

AREA 22 & 23, ST LEONARDS SOUTH
26-50 PARK RD, 27-47 BERRY RD, 48-54 RIVER RD,
ST LEONARDS NSW 2065 (AREA 22 & 23)

DESIGN REPORT

DKO acknowledges that we gather, live, work and design on Aboriginal land.

We pay respect to the inspiration, wisdom and story of Country and the traditional owners and custodians of this land. We extend that respect to the elders past, present and emerging.

We are committed to creating places where people of all cultures are welcome, respected and have equal opportunity in the local community.

REPORT PREPARED BY

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Gadigal Country

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A
SEPP 65 REPORT

INTRODUCTION

DEVELOPMENT OVERVIEW

Our design concept provides a framework which responds intelligently and sensitively to its location and future urban context. The role of DKO's architecture is to mediate between the past, present and future of the site and surrounds, as well as to provide a proposal integrating landscape and built form.

This SEPP 65 Design Report has been prepared by DKO Architecture on behalf of JQZ and forms part of a Development Application to be submitted to Lane Cove City Council.

It is to be read in conjunction with the corresponding Architectural drawing set.

This report evaluates the proposal against the Design Quality principles outlined in SEPP65. This includes the proposal's architectural character, interface with public domain and adjacent neighbours, building mass and scale, and amenity for future residents as well as the surrounding community.

The report also addresses Design Review Panel comments and responses, and ADG compliance.



1.0 CONTEXT & NEIGHBOURHOOD CHARACTER

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Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Responding to context involves identifying the desirable elements of an area’s existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.

Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

RESPONSE

The subject site is located at 26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd St Leonards NSW 2065. St Leonards South is a 6-hectare precinct located south-west of the St Leonards Strategic Centre, recently rezoned from a low density residential precinct to R4 High Density Residential.

The existing housing precinct is bounded by the rail line south of St Leonards Station, Marshall Avenue, the eastern side of Park Road and the northern side of River Road. The total site area is 11,557m², split into 6,755m² in Area 23 and 4,802m² in Area 22.

The local open space context includes Gore Hill Oval (3.3 Ha) to the North-west and Newlands Park (1 Ha) to the South-east.

RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES	
3A	SITE ANALYSIS
3A-1	Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.
3B	ORIENTATION
3B-1	Building types and layouts respond to the streetscape and site while optimising solar access within the development
3B-2	Overshadowing of neighboring properties is minimised during mid winter



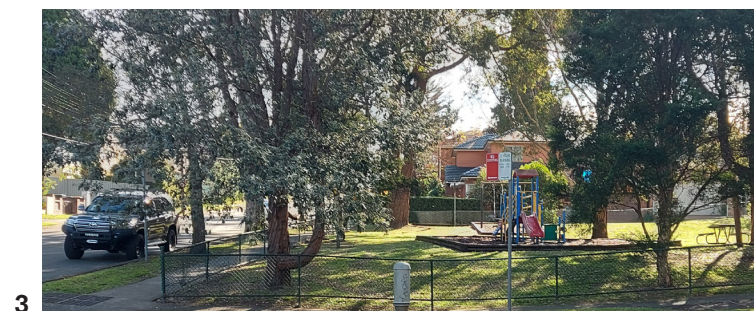


NEIGHBOURHOOD CHARACTER

The existing character is leafy and tranquil, defined by mature street trees and a steep existing topography. The street experiences a significant site fall of 16m on the west on Park Road, and 23m on the east on Berry Road.

The site interfaces single-storey early to mid-20th century brickwork bungalows, stepping down to the south with the topography.

Berry Lane is an existing road which splits the site.



2.0 BUILT FORM AND SCALE

SEPP 65

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

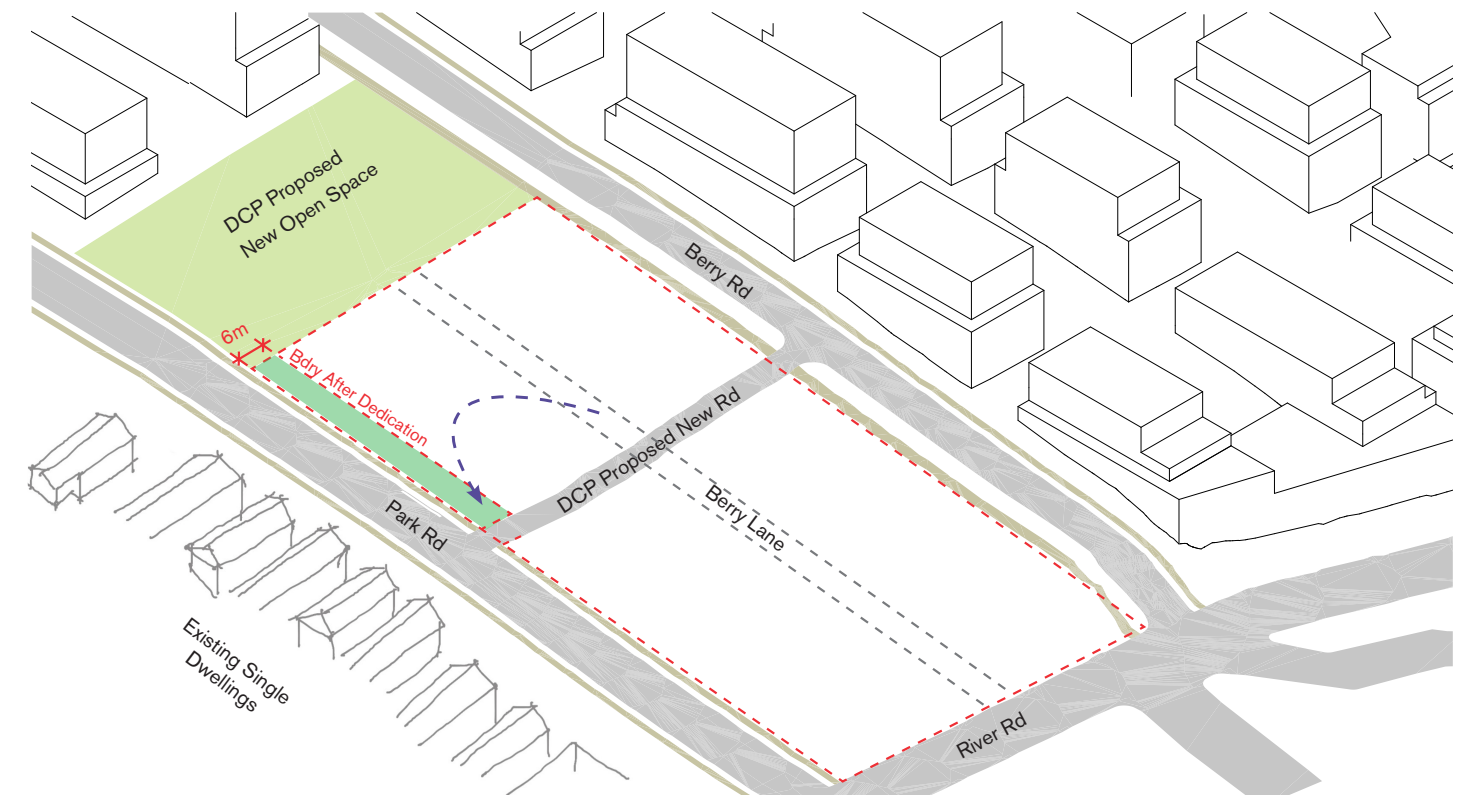
Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

RESPONSE

The proposal aligns with the Council's envisaged future scale for a high residential density development. The proposed building form is a considered contextual response that addresses the existing streetscape, orientation, views, planning and density requirements.

- sufficient site permeability
- setbacks
- modulation along courtyard interfaces
- entry points
- podiums addressing Park Road

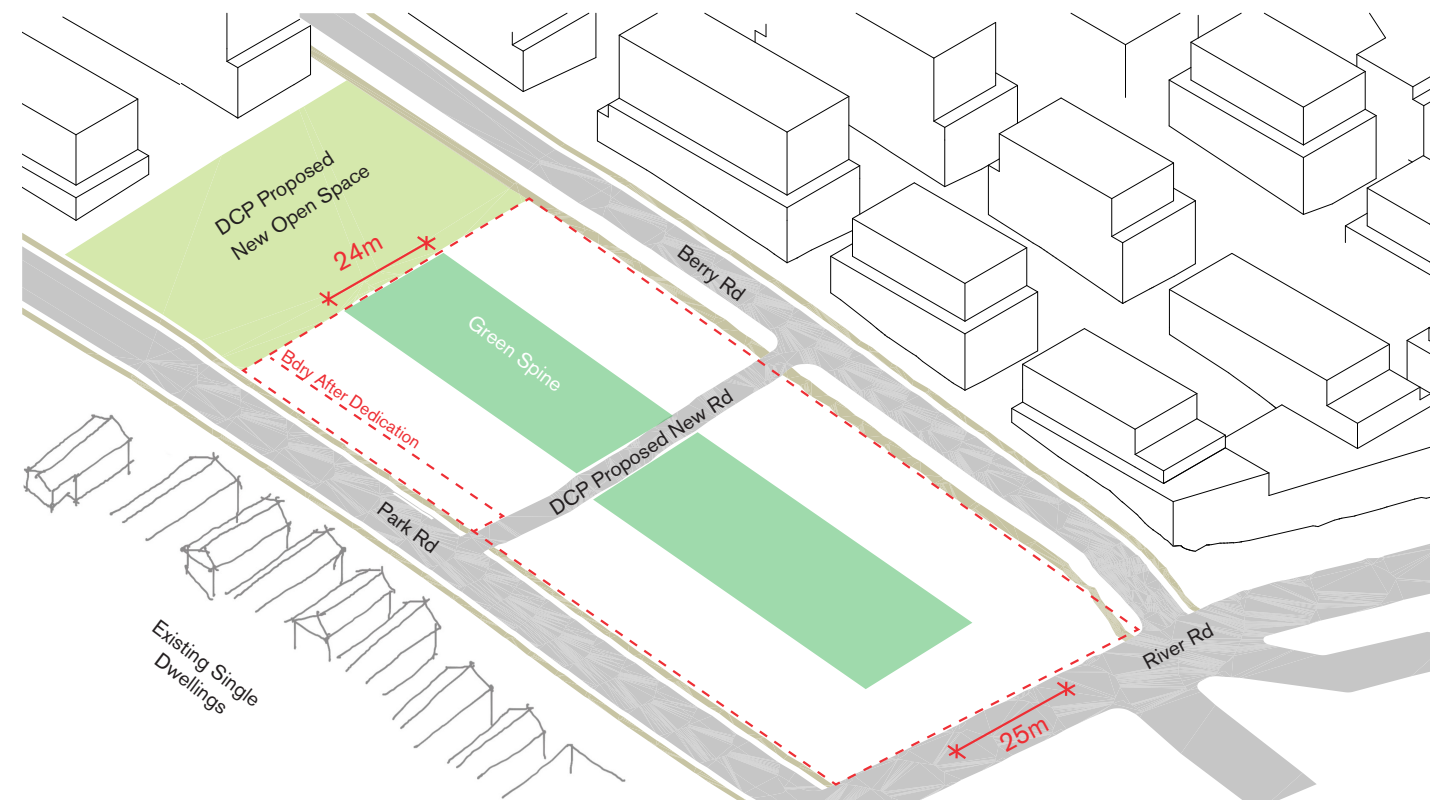
A summary of the development of the massing is demonstrated in the adjacent diagrams.



SITE AMALGAMATION AND ADJUSTED BOUNDARY

Amalgamation of lots to prevent land fragmentation or isolation. Berry Lane is removed, and dedicated to the Park Road.

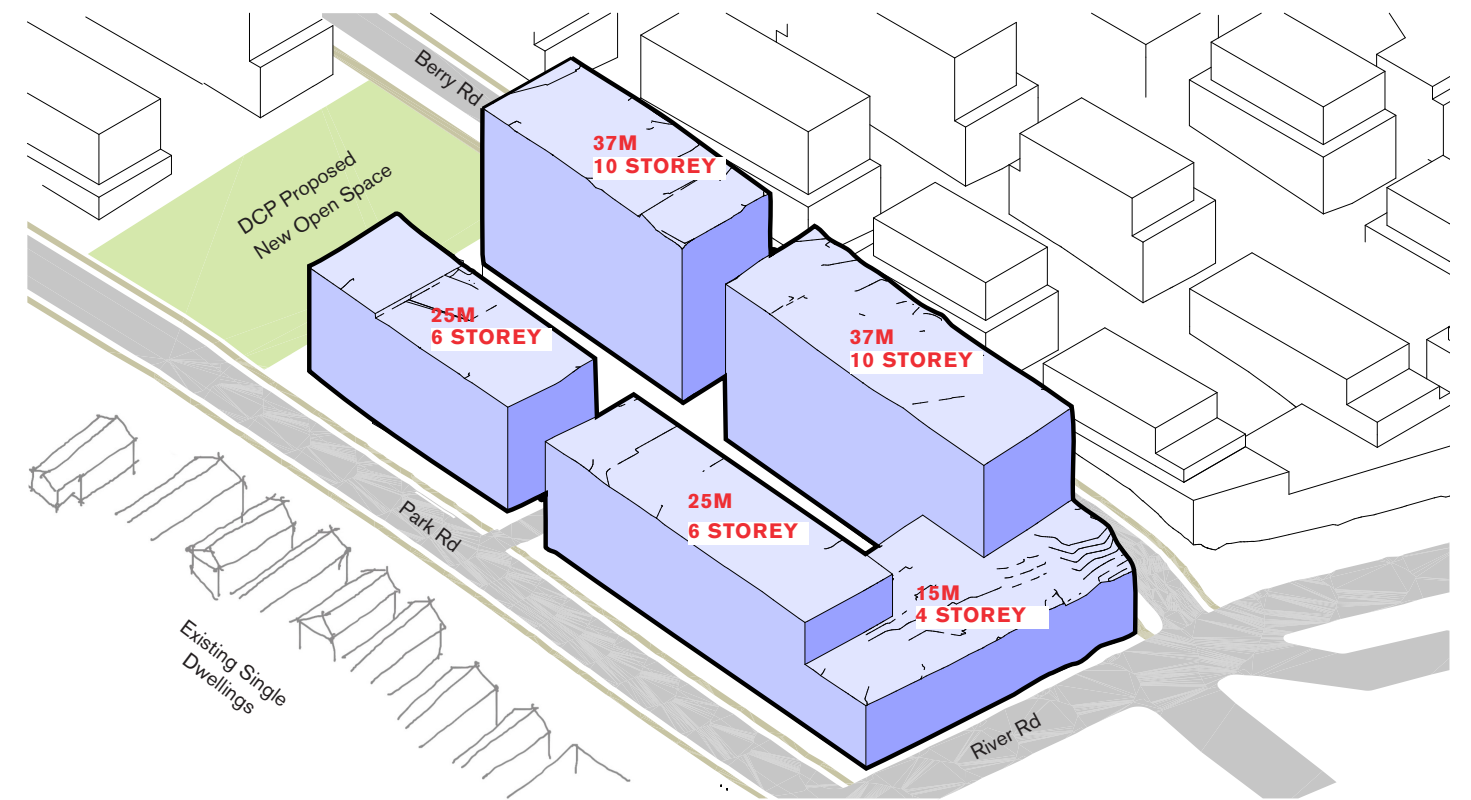
As a single development, there are opportunities to minimise services inactive facades to a single location as well as minimise vehicular and services entry to the carpark in a single location.



GREEN SPINE

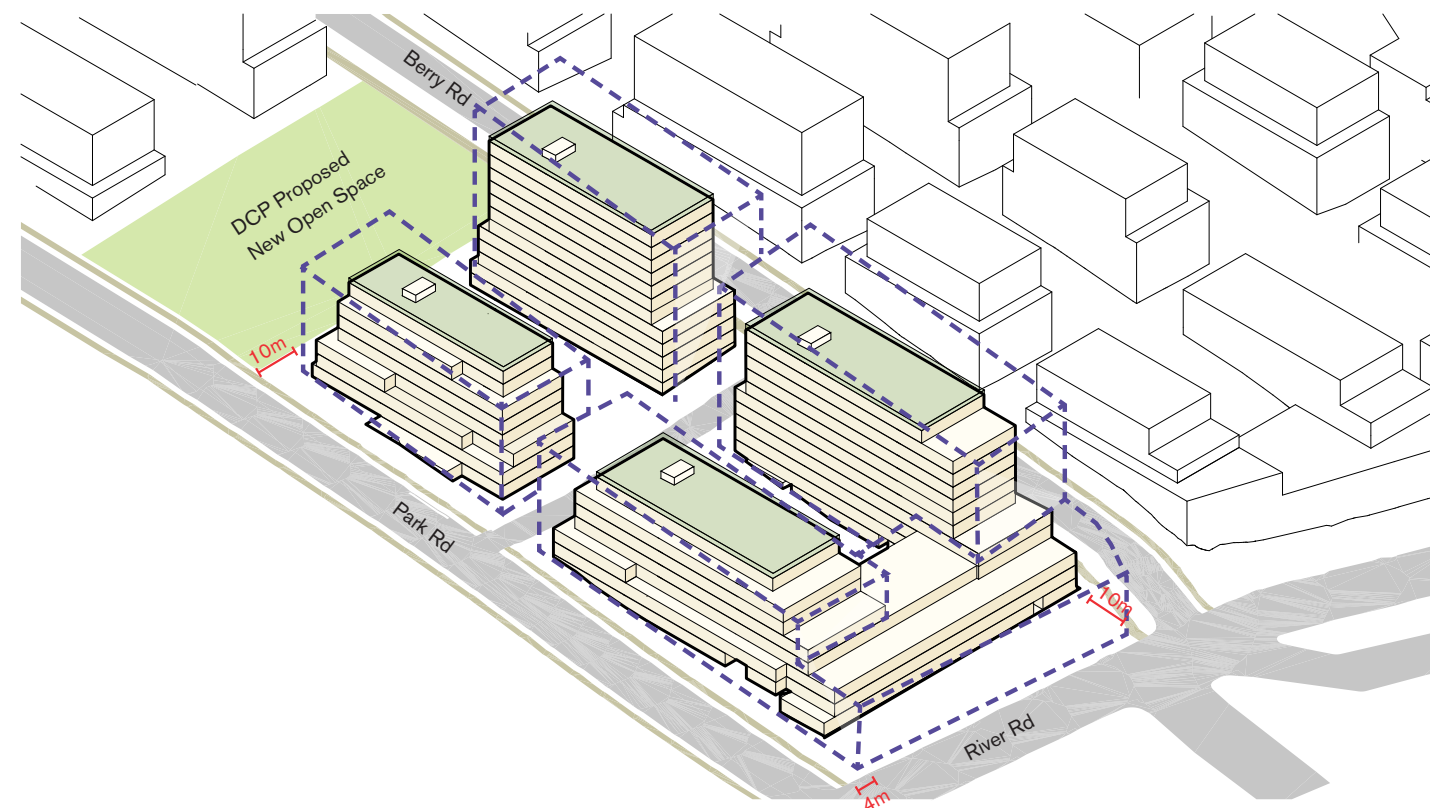
24m green spine allocated to Area 22 and 25m green spine allocation to Area 23. This also responds to the proposed new green space in the DCP to the north of the site.

The green spine also doubles as communal space area for the development, centrally located and equally accessible to all residents.



LEP ENVELOPE & STOREY CONTROL

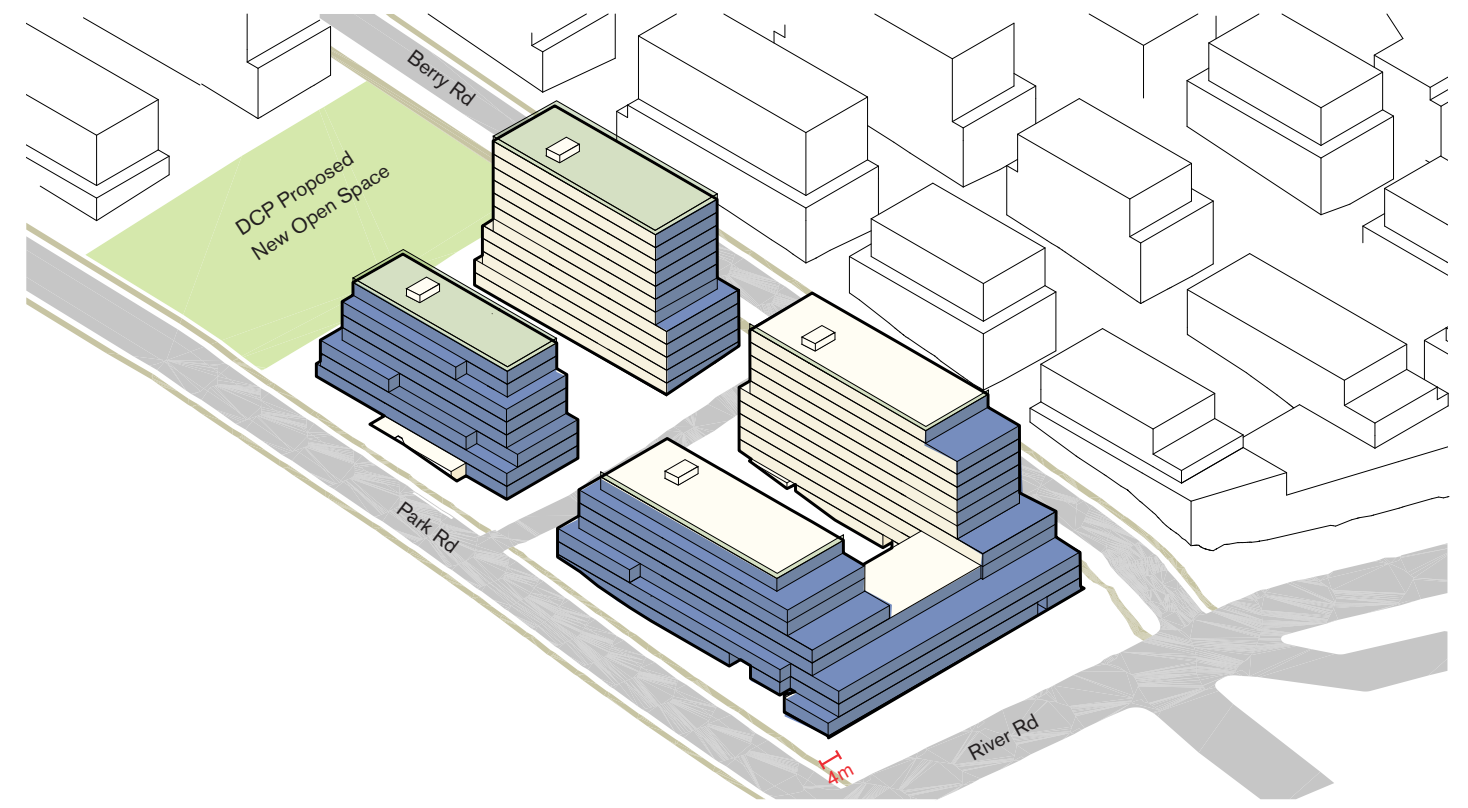
The massing steps down towards Park Road and River Road precinct boundaries to respond to the existing surrounding context of single storey dwellings west of Park Road.



