

THORNTON, NORTH PENRITH LANDSCAPE DESIGN REPORT

Development Application for Lot 3003, DP1184498, Lord Sheffield Circuit, Penrith

Client: Thornton Operations Pty Ltd

Architect: Crone

Issue: A

Date: 18.04.17



URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director: Mark Kuhne, AILA 1226
Consultant: Kieran Briscoe

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Context Plan

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THORNTON LANDSCAPE MASTERPLAN STRATEGY

INTRODUCTION

The public domain for Thornton Central will be largely formed by a rich network of public spaces at ground level, bounded by the railway line and station to the south, Lord Sheffield Circuit to the north and the proposed retail/commercial buildings to the eastern and western edges of Station Plaza.

VISION

There is a tremendous opportunity for the development to contribute meaningfully to the local community through a new integrated urban design footprint. The Station Plaza and adjacent pedestrian plaza links can contribute substantially to the social, economic and cultural fabric of the surrounding neighbourhood and those communities beyond, in the greater Penrith area.

This design theme will:

- Create an optimistic public open space for the people of Thornton and surrounding neighbourhoods with distinct landscape themes – Central Station Plaza, Pedestrian Plaza Links, Café Terraces and Promenades, pedestrian priority streetscapes and Podium Residential Gardens.
- Facilitate opportunities for passive, active, programmed and un programmed activities.
- Generate a strong sense of 'place' – that befits the location
- Promote ecological corridors – creating 'Urban Lungs' to improve the value of the natural environment through water re-use and filtration and promoting green links.
- Integrate a public transport corridor with pedestrian and cycleway connections to provide a truly multi-modal transport hub.



Image: Draft Masterplan, August 2014

**Precinct 2
Mixed Use**

**Precinct 3
Garden
Apartments**

**Precinct 1
Urban Plaza**

- Precinct 1 - Urban Plaza
- Precinct 2 - Mixed Use
- Precinct 3 - Garden Apartments

