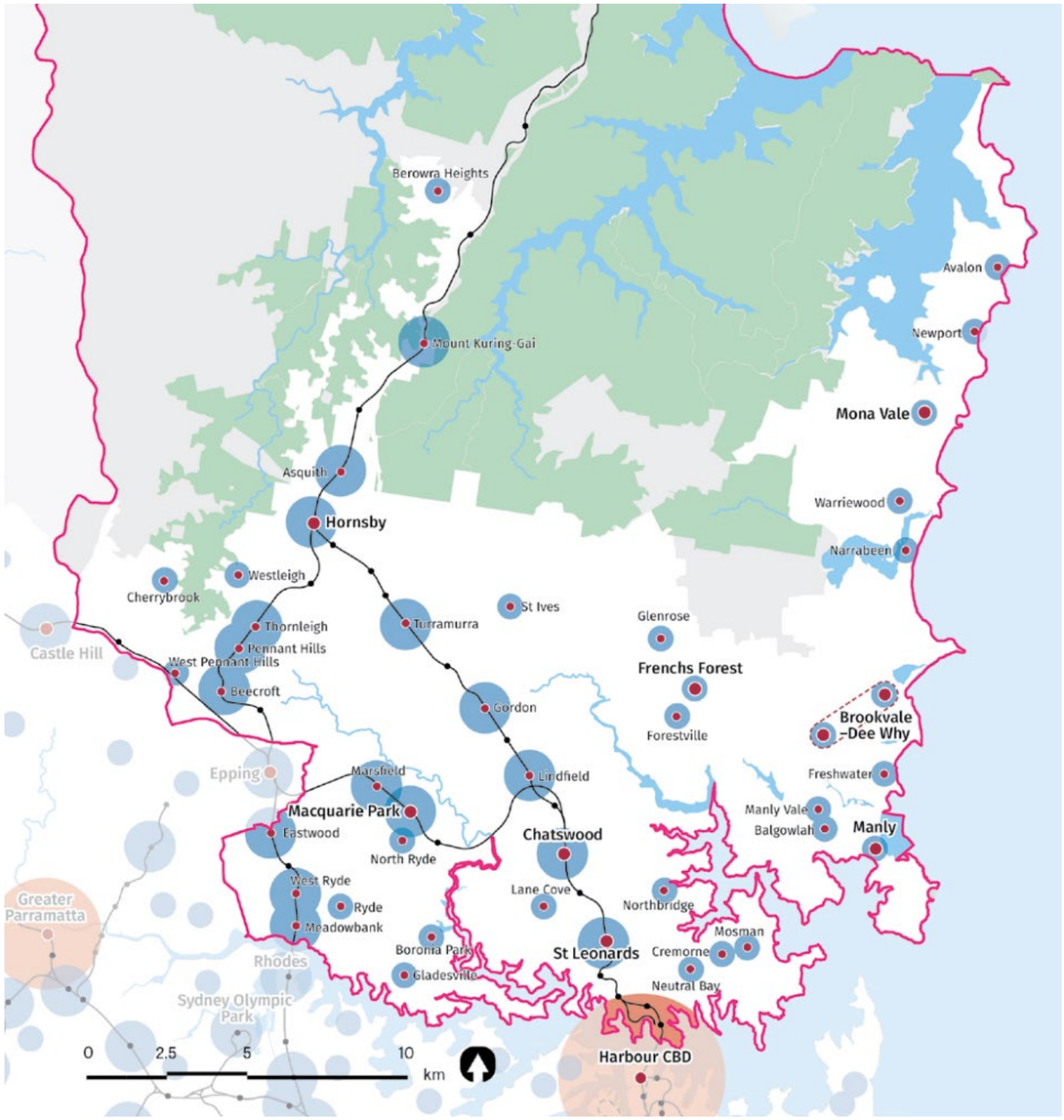
View 02
View from Pacific Highway looking west

View 03
View from Pacific Highway looking south

View 04
View from Pacific Highway looking east

View 05
View from Duff Street looking east

View 06
View from Kissing Point Rd looking north



Source: Greater Sydney Commission | North District Plan

What is density?

Density is the concentration of population and activity in an urban setting. It is an important factor in defining the character of an area and how it functions. It consists of consolidating a mix of uses including, living, working, shopping, recreation and others in order to create a vibrant and sustainable centre.

What are the benefits of density?

Through consolidation, good urban density can:

- Provide cost savings in land, infrastructure and energy
- Reduce economic costs and environmental impacts of travel
- Concentrate innovation and skill in the centre of a neighbourhood
- Lower crime rates
- Preserve green space by decreasing development footprint
- Promote social connectedness & community
- Provide local employment
- Reduce urban sprawl

Public Domain Plan Town Centres

Source: Ku-ring-gai Town Centres Public Domain Plan 2010

What does density look like in a Local Centre?

Local Centres are a focal point for neighbourhoods and where they include public transport and transport interchanges, they are an important part of a 30-minute city. A 30-minute city is the concept that people can reach anything they need within 30 minutes of travel.

While local centres are diverse and vary in size, they provide essential access to day to-day goods and services close to where people live. It is important that these are located around interchanges and transport stations so that they are highly accessible to everyone.

Turramurra has great potential for added density along Pacific Highway to revitalise the existing shopping precinct that is directly accessible from Turramurra Station.

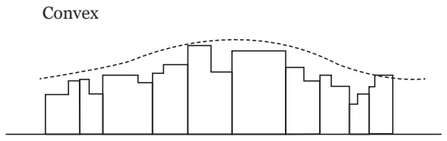
ANALYSIS OF TURRAMURRA

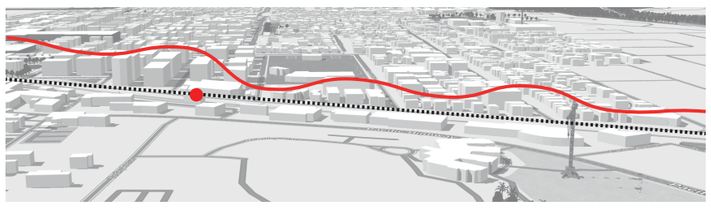
4.9 LOCAL CENTRE EXTENTS

Waitara

Over 10 storey building
8-9 storey building
6-7 storey building
5 storey building
4 storey building
1-3 storey building
Rail
Main Road
Station

Convex

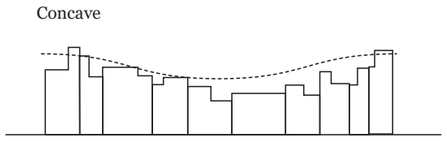


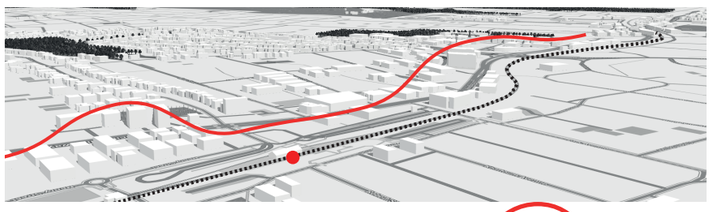


Gordon

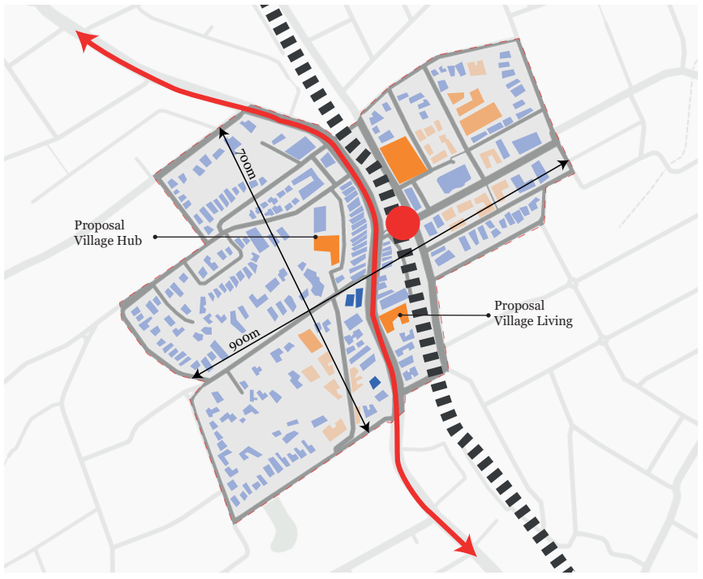
Over 10 storey building
8-9 storey building
6-7 storey building
5 storey building
4 storey building
1-3 storey building
Rail
Main Road
Station

Concave



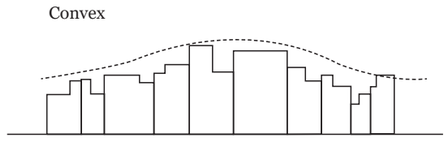


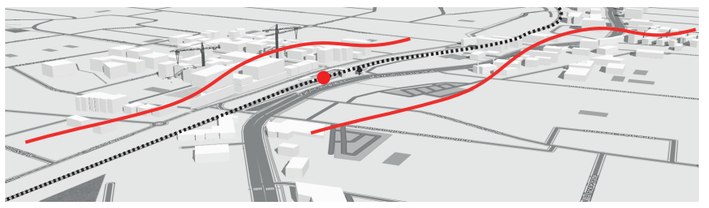
Lindfield

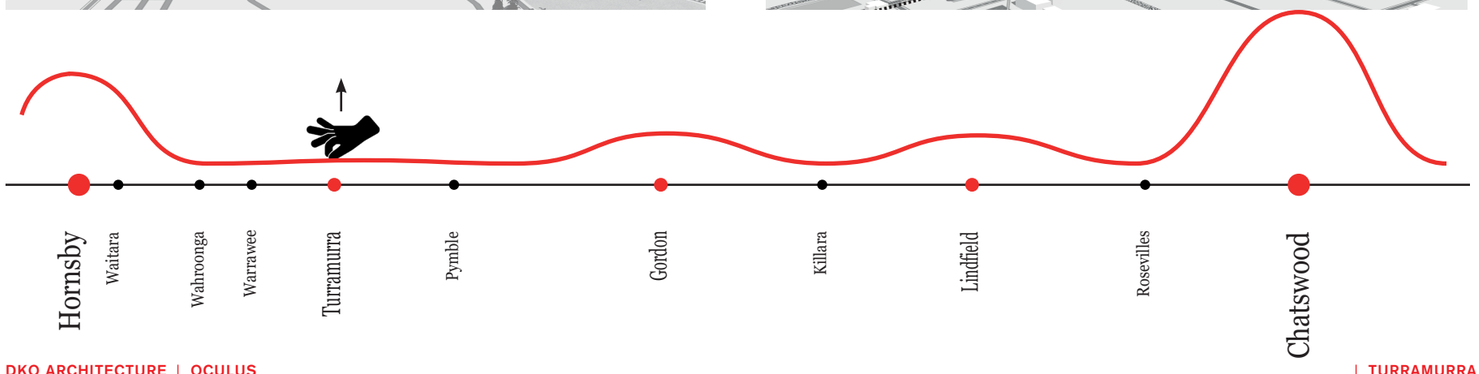


Over 10 storey building
8-9 storey building
6-7 storey building
5 storey building
4 storey building
1-3 storey building
Rail
Main Road
Station

Convex







Strategic Centre

Local Centre

Ku-ring-gai Housing Strategy to 2036 is an investigation for future housing delivery in Ku-ring-gai Council. The study is a qualitative and quantitative investigation into the development needed to support projected population growths. Through various workshops, the study found the following views from local residents:

Reasons to support High Density Development:

- To provide housing diversity for seniors looking to downsize
- To provide housing options for young professionals who can't afford a single-family home
- To support local retail viability which is currently under performing
- To improve walkability and make people less reliant on cars
- To revitalise Turramurra Town Centre
- To add mixed uses that support the community (live, work, shop, play)
- To support a population growth of 25,000 people by 2036
- To avoid subdivision of land

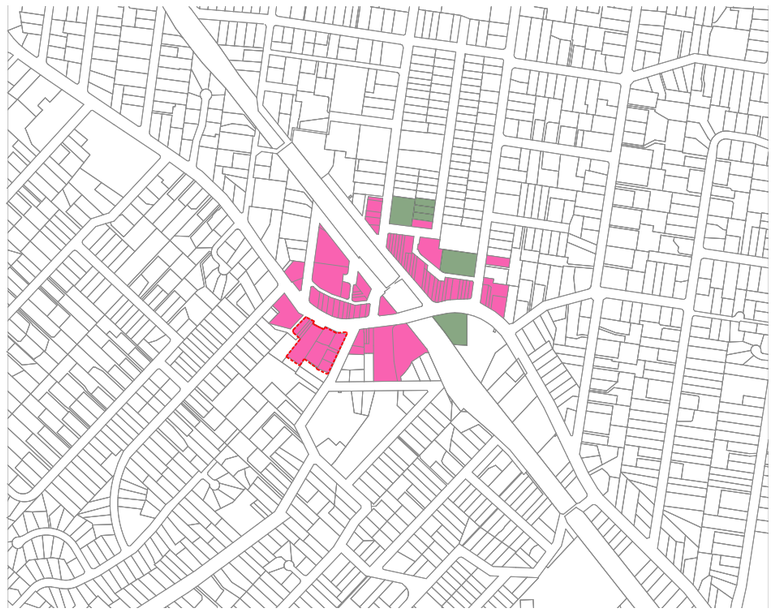
Reasons to oppose High Density Development:

- Perception that density will increase traffic
- Perception that density will increase crime
- Visual impact when transitioning from 3-storeys to 10+ storeys
- Concern for views being blocked
- Concern that existing infrastructure cannot support additional density
- Concern of losing the village character that defines Turramurra (townhouses, 4 storeys max)
- Concerns that high density comes at a loss of open space

Opportunities:

- Locate density around transport stations so people will be less reliant on cars and therefore, not have a significant impact on traffic congestion
- Studies show that increased density is likely to reduce crime rates by having more foot traffic
- Balance density with open space offerings to promote sustainable growth
- Locate density at higher topography so that views to Turramurra Forests are accessible to all
- Upgrade existing infrastructure simultaneously with new development
- Find architectural solutions that respect and enhance the existing village character of Turramurra

"If density is needed, having concentrated areas of high density rather than larger areas of medium density has less impact on existing suburbs"



Local Centre

Additional density should be concentrated in existing local centres. Locate new residential close to commercial and recreational uses.

Open Space

Vertical density allows for preservation of open space.

Access (10-15 min. walk)

Locate mixed-use developments within 10-15 min walk (800m) to transport stations.

Smart Growth

Smart growth is an approach to urban design that encourages development in existing communities already served by infrastructure in order to utilize the resources that existing neighbourhoods have to offer, conserve open space and natural resources, support existing businesses and expand the community's character.

ANALYSIS OF TURRAMURRA

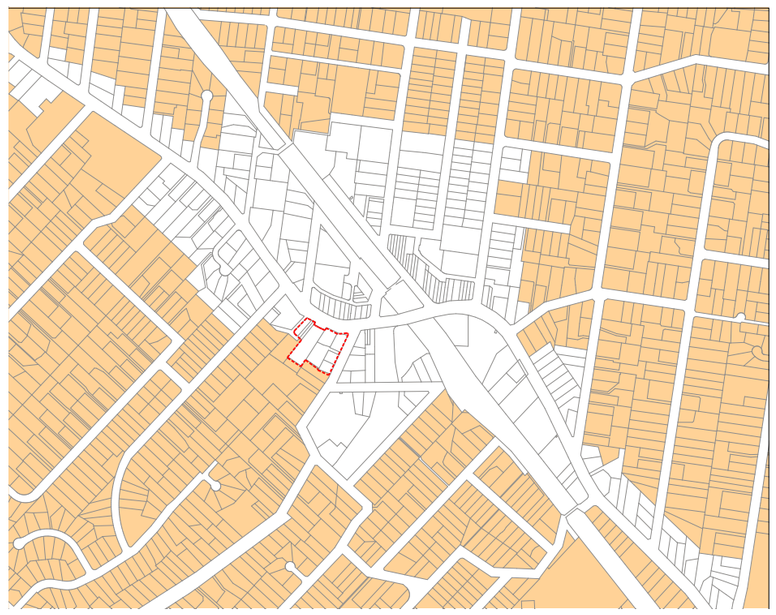
4.11 PRINCIPLES FOR GOOD URBAN DESIGN

Heritage

Preserve historically significant buildings.

Topography

Locate development away from steep zones to encourage walking/cycling and decrease car dependability.

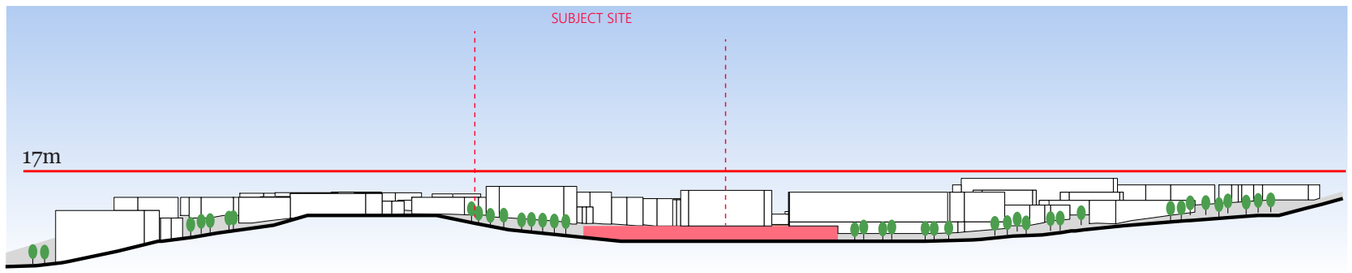


Existing Residential

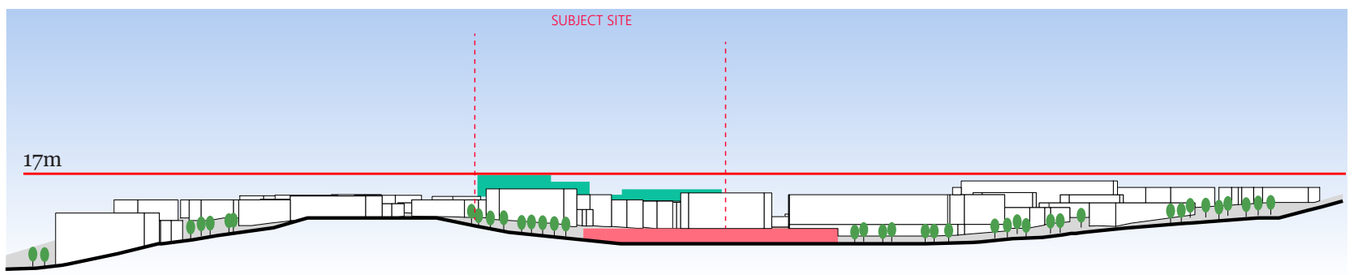
Compact design to avoid impact on existing lots & subdivision of land.

Conclusion

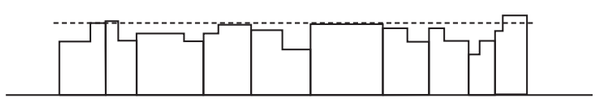
The subject site meets all the design principles for smart growth and therefore, is an ideal location for increased density.



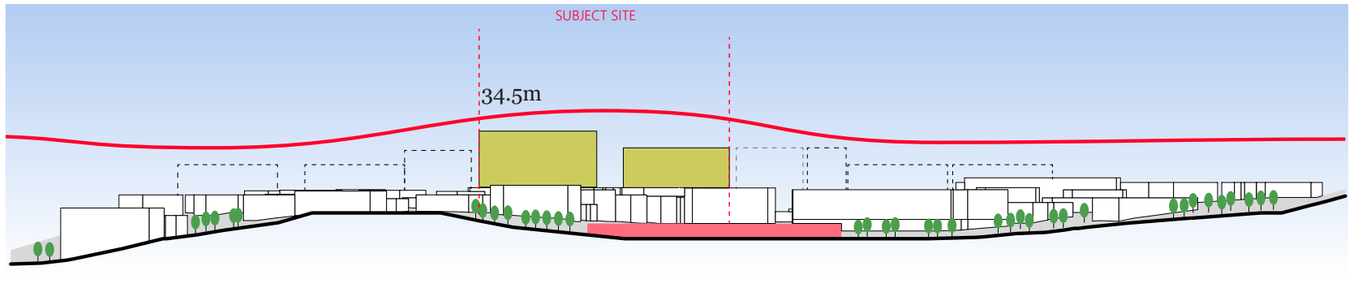
1. Existing Turramurra Skyline



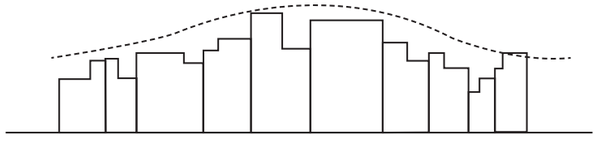
2. LEP Turramurra Skyline



Existing & LEP Skyline form: Flat



3. Turramurra Skyline from council comments _ Refer to Lindfield Village Hub Skyline



Proposed Skyline form: Convex

Turramurra Skyline

An understanding of the identity, character, size, land use mix, function, catchment and potential of each local centre and the local centres' hierarchy will inform housing strategies. Additional residential development within a five-minute walk of a centre focused on local transport, or within a 10 minute walk of a centre with city-shaping or city-serving public transport, will help create walkable local centres.

Turramurra's existing skyline has a flat profile without gateway forms. As seen in examples of other local centres, local centres are made up of a combination of skyline shapes from convex to concave. The Turramurra proposed skyline illustrates how the proposed height of a tower would vary the overall Turramurra local centre skyline. and create a visual landmark for a revitalised town centre

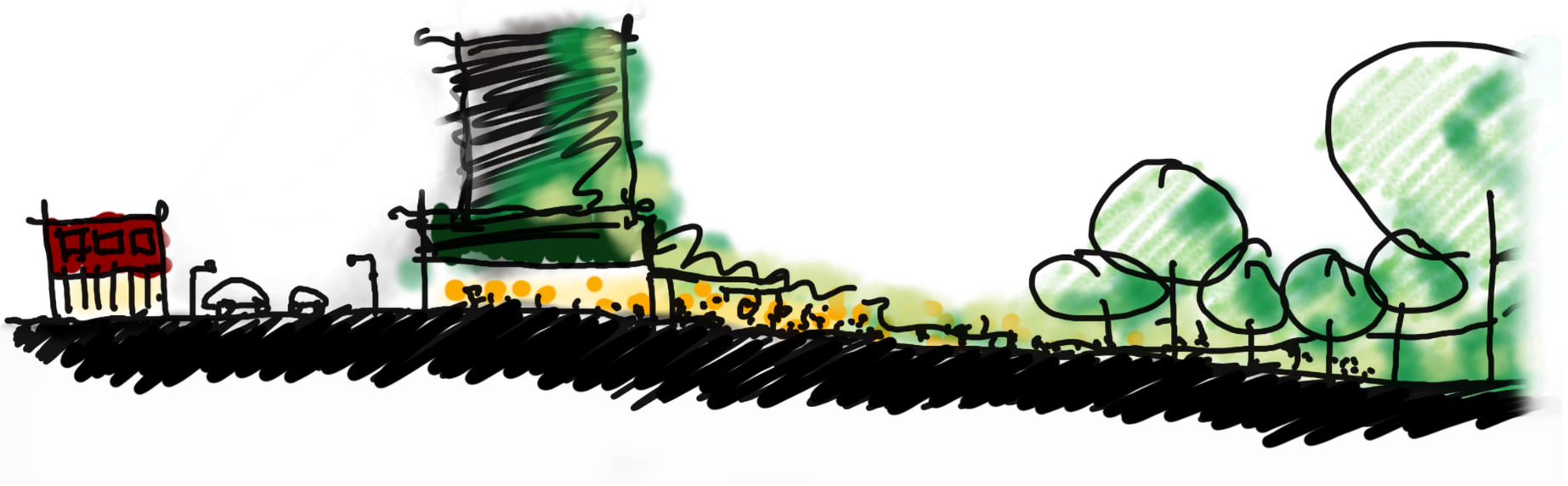
05

Design Response

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

DKO

Village meets nature



Village ----------*---------- Nature

EXISTING SITE CONTROLS

Zoning: E1 Local Centre

FSR: 2.0:1

Height of Building: 17.5 m

PROPOSED SCHEME

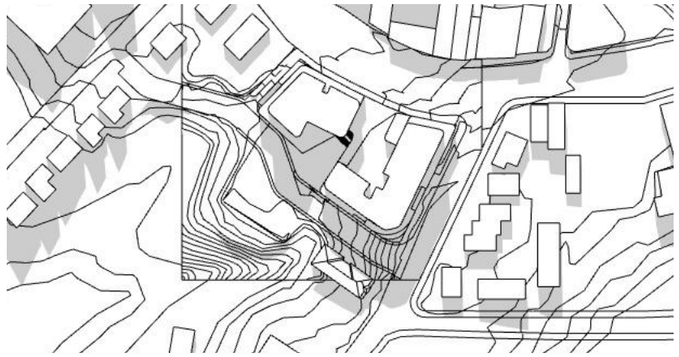
Zoning: E1 Local Centre

FSR: 3.0: 1

Height of Building: 34.5 m

PROPOSED SCHEME

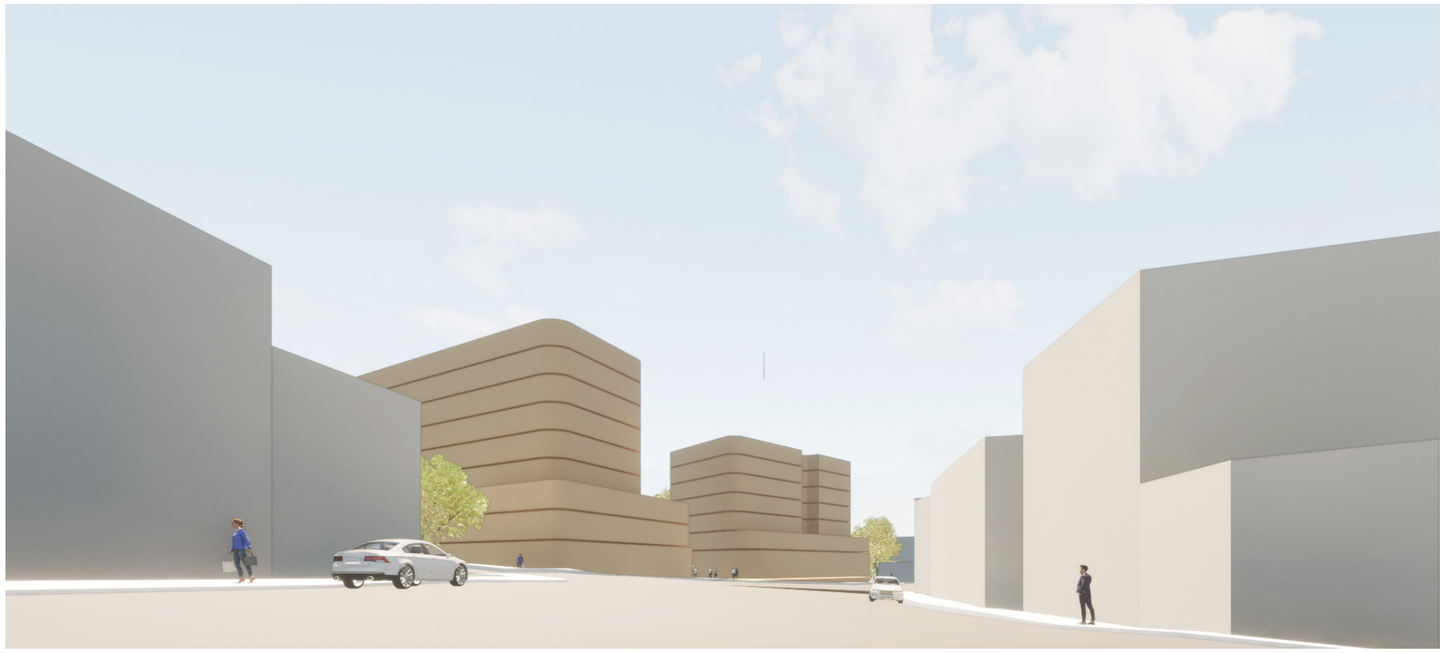
June 21 - 9:00 am



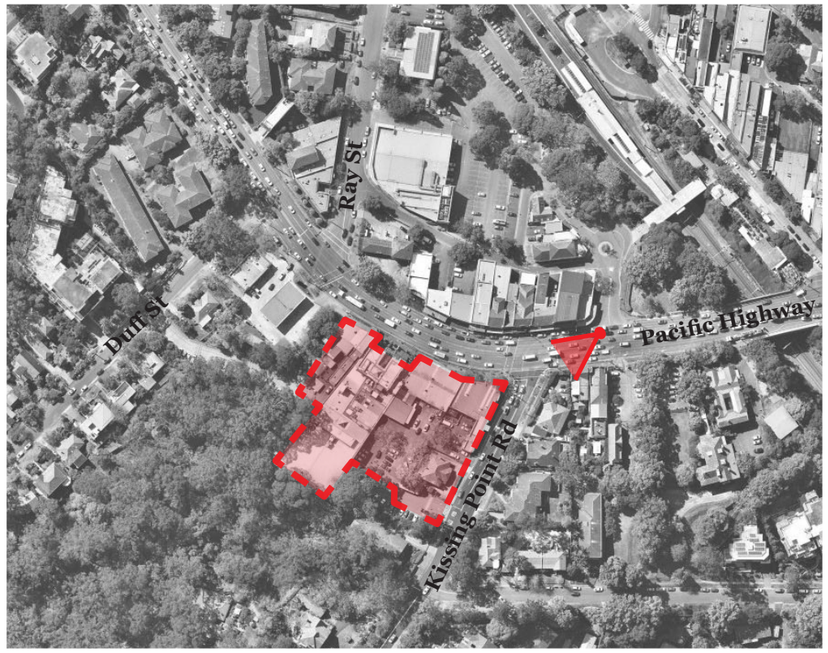
June 21 - 12:00 pm

June 21 - 3:00 pm

View from Train Station looking south _ Proposed Scheme



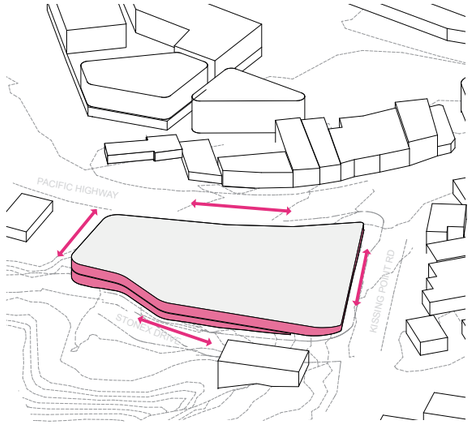
View from Pacific Highway looking west _ Proposed Scheme



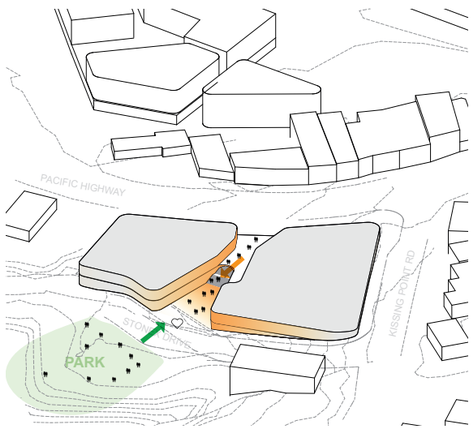
View from Kissing Point Rd looking north _ Proposed Scheme

View from Duff Street looking east _ Proposed Scheme

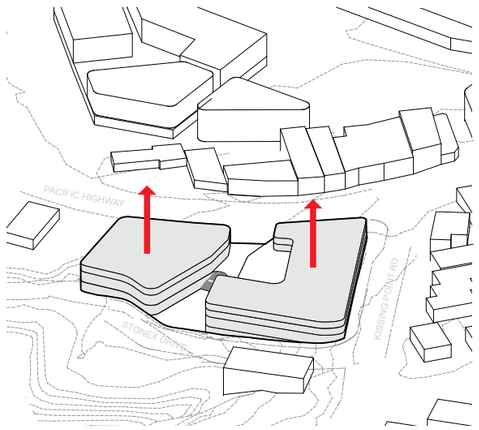
PROPOSED SCHEME



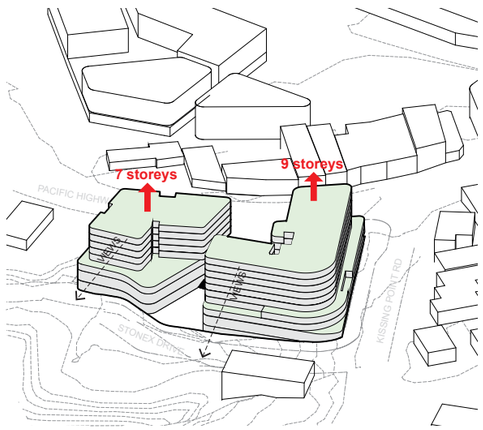
Step 01
activate edges



Step 02 - 03
integrate public park + civic plaza + retail base



Step 04
maintain 11.5m street wall

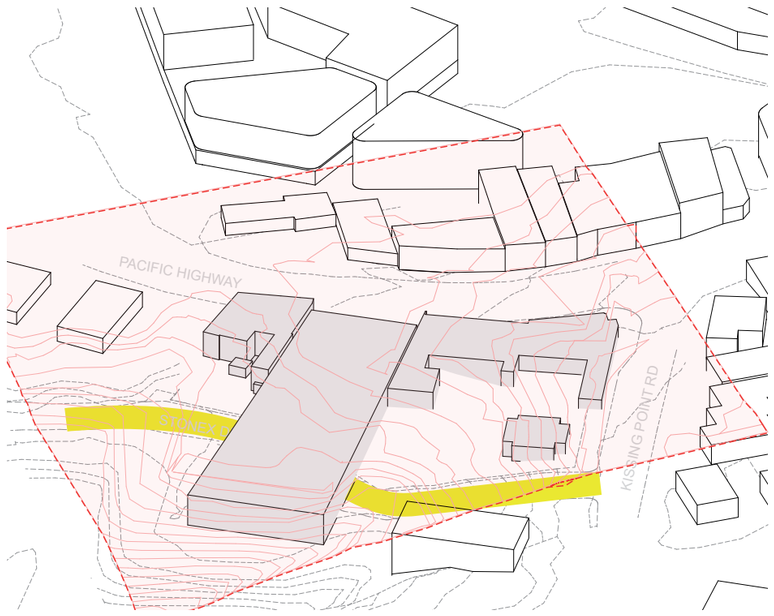


Step 05
create visual landmark

Step 06
extend the green

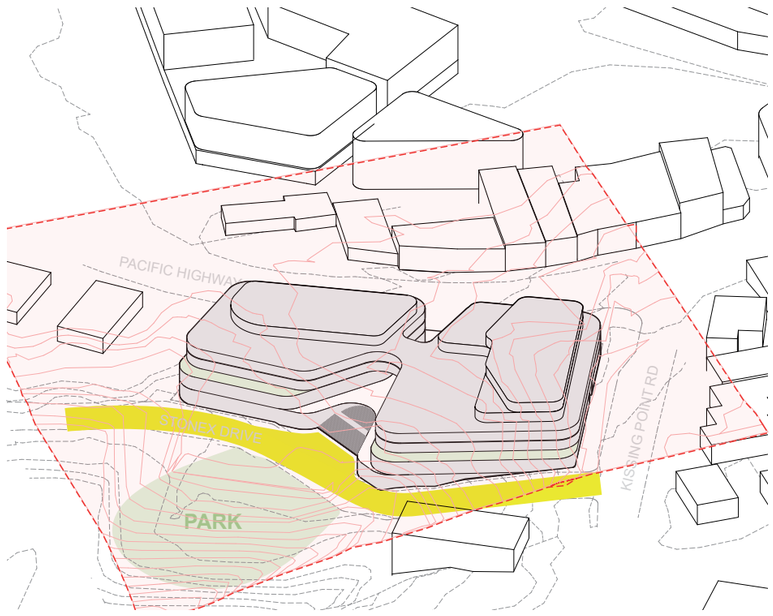
DESIGN RESPONSE

5.6 BUILT FORM MASSING COMPARISON



Existing Massing

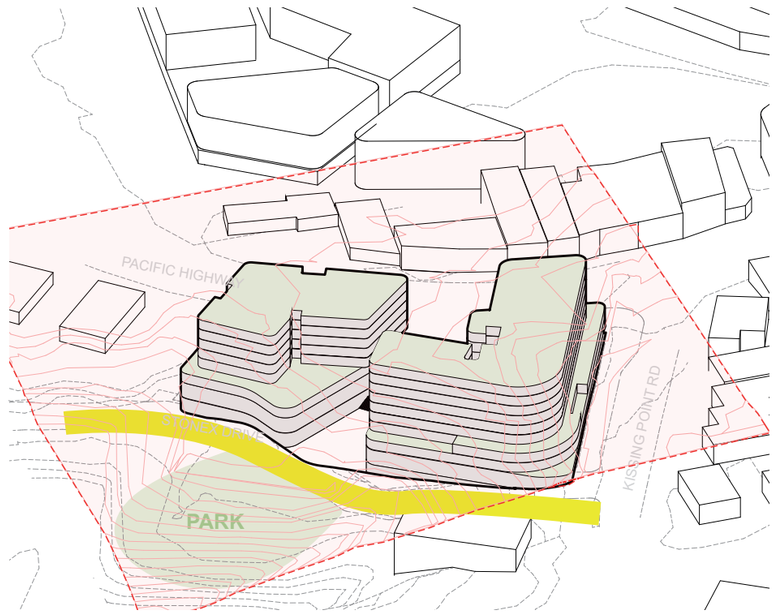
Existing massing consists of a small retail mall with a supermarket and a number of under performing specialty shops that amount to an FSR of 0.19:1 (approx.) and a maximum height of 11.5m.



