

Attachment 10

Revised Landscape Design Report

Aspect Studios

ST LEONARDS SOUTH
East Quarter
Landscape Design Report

07.10.2022

RevD

Document Information

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Document History & Status

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A	22.05.06	Issue for DA	SL	AW	AW
B	22.05.09	Issue for DA	SL	AW	AW
C	22.10.05	Issue for DA	SL	AW	AW
D	22.10.07	Issue for DA	SL	AW	AW

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Introduction

The proposal includes high quality public domain and landscape areas in the form of a central connecting green spine which extends through the centre of the site to realise Council's vision for the area and to retain the leafy character of the neighbourhood, and roof top gardens. Landscaping is proposed to comprise approximately 50% of the site area with 35% deep soil zone. Sufficient soil depth is provided above the basement in the green spine area to ensure sustainable growth of proposed planting.

The landscape design reinforces existing strategic objectives of NSW government policy and Council visions for the St Leonards South precinct including the principles and design vision of the St Leonards South Landscape Master Plan and Lane Cove DCP. The site will provide a level of comfort, familiarity for local residents, and a place that will be distinctive and an attractive asset to the development and local community.

The project draws inspiration from this distinct landscape and land forms of the Sydney landscape and specifically, the unique micro-climates of the St Leonards and Crows Nest region. The existing landscape of the St Leonards South areas shifts from an open woodland landscape typology at its ridge (Pacific Highway) and transitions into a wet, gully landscape (Smoothey Park/Berrys Creek). By reflecting this transition of landscape, we create an inspiring and contextually rich landscape character to the St Leonards South residential development.

A distinct palette and arrangement of materials and planting within the Green Spine reflect the changing landscape experiences, moving between open woodland spaces with large trees and open grass areas, to a more intimate, dense gully environment with steep escarpments and dense understorey planting

The proposed plan provides for a 9m wide pedestrian link through the site, which will provide a pedestrian connection from Berry Road to Holdsworth Avenue and will connect to pocket parks planned for the southern end of Holdsworth Avenue and Berry Road. Ramped access is provided to ensure the connection is accessible by all.

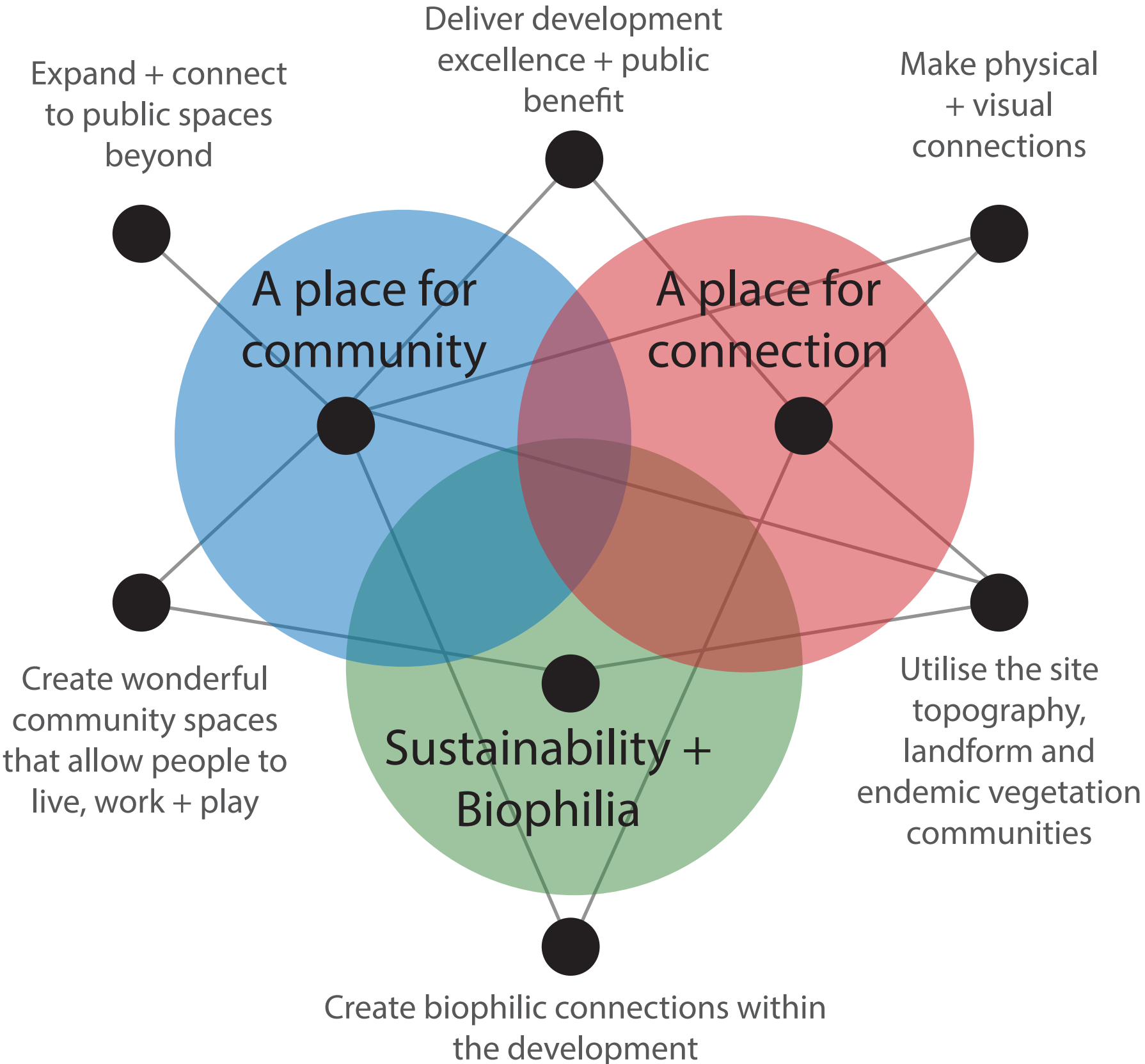


Aerial Image, St Leonards South Landscape Master Plan (prepared by Oculus, 2017)

Landscape Concept

Design Principles

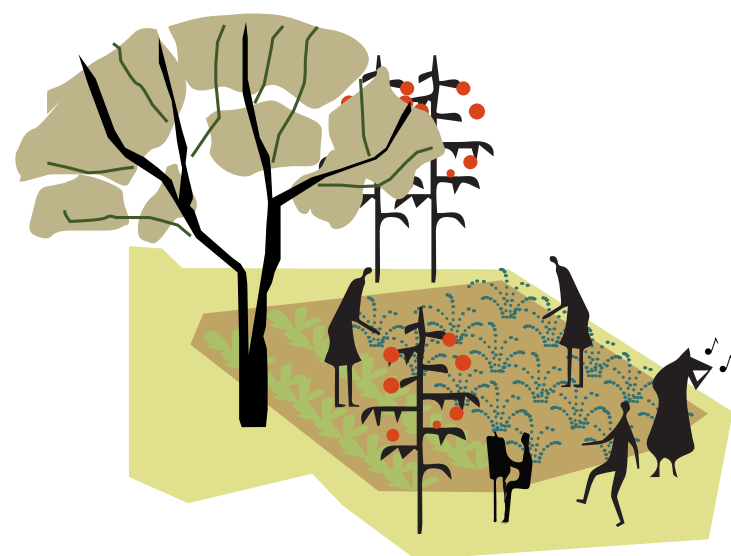
To deliver an example of sustainable development in St Leonards ...



Landscape Concept

Key Objectives

A biophilic development...



Deliver a biophilic development for St Leonards



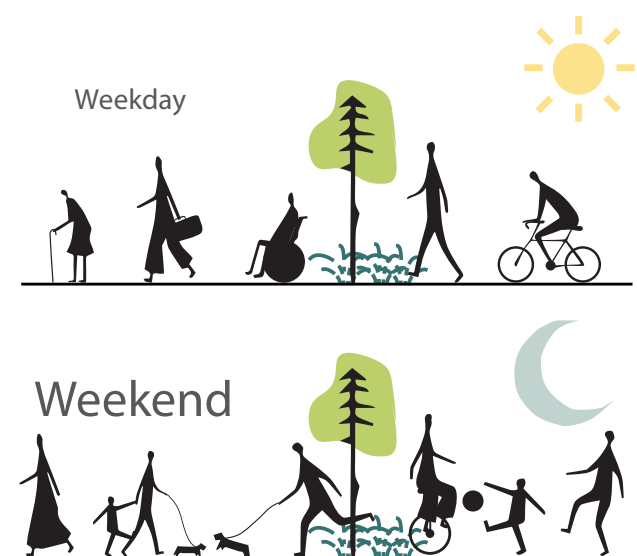
Preserve + Enhance Existing Vegetation



Naturally Capture and Treat Rainwater



Deliver development excellence + public benefit



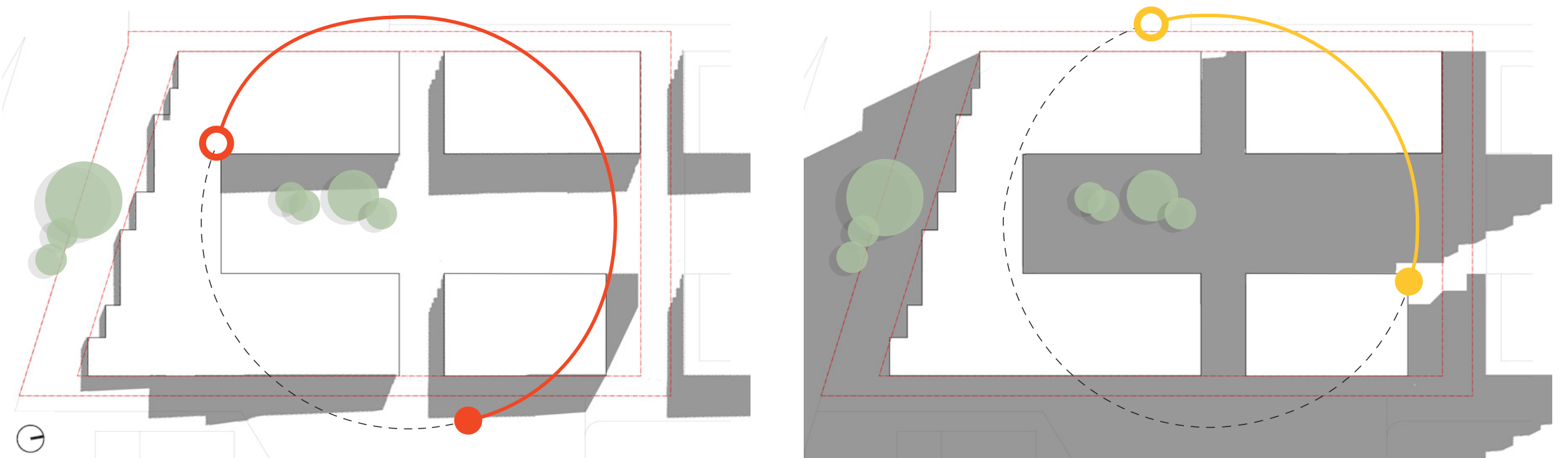
Create wonderful community spaces for people to live, work + play



Expand and connect to public spaces beyond

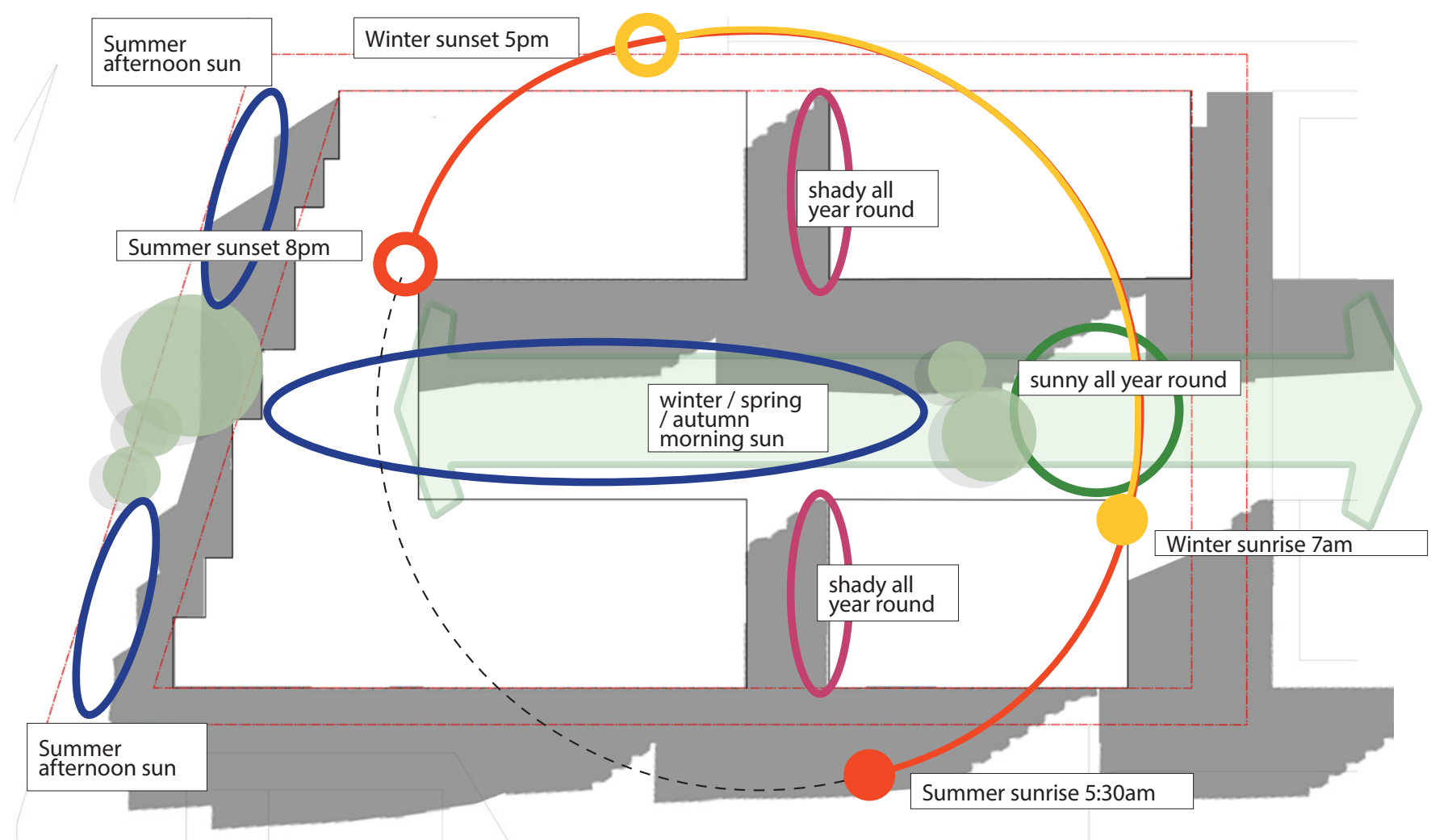
Landscape Concept

Solar Analysis



Summer 1PM

Winter 1PM



OPEN SPACES
GREEN SPINE

Landscape Concept

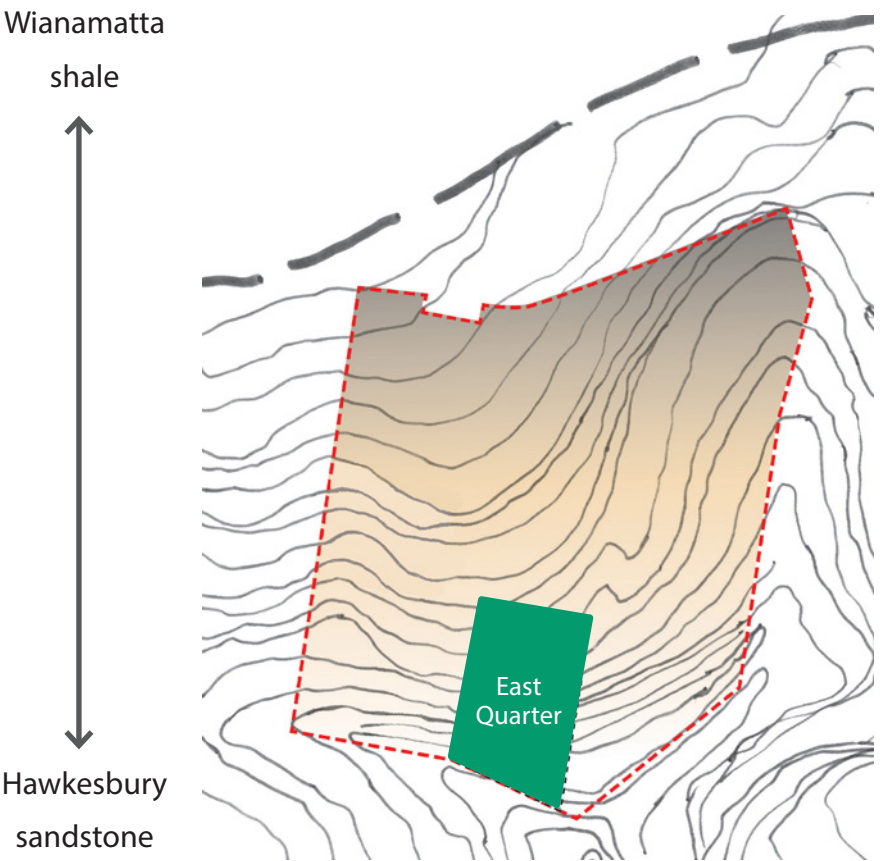
Design Intent

The project draws inspiration from this distinct landscape and land forms of the Sydney landscape and specifically, the unique micro-climates of the St Leonards and Crows Nest region.