DCP COMPLIANT MASSING

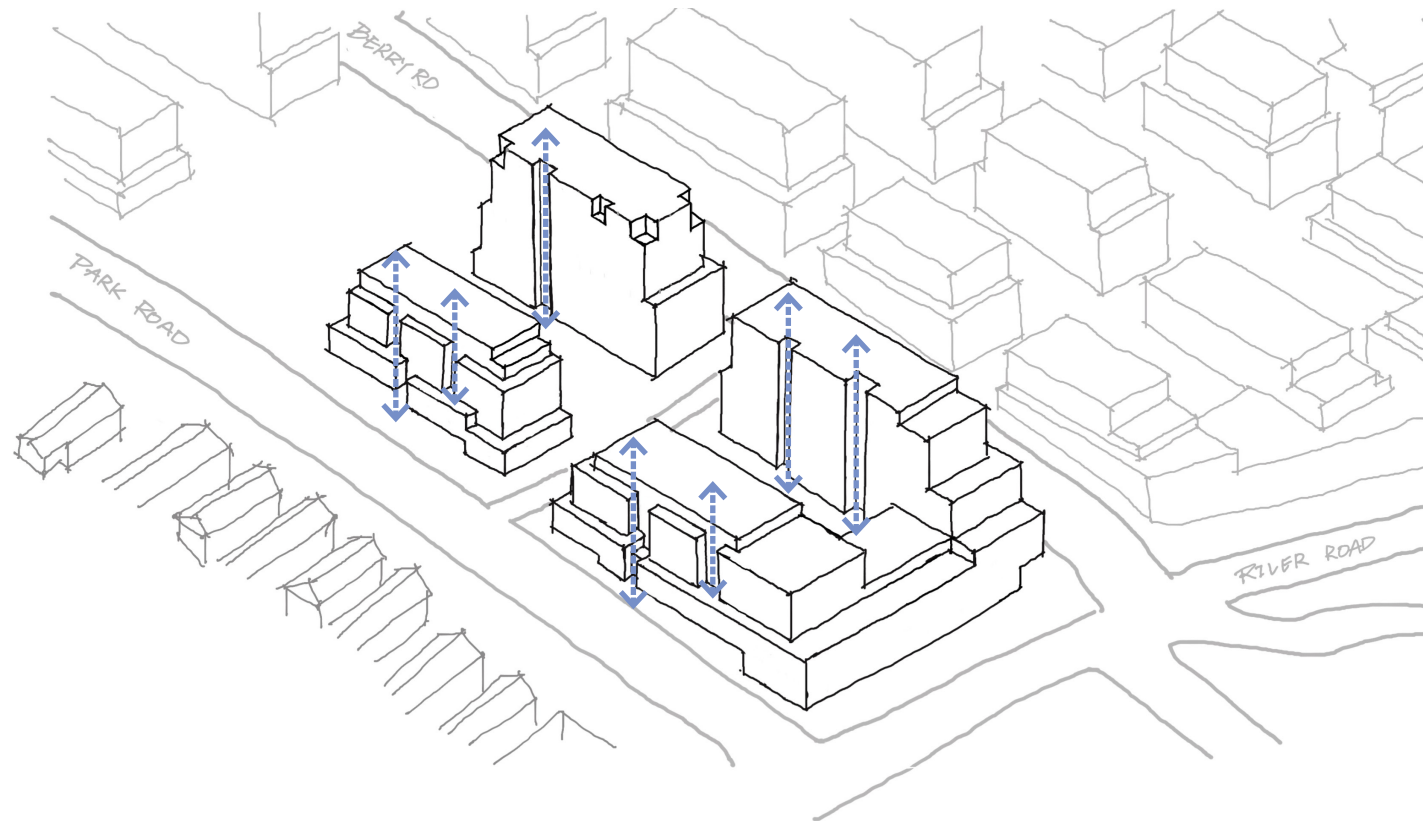
As per DCP requirements, the current massing complies with all street and interface setback requirements ranging from 4-10m street setbacks.

Upper levels setback a further 3m on the podium and a further 3m on levels 6-8 and above on Park Road and River Road as it interfaces with single dwellings creating a natural tripartite composition.



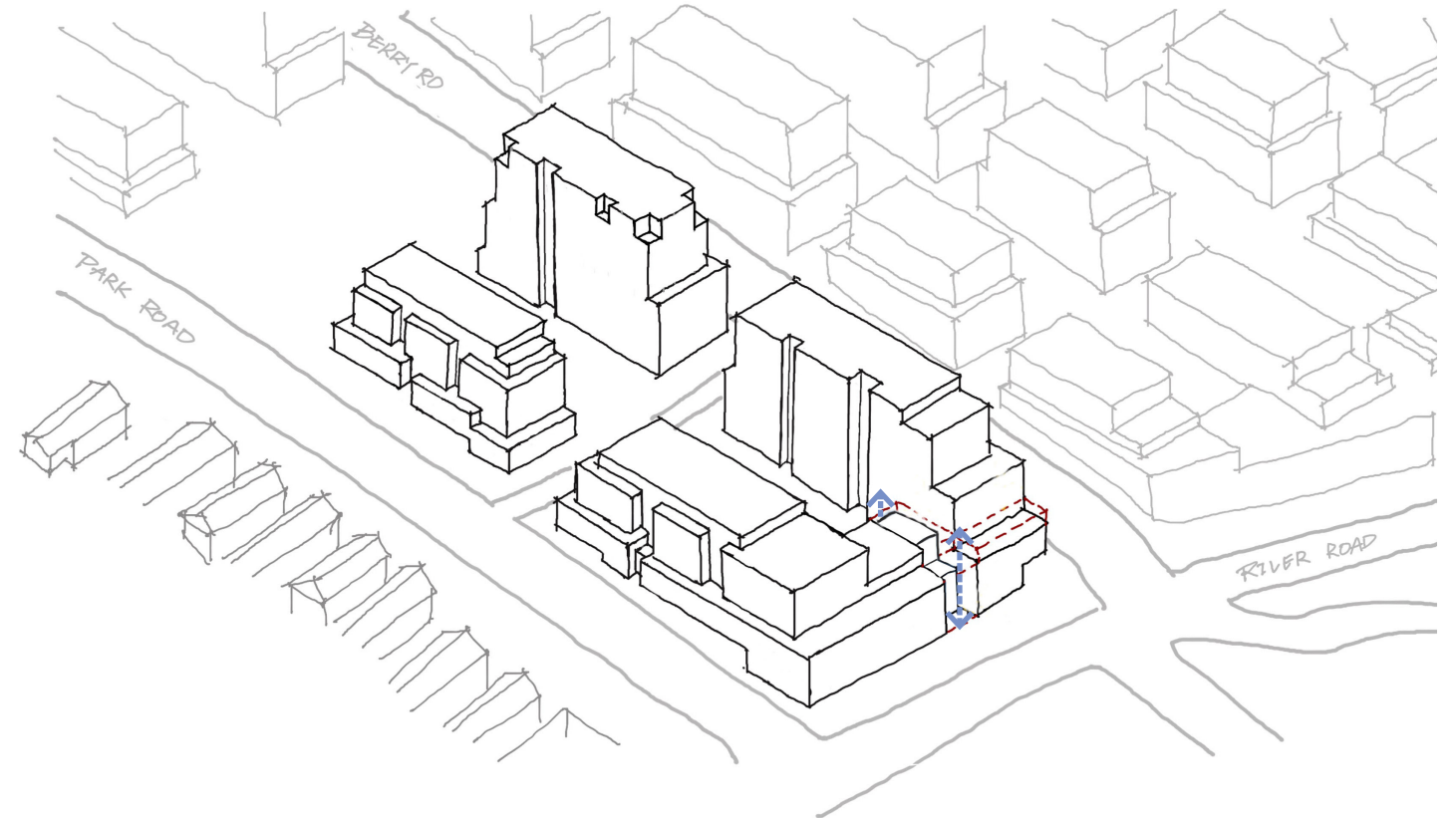
ARTICULATION ZONE

As per the DCP, the design proposes a 500mm facade articulation zone of 500mm to every interface facade but to the Green Spine where the articulation is 0, as discussed with council.



TRIPARTITE COMPOSITION

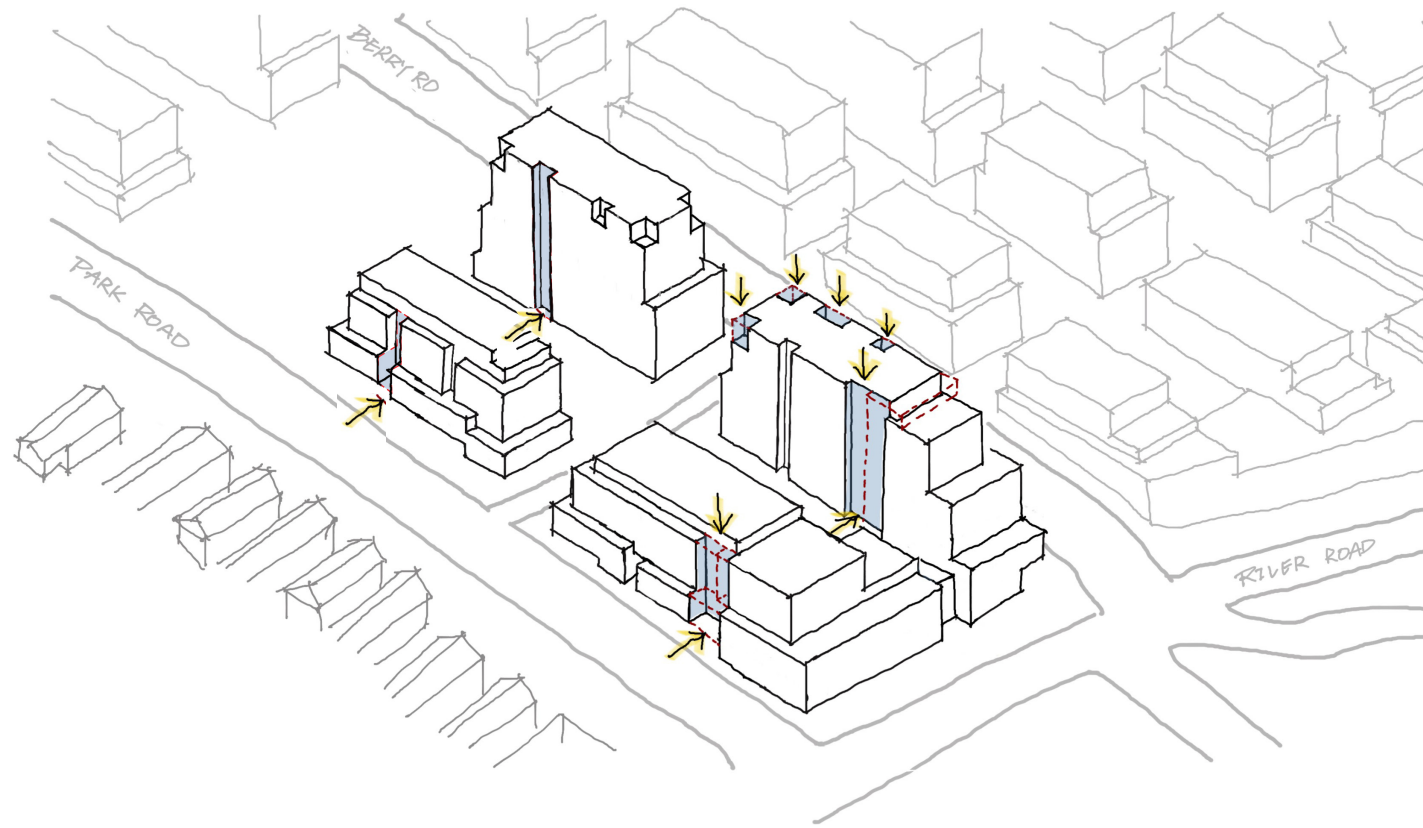
Large additional continuous vertical recesses further minimises the perceived scale and bulk whilst creating cross ventilation opportunities to the apartments.



AREA 23 PERMEABILITY

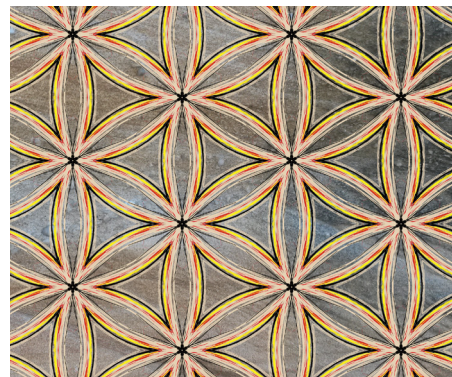
The facade building language break on River Road's southern facade providing a change in scale between building A and B.

Furthermore, it helps to mitigate the scale of the development as it interfaces with single dwellings south of River Road.

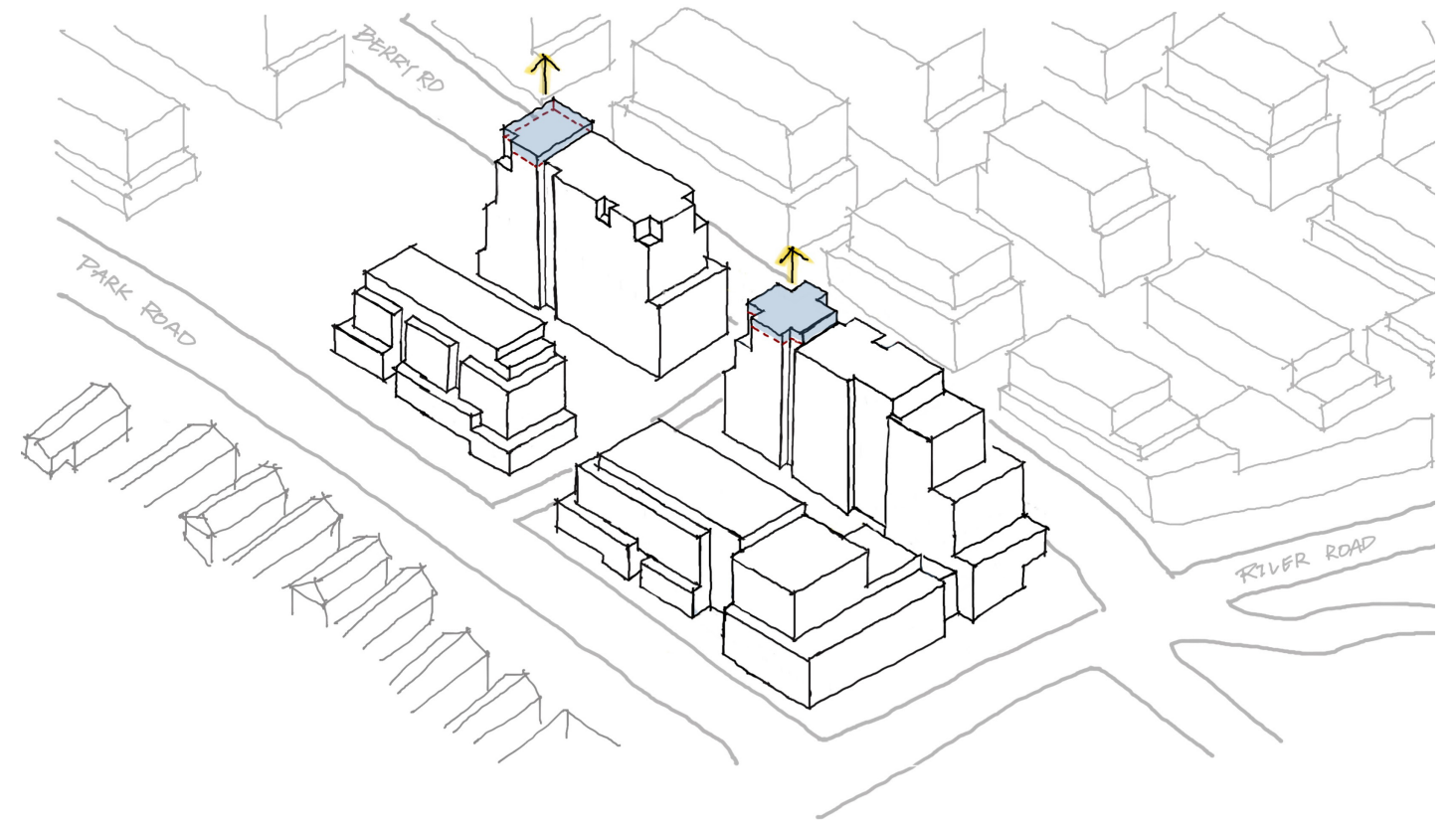


CONNECTING TO COUNTRY - GROUND PERMEABILITY

As a key Connecting to Country narrative is the symbol of the tessellating 'Sacred Geometry - Flower of Life' motif symbolising the cycle of creation and unity of all people. These become key important moments within the ground plane as a pathway and journey is carved out bringing all people together to the communal spaces. This is articulated as larger vertical recesses to further minimise perceived mass and bulk and entries in the built form.



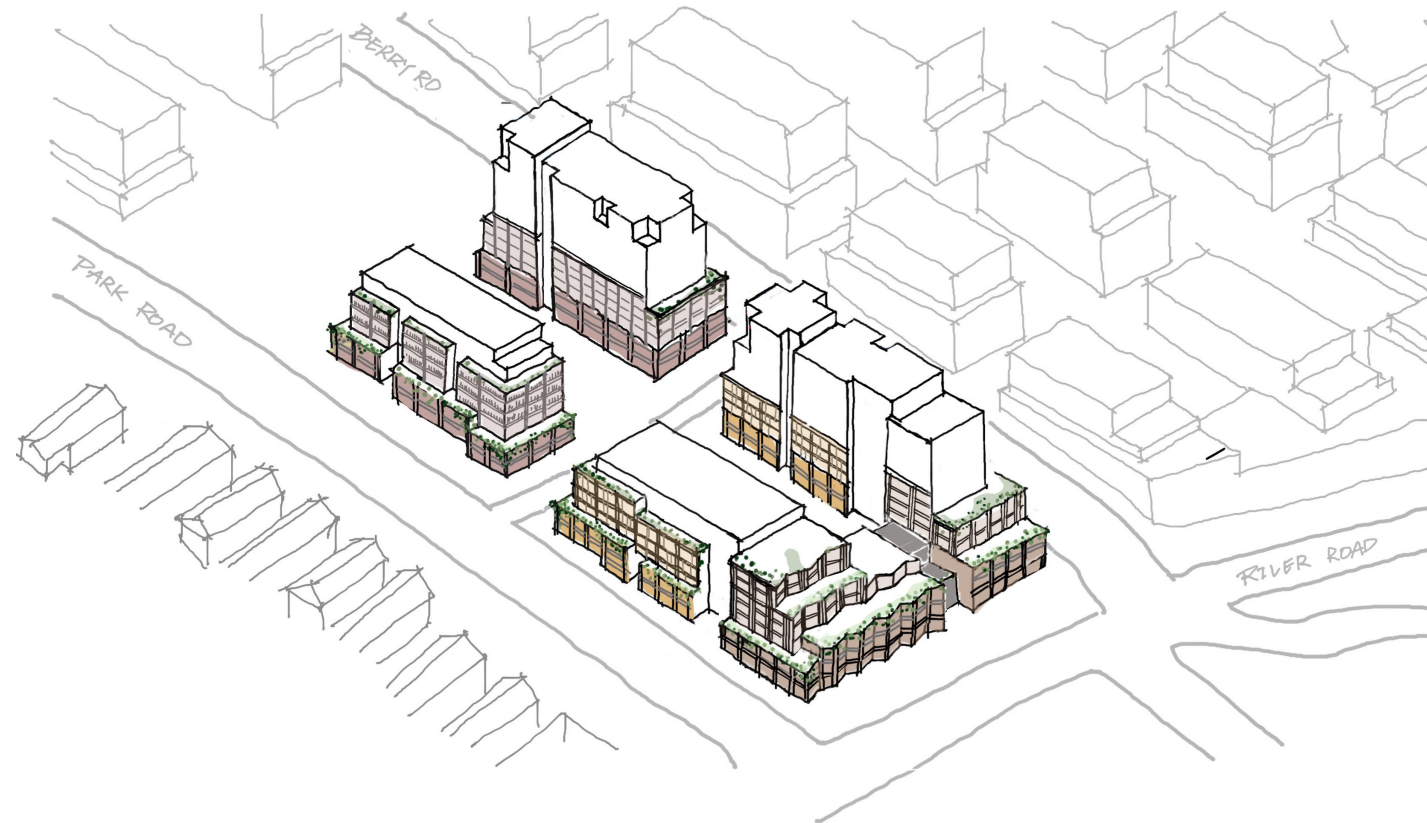
Source: FCAD



ROOF ARTICULATION

Articulating the roof on key corners with its own identity in Building B and Building D.

Communal open space is also provided on the roof on Area 22 to capture view opportunities to the CBD and provides a variety of communal spaces in addition to the ground plane.



TRIPARTITE IDENTITY

Each modulation is given its own facade identity and materiality to create an articulated form which provides a scale that speaks to its site conditions as it interfaces with larger developments to its east and single dwellings to the west. At the base, the facades have an additional filligree with a more human scale on the ground plane.

The facades also provide passive solar shading to minimise energy use in the development as a key sustainability measure for the development.



CONTINUOUS GREENERY

Landscaping from adjacent future local park continues through the green spine communal spaces as a seamless ground plane.

All rooftops and podium setbacks are greened as well to soften these edges and adds to the character of the leafy surbaban areas of the North Shore.

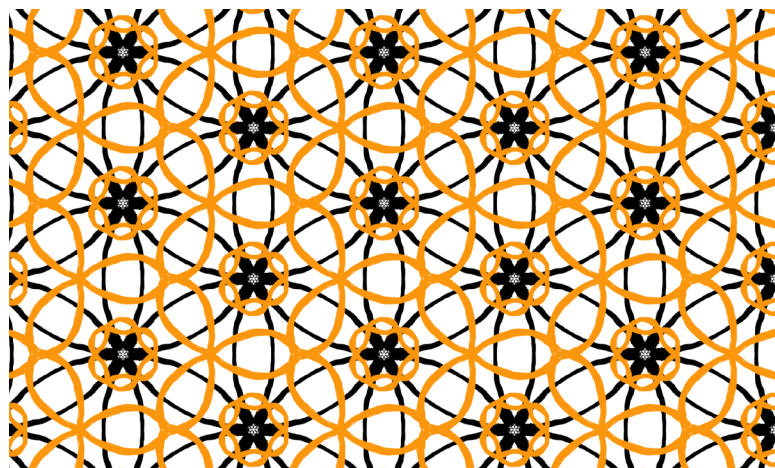
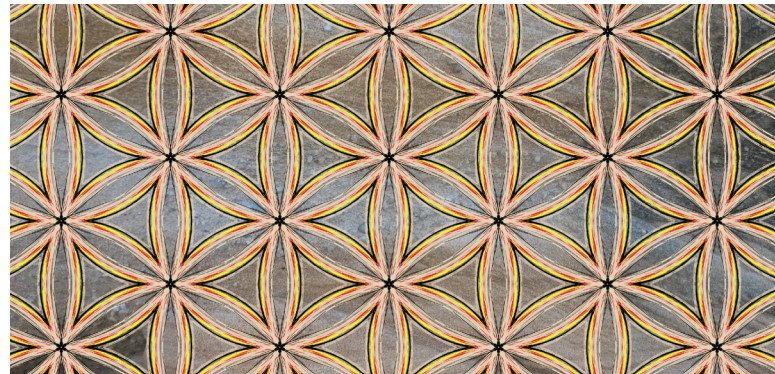
Extensive planting also minimises urban heat island effect on the ground floor and heating on the rooftop levels.

CONNECTING WITH COUNTRY

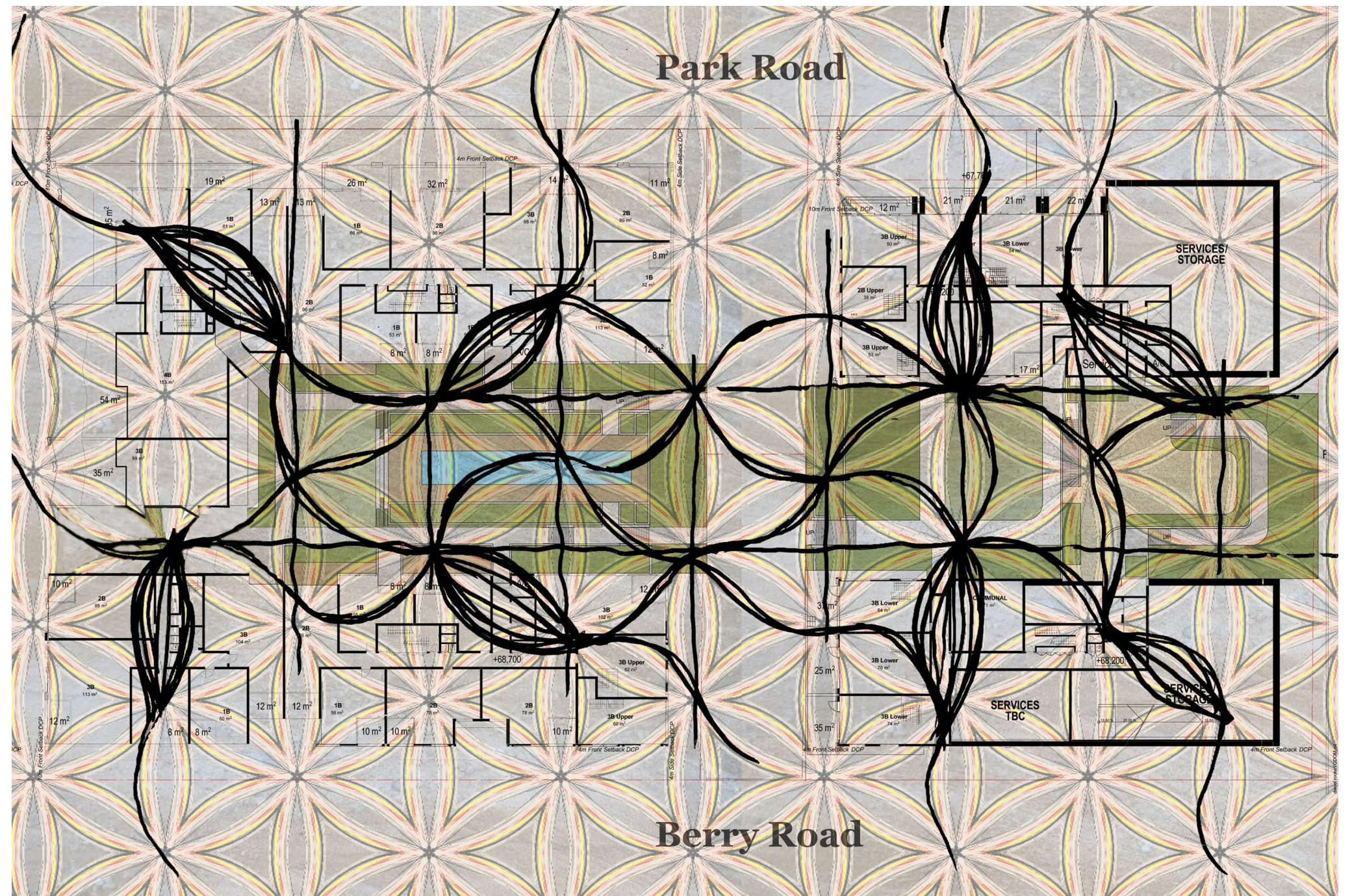
The tessellating 'Sacred Geometry- Flower of Life' motif symbolises the cycle of creation and unity of all people. It supports the intermingling of different cultures.

