

DEVELOPMENT APPLICATION - LANDSCAPE REPORT

HIGH STREET, PENRITH

MAY 2022

PREPARED FOR

URBAN
PROPERTY

PREPARED BY

turf

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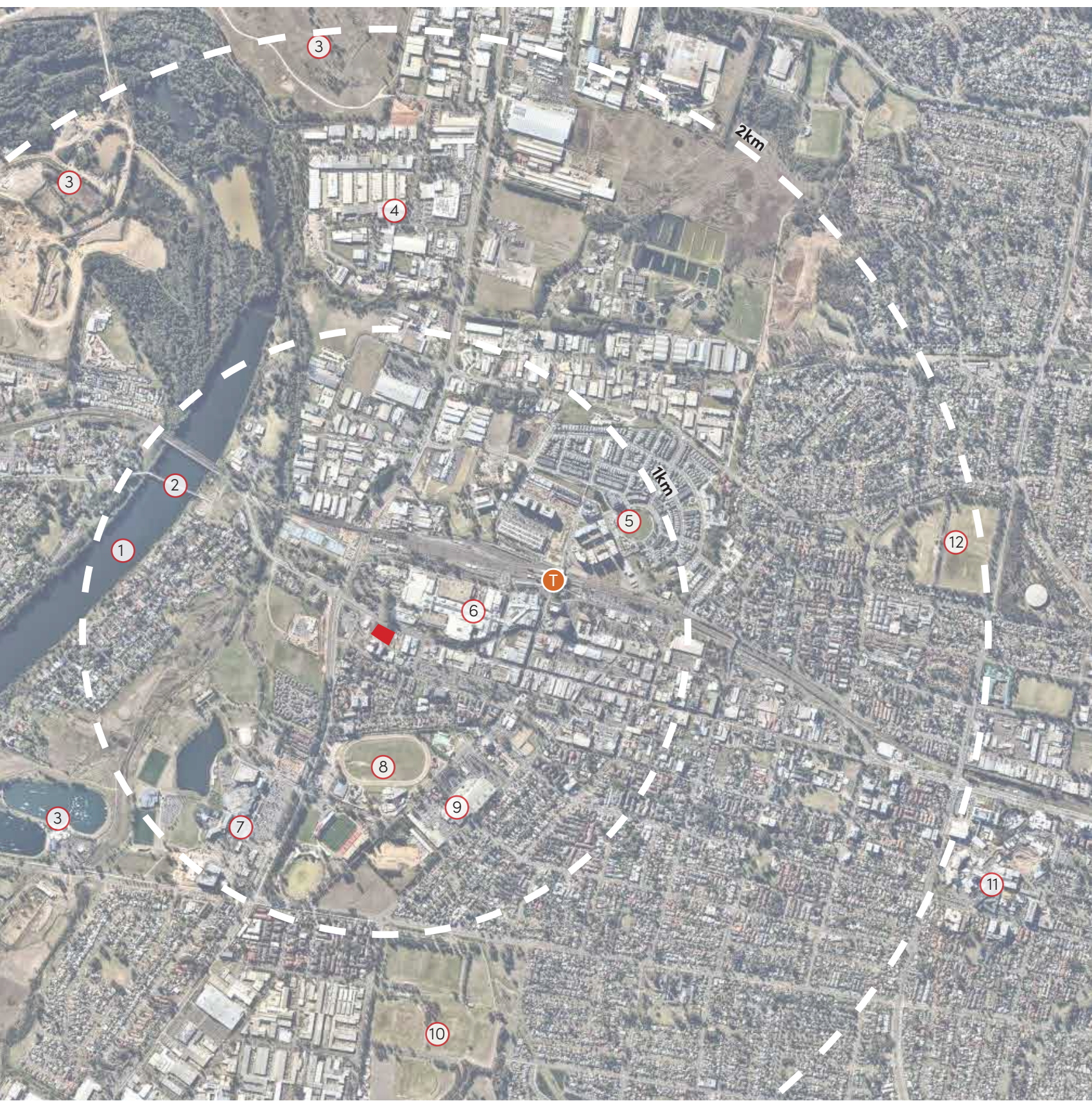
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CONTENTIONS

Table below to summarise relevant contentions addressed within the landscape package

CONTENTION ITEM	TURF RESPONSE	PAGE NO. REF
2 (a) and (b) Design Excellence	Elements of the landscape design that contribute to design excellence include: Quality public domain (including public art, through site links with generous landscaping, seating and urban elements), facade greening, diversity of communal open spaces and amenities (accommodating all ages), diverse planting palette for resilience and high seasonal amenity (including edible species), Exemplary tree canopy cover and shade provision for a project of this nature.	ALL
6 (d) Interface with Western Boundary The proposal does not provide details of the property boundary interface with the western neighbour and the north-south road and associated future public domain	Refer Ground Level Landscape Plan	L-DA-11
10(u) There is no evidence the through site link is required to meet pedestrian desire lines thus the pedestrian link primarily serves as a forecourt for the adjoining uses within the development. Further it removes pedestrian activity from the public street frontages.	The through site link is an intimately scaled and green place that offers a quieter, more passive alternative to the highly active Eat Street. The lobby entry and clear line of site provide good casual surveillance to address CPTED.	L-DA-11 to 15
15 (a) The proposal fails to incorporate water sensitive urban design(WSUD) elements consistent with Section 4O-1 of the ADG. i) diverse and appropriate planting ii) bio-filtration gardens iii) appropriately planted shading trees vi) green roofs or walls (b) There is a lack of any deep soil zones under the planted areas of the proposed pedestrian link. (c) The depth of the planters shown on the Car park podium floor edges are not shown and it is unclear whether it would even sustain reasonable landscape particularly those facing south.	Responses to items: i) A diverse palette is proposed, incorporating a high proportion of native species and low water use species appropriate to Penrith’s climate. iii) appropriately planted shading trees. Landscape design achieves 23% canopy cover. By way of comparison (and in the absence of site specific target metrics), City of Sydney is currently targeting 20% canopy coverage for residential properties by 2050. vi) The level 4 communal open space is an active, predominantly softscape green roof to the podium. Vertical greening of podium facade in key locations, and to the tower terraces is proposed. (b) The ADG states that planting on structure can supplement deep soil planting on sites where opportunities for this are limited or restricted, e.g. in high density areas. Considerable areas of ADG compliant planting are proposed on structure throughout (c) A minimum soil depth of 600mm will be provided to all planters on these levels to ensure adequate soil volume for healthy growth and resilience in extreme weather events. The proposed species are suitable for both full sun and shaded locations (e.g. south side of building). Refer L-DA-36	ALL PLANS
16 (a) The proposal fails to ensure that the non-residential component of the development is designed to incorporate design and sustainable excellence by ensuring that water consumption is minimised as required by Part C1 B General Objectives (c) ii) of the DCP	Low water use plant species and water efficient subsurface drip irrigation is proposed for the entire development.	L-DA-9

SITE CONTEXT | LANDSCAPE



INTRODUCTION

Penrith is Sydney's 'Growth City,' with an expected catchment population of 1 million by 2031. The region is undergoing massive redevelopment, reshaping the region to accomodate the increasing population, promote job growth, increase open space amenity and support the model of a vibrant city. A key component of this transformation is increase the presence of different housing models, namely units and townhouses, particularly within the city center.

SITE LOCATION

- Entry to the Nepean River Great River Walk is approximately 1km walking distance from site. The River anchors a number of key community activities and facilities, including the Nepean Rowing Club, Regatta Park and Penrith Regional Gallery.
- Major urban amenities, including the Nepean Hosptial, shopping centre and public transport links are all accessible within a 2km radius of site.

CONTEXT

The Penrith City Centre is bounded by the Western Train line and Penrith High Street. To the North of the trainline, the suburbs of Cranebrook and North Penrith are undergoing mass urban transformation, with new residential developments in progress. The southern edge of High Street is mostly small town houses and single dwelling homes.



Major open space facilities include, Jamison Park, Regatta Park and the Nepean River walk. These spaces are often occupied by local sporting clubs, local walking enthusiasts and families.

THE LOCAL ENVIRONMENT

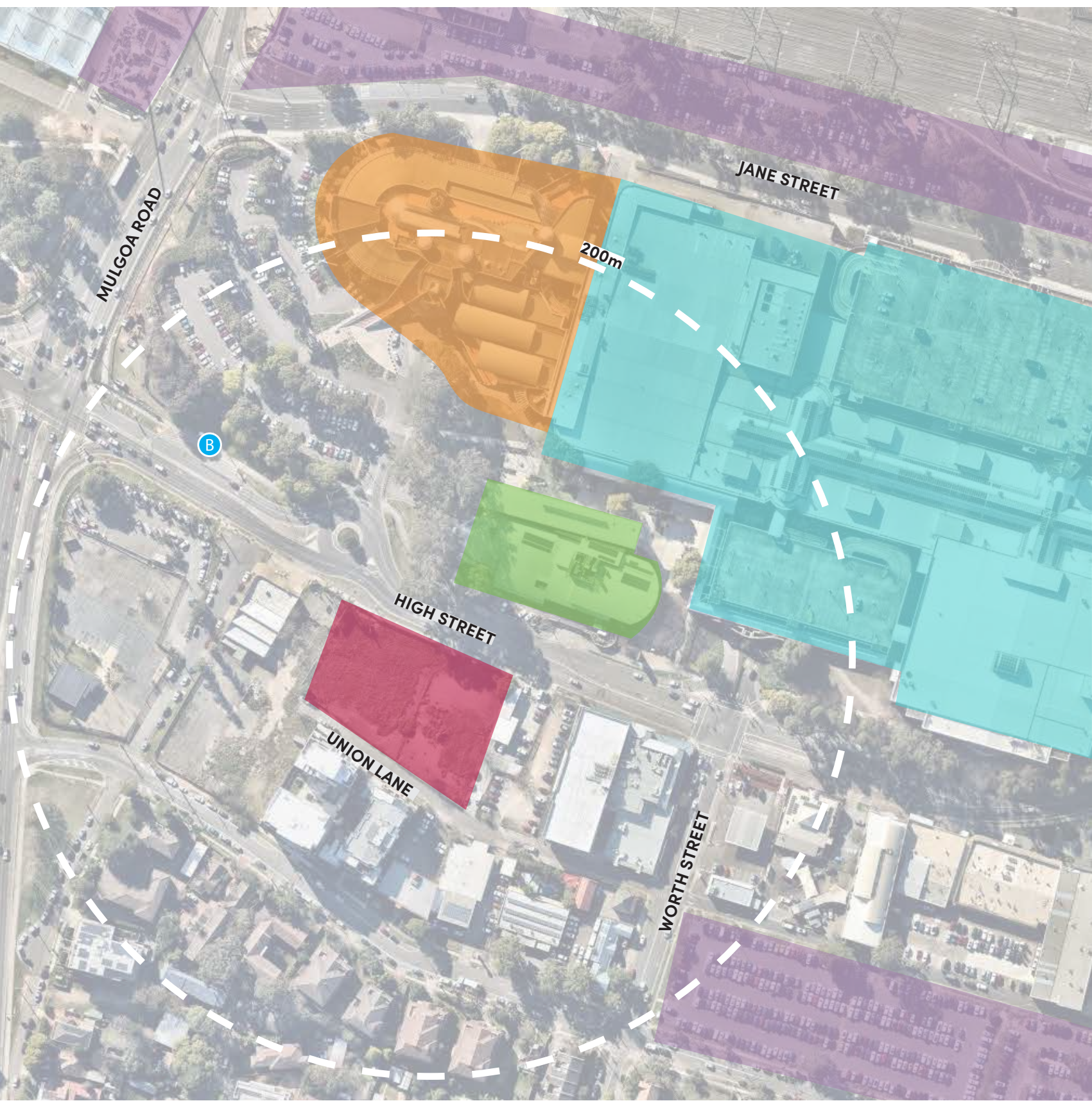
The most significant natural landmark in Penrith is the Nepean River. Recently, the Yandhai Nepean Crossing bridge was opened in place of the former Victoria Bridge crossing, which was particularly dangerous for pedestrian movement.