LEP Massing

The LEP currently allows for an FSR of 2.0:1 and a maximum height of 17.5m.

These controls would not allow a feasible development.



Proposed Massing

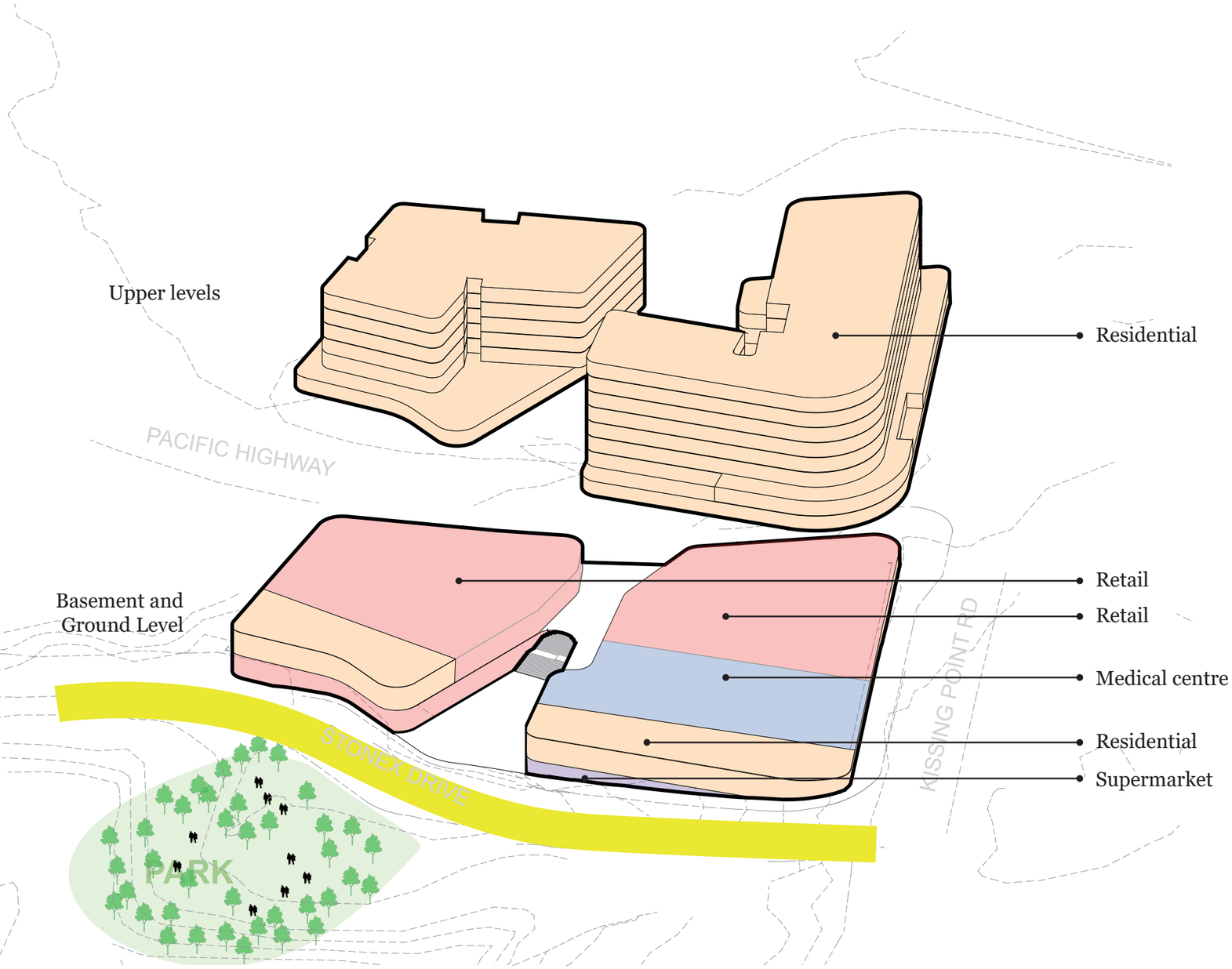
The design proposes a an FSR of 3.0:1 and a maximum height of 9 storeys.

This density will allow enough commercial, retail and residential program needed to create a revitalised shopping precinct for the centre of Turramurra.

34.5m height plane

DESIGN RESPONSE
VIEW FORM PACIFIC HIGHWAY TO SOUTH

DESIGN RESPONSE
5.7 PROPOSED USE DIAGRAM

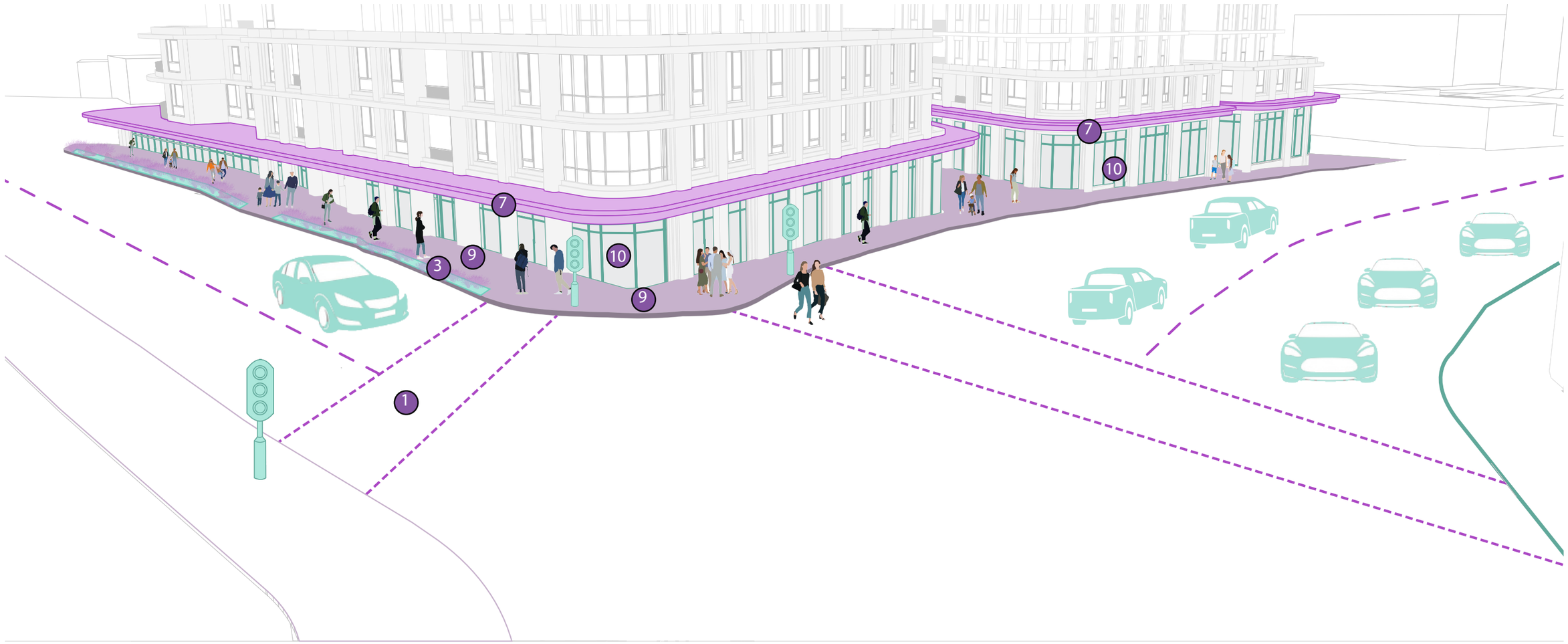


DESIGN RESPONSE

5.8 PROPOSED OPEN SPACE DIAGRAM

DESIGN RESPONSE

5.9 STREET INTERFACE : PACIFIC HIGHWAY & KISSING POINT ROAD

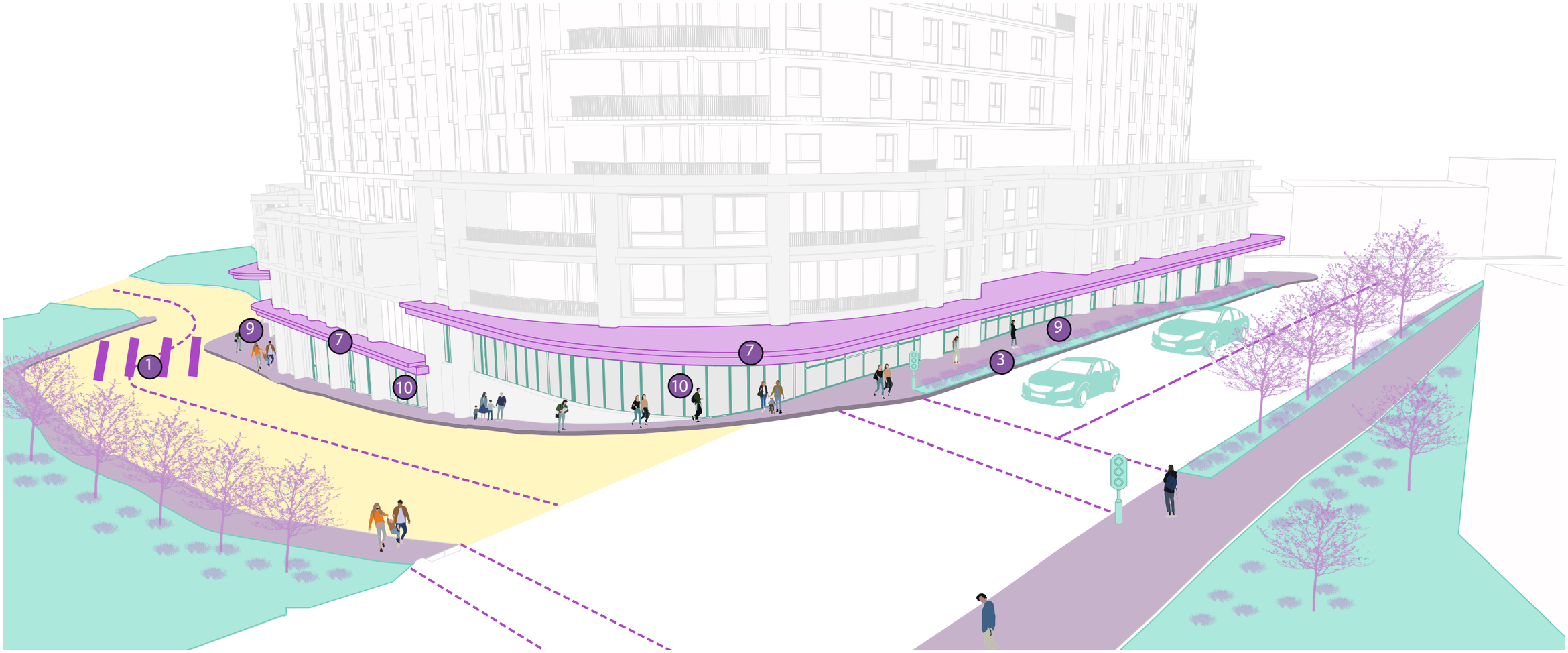


Street Interface Design Strategies

1. Safe crossings
2. Seating areas
3. Pedestrian safety buffers
4. Vertical greenery
5. Wayfinding
6. Upgraded bus shelter
7. Awnings where appropriate
8. Bicycle racks
9. Upgraded paving
10. Activated storefronts
11. Generous setbacks
12. Permeable access points
13. Facade articulated into small volumes in context with existing retail village character
14. Facade designed with rich details and vertical articulation

DESIGN RESPONSE

5.9 STREET INTERFACE : KISSING POINT ROAD



Street Interface Design Strategies

1. Safe crossings
2. Seating areas
3. Pedestrian safety buffers
4. Vertical greenery
5. Wayfinding
6. Upgraded bus shelter
7. Awnings where appropriate
8. Bicycle racks
9. Upgraded paving
10. Activated storefronts
11. Generous setbacks
12. Permeable access points
13. Facade articulated into small volumes in context with existing retail village character
14. Facade designed with rich details and vertical articulation

DESIGN RESPONSE

5.9 STREET INTERFACE : STONEX DRIVE

Street Interface Design Strategies

1. Safe crossings
2. Seating areas
3. Pedestrian safety buffers
4. Vertical greenery
5. Wayfinding
6. Upgraded bus shelter
7. Awnings where appropriate
8. Bicycle racks
9. Upgraded paving
10. Activated storefronts
11. Generous setbacks
12. Permeable access points
13. Facade articulated into small volumes in context with existing retail village character
14. Facade designed with rich details and vertical articulation

Materiality Objectives

_To conserve early facades which are contributory to the character of the streetscape

_To be sympathetic in materials, form, scale, massing, articulation, alignments and proportions to existing buildings

Source: Ku-ring-gai DCP

Materiality Proposal

The proposed retail base is inspired by the fine-grain Art Deco details of the original Commonwealth Bank building and the materiality of the surrounding brick shops. The result is a contemporary approach that is sympathetic to the existing village character of Turramurra.

The residential towers will be characterized by simple materials and landscaping. Planted balconies stretch around both towers to create a visual identity of a tower as an extension of the surrounding bushland.

Existing Art Deco Building

+

Existing Brick Shopfronts

=

Contextual Base

Vertical Greenery

DESIGN RESPONSE

5.10 MATERIALITY_ VIEW FROM NEW PARK TO NORTH

Existing Subject Site

Existing property boundaries

Proposed

Proposed property boundaries
Land dedicated to council
Existing property boundaries

DESIGN RESPONSE

5.12 PUBLIC OFFERING

Land Dedication

The new development will dedicate approximately 3,000 sqm of land for a new community park, road upgrades and proposed street setbacks.

Community Park

A new public park to the south of Stonex Drive will be dedicated as a key community amenity.

New Road (Stonex Drive)

A new public street will connect Kissing Point Road and Duff Street. This street will have two-way traffic, footpaths on both sides and a marked cycleway.

The street will serve as a new through-site link, a service lane and a buffer to protect the adjacent Blue Gum High Forest.

DESIGN RESPONSE

5.12 PUBLIC OFFERING

Kissing Point Rd Upgrades

Improvements to Kissing Point Road include a new dedicated left-turn lane from Kissing Point Road to the highway and new line markings.

Street Treatment Plan

Footpath along Pacific Highway and Kissing Point Road to be upgraded to large format pavers and new footpath along Stonex Drive to be unit/interlocking pavers.

Large Format Paver - Full width of Footpath

Unit/Interlocking Paver (Permeable where Possible) to Plaza.

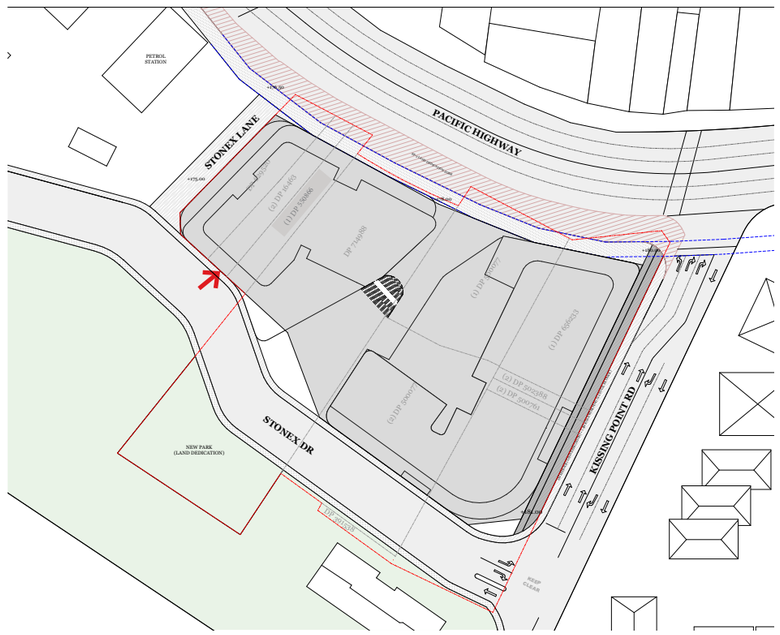
Deep Soil Zone

Pedestrian Safety

Pedestrian safety fence upgrade along Pacific Highway.

DESIGN RESPONSE

5.12 PUBLIC OFFERING

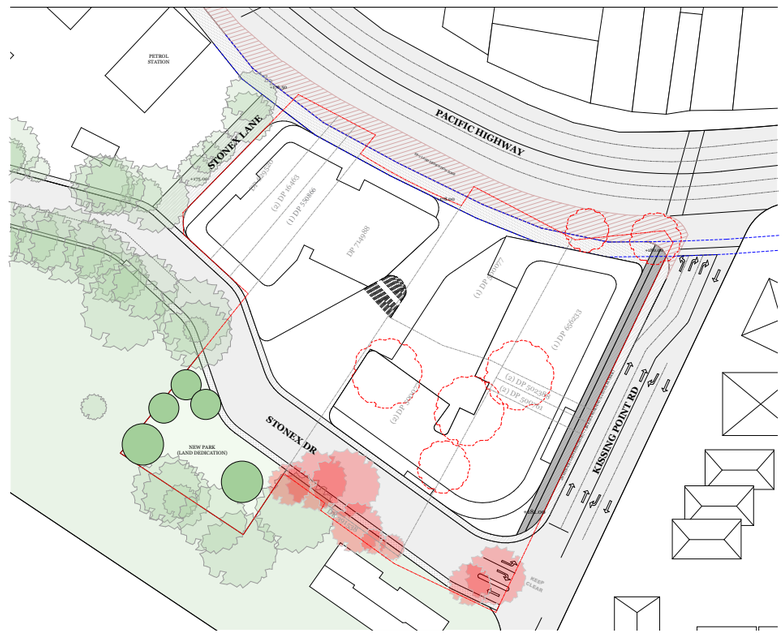


Public Parking

Publically available car park to be provided in basement levels and accessed via Stonex Drive.

Through-site links

Retain and upgrade Stonex Lane as a pedestrian lane with active frontages and a new 8m wide pedestrian arcade linking Pacific Highway and Stonex Drive.



Street Tree Plan

Supplementary street trees to be provided where sidewalk width allows.

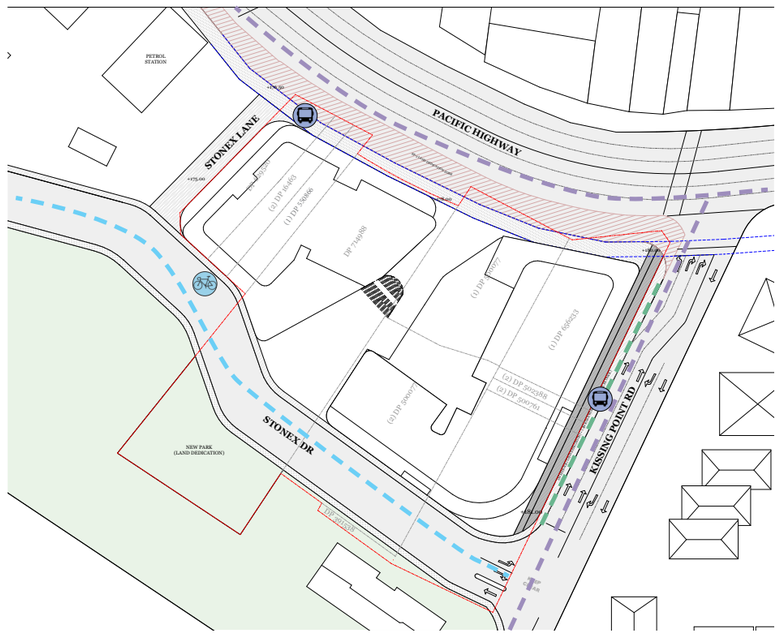
- Supplementary street tree
- Existing street tree
- Existing tree to be removed
- Low planting buffer

Trees along Town Centre Streets:

Ivory Curl Tree, Cheese Tree, Jacaranda, Indian Summer Crepe, Myrtle Mauve, Magnolia Little Gem, Pian Oak, Luscious

DESIGN RESPONSE

5.12 PUBLIC OFFERING



Integrated Transport

A shared pathway along Kissing Point Road will connect Stonex Drive to Pacific Highway, Rohini Street and Eastern Road. An on-road cycleway will be provided on Stonex Drive. Existing bus stops to be upgraded. New bicycle parking facilities to be provided on Pacific Highway and Stonex Drive.

- Existing bus route
- Proposed cycleway
- Proposed shared pathway
- Proposed bicycle parking
- Existing bus stops
- SP-2 Land Dedication

Pedestrian Lighting Plan

Street lighting to be upgraded to be energy efficient, provide a well lit environment and enhance the appeal and cohesion of the town centre.

- Main Road - Town Centre (Area 1)
  High quality lighting for carriageway and footpaths
- Minor Road - Town Centre (Area 3)
  lit primarily for pedestrians
- Laneway - Town Centre (Area 5)
  High level of visibility without excessive illumination
- Civic Spaces (Area 9)
  lit to provide adequate security

New Park : 708sqm

New Road : 1,434sqm

Kissing point Road : 255sqm

Pacific High Way upgrade and land dedication: 405m

Through-site Link: 907sqm

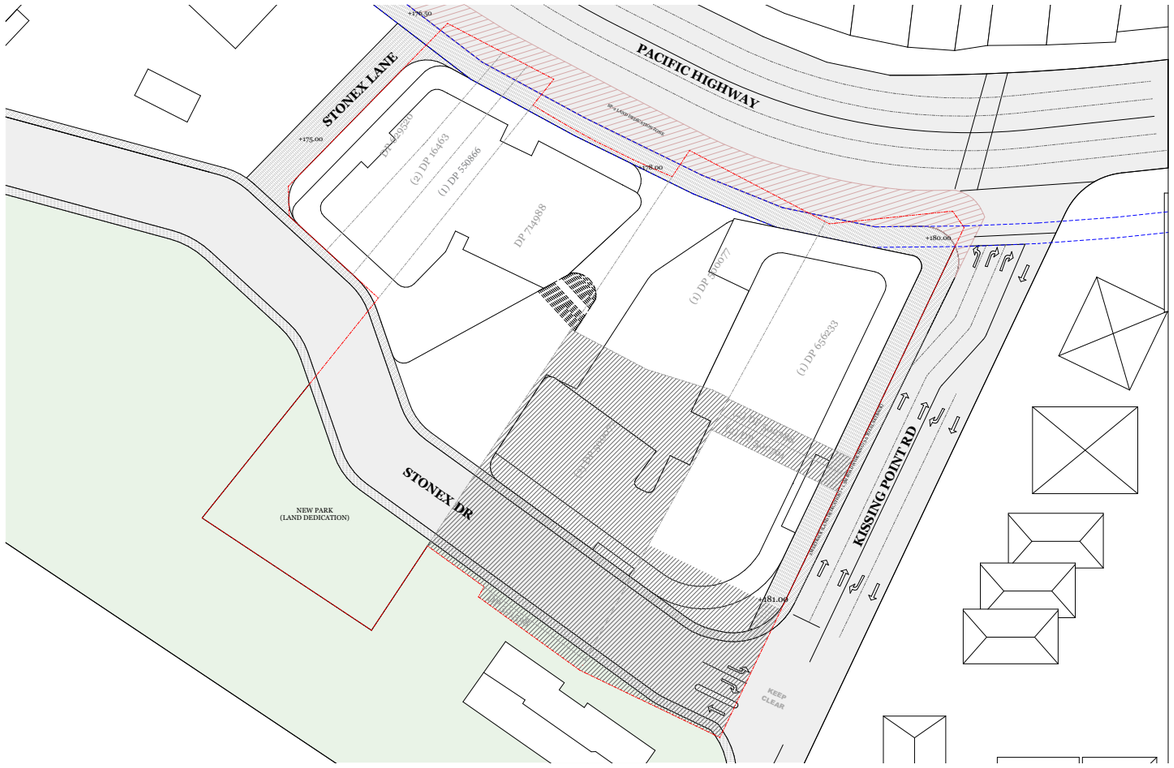
Stonex Lane Upgrade: 245sqm (not part of subject site, but the proposal includes the upgrade and embellishment)

Public Offering	Approx. Area	Council Objective
New Community Park	708 sqm	Ku-ring-gai DCP Part 14B.10
New Road (Stonex Dr)	1,434 sqm	Ku-ring-gai DCP Part 14B.10
Kissing Point Rd	255 sqm	Ku-ring-gai DCP Part 14B.10
Pavement Upgrades	1,255 sqm	Ku-ring-gai DCP Part 14B.10
New through-site link	907sqm	Ku-ring-gai DCP Pa rt 14B.10
Pacific High Way upgrade and land dedication	405 sqm	
Delivery of new public domain surrounding the site	**Approx. Area**	
Pacific Highway Fence Upgrade	96 m length	-
Stonex Lane Upgrade	245 sqm	Ku-ring-gai DCP Part 14B.10
Supplementary Street Trees	-	Public Domain Plan 2010
Upgraded Bus Stop	1	Public Domain Plan 2010
New Bicycle Racks	2 areas	Public Domain Plan 2010
Upgraded Street Lighting	-	Public Domain Plan 2010
Total	-	-

Increase in through-site link area.

DESIGN RESPONSE

5.12 PUBLIC OFFERING



Site Area: 8,459.7sqm

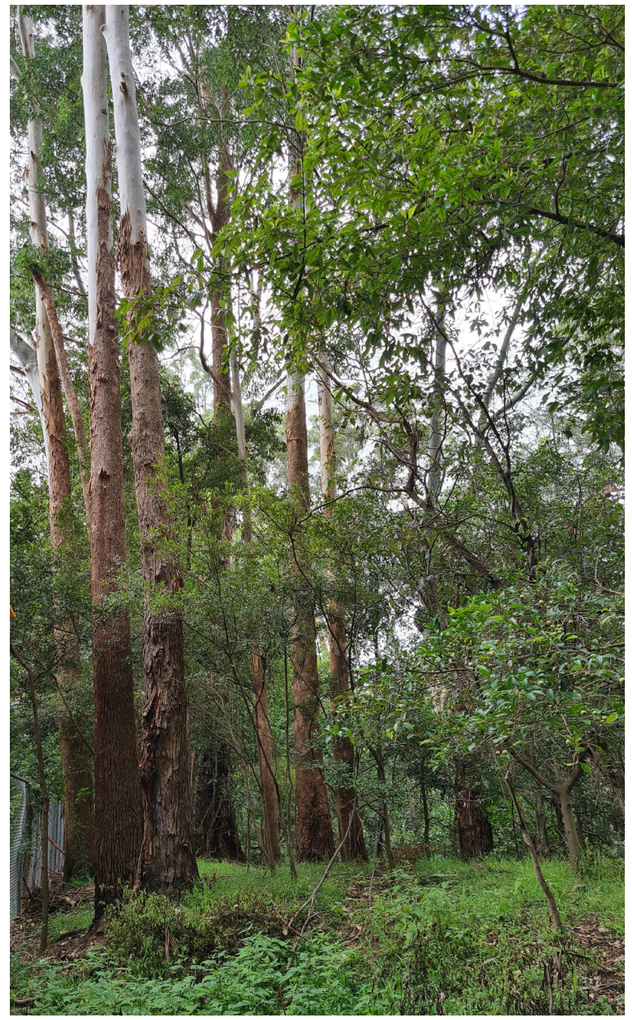
- Private Ownership: 6,195.8 sqm
- Council Ownership: 2,268 sqm

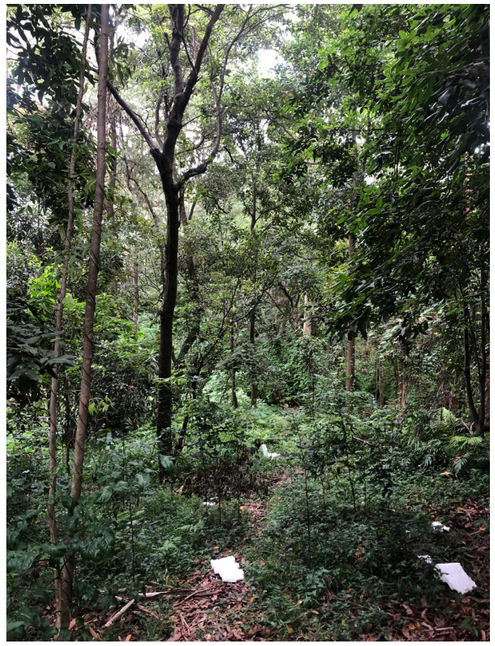
Land Dedication: approx. 2,766 sqm

- New Park: 708sqm
- Stonex Drive: 1,434sqm
- Green buffer between Stonex Drive and neigbour building: 104sqm
- Kissing Point Road Footpath upgrade: 255sqm
- Pacific Highway Footpath upgrade: 265sqm
- Land Dedication SP-2 Zone: approx. 141sqm
- New Private Land Site Boundary

The existing adjacent Blue Gum High Forest in Granny Springs Resereve is in poor condition and the edge of the site at the boundary is currently littered with rubbish and weeds engulf much of the landscape. Several significant and endemic gum trees on the edge of the site reach over 20 metres high, creating a tall canopy with dappled shade. They stand tall at the highest point at the top of a hill before the ground steeply drops down into a water course.