This is reflected in the ground plane through the interconnectedness of communal spaces and entry points.

A journey is carved out through the built and natural form which entices visitors and residents to use facilities, pathways and open gathering spaces.



Source: FCAD



GROUND PLANE PERMEABILITY

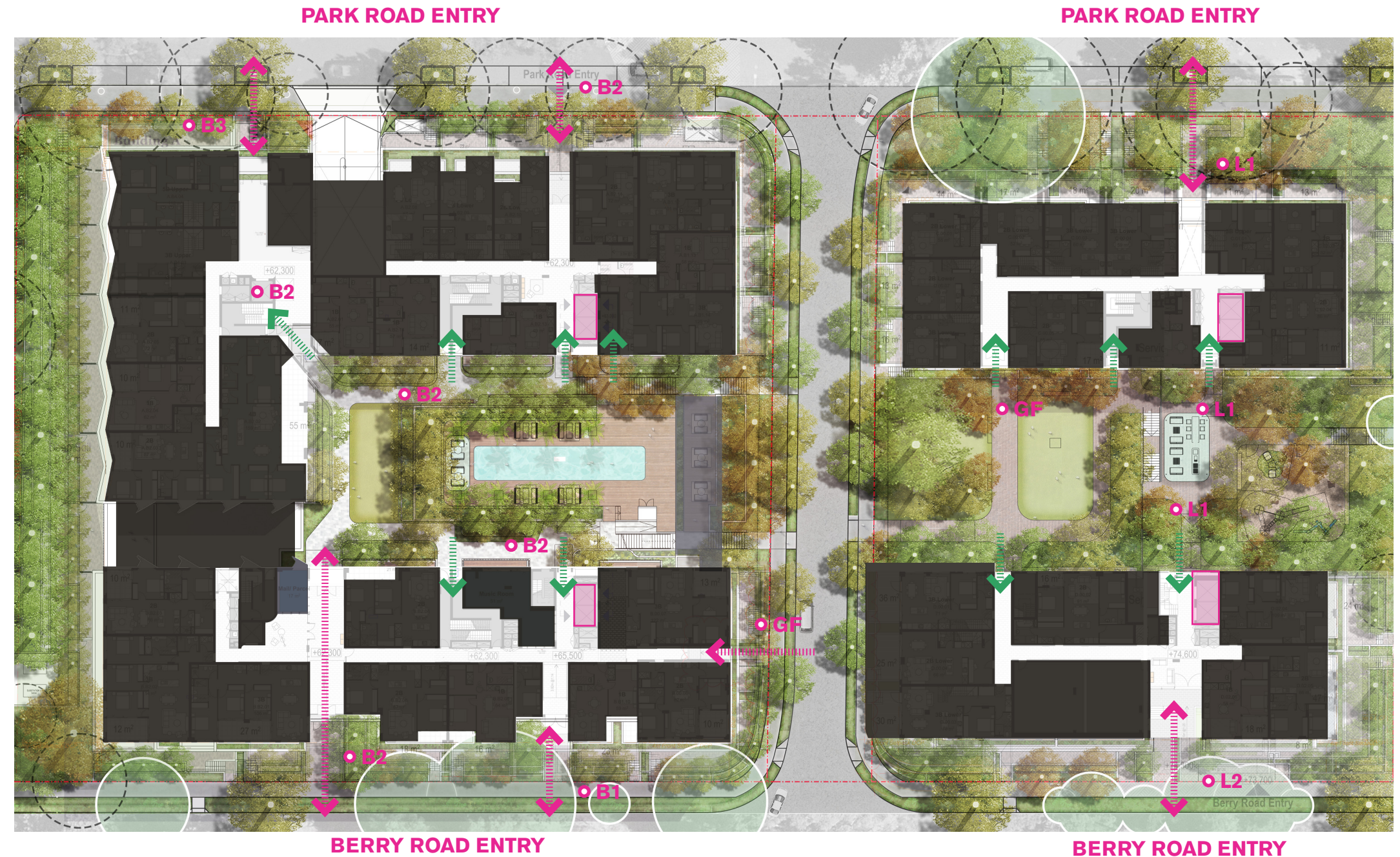
In line with the Connecting with Country concept, the proposal creates an activated and permeable ground plane which injects the built form with green amenity. A network of footpaths establishes a variety of welcoming spaces where people are invited to gather.

To improve pedestrian connectivity, through site links are created between Area 23 and Area 22 across the Proposed New Road.

The sloping topography produces an opportunity to establish visual and physical connectivity between multiple levels creating a variety of terraces along the communal green spine.

LEGEND

-  Entry points from road
-  Green spine entry points





View from Park Road looking east. Vertical recesses carved into the built form expressed as a journey through to the communal spaces at the centre of the development

3.0 DENSITY

SEPP 65

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

RESPONSE

The proposal presents a development of appropriate density and scale, consistent with the council controls and neighbouring developments.

The density of development on the site is controlled by the maximum total Floor Space Ratio (FSR) of 2.75:1. The proposal delivers a total residential GFA of 31,780m² on a site area of 11,557m², resulting in a FSR of 2.75:1, consistent with controls.

The proposal delivers a total of 306 apartment dwellings with a variety of apartment types.

The proposed density is further supported by the inclusion of generous indoor and outdoor communal amenity and an extensive green spine, services and employment opportunities in the immediate area.



4.0 SUSTAINABILITY

SEPP 65

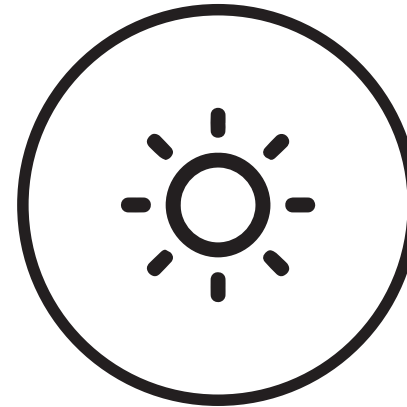
Good design combines positive environmental, social and economic outcomes.

Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.

RESPONSE

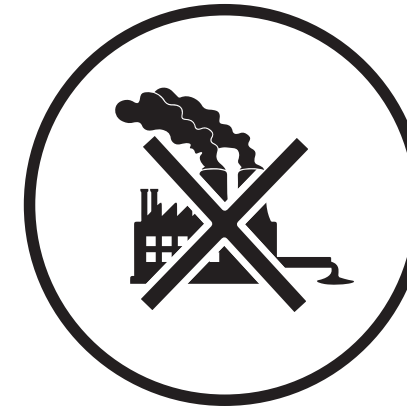
Sustainability is a key design driver for the development with a set of goals employed to create not only a sustainable building but also sustainable lifestyles including:

- Climate positive goals
- Electrification
- Circular economy
- Biodiverse habitation
- Water eco system



CLIMATE POSITIVE

The design employs a number of strategies to create a climate positive building and a climate positive lifestyle including a minimum of 6 Stars NatHERS for individual apartments



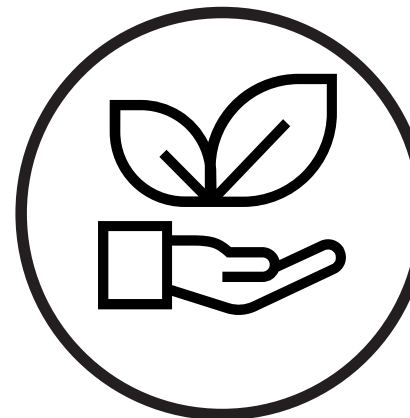
ELECTRIFICATION

Maximise opportunities for phasing out the burning fossil fuels on site as the default option for purchasers and base building services.



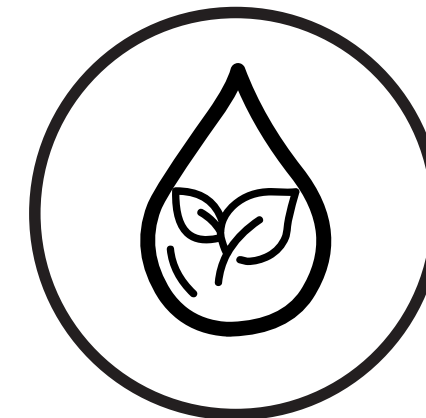
CIRCULAR ECONOMY

The design employs a number of strategies to encourage communal living and minimising waste.



BIODIVERSE HABITAT

Integration of communal roof top gardens and landscape areas throughout the development and investigation for private landscape areas where viable.



WATER ECO SYSTEM

Rainwater harvesting reused for landscape irrigation; explore additional water recapture opportunities onsite.

CIRCULAR ECONOMY - COMMUNAL SPACE

A variety of communal spaces are provided to encourage community and provide opportunities for greening of roofs

WATER ECO SYSTEM

Re-use harvested rainwater for landscape, irrigation.

Efficient showers, taps and toilets minimise water use.

CLIMATE POSITIVE - MOBILITY

All vehicles have immediate access to EV charging. Adequate substation capacity is provided for future EV expansion.

Car share and bike share provisions encourage car free living.

BIODIVERSE HABITAT

Worm farms and composting facilities are provided to treat organic waste on-site.

Maximise the planting of native landscaping to minimise rainwater runoff, capture airborne pollution and particulate matter and enhance biodiversity.



CLIMATE POSITIVE

Minimise operational energy through climate responsive design, such as high performance insulation, to minimise heating and cooling demands

Optimise all façades to shade glazing and reduce cooling energy use yet provide high quality daylighting

CLIMATE POSITIVE

Solar PV is installed to the maximum possible extent on rooftop space. 100% of Renewable energy supplied offsets energy demand of communal spaces.

CIRCULAR ECONOMY - ELECTRIC COMMUNAL AREAS

Communal electric BBQs with 100% electric communal facilities.

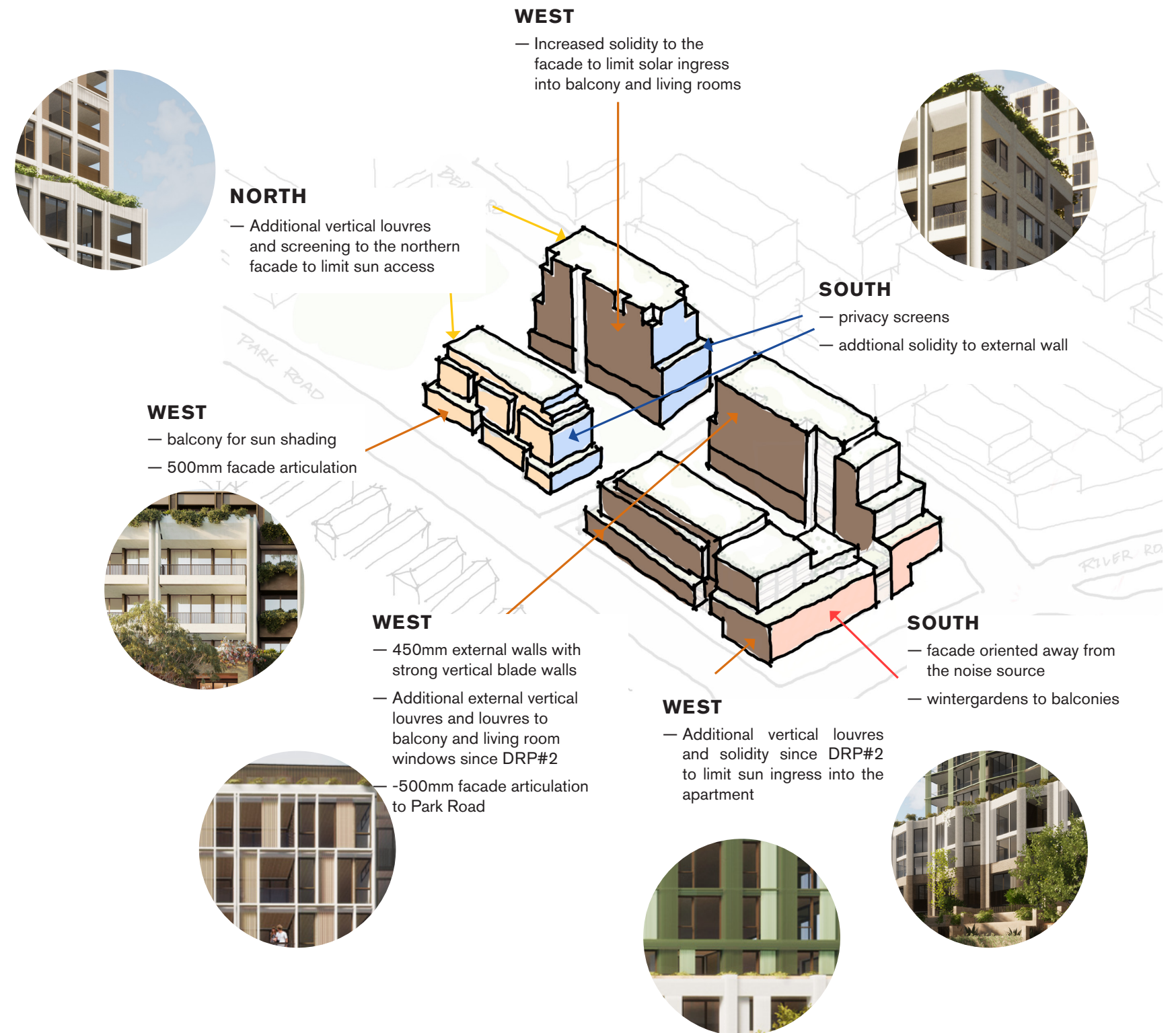
CIRCULAR ECONOMY

Bike repair facilities including a bike workshop minimises waste and encourages a sense of community for the residents.

4.1 PASSIVE SOLAR SHADING

Passive solar shading is a key part of the facade design process to minimise solar radiation on the glazing.

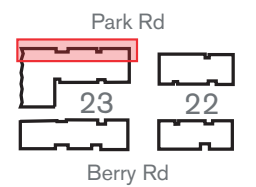
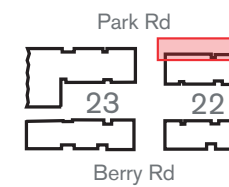
The developed solar shading strategy for the facades seeks to balance a consideration of solar ingress while maximising views, and a product of extensive analysis of the differing orientation conditions. The following diagrams analyses the solar heat gain which differs with orientation.



PRINCIPLE 4
SUSTAINABILITY

The proposal conducted extensive analysis including checking internal views to ensure 2hrs sunlight access to meet ADG requirements, in conjunction with the passive solar shading measures.

Further analysis was conducted with our BASIX consultant to ensure compliance.



WESTERN FACADE STRATEGY - AREA 22



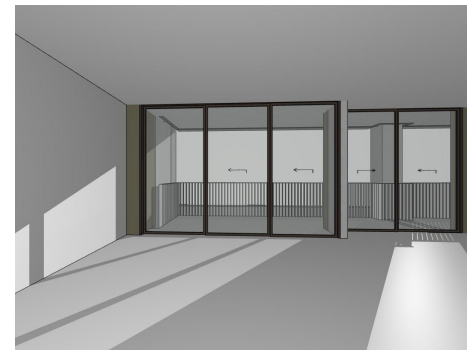
1PM DEC 21ST



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WESTERN FACADE STRATEGY - AREA 23



1PM DEC 21ST



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1PM JUN 21ST



3PM JUN 21ST

5.0 LANDSCAPE

SEPP 65

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, microclimate, tree canopy, habitat values and preserving green networks.

Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical establishment and long term management.

RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES		RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES	
3C	PUBLIC DOMAIN INTERFACE	3E	DEEP SOIL ZONES
3C-1	Transition between private and public domain is achieved without compromising safety and security.	3E-1	Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality.
3C-2	Amenity of the public domain is retained and enhanced.		
3D	COMMUNAL AND PUBLIC OPEN SPACE	40	LANDSCAPE DESIGN
3D-1	An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.	40-1	Landscape design is viable and sustainable
3D-2	Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.	40-2	Landscape design contributes to the streetscape and amenity.
3D-4	Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.	4P	PLANTING ON STRUCTURES
		4P-1	Appropriate soil profiles are provided.
		4P-2	Plant growth is optimised with appropriate selection and maintenance.
		4P-3	Planting on structures contributes to the quality and amenity of communal and public open spaces.

RESPONSE

Landscape has been integrated throughout the ground plane and built form to provide significant amenity whilst enhancing the existing green character of the precinct.

Building on the existing green amenity, additional vegetation is used to create diverse spaces and micro-climates to enhance habitat and biodiversity. The landscape contributes to the sharing of First Nation perspectives of place and site, exclusively using Indigenous species.

The public domain response encourages activation through designing at a fine grain scale. Well considered and diverse communal open spaces provide equitable access, usability and social interaction.

Further information on the landscape design and concept is outlined in the accompanying report prepared by Turf.

COMMUNAL OPEN SPACE

The green spine and rooftop landscaping provides a range of amenities providing well-considered areas for passive recreation, play and gathering.

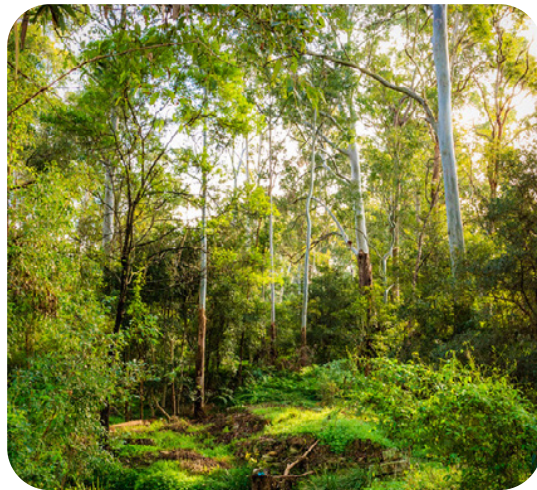
These amenities include alfresco dining, bbq area, open lawn, seating and lounges.

DEEP SOIL

The configuration of the buildings maximise the deep soil zone reaching a total of 2068.7 m² (17.90%).

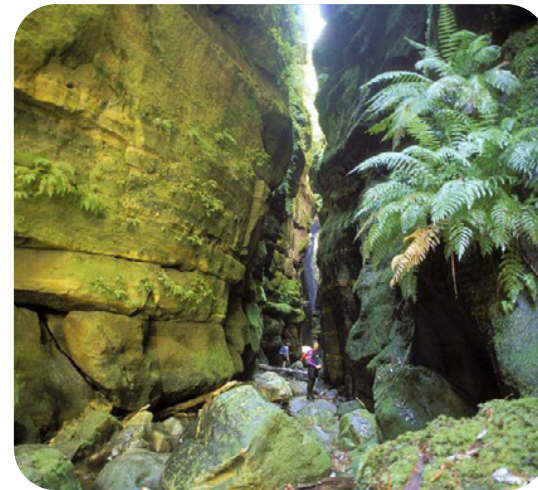
Further information on the landscape design and concept is outlined in the accompanying report prepared by Clouston.

Source: Turf



RE-ESTABLISHING NATIVE ECOLOGY

With the existing sense of local identity, It's important the new development ties into the character of local bushland both present and past, and key landmarks such as Berry's creek.



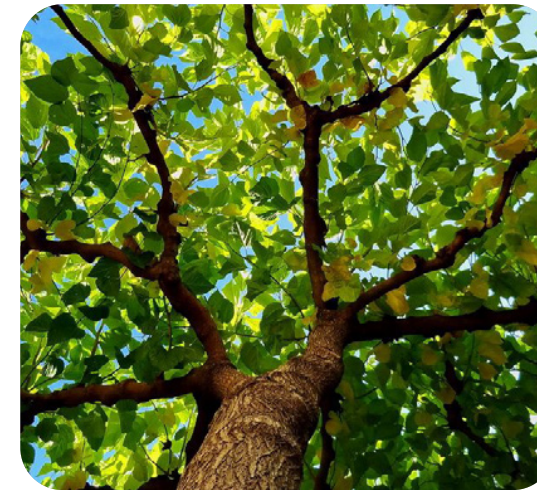
FOSTERING CONNECTIONS TO NATURE

The open space between the two buildings provides a key opportunity to explore a gully landscape typology.



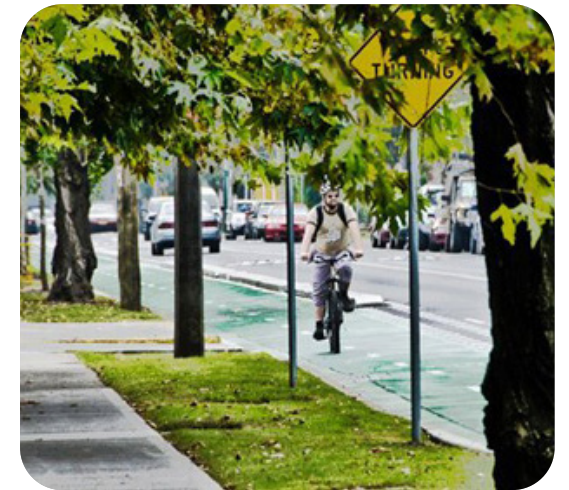
GENUINE, SOCIAL PLACES FOR ALL

Delivering spaces for the entire community in all its diversity, including children, pets and families. Key considerations such as use and accessibility are to the success of a space.



YEAR-ROUND ENVIRONMENTAL COMFORT

Sydney is hot in summer and often cool in winter. Ensuring appropriate levels of shade in summer and sun in winter will help create comfortable spaces year-round and foster a social and connected community.



STREETSCAPE AMENITY

With the transition to a new, higher density precinct, the local streets are set become to become the life blood of the neighborhood, providing an enjoyable and inviting experience along the street

5.0 LANDSCAPE

DESIGN PRINCIPLES

The site rests on a geological transition between the Wianamatta Group Shales and Hawkesbury Sandstone resulting in soils associated with Turpentine-Ironbark Forest and Blue Gum High Forest.

The vegetation communities endemic to site offer an abundance in colour and texture through their foliage, flowers, seedpods and berries.

Endemic plant species have been chosen to strengthen the sense of place and connection to Country. Offering a year round display of colour and texture through flowers and foliage.

Bold displays of golden wattle, dusty red Kennedia, orange Glochidion berries and the blue and purple flowers of Dianella & Hardenbergia flower throughout the year.

The local Hawkesbury Sandstone will be used in the landscape for retaining and for seating elements.

The motif of tessellated patterned imagery will be reinterpreted in the architecture and communal gathering areas in screening elements and shade structures.