Remnant vegetation corridors exist to the north of Victoria Bridge, namely within the Emu Plains precinct which adjoins the former quarry, now Penrith Lakes Regional Park.

LEGEND

1 Nepean River	6 Penrith City Centre (Westfields, Council Chambers)	 Penrith Station
2 Yandhai Bridge	7 Panthers Club	 Site
3 Penrith Lakes Regional Park	8 Penrith Stadium	
4 North Penrith Industrial Area	9 Nepean Shopping Village	
5 Thornton Development	10 Jamison Sports Park	
	11 Nepean Hospital	
	12 Parker Street Playing Fields	

SITE ANALYSIS | LANDSCAPE



SITE ANALYSIS

The site is located directly opposite Penrith's civic hub. Within 400m walking distance is entries to the Penrith Westfields, Council Chamber and Library and performing arts hub. The site is also located less than 1km walking distance from Penrith Station.

Presently, there are no defined off road cycle pathways, with most transport connections giving precedence to vehicular traffic. There are a number of bus routes that run throughout the city center to and from surrounding suburbs, however presently the only dedicated stop nearby site is opposite the Council Chambers.

LEGEND

- Site
- Joan Sutherland Performing Arts Center
- Westfields Penrith Plaza
- Penrith Library & Council Chambers
- Commuter Carparking
- B Bus Stop

The High Street Penrith landscape sets a new benchmark for urban living in Penrith. A diversity of offerings from the street to rooftops combine to create a great place to be at all times, and in all seasons.





Comfortable



Social



Street amenity



Green



Inside/outside

YEAR-ROUND ENVIRONMENTAL COMFORT

The primary objective for all external spaces is environmental comfort – how it feels to be there throughout the year, day and night. Key considerations are solar access and wind.

GENUINE, SOCIAL PLACES FOR ALL

A diverse offering of communal open space that is tailored to individual groups, whilst remaining adaptable to changing needs into the future.

CONTRIBUTE TO URBAN LIFE

Understand the changing urban fabric of Penrith and responding by creating a public domain and podium landscape space that is contemporary and sets a benchmark for other developments

CONTINUUM OF GREEN

The experience of nature and greenery is ever-present – from the public domain at ground level, entry spaces, the podium landscape, doorstep terraces, and sky terrace.

INSIDE / OUTSIDE CONNECTIONS

Maximising opportunities for seamless connection between inside and out, ensuring consideration of environmental comfort such as shade and wind.

DESIGN STATEMENT | LANDSCAPE



PUBLIC DOMAIN

STREETSCAPES

The streetscape will be designed in accordance with Council requirements, and planting inside the lot boundaries to provide a comfortable balance of privacy and passive surveillance of the street from ground floor apartments.

A feature tree will act as a icon for the entry – guiding people off High Street and into the public garden and laneway.

The laneway and public garden will feature a planting buffer along the eastern edge, buffering the spaces from the adjacent property. The laneway and public garden will be lit at night with LEDs for visual effect and to address legibility and CPTED issues, whilst ensuring no impacts on adjacent apartments.

COMMUNAL OPEN SPACE

The proposed range of communal open spaces combine to create a diverse offering of urban amenities, and will be an important agent for developing a happy, healthy, and social residential community.

CENTRAL GREEN

A generously proportioned lawn space is located in the centre of the primary communal open space, framed by trees and a range of amenities that cater for all ages and abilities. This large level space is flexible for the full range of activities, from fitness and recreation to pet exercise. Colocation with other amenities provides the ability for play and fitness activities to spill into the lawn.

POOL & CABANAS

This key destination offers resort-style living to the residents, is a cool retreat in the warmer months, and contributes a high amenity outlook for all apartments. The infinity edge features on the northern podium façade. Considering the climatic extremes of Penrith, specific attention has been given to providing a range of shading options – from full shade in the cabanas, to umbrellas, and dappled shade of palms. Transition into the pool is via a tanning ledge, that also accommodates supervised shallow water recreation for younger children. The pool fence is located to recede into the wide planting edges, optimising the sense of seamless connection between the pool and adjacent open space areas.

ACTIVE CORNER

An Outdoor Gym and Table tennis are located adjacent the open lawn on a soft fall surface. Popular exercise elements of pull up bars, dip bars and sit up bench/bars cater to a broad demographic. Generous planting to the edges of the space provides visual screening from the adjacent residences and some wind protection for the ping pong table.

NATURE AND WATER PLAY

Immersed in the native forest is a shaded nature and water play space. Features of the space include zero depth water play (which also performs

a role of cooling the microclimate), a climbing wall, cargo nets, treehouse, and basket swing. Bush tucker species are incorporated into the species mix here, including:

- Lemon myrtle tree (*Backhousia citriodora*)
- Finger lime (*Citrus australasica*)
- Native lemon grass (*Cymbopogon ambiguus*)
- Midyim berry (*Austromyrtus dulcis*)
- Warrigal greens (*Tetragonia tetragonioides*)
- Geraldton wax 'Jambinu Zest' (*Chamelaucium uncinatum*)
- Old man saltbush (*Atriplex nummularia*)

FOOD AND DINING TERRACE WITH KITCHEN GARDENS

The food and dining terrace enjoys outlook to the pool through the lush poolside planting.

An outdoor kitchen / BBQ bench combines with large dining tables to accommodate larger gatherings/social events, and outdoor lounges provide a more casual alternative adjacent the cooking facilities. The planting palette to this area incorporates culinary species, including:

- Citrus trees
- Olive trees
- Pomegranates
- Perennial shrub and ground cover species with a culinary use
- Seasonal herbs (conveniently located adjacent the outdoor kitchen)

OUTDOOR WORK FROM HOME

A weather protected 'third space' with outlook to the open space. Seating and side tables provided accommodate working from home, and encourage a collaborative social hub for informal meeting and information sharing. The central planting island creates intimately scaled spaces to each edge, and breathes greenery through to the building entry.

SKY TERRACE

An outdoor sky terrace located on Level 38 of the residential tower offers a range of amenities with a view. This communal space allows sheltered dining with the addition of a BBQ and Wetbar. The amenities provided is varied from a traditional dining setting to TV entertainment and casual lounging. The lush greening of the space creates a series of 'rooms' within the space, and a water feature element brings life, movement, cooling, and the acoustics of running water to the space. The water feature and planting will be lit at night to celebrate their movement in the soffit above.

DESIGN STATEMENT | LANDSCAPE



MATERIALITY

Natural stone and warm, earthy tones feature in the palette. Mid-range paving colour tones reduce heat gain, whilst ensuring no excessive glare. A diversity of sandstone unit paving surfaces, pebble, and in-situ concrete surfaces contributes to a rich landscape experience.

Architectural elements including the pergola structures and cabanas reference the material palette of the building to bring cohesion to the design aesthetic.

LIGHTING

Area lighting for the common spaces focuses on featuring the vegetation, with higher levels of lighting provided to specific areas, such as the Dining Terrace and Pool. The lighting design incorporates downlighting wherever practicable to minimise light pollution and impact on adjacent residences.

URBAN ELEMENTS

The palette of elements selected are in response to the environmental factors, including extreme summer heat. Elements such as paving, furniture and lighting will be developed further during detailed design, though current palettes for the ground level and podium can be found further in the document.

AMENITY

GROUND LEVEL

The ground level amenity focuses on ensuring ease of access for residents and visitors. A feature tree at the High Street entry will define the space and serve as a beacon guiding residents and visitors down the public garden and laneway to the building entry and neighbouring streets.

PODIUM

The design will incorporate a variety of amenities such as communal multi-use areas, seating, pool amenity and play. This aligns with the need to provide a rich collection of spaces and activities for people of all ages and backgrounds. These spaces are adequately sheltered by either planting or above podiums, which will aid against extreme summer heat.

ACCESSIBILITY

GROUND LEVEL

The through site link is a critical connection from Union Lane to High Street. The wide pathway ensure optimal access for wheelchairs, pedestrians and bicycle users.

PODIUM

All residents of the new development can access and enjoy the communal areas. Universal access has been considered in the design of the communal space, connecting walkways and building entries without compromising design quality.

LIGHTING

Lighting of external spaces will be provided to ensure access points are well lit, improving visibility and the sense of safety. Lighting of the communal open spaces will ensure safe levels of illumination for movement, whilst considering impact on private residences. Unobtrusive lighting will be incorporated where appropriate to enable early evening use of key spaces. All external lighting will be designed to meet relevant Australian lighting standards.

SOIL

The planting will comprise a complementary mix of indigenous and exotic species. Soil requirements will therefore vary according to varying soil chemistries enjoyed by individual species.

For indigenous vegetation, soil profiles will be provided which have modest nutrient levels particularly phosphorus. Specified material will equal Australian Native Landscapes 'Low P' mixture.

In areas where exotic species are to be planted an industry standard organic soil mixture will be provided.

DRAINAGE AND IRRIGATION

The detailed design will specify drainage cell to all soft landscape zones.

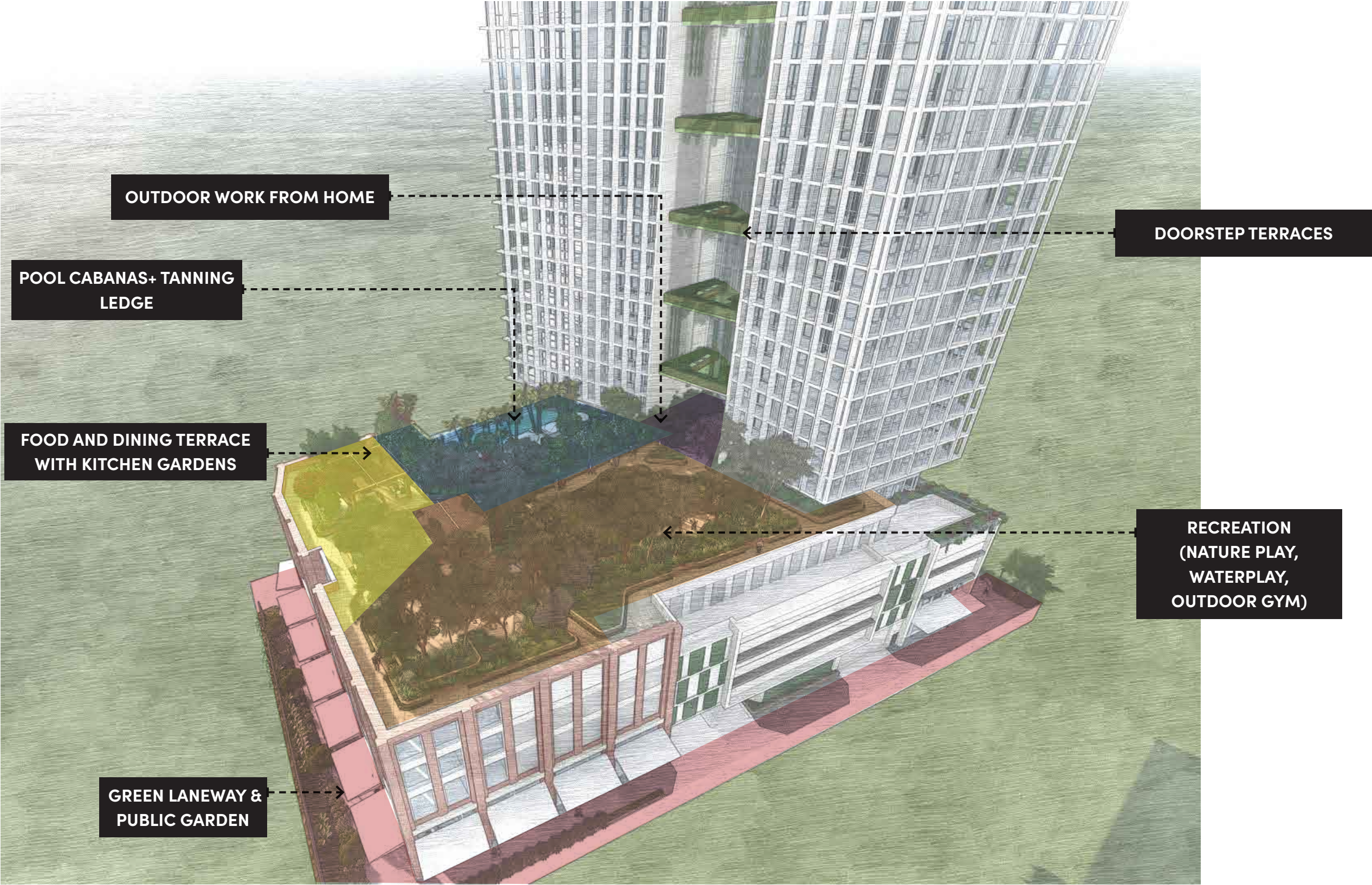
Where possible storm water runoff will be directed to the lawn and garden beds. Consideration has been given to the incorporation of low water demand and low maintenance plant species in all areas to reduce mains consumption and fertiliser contamination of drainage water. A proprietary subsurface drip irrigation system will be provided to all soft landscape areas.