The primary native trees in the reserve are the Sydney Blue Gum - *Eucalyptus saligna* and Blackbutt - *Eucalyptus pilularis.*





DESIGN RESPONSE

5.13 TURRAMURRA PUBLIC DOMAIN ILLUSTRATIVE PLAN

PUBLIC SPACE NETWORK

1. Retention and expansion of the significant tree canopy, biodiversity, riparian corridors and green corridors
5. Connection of Boyds Orchard Park with rail station via Granny Springs Reserve
7. A public space at the entry to Granny Springs Reserve

BUILT FORM

9. Definition of gateway sites defined by axial vistas along Pacific Highway using streetscape design response to define entry to the Local Centre
10. Retaining and reflecting the street level low scale, fine grain character of main street shops on Pacific Highway and Rohini Street through appropriate streetscape design and retaining human scale
11. Promoting the upgrade of existing pedestrian lanes and arcades through the main street shops
12. Identifying locations of additional midblock through links as part of public domain network

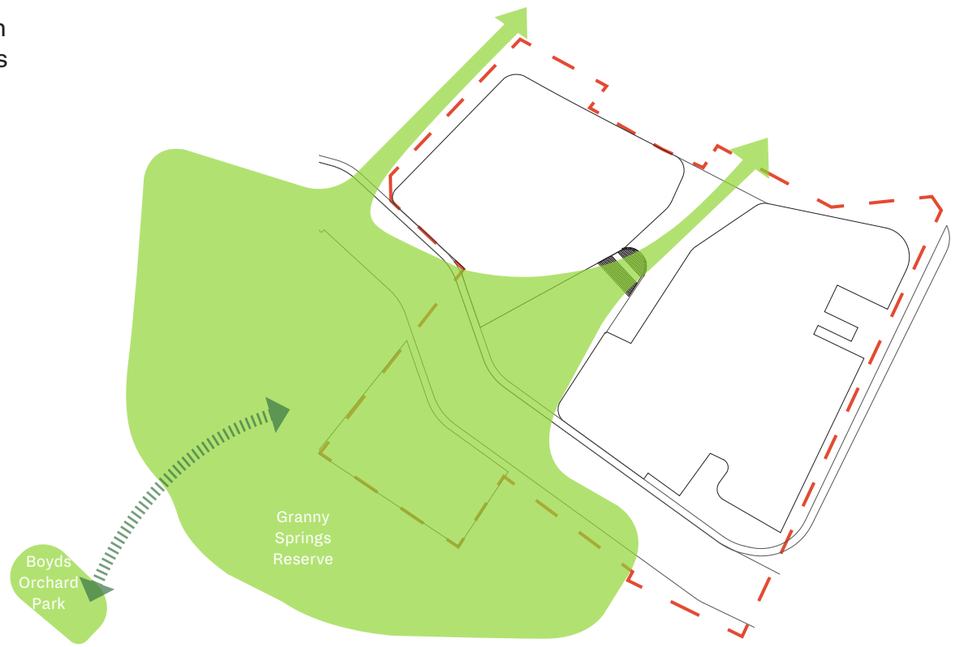
MOVEMENT

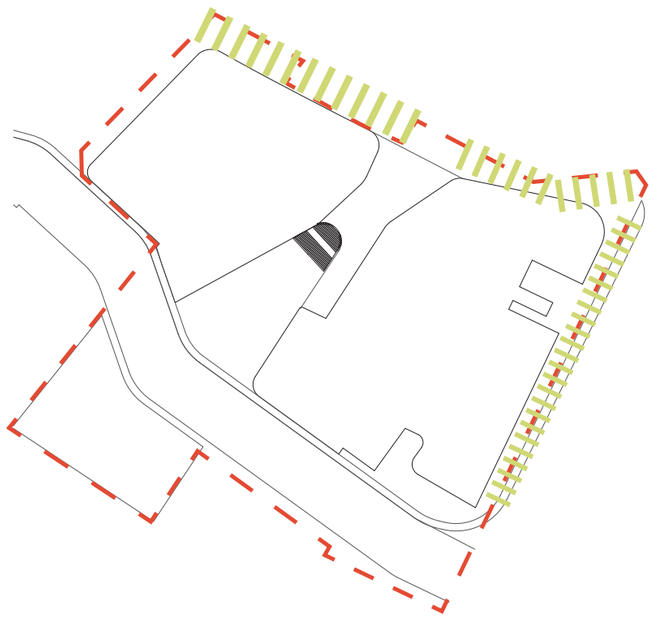
17. Investigation of new road corridor widths, building setbacks and tree planting, to deliver improved place functions along Pacifi c Highway within the Local Centre. Work to be carried out collaboratively with Transport for NSW
20. Investigation of the potential for a pedestrian overpass over Pacific Highway between Ray Street and Kissing Point Road

Turramurra Public Domain Illustrative Plan, Turramurra Public Domain Plan (Draft), Ku-Ring Gai Council

Several key design considerations emerged from understanding the site context and requirements for the development. These guide the landscape sketch concept and include:

- connecting the adjacent Granny Springs Reserve into the public domain and improve the condition of the existing bushland
- widening and greening the interface along Pacific Highway and Kissing Point Road
- flexibility and function of spaces in the public domain
- deep soil maximisation and constructed soil opportunities
- capturing and utilising rainwater
- maximisig urban tree canopy coverage
- facilitating safe pedestrian movement across the new street
- optimising vehicular movement in and out of buildings





Connect to the surrounding green space

- Connect proposed new park at Granny Springs Reserve into the development
- Seek opportunities to connect with broader open space network through improved pathways such as Boyds Orchard Park
- As the adjacent reserve's Blue Gum High Forest is listed as an endangered ecological community under the provisions of the NSW Threatened Species Act 1995, seek to restore where possible
- Retain existing canopy along Stonex Lane where possible and improve amenity

Existing forest edge along the southern site boundary

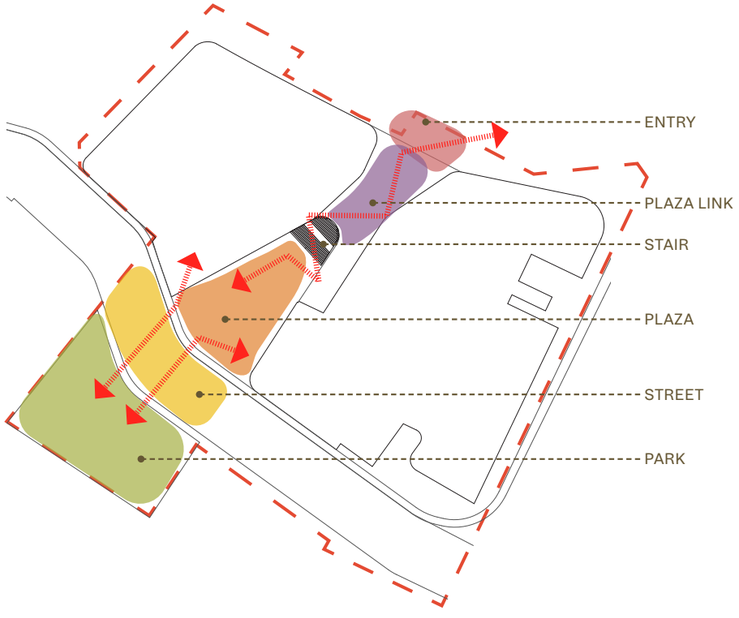
Setback new built form

- Consider development setbacks along Pacific Highway to buffer from high volume of traffic, noise and pollution
- Utilise setbacks for introducing a soft, green edge through planting along Pacific Highway and Kissing Point Road
- Provide adequate soil volumes where setbacks are achieved for planting

Pacific Highway interface

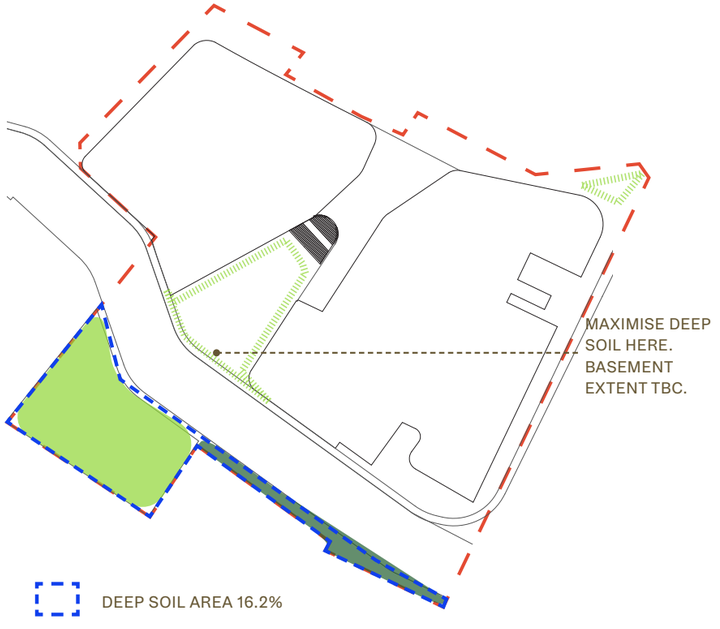
DESIGN RESPONSE

5.14 DESIGN CONSIDERATIONS



Connect and programme public domain

- Provide a series of interconnected public and private landscape spaces with their own inherent characteristics and qualities
- Provide a diversity of unique spaces that respond to climatic and spatial conditions to cater for a variety of uses and users



Provide adequate soil to support plant growth

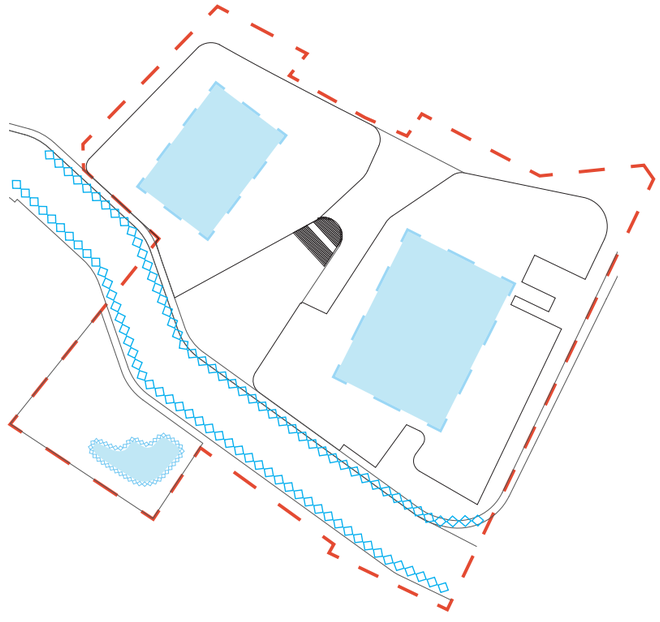
- Implement deep soil zone on site to allow for water infiltration
- Add tree plantings to deep soil zone to encourage quality canopy coverage
- Consider basement placement to maximise deep soil zones
- Storm water harvesting measures are to be adopted along this zone to be reused for irrigation across the site
- Acceptable permeable surfaces in this area include mass planting, gravel, raingarden, permeable paving
- Explore if vested land (including park) can count towards the site's deep soil requirement
- Deep soil zones are to meet the minimim requirement of 7% with site area greater than 1500m^2 with significant existing tree cover according to ADG
- Where required, constructed soil zones are to be provided to support healthy plant growth

Legend

Deep soil zone

Vested land

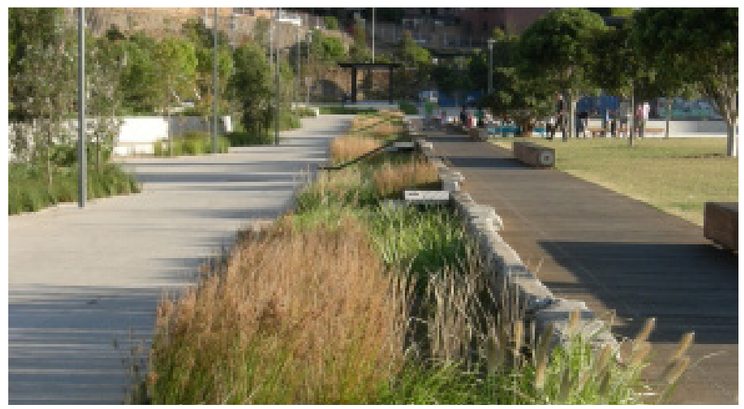
Potential deep soil zone TBC



Capture and reuse rainwater

- Integrate water sensitive urban design through out the public domain
- Collect rainwater from buildings where possible and reuse
- Consider site storage for rainwater capture

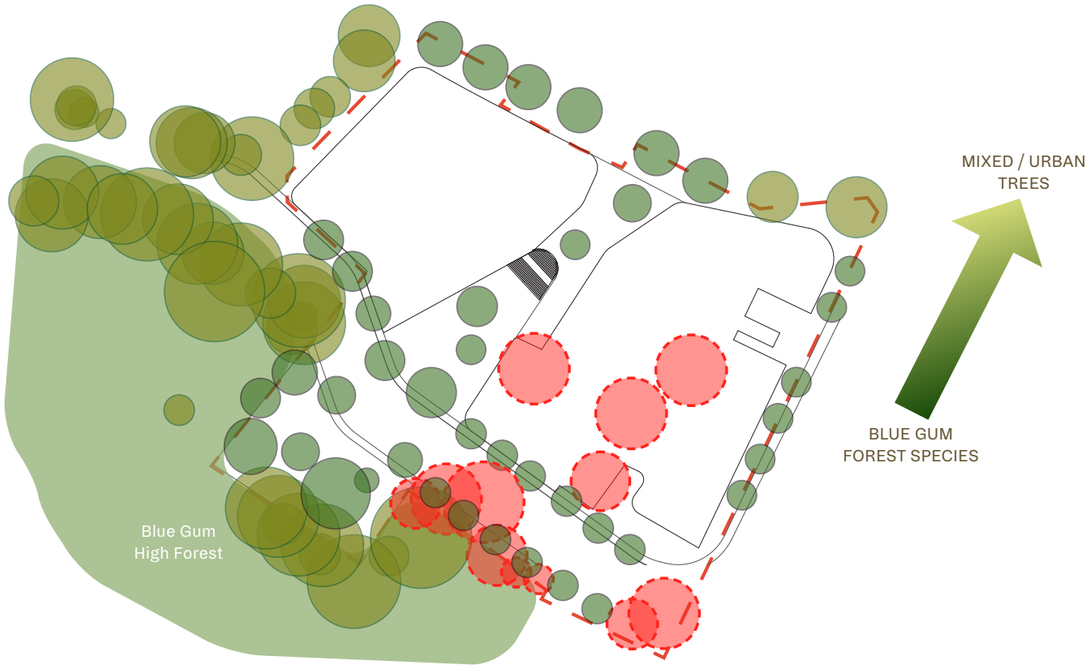
Passive seating Areas



Water sensitive urban design

DESIGN RESPONSE

5.14 DESIGN CONSIDERATIONS



Increase green canopy cover

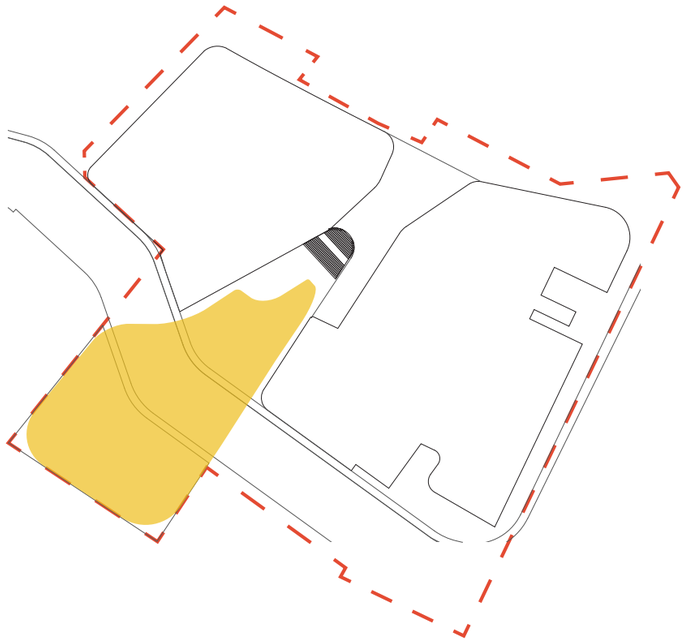
— Greener Places (GANSW) target of 15% for commercial centres

Proposed trees spread among site

Existing trees to be removed

Existing trees to be retained

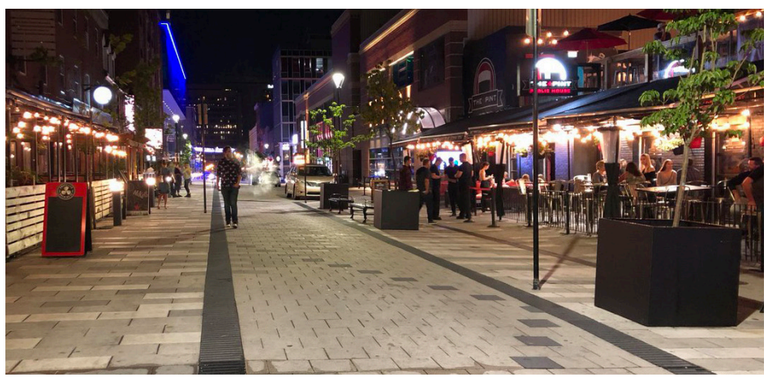
Increasing green canopy through facade and public domain plantings



Safe vehicular and pedestrian connections

— Integration of different pavement type materials into shared space

— Safe and clear circulation for pedestrians



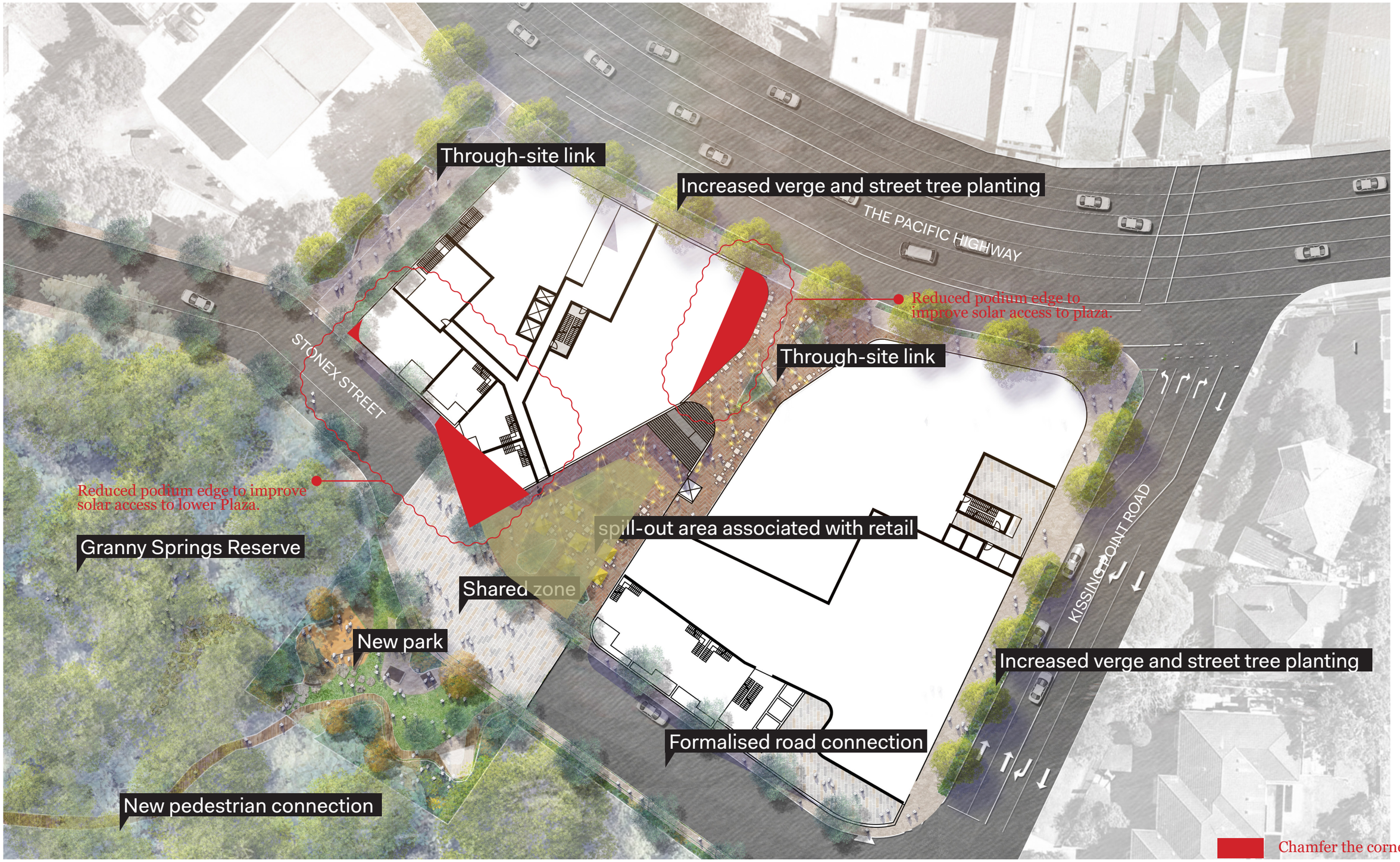
Shared zone pedestrian crossing

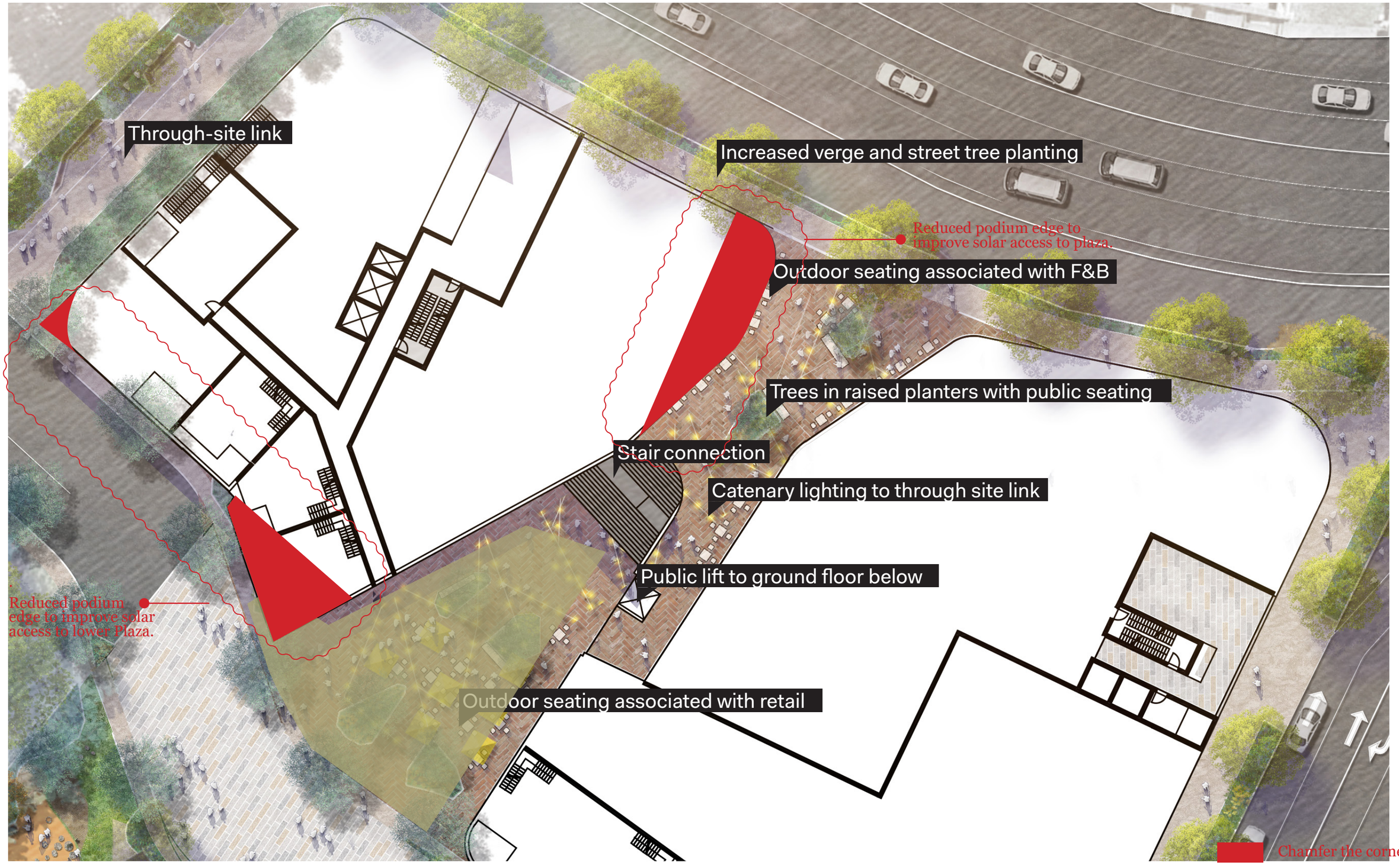
DESIGN RESPONSE

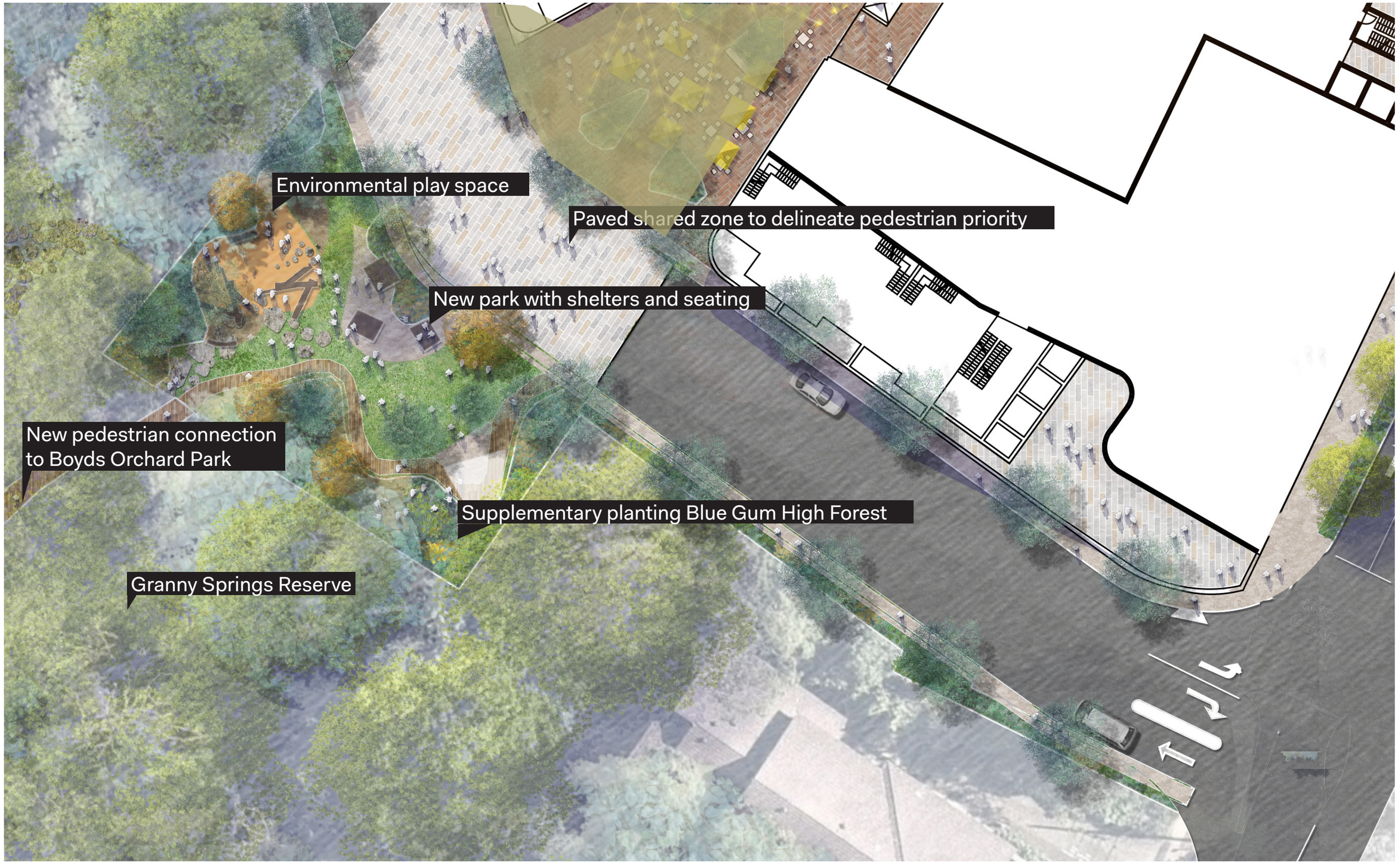
5.15 MASTERPLAN

DESIGN RESPONSE

5.15 MASTERPLAN




Through-site link
Increased verge and street tree planting
Reduced podium edge to improve solar access to plaza.
Outdoor seating associated with F&B
Trees in raised planters with public seating
Stair connection
Catenary lighting to through site link
Public lift to ground floor below
Reduced podium edge to improve solar access to lower Plaza.
Outdoor seating associated with retail
Chamfer the corner


Environmental play space
Paved shared zone to delineate pedestrian priority
New park with shelters and seating
New pedestrian connection to Boyds Orchard Park
Supplementary planting Blue Gum High Forest
Granny Springs Reserve

DESIGN RESPONSE

5.15 MASTERPLAN

WATER

- Natural ways of collecting rainwater for re-use in toilet flushing + landscape irrigation, and using it as heat sinks in cooling towers
- Efficient showers and taps to reduce water consumption without reducing amenity of bathrooms + kitchens

ENERGY

- 100% electric building utilising thermal & energy modelling to reduce energy cost smart home integration to downstream energy usage
- Min. 20% of roof space for solar PV to offset emissions
- Green power provision - no fossil fuels

MOBILITY

- Provision for on-site electric vehicle and bike charging infrastructure
- Provision of carshare, bike spaces and bike hubs to reduce emissions and road congestions
- Considered permeable ground plane that encourages pedestrian connectivity

REGENERATIVE DESIGN

- Maximise tree canopies + provision for low water use/native plants through landscape design
- Green roofs to improve building thermal performance and air quality of surrounds
- Productive gardens on roofs/ground plane to promote growing own produce
- Re-purposing materials excavated on site

COMMUNITY

- Design guided by the aboriginal community and recognised knowledge leaders
- Sensory & varied gardens with Extensive landscape, safe areas of refuge and inclusion of water features

RESILIENCE

- Strategic use of low-maintenance materials and considered shading design to increase thermal performance of facade
- Strategic building orientation to prevent undesirable heat gain
- Optimised amount of glazing apertures utilising higher efficiency ratings to minimise heat gain and loss

HEALTH

- Open areas that optimise solar access
- Maximising natural ventilation and provision of ceiling fans to reduce reliance of AC
- Promote walkability through stair use

WASTE

- Site-specific waste management plan designed addressing construction and demolition
- Onsite organic waste management
- Considered apartment design that encourages ease of waste separation and disposal

REVISED LAYOUT

REVISION 6 - 24.01.25

Chamfer the corner to optimize solar access to the lower plaza.

PODIUM LEVELS

Chamfer the corner to optimize solar access to the lower plaza.

TOWERS LEVELS

Chamfer the corner

FLOOR PLAN
BASEMENT LEVEL 4

DKO ARCHITECTURE | OCULUS

TURRAMURRA VILLAGE
1364-1396 PACIFIC HIGHWAY AND
1, 1A, 3, 3A KISSING POINT ROAD
TURRAMURRA NSW 2074

PROJECT
00012666

JAN 2025
REVISION 6 - RFI RESPONSE
PAGE 79

FLOOR PLAN
BASEMENT LEVEL 3

DKO ARCHITECTURE | OCULUS

TURRAMURRA VILLAGE
1364-1396 PACIFIC HIGHWAY AND
1, 1A, 3, 3A KISSING POINT ROAD
TURRAMURRA NSW 2074

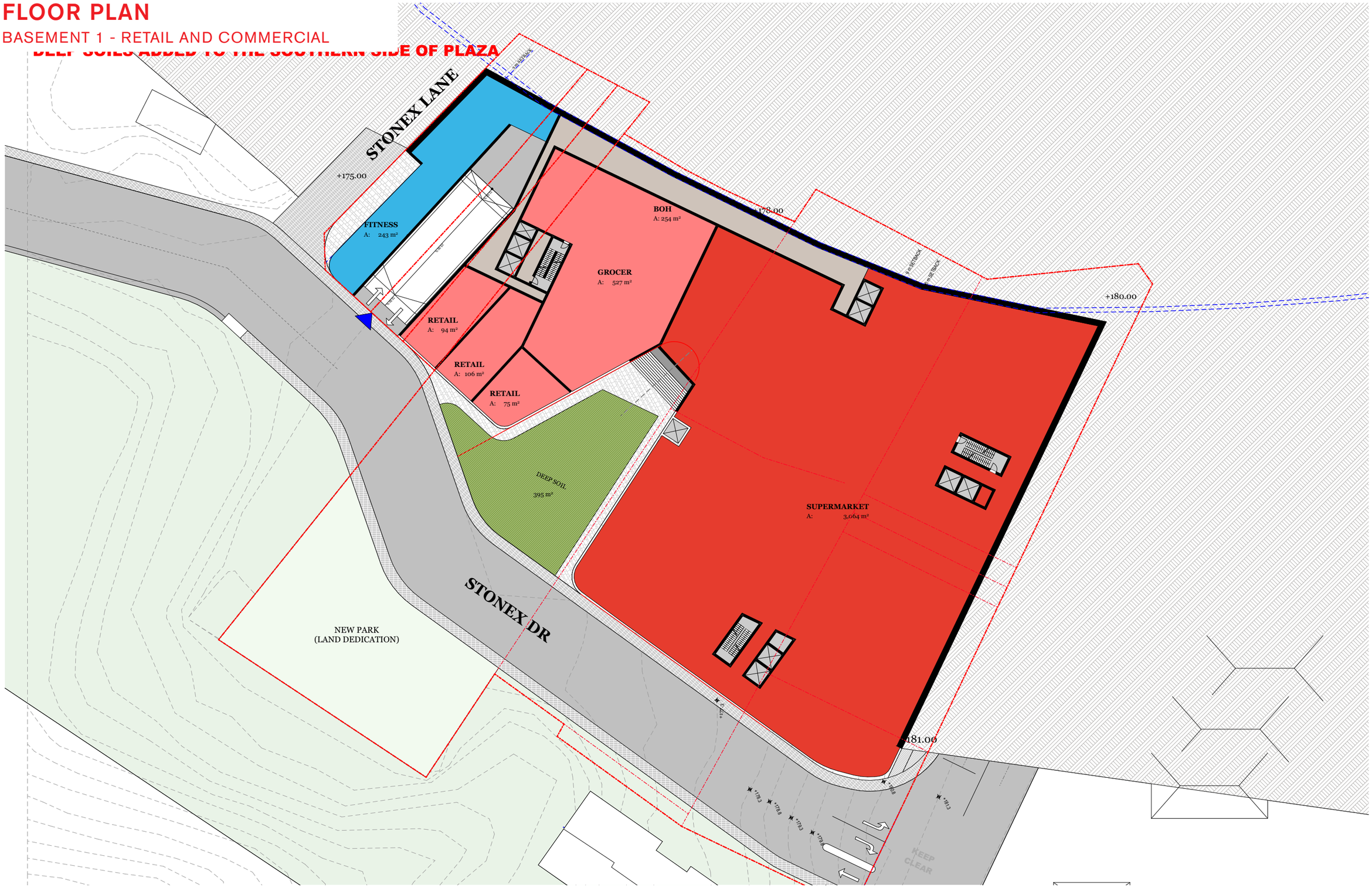
PROJECT
00012666

JAN 2025
REVISION 6 - RFI RESPONSE
PAGE 80

FLOOR PLAN
BASEMENT LEVEL 2

FLOOR PLAN

BASEMENT 1 - RETAIL AND COMMERCIAL



DKO ARCHITECTURE | OCULUS

TURRAMURRA VILLAGE
1364-1396 PACIFIC HIGHWAY AND
1, 1A, 3, 3A KISSING POINT ROAD
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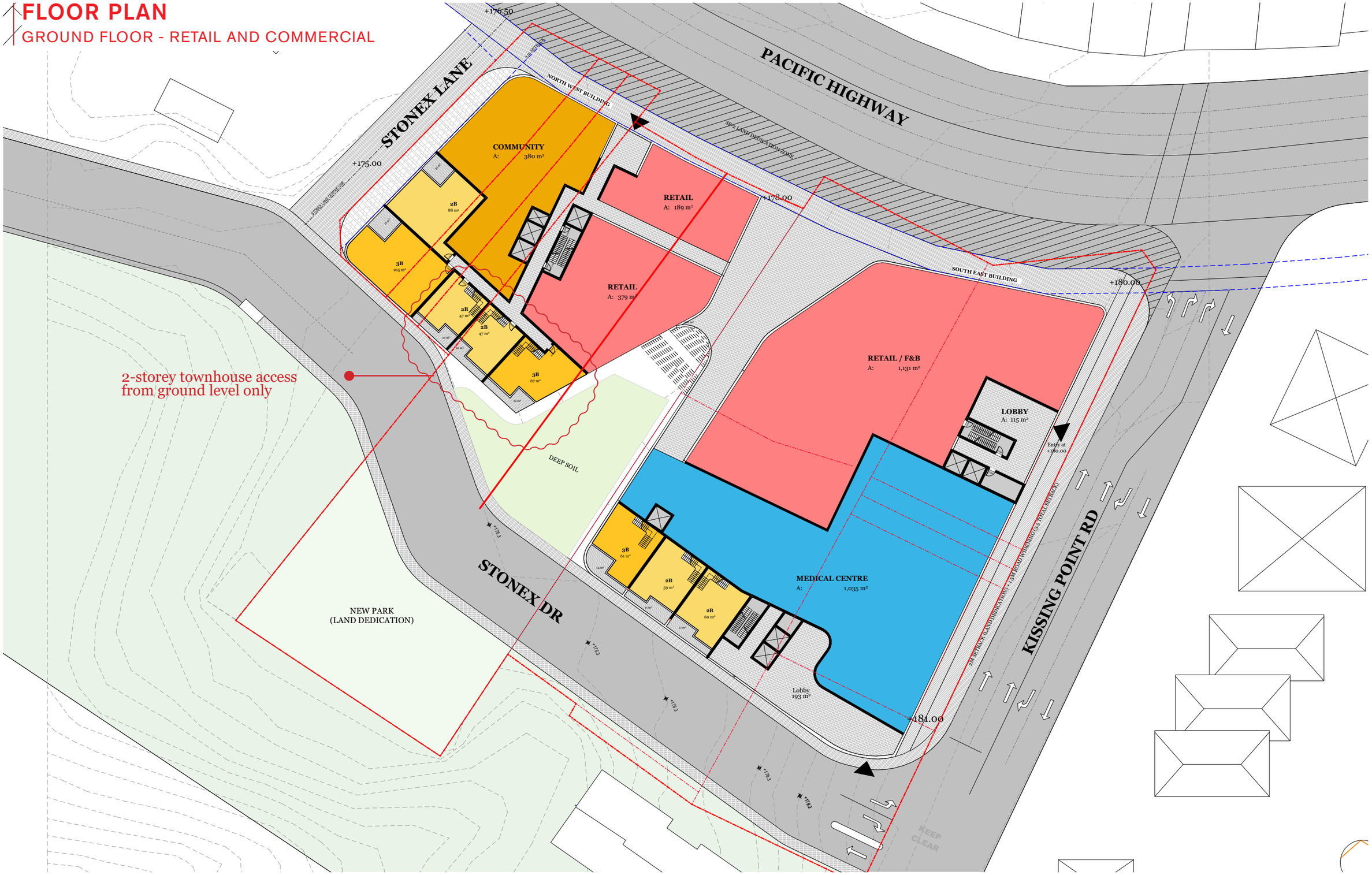
PROJECT
00012666