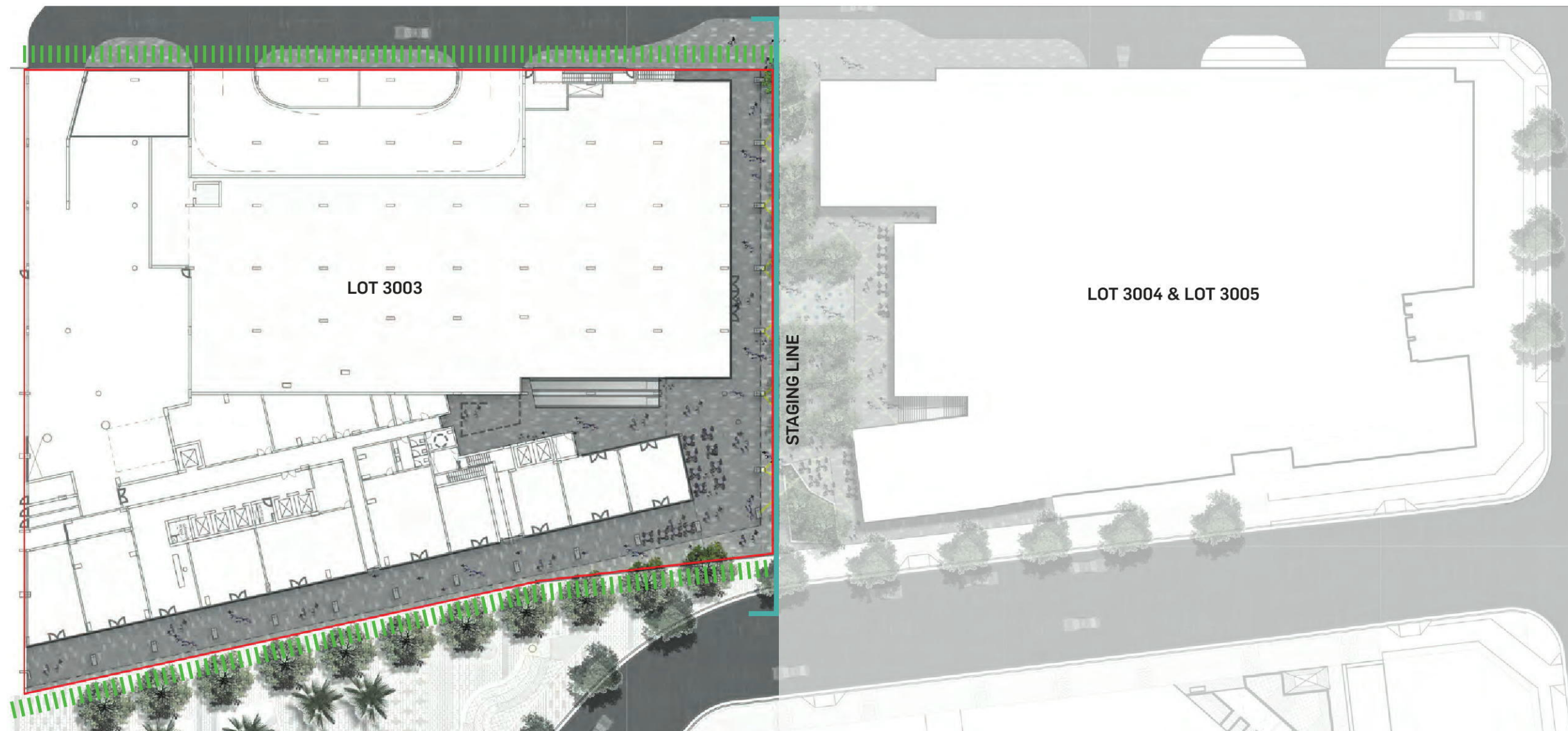
An aerial map of the 3000 block of West 10th Avenue. The map shows several lots outlined in black. Lots 1, 1a, 2, 3, 4, 4a, 5, 5a, and 6 are colored red. Lot 2 is labeled 'lot 3005', lot 5 is 'lot 3004', and lot 5a is 'lot 3004'. Lot 7 + 7a is colored orange and labeled 'Subject Site' and 'lot 3003'. A green triangular area is labeled 'Park'. An orange trapezoidal area is labeled 'Plaza'. The map also shows a street grid, a road with a median, and some surrounding buildings and landscaping.

LANDSCAPE DESIGN STATEMENT

LANDSCAPE OBJECTIVES

The landscape design responds to Council Landscape Objectives which are to:

- Ensure that landscape design reinforces the principles of Ecologically Sustainable Development;
- Promote landscape design and planning as part of a fully integrated approach to site development;
- Ensure landscape design takes into account the site's context, landscape and visual character, existing landscape features and amenity, both at the local and regional scale;
- Encourage the development of quality landscape design associated with new development that is consistent with industry best-practice;
- Encourage the retention of existing trees and vegetation to enhance landscape character;
- Ensure landscape design adequately complements the proposed built form and minimises the impacts of scale, mass and bulk of the development in its context;
- Encourage landscape design that can be effectively maintained to a high standard for the life of that development; and
- Establish a framework for allowing "Controlled Private Certification" of the landscape design components of new developments



Note:

All streetscape / public realm landscape has been approved and built / under construction.

Site Context

The site subject to this report is located within the heart of Penrith, adjacent to the train station and across from Penrith Town Centre. Thornton is a rapidly developing area, with several nearby developments currently under construction. The site will form a key hub within this new development.

The site provides an opportunity for an active connection between the station and the northern side of Penrith as it filters residents and commuters through it. This connection will be transformed to an area of bustling activity that enhances the sense of place.