Source: Clouston

ENDEMIC COLOUR PALETTE



Acacia longifolia



Kennedia rubicunda



Glochidion ferdinandi

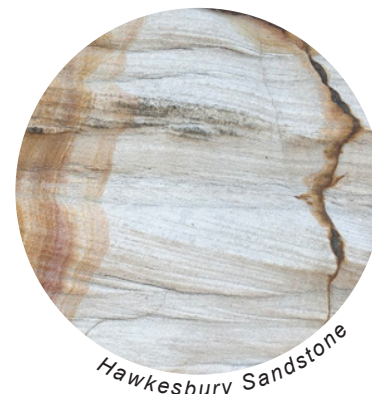


Hardenbergia violacea



Brachychiton populneus

SITE GEOLOGY

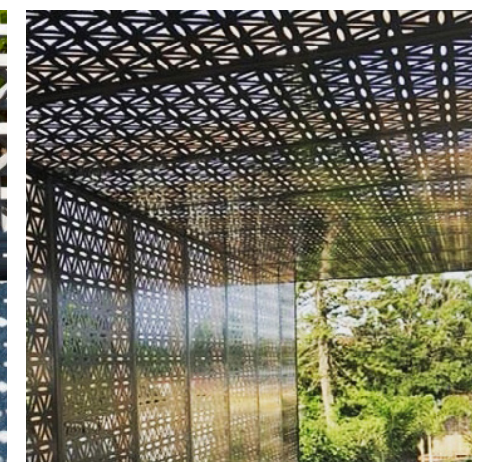
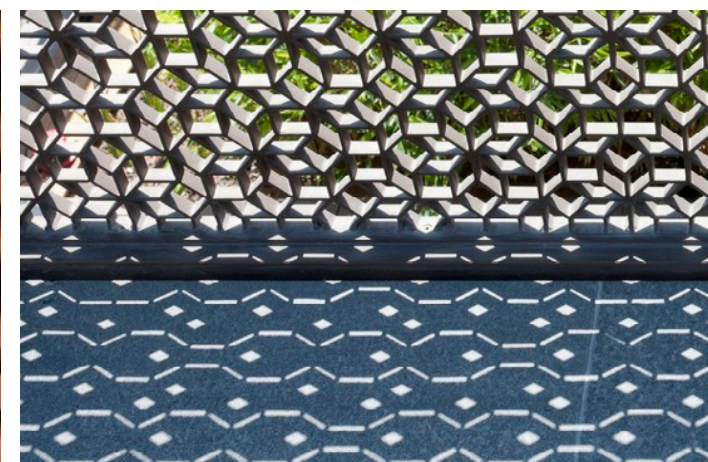
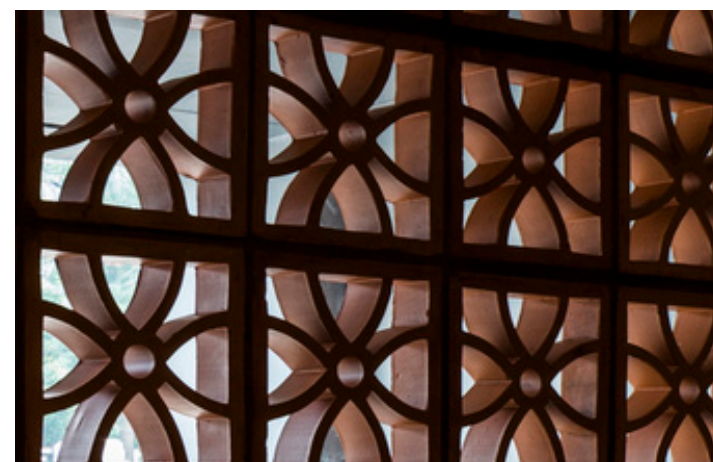


Hawkesbury Sandstone



Wianamatta Group Shales

SCREENING & SHADE STRUCTURE PRECEDENTS



Source: Clouston

GEOLOGY

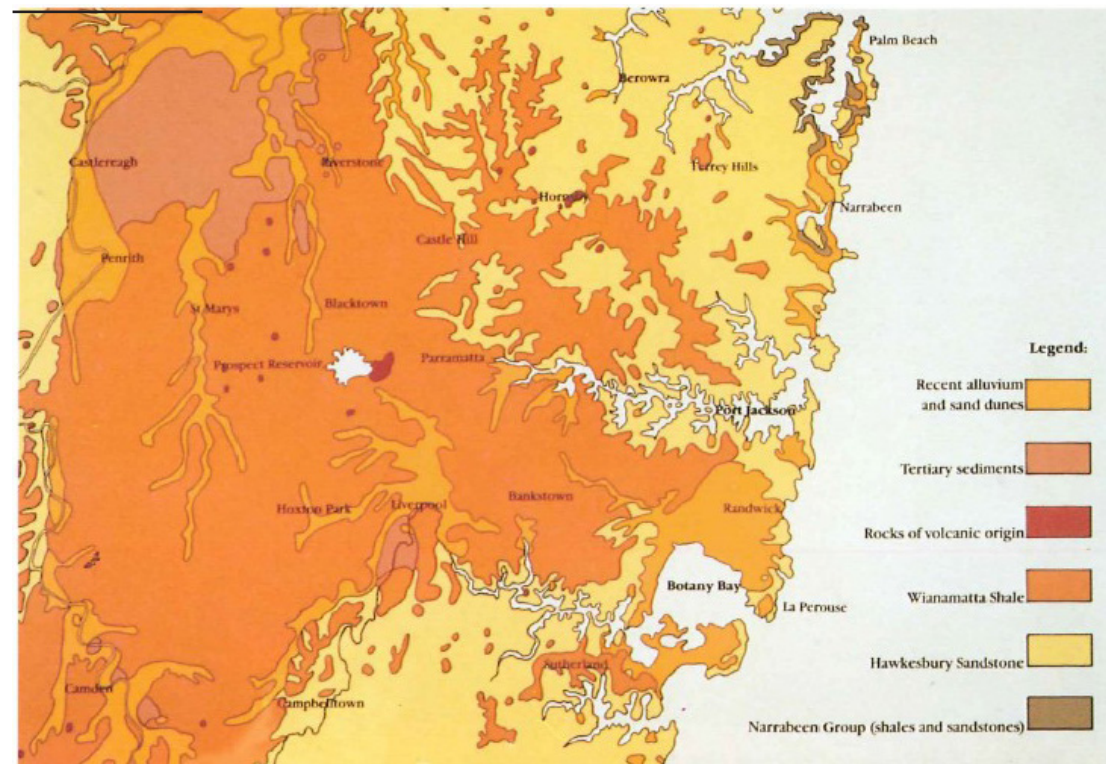


Fig. 3 Sydney's geology: the plant communities are largely determined by particular combinations of climate and geology.



Broader context

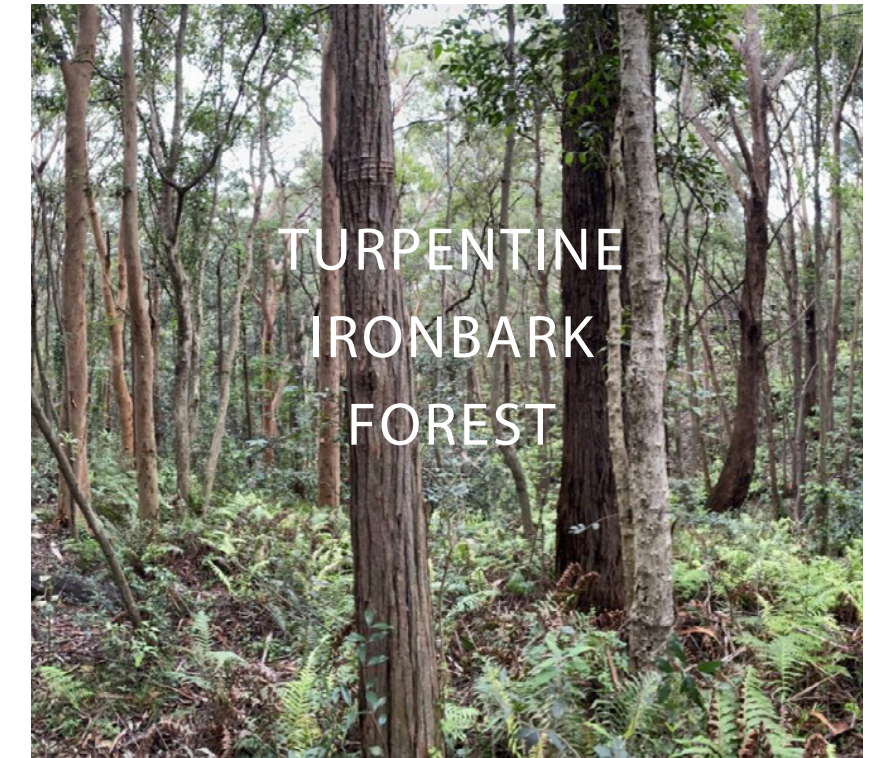


Local context

ENVIRONMENTAL TYPOLOGIES



Sandstone dominant



Shale dominant



Wianamatta Shale



Hawkesbury Sandstone

A greater understanding of plant communities previously populating the site can be gained from the analysis of the underlying geology. The site sits directly over the meeting point between Wianamatta shale and Hawkesbury Sandstone.

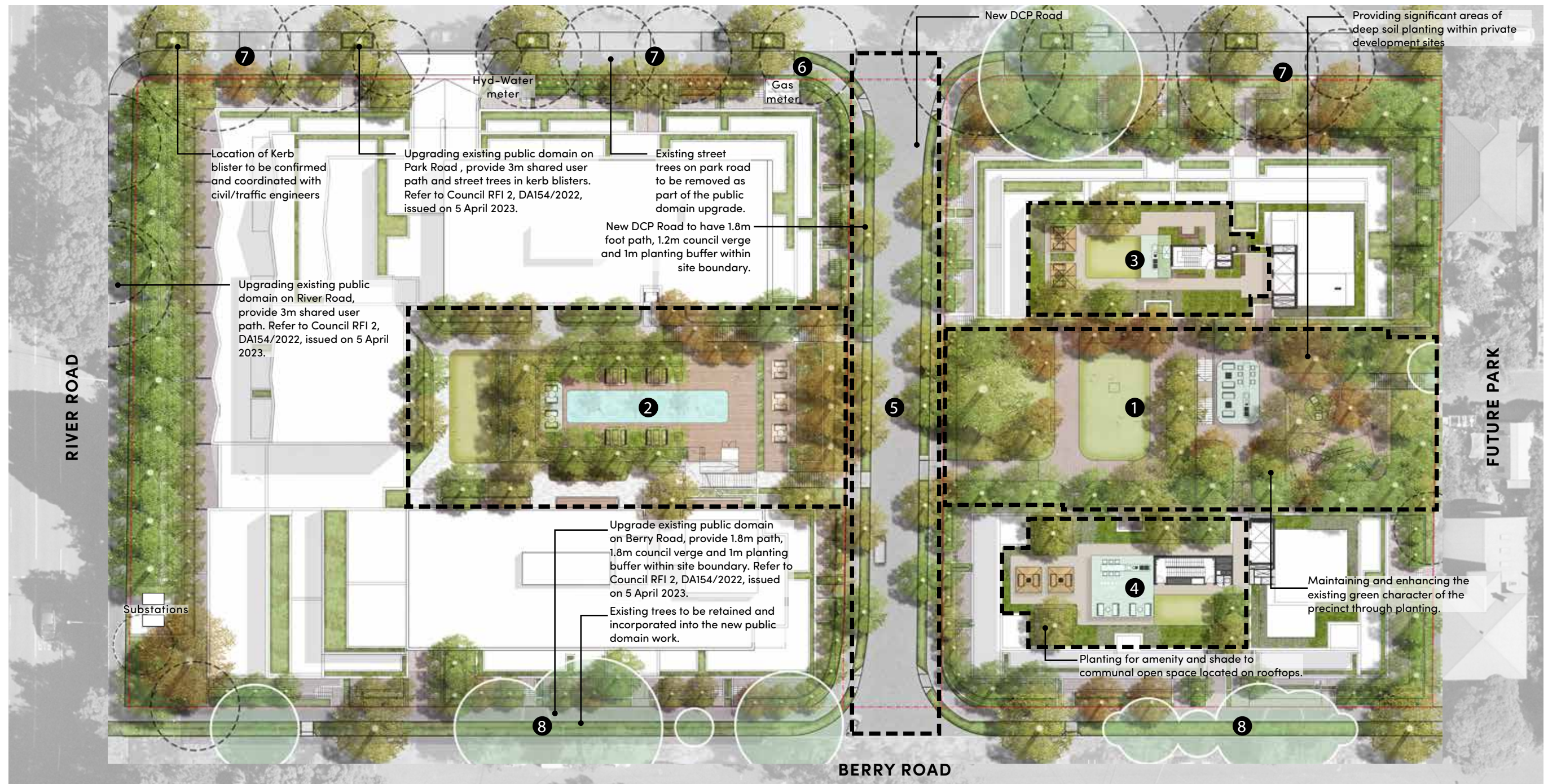
The now endangered Turpentine-Ironbark Forest and Blue Gum High Forest would have been typical in these areas, consisting of low eucalypt open-forests and woodlands with a dense sclerophyll shrubby understorey.

The dominant trees within the shale area included *Syncarpia glomulifera* (Turpentine), *Angophora costata* (Smooth-barked Apple), *Corymbia gummifera* (Red Bloodwood), *Eucalyptus haemastoma* (Scribbly Gum), and *Eucalyptus pilularis* (Blackbutt).

The sandstone dominated areas had similar dry sclerophyll woodlands with *Angophora costata* (Smooth-barked Apple), *Eucalyptus piperita* (Sydney Peppermint), *Corymbia gummifera* (Red Bloodwood) dominated, with *Corymbia eximia* (Yellow Bloodwood), *Eucalyptus haemastoma* (Scribbly Gum), and *Banksia serrata* (Old Man Banksia).

Source: Clouston

PRINCIPLE 5
LANDSCAPE CONCEPT: KEY SPACES

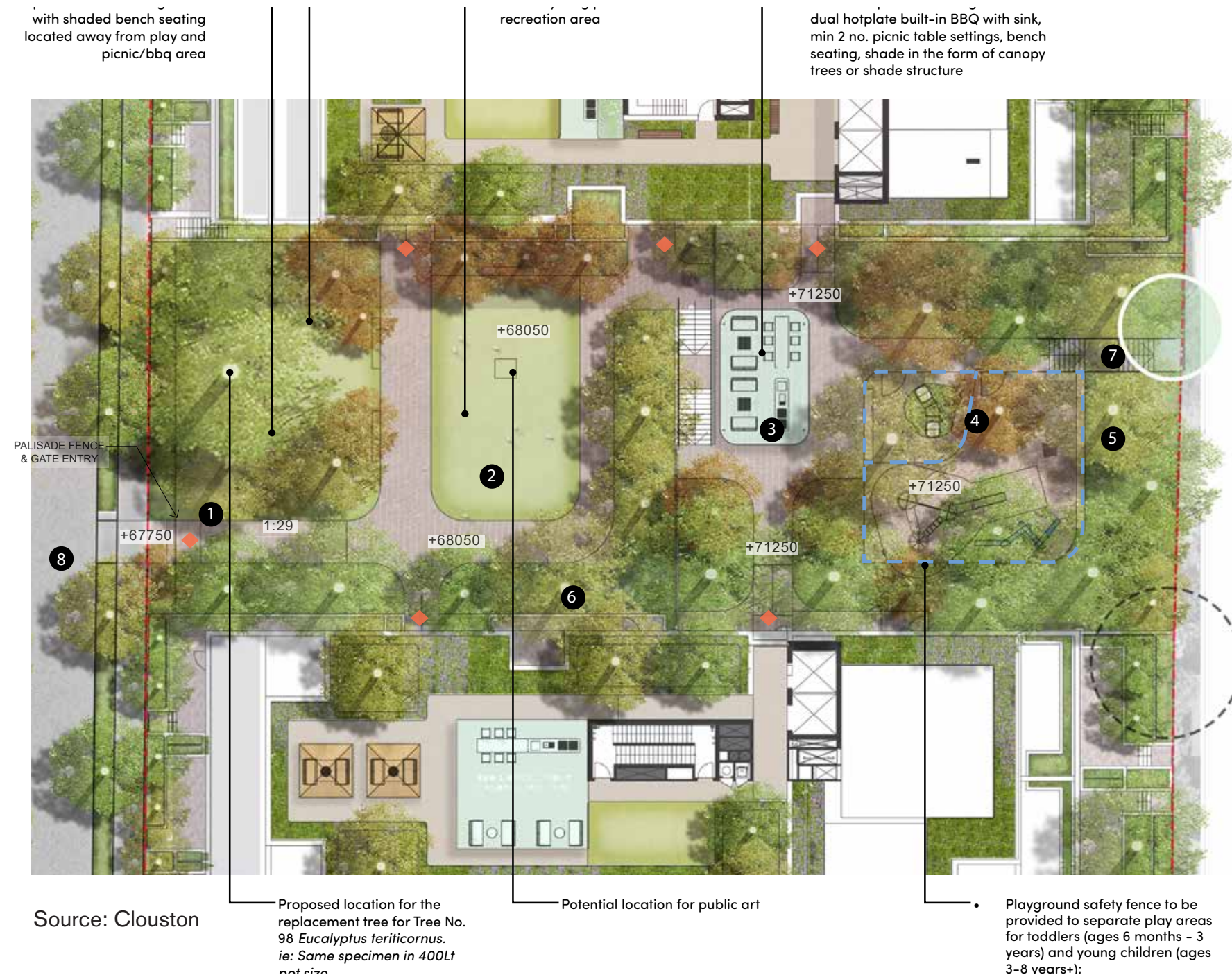


Source: Clouston

in the Masterplan is tentative and
finement. Final layout and design will
stage in compliance with Council final
agry for St Leonards South.



PRINCIPLE 5
LANDSCAPE- GREEN SPINE | AREA 22 LANDSCAPE PLAN

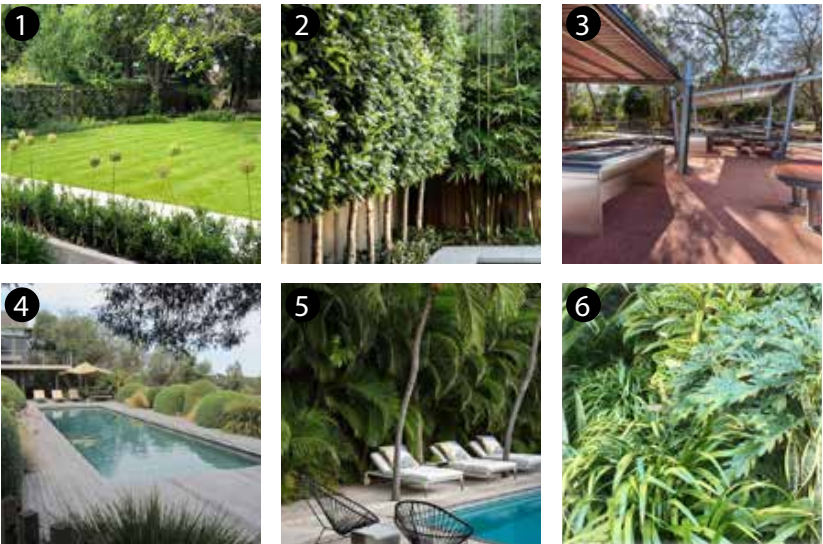


KEY

- Graded pathway
- Open lawn with art work
- Alfresco dining/BBQ
- Nature play
- Planted embankment
- Buffer planting
- Potential future connection to proposed park

LEGEND

- Site boundary
- Trees
- Lawn
- Mass planting
- Permeable unit paving
- Mulch softfall
- Entry
- Playground safety fence



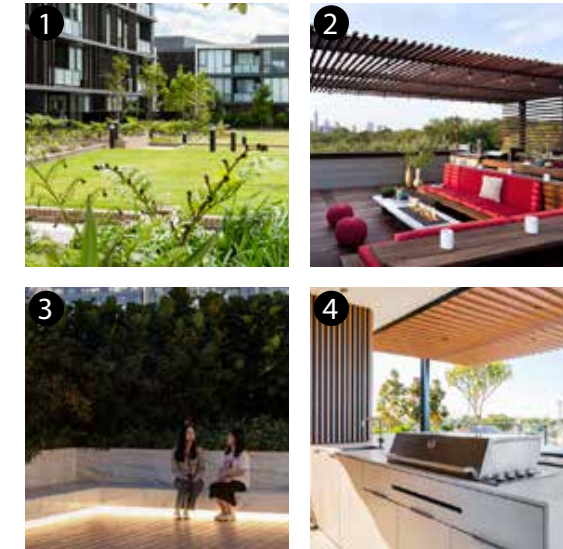
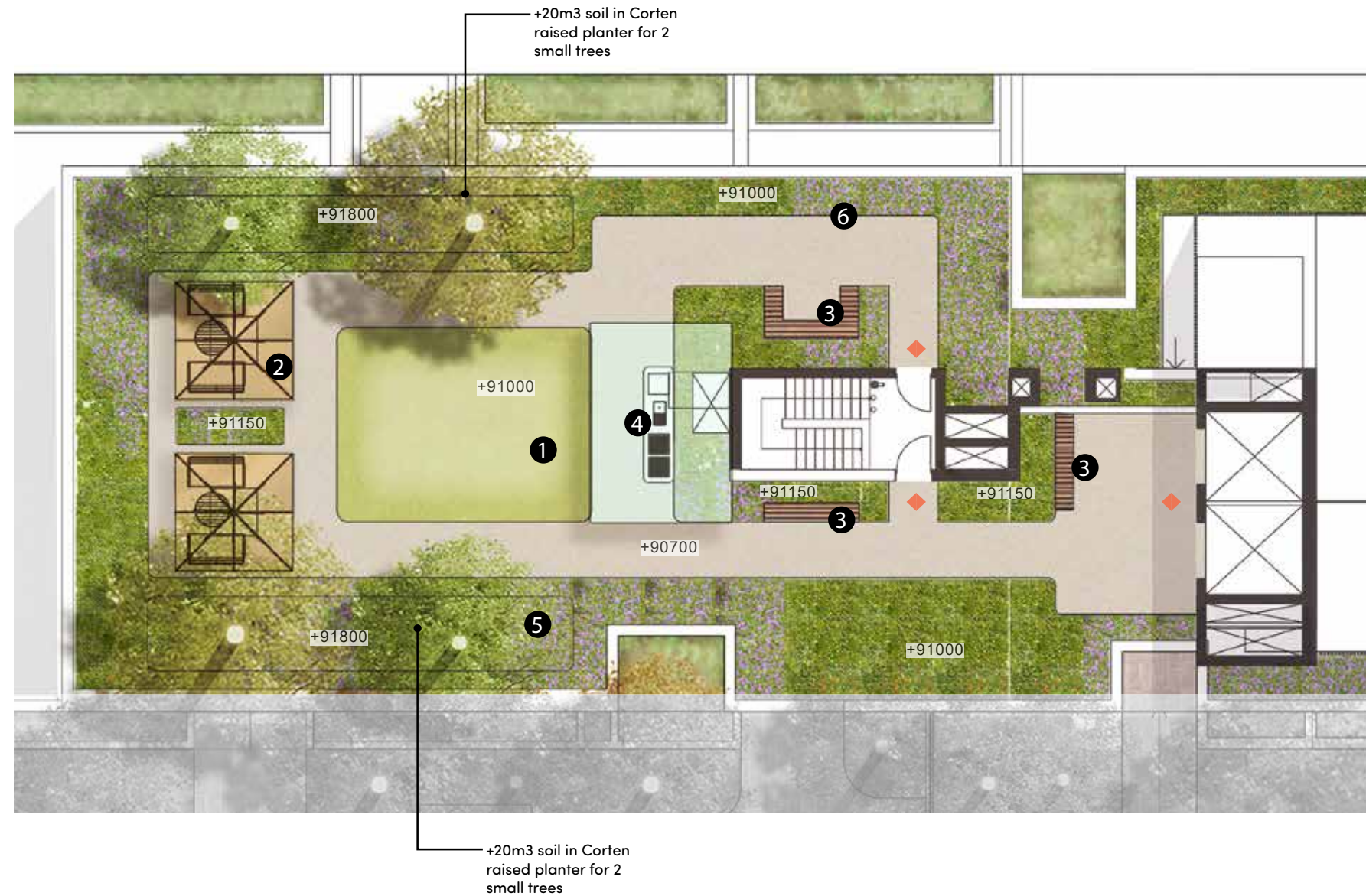
KEY

- 1. Open lawn
- 2. Screen planting
- 3. Canopy Structure
- 4. 25m Lap pool
- 5. Pool deck with sun lounges & palms
- 6. Buffer planting
- 7. Cascading planting
- 8. Terrace lounging
- 9. DCP Proposed New Road

LEGEND

- Site boundary
- Trees
- Lawn
- Mass planting
- Composite Timber Decking
- Concrete unit paving
- Pool
- Entry

Source: Clouston



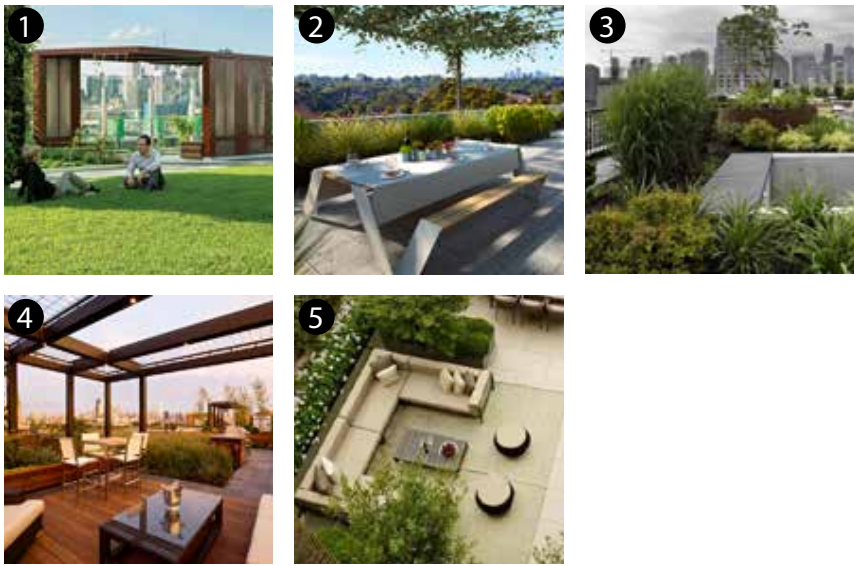
KEY

1. Open lawn (Natural or synthetic)
2. Lounges with low tables
3. Seating
4. BBQ under awning
5. 1.1m Raised planters
6. 1m High safety balustrade along the inner planter wall

LEGEND

- Trees
- Lawn
- Mass planting
- Paving
- Entry

Source: Clouston



KEY

- 1. Open lawn (Natural or synthetic)
- 2. Alfresco dining
- 3. Buffer planting
- 4. Lounges
- 5. Semi enclosed area
- 6. 1.1m Raised planters
- 7. 1m High safety balustrade along the inner planter wall

LEGEND

- Trees
- Lawn
- Mass planting
- Paving
- Entry



6.0 AMENITY

SEPP 65

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility.

RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES	
3F	VISUAL PRIVACY
3F-1	Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.
3F-2	Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space.
4A	SOLAR AND DAYLIGHT ACCESS
4A-1	To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.
4A-2	Daylight access is maximised where sunlight is limited.
4A-3	Design incorporates shading and glare control, particularly for warmer months.
4B	NATURAL VENTILATION
4B-1	Ceiling height achieves sufficient natural ventilation and daylight access.
4B-2	The layout and design of single aspect apartments maximises natural ventilation.
4B-3	The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents. No apartments exceed the 18m guidance for cross ventilation.
4C	CeILING HEIGHTS
4C-1	Ceiling height achieves sufficient natural ventilation and daylight access.
4C-2	Ceiling height increases the sense of space in apartments and provides for well proportioned rooms.
4C-3	Ceiling heights contribute to the flexibility of building use over the life of the building.

RESPONSE

The design of the proposal is focused on creating places to live that are of the highest internal and external amenity. All dwellings provide ventilation, outlook, solar access, natural light and storage.

Through landscaped front, side and rear setbacks, the proposed development also creates good visual and acoustic privacy for both the future residents of the site and the adjacent neighbours.

RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES	
4E	PRIVATE OPEN SPACE AND BALCONIES
4E-1	Apartments provide appropriately sized private open space and balconies to enhance residential amenity.
4E-2	Primary private open space and balconies are appropriately located to enhance liveability for residents.
4E-3	Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building.
4E-4	Private open space and balcony design maximises safety.
4F	COMMON CIRCULATION AND SPACES
4F-1	Common circulation spaces achieve good amenity and properly service the number of apartments.
4F-2	Common circulation spaces promote safety and provide for social interaction between residents.
4G	STORAGE
4G-1	Adequate, well designed storage is provided in each apartment.
4G-2	Additional storage is conveniently located, accessible and nominated for individual apartments.
4H	ACOUSTIC PRIVACY
4H-1	Noise transfer is minimised through the siting of buildings and building layout.
4H-2	Noise impacts are mitigated within apartments through layout and acoustic treatments.
4J	NOISE AND POLLUTION

DESIGN CRITERIA

1. Apartments are required to have the following minimum internal areas:

APARTMENT TYPE	MIN INTERNAL AREA
Studio	35m2
1 bedroom	50m2
2 bedroom	70m2
3 bedroom	90m2

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each.

2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.

4D APARTMENT LAYOUTS

1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space).
2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space).
3. Living rooms or combined living/dining rooms have a minimum width of:
 - 3.6m for studio and 1 bedroom apartments
 - 4m for 2 and 3 bedroom apartments
4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.

4G STORAGE

1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:

DWELLING TYPE	STORAGE SIZE VOLUME
Studio apartments	4m3
1 bedroom apartments	6m3
2 bedroom apartments	8m3
3+ bedroom apartments	10m3

At least 50% of the required storage is to be located within the apartment.

6.1 SOLAR ACCESS

Apartments are arranged to maximise solar access.

78% of apartments achieve a minimum of 2 hours of direct sunlight into the living room windows and private open space between 9am and 3pm during mid winter (June 21). This exceeds the 70% minimum of apartments as outlined by the ADG.

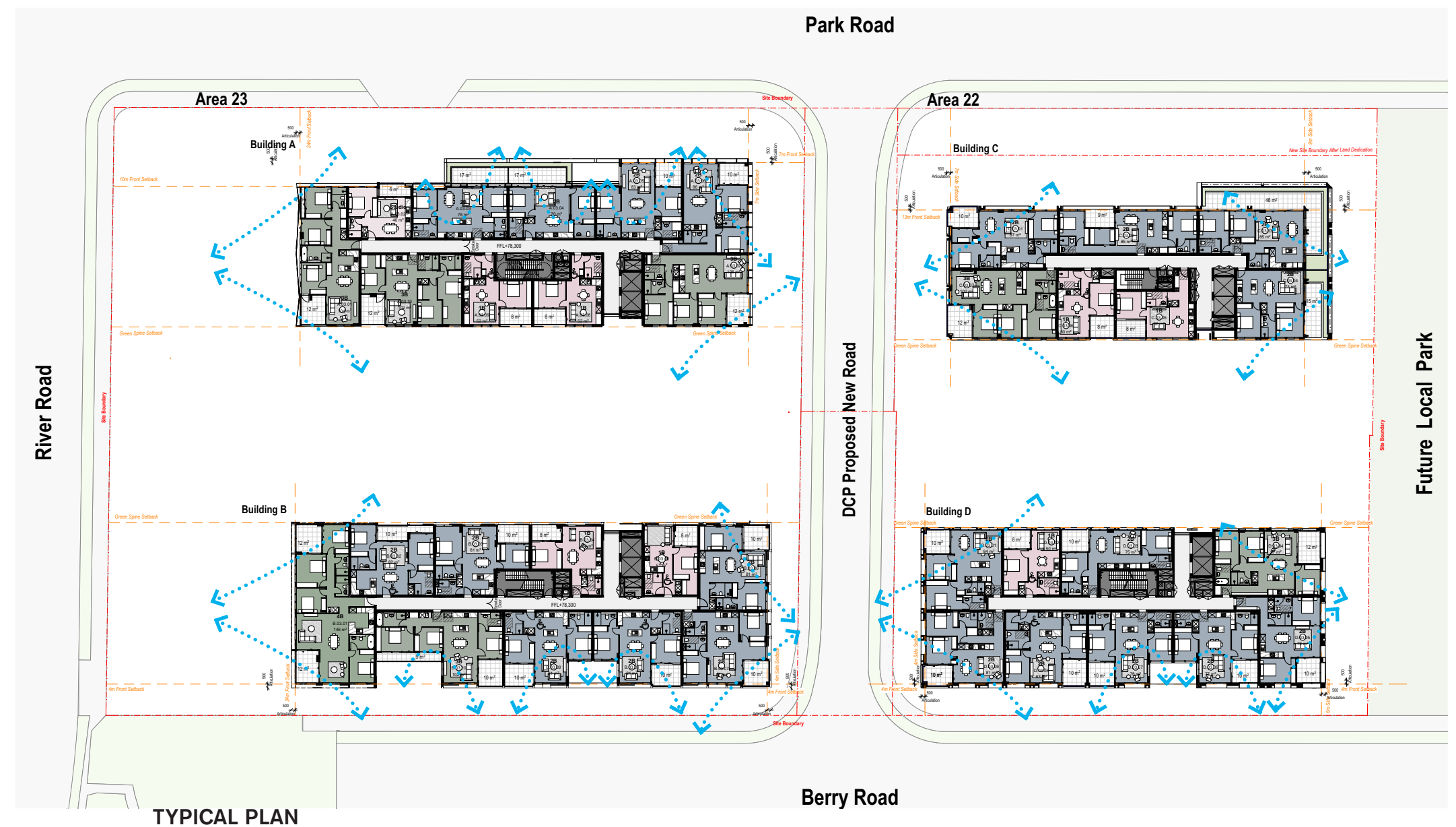
A solar impact analysis showing a comparison of the massing with and without facade articulation shows a considered approach to providing solar shading and thermal comfort.



6.2 CROSS VENTILATION

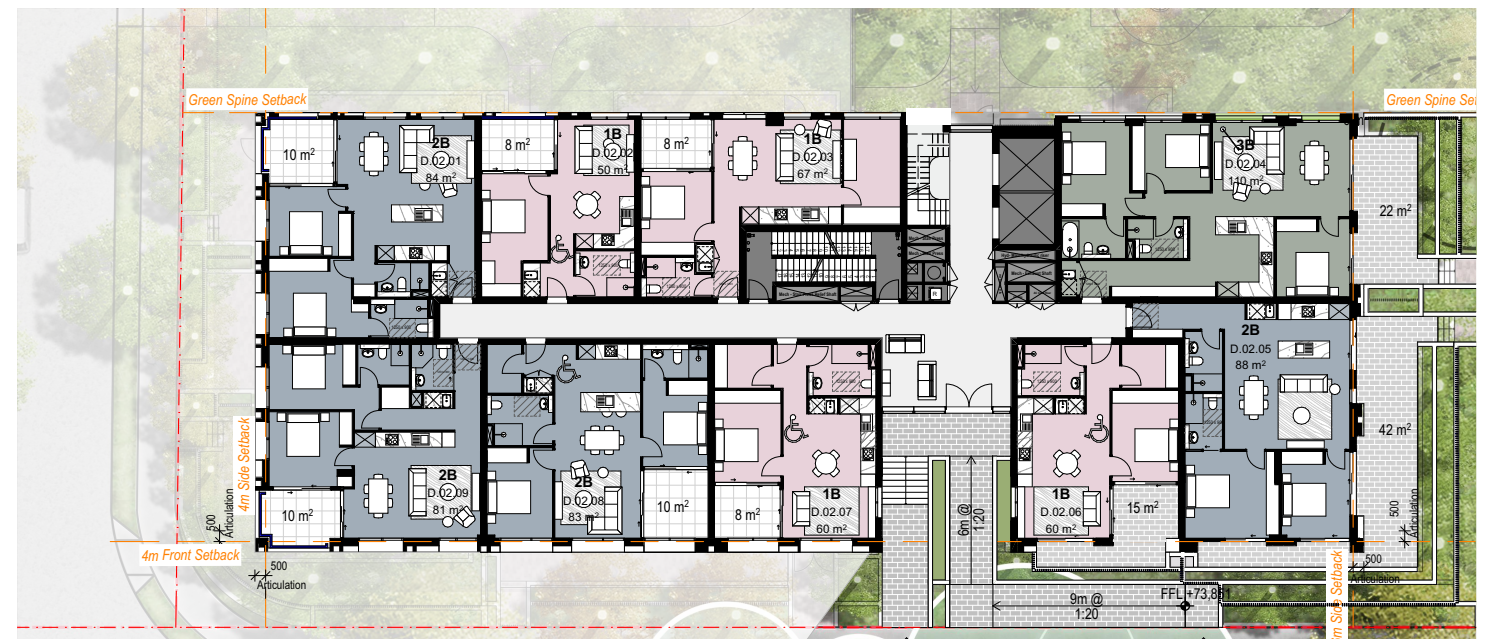
Compliance is achieved as 60% of all apartments are naturally cross ventilated.

Area 23 achieves 60% cross ventilation whilst Area 22 achieves 60% cross ventilation.



LOBBIES

Further amenity is provided to lobbies through introducing large windows and lounge areas to provide meeting places and points of rest.



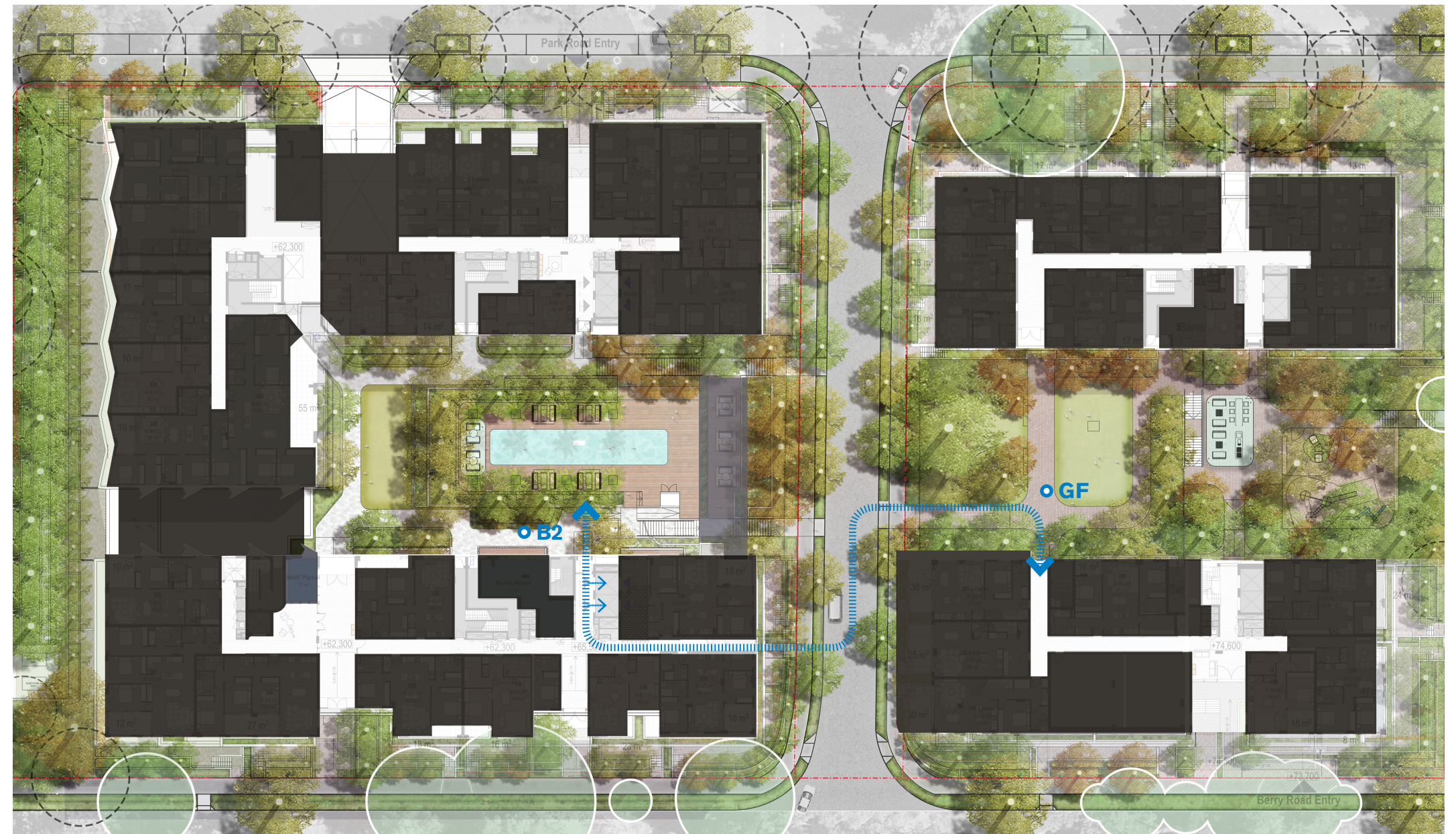
6.3 EQUITABLE ACCESS

DDA ACCESS

Accessibility has been well considered despite the steep topography of the site.

Level access is provided between Area 22 and Area 23 through the cross road to entry lobbies, the green spine and communal areas including the pool.

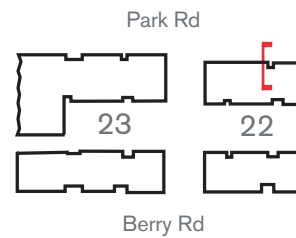
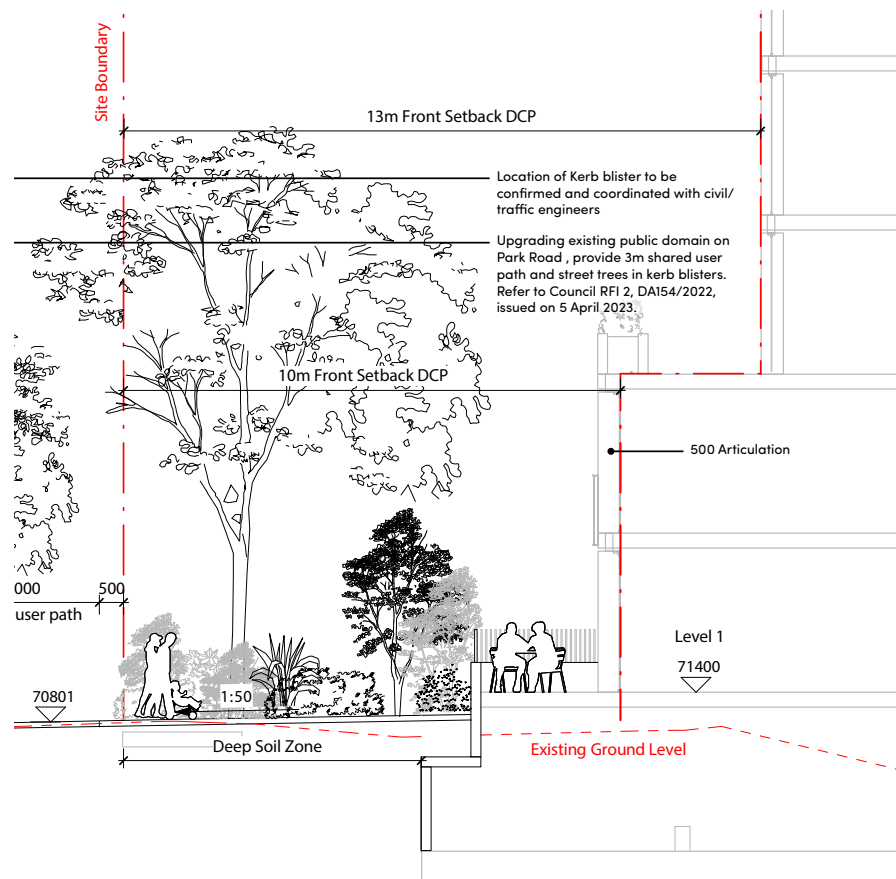
LEGEND



6.4 PRIVACY

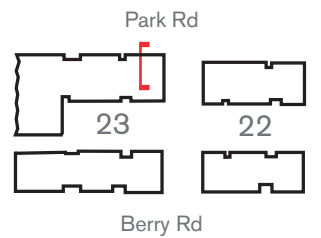
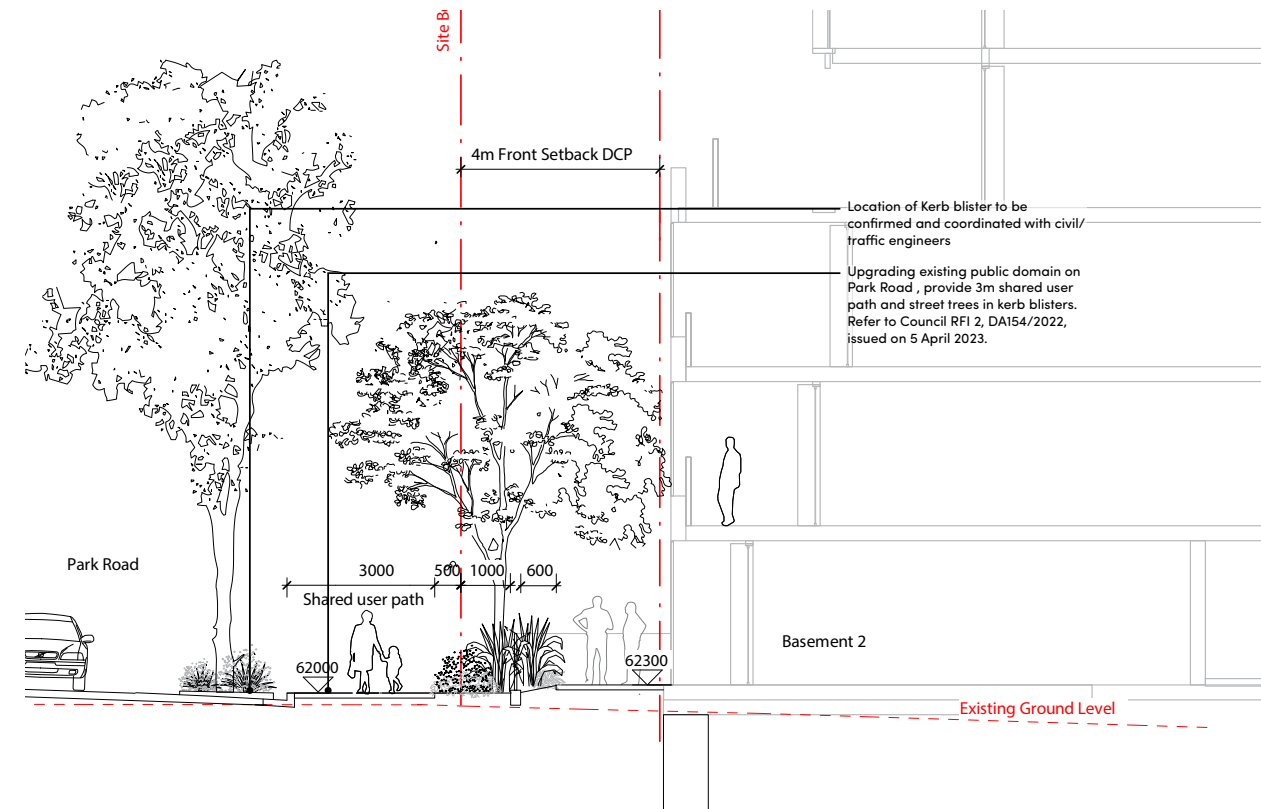
PARK ROAD INTERFACES

Area 22's Park Road interface delivers a terrace which interfaces a planted edge. This provides a visual and acoustic buffer to Park Road.