JAN 2025
REVISION 6 - RFI RESPONSE

FLOOR PLAN

GROUND FLOOR - RETAIL AND COMMERCIAL



FLOOR PLAN

LEVEL 1 - PODIUM APARTMENTS

FLOOR PLAN
LEVEL 2 - APARTMENTS

FLOOR PLAN
LEVEL 3 - APARTMENTS

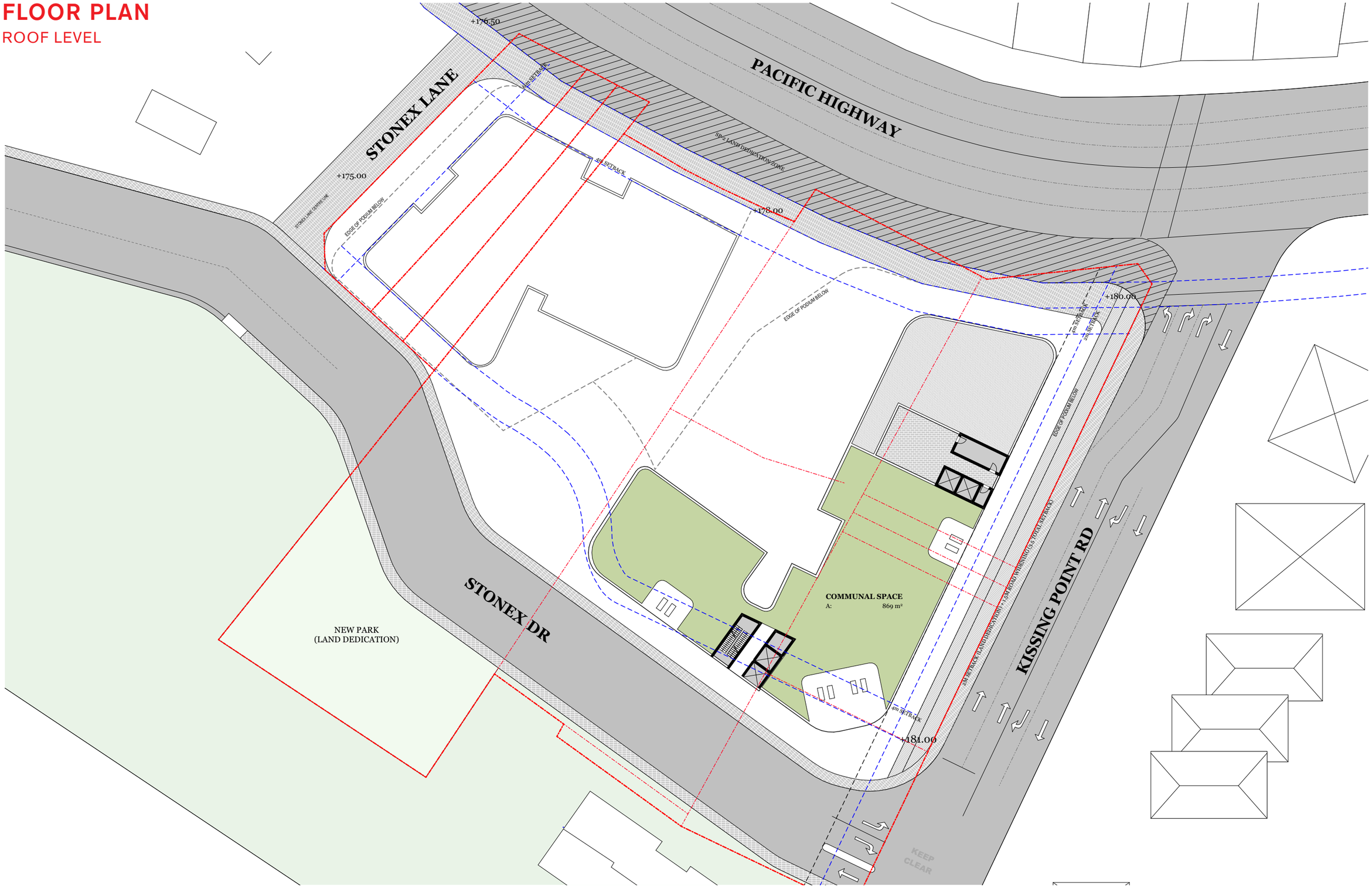
FLOOR PLAN

LEVEL 4-6 - APARTMENTS

FLOOR PLAN
LEVEL 7 - APARTMENTS

FLOOR PLAN
LEVEL 8 - APARTMENTS

FLOOR PLAN
ROOF LEVEL



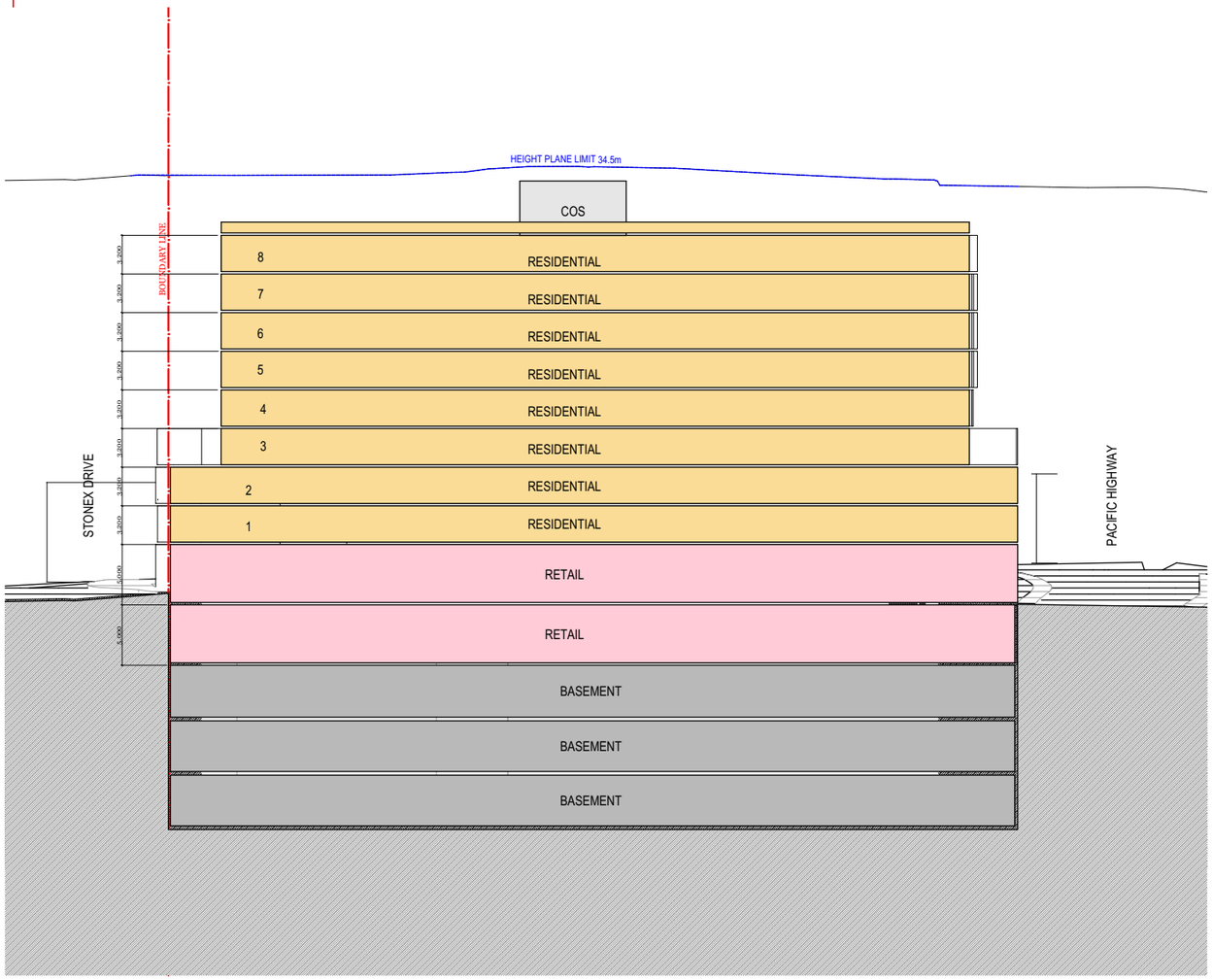
DKO ARCHITECTURE | OCULUS

TURRAMURRA VILLAGE
1364-1396 PACIFIC HIGHWAY AND
1, 1A, 3, 3A KISSING POINT ROAD
TURRAMURRA NSW 2074

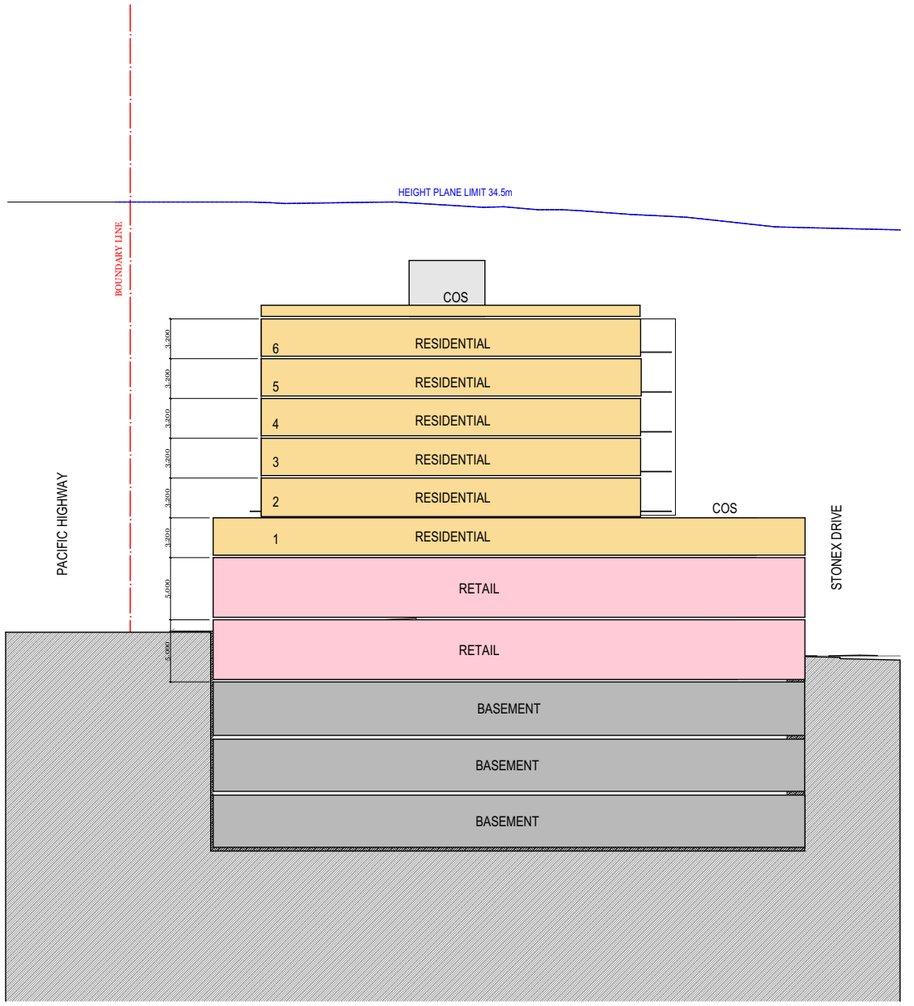
PROJECT
00012666

JAN 2025
REVISION 6 - RFI RESPONSE

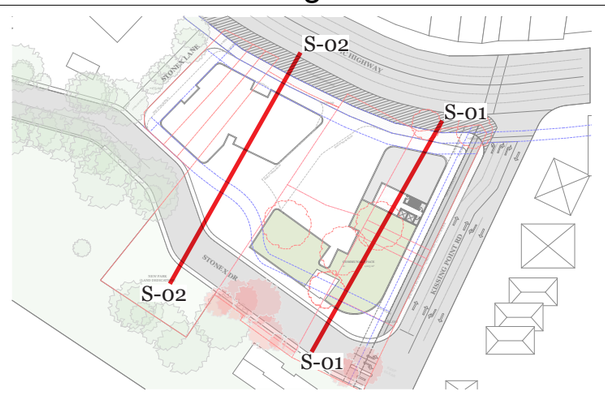
SECTION



S-01 Section - South East Building 1:500



S-02 Section - North West Building 1:500



06

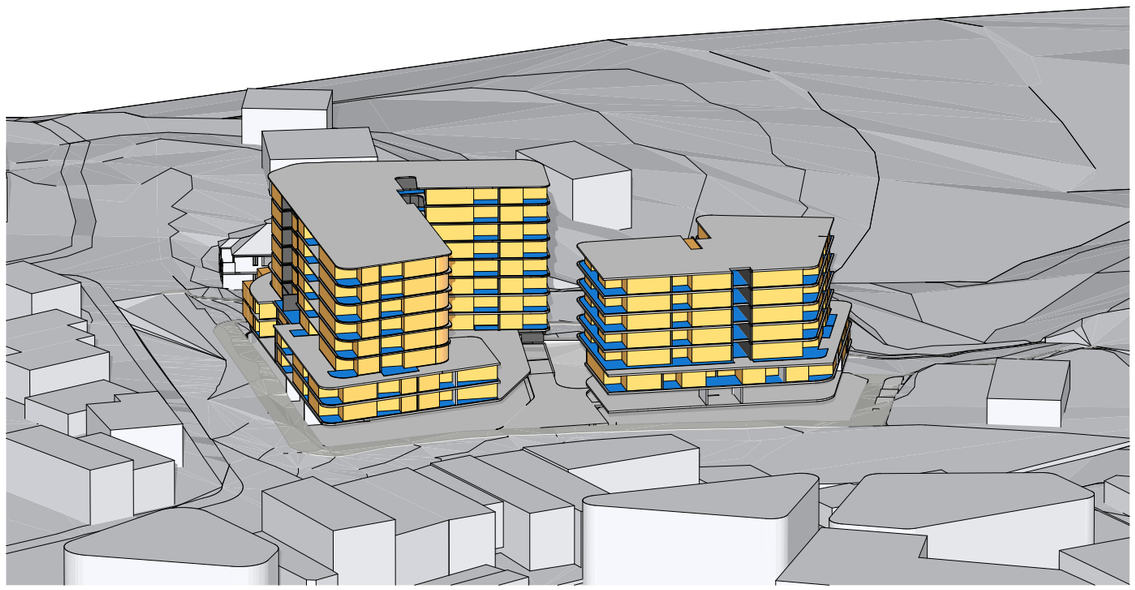
Appendix

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

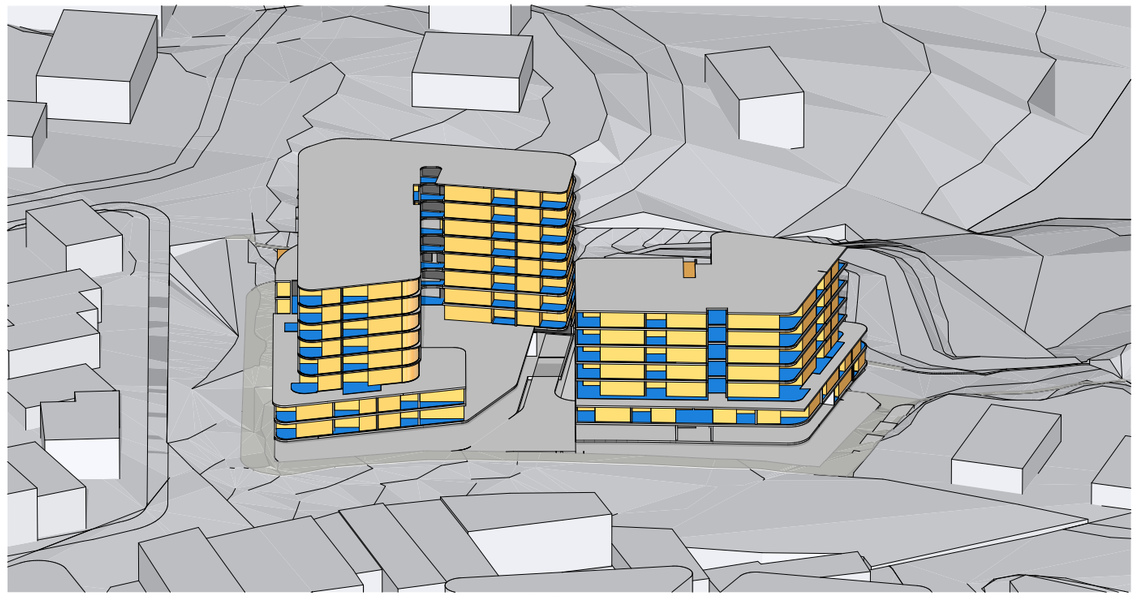
DKO

ADG COMPLIANCE

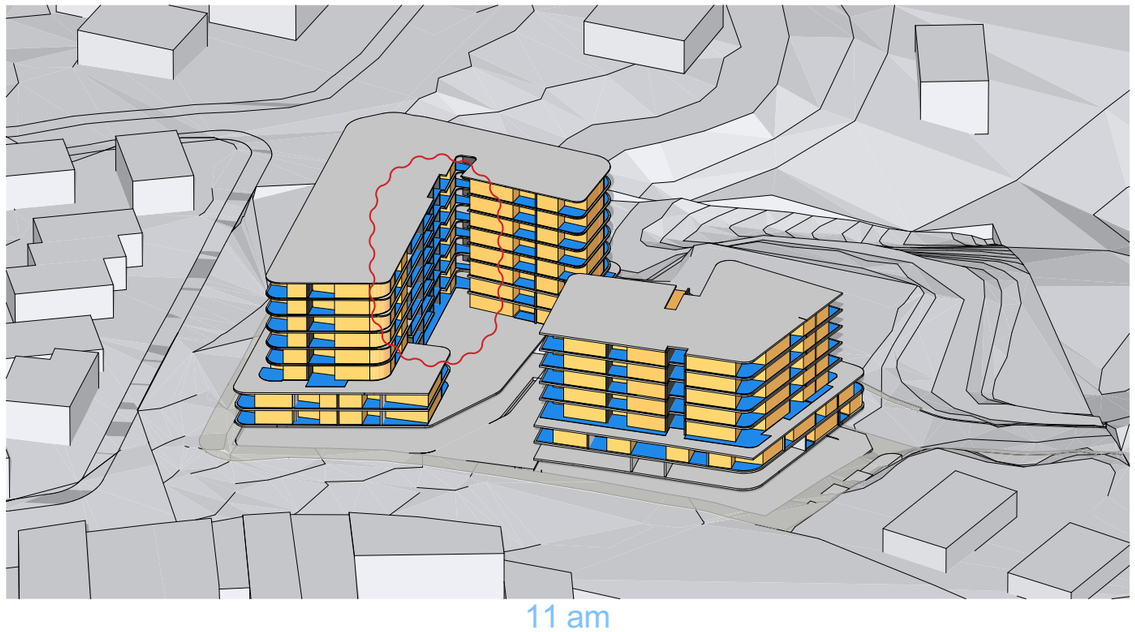
EYE OF SUN



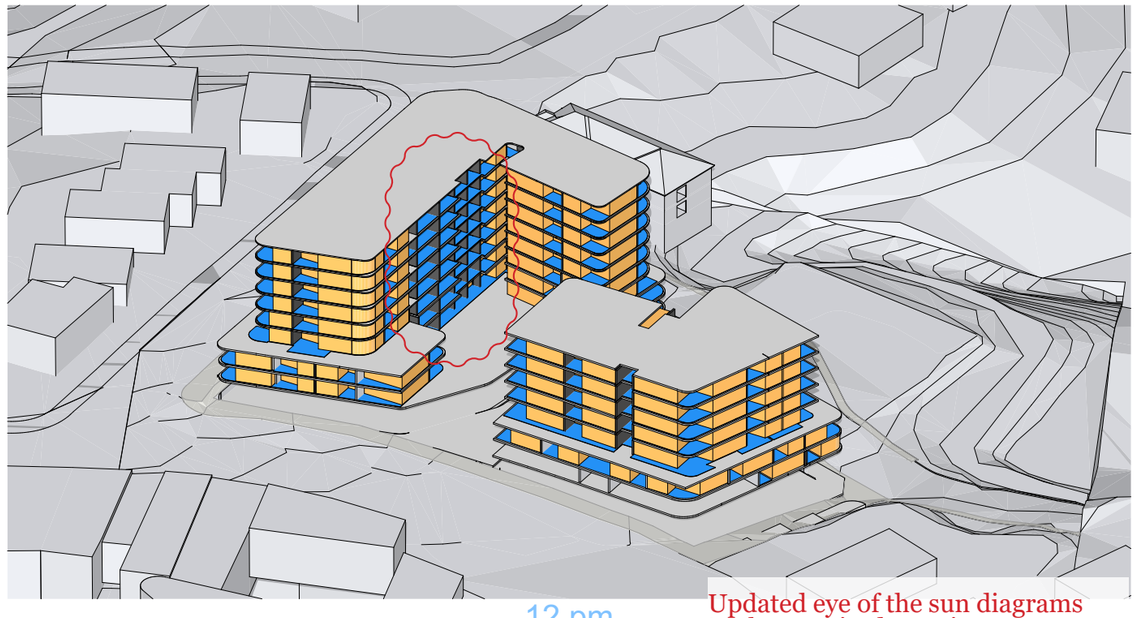
9 am



10 am



11 am



12 pm

Solar access to units

Solar access to balcony

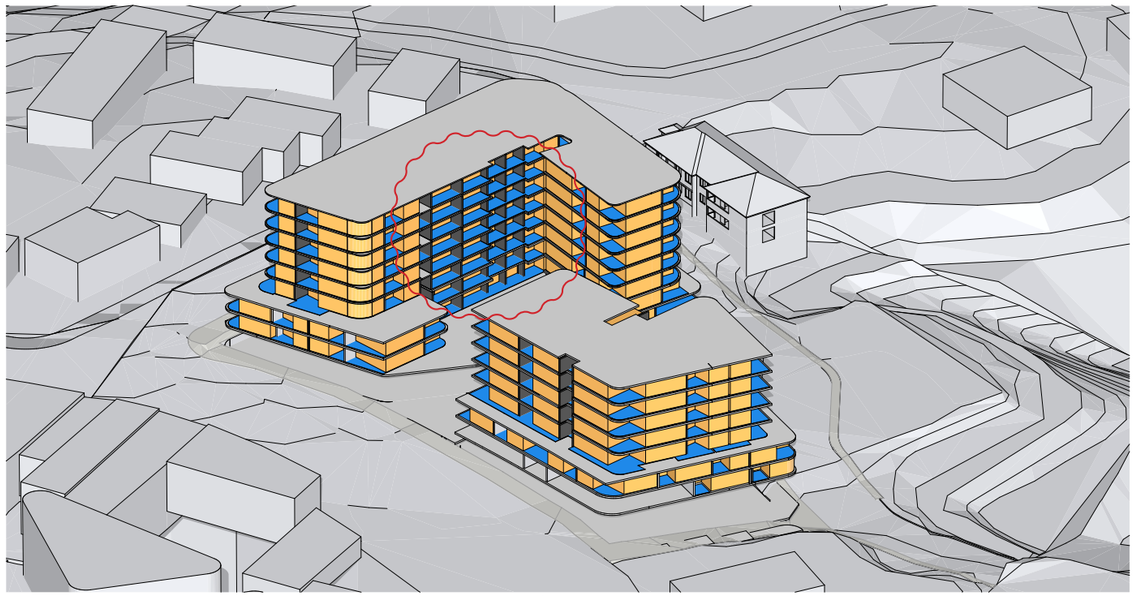
Updated eye of the sun diagrams to show revised massing.

Revised building massing to achieve ADG Solar Access and Natural Cross Ventilation requirements.

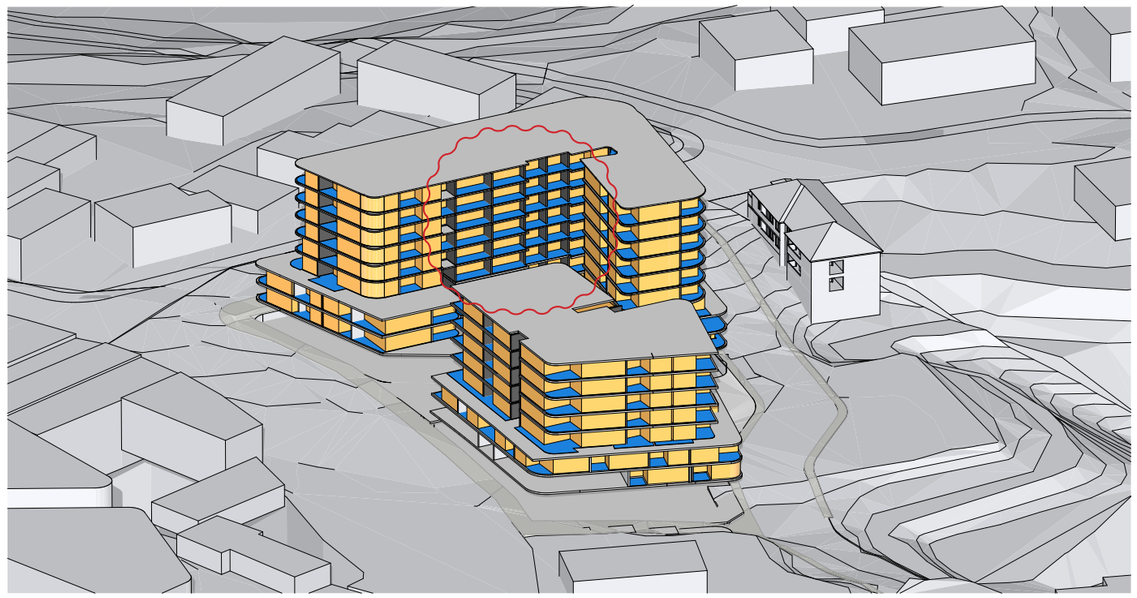
All solar and overshadowing analysis is based on True North.

ADG COMPLIANCE

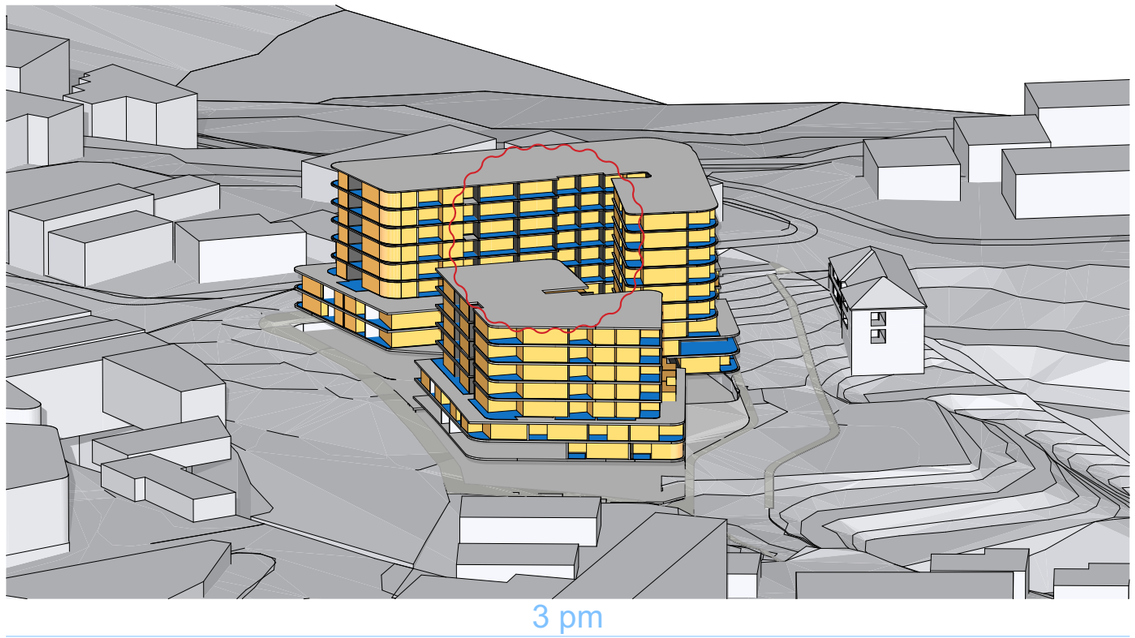
EYE OF SUN



1 pm



2 pm



3 pm

Solar access to units

Solar access to balcony

Updated eye of the sun diagrams to show revised massing.

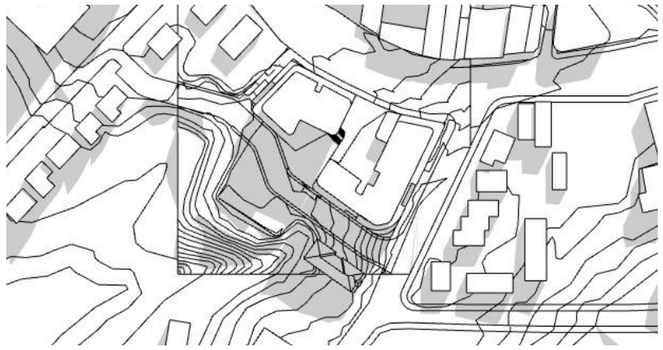
Revised building massing to achieve ADG Solar Access and Natural Cross Ventilation requirements.

All solar and overshadowing analysis is based on True North.

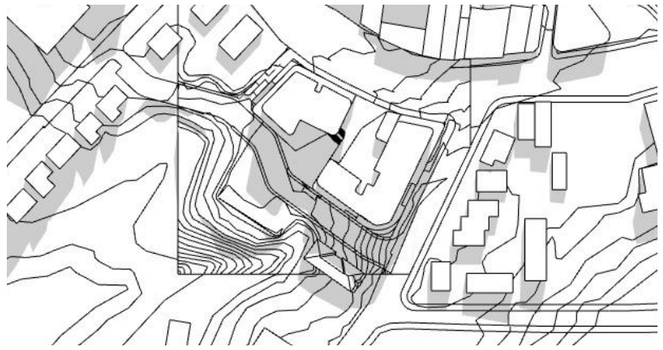
ADG COMPLIANCE

SHADOW DIAGRAM

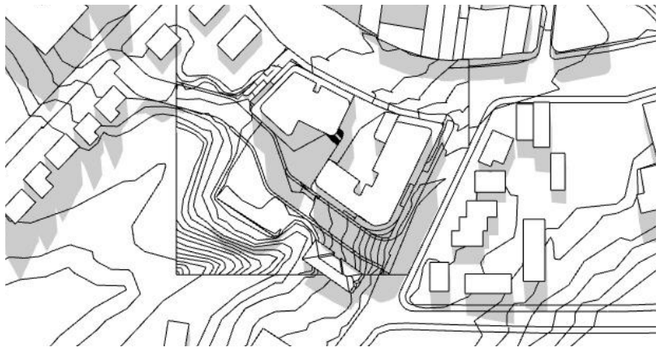
June 21 - 9:00am 1:200



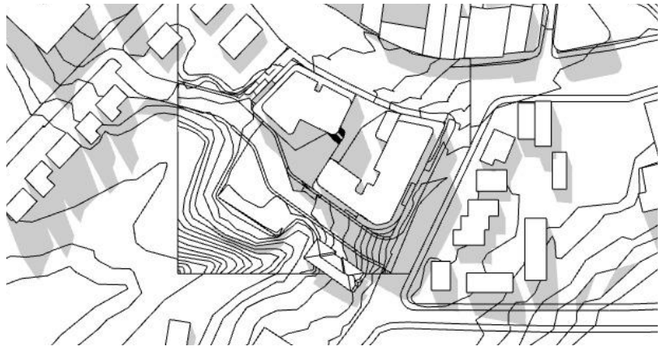
June 21 - 10:00am 1:200



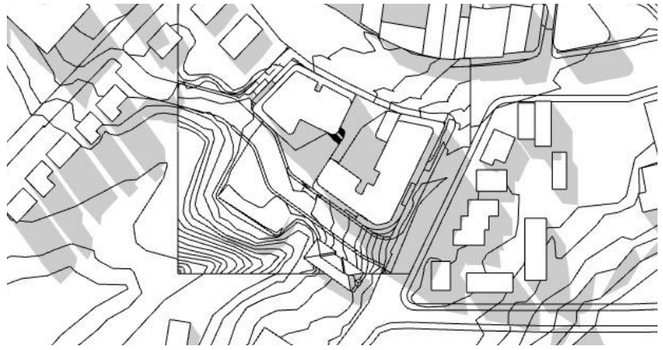
June 21 - 11:00am 1:200



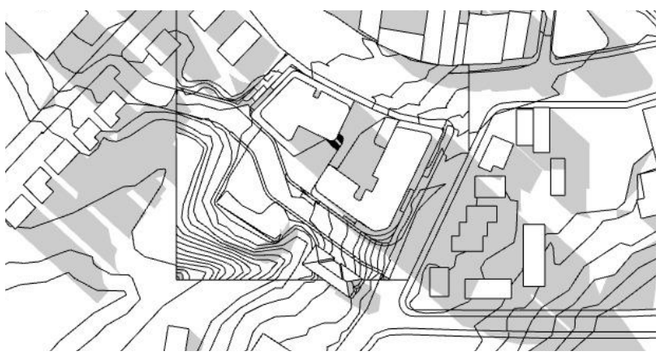
June 21 - 12:00pm 1:200



June 21 - 1:00pm 1:200



June 21 - 2:00pm 1:200



June 21 - 3:00pm 1:200

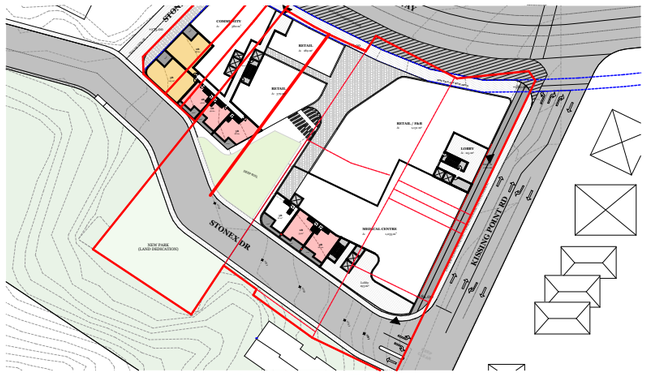
Updated shadow diagrams
to show revised massing.

All solar and overshadowing
analysis is based on True North.

ADG COMPLIANCE

UNITS SOLAR ACCESS STUDY

Revised building massing and unit layout to achieve ADG Solar Access requirements.