The existing landscape of the St Leonards South areas shifts from an open woodland at its ridge (Pacific Highway) and transitions into a wet, gully landscape (Smoothery Park/ Berrys Creek). By reflecting this transition of landscape, we create an inspiring and contextually rich landscape character to the St Leonards South residential development.

As the land falls from the ridge top (St Leonards town centre) towards the gully (Berrys Creek), the geology changes from Wianamatta shale to Hawkesbury sandstone. These different geologies inform a change in micro-climates and vegetation communities that is reflected in the landscape planting design (see Indicative Planting Palette).

A distinct palette and arrangement of materials and planting within the Green Spine reflect the changing landscape experiences, moving between open woodland spaces with large trees and open grass areas, to a more intimate, dense gully environment with steep escarpments and dense understorey planting.



Gully

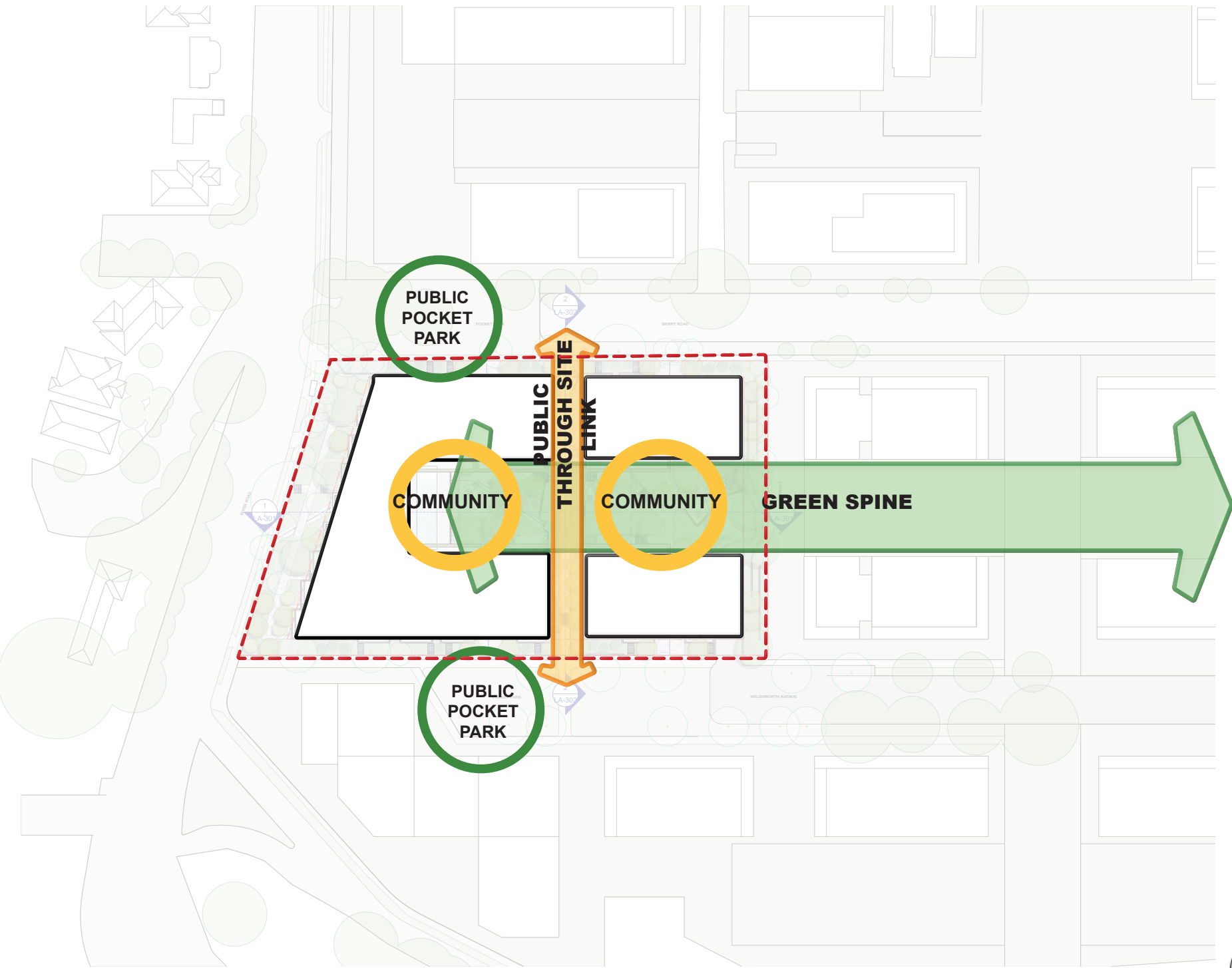
- Intimate spaces
- Dense groundcover layer
- Warmer tones (Hawkesbury Sandstone)

Open Woodland

- Open spaces providing distant views
- Dense canopy layer
- Deep grey tones (Wianamatta Shale)

Landscape Concept

Expand + connect to public spaces beyond



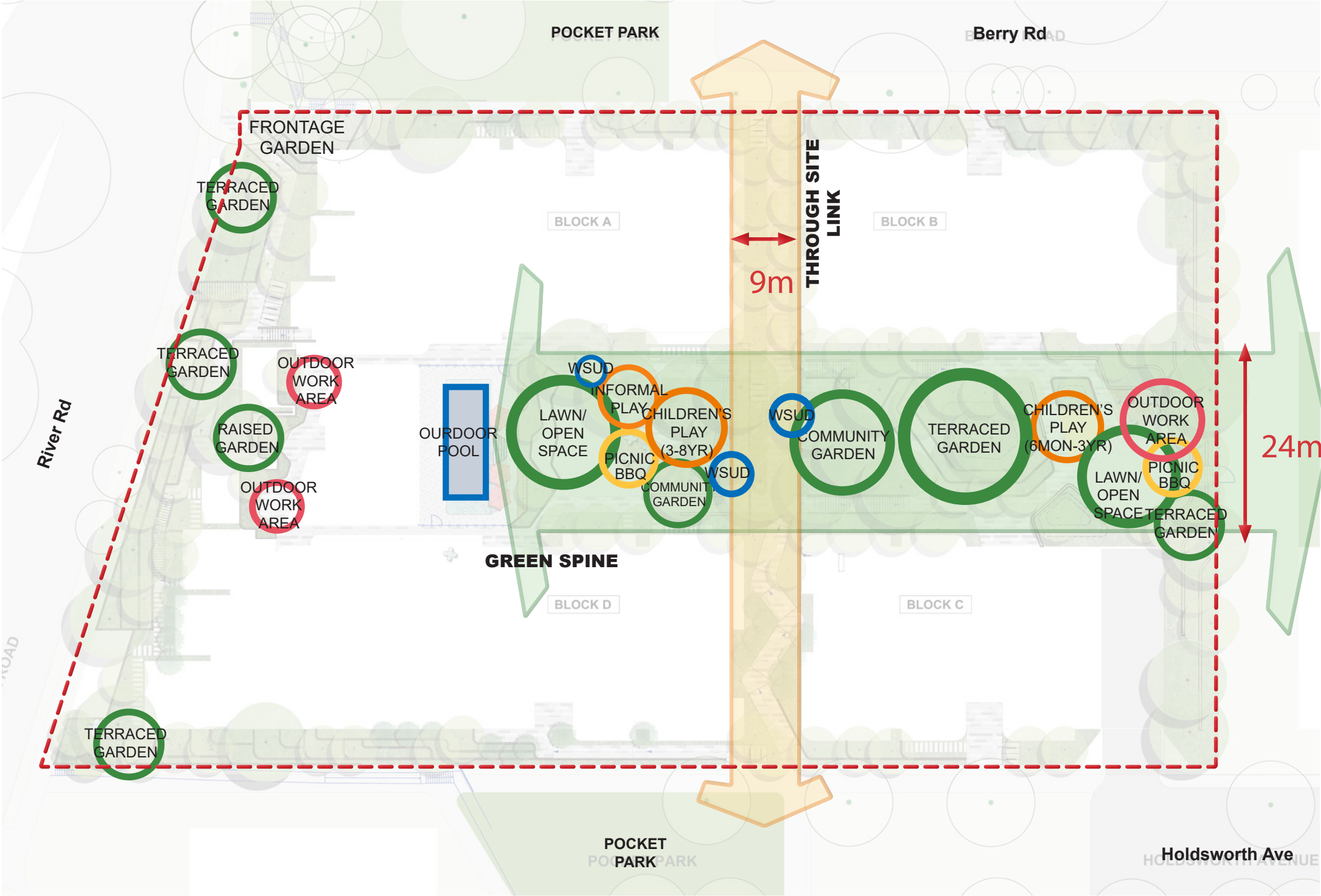
“ Green + Cool”

- Biodiversity
- Pollination
- Urban cooling
- Passive recreation



Landscape Concept

Programs & Activities



Landscape Masterplan

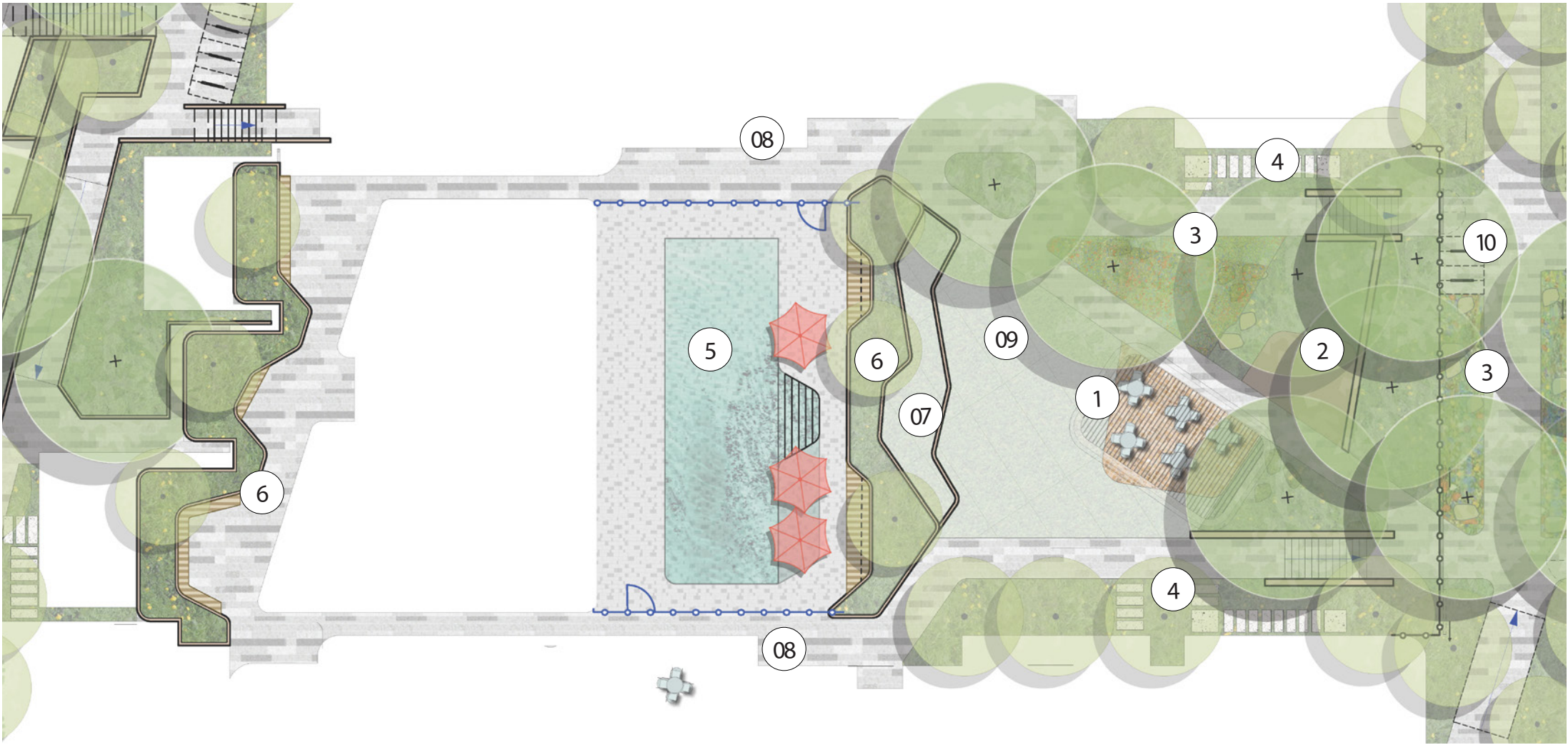
Ground Plan



- Property Boundary
- Carpark Entry Below
- Pedestrian Entry
- Apartment Entry

Landscape Masterplan

Green Spine South



LEGEND

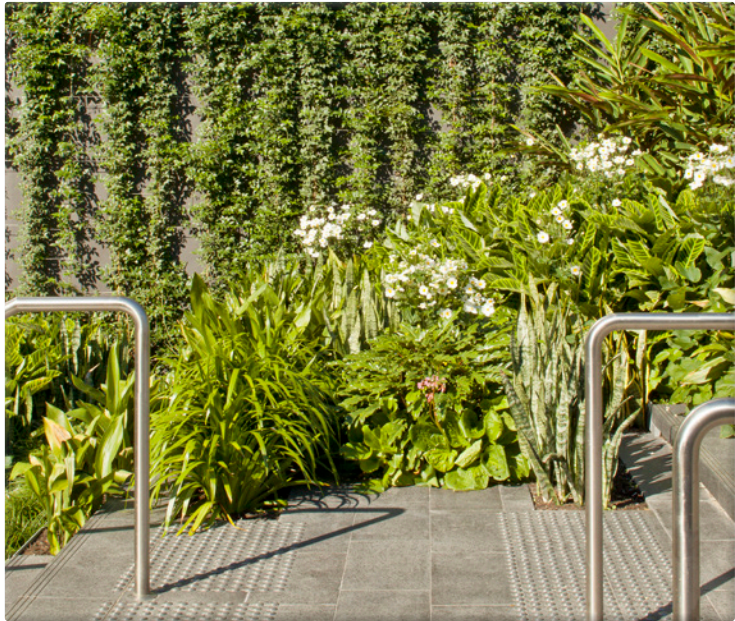
- 01. Community lounge (with shelter, picnic setting)
- 02. Kids play space
- 03. WSUD rain garden
- 04. Stepping stone to private courtyard
- 05. Swimming pool
- 06. Raised garden bed with seating
- 07. Terraced turf
- 08. Egress exit
- 09. Lawn space (spread out and kick-about)
- 10. Bike racks