PLANT ESTABLISHMENT AND MAINTENANCE

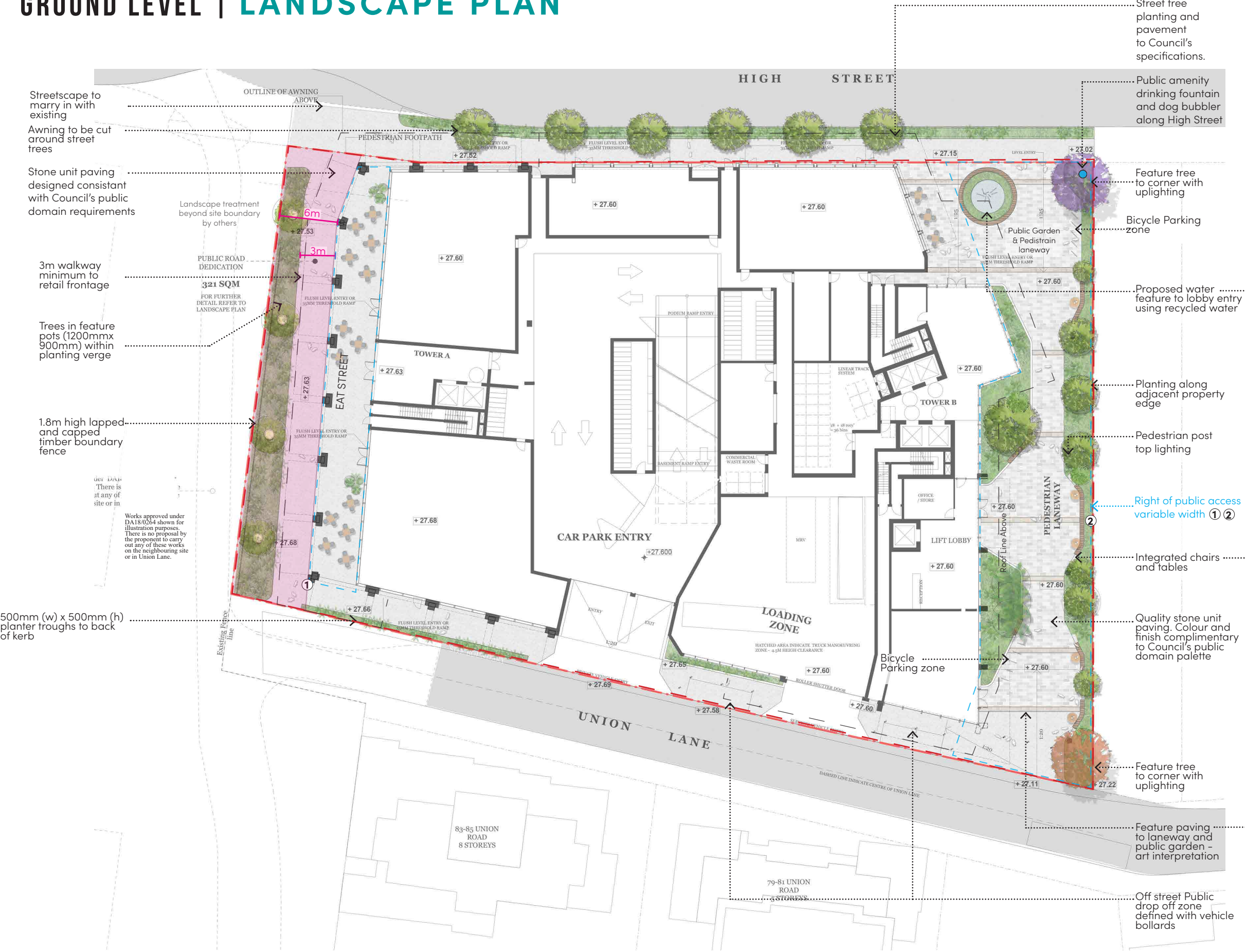
A landscape maintenance contractor will be engaged to maintain all plant material in a state of health and vigour for a period of 52 weeks after practical completion. Contractor must provide the Superintendent with a proposed maintenance works program for approval. The landscape contractor must keep a logbook of all maintenance works undertaken and include 'works to date' information with all progress payment invoices. Works will include, but not be limited to:

- Monitoring the irrigation system on a weekly basis to ensure plants are not under or over irrigated,
- Replacing dead plant material to establish a complete cover of planting without obvious voids at final completion.
- Replenishment of mulch as required to provide cover to the soil surface minimising weed encroachment.
- Suppression of weed growth and weed removal
- Low phosphorus nutrient will be provided to indigenous plant groupings, and a broad spectrum fertiliser applied to exotic plant groupings to satisfy differing chemical requirements.
- Selective pruning / crown lifting / canopy shaping of trees to remove potential future structural defects, establish branching above head height, etc.

PLACE PROGRAM | LANDSCAPE



GROUND LEVEL | LANDSCAPE PLAN



WATER



NESTLED SEATING



ART INTERPRETATION





GROUND LEVEL | **VIEWS**



View 1: Pedestrian laneway and Public Garden South entry

GROUND LEVEL | VIEWS



View 2: Public Garden at north entry



View 3: Eat Street



View 4: Pedestrian laneway(Eat Street) lobby entry

PODIUM LANDSCAPE LEVEL 4



LEVEL 04 | ZONAL PLAN



LEVEL 04 | DETAIL PLAN - OUTDOOR WORK FROM HOME



- ① Feature tree
- ② Raised planter - variable heights
- ③ Seating Nooks with Table
- ④ Lobby entry space
- ⑤ Canopy Over

LEGEND

	Planting		Proposed Trees
	Lawn		Proposed Levels
	Paving		Entry Point

1:100@A3 N

View 1: Entry lobby



View 2: Work from home feature tree planting



Lush Planting



Outdoor WFH

LEVEL 04 | DETAIL PLAN - OUTDOOR RECREATION

- ① Lawn Space
- ② Raised planter - variable heights
- ③ Edible Planting Garden
- ④ Nature Play
- ⑤ Water Play
- ⑥ Climbing Wall
- ⑦ Outdoor Gym
- ⑧ Seating



LEGEND

	Planting		Softfall		Proposed Trees
	Lawn		Timber Decking		Proposed Levels
	Paving		Gravel		Entry point
	Mulch				

1:200@A3 N



Active Space



Nature Play



Lawn Space

LEVEL 04 | VIEWS



View 1: Lawn entry into Nature & water play



View 2: Edge seating nook overlooking Nature & Water play










View 3: South entry pathway to Nature & Water play

LEVEL 04 | POOL AND CABANAS

- ① Timber Boardwalk
- ② Palisade Fence
- ③ Raised planter - variable heights
- ④ Cabana
- ⑤ Shaded Daybed and table
- ⑥ Tanning Ledge
- ⑦ Infinity Edge
- ⑧ Outdoor shower
- ⑨ Feature palm planting



LEGEND

	Planting		Pebble		Proposed Trees
	Paving		Timber Decking		Proposed Levels
			Pool		Entry Point



Infinity Edge



Tanning Ledge



Pool Cabanas

LEVEL 04 | VIEWS



View 1: Planting along palisade fence



View 2: Planting between sunbed lounging



View 3: Open views through shaded sunbed lounges

LEVEL 04 | DETAIL PLAN - FOOD & DINING TERRACE WITH KITCHEN GARDENS

- ① Pergola Structure
- ② Raised planter - variable heights
- ③ Kitchen Garden
- ④ BBQ and Dining
- ⑤ Lounge Seating
- ⑥ Seating Nook



LEGEND

- | | | |
|----------|----------------|-----------------|
| Planting | Timber Decking | Proposed Trees |
| Paving | | Proposed Levels |