Ground Floor 1:1800

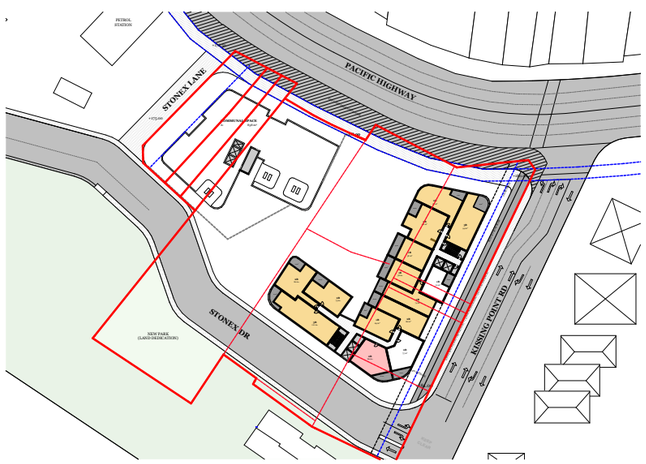
Level 1 1:1800

Level 2 1:1800

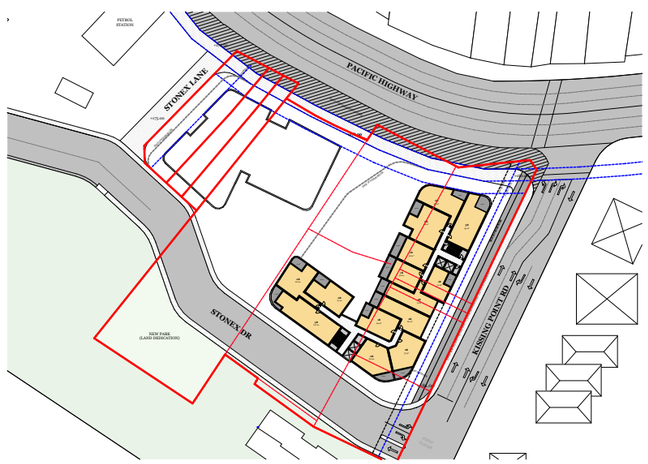
Level 3 1:1800

Level 4 1:1800

Level 5-6 1:1800



Level 7 1:1800



Level 8 1:1800

DKO Solar	
Home Story	Quantity
Ground Floor	
	2
Level 1	
	19
Level 2	
	14
Level 3	
	14
Level 4	
	14
Level 5	
	16
Level 6	
	19
Level 7	
	11
Level 8	
	14
	123 /175 (70.3%)

DKO No solar	
Home Story	Quantity
Ground Floor	
	5
Level 1	
	2
Level 2	
	3
Level 3	
	2
Level 4	
	2
Level 5	
	2
Level 6	
	1
Level 7	
	1
	18 /175 (10.3%)

Minimum 2 hours of Solar Access to Unit

No Solar Access to Unit

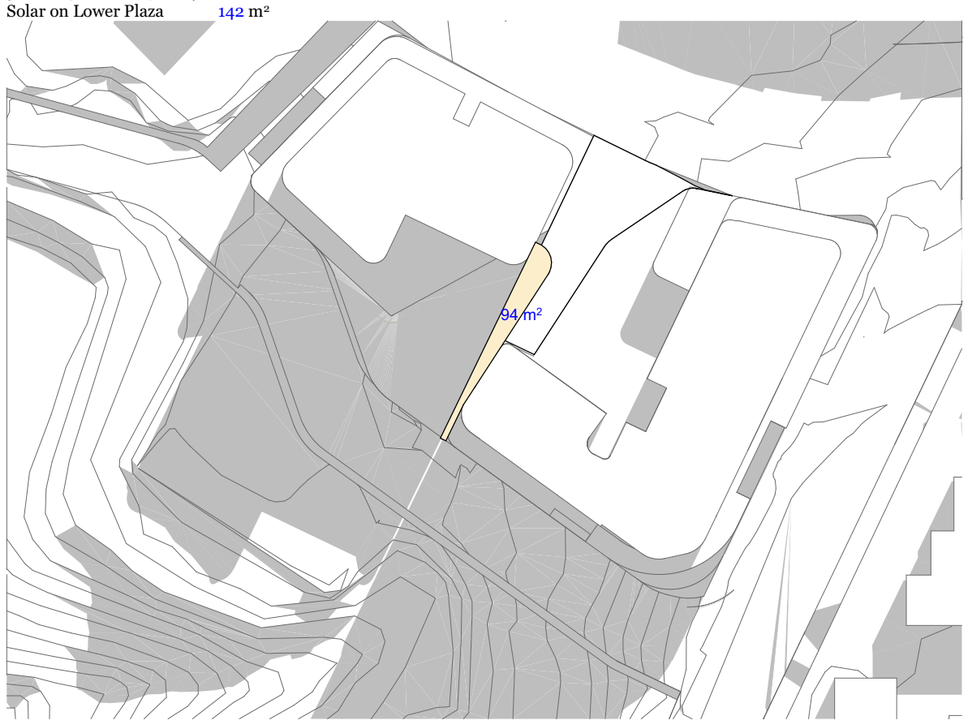
ADG COMPLIANCE

SOLAR ACCESS TO LOWER PLAZA CALCULATION - WINTER SOLSTICE

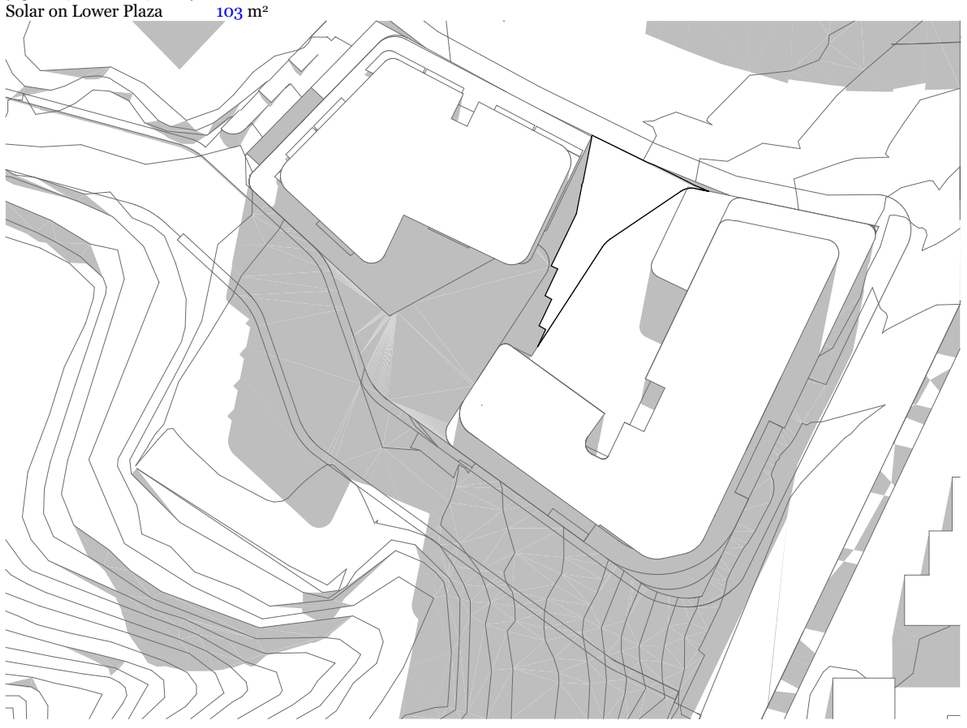
Revise massings to optimize solar access to the lower plaza.

9:00 am, 21st June, 2024
Solar on Lower Plaza 142 m²

9:30 am, 21st June, 2024
Solar on Lower Plaza 103 m²



10:00 am, 21st June, 2024
Solar on Lower Plaza 94 m²



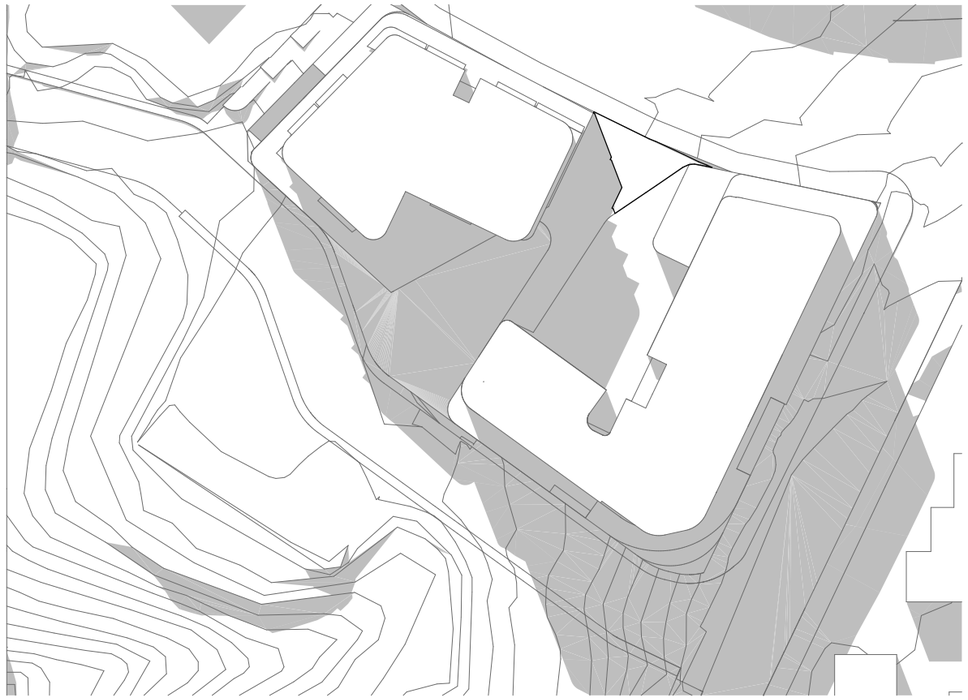
11:00 am, 21st June, 2024
Solar on Lower Plaza 0 m²

Key:
Solar Access
To Lower Plaza

ADG COMPLIANCE

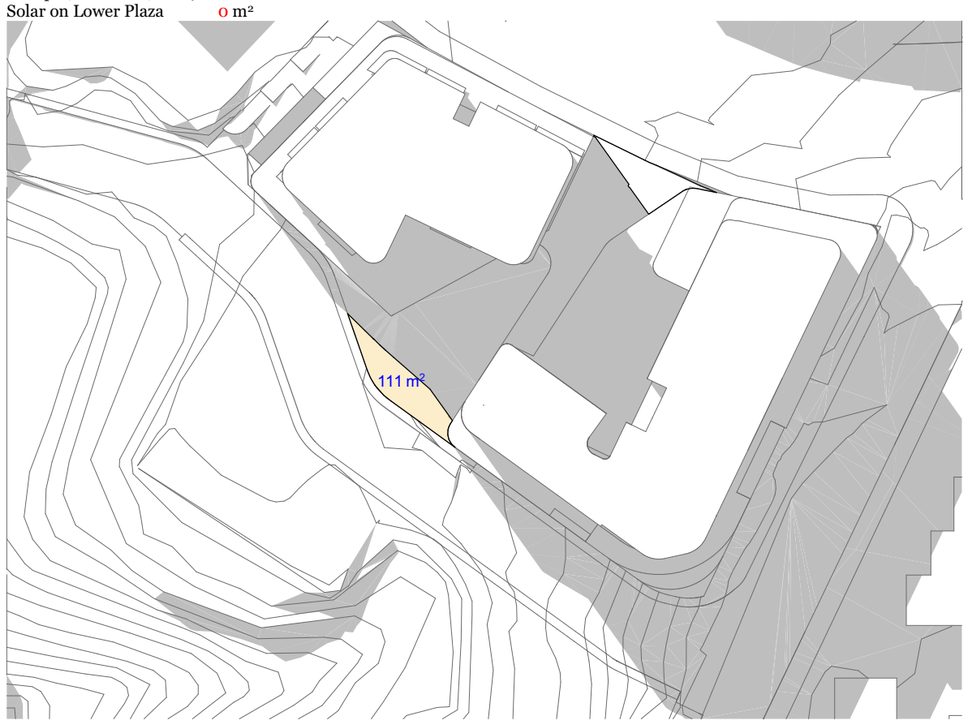
SOLAR ACCESS TO LOWER PLAZA CALCULATION - WINTER SOLSTICE

Revise massings to optimize solar access to the lower plaza.

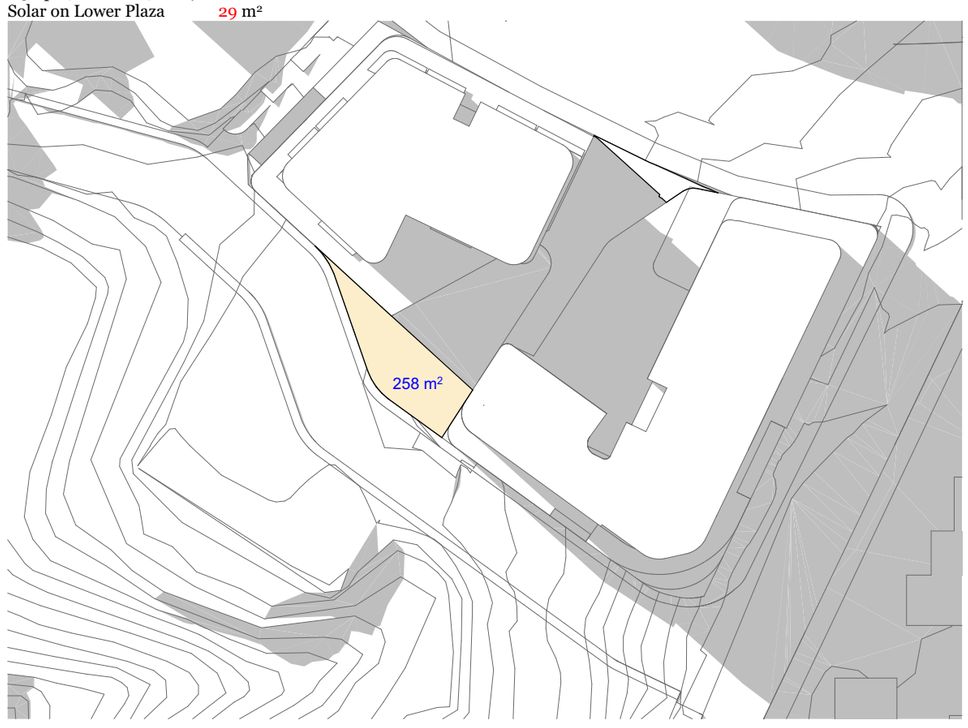


1:00 pm, 21st June, 2024
Solar on Lower Plaza 0 m²

1:30 pm, 21st June, 2024
Solar on Lower Plaza 29 m²



2:00 pm, 21st June, 2024
Solar on Lower Plaza 111 m²



3:00 pm, 21st June, 2024
Solar on Lower Plaza 258 m²

Key:
Solar Access
To Lower Plaza

ADG COMPLIANCE

NEW PARK CALCULATION

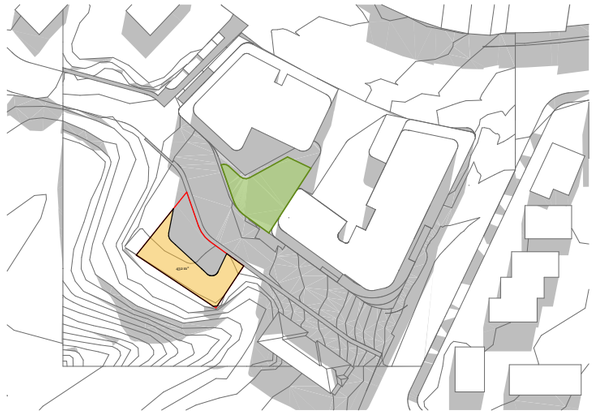
Revised Plaza.

ADG COMPLIANCE

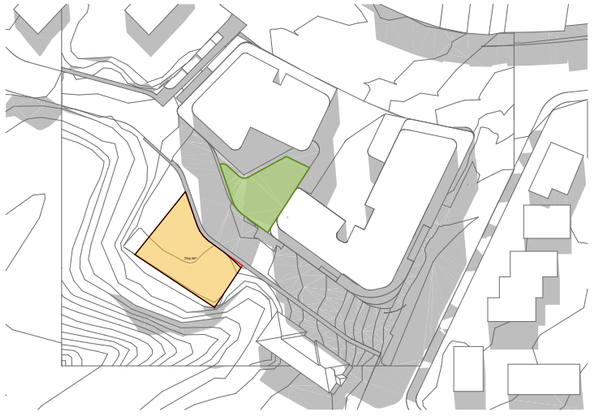
SOLAR TO NEW PARK

June 21- 9am 46m² 7% of the new park

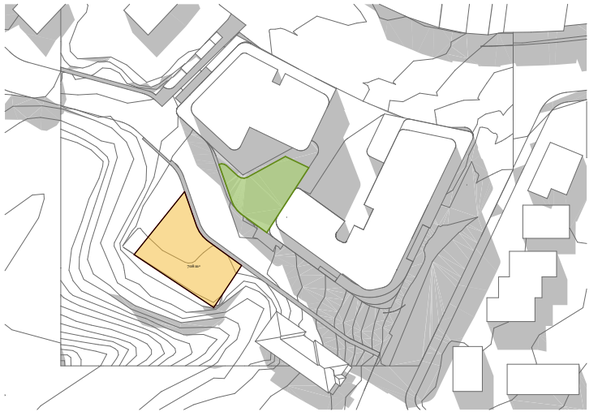
June 21-10am 118m² 17% of the new park



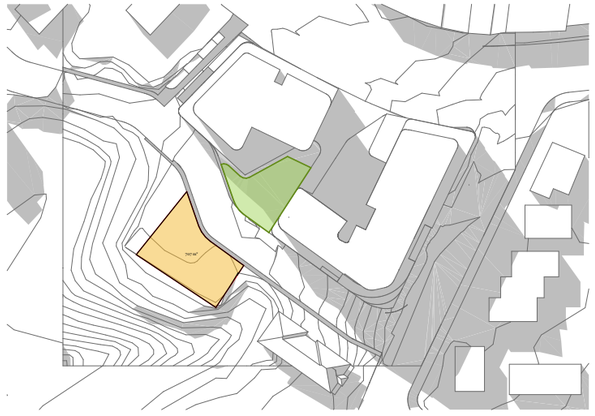
June 21 - 11am 432m² 61% of the new park



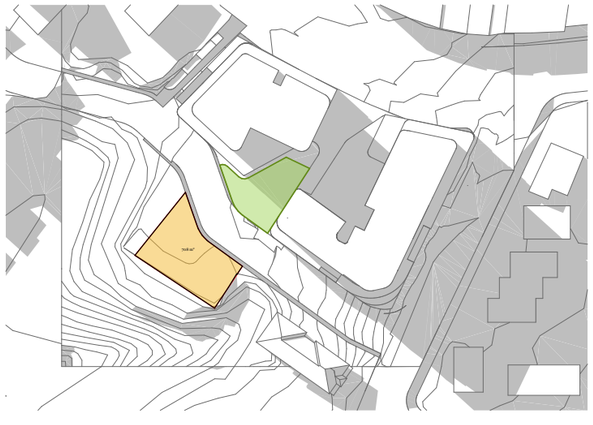
June 21 - 12pm 704m² 99% of the new park



June 21 - 1pm 708m² 99% of the new park



June 21 - 2pm 707m² 99% of the new park



June 21 - 3pm 708m² 99% of the new park

Solar Access to New Park

Revised massing improves solar to park from 12pm - 3pm.

All solar and overshadowing analysis is based on True North.

ADG COMPLIANCE

COMMUNAL OPEN SPACE CALCULATION

Ground Floor

Level 1

Level 2

Level 7

Level 9

GF Plaza: 948sqm

Level 01 C.O.S: 560sqm

Level 02 C.O.S: 152sqm

Level 07 C.O.S: 858sqm

Level 09 C.O.S: 870sqm

Total C.O.S: 3,388sqm (40% of Site area)

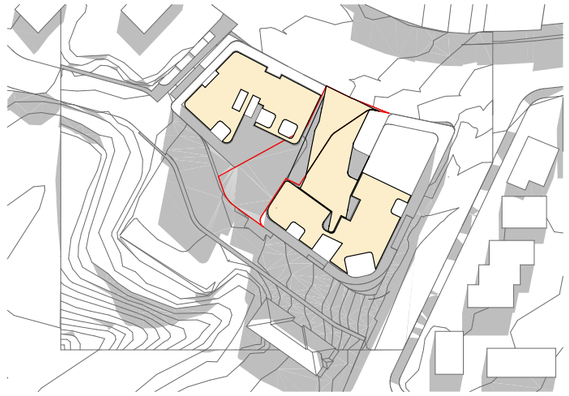
Updated drawing to show revised massing and skylight lcoation.

ADG COMPLIANCE

SOLAR ACCESS TO COMMUNAL OPEN SPACE CALCULATION

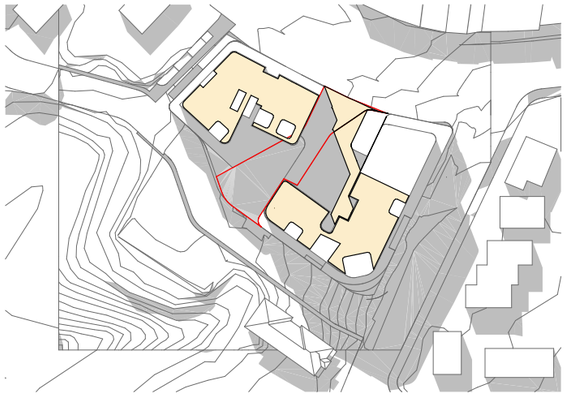
June 21- 9am 2,470sqm (72.6% of C.O.S)

June 21-10am 2,558sqm (75.2% of C.O.S)



June 21 - 11am 2,454sqm (72.1% of C.O.S)

June 21 - 12pm 2,284sqm (67.1% of C.O.S)



June 21 - 1pm 2,046sqm (60.2% of C.O.S)

June 21 - 2pm 1,946sqm (57.2% of C.O.S)

June 21 - 3pm 2,004sqm (58.9% of C.O.S)

Revised massing to improve Solar Access to Plaza.

All solar and overshadowing analysis is based on True North.

ADG COMPLIANCE

PLAZA CALCULATION

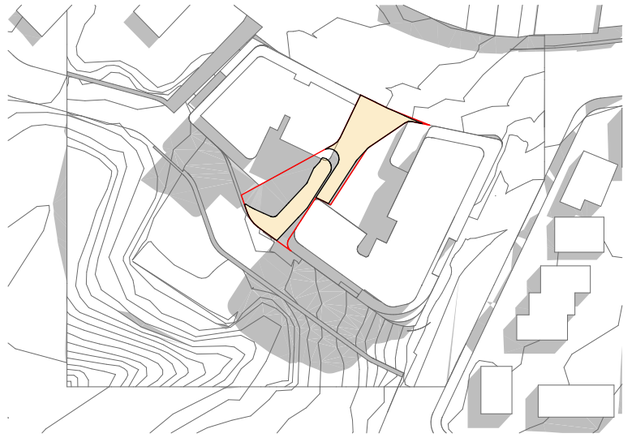
Revised massing to improve Solar Access to Plaza.

0. Ground Floor 1:600

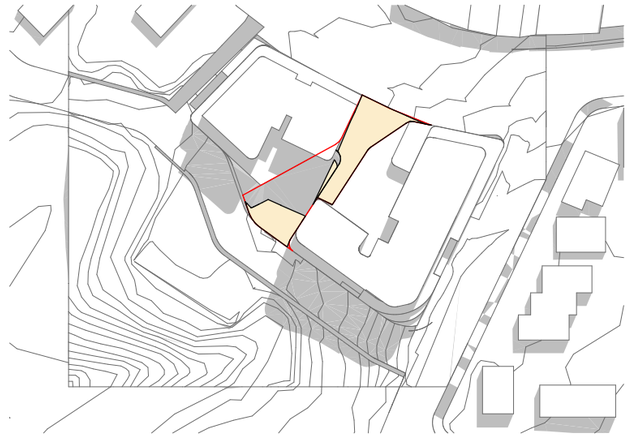
ADG COMPLIANCE

SOLAR ACCESS TO PLAZA CALCULATION - MARCH EQUINOX

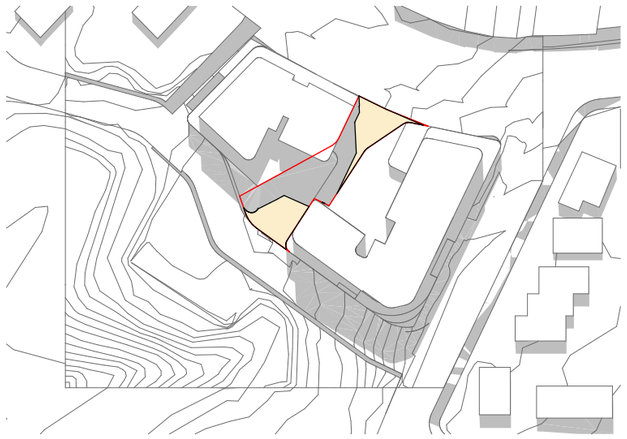
March 20 - 9am



March 20 -10am

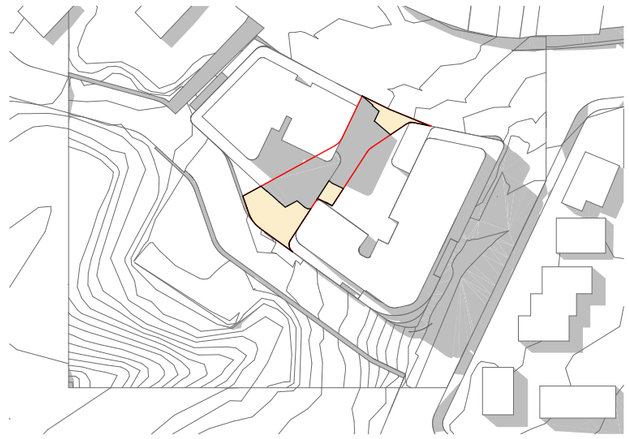


March 20 -11am

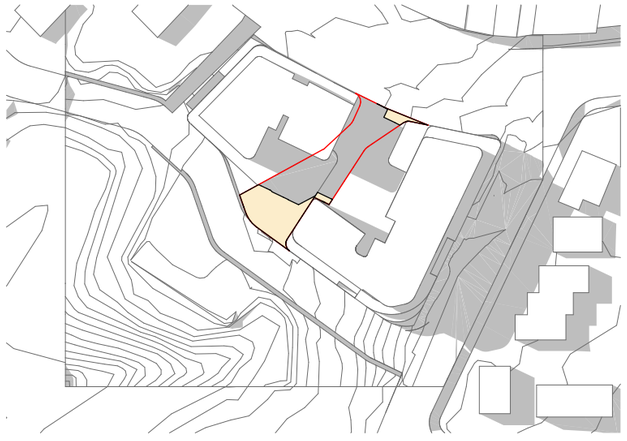


March 20 -12pm

March 20 -1pm



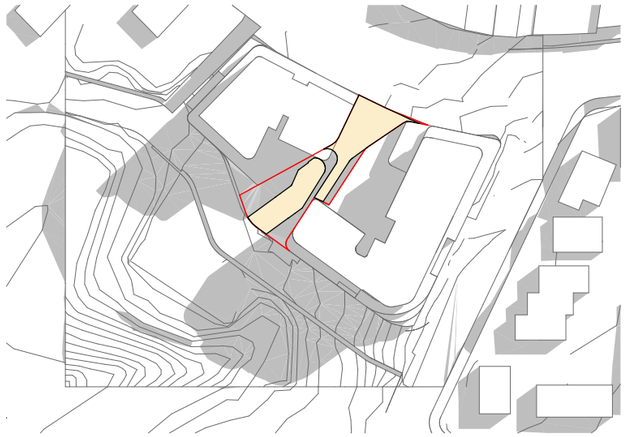
March 20 -2pm



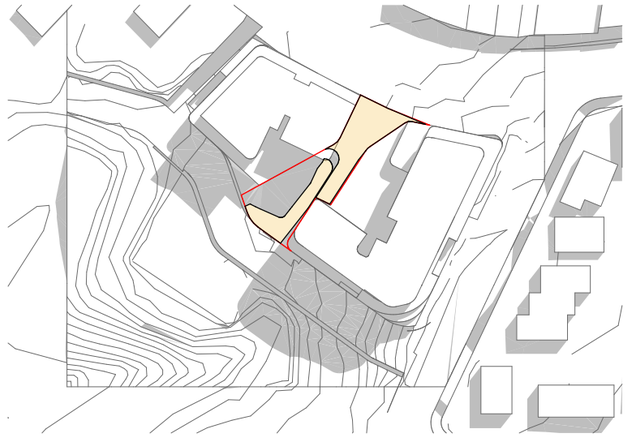
March 20 -3pm

ADG COMPLIANCE

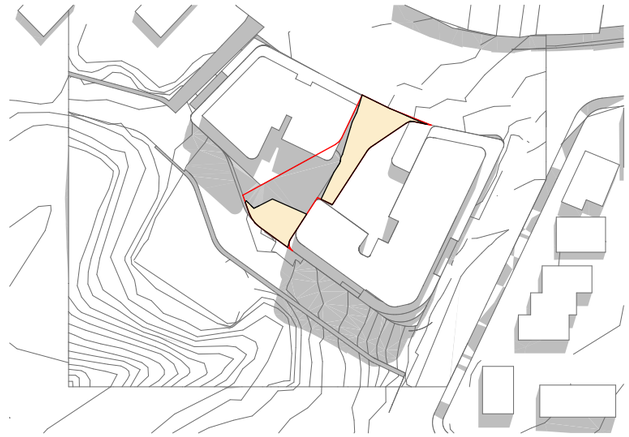
SOLAR ACCESS TO PLAZA CALCULATION - SEPTEMBER EQUINOX



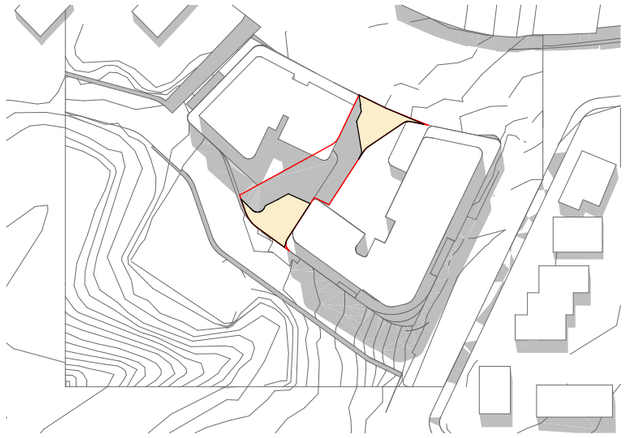
Sept 22-9am



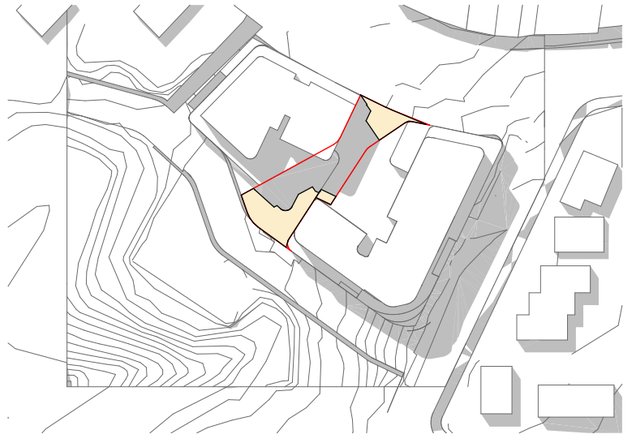
Sept 22-10am



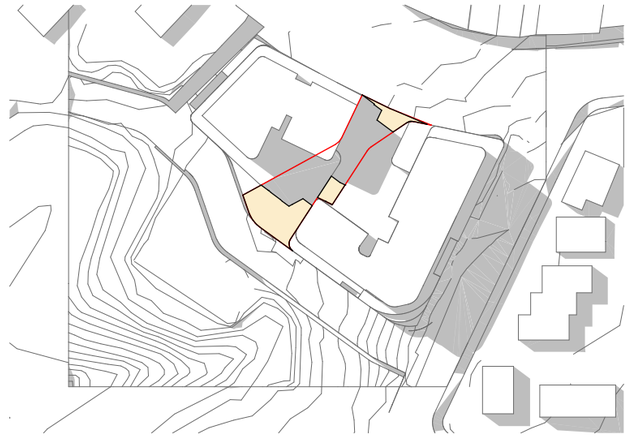
Sept 22-11am



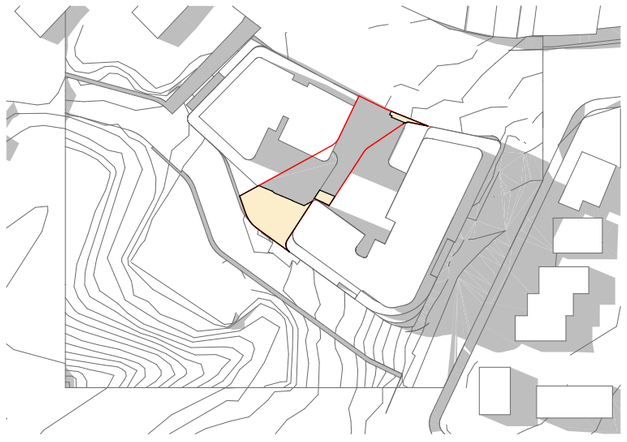
Sept 22-12pm



Sept 22-1pm



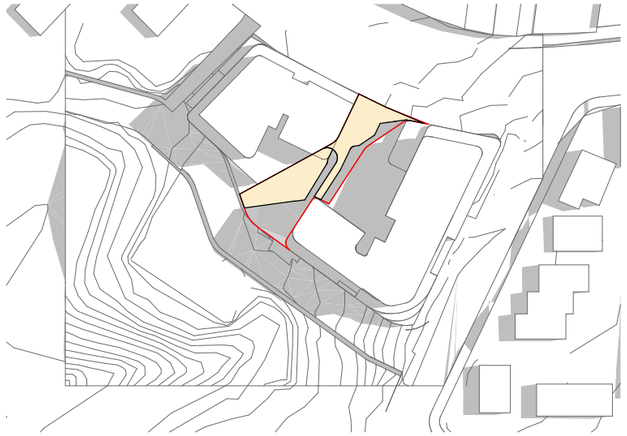
Sept 22-2pm



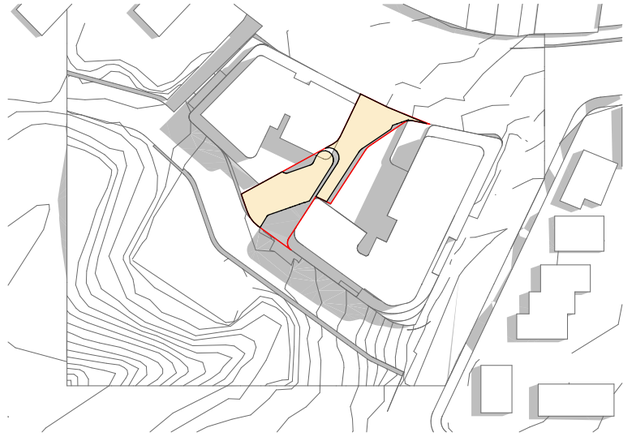
Sept 22-3pm

ADG COMPLIANCE

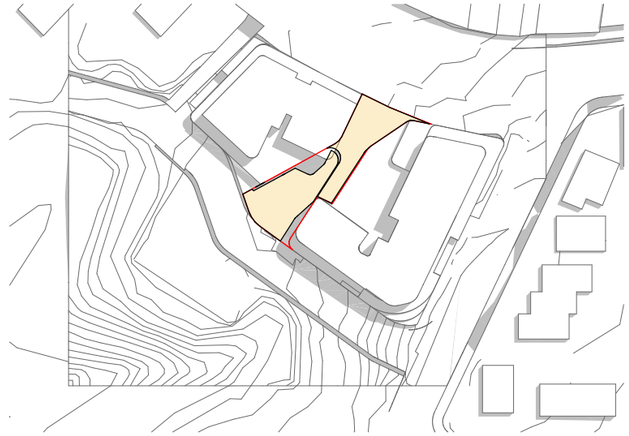
SOLAR ACCESS TO PLAZA CALCULATION - SUMMER SOLSTICE