The development will respond to the current streetscape along Lord Sheffield Circuit described as:

"a predominant focus on the appropriate mix of formal and native plant species used through out the site. Overall, a leafy, deciduous character to the streetscapes will aid in the enforcement of a European styled village character'. (UrbanGrowth, 2014)

Development Proposal

The development for lots 3003, consists of the following:

- 1. Ground level through link
- 2. Residential Communal Gardens

Landscape Character

The underlying principles from which the landscape concept has been developed are set out below and are divided into two key areas:

Ground level through link

- Create an inviting streetscape that embraces a vibrant lifestyle.
- Create edges which define the public realm and seamlessly blend with ground level amenities
- Provide a platform of multi functional spaces that are inclusive of all users
- Encourage uninhibited movements through the site to key locations
- Define a lush tree canopy to minimise the effects of wind and heat.

Residential Communal Gardens

- Provide a garden setting that is integrated with the surrounding built and natural environments
- Provide high quality residential amenity to the development to help facilitate a strong sense of ownership and community
- Establish an understory level of planting that achieves a level of screening that is lush and green in appearance.
- Provide spaces that capture the expansive views beyond the site.

Landscape Masterplan

DESIGN RESPONSE:

- To generate a strong sense of 'place' by providing a passive, active, programmed and unprogrammed spaces.
- Green interweaving into the urban fabric from residential apartments;
- Common landscape spaces are linked into a network of spaces (destinations)
- To align with the overarching concept of city living combined with suburban lifestyle equating to Penrith City Gardens.
- Landscape edges provide contrasting materials, defining level transitions and private spaces
- Shade trees, seating benches and lighting define the paths through the site. These elements will be developed during the detail design stages;
- All paving materials and furniture would be subject to relevant Australian Standards.



LIGHTING

The proposed lighting will:

- Provide appropriate levels of lighting of public spaces such as driveways, gardens and through site links;
- Provide appropriate lighting and visibility of entries to dwellings;
- Be developed to provide maximum nocturnal programming opportunities
- Be designed to meet relevant Australian Lighting Standards. Integrated landscape lighting is proposed to all the landscape elements (benches, feature trees), the pathways will be lit by low level bollards and directional in-ground lights.

WATER MANAGEMENT

Water Sensitive Urban Design (WSUD) principals have been realised into the landscape design in a way that celebrates a sustainable water cycle.

- Water sourced from the onsite rainwater collection will be used for the landscape irrigation, all irrigation systems will comprise of subsurface drip systems and automatic timers.
- Where possible storm water runoff will be directed to the lawn and garden beds on the residential podium gardens;
- Irrigation will be provided to all soft landscape areas and will be specified within the tender package;
- Low water demand shrub planting is proposed.

PLANT ESTABLISHMENT MAINTENANCE

Maintenance works includes but is not limited to:

- Inspection of soil moisture levels and replenishment as necessary.
- Inspection for and control of soil and insect pests, diseases and other such infestations
- Pruning and repair of all branches and foliage, removal of debris and soil surface and addition of soil and / or mulch to soil surface.
- Maintenance of proper growing medium nutrient levels to ensure maximum vegetation health. A suitable list of health characteristics is to be provided by an agreed specialist and testing is to be maintained on a minimum yearly basis.
- Lawn to be mowed to maintain a leaf blade height of no greater than 50mm.
- Replacement of plants that fall below plant presentation standards for any cause.
- Monitoring and maintenance of efficiency and effectiveness of irrigation system.
- Control of pests and diseases infestation shall be in strict accordance with all regulations and manufactures recommendations. Supply documentation of such compliance upon request by responsible authority.

SAFETY AND SECURITY

An integrated approach to safety will improve actual and perceived personal security in pedestrian public domain areas:

- Pedestrian routes will be continuous and without dead ends;
- All paths are overlooked from adjoining buildings and adjacent streets which will provide a high level of passive surveillance;
- All external spaces will have multiple clear sight lines without obstacles, proposed shrub planting is low level which will prevent places to hide;
- All paths will be well lit at night time and designed to meet relevant