1:150@A3 N



Pergola Structure



BBQ & Dining



Kitchen Garden

LEVEL 04 | VIEWS



View 1: Approach from Central Green to Food & Dining terrace

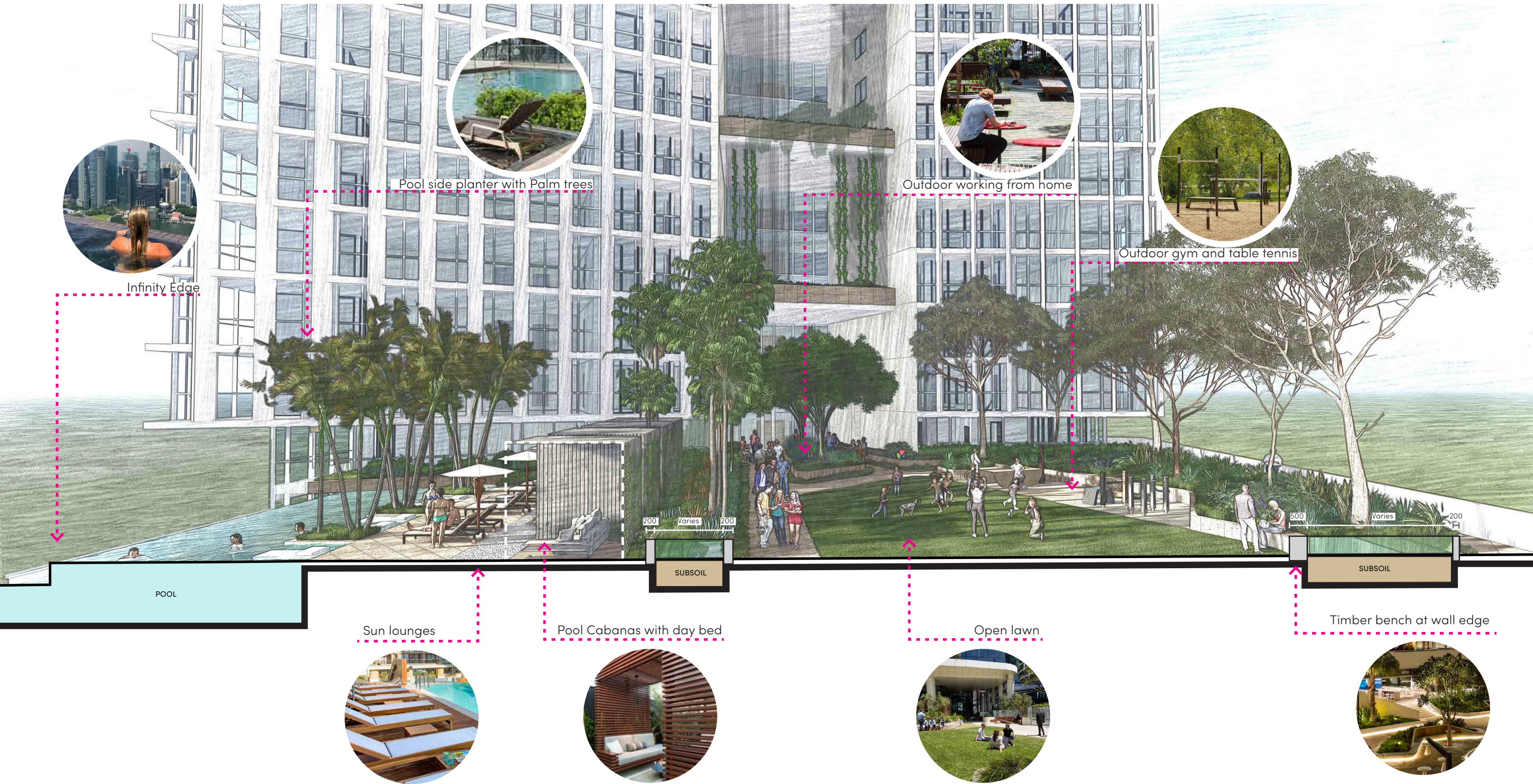


View 2: Dining Terrace looking toward the pool



View 3: Pool interface with Food & Dining terrace

SECTIONS | NORTH - SOUTH



Section North - South (Not to scale).
Refer to Structural Engineer package for Structural slab detail.

SECTIONS | EAST - WEST



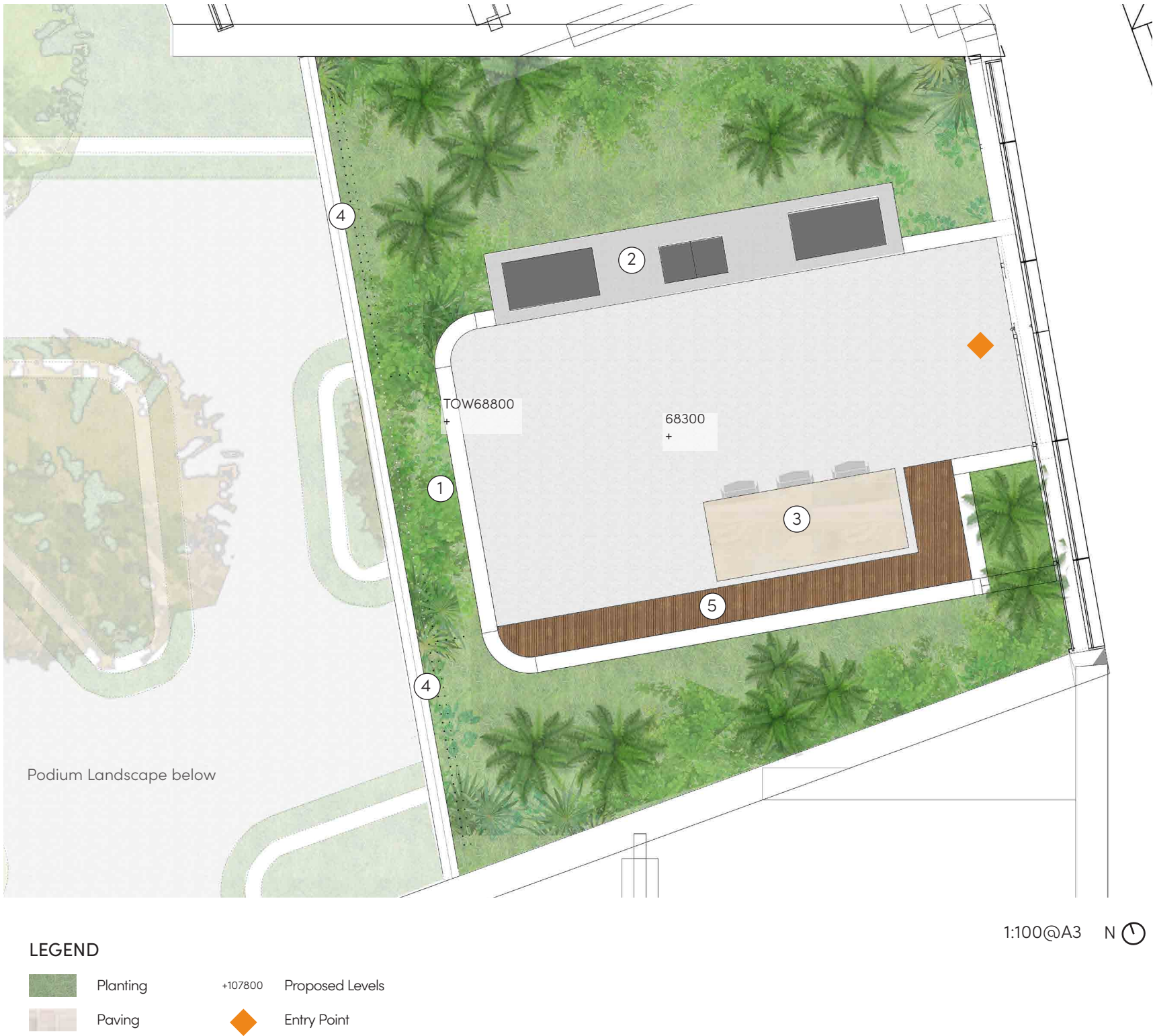
Section East - West (Not to scale).
Refer to Structural Engineer package for Structural slab detail.

VIEWS | DOORSTEP TERRACE



DOORSTEP TERRACES

- ① Raised planter – 1.2m high
- ② BBQ + Outdoor kitchen space
- ③ Seating and dining space
- ④ Vertical greening
- ⑤ Seating Bench



Weather Protected Space



Outdoor Kitchen



Green Facade

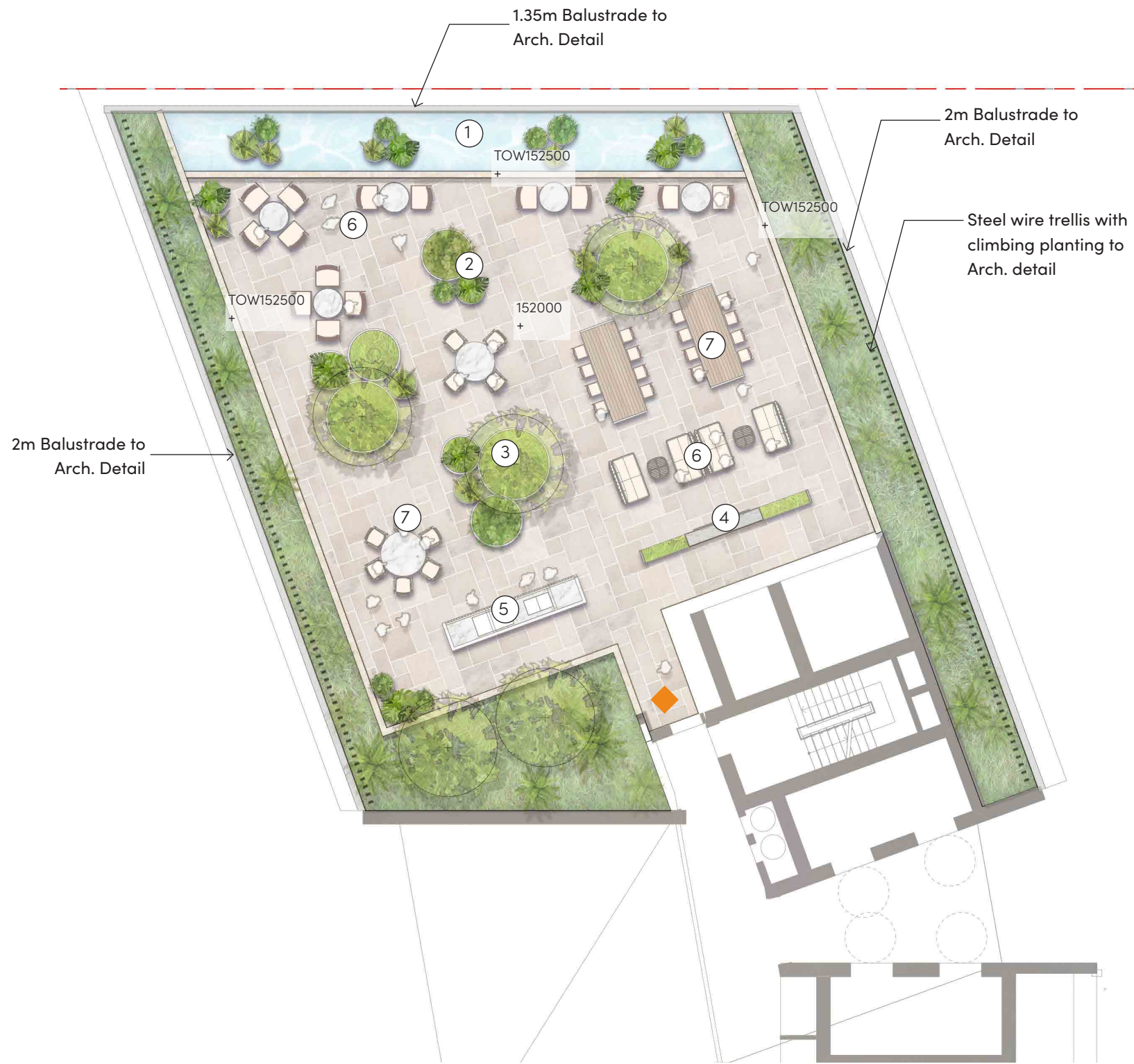
Note: Minor changes to form and configuration may be required when drawings are subsequently prepared for construction purposes after the grant of development consent.