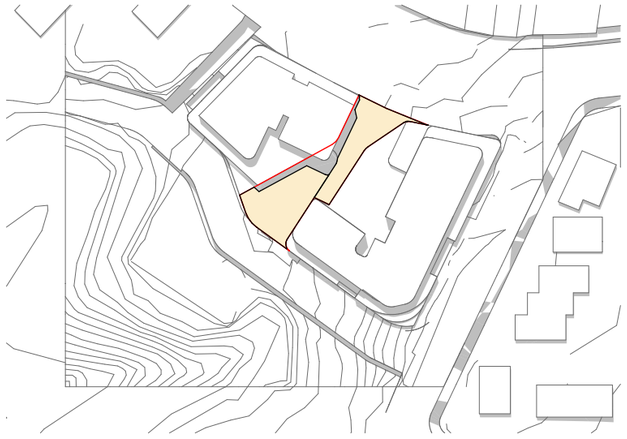
Dec 21-9am



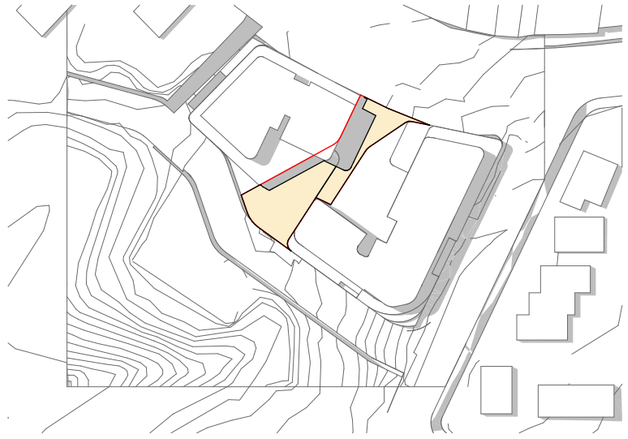
Dec 21- 10am



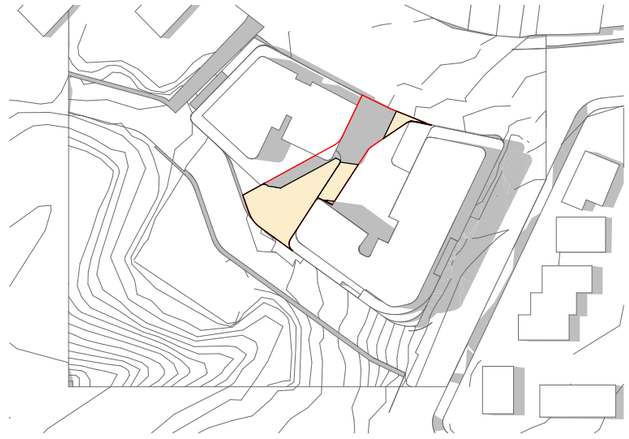
Dec 21- 11am



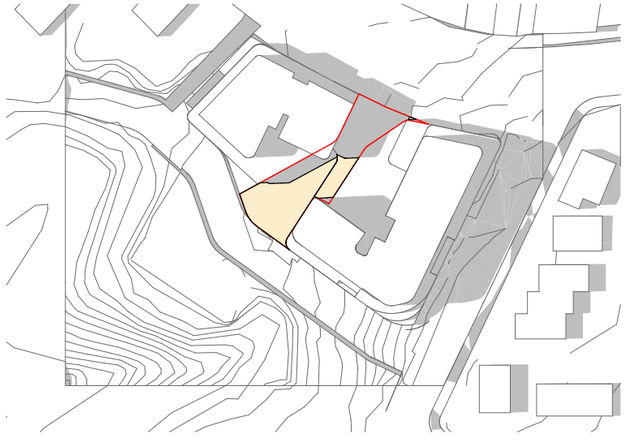
Dec 21- 12pm



Dec 21- 1pm



Dec 21- 2pm



Dec 21 - 3pm

ADG COMPLIANCE

SOLAR ACCESS TO PLAZA CALCULATION - WINTER SOLSTICE

June 21- 9 am

June 21- 9:30am

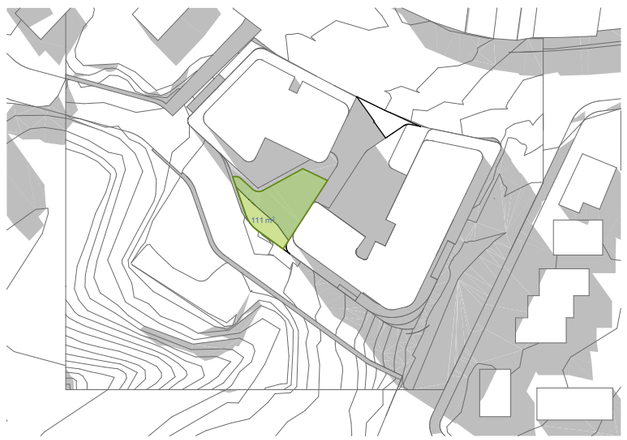
June 21-10am

June 21 - 11am

June 21 - 12pm

June 21 - 1pm

June 21 - 1:30pm



June 21 - 2pm

June 21 - 3pm

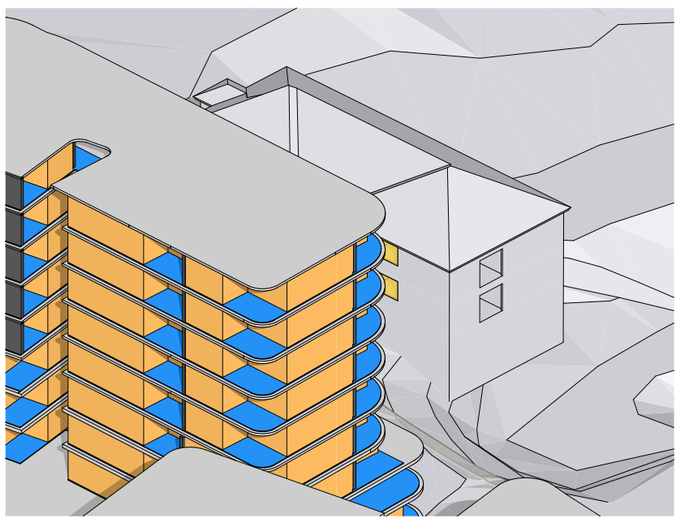
Keys:

Lower Plaza
Deep Soil Area

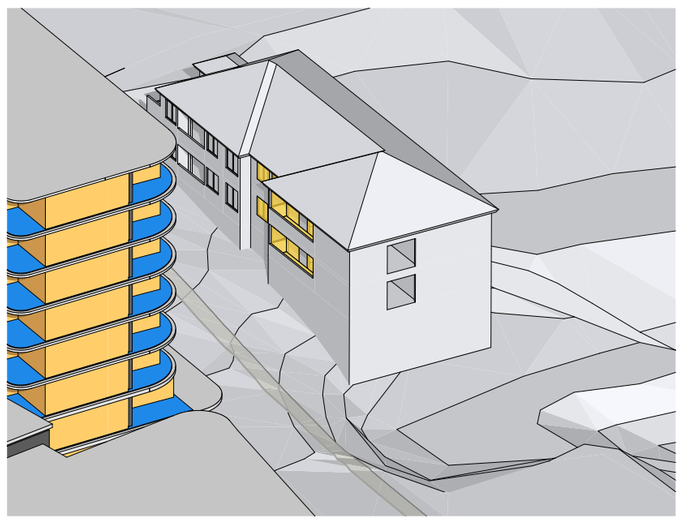
Solar Access
To Plaza Area

ADG COMPLIANCE

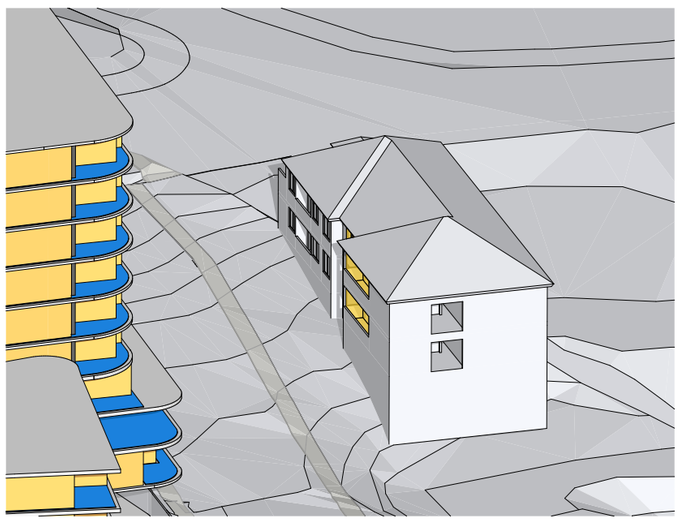
SOLAR ACCESS TO WESTERN UNITS, 5 KISSING POINT ROAD



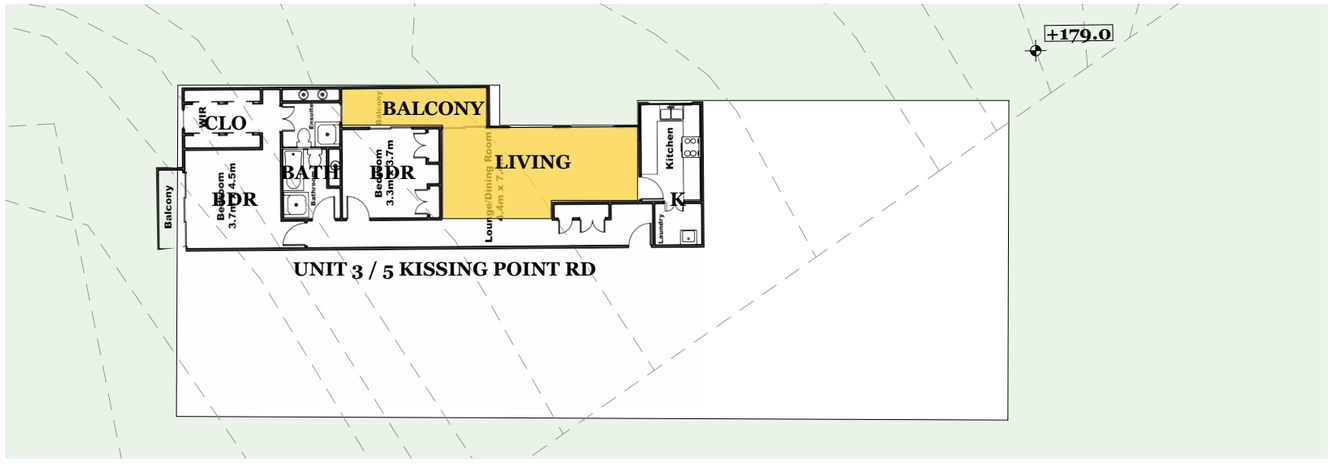
12:15pm 1:400



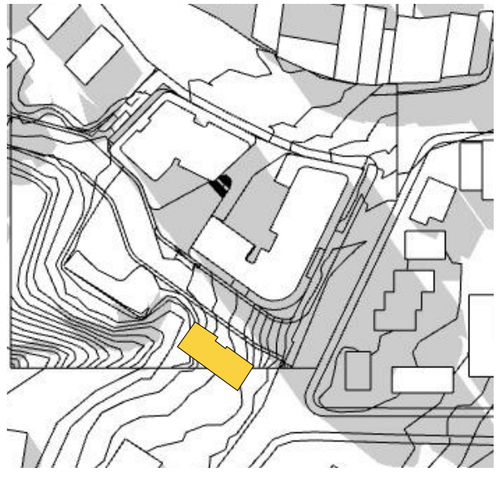
1:15pm 1:400



2:15pm 1:400



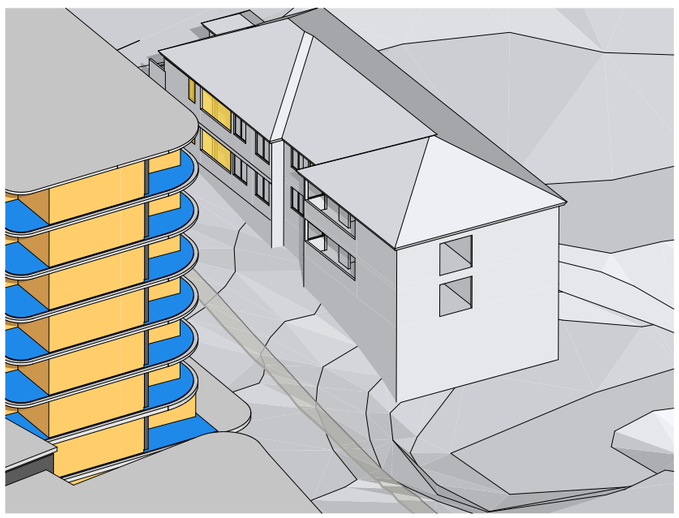
Ground Floor - Unit 3 / 5 Kissing Point Rd 1:200



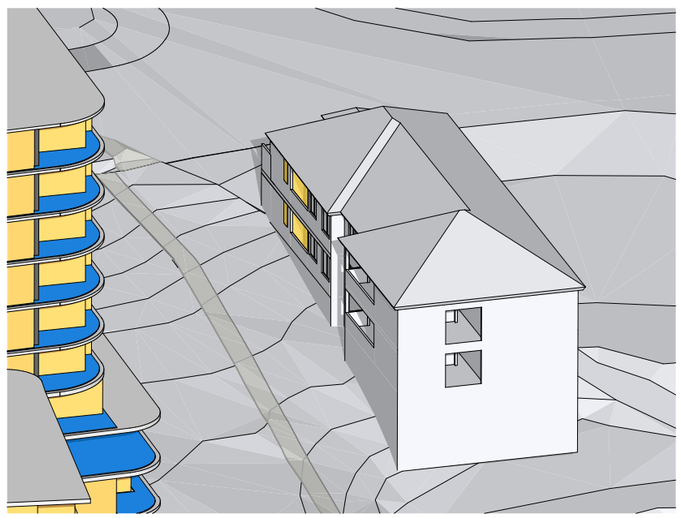
Key Plan - June 21 - 3:00pm

ADG COMPLIANCE

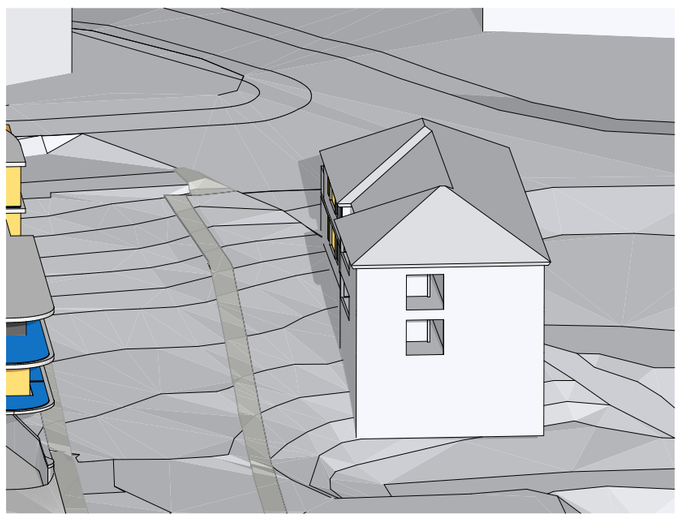
SOLAR ACCESS TO EASTERN UNITS, 5 KISSING POINT ROAD



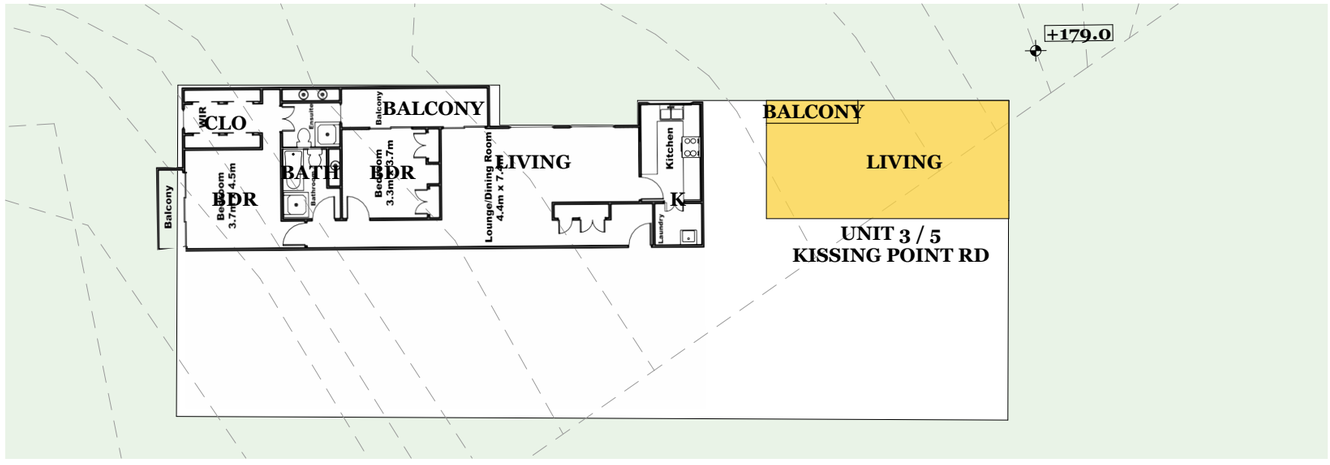
1:15pm



2:15pm



3:15pm



Ground Floor - Unit 3 / 5 Kissing Point Rd 1:200

Key Plan - June 21 - 3:00pm

Acoustic and Cross ventliation treatments

1364-1396 Pacific Highway and 1, 1a, 3 and 3a Kissing Point Road

There are multiple strategies to ensure that apartment buildings fronting busy roads achieve high levels of acoustic amenity while maintaining adequate natural ventilation. At DKO, we bring extensive experience in designing buildings that balance these requirements, delivering exceptional living environments for future residents. Key approaches include the integration of high-performance glazing systems, acoustic seals, and building layouts that minimize direct exposure to noise sources. Cross-ventilation is achieved through carefully considered unit planning, such as dual-aspect apartments and the use of operable windows or louver systems designed to capture breezes without compromising acoustic integrity. Passive design principles, combined with mechanical ventilation systems where necessary, are employed to meet ventilation and energy efficiency standards while maintaining acoustic comfort.

The following case studies illustrate innovative solutions that have been successfully implemented in comparable projects. These examples highlight strategies tailored to specific site constraints and opportunities, which would be further refined and rigorously tested during the detailed design phase at the DA stage to ensure compliance with all relevant codes and standards, including SEPP 65 and the ADG (Apartment Design Guide).

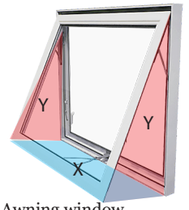
DKO

CASE STUDIES

BALCONY ACOUSTIC TREATMENTS

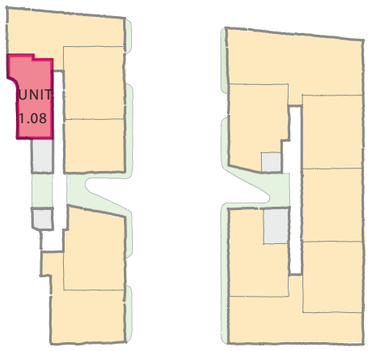
171B Botany Rd Waterloo, DKO project

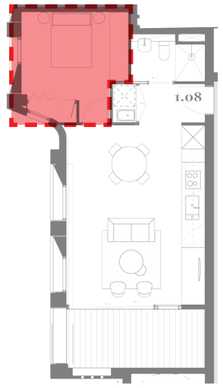
Apartment Design Guide (ADG)
Properties located near major roads, rail lines and beneath flight paths can be subject to noise and poor air quality. Similarly, hostile and noisy environments such as industrial areas, substations or sports stadiums can have impacts on residential amenity. Careful design solutions can help to improve quality of life in affected apartments by minimising potential noise and pollution impacts.



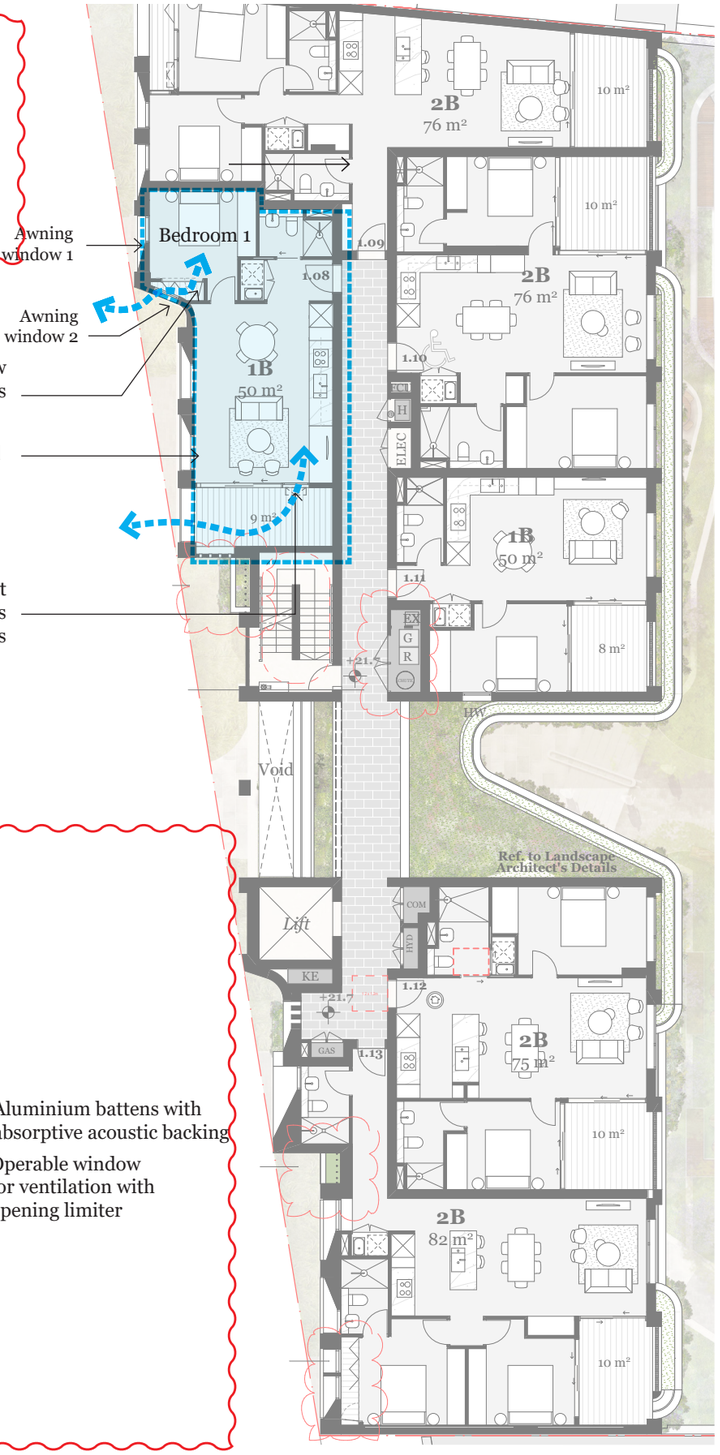
Awning window

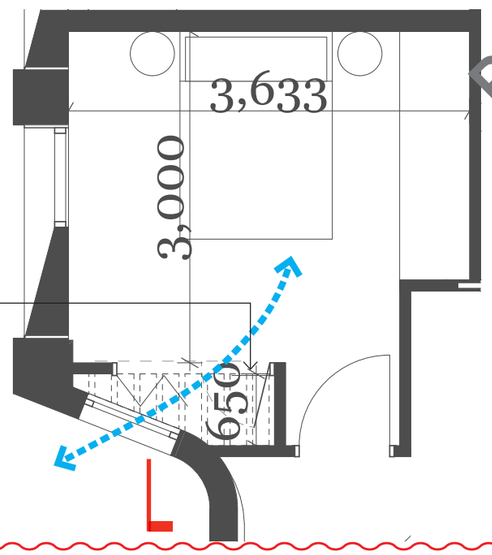
Level No.	Unit No.	Room No.	Room Size m²	Required EOA m²	Min. %	Ventilated Opening Size		number	Area(m²)	Proposed EOA
Level 1	1.08	Bed 1	11	0.55	5%	Awning Window 1	X	1	0.112	5.44%
Level 2	2.08						Y	2	0.194	
Level 3	3.08					Awning Window 2	X	1	0.112	
							Y	2	0.180	



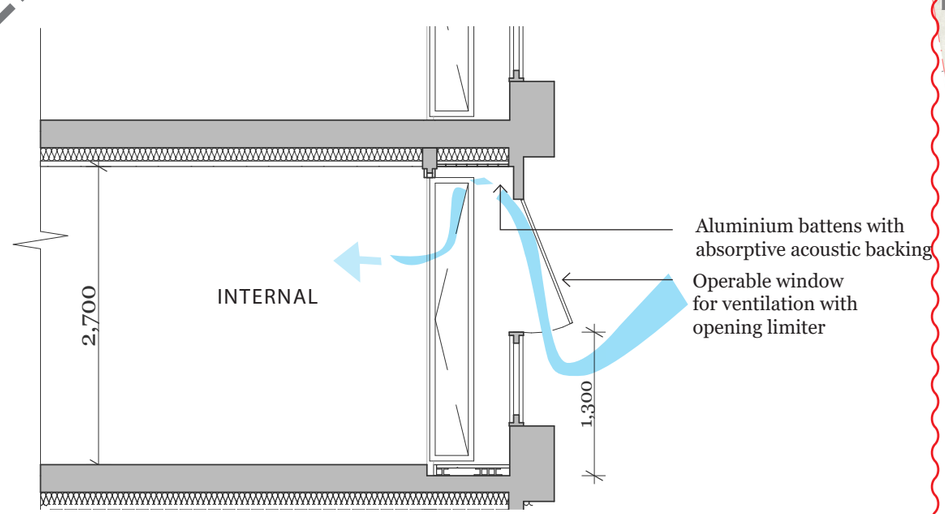


UNIT 1.08 KEY PLAN





UNIT 1.08 PLAN - BEDROOM



UNIT 1.08 DETAIL SECTION

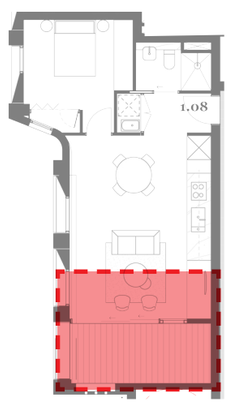
CASE STUDIES

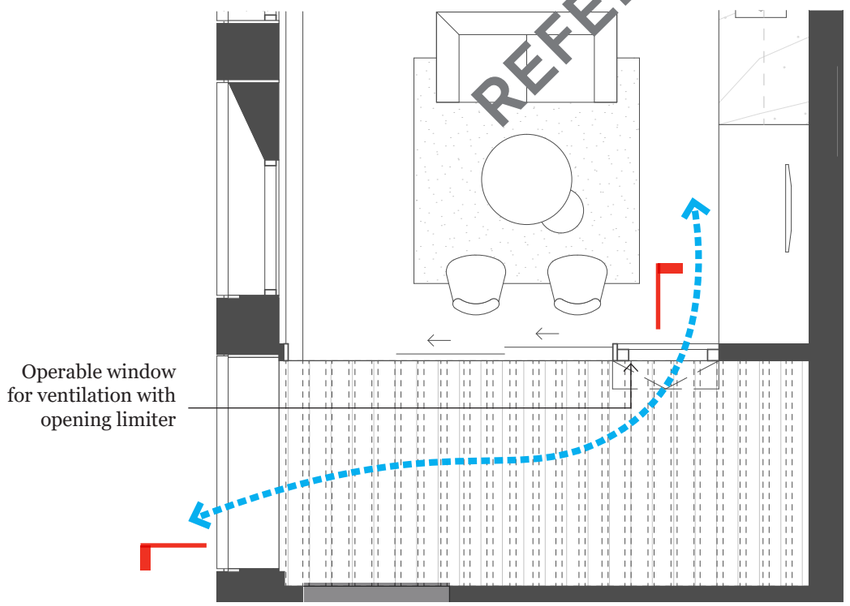
BALCONY ACOUSTIC TREATMENTS

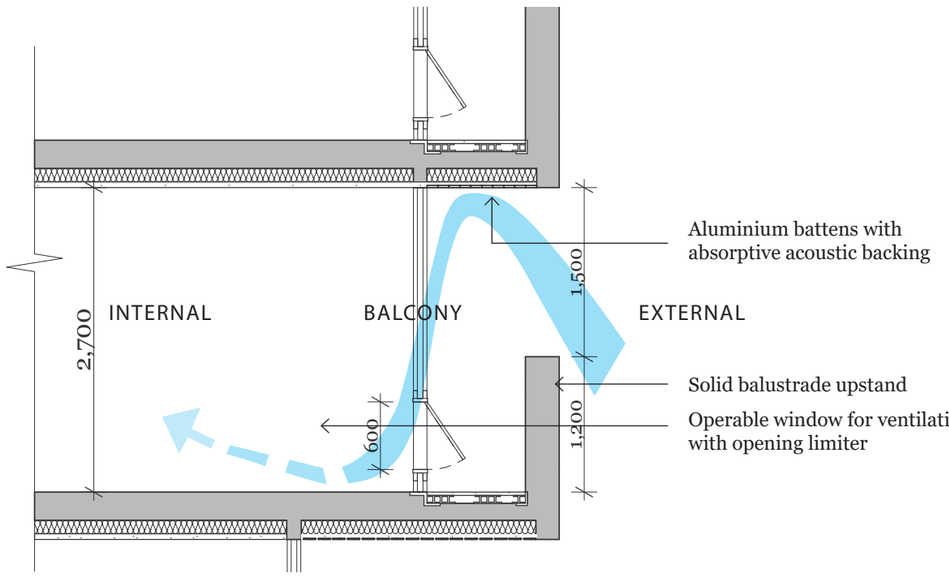
171B Botany Rd Waterloo, DKO project

Apartment Design Guide (ADG)
Properties located near major roads, rail lines and beneath flight paths can be subject to noise and poor air quality. Similarly, hostile and noisy environments such as industrial areas, substations or sports stadiums can have impacts on residential amenity. Careful design solutions can help to improve quality of life in affected apartments by minimising potential noise and pollution impacts.

VIEW TOWARDS BALCONY
ARTIST'S IMPRESSION





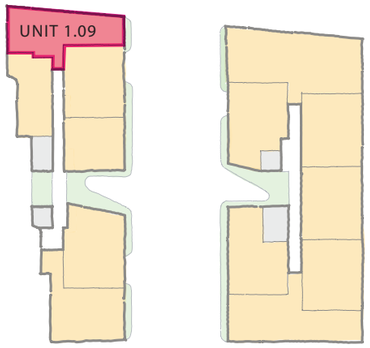


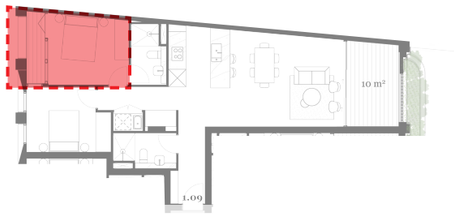
CASE STUDIES

BALCONY ACOUSTIC TREATMENTS

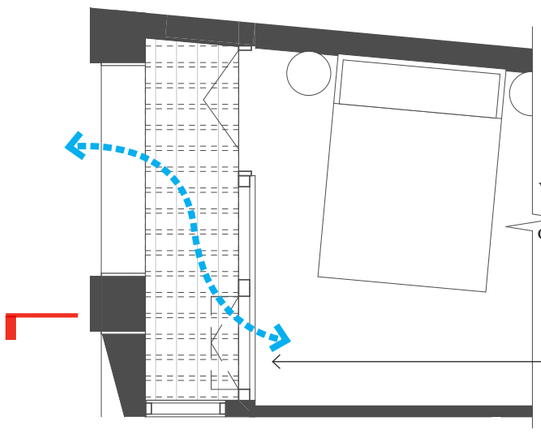
171B Botany Rd Waterloo, DKO project

Apartment Design Guide (ADG)
Properties located near major roads, rail lines and beneath flight paths can be subject to noise and poor air quality. Similarly, hostile and noisy environments such as industrial areas, substations or sports stadiums can have impacts on residential amenity. Careful design solutions can help to improve quality of life in affected apartments by minimising potential noise and pollution impacts.