BBQ/ BAR TABLES & SEATING



COMMUNAL LAWN SPACE/ OUTDOOR WORK AREA



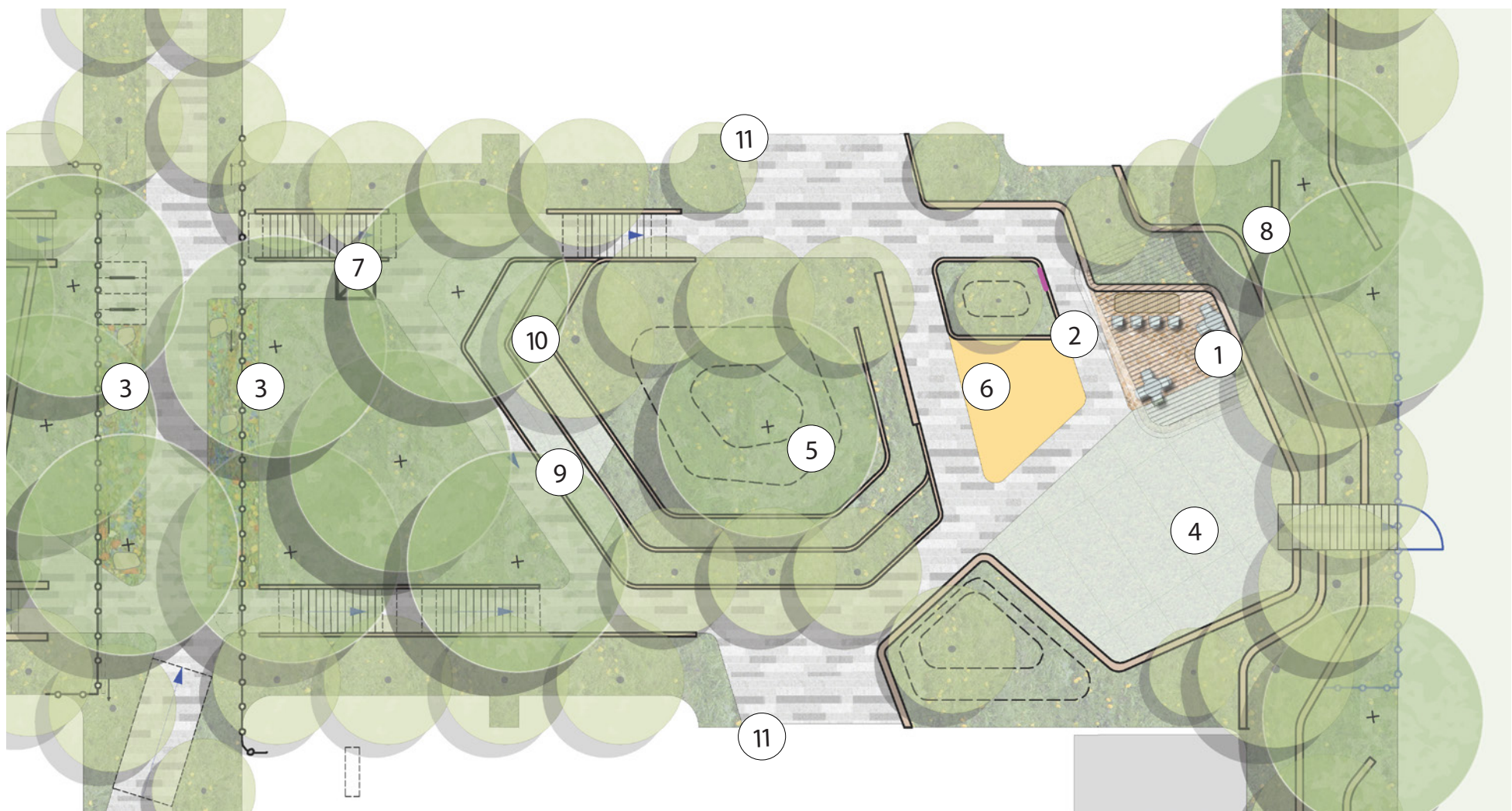
GREENERY ADJACENT TO STAIRS



RAIN GARDEN

Landscape Masterplan

Green Spine North



LEGEND

- 01. Community lounge (with shelter, picnic setting)
- 02. Kids play space
- 03. WSUD rain garden
- 04. Lawn space (spread out and kick-about)
- 05. Terraced garden
- 06. Raised garden bed with seating
- 07. Platform lift
- 08. Outdoor working space
- 09. Ramped walkway
- 10. Terraced turf
- 11. Egress exit



LAWN SPACE



CHILDREN'S PLAY



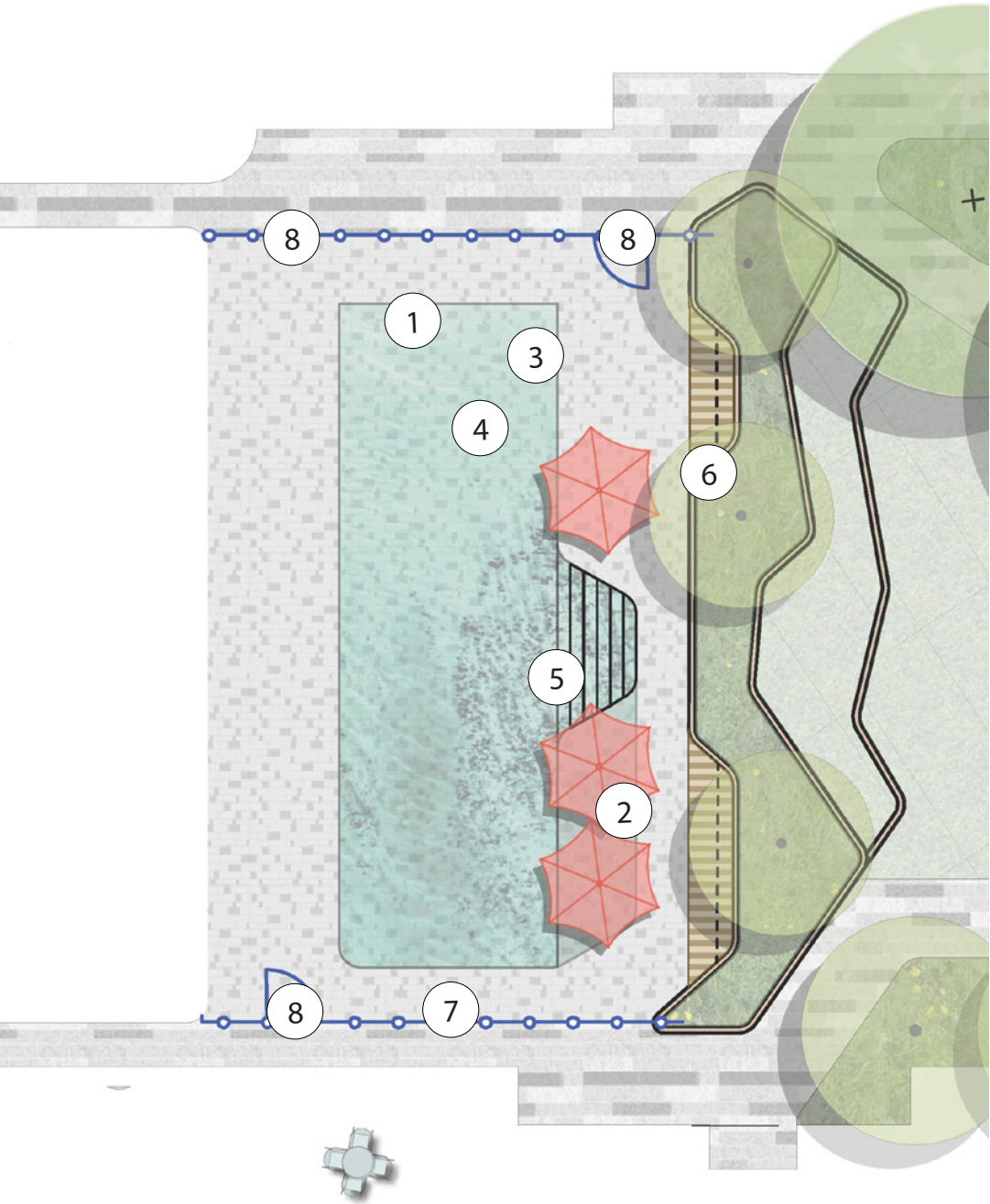
COMMUNITY OPEN SPACE



BBQ & PICNIC AREA

Landscape Masterplan

Community Pool



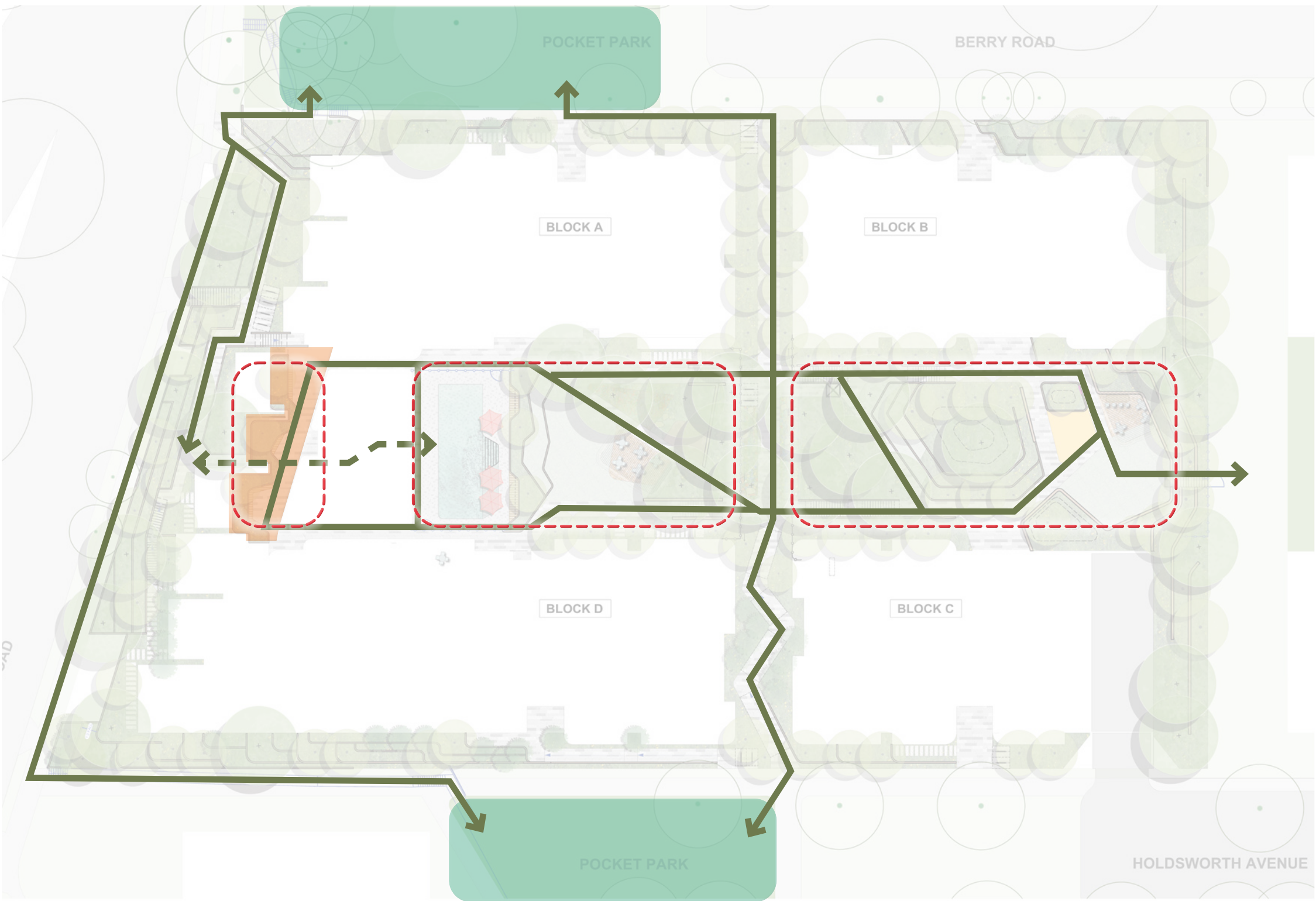
LEGEND

- 01. Kids paddle pool
- 02. Water lounge
- 03. Stepping stone crossing
- 04. Water cascade
- 05. Stairs
- 06. Deck lounge
- 07. Pool fence
- 08. Entry/ Exit



Design Analysis

Communal Open Space & Roof Garden

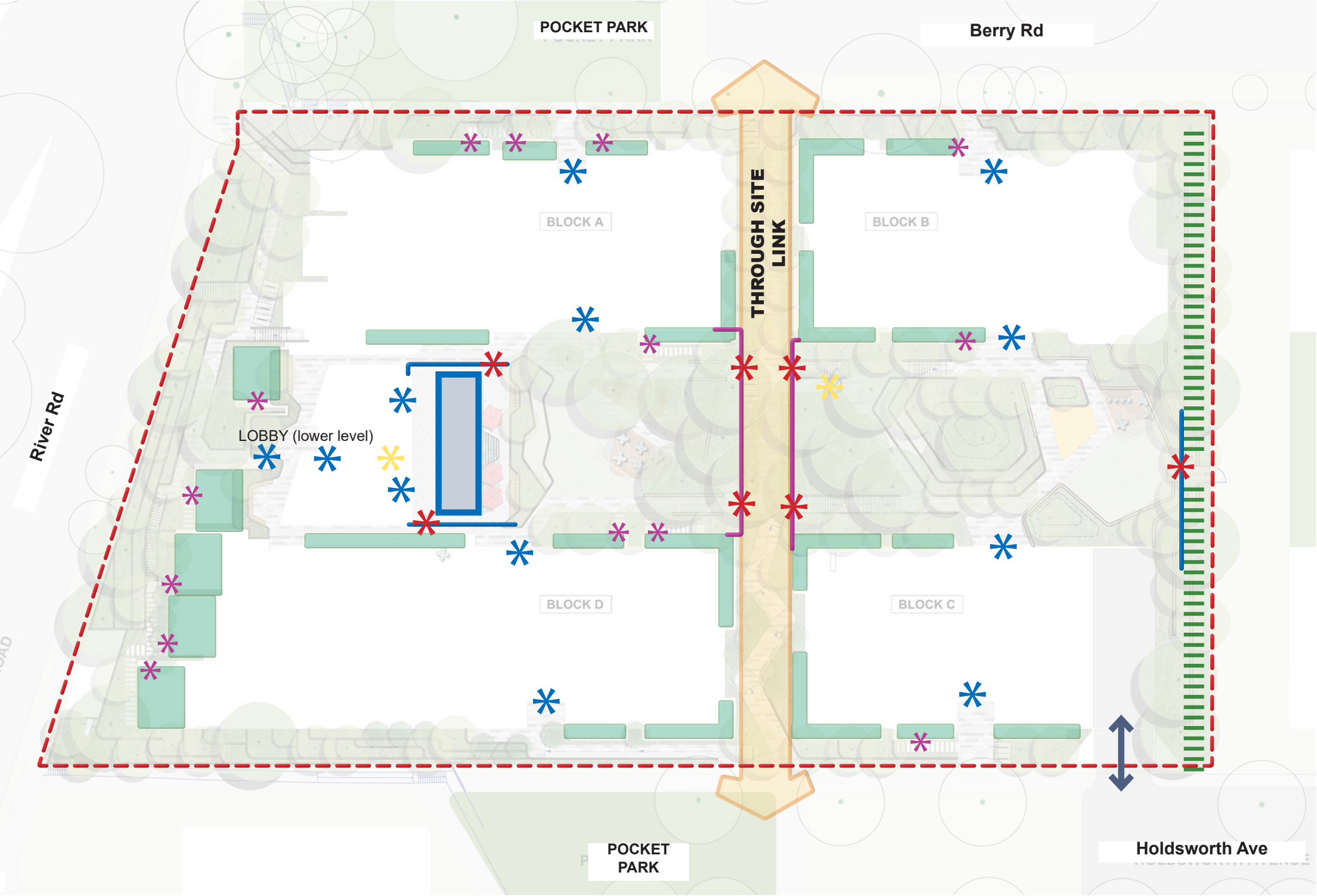


- COMMUNAL OPEN SPACE
- PUBLIC OPEN SPACE (out of site)
- ROOF GARDEN
- CONNECTIONS BETWEEN SPACE
- CONNECTIONS THROUGH LIFT