SKY TERRACE LEVEL 38



LEVEL 38 MASTERPLAN

- ① Water Feature
- ② Various Pot Planters
- ③ Planters featuring Trees
- ④ TV with Screen Planting to WC behind
- ⑤ BBQ and Wetbar
- ⑥ Lounge Area
- ⑦ Dining Area



Water Feature



Sports/TV Lounge



Social Lounge

LEVEL 38 | VIEWS



View 1: Tree planting between dining spaces



View 2: TV/Sports entertainment within lush greening



View 3: Varied fix furniture for flexible use of space

PLANTING DESIGN



PLANTING PLAN - GROUND LEVEL



PLANTING PALETTE - GROUND LEVEL

PLANTING

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
TREES			
PU	Pyrus ussuriensis	Manchurian Pear	200L
BA	Brachychiton aceriflius	Illawarra Flame Tree	200L
HF	Hymenosporum flavum	Native Frangipani	200L
TL	Tristaniopsis laurina	Water Gum	200L
JM	Jacaranda mimosifolia	Jacaranda	200L
ER	Elaeocarpus reticulatus	Blueberry Ash	200L
LA	Livistona australis	Cabbage Tree Palm	3-5m varying heights
UNDERSTOREY			
Cw	Callistemon 'White ANZAC'	White ANZAC Bottlebrush	200mm pot
Dr	Dianella revoluta	Spreading Lily	150mm pot
Ej	Euonymus japonicus 'Ovatus Aureus'	Japanese Splndle Bush	200mm
Ga	Gardenia augusta 'Florida'	Gardenia Florida	200mm
Gn	Grevillea 'Ned Kelly'	Grevillea Ned Kelly	200mm
Gr	Grevillea rosmarinifolia 'Nana'	Rosemary Grevillea	200mm
Lm	Liriope muscari 'Evergreen Giant'	Evergreen Giant	200mm
Lt	Lomandra 'Tanika'	Tanika Mat Rush	200mm
Ri	Raphiolepis indica 'Oriental Pearl'	Oriental Pearl	200mm

PLANTING PALETTE



Jacaranda mimosifolia



Brachychiton acerifolius



Hymenosporum flavum



Tristaniopsis laurina



Pyrus ussuriensis



Elaeocarpus eumundii



Livistona australis



Lomandra 'Tanika'



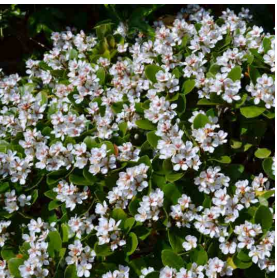
Callistemon "White ANZAC"



Dianella revoluta



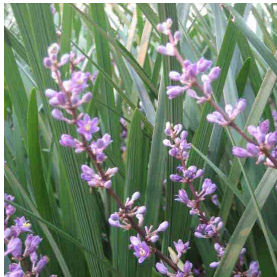
Grevillea 'Ned Kelly'



Raphiolepis indica 'Oriental Pearl'



Gardenia augusta 'Florida'



Liriope muscari 'Evergreen Giant'

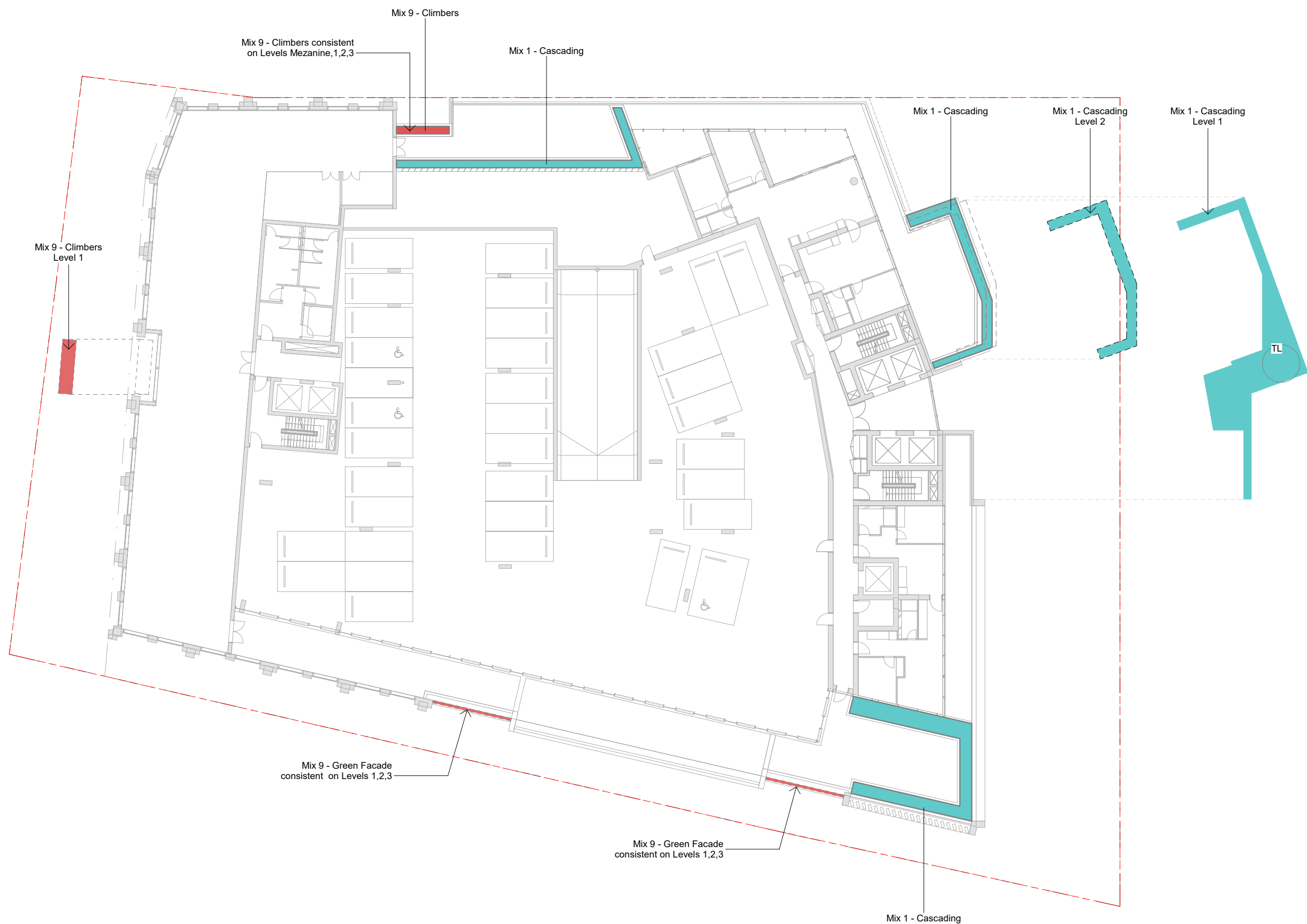


Grevillia rosmarinifolia 'Nana'



Euonymus japonicus

PLANTING PLAN - MEZZANINE, LEVEL 1, 2, 3 |



PLANTING PALETTE - MEZZANINE,LEVEL 1,2,3

Carpark and Facade greening along building edges will feature a variety of hardy, sun and shade tolerant species that will add vertical greening and character to the facade.

A minimum soil depth of 600mm will be provided to all planters on these levels to ensure adequate soil volume for healthy growth and resilience in extreme weather events.

PLANTING

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
SHRUBS & UNDERSTOREY			
MIX 1 - CASCADING			
Ah	Acacia howitti	Sticky wattle	140mm
Cc	Casuarina 'Cousin it'	She-oak	140mm
Dc	Darwinia citriodora 'Prostrate'	Lemon scented myrtle	140mm
Go	Grevillea obtusifolia 'Gingin gem'	Grevillea	140mm
Gr	Grevillea 'Royal rambler'	Grevillea	140mm
Mi	Myoporum insulare 'prostrate'	Native juniper	140mm
Mp	Myoporum parvifolium	Creeping boobialla	140mm
CLIMBERS & GREEN FACADE			
MIX 9 - CLIMBERS			
Ma	Mandevilla 'Aloha Forever Red'	Aloha Mandevilla	200mm
Hi	Hibbertia scandens	Snake Vine	200mm
Tj	Trachelospemum jasminoides	Star Jasmine	200mm

PLANTING PALETTE



Acacia howitti



Casuarina 'Cousin it'



Darwinia citriodora 'Prostrate'



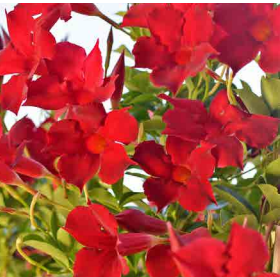
Grevillea obtusifolia 'Gingin gem'



Myoporum insulare 'prostrate'



Myoporum parvifolium



Mandevilla 'Aloha Forever Red'



Hibbertia scandens



Grevillea 'Royal rambler'



Trachelospemum jasminoides

PLANTING PLAN - LEVEL 4



PLANTING PALETTE - LEVEL 4 | NATIVE

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
TREES			
AF	Angophora floribunda	Rough-barked apple	200L
AS	Acmena smithii	Lilly pilly	200L
BC	Backhousia citriodora	Lemon ironwood	200L
CA	Citrus australasica	Australian finger lime	200L
EE	Elaeocarpus eumundii	Smooth leafed quandong	200L
ER	Elaeocarpus reticulatus	Blueberry ash	200L
ET	Eucalyptus tereticornis	Forest red gum	200L
GF	Glochidion ferdinandi	Cheese tree	200L
LA	Livistona australis	Cabbage-tree palm	200L
TL	Tristaniopsis laurina	Watergum	200L
UP	Ulmus parvifolia	Chinese elm	200L
WF	Waterhousea floribunda	Weeping lily pily	200L
SHRUBS & UNDERSTOREY			
MIX 1 - CASCADING			
Ah	Acacia howitti	Sticky wattle	140mm
Cc	Casuarina ‘Cousin it’	She-oak	140mm
Dc	Darwinia citriodora ‘Prostrate’	Lemon scented myrtle	140mm
Go	Grevillea obtusifolia ‘Gingin gem’	Grevillea	140mm
Gr	Grevillea ‘Royal rambler’	Grevillea	140mm
Mi	Myoporum insulare ‘prostrate’	Native juniper	140mm
Mp	Myoporum parvifolium (Broad Leaf White)	Creeping boobialla	140mm
MIX 3 - NATIVE (EDIBLE)			
SHRUBS & ACCENT PLANTING			
Ad	Austromyrtus dulcis	Midyim berry	200mm
An	Atriplex nummularia	Old man saltbush	200mm
Ca	Cymbopogon ambiguus	Native lemon grass	200mm
Cu	Chamelaucium uncinatum	Geraldton wax ‘Jambinu Zest’	200mm
Cw	Callistemon ‘White ANZAC’	White ANZAC Bottlebrush	200mm
Tt	Tetragonia tetragonoides	Warrigal greens	200mm
UNDERSTOREY			
Ah	Acacia howitti	Sticky wattle	140mm
Dr	Dianella revoluta	Spreading lily	140mm
Ej	Euonymus japonicus ‘Ovatus Aureus’	Japanese splndle Bush	140mm
Ga	Gardenia augusta ‘Florida’	Gardenia florida	140mm
Gn	Grevillea ‘Ned Kelly’	Grevillea ned kelly	140mm
Gr	Grevillea rosmarinifolia ‘Nana’	Rosemary grevillea	140mm
Go	Grevillea obtusifolia ‘Gingin gem’	Grevillea	140mm
Lm	Liriope muscari ‘Evergreen Giant’	Evergreen giant	140mm
Lt	Lomandra ‘Tanika’	Tanika mat rush	140mm

Mi	Myoporum insulare ‘prostrate’	Native juniper	140mm
Mp	Myoporum parvifolium	Creeping boobialla	140mm
Ri	Raphiolepis indica ‘Oriental Pearl’we	Oriental pearl	140mm
MIX 4 - NATIVE			
SHRUBS & ACCENT PLANTING			
Cw	Callistemon ‘White ANZAC’	White ANZAC Bottlebrush	200mm
Wf	Westringia fruticosa ‘naringa’	Coastal rosemary	200mm
UNDERSTOREY			
Ah	Acacia howitti	Sticky wattle	140mm
Cc	Casuarina ‘Cousin it’	She-oak	140mm
Dc	Darwinia citriodora ‘Prostrate’	Lemon scented myrtle	140mm
Go	Grevillea obtusifolia ‘Gingin gem’	Grevillea	140mm
Gr	Grevillea ‘Royal rambler’	Grevillea	140mm
Mi	Myoporum insulare ‘prostrate’	Native juniper	140mm
Mp	Myoporum parvifolium	Creeping boobialla	140mm