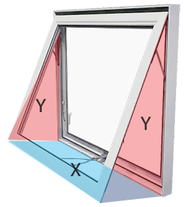


UNIT 1.09 KEY PLAN



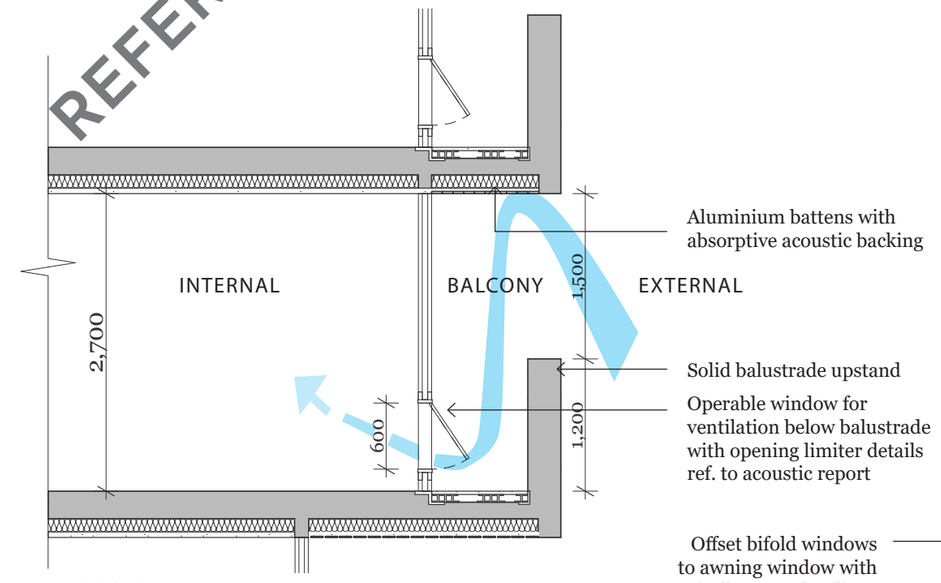
Operable window for ventilation below balustrade with opening limiter details ref. to acoustic report

UNIT 1.09 PLAN - BED + BALCONY



Awning window

Level No.	Unit No.	Room No.	Room Size m³	Required EOA m²	Min. %	Ventilated Opening Size		number	Area(m²)	Proposed EOA
Level 1	1.09	Bed 1	11	0.55	5%	Bi-fold Door		1	2.970	32.45%
						Awning window 4 (Fully Open)		1	0.600	
		Bed 2	11	0.55	5%	Awning window 1	X	1	0.112	7.96%
							Y	2	0.180	
						Awning window 2	X	1	0.112	
							Y	2	0.180	
						Awning Window 3	X	1	0.112	
							Y	2	0.180	
Level 2	2.09	Bed 1	11	0.55	5%	Bi-fold Door		1	2.970	32.45%
						Awning window 4 (Fully Open)		1	0.600	
		Bed 2	11	0.55	5%	Awning window 1	X	1	0.112	7.96%
							Y	2	0.180	
						Awning window 2	X	1	0.112	
							Y	2	0.180	
						Awning Window 3	X	1	0.112	
							Y	2	0.180	
Level 3	3.09	Bed 1	11	0.55	5%	Bi-fold Door		1	2.970	32.45%
						Awning window 4 (Fully Open)		1	0.600	
		Bed 2	11	0.55	5%	Awning window 1	X	1	0.112	7.96%
							Y	2	0.180	
						Awning window 2	X	1	0.112	
							Y	2	0.180	
						Awning Window 3	X	1	0.112	
							Y	2	0.180	



Aluminium battens with absorptive acoustic backing

Solid balustrade upstand

Operable window for ventilation below balustrade with opening limiter details ref. to acoustic report

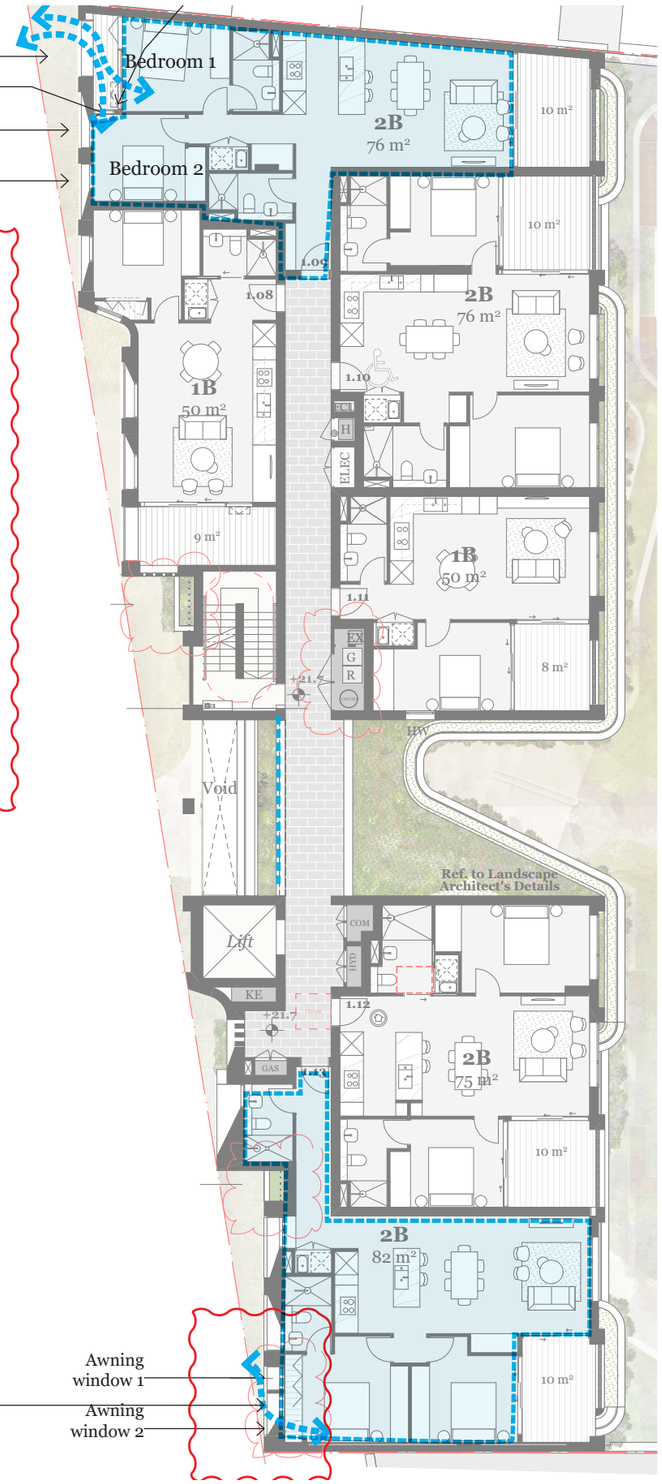
UNIT 1.09 DETAIL SECTION

placement with solid balcony spandrels and acoustically treated ceilings

Awning window 3

Awning window 1

Awning window 2



Awning window 1

Awning window 2

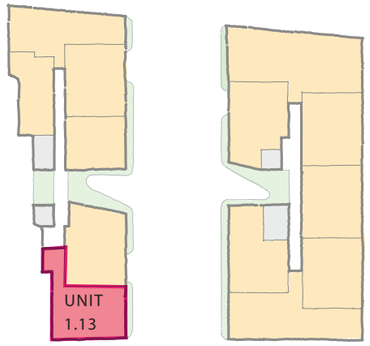
Offset bifold windows to awning window with acoustically treated ceilings

CASE STUDIES

BALCONY ACOUSTIC TREATMENTS

171B Botany Rd Waterloo, DKO project

Apartment Design Guide (ADG)
Properties located near major roads, rail lines and beneath flight paths can be subject to noise and poor air quality. Similarly, hostile and noisy environments such as industrial areas, substations or sports stadiums can have impacts on residential amenity. Careful design solutions can help to improve quality of life in affected apartments by minimising potential noise and pollution impacts.

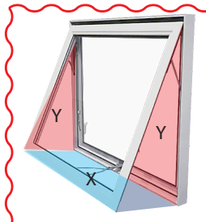


Aluminium battens with absorptive acoustic backing

Cement Render external finish painting on wall

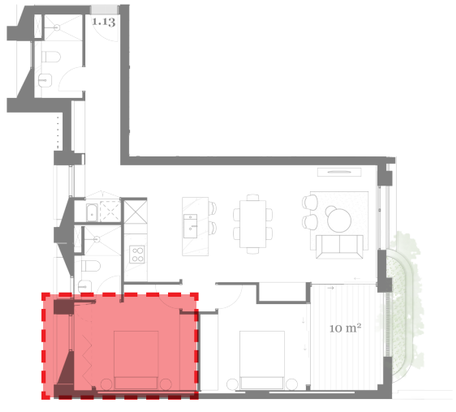
Operable window behind for ventilation with opening limiter

VIEW TOWARDS WINTERGARDEN
ARTIST'S IMPRESSION

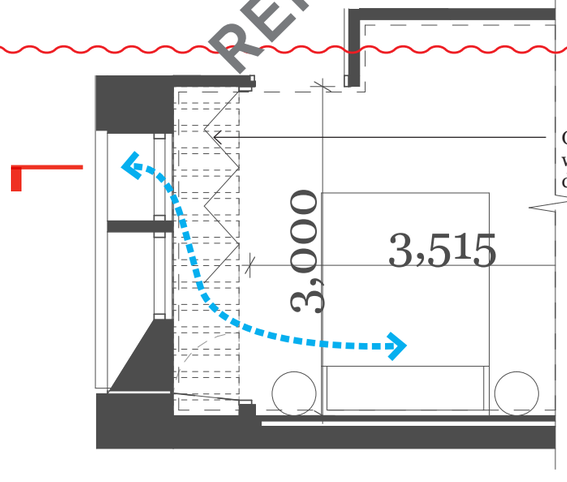


Awning window

Level No.	Unit No.	Room No.	Room Size m²	Required EOA m²	Min. %	Ventilated Opening Size number		Area(m²)	Proposed EOA
Level 1	1.13	Bed 1	11	0.55	5%	Awning Window	X	1 0.112	5.44%
						1	Y	2 0.194	
Level 2	2.13					Awning Window	X	1 0.112	
Level 3	3.13					2	Y	2 0.180	

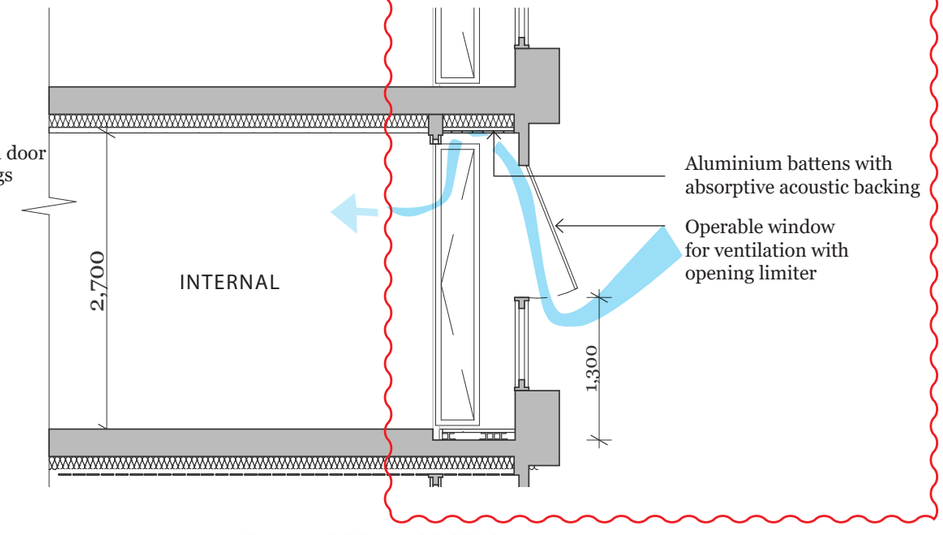


UNIT 1.13 KEY PLAN



Offset awning window to bifold door with acoustically treated ceilings details ref. to acoustic report

UNIT 1.13 BEDROOM PLAN



Aluminium battens with absorptive acoustic backing

Operable window for ventilation with opening limiter

UNIT 1.13 DETAIL SECTION

ADG COMPLIANCE

CROSS VENTILATION - TYPICAL PODIUM LEVEL (LEVEL 1 & 2)

Revised unit layout to achieve ADG Natural Cross Ventilation requirements.

ADG COMPLIANCE

CROSS VENTILATION - TYPICAL TOWERS LEVEL (LEVEL 3 TO 8)

Revised unit layout to achieve ADG
Natural Cross Ventilation requirements.

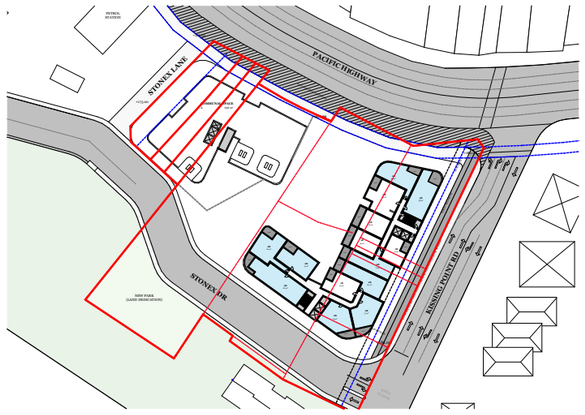
ADG COMPLIANCE
CROSS VENTILATION

0. Ground Floor 1:2000

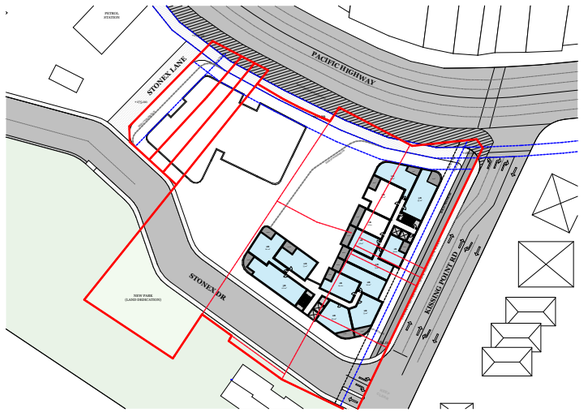
1. Level 1 1:2000

2. Level 2 1:2000

3. Level 3-6 1:2000



7. Level 7 1:2000



8. Level 8 1:2000

Cross Vent Requirements Acheived

DKO Cross Vent	
Home Story	Quantity
Ground Floor	
	3
Level 1	
	14
Level 2	
	15
Level 3	
	14
Level 4	
	14
Level 5	
	14
Level 6	
	14
Level 7	
	9
Level 8	
	12
	109 /175 (62.3%)

Revised unit layout to achieve ADG
Natural Cross Ventilation requirements.

CASE STUDIES
CROSS VENTILATION

171B Botany Rd Waterloo, DKO project

Apartment Design Guide (ADG)
Natural ventilation is the movement of sufficient volumes of fresh air through an apartment to create a comfortable indoor environment. Sustainable design practice incorporates natural ventilation by responding to the local climate and reduces the need for mechanical ventilation and air conditioning. To achieve adequate natural ventilation, apartment design must address the orientation of the building, the configuration of apartments and the external building envelope..

Response

The development consists generally of open plan units with relatively shallow apartment depths which facilitates good ventilation to all habitable rooms. A high number of cross through and corner apartments within the development also allow the proposed design to achieve a high percentage of well-ventilated units.

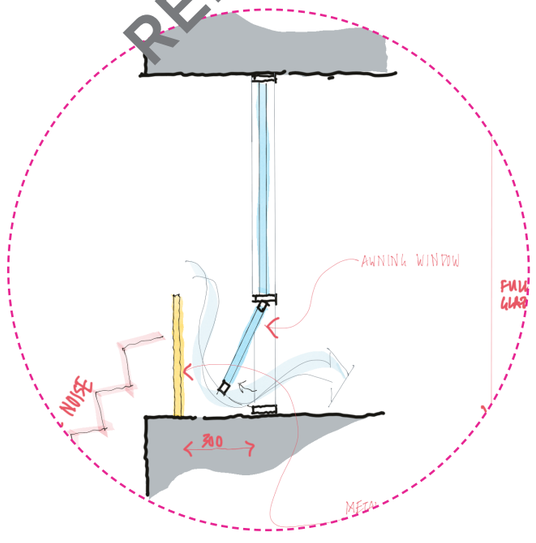
Outlined by the State Environmental Planning Policy No.65 - Apartment Design Guide, a minimum of 60% of total apartments within the first 9 storeys (29 units) require cross-ventilation.

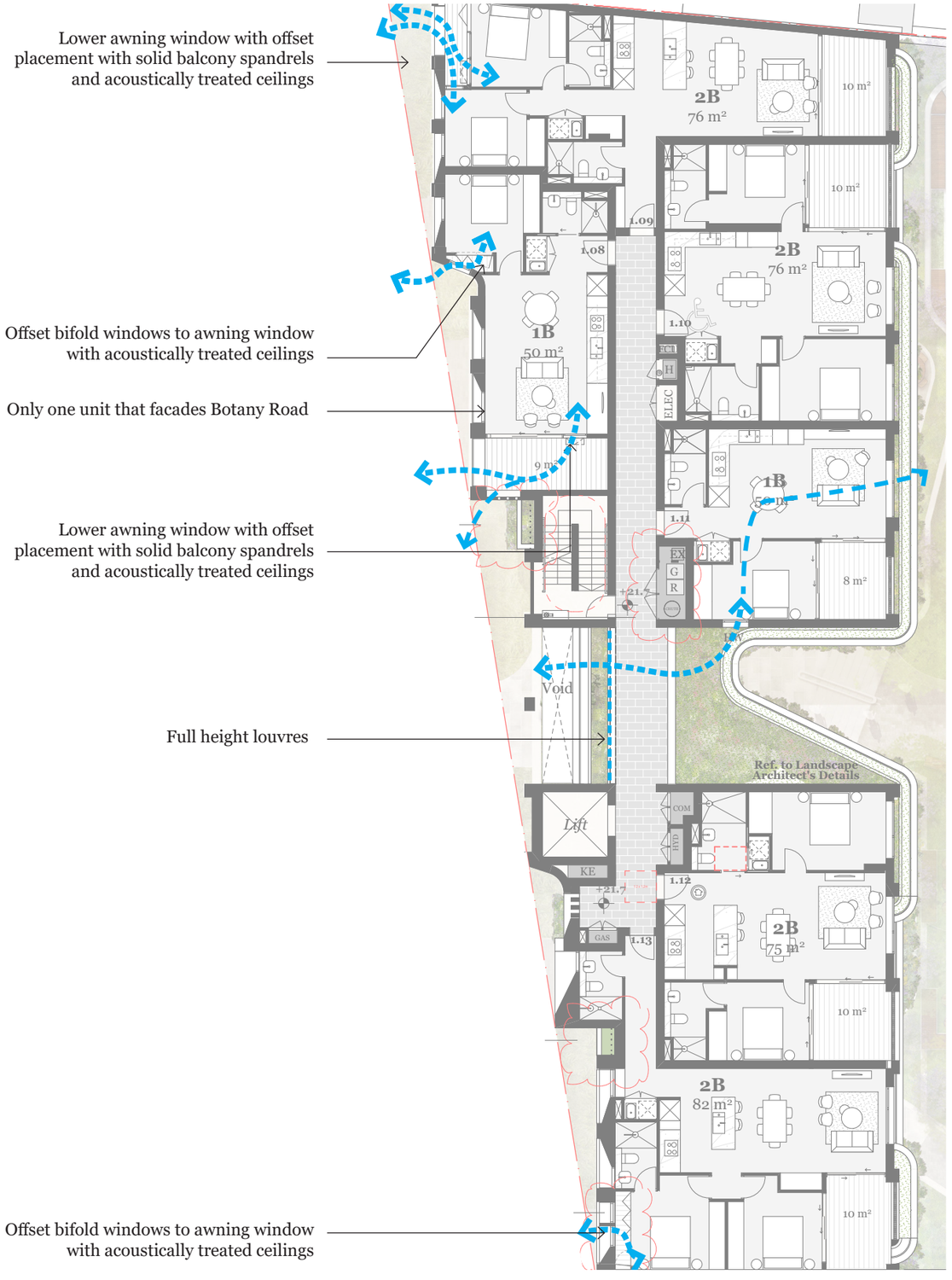
The building's orientation take full advantage of prevailing breezes to maximize the movement of fresh air to create a comfortable indoor environment. Large openable windows and doors are to be effectively incorporated to reduce the need for mechanical ventilation and air conditioning.

On Botany Road side, integrated design solutions are used to allow for cross ventilation whilst minimising noise pollution including;
- Provision of winter gardens with offset operable windows to minimise noise pollution
- Where possible, secondary offset windows to the wintergardens are perpendicular to Botany Road to minimise noise
- Balconies with solid spandrels
- Awning windows are double stacked at internal winter garden facades so that lower windows are more protected from the noise from solid balcony spandrels.

Refer to acoustic report for further information.

cross ventilation unit





CASE STUDIES
CROSS VENTILATION

96-102 Princes Hwy, Arncliffe, DKO project

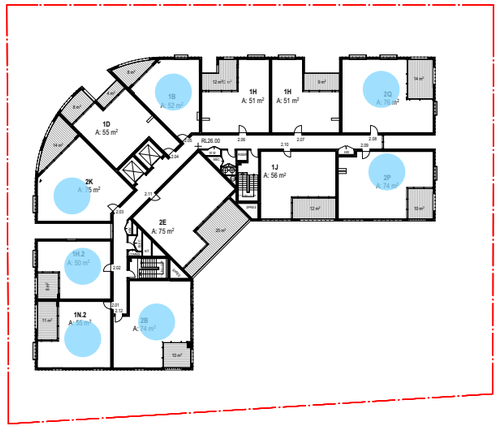
Apartment Design Guide (ADG)
Natural ventilation is the movement of sufficient volumes of fresh air through an apartment to create a comfortable indoor environment. Sustainable design practice incorporates natural ventilation by responding to the local climate and reduces the need for mechanical ventilation and air conditioning. To achieve adequate natural ventilation, apartment design must address the orientation of the building, the configuration of apartments and the external building envelope..

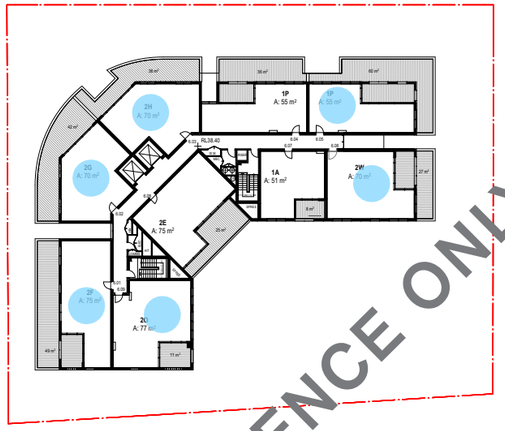
Response

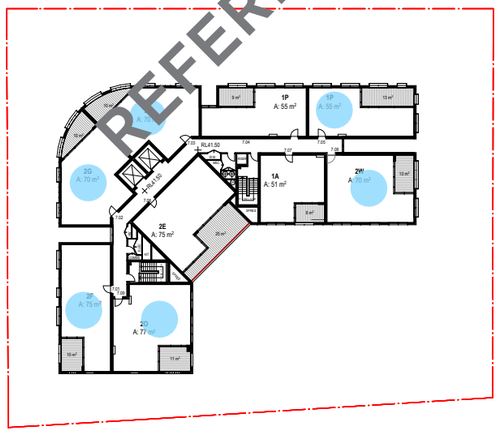
The development consists generally of open plan units with relatively shallow apartment depths which facilitates good ventilation to all habitable rooms. A high number of cross through and corner apartments within the development also allow the proposed design to achieve a high percentage of well-ventilated units.

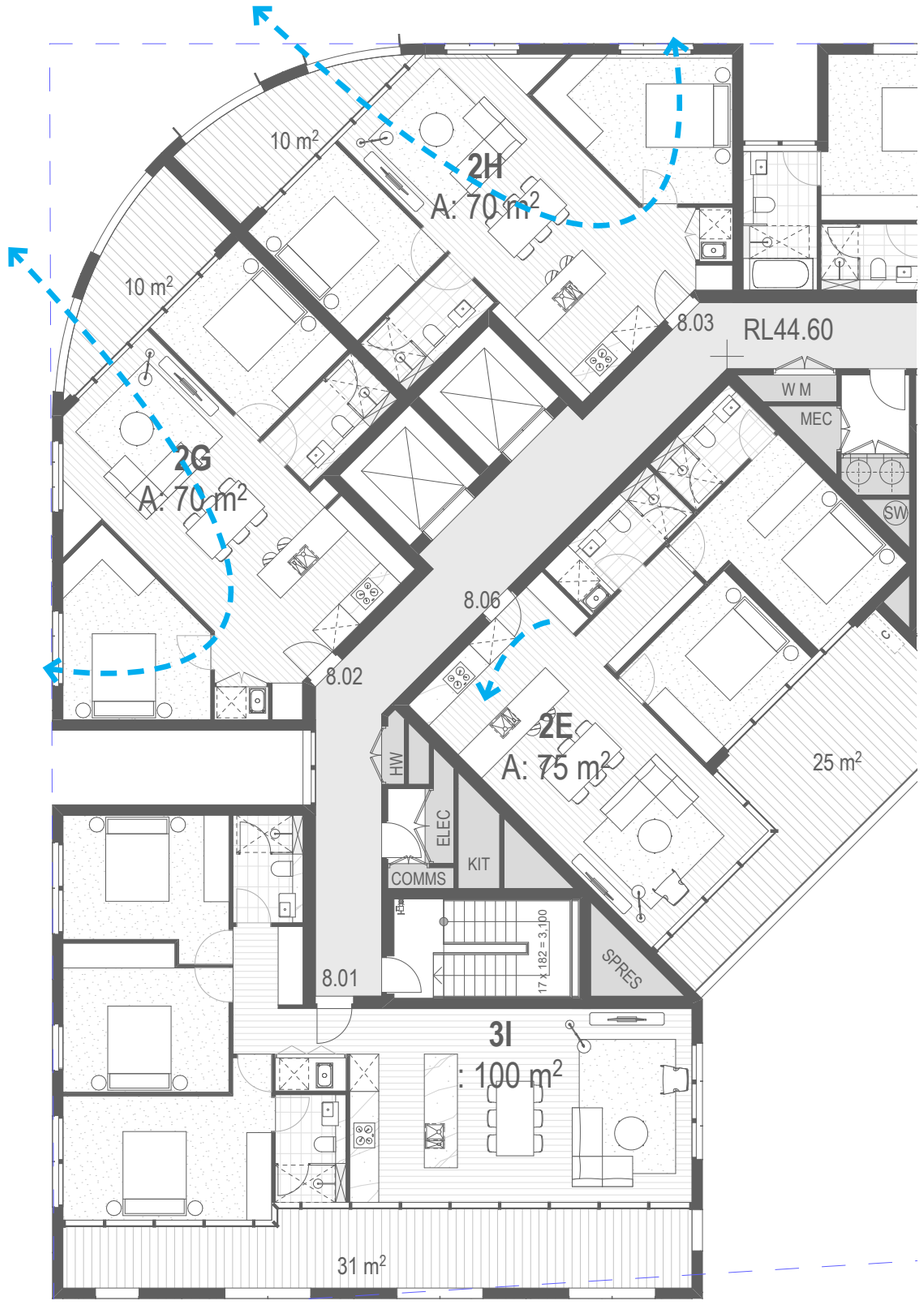
Outlined by the State Environmental Planning Policy No.65 - Apartment Design Guide, a minimum of 60% of total apartments within the first 9 storeys (29 units) require cross-ventilation.

The building's orientation take full advantage of prevailing breezes to maximize the movement of fresh air to create a comfortable indoor environment. Large openable windows and doors are to be effectively incorporated to reduce the need for mechanical ventilation and air conditioning.









cross ventilation unit

DEVELOPMENT SUMMARY

YIELD

Turramurra Village

Development Summary

Site Area:	**8459.7 m2**				
Base GFA	**16,919 m2**	Residential GFA:	**18,188 m2**	Community GFA	380 **m2**
Proposed GFA:	**25,378 m2**	Residential FSR	**2.15 :1**	Community FSR	0.0449 : 1
Allowable FSR:	**2.0 :1**	Commerial & Retail GFA	**6,810 m2**		
Proposed FSR:	**3.0 :1**	Commerial & Retail FSR	**0.80 :1**		

LEVELS	North West Building					South East Building					Commercial & Retail & No residential			Community	TOTAL	AMENTIY	GFA
	1B	2B	3B	Sub	GFA	1B	2B	3B	Sub	GFA	Commercial GFA	Retail GFA	GFA				
					m²					m²			m²				m²
Basement 4					**18**					**94**							112
Basement 3					**18**					**94**							112
Basement 2					**18**					**91**							109
Basement 1 (Supermarket)											243	3833	**4076**		**0**		4,076
Ground Level		3	2	**5**	**481**		2	1	**3**	**495**	1035	1699	**2734**	380	**8**		4,090
Level 1	1	4	3	**8**	**1209**	8	7	2	**17**	**1819**					**25**	140	3,168
Level 2	2	3	3	**8**	**849**	7	8	3	**18**	**1773**					**26**		2,622
Level 3	2	3	3	**8**	**849**	4	8	2	**14**	**1268**					**22**		2,117
Level 4	2	3	3	**8**	**849**	5	7	2	**14**	**1268**					**22**		2,117
Level 5	2	3	3	**8**	**849**	5	7	2	**14**	**1268**					**22**		2,117
Level 6	2	3	3	**8**	**849**	5	7	2	**14**	**1268**					**22**		2,117
Level 7				**0**	**0**	5	7	2	**14**	**1268**					**14**		1,268
Level 8				**0**	**0**	5	7	2	**14**	**1268**					**14**		1,268
Roof										**85**							85
Subtotal	11	22	20	**53**	**5989**	44	60	18	**122**	**12059**	**1278**	**5532**	**6810**	**380**	**175**	**140**	**25378**
Achieved Mix	21%	42%	38%	100%	m²	36%	49%	15%	100%	m²							

Unit Mix Total	1B	2B	3B	Total
Proposed	55	82	38	175
	31.4%	46.9%	21.7%	100%
Target Mix	35%	50%	15%	100%

DISCLAIMER

These areas are schematic only and subject to council and other requisite approval. Areas are not to be used for marketing purposes.
This scheme has been prepared generally within the bounds of the current site dimensions however is subject to detailed discussion with council,
hence may be subject to change once advice is received.
This design has been prepared without structural or services engineering input hence is subject to change once advice is received.
The information contained herein is believed to be correct at time on preparation based on the information available at the time of preparation.
Recipients must make their own investigations to satisfy themselves in all aspects.

DEVELOPMENT SUMMARY

PARKING YIELD

Residential Car Parking Rates (DCP)				
Type	**Units**	**Min**	**Required**	**Proposed**
1 Bed	55	0.6	33	
2 Bed	82	0.9	74	
3 Bed	38	1	38	
Visitor	175	0.17	29	
			174	174

Retail and Commercial Car Parking Rates (DCP)				
Type	**Area**	**Min**	**Required**	**Proposed**
Retail	5532	1 space per 33sqm	168	168
Commercial	1278	1 space per 45sqm	28	28
Public car parking (dedicated to Council)			30	30
			226	226

PLANNING PROPOSAL COMMENTS

AS PER REPORT PREPARED BY KU-RING-GAI COUNCIL DATED 14 FEBRUARY 2023

PLANNING PROPOSAL COMMENTS:

HEIGHT:

- An alternative 34.5m (approx. 9 storey) height limit
- The built form should emphasise the corner of Kissing Point Road and the Pacific Highway with potentially a 9 storey building in this location with a second tower to the north west having a lower form of potentially 7 storeys.

FSR:

- In terms of height this equates to approximately 9 storeys and in FSR terms between 2:1 and 3:1

BUILT FORM:

Significant visual bulk and scale with the proposal reading as one large imposing building with:

- large floor plate towers
- no podium separation
- Inadequate tower separation and variation in building height to ameliorate massing and view / visual impact and / or provide a single landmark building, and
- Inadequate separation to Stonex Lane and sites to the west etc.

Significant overshadowing of the proposed new public park and through site link and plaza area with (most significantly) the plaza being entirely in shadow between 9am and 3pm in midwinter

- an inadequate number of the proposed units achieving the minimum 2 hours of sunlight to living rooms and principal private open space between 9am and 3pm in midwinter as required by the ADG
- a significant number of apartments with no direct sun to living rooms and principal private open space between 9am and 3pm in midwinter, and
- overshadowing of units within the adjacent RFB at 5 Kissing Point Road.

DESIGN RESPONSE:

1. The amended building adheres to the suggested 34.5-meter height limit, with the corner of Kissing Point Road and the Pacific Highway featuring a 9-storey landmark building.
2. Additionally, the amended building has planned 7-storey tower to the northwest. This design approach creates a distinctive streetscape while ensuring cohesion.

   The amended scheme provides and FSR 3.0:1

3. To mitigate the visual bulk, the amended scheme has been broken the long podium levels in two separate podium with two towers. This approach reduces bulk, improves aesthetics, and provides a visual connection between the Pacific Highway and the new proposed park.
4. The amended scheme introduces variations in building height and more efficient floor plans, creating a visually pleasing and harmonious ensemble. This addresses concerns about monotonous massing.
5. The amended plan ensure compliance with the ADG and guarantees suitable separation from Stonex lane and neighboring sites.
6. The amended scheme ensures the proposed new park achieving a minimum of 50% direct sunlight for 11am to 3pm on 21 June.
7. The amended scheme claims that 131 of 180 (73%) comply with ADG minimum 2 hours of solar access requirement.
8. The amended scheme claims that 21 of 180 (12%) comply with ADG no solar access.
9. The units within 5 Kissing Point Road impacted by the revised proposed scheme still achieve 2 hours of solar access requirement.

PLANNING PROPOSAL COMMENTS:

COMPLIANCE WITH KU-RING-GAI DCP:

The proposed design of the new Stonex Drive does not comply with the DCP requirement of 15m width with two-way traffic, on street parking (one side) and footpaths both sides. Other inconsistencies with the DCP include:

- Land dedication – does not appear consistent – to be confirmed
- Rear alignment of Stonex Drive inconsistent
- Location of two landmark buildings equal height on site (Note: DCP provides for one landmark building only on the corner or Kissing Point Road and the Pacific Highway – refer Image 14 below)
- Proposal does not provide for public domain areas which are 'an ideal location for outdoor dining and cafes overlooking the forest (KDCP 14B,10(1)(iv) given that the plaza area will be fully in shadow throughout the day in mid-winter
- Proposal is not consistent with KDCP 14B.5 Objective 4 which is to 'encourage new infill development along the Pacific Highway which respects the existing characteristics of the street including finer-grained character of the original subdivision, setback, height and rhythm of facades and is sympathetic to the materials and detailing of the earlier facades.
- Proposal is not consistent with KDCP 8C.9.4 for the continuous length of the residential component of a building any elevation not to exceed 36m.

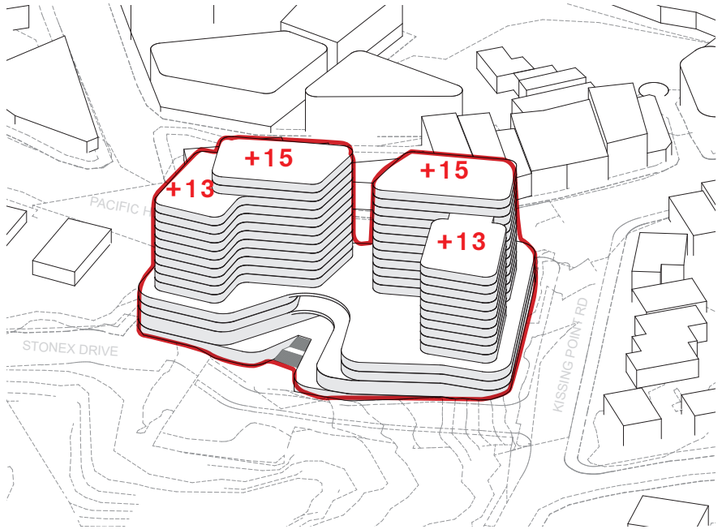
DESIGN RESPONSE:

10. The amended scheme adheres to the DCP requirement of a 15-meter width, providing for two-way traffic, on-street parking (one side), and footpaths on both sides, ensuring compliance with the DCP guidelines.
11. The amended scheme designed one landmark building with 9 stories at the corner of Kissing Point Road and the Pacific Highway. The other tower has 7 stories, ensuring that they are not equal in height, as per the DCP's provision for one landmark building at the designated corner.
12. The amended scheme includes a plaza area that offers outdoor dining and cafes overlooking the forest. The design accounts for good solar access in the morning, making it an ideal location for dining and relaxation.
13. To provide fine-grained character to the building by breaking the podium level, addressing the original subdivision's characteristics, setback, height, and rhythm of facades, as well as being sympathetic to the materials and detailing of earlier facades, in line with KDCP 14B.5 Objective 4.
14. The amended design ensures compliance with KDCP 8C.9.4, with the continuous length of the residential component not exceeding 34.5 meters in any elevation.