Note: no green roof or private roof garden proposed in the project

Design Analysis

Security and Controlled access

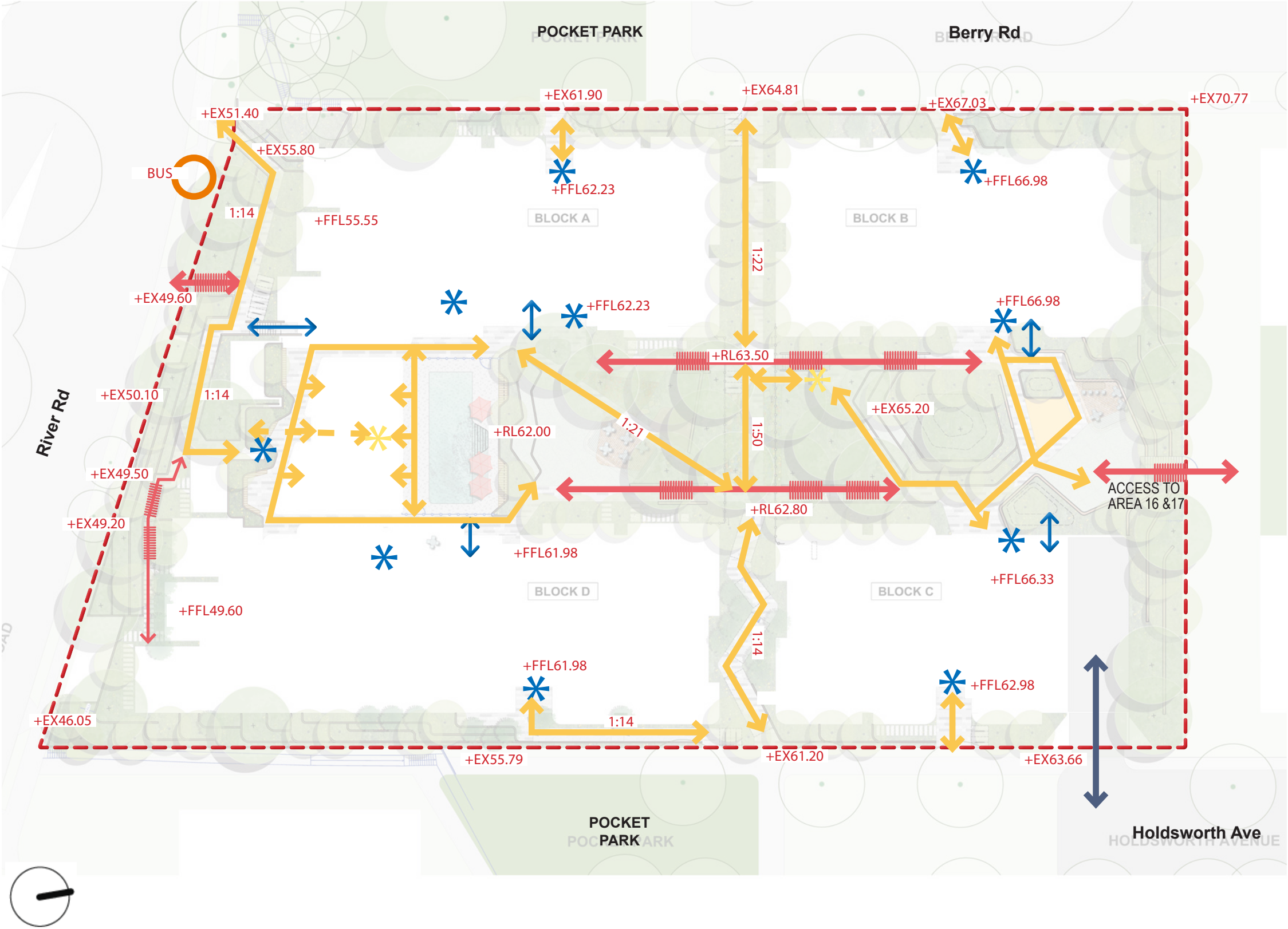


- ↔ VEHICULAR ENTRY
- ||||| LANDSCAPE BUFFER
- SECURITY FENCING
- POOL FENCE
- ▭ SECURED PRIVATE TERRACES
- * POTENTIAL GATE/CONTROLLED ACCESS
- * LIFT LOCATION
- * BUILDING ENTRANCES
- * PRIVATE COURTYARD ENTRY



Design Analysis

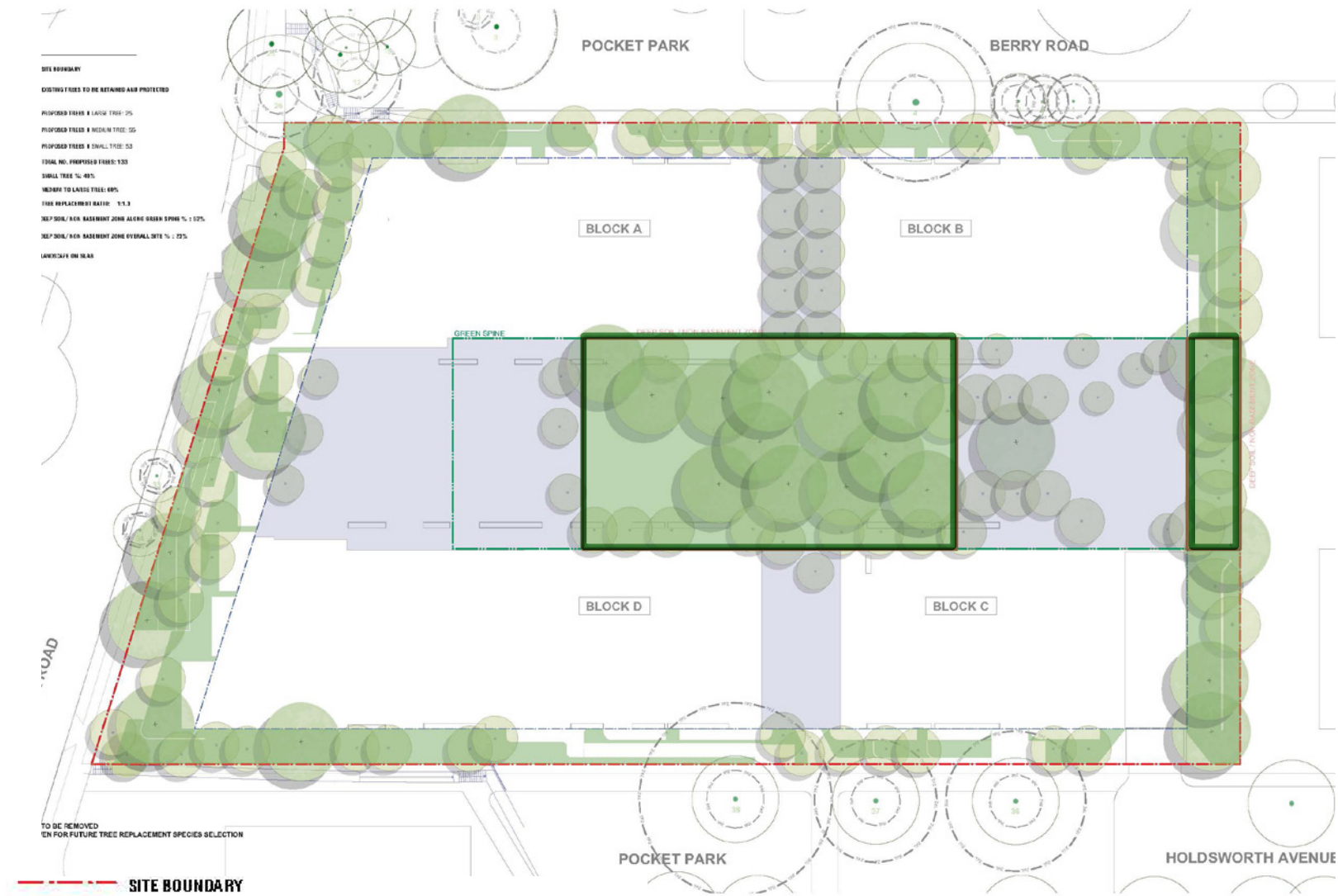
Levels & Access



Design Analysis

Proposed Tree Planting & Deep Soil Zone

Note: REFER TO LANDSCAPE DRAWING SET FOR ENLARGED PLAN

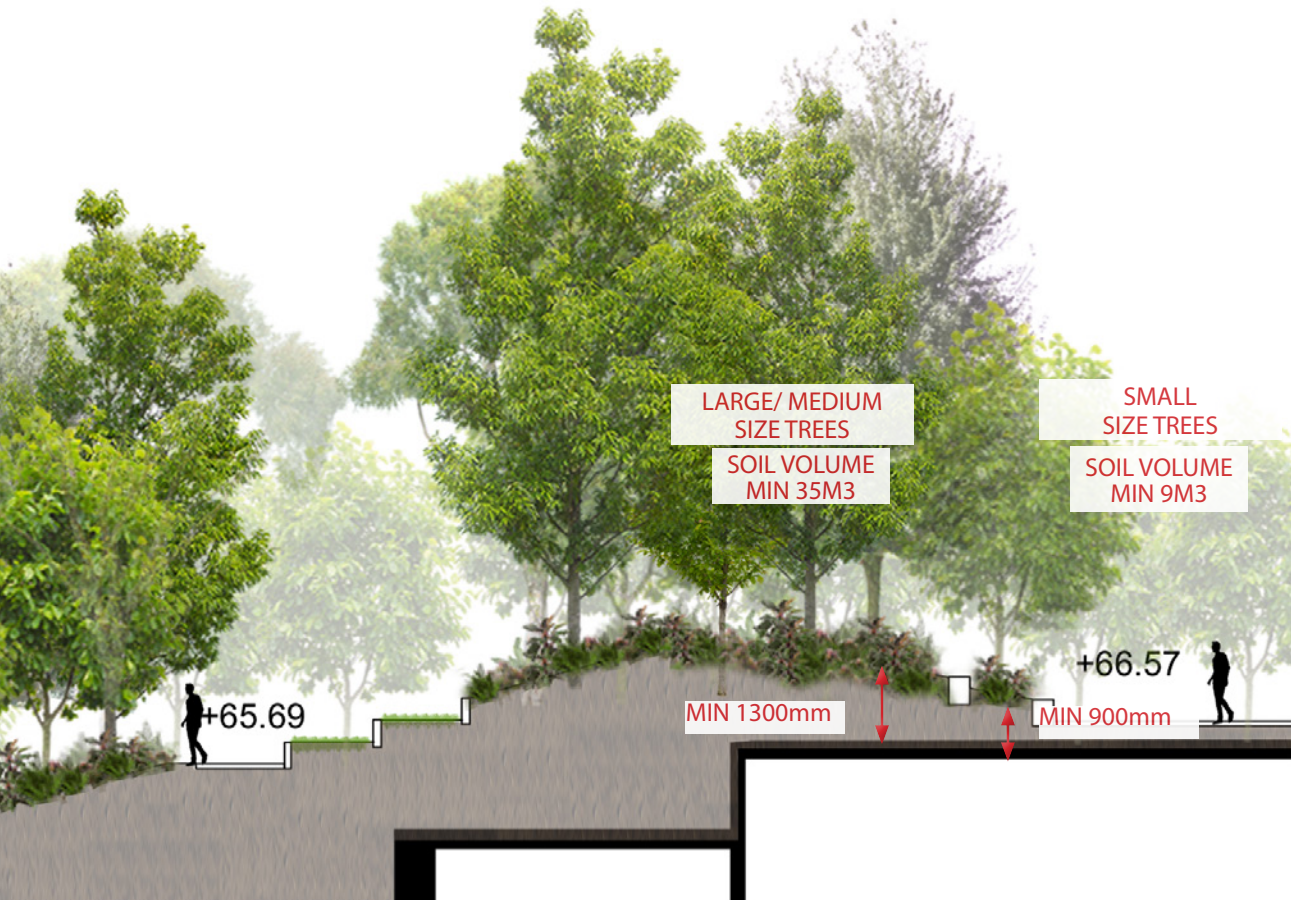


	MASTERPLAN	PROPOSAL
MIN % OF SITE TO BE LANDSCAPE AREA (IE. DEEP SOIL)	7% (ADG)	23% ✓
MIN % OF SOFTSCAPE AT GREEN SPINE	60%	61% ✓
MIN % OF AREA FOR MATURE CANOPY TREE COVER OF GREEN SPINE	50%	63% ✓

TREE PLANTING SOIL VOLUME/DEPTH: MASTERPLAN /DCP

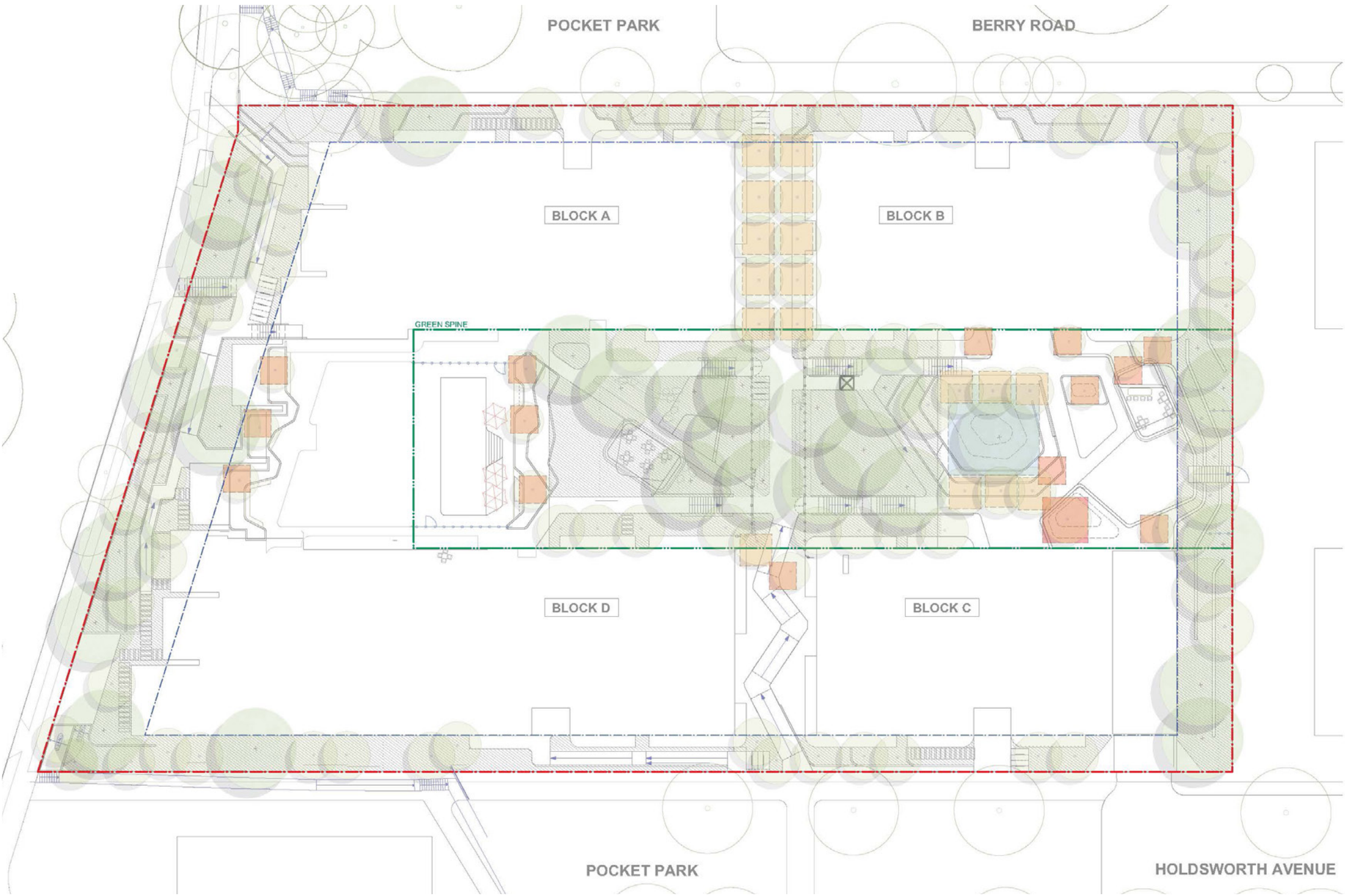
The following are recommended as minimum standards for a range of plant sizes to be grown on structures:

	Plant size	Minimum standards
A	Large trees (canopy diameter of up to 16m at maturity)	<ul style="list-style-type: none">minimum soil volume 150m³minimum soil depth 1.3mminimum soil area 10m x 10m area or equivalent
B	Medium trees (8m canopy diameter at maturity)	<ul style="list-style-type: none">minimum soil volume 35m³minimum soil depth 1mapproximate soil area 6m x 6m or equivalent
C	Small trees (4m canopy diameter at maturity)	<ul style="list-style-type: none">minimum soil volume 9m³minimum soil depth 800mmapproximate soil area 3.5m x 3.5m or equivalent