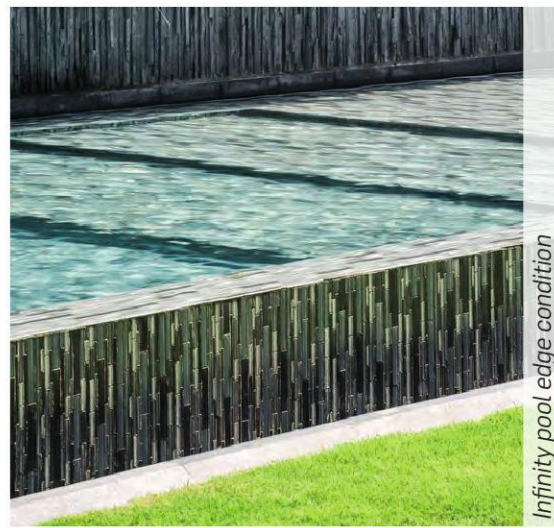
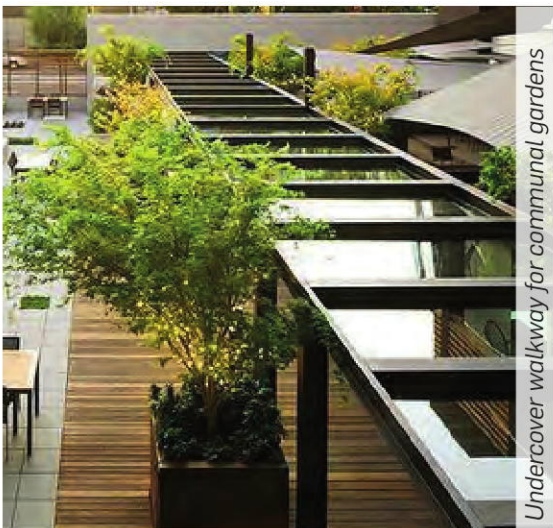
Australian Lighting Standards;

- Low-level lighting shall be provided to common areas of the development and be in accordance with AS 4282 to ensure external light does not spill onto adjoining properties.
- Signage will be provided across the precinct to assist with wayfinding and navigation through the site.
- Irrigation will be provided to all soft landscape areas.