PARK ROAD INTERFACES

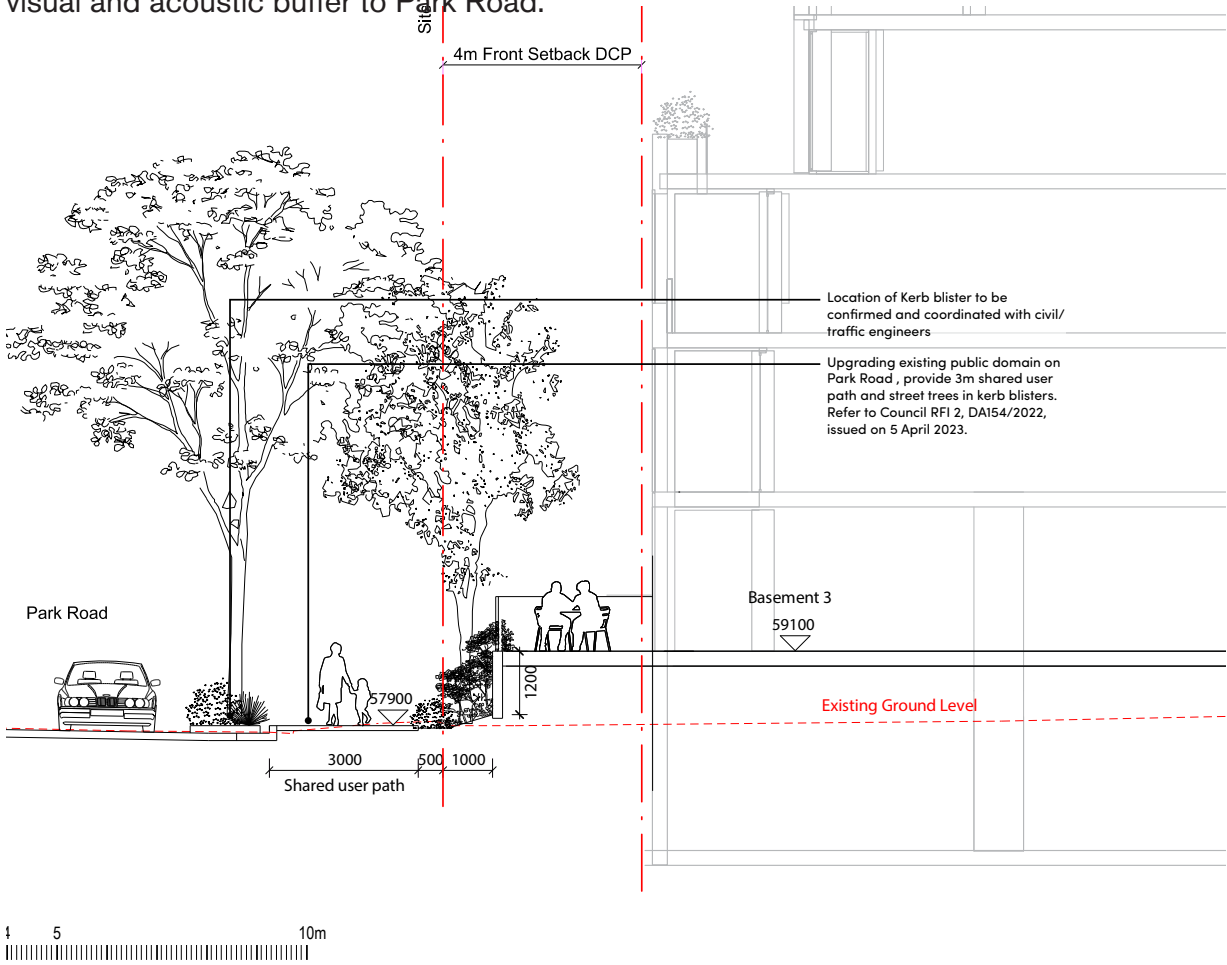
Area 22's Park Road interface delivers a terrace which interfaces a planted edge. This provides a visual and acoustic buffer to Park Road.



6.4 PRIVACY

PARK ROAD INTERFACES

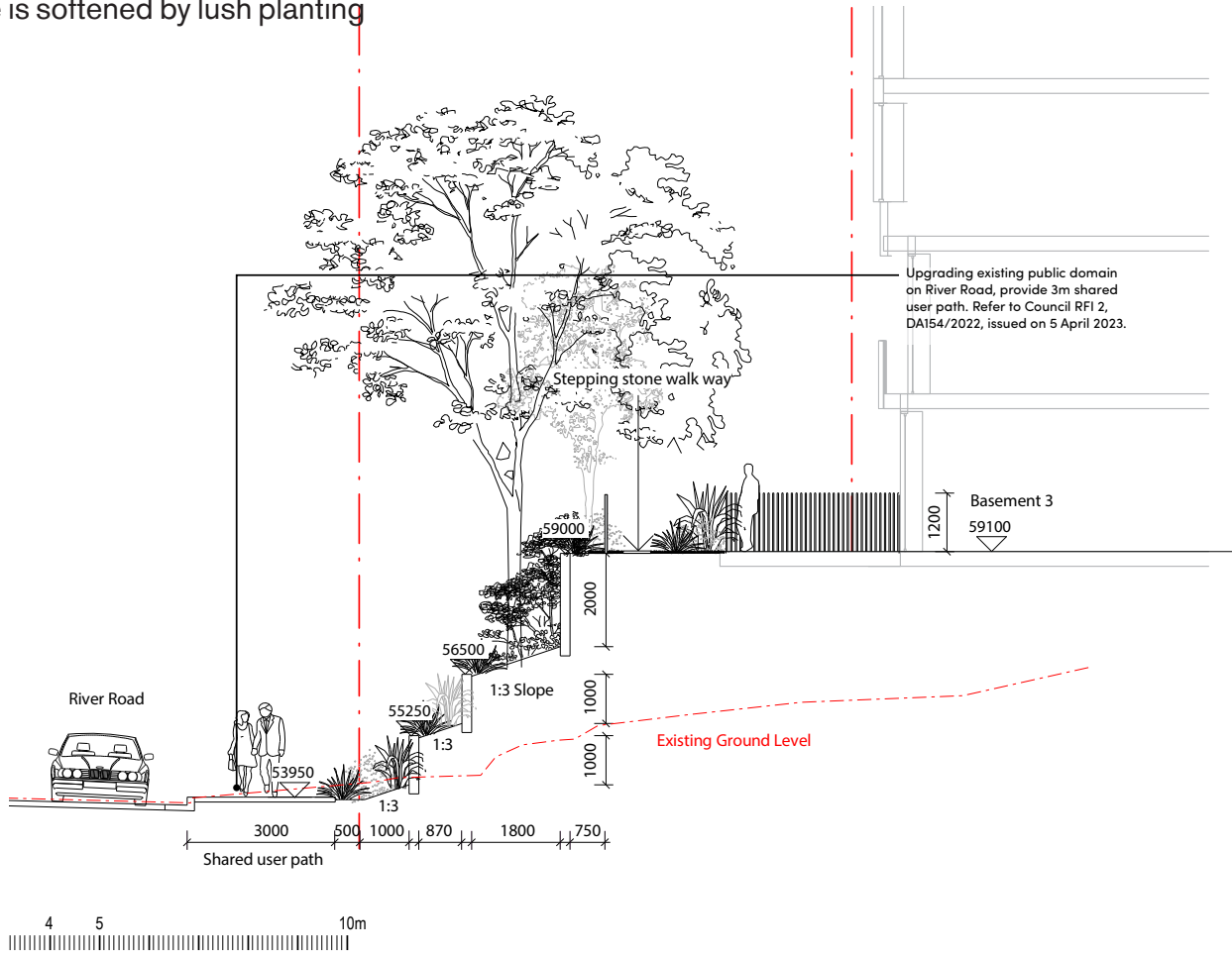
Area 23's Park Road interface delivers a 4m front setback dedicated to deep soil zone. The private open space is raised 2.3m and interfaces a planted edge which provides a visual and acoustic buffer to Park Road.



RIVER ROAD INTERFACE

The River Road interface delivers a private open space which is raised to alleviate privacy issues.

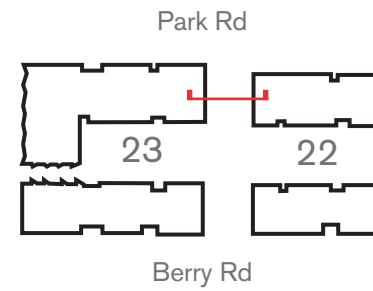
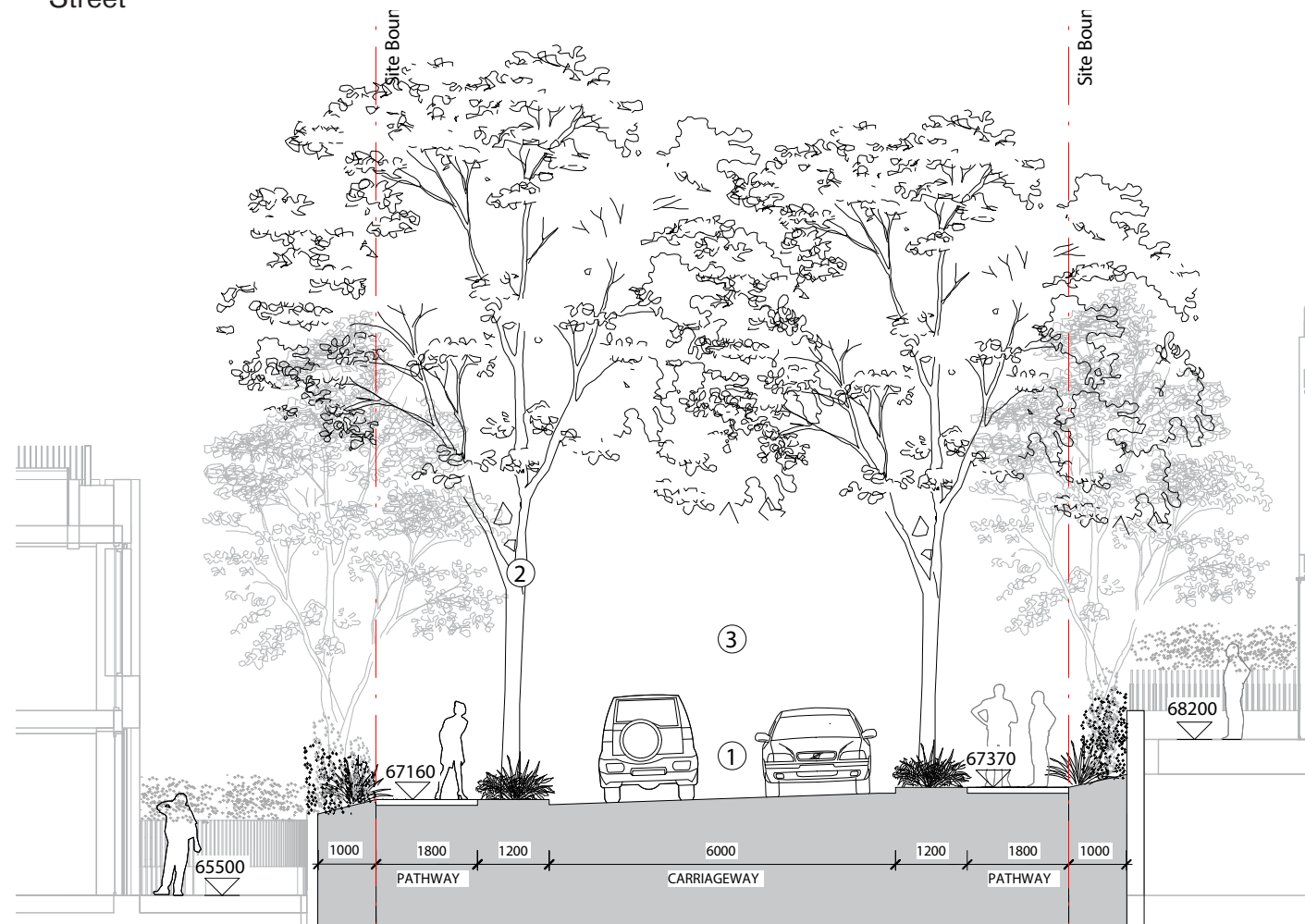
The level change is softened by lush planting and street trees.



6.4 PRIVACY

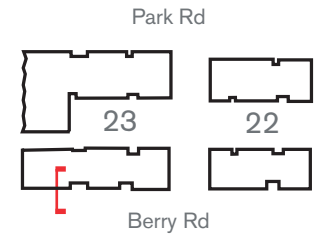
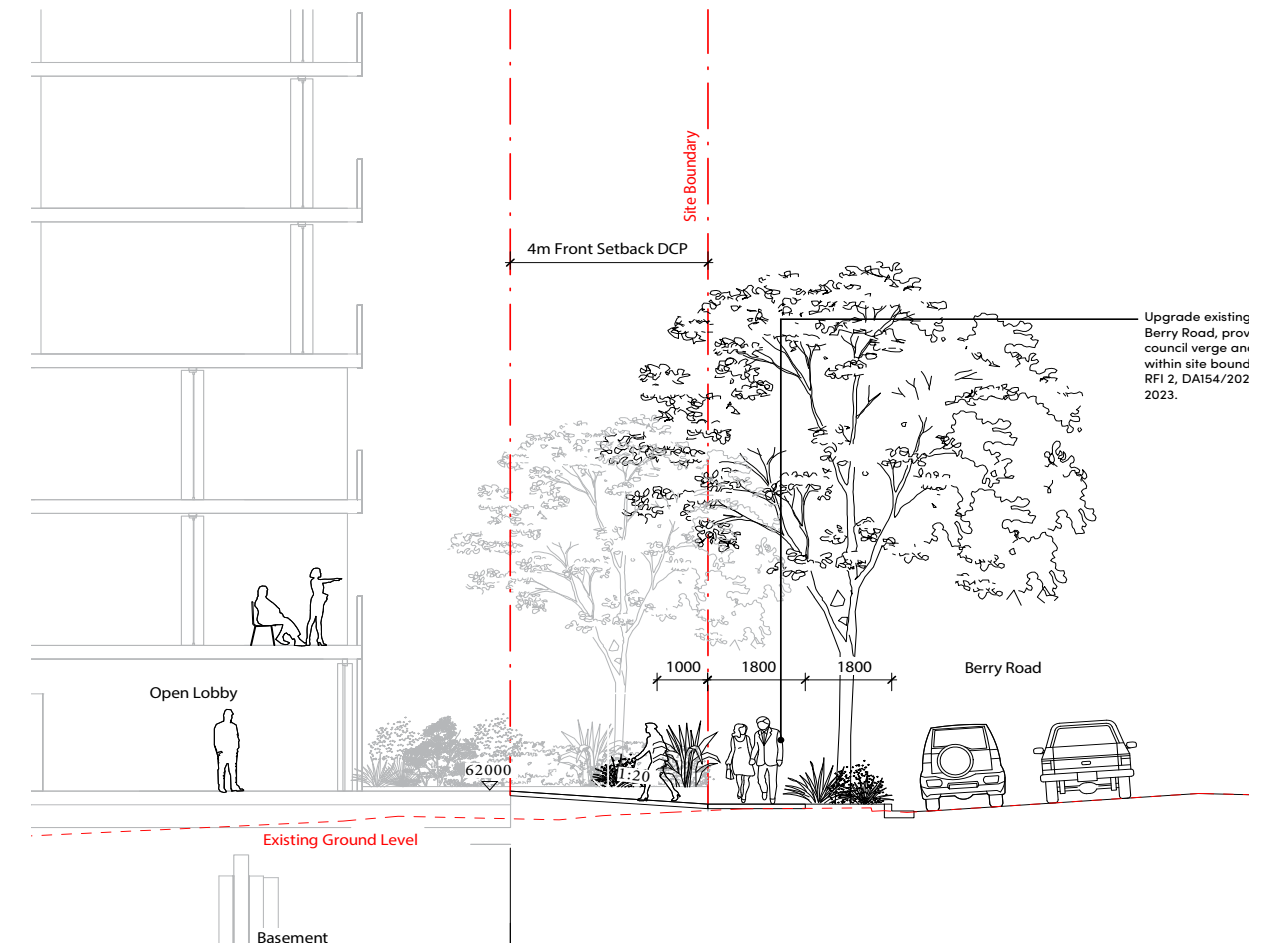
INTERFACE WITH NEW CROSS STREET

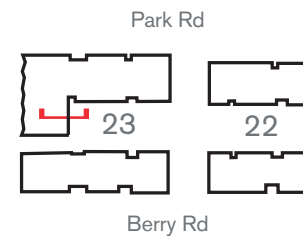
- Privacy and screening from apartments to the Cross Street
- Orientation of apartments to Cross Street
- Security from apartments to the Cross Street



BERRY ROAD INTERFACE

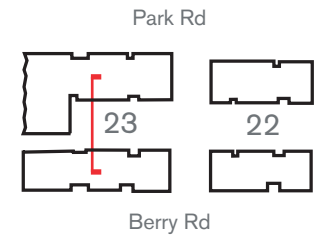
- Privacy and screening from apartments to the Cross Street
- Orientation of apartments to Berry Road
- Security from apartments to the Berry Road





INTERFACE WITH GREEN SPINE

- Privacy and screening from apartments to the Green Spine
- Orientation of apartments to Green Spine
- Security from apartments to the Green Spine



INTERFACE WITH GREEN SPINE

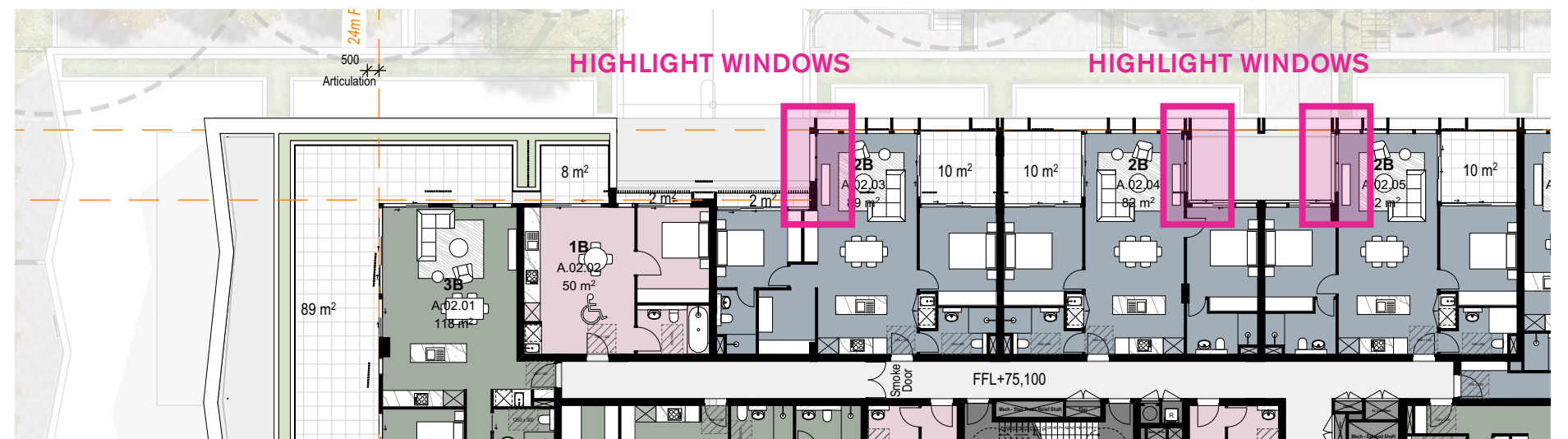
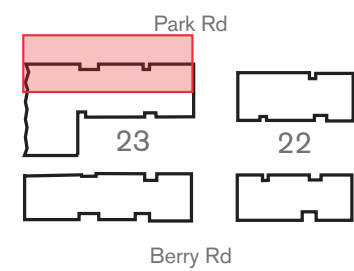
- Privacy and screening from apartments to the Green Spine
- Orientation of apartments to Green Spine
- Security from apartments to the Green Spine



6.4 PRIVACY

VISUAL PRIVACY

Highlight windows are used in Level 1/2/3 Park Rd facing apartments for ventilation whilst providing adjacent living rooms with visual privacy.



LEVEL 2

BASEMENT 1

6.4 PRIVACY

ACOUSTIC PRIVACY

The development is impacted by road traffic noise from River Road on the Southern site boundary.

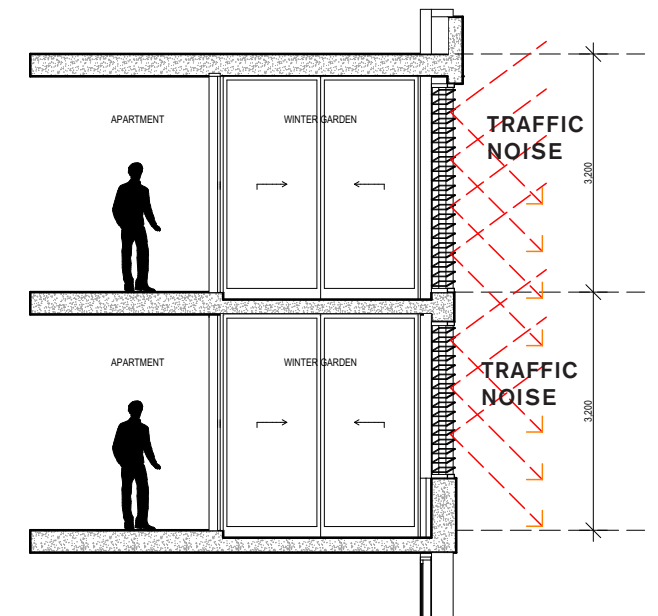
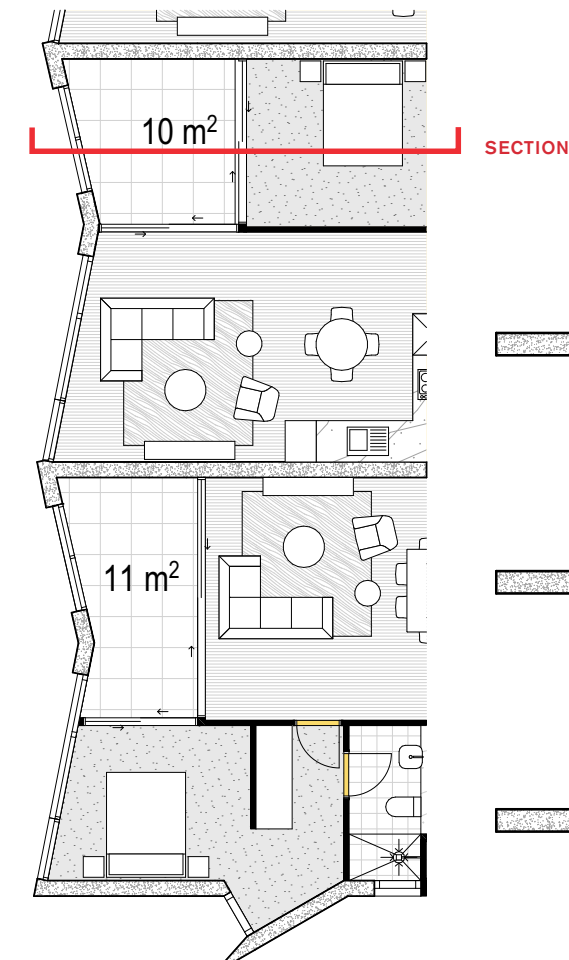
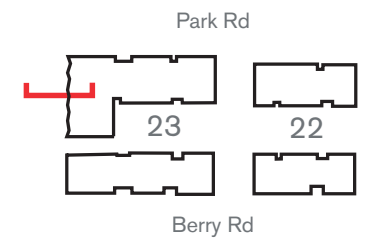
Acoustic screens and appropriate glazing are used to offset the high volume of traffic noise.

VIEWS

Apartments are orientated to the available views. Upper floor apartments benefit from high level views over the Sydney Harbour and the CBD.

STORAGE

The internal layouts of the apartments incorporate sufficient storage which are well sized in depth and height.



7.0 SAFETY - GROUND PLANE

SEPP 65

Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES	
3C	PUBLIC DOMAIN INTERFACE
3C-1	Transition between private and public domain is achieved without compromising safety and security.
3C-2	Amenity of the public domain is retained and enhanced.
3D	COMMUNAL AND PUBLIC OPEN SPACE
3D-3	Communal open space is designed to maximise safety.
3G	PEDESTRIAN ACCESS AND ENTRIES
3G-1	Building entries and pedestrian access connects to and addresses the public domain.
3G-2	Access, entries and pathways are accessible and easy to identify.
3G-3	Large sites provide pedestrian links for access to streets and connection to destinations.
4F	COMMON CIRCULATION AND SPACES
4F-2	Common circulation spaces promote safety and provide for social interaction between residents.
4S	MIXED USE
4S-1	Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement.

RESPONSE

The design proposal provides clear and well defined lobby entries to each building with well considered wayfinding. Entries will have clear and unobstructed views from the street and will be secure, lockable and well-lit for the safety of the residents.

Along with the increased density in the area, a variety of landscaped areas are provided to increase the passive surveillance and safety to the development. Integrated activities in the landscape and large lobbies provide a vibrant area for fostering safety and interaction.

The proposal introduces a high degree of street and public surveillance, optimising clear sight lines without obstacles.



RESPONSE

The proposed cross street provides pedestrian connectivity between the green spines of each building. This is enhanced through coordination of lobbies to provide equitable and safe access.

A security gate between the cross road and green spine is proposed to restrict public access into the private green spine.

Shared zone finishes prioritising pedestrian access across the cross street is also provided. Refer to Landscape Reports.

Green buffers in the form of planter boxes and 1.5m high fences enclose the ground floor apartments, optimising security and visual privacy.

Easy access to swimming pool and communal room to the NW corner of Area 23 is provided.



View from the DCP cross road looking east

8.0 HOUSING DIVERSITY

SEPP 65

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.

RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES	
3D	COMMUNAL AND PUBLIC OPEN SPACE
3D-2	Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.
4F	COMMON CIRCULATION AND SPACES
4F-1	Common circulation spaces achieve good amenity and properly service the number of apartments.
4F-2	Common circulation spaces promote safety and provide for social interaction between residents.
4K	APARTMENT MIX
4K-1	A range of apartment types and sizes is provided to cater for different household types now and into the future.
4K-2	The apartment mix is distributed to suitable locations within the building.
4Q	UNIVERSAL DESIGN
4Q-1	Universal design features are included in apartment design to promote flexible housing for all community members.
4Q-2	A variety of apartments with adaptable designs are provided.
4Q-3	Apartment layouts are flexible and accommodate a range of lifestyle needs.

RESPONSE

The proposal is comprised of 306 apartments in total with a mix of 1, 2 and 3 bed apartments. The breakdown is as follows:

- Studio: 2 unit
- 1 Bed: 74 units
- 2 Beds: 138 units
- 3 Beds/3 Beds with study: 92 units

Provision of 245 liveable apartments meets the 80% minimum required. 62 DDA apartments are provided which meets the minimum 20% required.

The mix of typologies and apartment sizes will cater to a wide range of households, aiming to diversify the residents of the development and local area.



TYPICAL PLAN

8.1 SOCIAL INTERACTION

COMMUNAL AREAS

The amenities have been tailored to a variety of ages and uses. Residents of both Area 23 and Area 22 are given equitable access to the pool and all communal open areas.

The location of communal areas are well-considered to achieve the most direct access and be consistent with the horizontal and vertical movement of the green spine.

The gym is located adjacent to the pool to provide access and visual connectivity.

Total communal space area: 3574m² (30.9% of site area)



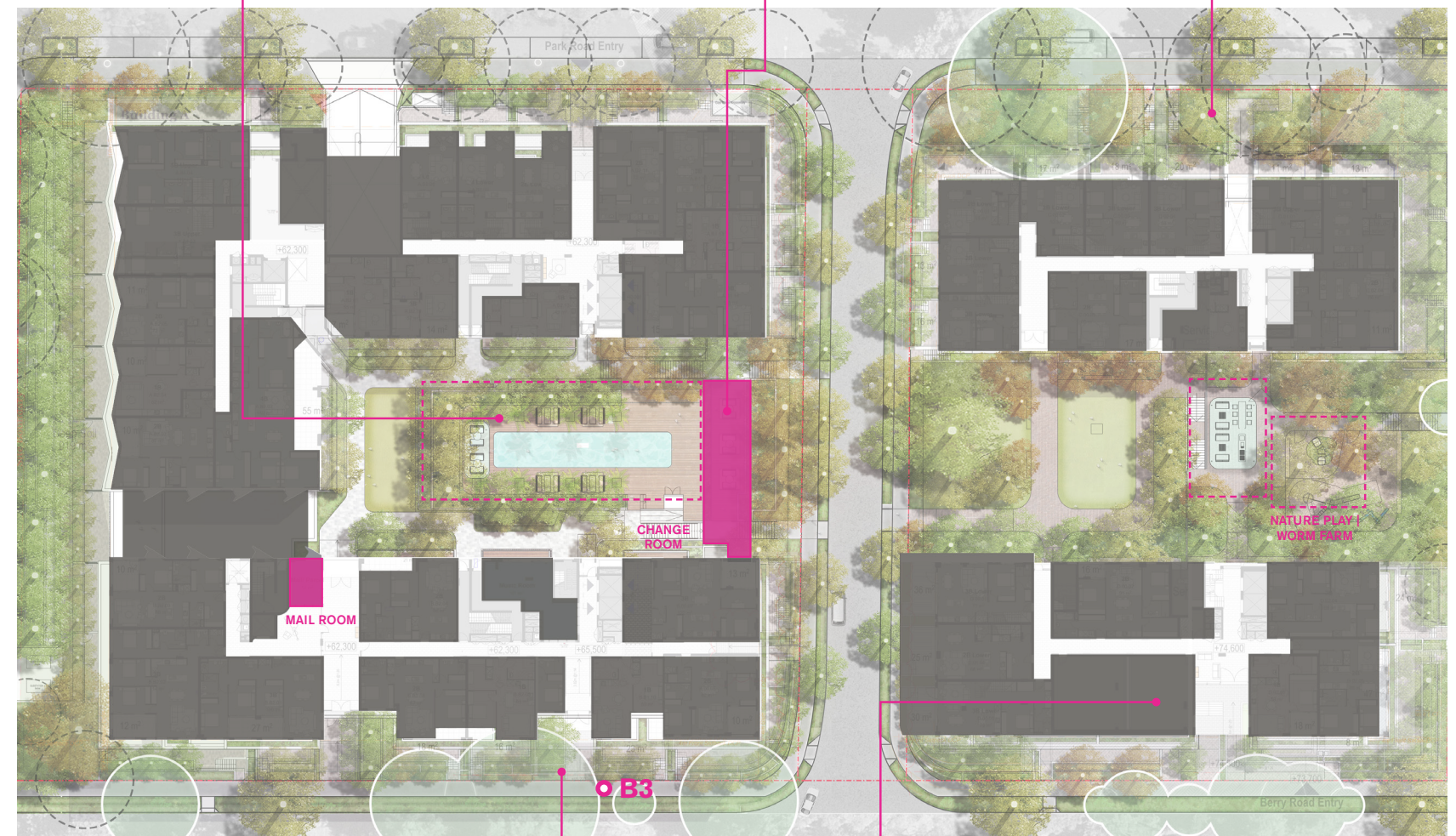
25M LAP POOL



GYM



CAR SHARE



EV CHARGING

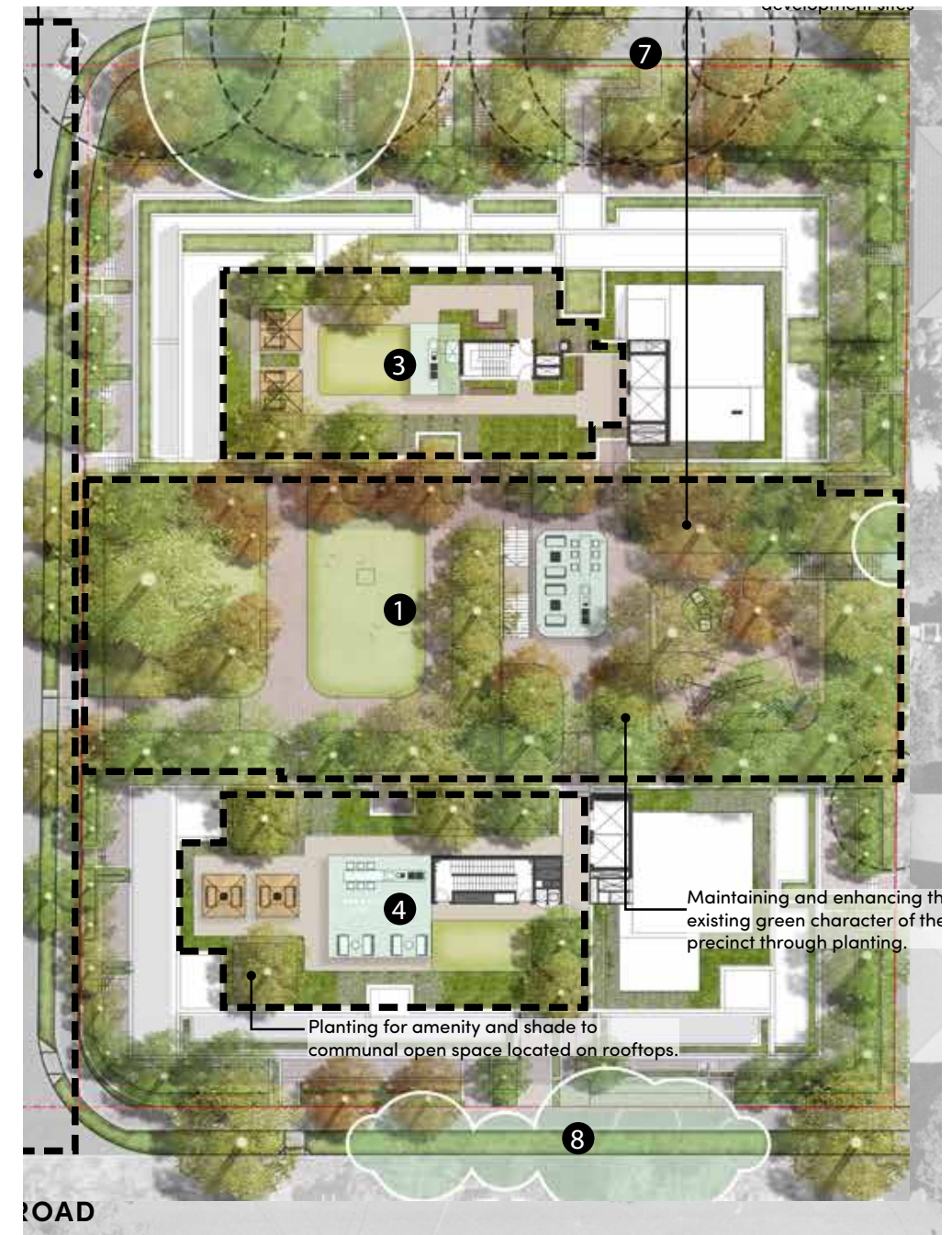
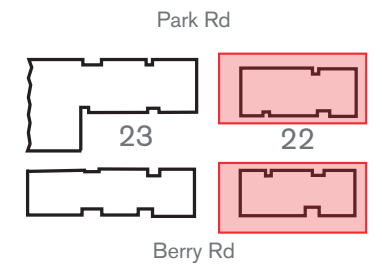


BIKE WORKSHOP

8.1 SOCIAL INTERACTION

ROOFTOP COMMUNAL AMENITIES

The communal rooftop terraces on Area 22 supplements ground level open spaces. The terraces provide a wide range of amenities including lounges, open lawn, casual seating and alfresco dining.



9.0 AESTHETICS

SEPP 65

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

RELEVANT APARTMENT DESIGN GUIDELINE OBJECTIVES	
4M	FACADES
4M-1	Building facades provide visual interest along the street while respecting the character of the local area.
4M-2	Building functions are expressed by the facade.
4N	ROOF DESIGN
4N-1	Roof treatments are integrated into the building design and positively respond to the street.
4N-2	Opportunities to use roof space for residential accommodation and open space are maximised.
4N-3	Roof design incorporates sustainability features.
4X	BUILDING MAINTENANCE
4X-1	Building design detail provides protection from weathering.
4X-2	Systems and access enable ease of maintenance.
4X-3	Material selection reduces ongoing maintenance costs.

RESPONSE

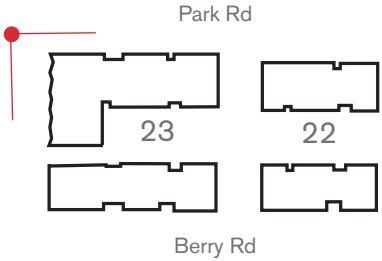
The facade design simultaneously responds to the existing site and overall future precinct character.

Articulation and indentations in the massing breaks up the perceived bulk from the street scale. The masonry podium on the Western and Southern boundary addresses the existing surrounding character of low density brickwork bungalows.

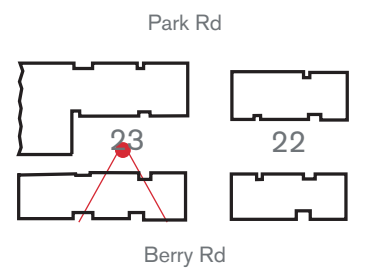
Area 22 and 23 have distinctive characters suited to differing streetscapes expressed through materiality and architectural treatment. A high quality and robust material palette using a variety of colours and textures is used.

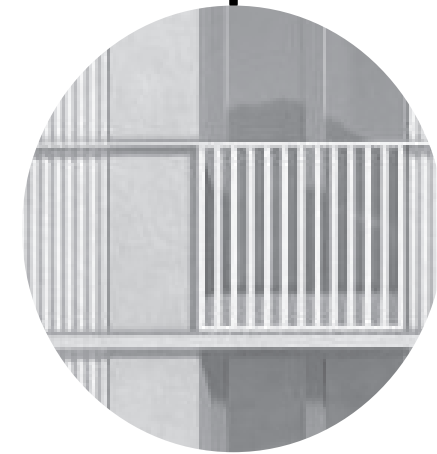
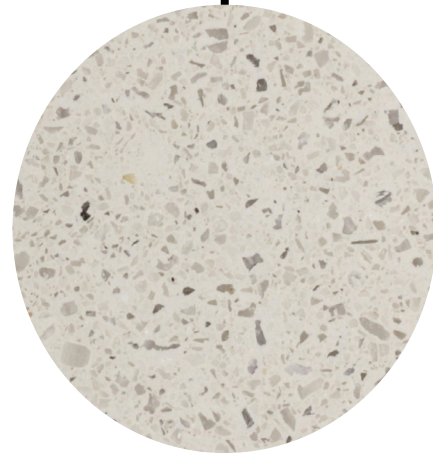
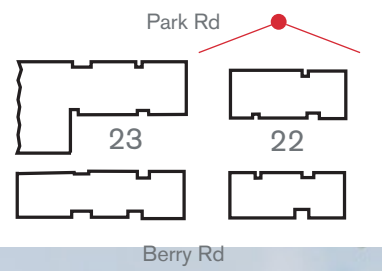
The facade strategy responds to shading solutions for low altitude summer sun.

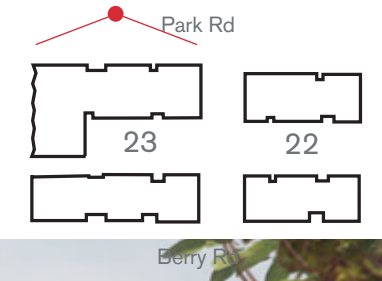
Key Plan

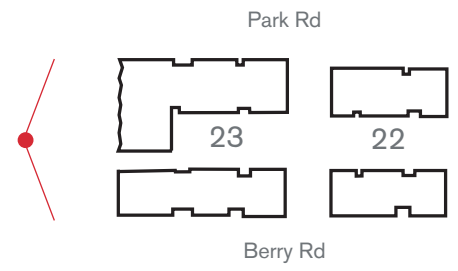


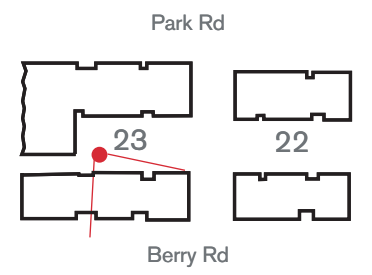
Key Plan

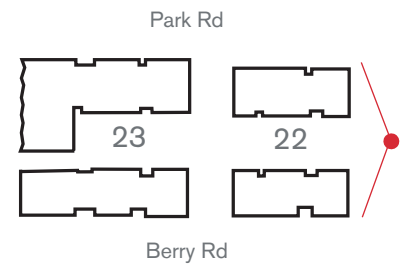


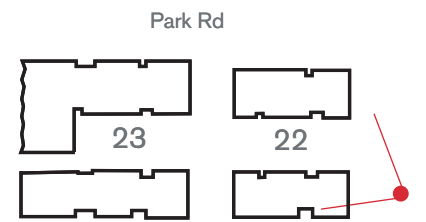












B

DRP COMMENTS RESPONSE

DESIGN REVIEW PANEL

DRP COMMENTS RESPONSE

DRP 1 (25/07/2022)	DRP 2 (21/09/2022)	DA SUBMISSION
4.2.1 Principle 1 Context and Neighbourhood Character		
Park Rd presents a distinct character as a shaded tree lined street containing early to mid-20th century brickwork bungalows stepping down to the south with the topography. The Applicant intends for the Western and Southern boundaries of the project site to act as a transition to the existing surrounding precinct. This includes the introduction of podium level masonry buildings with vertical recesses. This approach is supported by the Panel.		
The Applicant is encouraged to engage an Indigenous design consultant to work collaboratively with the Design Team to develop the overall Connection to Country approach and design outcome for presentation at the next DRP meeting. The Applicant could also consider contacting the Aboriginal Heritage Office to obtain further advice.	The Panel commends the quality and depth of the site and context analysis provided, including the strategic diagrams that explain the evolution of massing and language and the design with Country narrative. The landscape architect and indigenous design consultant presented the design with Country principles and some initial strategies which included the application of colour and artwork. However, further development is requested to demonstrate tangible strategies within the built form, landscape design and their relationship to the overall sustainability strategy, which should include matters such as building energy efficiency and solar shading.	The Connecting with Country narrative is part of our built form strategy forming particularly around the ground plane design and access to the communal spaces as well as landscaping design. Refer to the design report and landscape architect report for further information. Please refer to the design report for an overall sustainability strategy including a Climate Positive, Electrification, Circular Economy, Biodiversierse Habitat and Water Eco System focussed approach. Also refer to the accompanying ESD report.
The Panel notes the proximity of the site to Wollstonecraft train station. The Design Team are encouraged to consider this in their overall approach to urban design, site planning and wayfinding.		
	A number of options were discussed in relation to the new cross street including the provision of shared pedestrian and vehicle zones. The view of the Panel was that the character and form of this street requires more design development, to ensure that it feels contiguous with the adjacent high quality street network, feels public and is pedestrian friendly and safe. A pedestrian crossing could be provided between Areas 22 and 23 and opportunities for WSUD could be explored in respect to planting and water management. This should be further co-ordinated with Council officers to ensure the development interfaces well.	A pedestrian crossing and shared zone finish prioritising pedestrians have been provided. Refer to landscape design and report. WSUD has been considered as part of design, with extensive planting to minimise run off as well as rainwater harvesting has been considered. Please refer to accompanying ESD and landscape design report.
4.2.2 Principle 2 Built Form and Scale		
The proposed buildings to Area 22 have a distinctive character and are generally supported. However, the buildings to Area 23 are considered too monolithic with the same architectural treatments applied to the long elevations. The balcony balustrades and spandrels all appear to be the same and solid and include little colour differentiation. The roofline could be provided with greater variation. The designs in the precedent images are very different and appear to be of a higher quality than the proposal.	The design team has responded to the Panel's previous concerns regarding the massing by reducing building lengths, limiting the number of apartments served per core and introducing building breaks. The proposal's form and expression show great promise, including the modelling of all facades, the materiality proposed and the modulation along the courtyard interfaces. The north façade upper levels are very flat however with large expanses of glass and require additional articulation and sun shading.	Modulation and solidity is a part of the proposal's solar screening approach to limit solar heat gain in the apartments. Please see ESD and BASIX report.
The building massing to Area 23 is excessive in scale and does not provide sufficient site permeability. Given the scale of the site and number of apartments being proposed per level, a minimum of 3 to 4 buildings should be considered to Area 23, each with individual street and courtyard entrances and cores. Connections could be maintained between buildings using naturally ventilated breezeways at core locations, which may also provide the opportunity for additional cross ventilated corner apartments and improved amenity to common circulation areas.	The nature of the building break addressing River Rd was discussed and it was generally agreed that it did not support pedestrian circulation. Instead, this could be seen as a viewing courtyard for the green spine and neighbouring apartments. Visual and acoustic privacy needs to be carefully controlled within and across this space. The south facing townhouses to River Rd have been significantly improved through the provision of dedicated entrances from adjacent streets.	The apartment design along the "viewing courtyard" angles the façade away from opposing apartments whilst directs the views to the outside and long views of Wollstonecraft which allows for ventilation through these windows. This also increases acoustic privacy across this space. The "viewing courtyard" adjoining these apartments are heavily planted for additional privacy and amenity.
The proposed Eastern building to Area 23 does not provide a sufficiently graduated height and scale transition down to River Road consistent with the DCP. The Applicant is encouraged to introduce a greater number of stepped terraces with the added benefit of outdoor roof gardens facing towards the Harbour.		A variety of stepped terraces across the communal green spine creates a variety of terraces as a stepped journey through the green spine. Rooftop communal courtyards have also been provided to take advantage of extensive views of the CBD.
The provision of multiple vertical façade recesses achieves an effective layering of the built form when viewed from the streets. This is supported.	The depth of the vertical façade recesses appear to have been reduced in comparison to DRP #1. This would result in reduced effectiveness of these recesses for cross ventilation, daylighting and visual articulation. The design team should review this and aim to re-instate the original recess depths consistently to the facades.	The original depth of 3m as presented in DRP#1 has been reinstated.
The internal elevations facing the communal open spaces are not sufficiently developed. The massing however appears to indicate almost sheer facades with little modulation or recesses. A variety of materials and articulation should be provided to alleviate the tunnel like nature of this space to Areas 22 and 23. The Panel would support the extension of balconies by up to 1 m and the extension of living and bedroom windows up to 1 m into the building separation zone, subject to their windows facing primarily north or south.		The facades have been extensively further developed for DRP#2 and has been favourably received by the panel, please refer to comments on façade modulation.
The Panel notes that a significant number of below ground apartments are proposed throughout the development. Whilst level differences of up to 1 m can generally be supported in high amenity locations, below ground south facing dwellings including the townhouses facing River Rd are not supported. The proposed below ground living areas and private open spaces would exacerbate the already compromised amenity caused by the proximity to high traffic areas and the lack of solar access.	The sectional interface drawings are extremely helpful in explaining the proposal's interface with the public domain, however additional diagrams are required to demonstrate interfaces in locations not yet explained. The interface of Area 23 to Park Rd (Section 03) shows a number of subterranean apartments at Levels B-1 and B-2. These are not supported by the Panel. The building facing River Rd should be made thinner to levels B -1 and B -2 as there continue to be negative impacts on the amenities of these apartments. Refer to Principle 6.0 for further details.	Additional interfaces have been included, please refer to accompanying design report and landscape design. Currently there are a small number of subterranean apartments. However, there are extensive planting zone to alleviate privacy issues with large external areas to increase amenity.

DESIGN REVIEW PANEL

DRP COMMENTS RESPONSE

The Panel has no objection to the minor setback non-compliance to Park Rd Area 22 on the basis that this zone is only occupied by private outdoor spaces and balconies and limited to the podium levels (Ground to Level 2).	Council was concerned with the methodology employed for counting part storeys. This results in some podiums not achieving the 6 m setback requirement at the upper levels. This should be addressed with Council. TT also noted that the private courtyards to some ground level apartments extend into the green spine by more than the 1m stipulated in the Lane Cove DCP. The Panel has no specific concerns with this assuming satisfactory privacy control is maintained.	The proposal provides extensive planting and screening between private courtyards to the green spine. Please refer to landscape report and design for further information.
4.2.3 Principle 3 Density		
The proposed density and FSR is supported subject to improvements to the height transition (additional terracing) to the south-east corner and reduction to the extent of below ground dwellings.	No additional comments	
4.2.4 Principle 4 Sustainability		
A clear sustainability narrative is not yet evident in the design. The Applicant should provide a sustainability report to address the building and landscape design initiatives including the site's unique position relative to the broader landscape context. This could include: • Consideration of sustainability as an opportunity to drive a bigger site wide narrative responding to the National Climate Emergency • Development of apartment NatHERS ratings in excess of 6 stars combined with design strategies that go beyond minimum compliance and represent the required design excellence • External solar shading to west facades • Consideration of full site electrification without any gas cooking • Provision of adequate sub-station capacity for future electric vehicle expansion • Development of a water eco-system, with rainwater harvesting and re-use	A clear sustainability narrative is still not evident in the design. The Applicant should provide a more detailed sustainability report to address the building and landscape design initiatives. As discussed at the first Panel meeting sustainability measures such as NatHERS ratings should exceed minimum compliance in order to achieve design excellence and meet Lane Cove Council's Sustainability Action Plan and Climate Resilience Plan. The issues raised at the previous DRP have not been addressed.	Please refer to SEPP65 design report and ESD report for an overall sustainability approach including a Climate Positive, Electrification, Circular Economy, Biodiversifier Habitat and Water Eco System focussed approach. In reference to DRP#1 comments, the design has further developed with external solar shading as vertical louvres and increased solidity to western facades, provision of adequate substation capacity for future electrical vehicle expansion to at least double the current provision. Rainwater harvesting and re-use has been considered for to service all planted areas.
4.2.5 Principle 5 Landscape		
The relationship between the Area 22 and Area 23 communal open spaces should be further developed with regard to visual access, security, and landscape continuity across the road. All residents of both Areas should have equal access to all communal open spaces.	Council expressed concern at the stepping nature of the communal open space to Area 22 and the inconsistency of this with the landscape master plan. The Panel is generally supportive of this approach subject to equitable access being achieved between these levels, possibly by means of adjacent elevators. It is not clear from the landscape drawings if security is provided between the new cross street pedestrian pathways and the private green spines of Areas 22 and 23. The extent of public and private access should be clarified. The residents of both Areas should be permitted to easily access all communal open space and the pool, by the most direct route possible.	Equitable access: The design has used the opportunity of the site fall to create multiple stepped terraces with varied experiences across the communal open space "Green Spine". Please refer to the design report and landscaping report. Equitable access has been addressed with additional lobby access into Building B from the cross street linking Area 22 and 23 communal spaces. Security issues have been addressed in the latest landscape drawings.
The majority of deep soil areas and existing mature planting is located solely to Area 22. The Panel does not consider this to be consistent with the landscape master plan or DCP. Deep soil should be more evenly distributed between the two sites. While the swimming pool is supported in principle, solar studies should be provided to demonstrate the extent of solar access to the pool and surrounding recreation areas		Please refer to DA419 COS Solar drawings to demonstrate solar access to communal areas.
It appears that a number of existing significant trees are being removed from the communal open space. Further details are required together with supportive arguments in the form of an arborist's report. Every attempt should be made to preserve the maximum number of existing trees that will support wildlife and enhance site amenity.	It appears that a number of existing significant trees are being removed from the communal open space. Further details are required together with supportive arguments in the form of an arborist's report.	Please refer to arborist report
It appears that no communal open space is being provided to the building roofs which is at odds with other developments within the St Leonards South precinct. This appears a significant opportunity to enhance sustainability outcomes and provide greater amenity and marketing value. As a minimum the Panel would recommend that the roof of the lower south facing building to Area 23 be developed as communal open space. This would provide different opportunities for outdoor recreation such as for smaller communal groups.	The landscape strategies are well considered creating a number of differently themed and programmed spaces. The Applicant is commended for the provision of additional communal open space to building roofs.	Noted
Additional details of the pedestrian entrances to the communal open spaces and of the new east west street are requested, which was described by the Applicant as a shared street character.	Pedestrian connectivity between the courtyards of each building should be enhanced through improved coordination of lobbies to both buildings with the new cross street so as to provide accessible and safe access. It was suggested at the meeting that relocating a communal room to the Northwest corner of Area 23 may be a way of facilitating this objective.	Equitable access has been provided between the Area 22 and 23 communal areas please refer to the above comments.