Design Analysis

Soil Volume Diagram



LEGEND

SOIL VOLUME

SITE BOUNDARY

TREES IN DEEP SOIL ZONE

DEEP SOIL ZONE

TREES ABOVE SLAB

FOR SMALL TREE

FOR MEDIUM TREE

FOR MEDIUM TREE

FOR LARGE TREE

SOIL AREA: 3 X 3M
SOIL DEPTH: 1M
SOIL VOLUME: 9M³

SOIL AREA: 3.5 X 3.5M
SOIL DEPTH: 2.5M
SOIL VOLUME: 35M³

SOIL AREA: 5 X 5M
SOIL DEPTH: 1.5M
SOIL VOLUME: 35M³

SOIL AREA: 7 X 7M
SOIL DEPTH: 3M
SOIL VOLUME: 150M³

Note: REFER TO LANDSCAPE DRAWING SET FOR ENLARGED PLAN

Design Analysis

Proposed Tree Planting

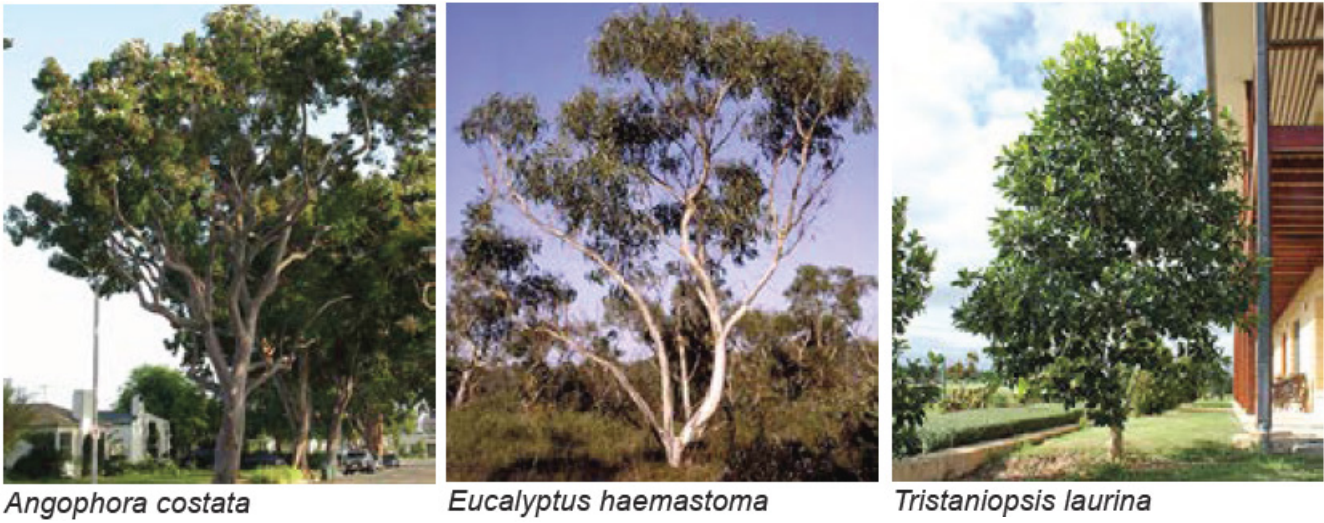


PROPOSED TREE PLANTING INDICATIVE PALETTE

Consideration for using existing feature tree species for future tree replacement species selection



Indicative native tree species from recommended species selection in Landscape Masterplan



Design Analysis

Planting Palette

Note: REFER TO LANDSCAPE DRAWING SET FOR SCHEDULE PLANTING ZONE PLAN

TREES



Acer buergerianum



Angophora costata



Brachychiton acerifolius



Callistemon viminalis



Cupaniopsis anacardioides



Elaeocarpus reticulatus



Melaleuca quinquenervia



Podocarpus elatus



Syzygium luehmannii



Eucalyptus paniculata



Eucalyptus pilularis



Eucalyptus scoparia



Hymenosporum flavum



Jacaranda mimosifolia



Liquidambar styraciflua



Tristaniopsis laurina



Ulmus parvifolia



Waterhousia floribunda

SHRUBS & GROUNDCOVERS



Acanthus mollis



Arthropodium cirratum



Aspidistra elatior



Asplenium australasicum



Blechnum nudum



Callistemon viminalis 'Little John'



Acacia cognata 'limelight'



Banksia Birthday Candles



Carpobrotus glaucescens



Callistemon viminalis 'Little John'



Dianella revoluta 'Little Rev'



Eriostemon myoporoides



Clivia miniata



Cyathea spp



Dianella caerulea



Doryanthes excelsa



Viola hederacea



Lomandra 'Tanika'



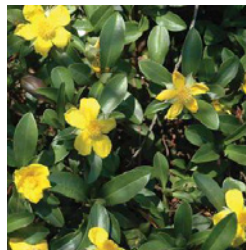
Grevillea 'Superb'



Cyathea spp



Hardenbergia violacea



Hibbertia scandens



Leptospermum trinervium



Agonis flexuosa



Philodendron 'Xanadu'



Phormium cookianum



Camelia sasanqua



Rhapis excelsa



Syzygium australe 'Elite'



Westringia fruticosa



Myoporum parvifolium



Poa labillardieri



Baeckia virgata 'Nana'



Russelia equisetiformis



Scaevola 'Mauve Clusters'