DESIGN RESPONSE

PREVIOUS SCHEME VS AMENDED SCHEME

PREVIOUS SCHEME



FSR : 4.20 : 1

TOTAL GFA: 34,876 m2

Non Residential GFA : 9,953 m2
Residential GFA: 24923 m2

Units: 248

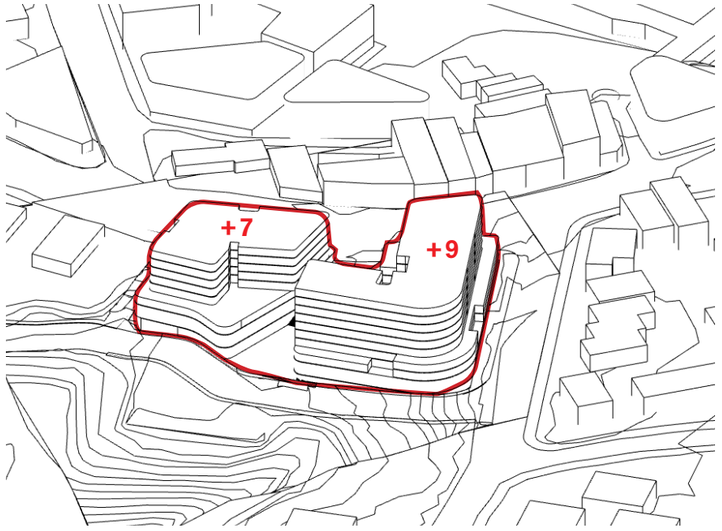
Number of Storeys: 15

Solar : 79%
Cross Ventilation: 62%

C.O.S. : 3055 m2

Min . Towers Separation : 12 m

AMENDED SCHEME



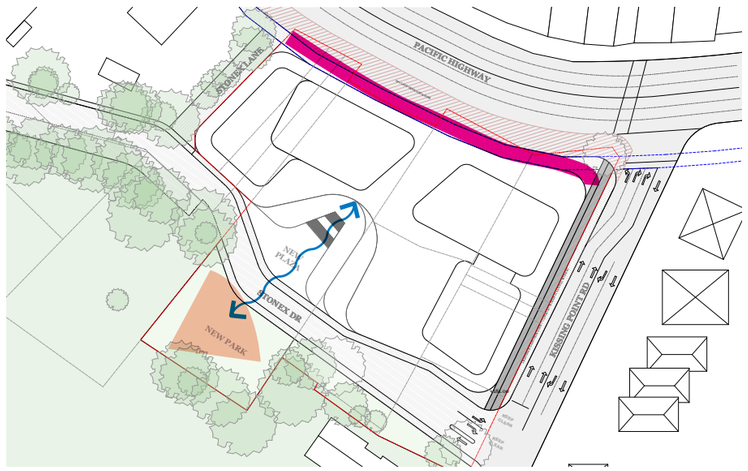
FSR : 3.0: 1

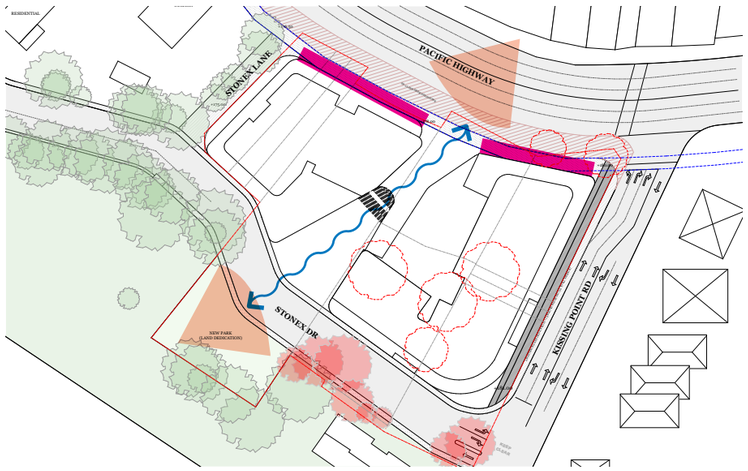
TOTAL GFA: 25,378 m²

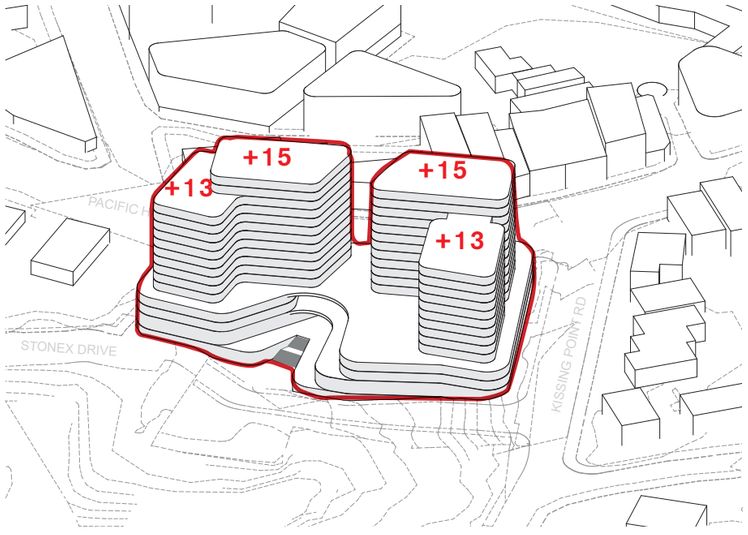
Non Residential GFA : 6,810m²
Residential GFA: 18,188 m²
Community GFA : 380 m²
Units: 175
Number of Storeys: 7-9
Solar : 70%
Cross Ventilation: 62%

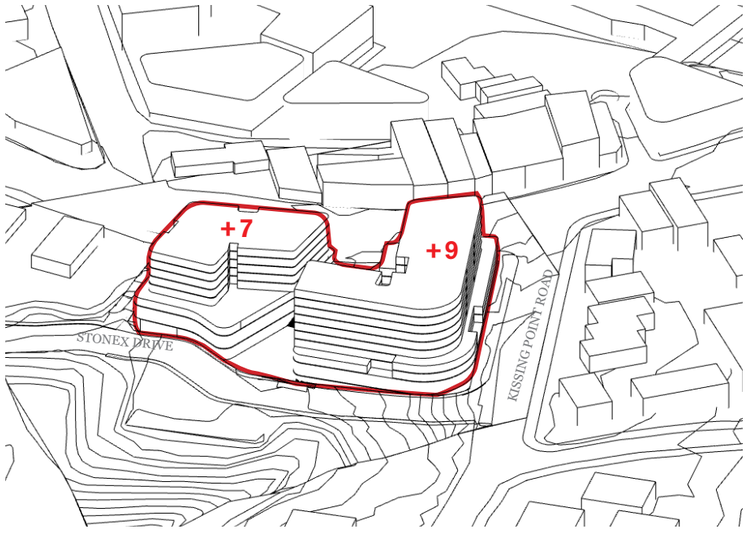
C.O.S.: 3,388m²

Min. Towers separation: 12 m









Feb, 2023

Previous Scheme

Nov, 2023

Amended Scheme

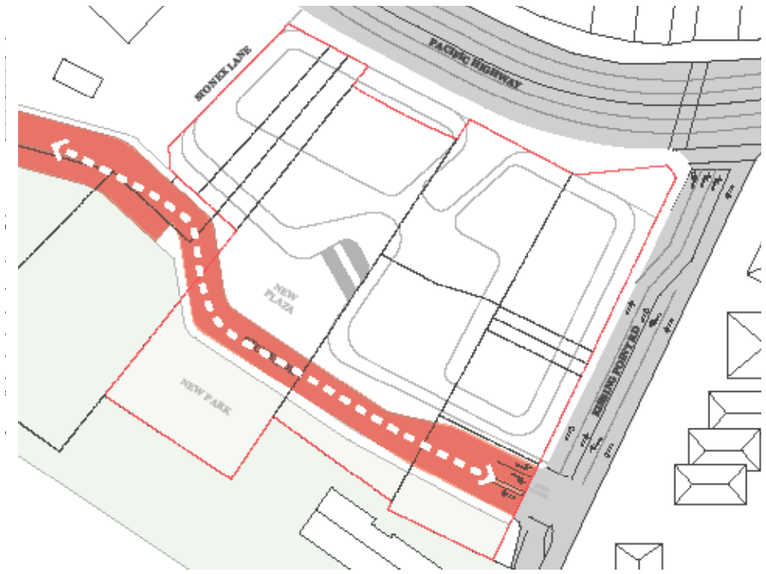
DESIGN RESPONSE:

1. The amended building adheres to the suggested 34.5-meter height limit, with the corner of Kissing Point Road and the Pacific Highway featuring a 9-storey landmark building.
2. Additionally, the amended building has planned 7-storey tower to the northwest. This design approach creates a distinctive streetscape while ensuring cohesion.

The amended scheme provides and FSR 3.0:1

11. The amended scheme designed one landmark building with 9 stories at the corner of Kissing Point Road and the Pacific Highway. The other tower has 7 stories, ensuring that they are not equal in height, as per the DCP's provision for one landmark building at the designated corner.
14. The amended design ensures compliance with KDCP 8C.9.4, with the continuous length of the residential component not exceeding 34.5 meters in any elevation.

3. To mitigate the visual bulk, the amended scheme has been broken the long podium levels in two separate podium with two towers. This approach reduces bulk, improves aesthetics, and provides a visual connection between the Pacific Highway and the new proposed park.
4. The amended scheme introduces variations in building height and more efficient floor plans, creating a visually pleasing and harmonious ensemble. This addresses concerns about monotonous massing.
13. To provide fine-grained character to the building by breaking the podium level, addressing the original subdivision's characteristics, setback, height, and rhythm of facades, as well as being sympathetic to the materials and detailing of earlier facades, in line with KDCP 14B.5 Objective 4.



Feb, 2023

Previous Scheme

Nov, 2023

Amended Scheme

DESIGN RESPONSE:

10. The amended scheme adheres to the DCP requirement of a 15-meter width, providing for two-way traffic, on-street parking (one side), and footpaths on both sides, ensuring compliance with the DCP guidelines.

DESIGN RESPONSE:

5. The amended plan ensure compliance with the ADG and guarantees suitable separation from Stonex lane and neighboring sites.
6. The amended scheme ensures the proposed new park achieving a minimum of 50% direct sunlight for 11am to 3pm on 21 June.
7. The amended scheme claims that 131 of 180 (73%) comply with ADG minimum 2 hours of solar access requirement.
8. The amended scheme claims that 21 of 180 (12%) comply with ADG no solar access.
9. The units within 5 Kissing Point Road impacted by the revised proposed scheme still achieve 2 hours of solar access requirement.
12. The amended scheme includes a plaza area that offers outdoor dining and cafes overlooking the forest. The design accounts for good solar access in the morning, making it an ideal location for dining and relaxation.

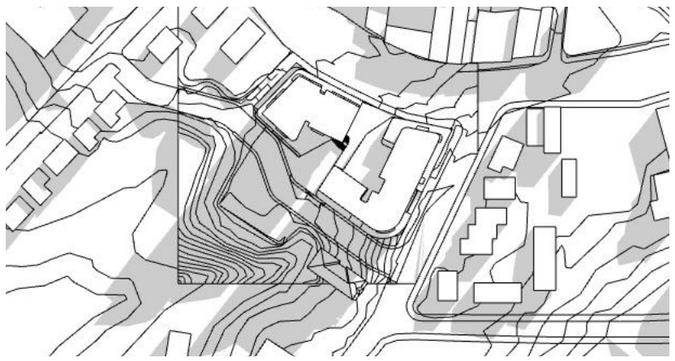
PREVIOUS SCHEME

June 21 - 9:00 am

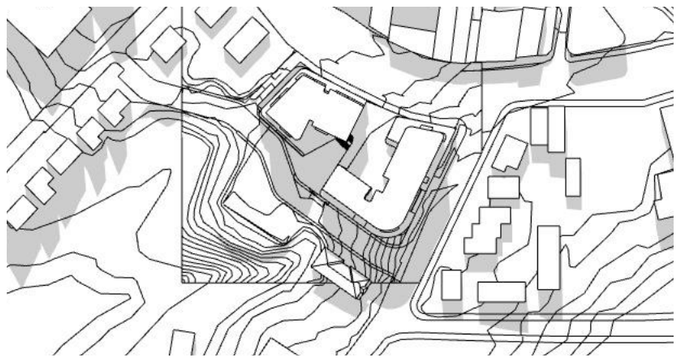
June 21 - 12:00 pm

June 21 - 3:00 pm

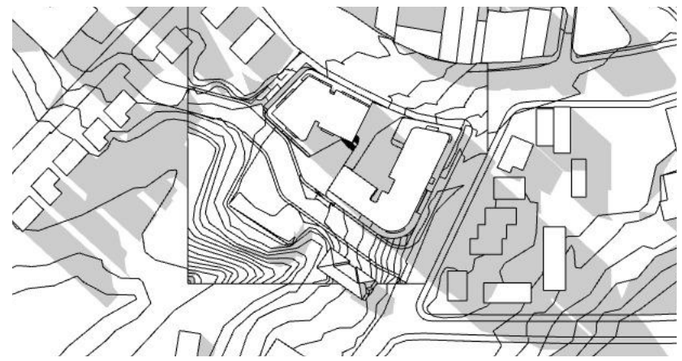
AMENDED SCHEME



June 21 - 9:00 am



June 21 - 12:00 pm



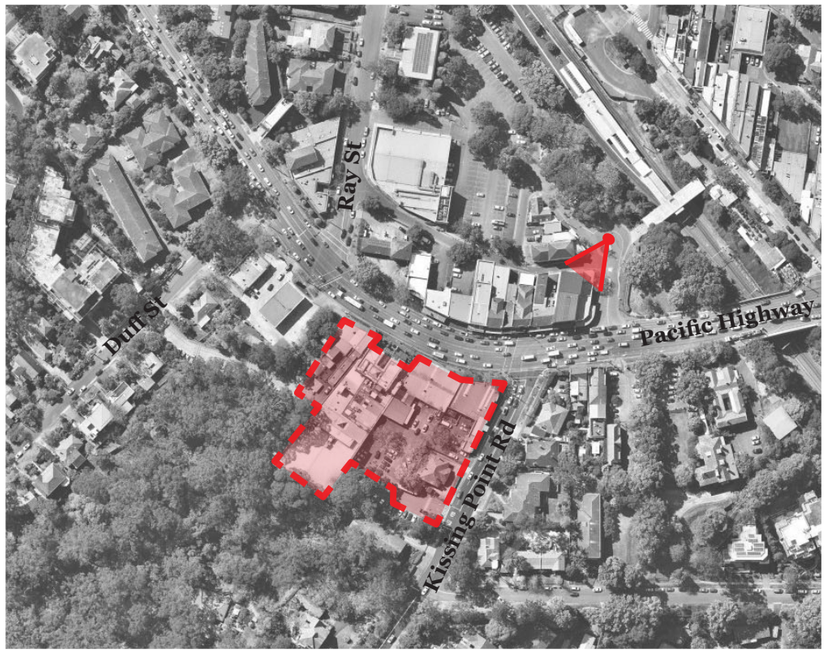
June 21 - 3:00 pm

SHADOW OF PREVIOUS SCHEME

SHADOW OF NEW SCHEME

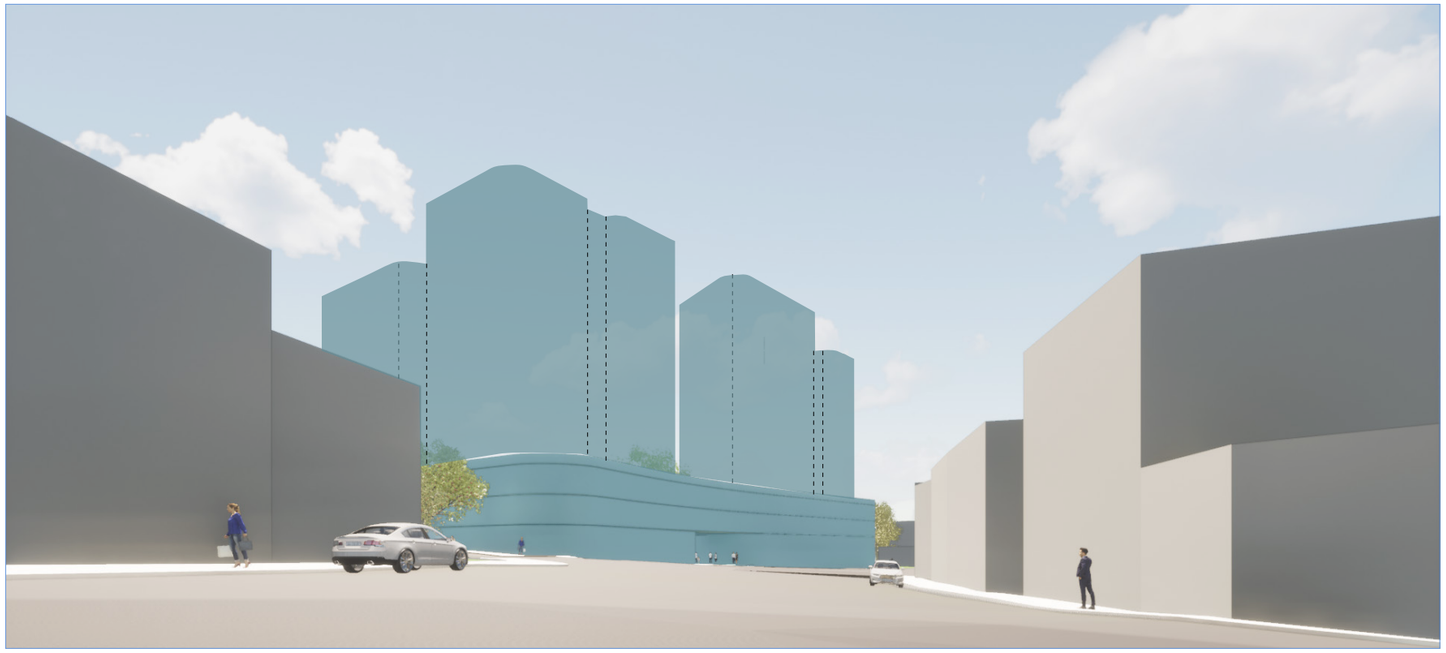
DESIGN RESPONSE
VISUAL IMPACT

View from Train Station looking south _ Previous Scheme

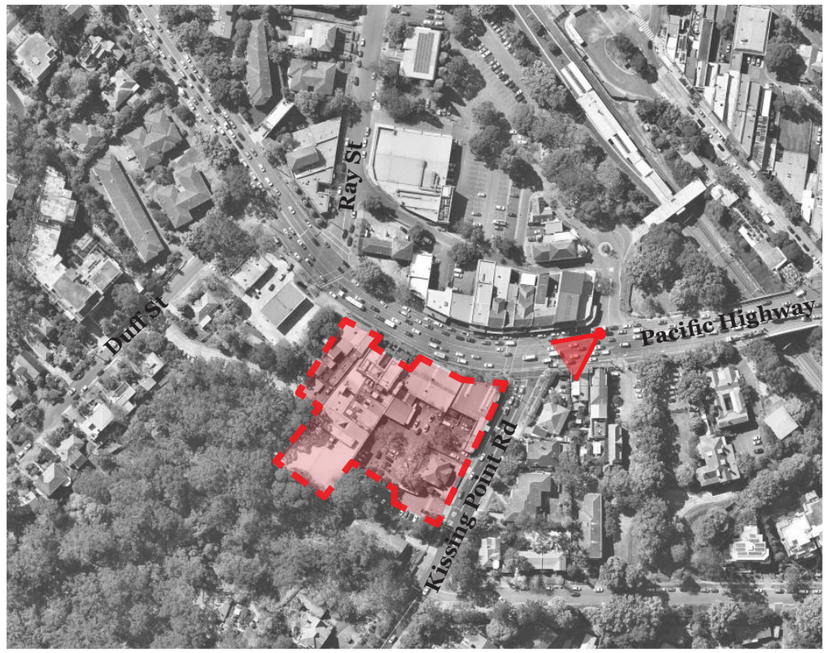


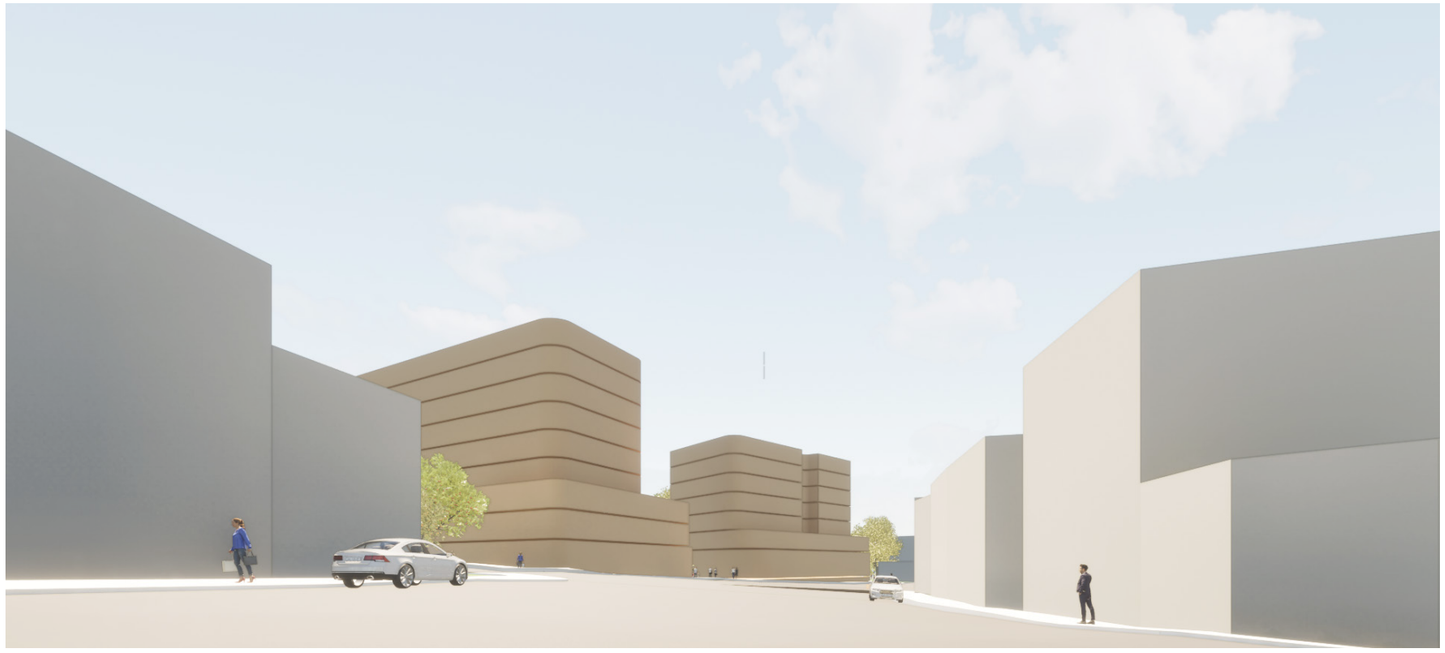
View from Train Station looking south _ Amended Scheme

DESIGN RESPONSE
VISUAL IMPACT



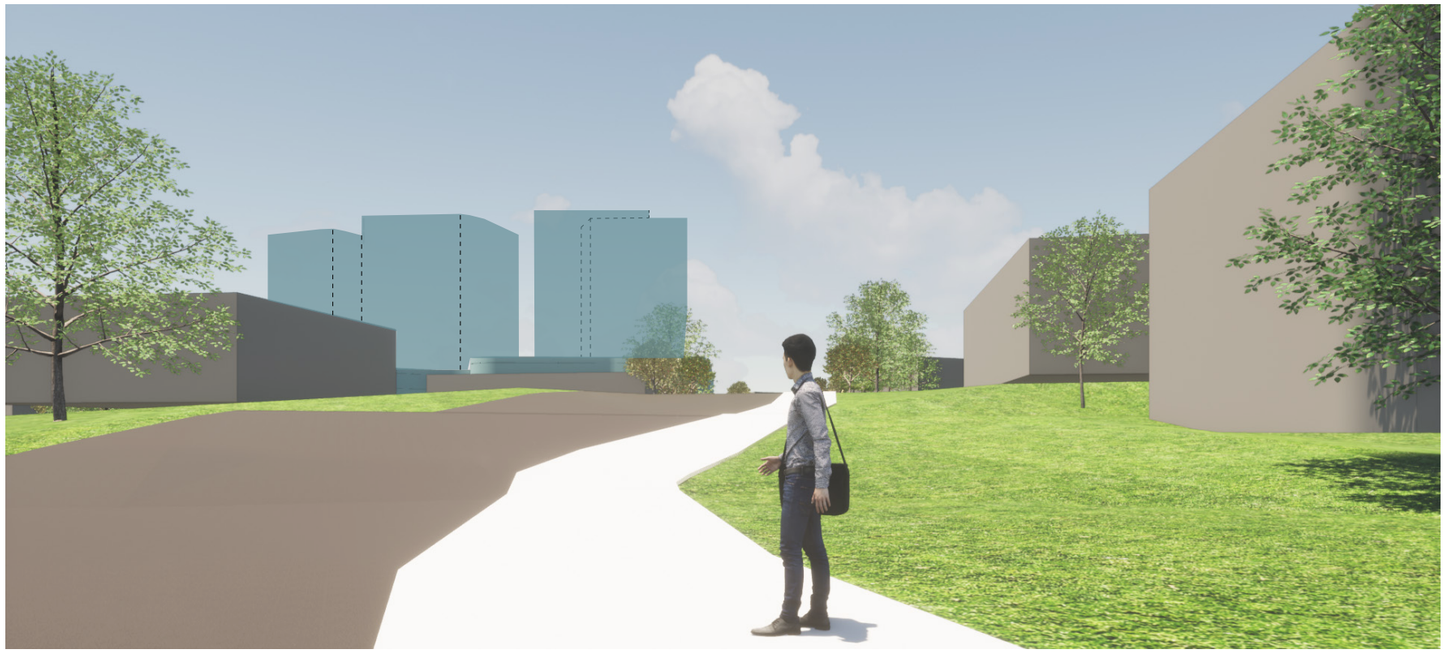
View from Pacific Highway looking west _ Previous Scheme





View from Pacific Highway looking west _ Amended Scheme

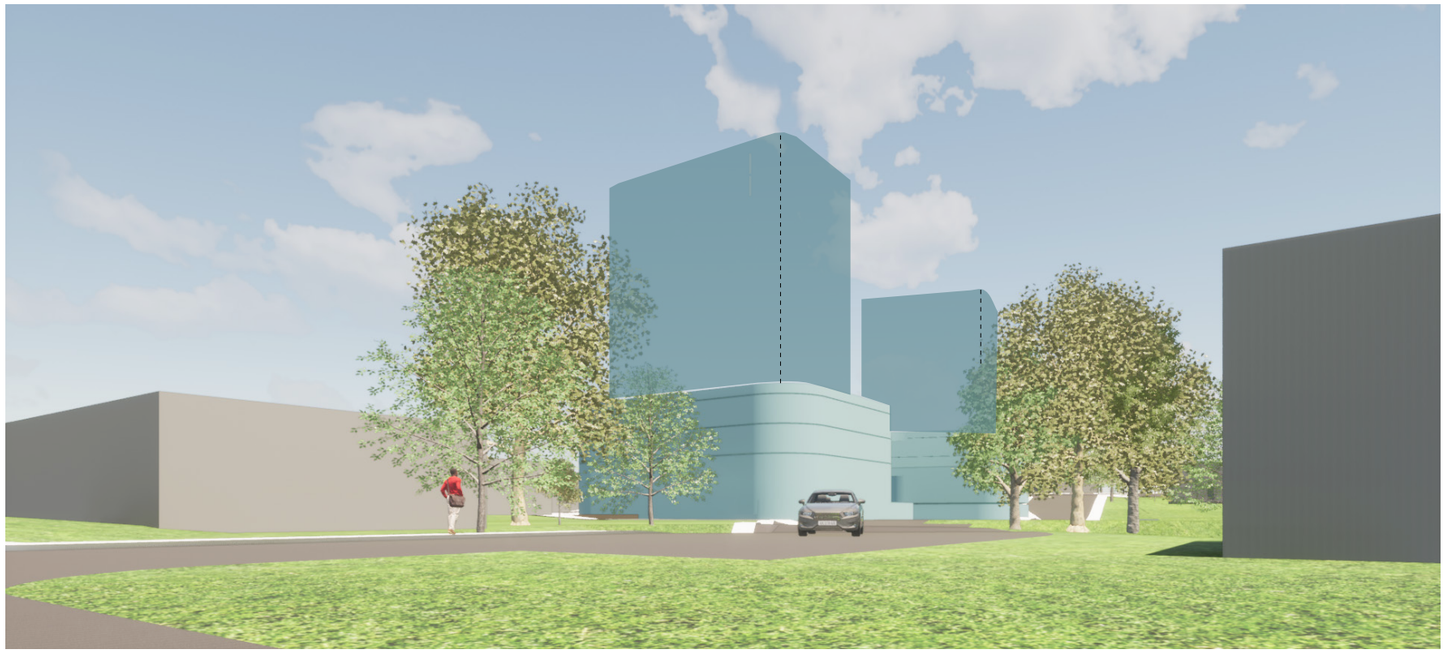
DESIGN RESPONSE
VISUAL IMPACT



View from Kissing Point Rd looking north _ Previous Scheme

View from Kissing Point Rd looking north _ Amended Scheme

DESIGN RESPONSE
VISUAL IMPACT

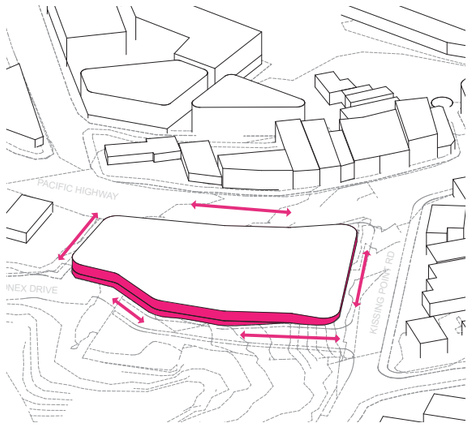


View from Duff Street looking east _ Previous Scheme

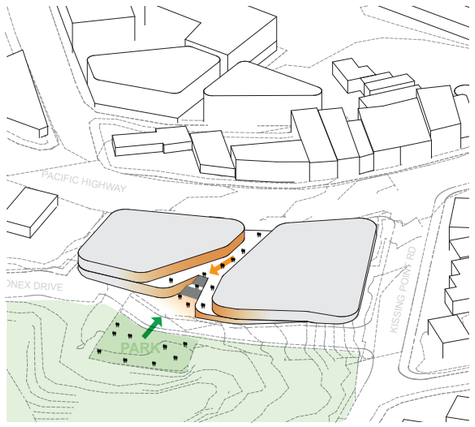
View from Duff Street looking east _ Amended Scheme

DESIGN RESPONSE
BUILT FORM STRATEGY & MASSING

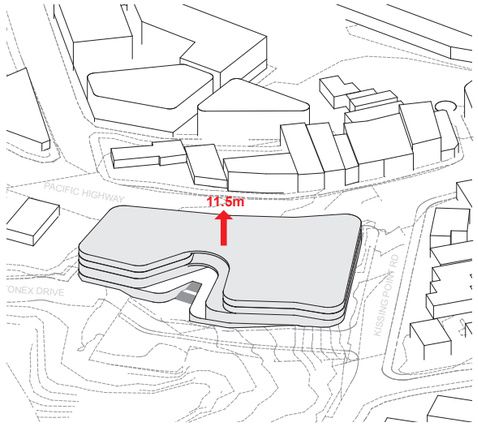
PREVIOUS SCHEME



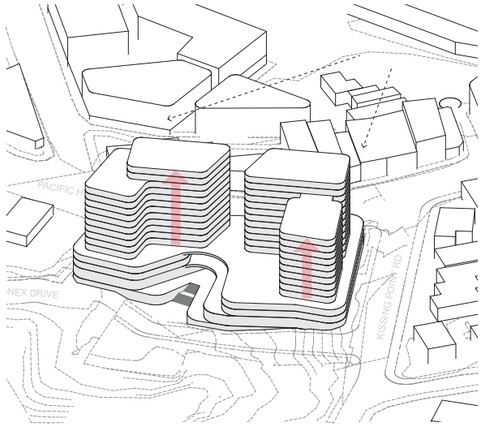
Step 01
activate edges



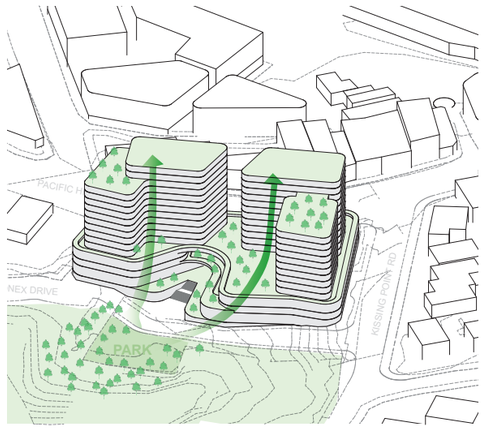
Step 02 - 03
integrate public park + civic plaza + retail base



Step 04
maintain 11.5m street wall

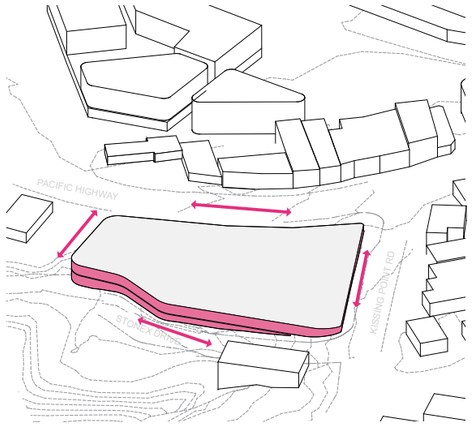


Step 05
create visual landmark

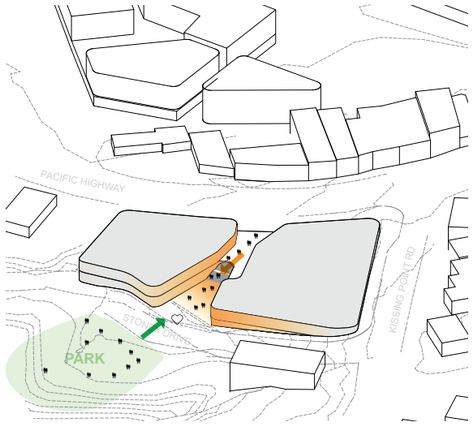


Step 06
extend the green

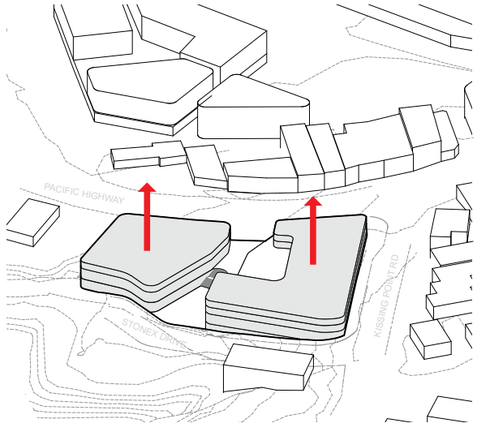
AMENDED SCHEME



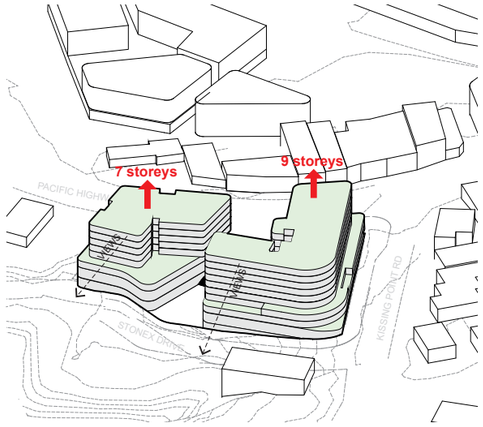
Step 01
activate edges



Step 02 - 03
integrate public park + civic plaza + retail base



Step 04
maintain 11.5m street wall



Step 05
create visual landmark

Step 06
extend the green

DKO