ACCESIBILITY

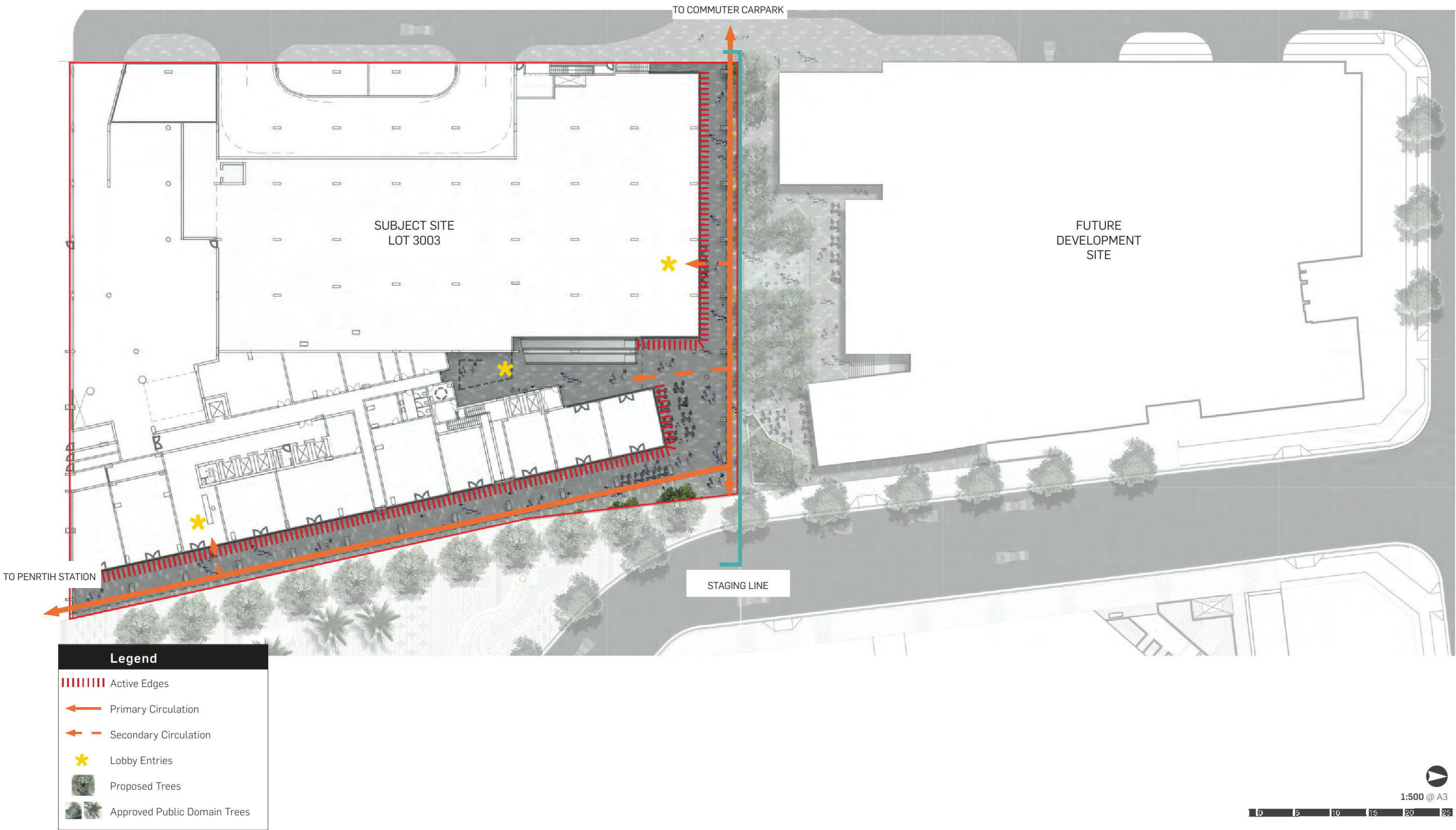
The landscape design will comply in accordance with the Federal Disabilities Discrimination Act 1992, the NSW Anti Discrimination Act 1977, the Disability (Access to Premises - Buildings) Standards 2010, and all relevant Australian Standards. The following design elements have been considered in the landscape proposal to ensure equal access for people with disabilities:

- Pedestrian routes;
- Tactile warning strips with a strong contrast to adjoining paving;
- Stairways/steps;
- Landings;
- Ramps;
- Handrails;
- Seating;
- Lighting; and
- Signage.