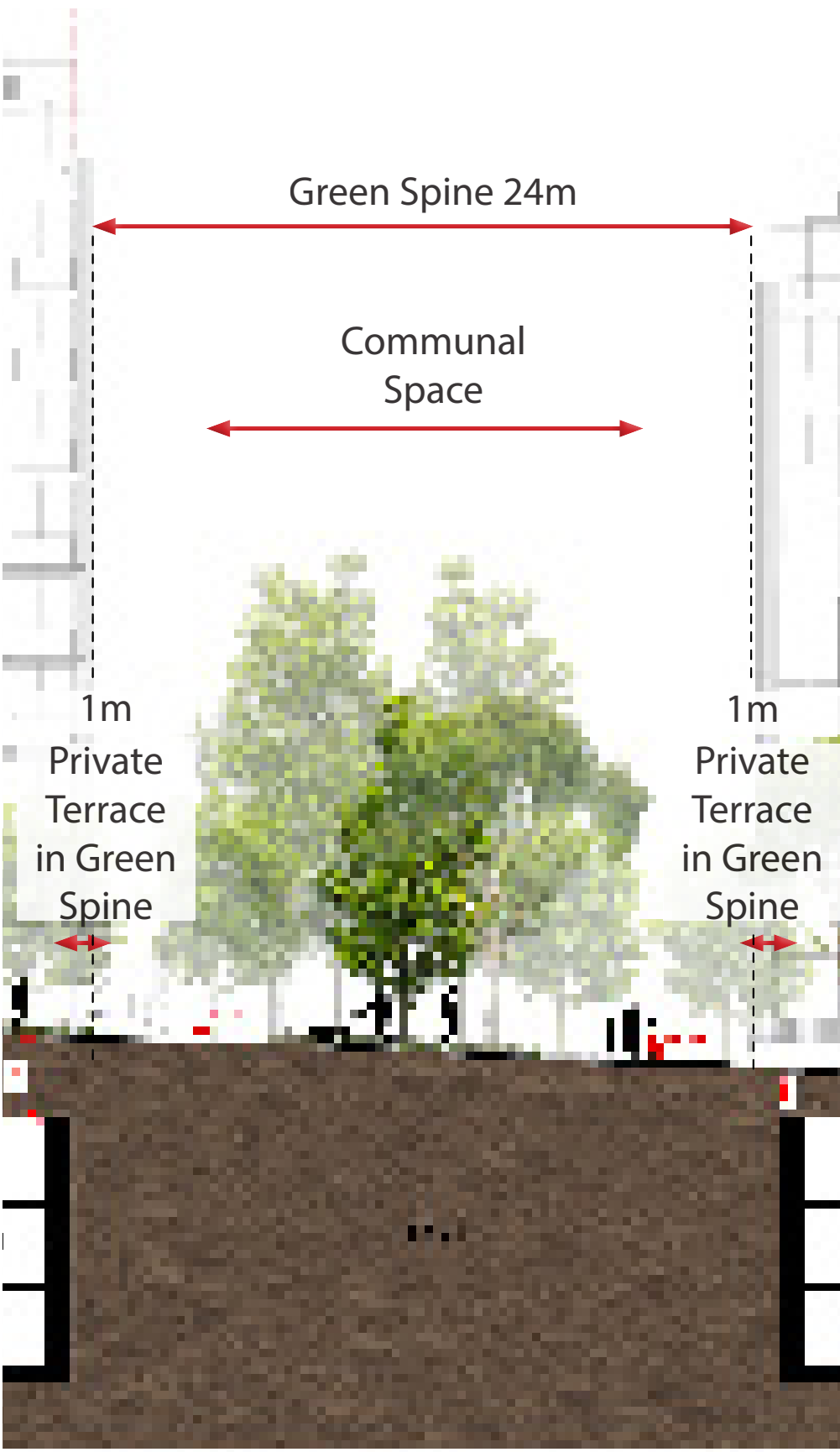


Westringia fruticosa

Design Analysis

Amenity & Privacy

Use landscape to create privacy



Community amenity



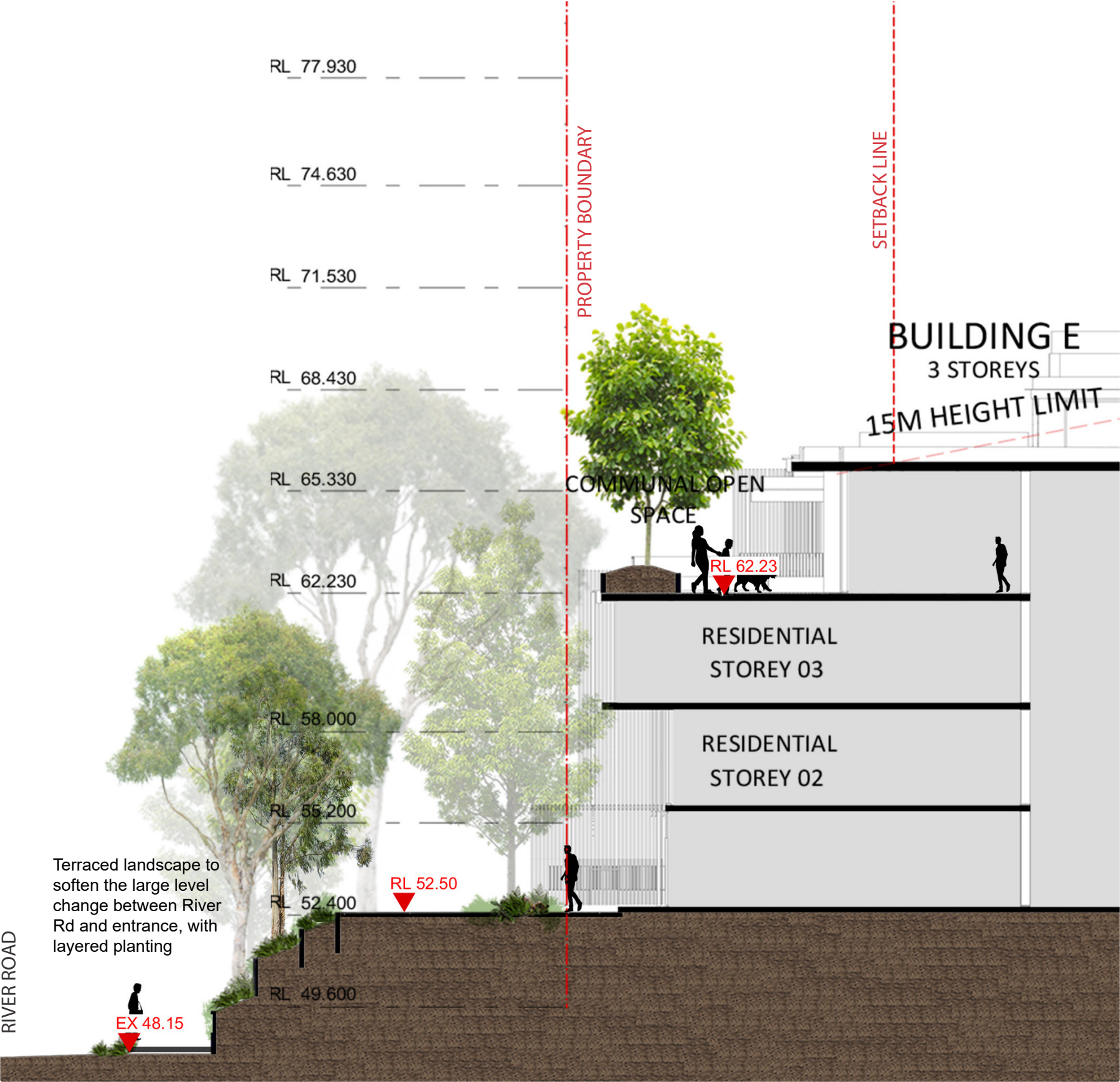
Privacy terrace



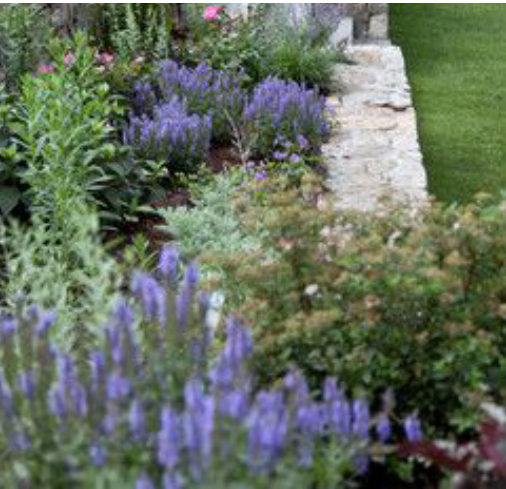
Design Analysis

Amenity & Privacy - Interface with River Road

Note: REFER TO LANDSCAPE DRAWING SET FOR ADDITIONAL SECTIONS TO SCALE



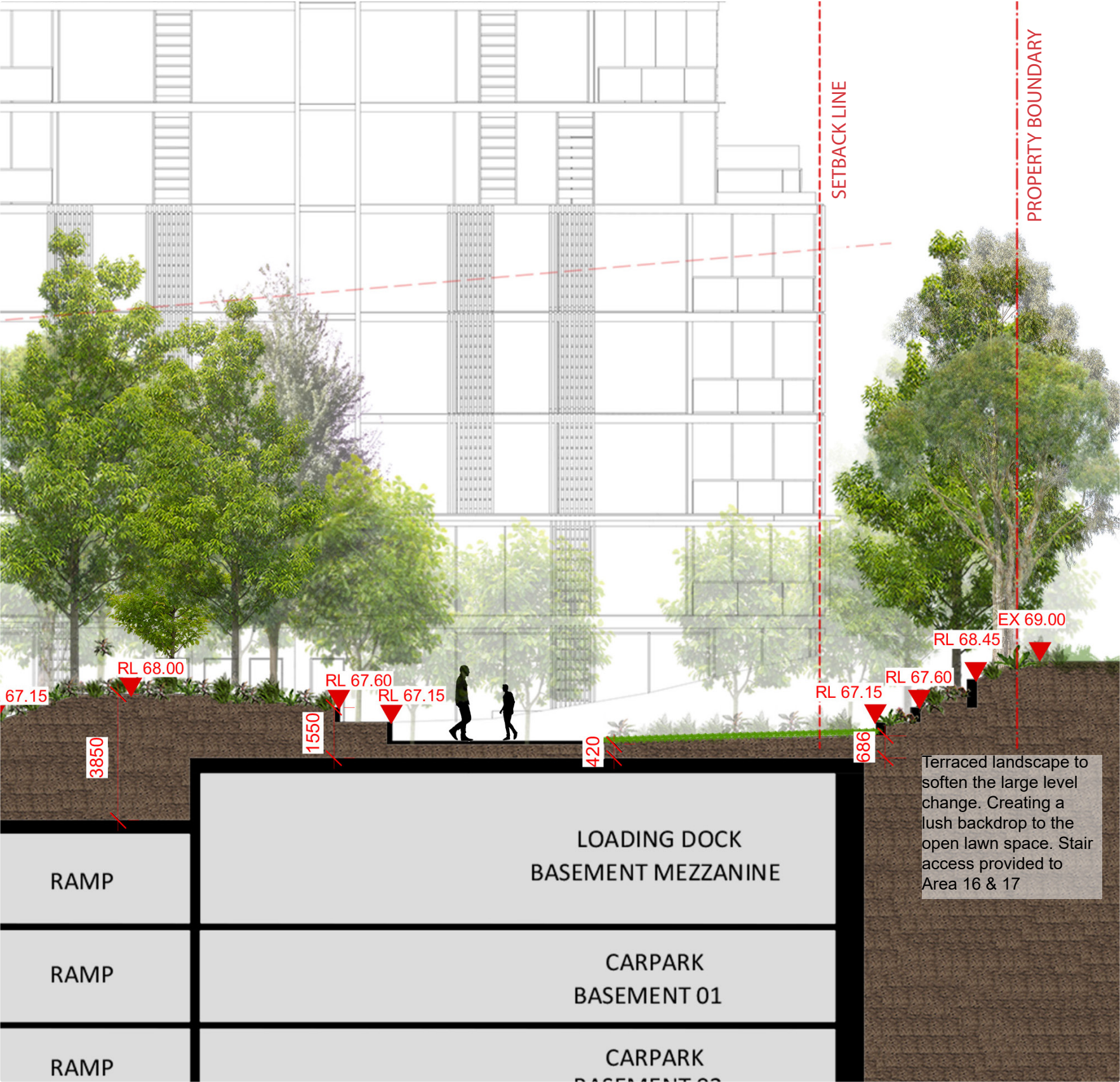
KEY PLAN



Design Analysis

Amenity & Privacy - Interface with Area 16 &17

Note: REFER TO LANDSCAPE DRAWING SET FOR ADDITIONAL SECTIONS TO SCALE



KEY PLAN

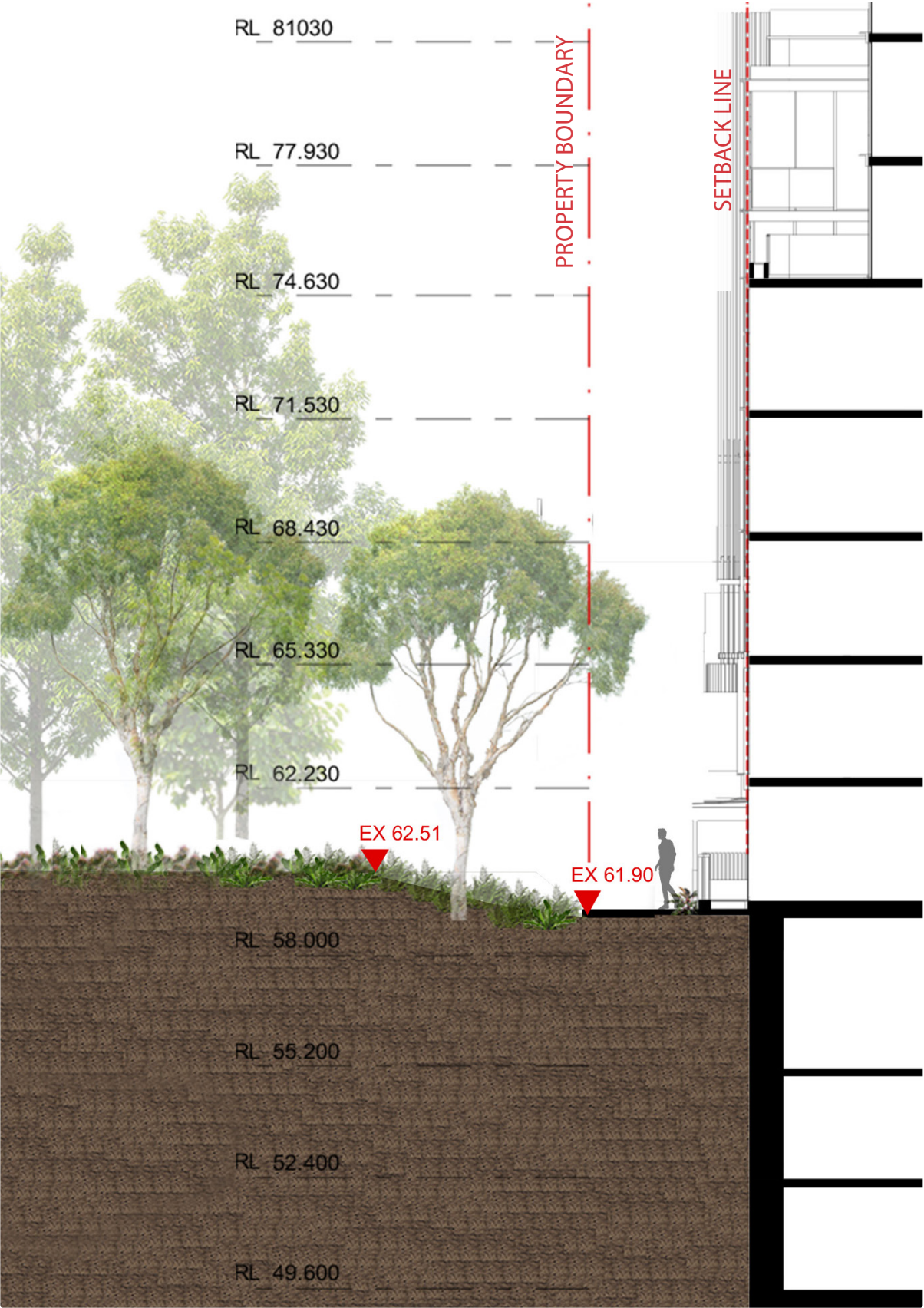


Design Analysis

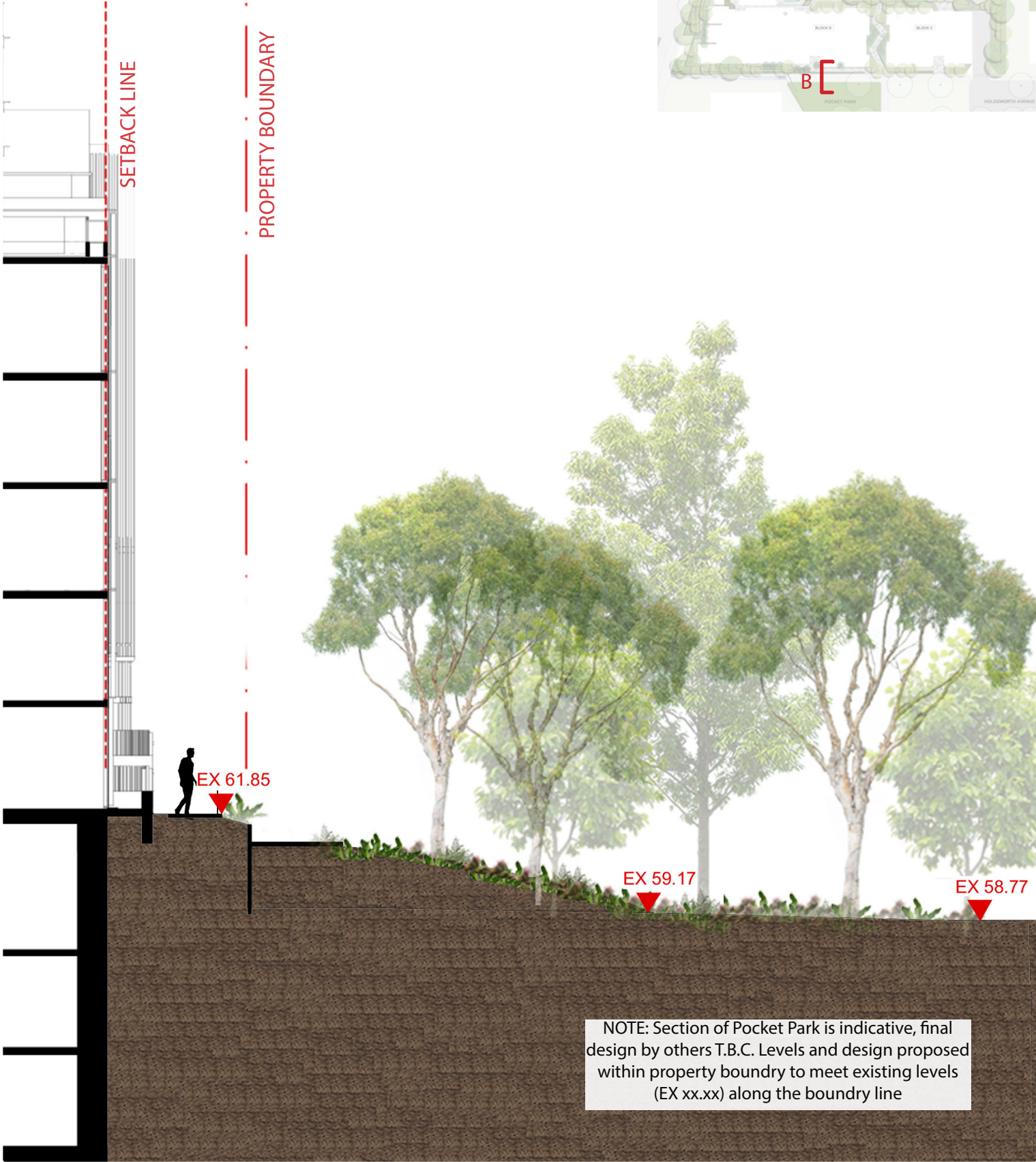
Amenity & Privacy - Interface with Pocket Parks

Note: REFER TO LANDSCAPE DRAWING SET FOR ADDITIONAL SECTIONS TO SCALE

KEY PLAN



A



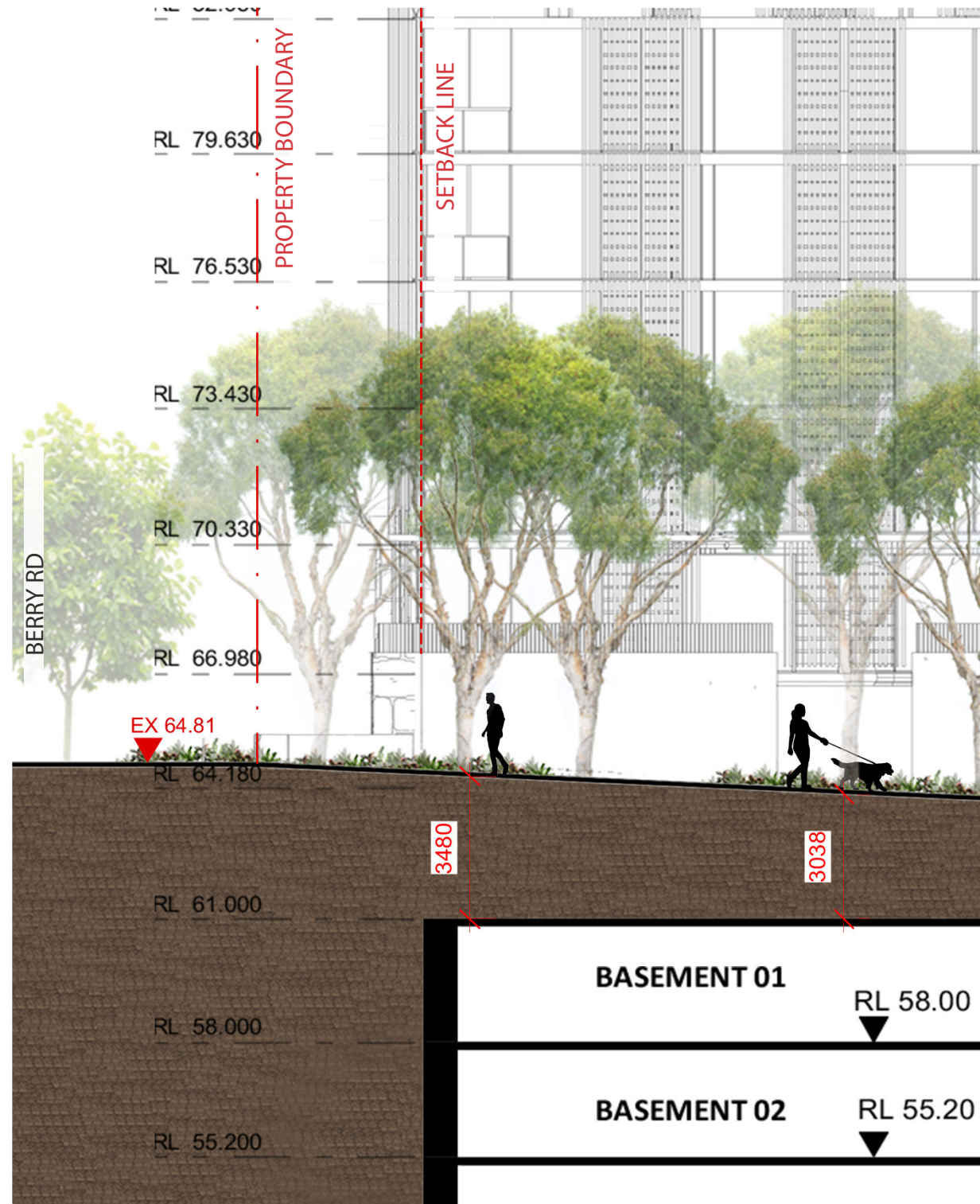
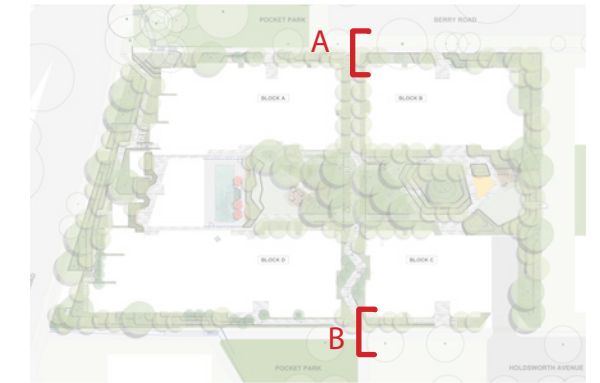
B

Design Analysis

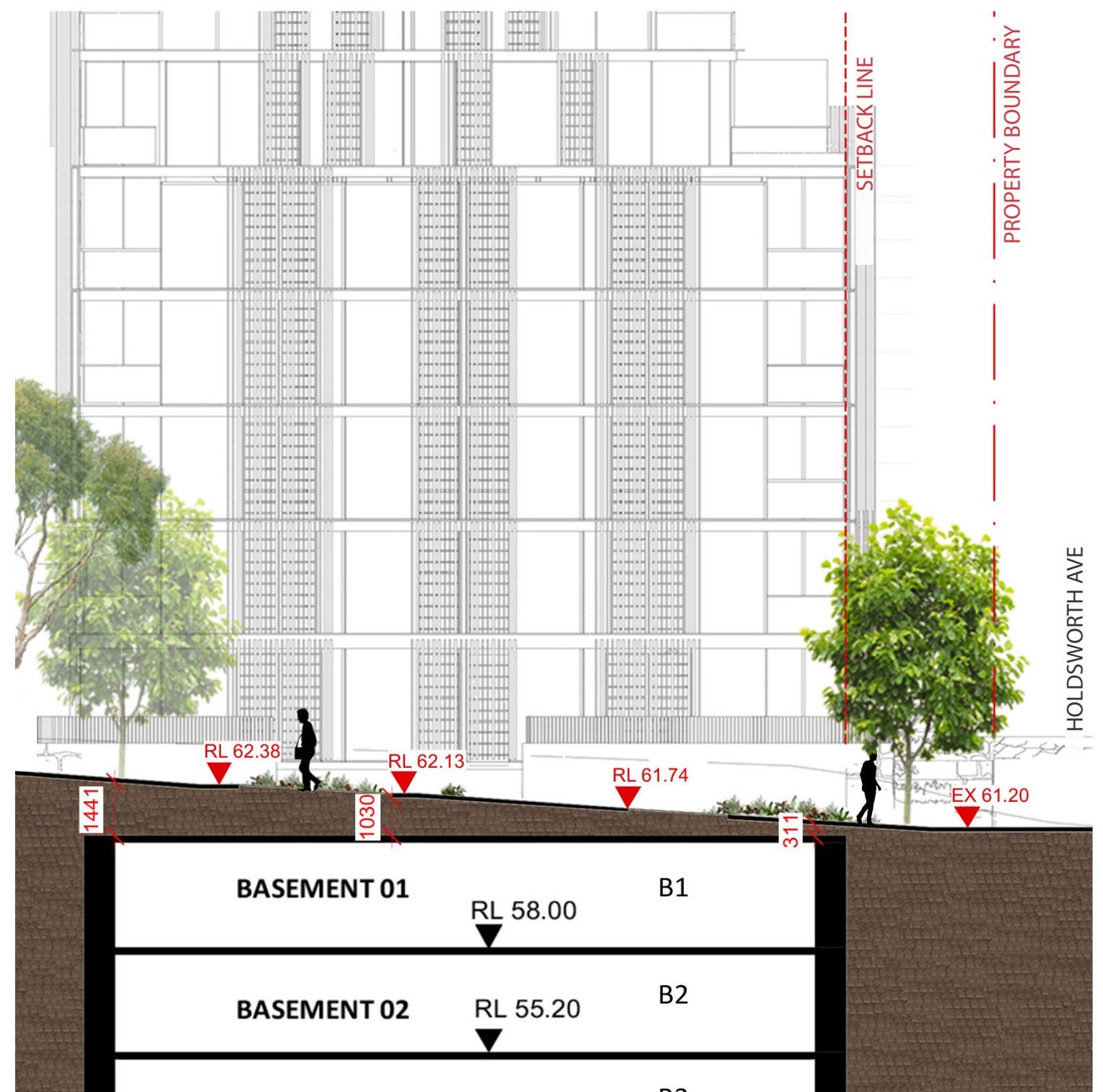
Amenity & Privacy - Interface with Berry Road & Holdsworth Ave