PLANTING PALETTE



Angophora floribunda



Acmena smithii



Glochidion ferdinandi



Tristaniopsis laurina



Waterhousea floribunda



Austromyrtus dulcis



Callistemon ‘White ANZAC’



Atriplex nummularia



Westringia fruticosa ‘naringa’



Tetragonia tetragonoides



Acacia howitti ‘Green Wave’



Dianella revoluta



Darwinia citriodora ‘Prostrate’



Liriope muscari ‘Evergreen Giant’



Lomandra ‘Tanika’

PLANTING PALETTE - LEVEL 4 | POOL PLANTING

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
TREES			
AC	Achontophoenix cumminghamiana	Bangalow Palm	200L
BA	Brachychiton acerifolius	Flame Tree	200L
EE	Elaeocarpus eumundii	Smooth Leafed Quandong	200L
ER	Elaeocarpus reticulatus	Blueberry Ash	200L
HF	Hymenosporum flavum	Native Frangipani	200L
TL	Tristaniopsis laurina	Watergum	200L
LA	Livistona australis	Cabbage Tree Palm	200L
SHRUBS + UNDERSTOREY			
MIX 5 - POOL			
SHRUBS & ACCENT PLANTING			
Aa	Agave attenuata	Foxtail Agavae	300mm
Ai	Alcantarea imperialis ‘Rubra’	Imperial Bromeliad	300mm
Dc	Dracaena ‘Janet Craig’	Janet Craig	300mm
Dd	Dracaena ‘Tricolour’	Striped Dracaena	300mm
Ro	Raphiolepis ‘Oriental Pearl’	Indian Hawthorn	200mm
Ss	Stromanthe sanguinea	Sanguinea	200mm
St	Sansevieria trifasciata	Mother-in-law’s tongue	200mm
Vh	Vriesea hieroglyphica	King of the Bromeliads	300mm
UNDERSTOREY			
Ae	Aspidistra elatior	Cast Iron Plant	200mm
Av	Asplenium variegata	Variegated Bird’s Nest Fern	200mm
Bs	Blechnum ‘silver lady’	Silver Lady Fern	200mm
Ca	Casuarina ‘Cousin It’	Sheoak	200mm
Cc	Chlorophytum comosum	Spider Plant	200mm
Cr	Cordyline ‘Rubra’	Cordyline	200mm
Db	Dianella ‘Breeze’	Flax Lily	200mm
Cw	Callistemon ‘White Anzac’	Bottlebrush	200mm
Hi	Hibbertia scandens	Snake Vine	200mm
Hg	Hymenosporum ‘Gold Nugget’	Native Frangipani	200mm
Lm	Liriope ‘Evergreen Giant’	Evergreen Giant	200mm
Px	Philodendron ‘Xanadu’	Xanadu	200mm
Rp	Rosemary officinalis ‘Prostrate’	Common Rosemary	200mm
Sc	Syzygium ‘Cascade’	Lily Pily	200mm
CLIMBERS			
Ma	Mandevilla ‘Aloha Forever Red’	Aloha Mandevilla	200mm
Hi	Hibbertia scandens	Snake Vine	200mm
Tj	Trachelospemum jasminoides	Star Jasmine	200mm

PLANTING PALETTE



Elaeocarpus eumundii



Livistona australis



Brachychiton acerifolius



Tristaniopsis laurina



Aspidistra elatior



Blenchnum ‘Silver Lady’



Casuarina ‘Cousin It’



Philodendron ‘Xanadu’



Agave attenuata



Dracaena ‘Tricolour’



Stromanthe sanguinea



Vriesea hieroglyphica



Trachelospermum jasminoides



Mandevilla ‘Aloha Forever Red’



Carpobrotus glaucenscens



Hibbertia scandens

PLANTING PALETTE - LEVEL 4 | KITCHEN GARDEN

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
TREES			
Cl	Citrus limon	Limon tree	200L
Cs	Citrus sinensis	Orange tree	200L
Oe	Olea europaea	Olive tree	200L
Pg	Punica granatum	Pomegranate tree	200L
SHRUBS + UNDERSTOREY			
MIX 6 - KITCHEN GARDEN			
SHRUBS & ACCENT PLANTING			
Aa	Agave attenuata	Foxtail Agavae	300mm
Ag	Anethum graveolens	Dill	200mm
Ac	Aloysia citriodora	Lemon verbena	200mm
Ro	Rosmarinus officinalis 'Prostratus	Creeping Rosemary	200mm
Sr	Salvia rosmarinus	Rosemary	200mm
Ss	Stromanthe sanguinea	Sanguinea	200mm
St	Sansevieria trifasciata	Mother-in-law's tongue	200mm
Vh	Vriesea hieroglyphica	King of the Bromeliads	300mm
UNDERSTOREY			
Ae	Aspidistra elatior	Cast Iron Plant	200mm
As	Allium schoenoprasum	Chives	150mm
Av	Asplenium variegata	Variegated Bird's Nest Fern	200mm
Bs	Blechnum 'silver lady'	Silver Lady Fern	200mm
Ca	Casuarina 'Cousin It'	Sheoak	200mm
Cc	Chlorophytum comosum	Spider Plant	200mm
Cw	Callistemon 'White Anzac'	Bottlebrush	200mm
Cs	Coriandrum sativum	Coriander	150mm
Db	Dianella 'Breeze'	Flax Lily	200mm
Pc	Petroselinum crispum	Parsley	150mm
Hi	Hibbertia scandens	Snake Vine	200mm
Hg	Hymenosporum 'Gold Nugget'	Native Frangipani	200mm
Lm	Liriope 'Evergreen Giant'	Evergreen Giant	200mm
Rp	Rosemary officinalis 'Prostrate'	Common Rosemary	200mm
Sc	Syzygium 'Cascade'	Lily Pily	200mm
CLIMBERS			
Pp	Pandorea pandorana	Wonga Wonga Vine	200mm
Hi	Hibbertia scandens	Snake Vine	200mm

PLANTING PALETTE



Citrus limon



Citrus sinensis



Olea europaea



Punica granatum



Aspidistra elatior



Blechnum 'Silver Lady'



Casuarina 'Cousin It'



Callistemon 'White Anzac'



Dianella 'Breeze'



Rosemary officinalis 'Prostrate'



Salvia rosmarinus



Anethum graveolens



Trachelospermum jasminoides



Hibbertia scandens



Pandorea pandorana



Aloysia citriodora

PLANTING PLAN & PALETTE - DOORSTEP TERRACES

PLANTING

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
SHRUBS & UNDERSTOREY			
MIX 8 - DOORSTEP			
SHRUBS & ACCENT PLANTING			
Cgl	Cordyline glauca	Hawaiian Ti Plant	300mm
Cst	Cordyline stricta	Slender Palm Lily	300mm
Dtr	Dracaena 'Tricolour'	Rainbow tree	300mm
Pxa	Philodendron xanadu	Philodendron	300mm
Ssa	Stromanthe sanguinea	Stromanthe triostar	300mm
UNDERSTOREY			
Cco	Chlorophytum comosum	Spider plants	200mm
Cgl	Casuarina glauca 'Cousin It'	She-oak	200mm
Dcp	Darwinia citriodora 'Prostrate'	Lemon darwinia	200mm
Mip	Myoporum insulare 'prostrate'	Tuker Bush	200mm
Mpa	Myoporum parvifolium	Creeping boobialla	200mm
Lm	Liriope muscari 'Evergreen Giant'	Evergreen Giant	200mm
CLIMBERS			
MIX 9 - CLIMBERS			
Ma	Mandevilla 'Aloha Forever Red'	Aloha Mandevilla	200mm
Hi	Hibbertia scandens	Snake Vine	200mm
Tj	Trachelospermum jasminoides	Star Jasmine	200mm



Dracaena 'Tricolour'



Cordyline glauca



Philodendron xanadu



Stromanthe sanguinea



Myoporum parvifolium (Broad Leaf White)



Casuarina glauca 'Cousin It'



Liriope muscari 'Evergreen Giant'