DESIGN REVIEW PANEL

DRP COMMENTS RESPONSE

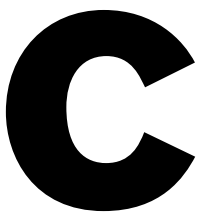
Overland stormwater flow does not appear to have yet been considered. Openings are encouraged between buildings to the southern zone of the Area 23 courtyard, which would otherwise be at significant risk of flooding of adjacent buildings in the event of stormwater system failure.		Please refer to civil engineers drawings and report
The diagrammatic elevations indicate extensive areas of building integrated planting in particular to the west elevation. Whilst this concept is supported by the Panel, additional details are requested describing the location, extent, details, and maintenance for this planting.		Please refer to landscape architects report
4.2.6 Principle 6 Amenity		
Levels B1-B4 The basement level car parking appears generally functional however many car spaces do not have storage attached. It may also be better to Level B3 if cars peeled off before the loading area to avoid conflicts between cars and trucks. In regard to Level B2 the Park Rd pedestrian entrance is too narrow and should have a direct sight line between the street entrance and the courtyard. The south facing townhouses to River Road are not supported in their current form as they are isolated from the remainder of the development and the communal open space. The lower townhouse floors levels to Areas 22 and 23 should be raised to match or be situated above street level with suitable visual privacy and acoustic buffers. The internal corner apartment arrangements (SE and SW corners of communal open space Area 23) are not supported as they will lead to compromised internal arrangements and amenity. It is recommended that only one apartment occupy each corner. The location of communal rooms is supported. The Berry Rd pedestrian entrance should align with the lifts which currently compromises wayfinding and causes excessive internal walking distances. The lift lobbies should generally be wider. Common corridors to Levels B1 and B2 are excessively long and without relief with up to 17 apartments per core. Together with dead end corridors this would contribute to poor quality apartments with complex way finding. The number of apartments per core and the common corridor lengths should be reduced, to comply with the ADG. Additional windows should be introduced to common corridors. Further to item 4.2.2 it is recommended that Area 23 be redesigned to provide 3 - 4 buildings each with an individual core. The current floor plan proposal is not compliant with the ADG nor supported by the Panel and requires considerable rework prior to the next DRP.	Wayfinding and circulation The overall approach to building entrances and horizontal and vertical circulation has been improved, with resulting benefits to the building amenity and wayfinding. The design team confirmed that all apartments are provided with a primary building entrance from Park Rd or Berry Rd or in the case of street level apartments via ground level private courtyards. Entrances from the green spines are only utilized as secondary access points for residents and for access to communal open space. While common corridors have typically been shortened, a number of building levels still feature excessively long corridors. Some window slots such as those to Levels 1, 2 and 3 of the West building Area 23, are too narrow and deep to provide genuine daylighting or outlook and should be re-configured. The Panel instead recommends the adoption of windows at the southern end of corridors exceeding 12m in length as this will provide the highest level of amenity.	Lift lobby corridors are provided with natural lighting and clear way finding.
Ground Similar to the basement levels common corridors are excessively long with up to 15 units being provided per core. They should be redesigned to comply with the ADG. The pedestrian entry from Park Rd to Area 22 should align with the lifts and the lift lobby should be wider and above ground to provide daylighting and outlook to the courtyard. The current proposal would result in a compromised entrance experience and wayfinding.		I
Level 1 & 2 Lift lobbies should be wider. The Panel is concerned the internal/courtyard facing facades will have little modulation being exactly 24m apart. Refer to section 4.2.2 for recommendations.		
Generally Consider providing greater variety to individual apartment entrances through the use of door sidelights, wider recesses, and offset entrances to avoid visual privacy concerns from corridors. Consider widening long common corridors to provide relief and variety. Balconies appear to be minimum ADG sizes. Given the high quality of the precinct and precedents set by other projects, it would be anticipated that larger balconies would be provided that encourage indoor and outdoor living. The Panel would support larger balconies that project beyond the façade line (and into the street and communal open space setback lines) by up to 1 m. A greater variety of apartment sizes is also encouraged as these appear to have mostly minimum dimensions. The majority of apartments have balconies in front of bedrooms, and it is recommended that a variety of plan types be provided which may in some cases include balconies in front of living rooms in order to visually extend these spaces. Provide developed floor plans/apartment layouts to all levels. The number of lifts provided relative to the number of apartments appears to be low and further details are requested. This could be improved by the provision of additional cores as recommended earlier in this report. The Panel noted potential difficulties with building address and wayfinding given the scale of the combined Areas 22 and 23 and their being serviced by a single driveway, car park entrance and service dock.	The planning of units to the Southwest corner is not supported as it results in a poor built form outcome and likely visual and acoustic privacy impacts, where windows of 2-3 different apartments converge in an unacceptable manner. As the East-West wing is only three storeys high, it is recommended that it is significantly narrowed (using the north side of the core to set out the wings north façade for example). This may lead to the loss of a few units, but it will greatly improve the amenity of adjacent units and may even allow natural light and air light to the north end of the adjacent lobby. A number of South facing 4-bedroom apartments, such as those to Levels 1, 2 and 3 in the Southwest corner, include excessively deep living/dining spaces with likely impacts on daylighting. These and some neighbouring 3-bedroom apartments should be reviewed and may benefit from a component of east or west orientation to living rooms. Consider providing a greater variety to individual apartment entrances through the use of door sidelights, wider recesses, and offset entrances to avoid visual privacy concerns from corridors. Some apartments include dogleg entrance corridors resulting in a poor entrance experience and amenity. These should be reconsidered by for example situating the living rooms to the corner with two aspects and a bedroom either side.	- Southwest corner units have been reconfigured to address acoustic and privacy issues. Current - layout has increased amenity to these units. - East - West wing configurations have been addressed. - South facing 4 bedroom apartments have been reconfigured in the SW corner to minimise deep living area issues.

DESIGN REVIEW PANEL

DRP COMMENTS RESPONSE

Visual and acoustic privacy Many apartments addressing Berry and Park Rd feature vertical building recesses shared by pairs of apartments. Whilst these are generally supported as they assist with solar access, natural ventilation, views, and daylighting as well as built form articulation, care should be taken with regards to visual and acoustic privacy between living rooms of adjacent apartments looking across these recesses. Strategies that may be considered include offsetting windows and the provision of privacy screens in accordance with Parts 3F and 4H of the ADG.	Visual and acoustic privacy Visual and acoustic privacy continues to be a concern between living rooms of adjacent apartments to Park Rd at Levels 1, 2 and 3. This should be addressed by offsetting windows and the provision of privacy screens or other strategies in accordance with Parts 3F and 4H of the ADG	These windows are designed as highlight windows to alleviate visual and acoustic issues.
Cross ventilation The cross-ventilation count appears to incorporate apartments with narrow façade recesses approximately 2-3m in width (for example Levels 1-3 east facing apartments to Area 23). These are not supported by the Panel nor compliant with Part 4B of the ADG. The overall number of cross-ventilated apartment should be corrected and if necessary, the floor plans amended. More detailed apartment plans are required indicating window types and locations in order to further assess the cross-ventilation compliance.	The cross-ventilation count appears to incorporate the following 1-bedroom apartments to Area 23: • Park Rd facing apartments to Levels 1, 2 and 3 • Berry Rd facing apartments to Level B-1 and Ground Given the minimal depth of the façade recesses, the narrow dimension of these apartments relative to their depth and the window placements, the Panel would not consider these as compliant with Part 4B of the ADG. The overall number of cross-ventilated apartments should be corrected and if necessary, the floor plans amended.	Continuous high level windows at 3m width across the living space has been provided in these slots to provide extensive cross ventilation. Balconies have now been relocated to address acoustic privacy concerns. Please refer to drawings DA411-414.
Solar access Few details have been provided in regard to any proposed solar shading. This is particularly important in respect to long west facing elevations. Further details are requested prior to the next DRP. The development schedule indicates that 82% of apartments are provided with two hours of solar access which is higher than most other developments have achieved in the precinct. More detailed solar analysis is required including views from the sun, in order to demonstrate the level of compliance.		Solar shading has been provided across all facades in form of vertical shading and increasing solidity. The development currently achieves 78% solar access. Please refer to Eye of the Sun diagrams DA420 for further justification.
Distribution of amenity The averaging of amenity such as solar access, cross ventilation, communal open space, and deep soil across the entire project is not supported due to significant scale of development and the separation of Areas 22 and 23 by a public road.		Amenity distribution has been carefully considered catering to a wide range of users and distributed between the two areas. Please refer to the development summary.
4.2.7 Principle 7 Safety		
Few details are provided with respect to the lobby entrances and associated visibility and way finding. This is requested for the next DRP together with details of the security provided to communal open spaces and ground level apartments and townhouses.	Few details have been provided of the lobby entrances and associated visibility and way finding nor of the security provided to communal open spaces and ground level apartments. Further details are requested.	Lobby entries have been considered with portal frames to signfy the entries. Interface sections through lobbies have been provided. Refer to the landscape architect report for further information on security provided to communal open spaces and ground level apartments.
4.2.8 Principle 8 Housing Diversity and Social Interaction		
Opportunities for social interaction could be improved by adopting previous recommendations including the alignment of street entrance locations with lifts and courtyard entrances. The unit mix is generally supported however consideration could be given to some larger 4 bedroom and dual key apartments.	The location of communal rooms should be reviewed and if possible coincide with horizontal and vertical movement paths into the green spine	The proposal has increased communal rooms and amenity across the development since DRP#2 to ensure a variety of communal offering. The gym has also been relocated to be directly accessed off the gym. Equitable access has also been considered with the addition of lobby access of the cross street connecting Area 22 and 23.
4.2.9 Principle 9 Aesthetics		
The design report includes good analysis of surrounding built form and streetscapes, providing a sound starting point for the building envelope designs. However, the building elevations could also be informed by a broader range of issues including orientation and solar control, varying topography, views, and street setbacks. Consider developing the individual façade designs further to respond to these conditions and to provide more variety and articulation. Provide additional details of the façade products, materials and finishes consistent with the precedent images provided and that respond to the overall precinct character. Consider the re use of any existing on-site sandstone. Provide further details of air conditioning plant. NB indicated that individual plant rooms would be provided to each floor (rather than balcony mounted units). Provide details of vertical external drainpipes and drainage to balconies to demonstrate their integration into the design. Provide all elevations and sections capturing both street and internal elevations. Overall building dimensions should also be provided.	The building form, elevational treatment and materiality have been further developed to create a variety of architectural solutions suited to the different streetscapes and orientations. This is supported by the Panel. Additional sun shading should be incorporated into the western facades and be configured to provide effective sun-shading of glass and private open spaces, when taking into account low altitude afternoon sun in summer. The provision for air conditioning plant adjacent to elevators appears minimal and may not be sufficient to cater for all apartments per floor. This should be further developed, taking into account that the Panel would not support balcony, garden or roof mounted AC units.	The design has been carefully considered to balance architectural composition, access to views and solar shading. Please refer to BASIX report to show that the current composition can achieve compliance whilst meeting sustainability targets. There are sufficient plant areas on the rooftop to cater to all apartments per floor. There will only be 9 apartments wtih garden AC units in larger than minimum sized gardens. No balcony or roof mounted AC units will be used.





ADG COMPLIANCE

Table 1. SUMMARY OF COMPLIANCE																																			
Control	Compliance Criteria		Compliance																																
Use	Site is zoned R4 High Density Residential		The development proposes a residential use for the site, consistent with the desired outcomes of the R4 High Density Residential zone.																																
Building Height	Area 22 and Area 23 Park Road: 25m Area 22 and Area 23 Berry Road: 37m Area 23 River Road: 15m		Compliance achieved																																
FSR	Site Area: 11,557m ² Area 23: 6,755 m ² Area 22: 4,802 m ² Max. FSR 2.75:1		Proposed: 31,780 m ² 2.75 : 1 FSR Compliance achieved																																
3D Communal Open space	Minimum of 25% of the site area should be communal open space.		30.9 % Provided. 3407.3m ² of communal open space. Compliance achieved																																
3D Communal Open space	Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter)		Compliance achieved																																
3E Deep Soil Zones	Minimum of 50% of the Green Spine area should be a deep soil zone (1310 m ²), with dimensions: Area 22: 24m; Area 23: 25m		50% of the Green Spine area (1324m ²) will be deep soil with the minimum dimensions achieved. Compliance achieved																																
3F Visual Privacy Building separation	Area 23 DCP Controls <table><tr><td></td><td>Up to 4 storeys</td><td>5-8 storeys</td><td>9+ storeys</td></tr><tr><td>Park Road</td><td>4m</td><td>7m</td><td>10m</td></tr><tr><td>Berry Road</td><td>4m</td><td>7m</td><td></td></tr><tr><td>River Road</td><td>10m</td><td>17m</td><td>24m</td></tr></table> Area 22 DCP Controls <table><tr><td></td><td>Up to 4 storeys</td><td>5-8 storeys</td><td>9+ storeys</td></tr><tr><td>Park Road</td><td>10m</td><td>13m</td><td>16m</td></tr><tr><td>Berry Road</td><td>4m</td><td>7m</td><td></td></tr><tr><td>New Park (Park Road Side)</td><td>6m</td><td>9m</td><td></td></tr></table>			Up to 4 storeys	5-8 storeys	9+ storeys	Park Road	4m	7m	10m	Berry Road	4m	7m		River Road	10m	17m	24m		Up to 4 storeys	5-8 storeys	9+ storeys	Park Road	10m	13m	16m	Berry Road	4m	7m		New Park (Park Road Side)	6m	9m		Compliance achieved
	Up to 4 storeys	5-8 storeys	9+ storeys																																
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Berry Road	4m	7m																																	
New Park (Park Road Side)	6m	9m																																	

Table 1. SUMMARY OF COMPLIANCE					
Control	Compliance Criteria				Compliance
	New Park (Berry Road Side)	6m	9m		
3J Bicycle and Car Parking	The maximum car parking and bicycle parking rates are as per traffic consultant report.				Compliance Achieved – Refer to traffic consultant report for further information
4A Solar + Daylight Access	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.				78% of apartments receives solar access between 9am & 3pm Compliance achieved
4A Solar + Daylight Access 4B Natural Ventilation	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.				Proposed Area 23: 5.4% Proposed Area 22: 2% 4% of apartments receive no direct sunlight between 9am and 3pm at mid-winter. Compliance achieved
	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.				60% of apartments are naturally cross ventilated with the windows open. Compliance achieved
4B Natural Ventilation 4C Ceiling heights	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.				Compliance achieved
	Minimum ceiling heights are as follows: 2.7m for habitable rooms 2.4m for non-habitable rooms - double storey apartments – 2.7m for main living area, 2.4m for second floor where its area does not exceed 50% of the apartment area - attic spaces – 1.8m at edge of room with a minimum 30degree slope in mixed use areas – 3.3m for ground and first floor				Proposed 2.7m habitable– Compliance readily achievable Proposed 2.4m non-habitable – Compliance readily achievable
4D-1 Apartment Size + layout	Minimum Apartment sizes: 40 m² for studios 50 m² for one bedrooms 70m² for two bedrooms; and 90m² for three bedrooms.				Compliance achieved

Table 1. SUMMARY OF COMPLIANCE		
Control	Compliance Criteria	Compliance
	Add an 5m² for additional bathrooms; Add an 12m² for additional bedrooms	
4D-1 Apartment Size + layout 4D-2 Apartment Size + layout	Every habitable room must have a window in an external wall with a total minimum glass area of no less than 10% of the floor area of the room. Day light and air may not be borrowed from another room	Compliance readily achievable
	Habitable room depths are limited to a maximum of 2.5 x the ceiling height. Open plan layouts (where living, dining and Kitchen are combined habitable room depth form the window is 8m	Compliance readily achievable
4D-3 Apartment Size + layout	Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space).	Compliance Achieved
4D-3 Apartment Size + layout 4E Private open space and balconies	Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	Compliance Achieved
	Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments 4m for 2 and 3 bedroom apartments	Compliance Achieved
	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.	Compliance readily achievable
	Apartments are to have the following balcony dimensions: 1br – 8sqm with min.2m depth 2br – 10sqm with min. 2m depth 3br – 12sqm with min. 2.4m depth	Compliance achieved
4E Private open space and balconies 4F Common circulation and spaces	Ground level apartments should contain a minimum of 15m² of open space, with a minimum dimension in one direction of 3m.	Compliance achieved
	The maximum number of apartments off a circulation core on a single level is eight.	Building A: Range of 3 – 11 Units per circulation core Building B: Range of 3 – 11 Units per circulation core Building C: Range of 4 – 8 Units per circulation core Building D: Range of 3 – 9 Units per circulation core
4F Common circulation and spaces 4G Storage	For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	Compliance achieved Building D (11 floors) with 79 units across 2 lifts.
	- Studio apartments require 4m² of storage area - One bedroom dwellings require 6m³ of storage area - Two bedroom dwellings require 8m³ of storage area. Three bedroom dwellings require 10m³ of storage area.	Compliance achieved

SUBJECT
Architect Statement - DA

ATTENTION
Jeremy Hung

DATE
18.11.2022

Berry Road Development Pty Ltd.
Shop 24/25, 1 Hipper Street, Homebush NSW 2140

Via email: jeremy.hung@jqz.com.au

Dear Jeremy,

**Re: Architectural Design Verification Statement
26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd NSW 2065 (Area
22 & 23)**

Pursuant to Clause 24 of the *Environmental Planning and Assessment Regulation 2021*, effective from 1 March 2022;

I hereby declare that I am a qualified designer, which means a person registered as an architect in accordance with the *Architects Act 2003*.

I directed the design of the residential development stated above and to the best of my information, knowledge and belief, the architectural documentation prepared for this Development Application achieves the design quality principals as set out in *Schedule 1* of the *State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development* and objectives in Parts 3 and 4 of the *Apartment Design Guide*. Further detail on how the objectives are addressed is provided in the SEPP 65 Report accompanying this Development Application.

In accordance with Clause 29 of the *Environmental Planning and Assessment Regulation 2021*, as the Development Application is accompanied by a BASIX Certificate for the building, this certificate does not address the design quality principles to the extent to which they aim—

- (a) to reduce consumption of mains-supplied potable water or greenhouse gas emissions in the use of—
 - (i) the building, or
 - (ii) the land on which the building is located, or
- (b) to improve the thermal performance of the building.

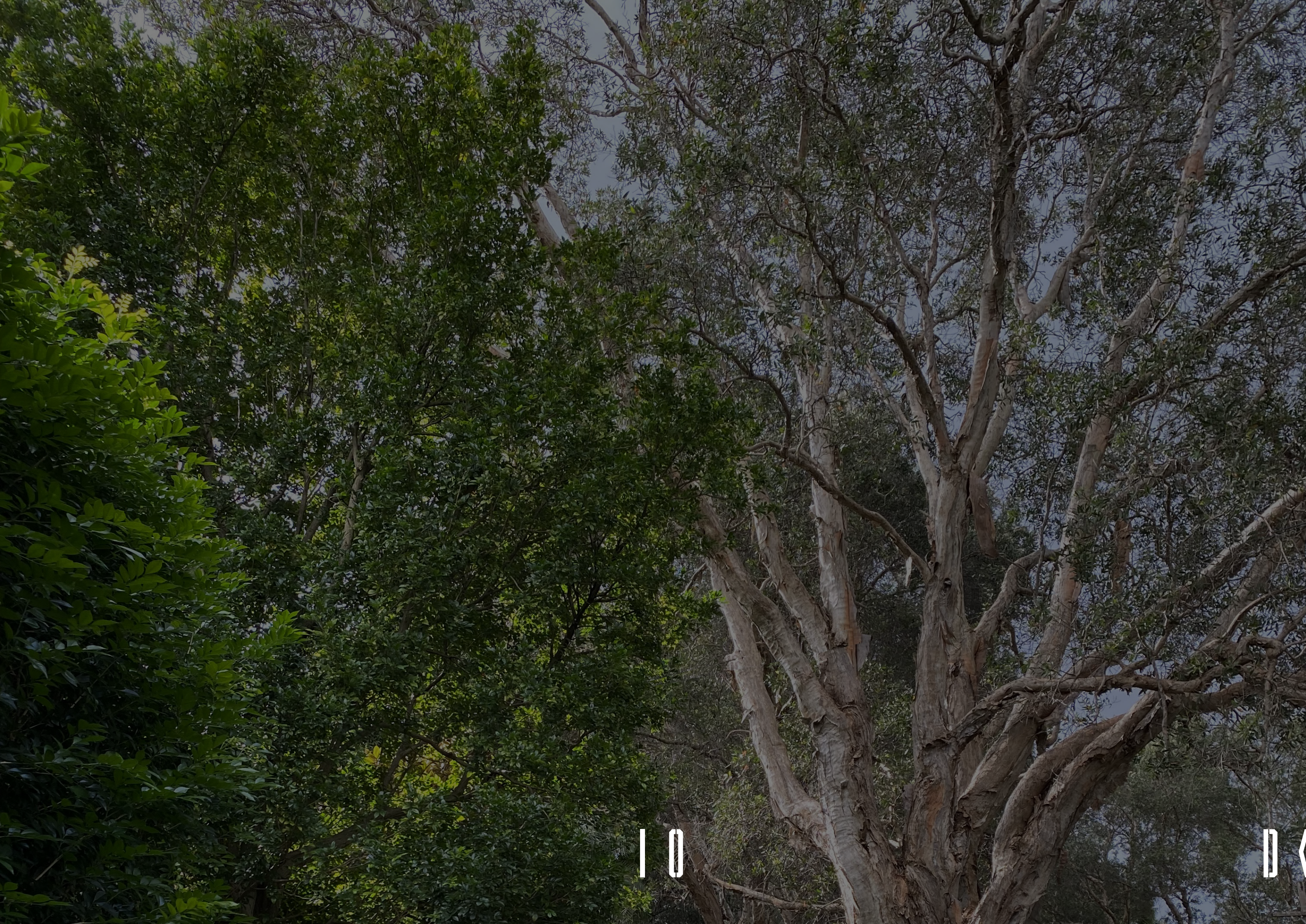
Yours sincerely,

DKO Architecture (NSW) Pty Ltd.
per:



Nicholas Byrne
Registration No 7806 (NSW)
Director





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