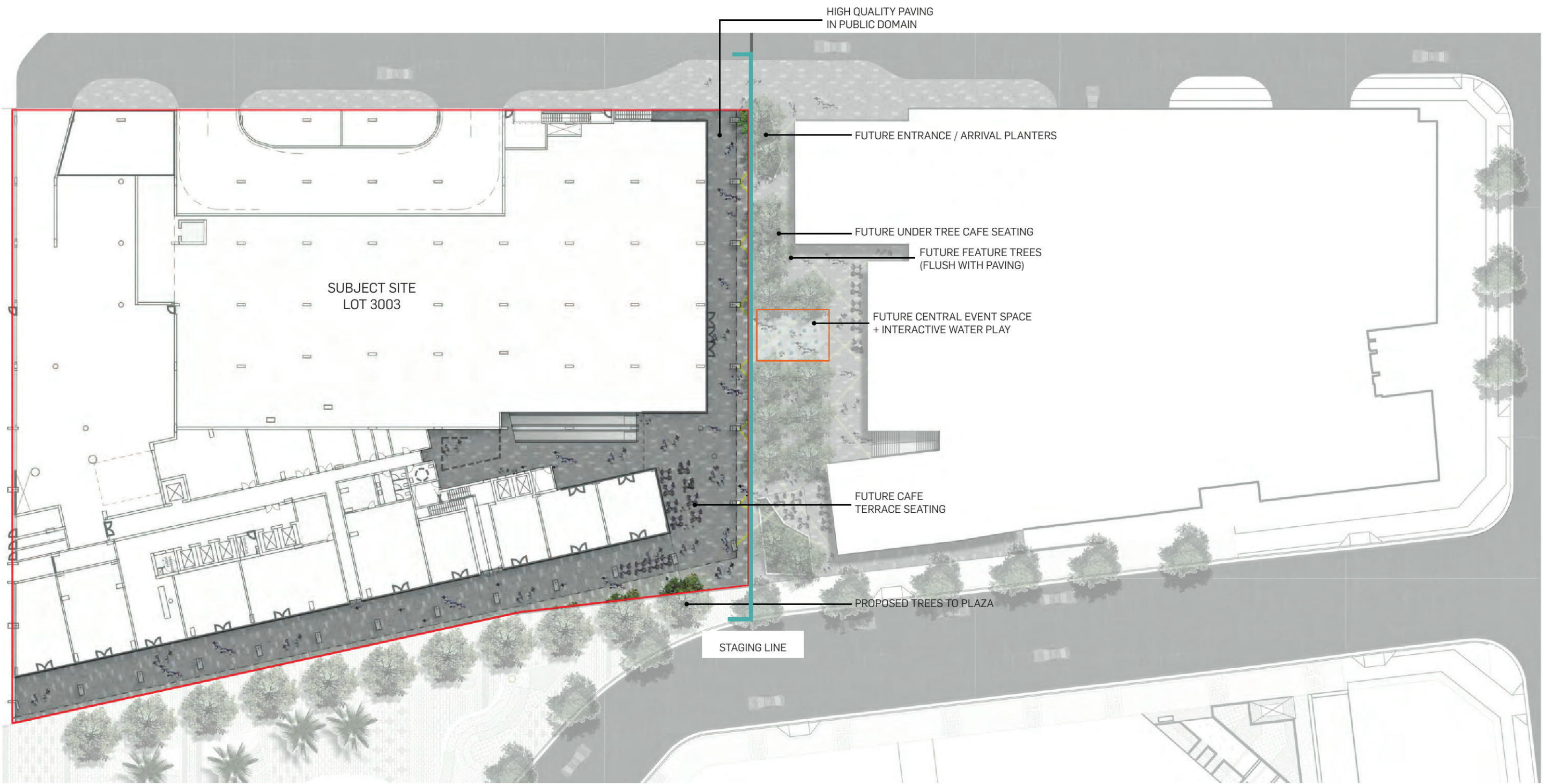


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GROUND LEVEL LANDSCAPE SITE ANALYSIS PLAN



GROUND LEVEL LANDSCAPE PLAN



LEVEL 3 LANDSCAPE PLAN