Note: REFER TO LANDSCAPE DRAWING SET FOR ADDITIONAL SECTIONS TO SCALE

KEY PLAN



A



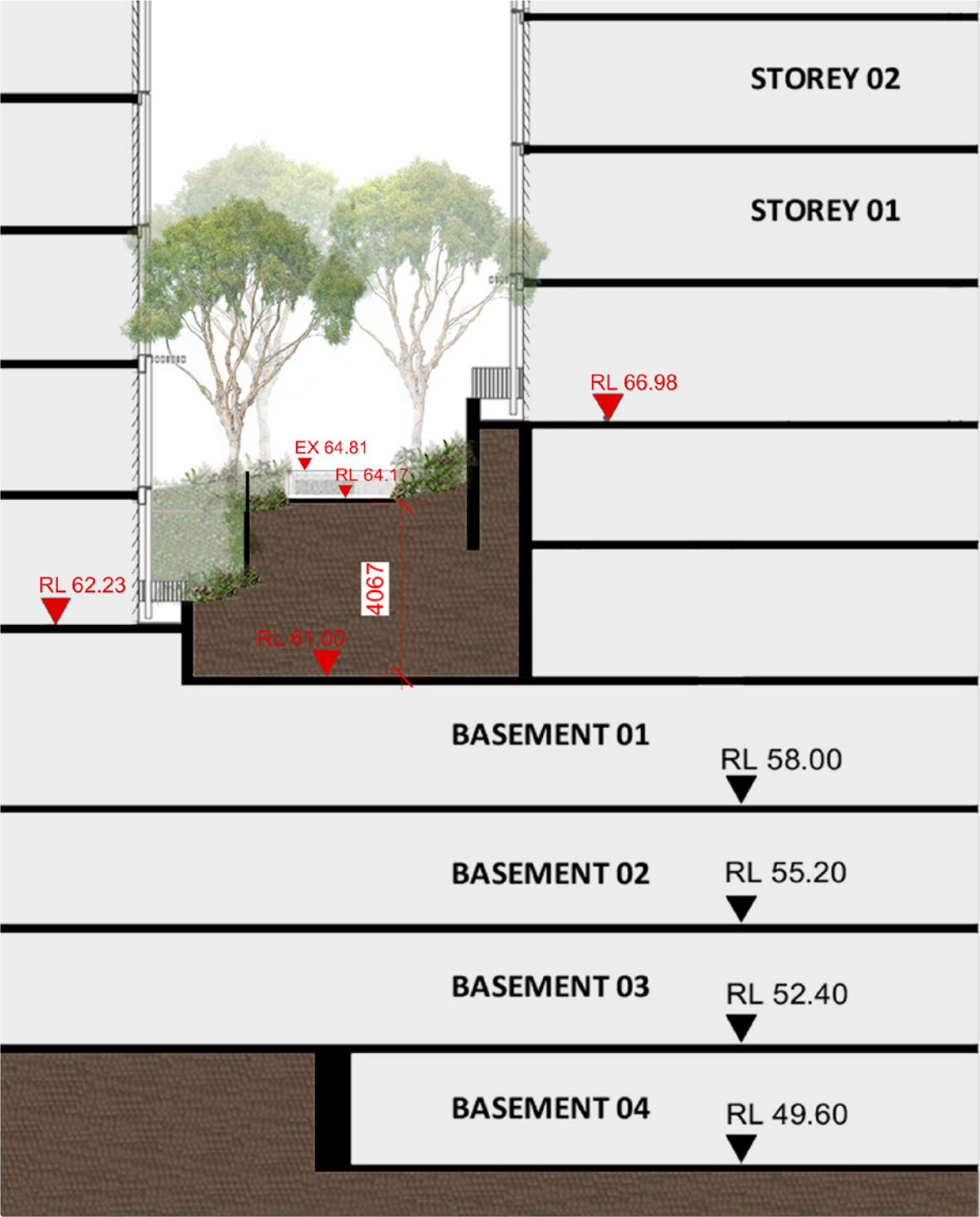
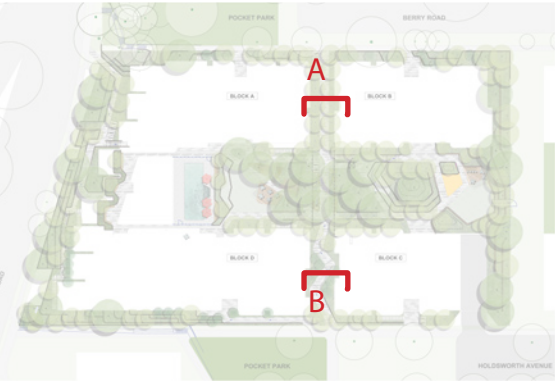
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Design Analysis

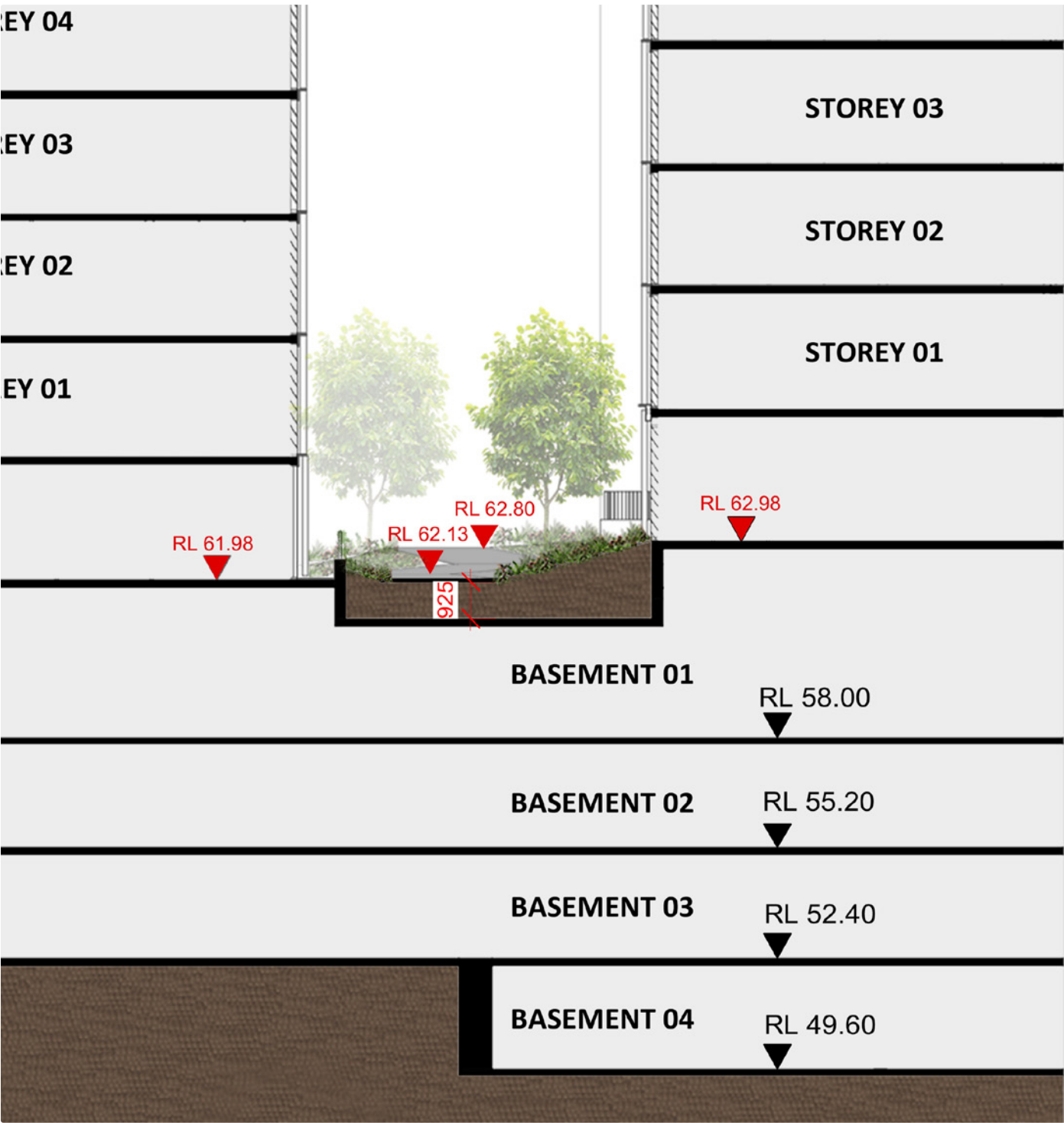
Amenity & Privacy - Interface with Through Site Link

Note: REFER TO LANDSCAPE DRAWING SET FOR ADDITIONAL SECTIONS TO SCALE

KEY PLAN



A

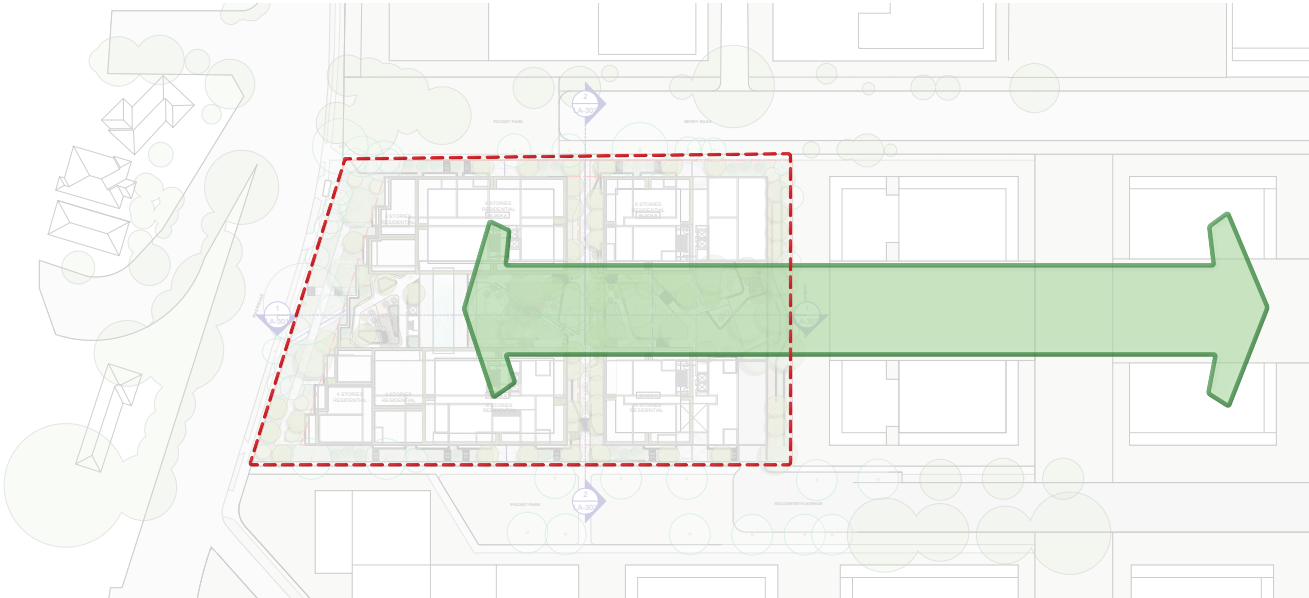


B

Sustainability

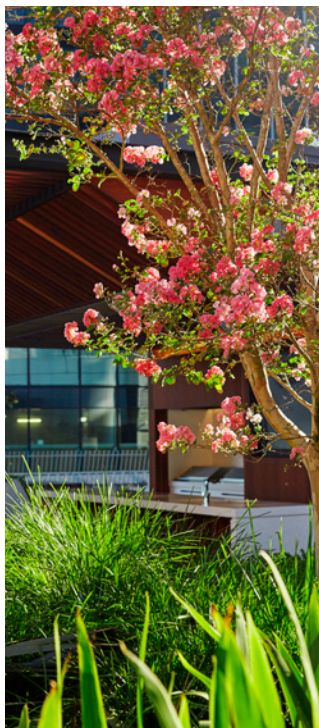
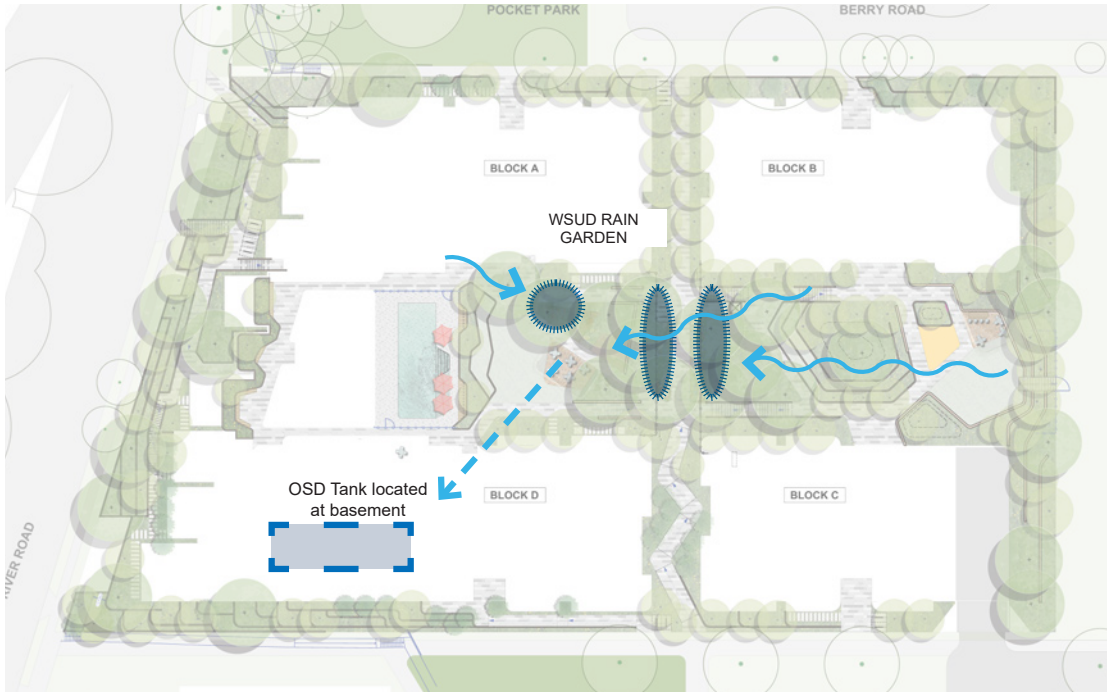
Regional Connected Green Spine

- Provide connected urban habitat for local flora and fauna
- Reduce the urban heat island effect with layers of planting: groundcover, shrubs and mature tree canopies



WSUD - Water Sensitive Urban Design

Collect rainwater for potential water reuse for irrigation.



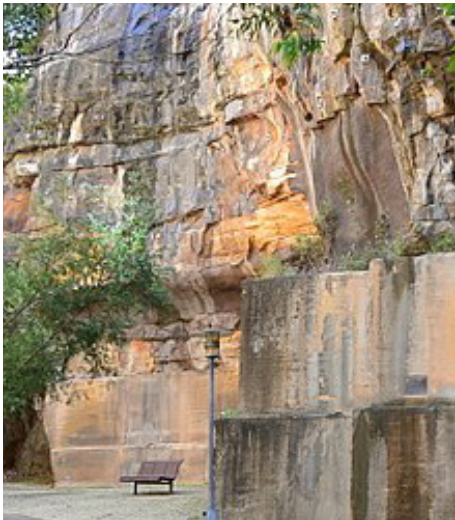
Material Palette

The proposed material palette references the St Leonards South Landscape Master Plan.