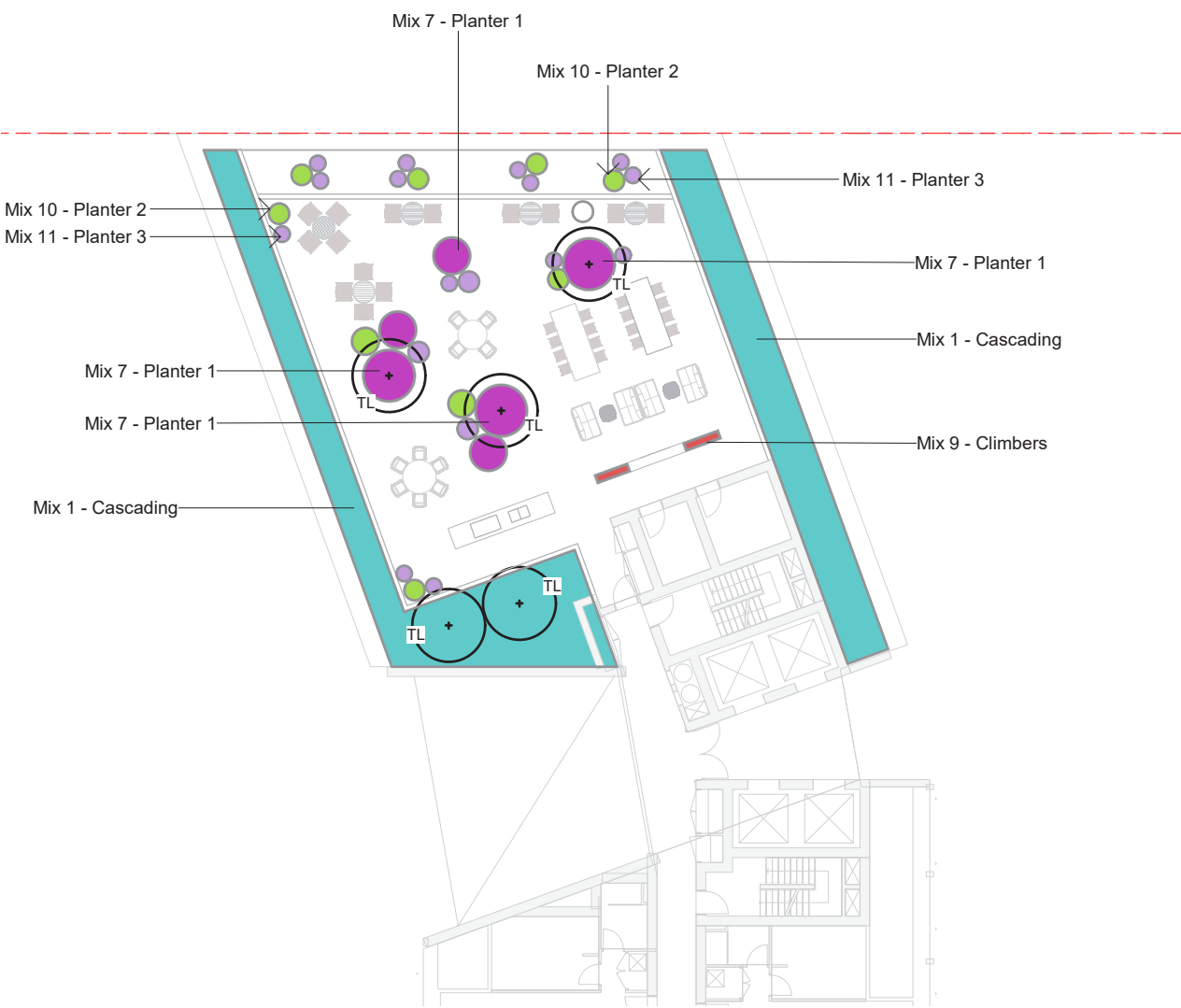


Trachelospermum jasminoides



PLANTING PLAN & PALETTE - LEVEL 38

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
TREES			
TL	Tristaniopsis laurina	Water Gum	200L
UNDERSTOREY & ACCENT PLANTING			
MIX 1 - CASCADING			
Ah	Acacia howitti	Sticky wattle	140mm
Cc	Casuarina 'Cousin it'	She-oak	140mm
Dc	Darwinia citriodora 'Prostrate'	Lemon scented myrtle	140mm
Go	Grevillea obtusifolia 'Gingin gem'	Grevillea	140mm
Gr	Grevillea 'Royal rambler'	Grevillea	140mm
Mi	Myoporum insulare 'prostrate'	Native juniper	140mm
Mp	Myoporum parvifolium	Creeping boobialla	140mm
MIX 7 - PLANTER 1			
SHRUB & ACCENT PLANTING			
Ri	Raphiolepis indica 'Oriental Pearl'	Oriental Pearl	200mm
Cg	Cordyline glauca	Green Ti Plant	200mm
Px	Philodendron 'Xanadu'	Xanadu	200mm
UNDERSTOREY			
Tm	Tropaeolum majus	Indian cress	200mm
Dr	Dichondra repens	Kidneyweed	200mm
Tt	Trachelospermum 'Tricolor'	Tricolor Jasmine	200mm
Vh	Viola hederacea	Native Violet	200mm
	Seasonal herbs (mint, basil, etc...)		
MIX 10 - PLANTER 2			
SHRUB & ACCENT PLANTING			
Ar	Alcantarea imperialis 'Rubra'	Bromeliad	200mm
UNDERSTOREY			
Lm	Lysimachia nummularia	Moneywort	200mm
Vh	Viola hederacea	Native Violet	200mm
MIX 11 - PLANTER 3			
SHRUB & ACCENT PLANTING			
Cm	Clivia miniata	Bush Lily	200mm
Ae	Aspidistra elatior	Cast Iron Plant	200mm
UNDERSTOREY			
Ss	Senecio serpens	Chalk Sticks	200mm
Pa	Peperomia argyreia	Watermelon peperomia	200mm
CLIMBERS			
MIX 9 - CLIMBERS			
Ma	Mandevilla 'Aloha Forever Red'	Aloha Mandevilla	200mm
Hi	Hibbertia scandens	Snake Vine	200mm
Tj	Trachelospermum jasminoides	Star Jasmine	200mm



Alcantarea imperialis 'Rubra'



Grevillea obtusifolia 'Gingin gem'



Lysimachia nummularia



Tropaeolum majus



Dichondra repens



Raphiolepis indica 'Oriental Pearl'



Clivia miniata



Casuarina glauca 'Cousin It'



Carpobrotus glaucescens



Trachelospermum jasminoides

PLANTING PLAN & PALETTE - LEVEL 40,41,42,43

PLANTING PALETTE

CODE	BOTANICAL NAME	COMMON NAME	POT SIZE
SHRUBS & UNDERSTOREY			
MIX 1 - CASCADING			
Ah	Acacia howitti	Sticky wattle	140mm
Cc	Casuarina 'Cousin it'	She-oak	140mm
Dc	Darwinia citriodora 'Prostrate'	Lemon scented myrtle	140mm
Go	Grevillea obtusifolia 'Gingin gem'	Grevillea	140mm
Gr	Grevillea 'Royal rambler'	Grevillea	140mm
Mi	Myoporum insulare 'prostrate'	Native juniper	140mm
Mp	Myoporum parvifolium	Creeping boobialla	140mm
MIX 8 - DOORSTEP			
SHRUBS & ACCENT PLANTING			
Cgl	Cordyline glauca	Hawaiian Ti Plant	300mm
Cst	Cordyline stricta	Slender Palm Lily	300mm
Dtr	Dracaena 'Tricolour'	Rainbow tree	300mm
Pxa	Philodendron xanadu	Philodendron	300mm
Ssa	Stromanthe sanguinea	Stromanthe triostar	300mm
UNDERSTOREY			
Cco	Chlorophytum comosum	Spider plants	200mm
Cgl	Casuarina glauca 'Cousin It'	She-oak	200mm
Dcp	Darwinia citriodora 'Prostrate'	Lemon darwinia	200mm
Mip	Myoporum insulare 'prostrate'	Tuker Bush	200mm
Mpa	Myoporum parvifolium	Creeping boobialla	200mm
Lm	Liriope muscari 'Evergreen Giant'	Evergreen Giant	200mm



Chlorophytum comosum



Casuarina glauca 'Cousin It'



Liriope muscari 'Evergreen Giant'

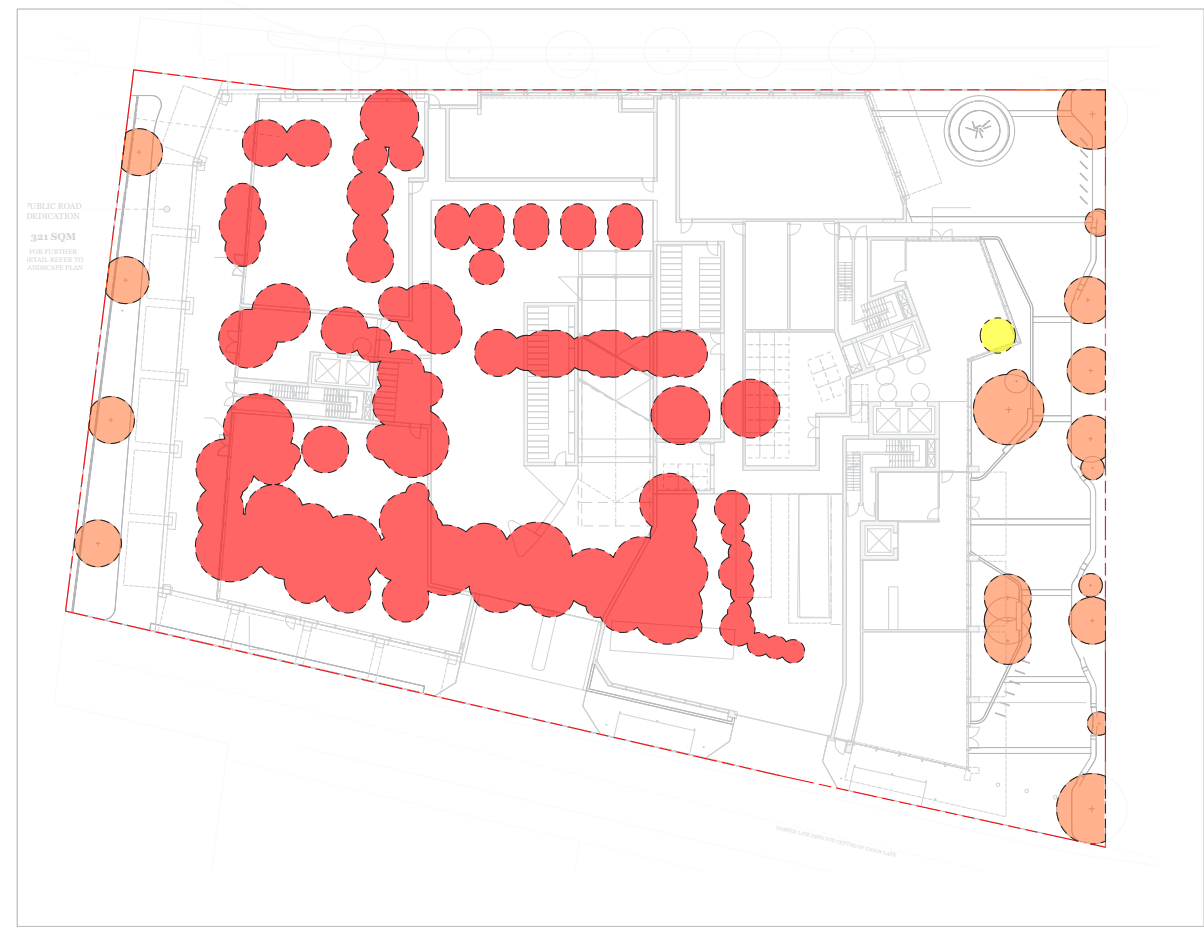


Grevillea obtusifolia 'Gingin gem'



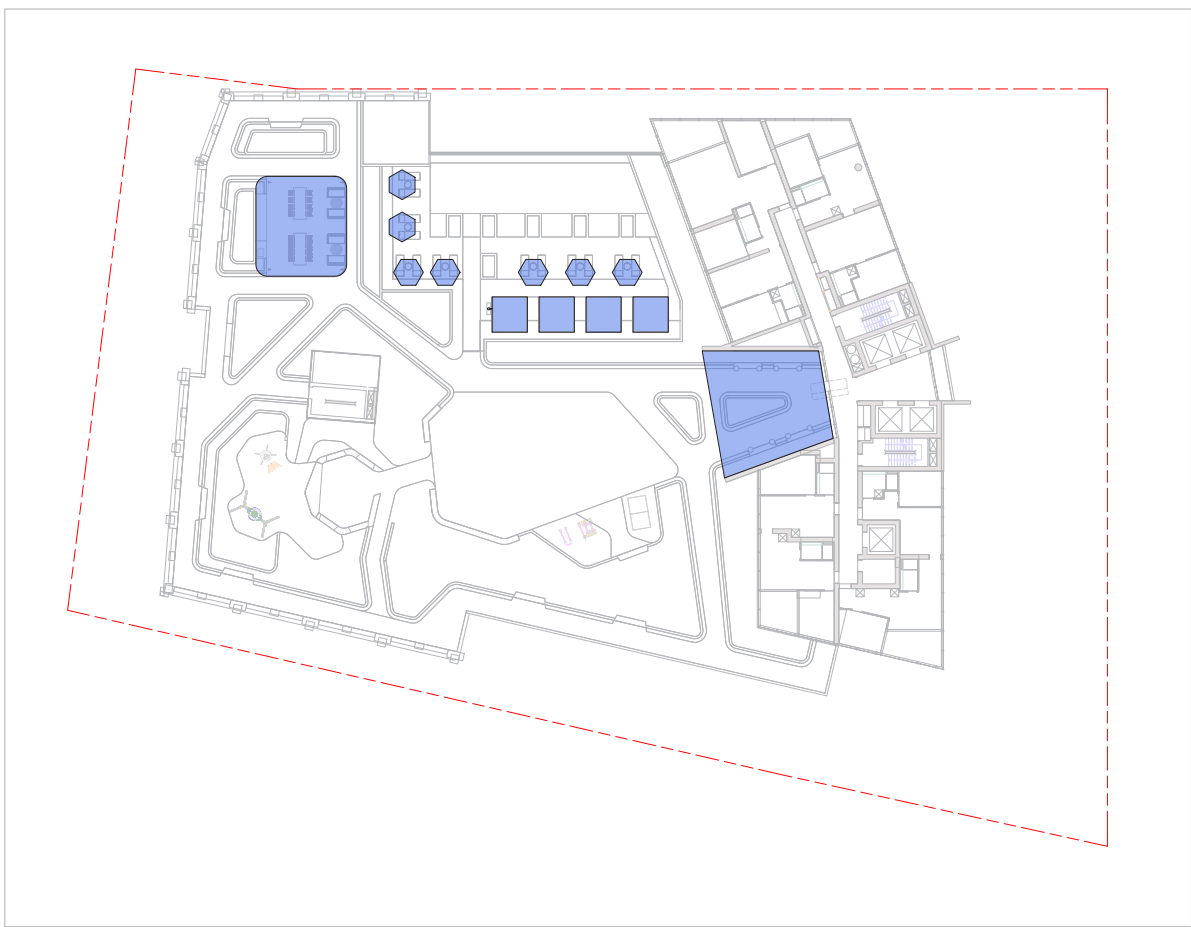
TREE AND SHADE CANOPY COVERAGE

NOTE:
City of Sydney is currently targeting 20% canopy coverage for residential properties and 34% for streets by 2050.