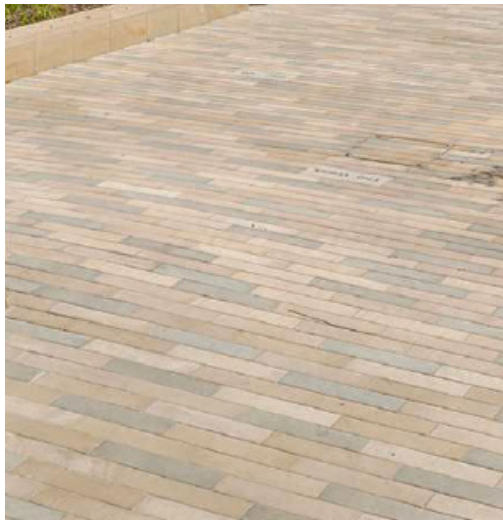
Materials have been selected based on the following principles:

- Low VOC, low embodied energy
- Locally sourced
- High quality, robust and easily maintained
- Where suitable, introduce permeable surfaces to support better water mitigation and environmental outcome
- Consistent between streetscape and private domain for continuity between development sites
- Reflect the local context

East Quarter



Hawkesbury Sandstone



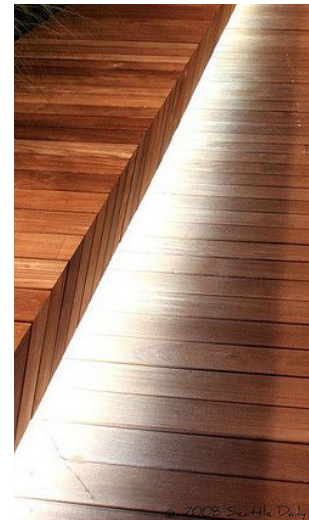
High quality stone paving unit, with texture variation



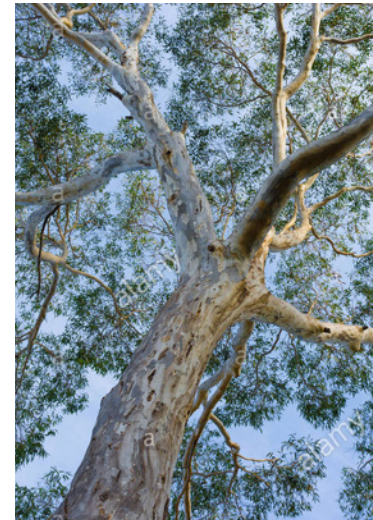
Sandstone flamed wall face



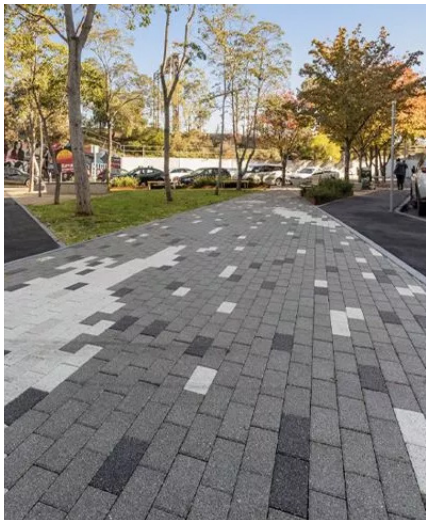
Sandstone pebbles



Timber



Permeable Surfaces



Porous Paver - Hydrostone or similar



Gravel & stepping stones

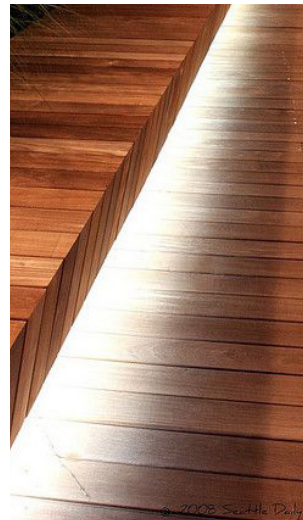


Mulch softfall

Roof Terrace



Natural form stone for informal paths/garden bed



Timber



Planting

Lighting Plan

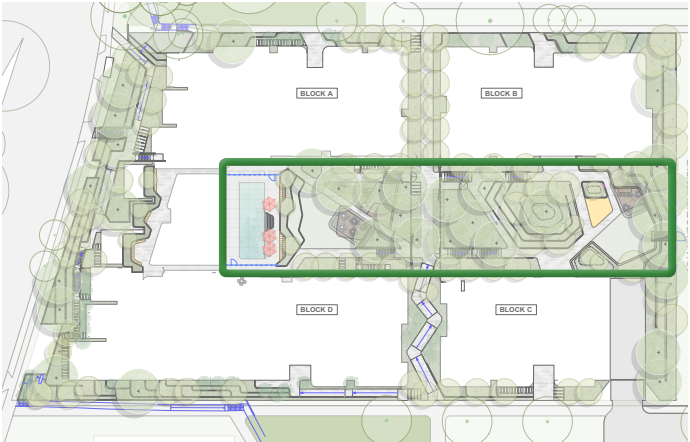
NOTE: This plan demonstrates the desired look & feel from landscape perspective only.
Detailed design to be provided by lighting consultant.



Response to Masterplan

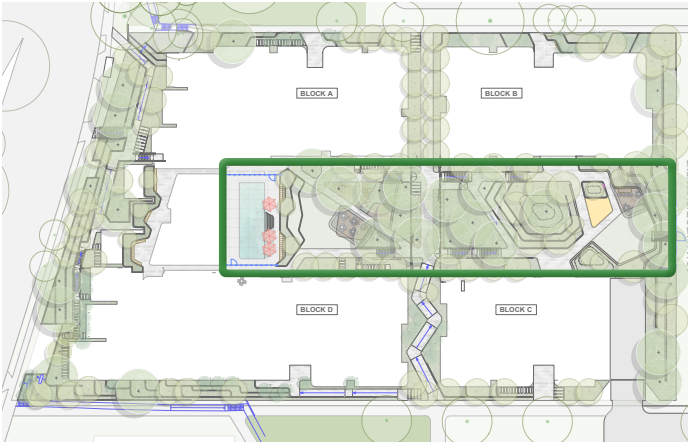
Landscape design follows the guidelines listed in part 3 and part 4 of the Landscape Master Plan. A compliance matrix has been summarized below.

MASTERPLAN GREEN SPINE				
FACILITIES MATRIX	Y/N	ATTRIBUTES & CHARACTER	Y/N	COMMENT
- SHELTER/SHADE STRUCTURE	✓	MAX 40% OF AREA TO BE HARD PAVED (INCLUDING SOFTFALL)	✓	
- PATHWAYS	✓	MIN 60% OF AREA TO BE SOFT WITH MAX 40% OF THIS LAWN & 60% PLANTED	✓	61% softscape area
-LIGHTING	✓	SEPARATE PLAY AREAS FOR TODDLERS (AGES 6 MONTHS - 3 YEARS) AND YOUNG CHILDREN (AGES 3-8 YEARS+)	✓	Both nature and traditional play proposed to suit different age groups
-IRRIGATION	✓	play areas to provide range of play equipment, min 70% shade cover and seating	✓	Shading from tree canopy and structure provided
- INFORMAL PLAY	✓	play areas to be located and designed to enable good surveillance	✓	
- BBQS	✓	provision for adult & young person recreation eg. outdoor table tennis table, boules court, informal kick-about area	✓	
- PICNIC TABLES	✓	min 1no. flexible lawn area (min 150m2) centrally located with direct access from apartment lobbies, main north-south pathways, play and picnic/bbq areas	✓	
- SEATING	✓	a picnic/bbq area including min 1no. dual hotplate built-in BBQ with sink, min 2no. picnic table settings, bench seating, shade in the form of canopy trees or shde structure, external GPO	✓	
- LITTER BINS	✓	min 2no. quiet outdoor seating areas with shaded bench seating located away from play and picnic/bbq area	✓	
- OPEN LAWN	✓	provision for small scale public art, interpretation and/or water features	✓	
-SHADE TREES	✓	accessible (max 1:20 grade) where possible	✓	A platform lift is introduced to allow universal access for all to key amenities, where ramp was not an option due to space and level constrains.
- FEATURE PLANTING	✓	level with adjacent green link to east or west	✓	
- INFORMAL KICK ABOUT	✓	major changes in level generally located on north/south site boundaries	✓	
- CHILDREN'S PLAY	✓	communal open space areas with outdoor gathering, seating and play areas	✓	
		existing trees retained (tree retention to be agreed with Council pre-DA)	✗	Additional trees are removed according to the arborist report, however, the proposed design allows a replacement ratio greater than 1:1.3
		mature canopy tree cover (existing + proposed) is to be minimm 50% of area of Green Spine	✓	63% mature canopy tree cover achieved
		new canopy trees to include min 50% large sized trees (12m high +) or medium sized trees (8-12m high) and max 50% small trees (up to 8m high)	✓	35.8% small trees, 64.2% large and medium sized trees

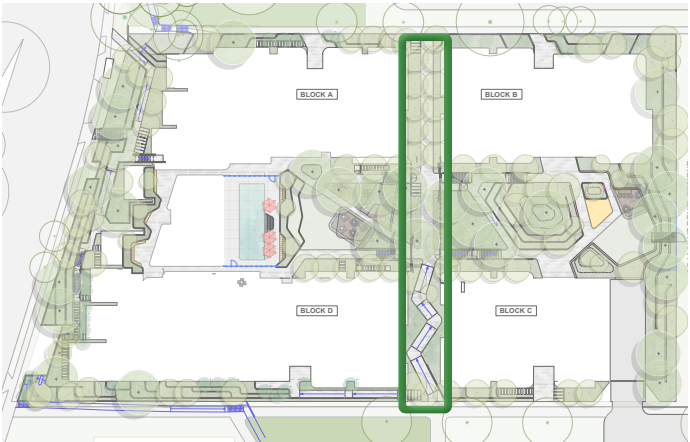


Response to Masterplan

MASTERPLAN GREEN SPINE				
FACILITIES MATRIX	Y/N	ATTRIBUTES & CHARACTER	Y/N	COMMENT
		basement car parks are confined to the building footprint. Intrusion into Green Spine is only permitted if 2 levels of basement parking under the building is provided. If located under Green Spines, basement car parking is to be located so as to retain existing trees and to provide min 1m soil depth over entire area of basement	✗	Min 1m soil depth over the entire basement area is not achievable above the loading dock zone, due to the constraints of top slab height requirement, and to meet adepqute surface levels among building entries. Large portion of the loading dock affected zone has been thoughtfully designed for community gather and play space, thus applied with hardscape surfaces. Raised and terraced gardens are introduce to ensure a minim 350mm for lawn, 600mm for shrubs and groundcover, 9000mm for small trees, 1,500mm for medium trees, and 3,000mm for large trees. Refer to architecture drawings and report for further details of basement design. Refer to landscape drawing set for soil volum diagram.
		adequate pedestrian lighting	✓	Landscape design has demonstrated the desired look and feel for lighting, and has allowed space within the landscape for lighting installations. A more detailed design to be provided by lighting consultant to ensure adequate lighting standard are archived.

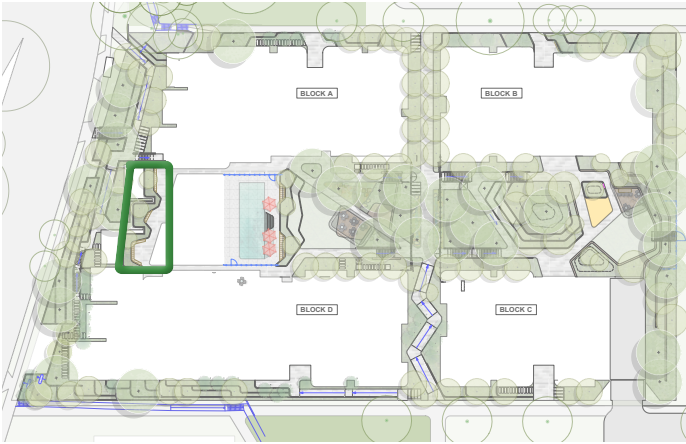


MASTERPLAN PEDESTRIAN LINK				
FACILITIES MATRIX	Y/N	ATTRIBUTES & CHARACTER	Y/N	
- PATHWAYS	✓	SHARED PEDESTRIAN/CYCLE LINKS	✓	
-LIGHTING	✓	ACCESSIBLE (MAX 1:20 GRADE) WHERE POSSIBLE	✗	Due to space and existing site level constraints, a 1:14 ramped walkway is introduced towards Holdsworth Ave to ensure the through site link is fully accessible.
-SIGNAGE	✓	MIN 2.5M WIDE SHARED PATHWAY	✓	
- SHADE TREES	✓	SHADE TREES AND FEATURE PLANTING ALONG EDGES	✓	
		ADEQUATE PEDESTRIAN LIGHTING	✓	Landscape design has demonstrated the desired look and feel for lighting, and has allowed space within the landscape for lighting installations. A more detailed design to be provided by lighting consultant to ensure adequate lighting standard are archived.



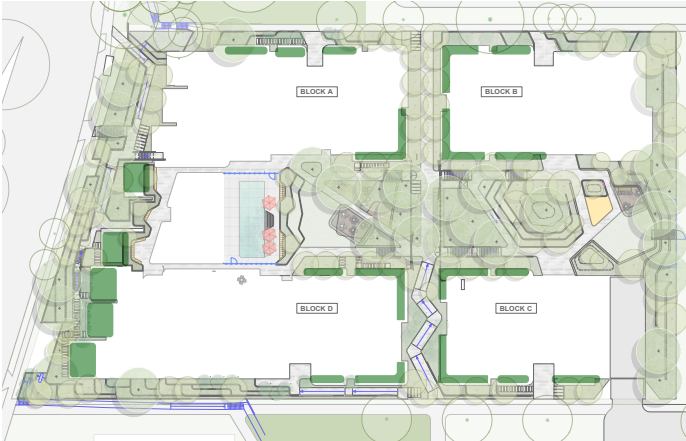
Response to Masterplan

MASTERPLAN ROOF GARDENS				
FACILITIES MATRIX	Y/N	ATTRIBUTES & CHARACTER	Y/N	COMMENT
- SHELTER/SHADE STRUCTURE	N/A	BE ACCESSIBLE TO ALL RESIDENTS VIA LIFTS AND STAIRS	✓	
- PATHWAYS	✓	BE OF THE REQUIRED MINIMUM SIZE	✓	Roof top garden is connected with the large communal open space along the Green Spine
-LIGHTING	✓	HAVE ADEQUATE SOLAR ACCESS AND SHADE	✓	
-IRRIGATION	✓	INCLUDE A MIX OF PAVED/DECKED/TURFED AREAS FOR USABILITY AND PLANTED AREAS FOR AMENITY	✓	
- INFORMAL PLAY	N/A	PROVIDE A RANGE OF FACILITIES/AMENITIES SUCH AS LAWN AREAS, BBQS, POTABLE WATER SUPPLY & SINK, PICNIC TABLES, SEATS, LIGHTING, COMMUNITY GARDEN BEDS	✓	
- BBQS	N/A			
- PICNIC TABLES	N/A			
- SEATING	✓			
- LITTER BINS	✓			
- OPEN LAWN	N/A			
-SHADE TREES	✓			



The garden itself defined by the “Roof Top” allocation, has limited space to accomdate all additional amenities (e.g BBQ, play, open lawn etc.), however, the roof top garden space within the design is seamlessly connected with the large central communal open space, and will be utilized as a lush retreat extention along the Green Spine.

MASTERPLAN PRIVATE COURTYARDS				
FACILITIES MATRIX	Y/N	ATTRIBUTES & CHARACTER	Y/N	
		CLEARLY DEFINED AS PRIVATE OPEN SPACE	✓	
		DESIGNED TO ENSURE APPROPRIATE PRIVACY WHILST ALSO ALLOWING ADEQUATE PASSIVE SURVEILLANCE	✓	
		OPEN OUT ONTO COMMUNAL OPEN SPACE OR WALKWAYS WHEREVER POSSIBLE	✓	
		BE OF THE REQUIRED MINIMUM SIZE AND HAVE ADEQUATE SOLAR ACCESS	✓	Refer to architecture proposal for details
		INCLUDE A MIX OF PAVED AREAS FOR USABILITY AND PLANTED AREAS FOR AMENITY	✓	



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