Tree Planting Areas including - Levels Ground, 1, 4

AREA	
(Within site boundary)	
<div></div> Ground Level Canopy Total	198m2
<div></div> Level 1 Canopy Total	7m2
<div></div> Level 4 Canopy Total	856m2
TOTAL TREE CANOPY COVERAGE	1061 m²
CANOPY PERCENTAGE	23%



Shade Structure Areas - Level 4
Total Shade Structure Canopy on Level 4: 220m2

FEATURE ELEMENTS & MATERIALS PALETTE

STRATEGY

The material palette for the podium levels will echo the architectural character of the development. The hardscape elements will use earthy tones and textures, softening the ground plane and complimenting the planting buffer that guides pedestrian movement across the podiums.

All furniture and fixtures for the site will be:

- Durable, functional and aesthetically pleasing
- Able to facilitate social and communal activities.
- Adaptable to the needs of the community, including being childsafe.
- Well-wearing and resistant to the changing extremes in climate in the Penrith region.

PAVING



GRANITE PAVING (To be confirmed with Penrith council)



LANEWAY & PUBLIC GARDEN STONE UNIT PAVING (Stretcher bond perp. to path of travel)



CONCRETE PAVING BANDS WITH BRASS INSERTS



SANDSTONE UNIT PAVING



TIMBER DECK (Or similar)

FURNITURE & FIXINGS



TIMBER & CONCRETE FOLDING BENCH SEATING



GRC POTS



SANDSTONE WALL



STEEL WATER FEATURE/PUBLIC ART SCULPTURE



QUALITY POST TOP LIGHTING (LANEWAY & PUBLIC GARDEN) - LOUIS POULSEN - ALBERTSLUND MINI POST



SEMI HOOP BIKE RACK



OUTDOOR BBQ FACILITIES



CABANA & PERGOLA STRUCTURE



SUN LOUNGERS (Or similar)

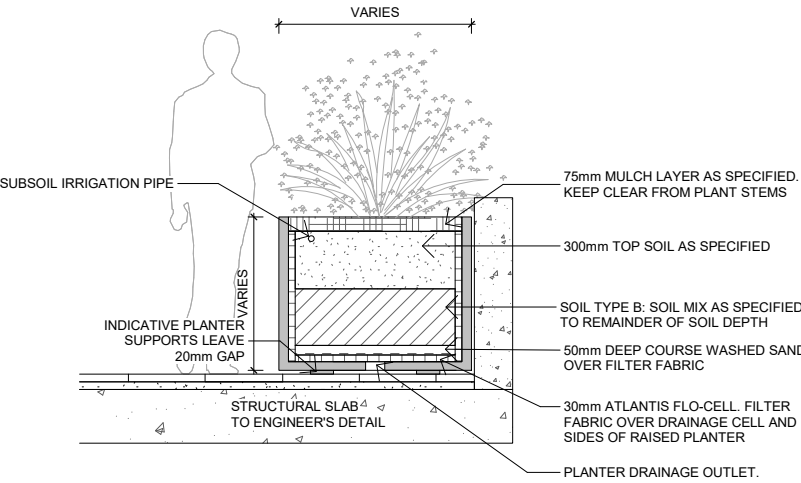


OUTDOOR LOUNGE SETTING

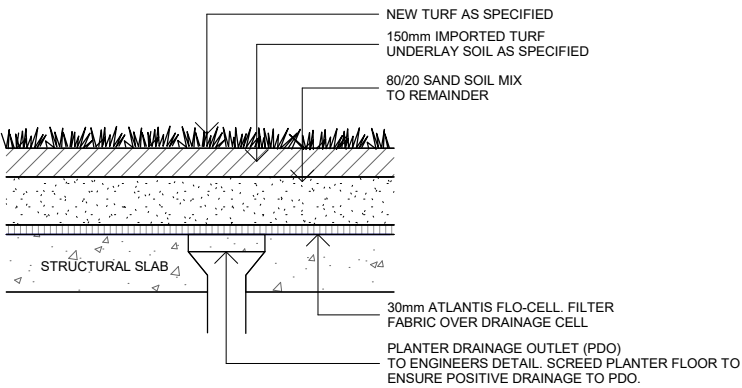
PRELIMINARY CONSTRUCTION DETAILS

NOTES:
ALL SOIL MUST BE LIGHTLY COMPACTED
IN MAX 75mm LAYER TO MINIMISE
DEGREE OF FUTURE SETTLEMENT.

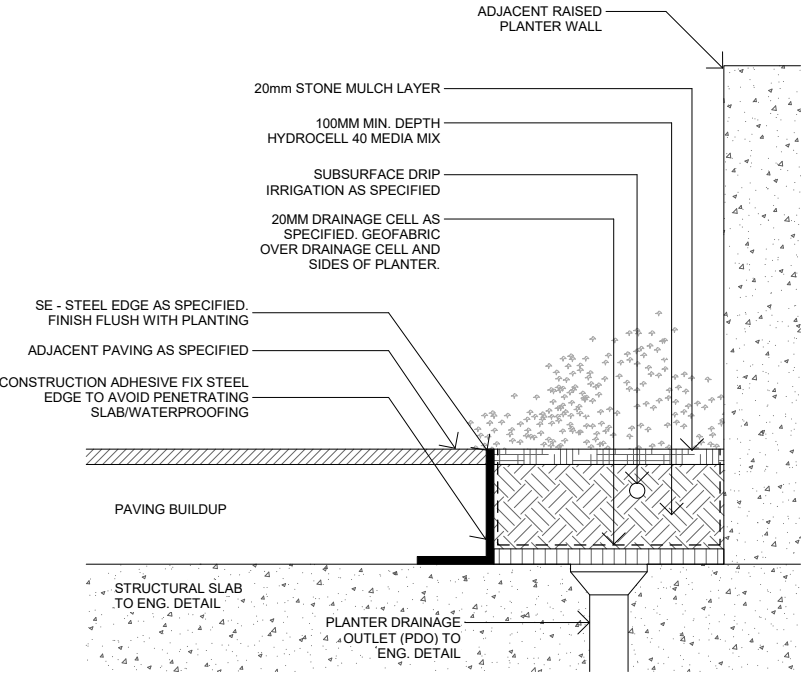
MULCH MUST FINISH FLUSH WITH
ADJACENT TOP OF WALLS AS DETAILED



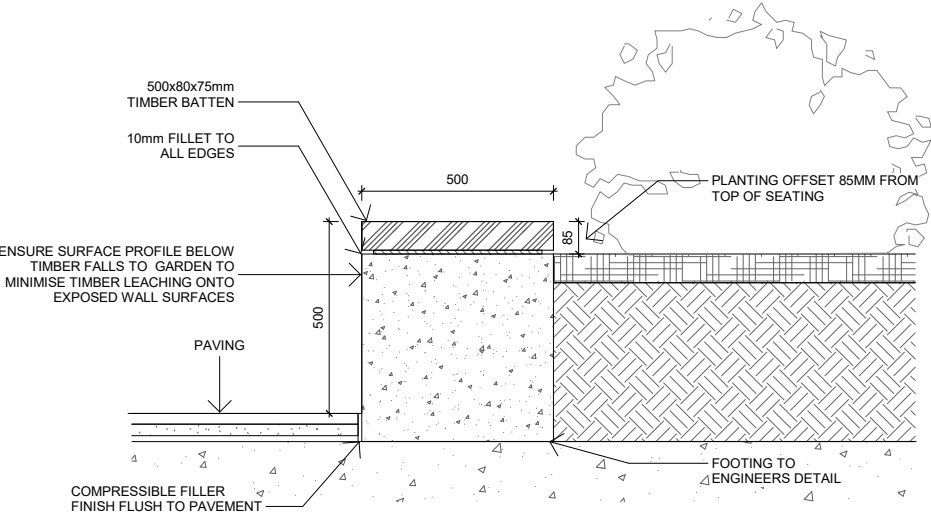
1. Typical GRC Planter 1:40@A3



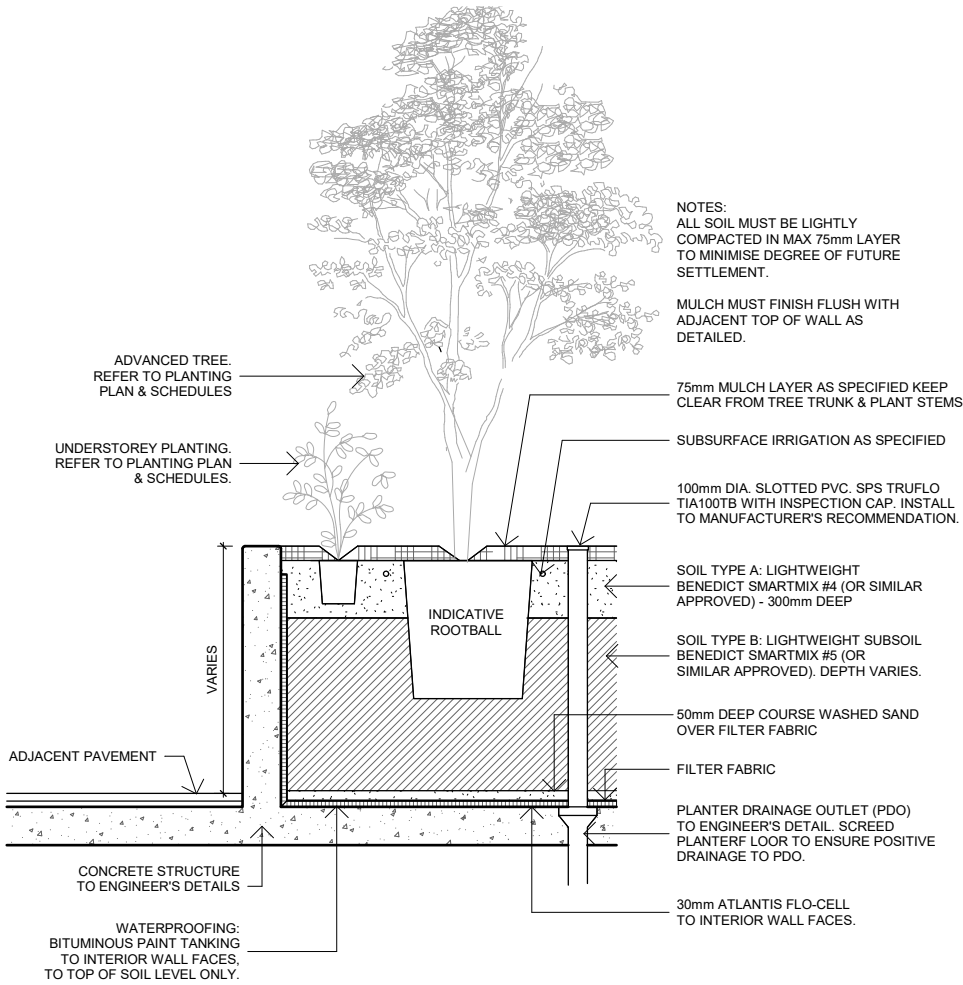
2. Typical Lawn on Structure 1:20@A3



3. Typical Planted edge 1:10@A3



4. Typical Timber Seating 1:20@A3



5. Raised Planter on structure 1:40@A3



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