LEVEL 2 + 4 LANDSCAPE PLAN



LEVEL 2



LEVEL 4

Legend

Meadow Grasses

1:500 @ A3

0

5

10

15

20

25

LEVEL 5 LANDSCAPE PLAN



LEVEL5

Legend

Meadow Grasses

1:500 @ A3

0

5

10

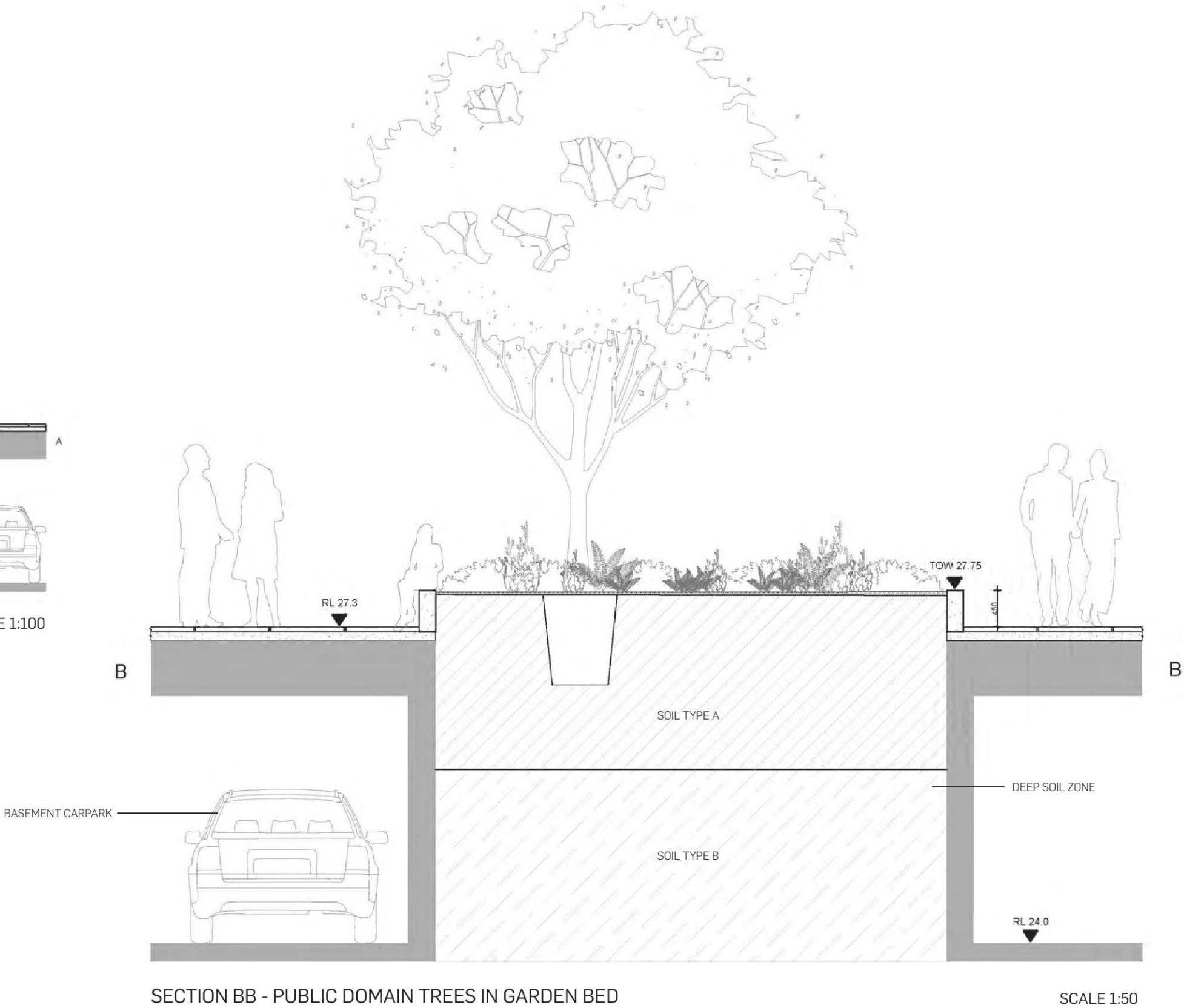
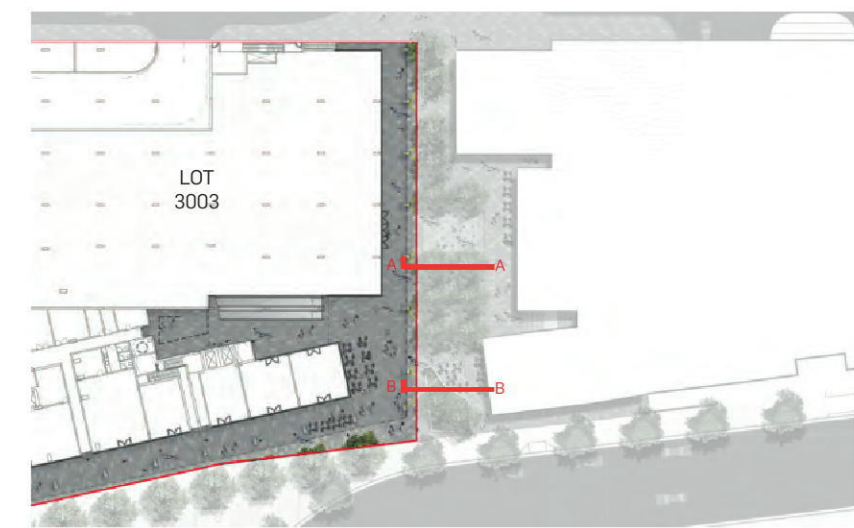
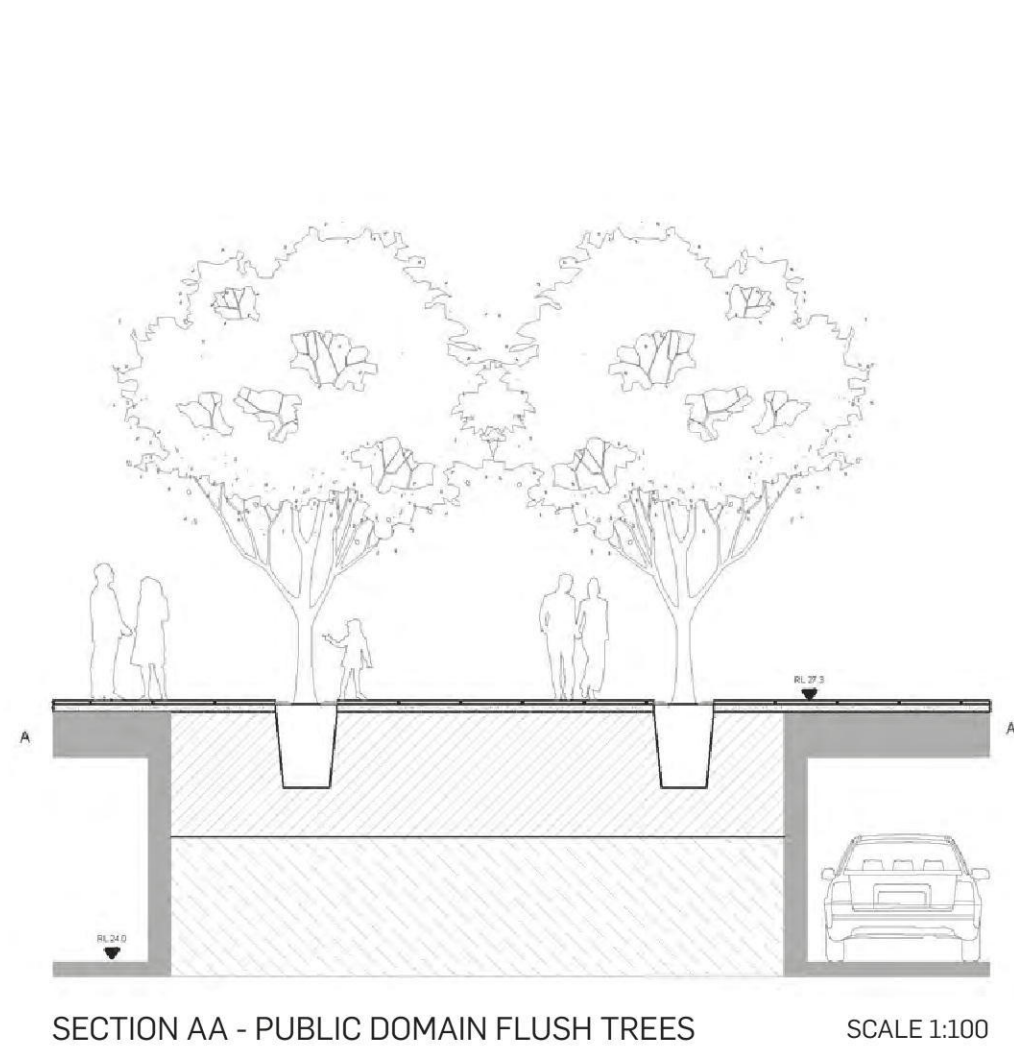
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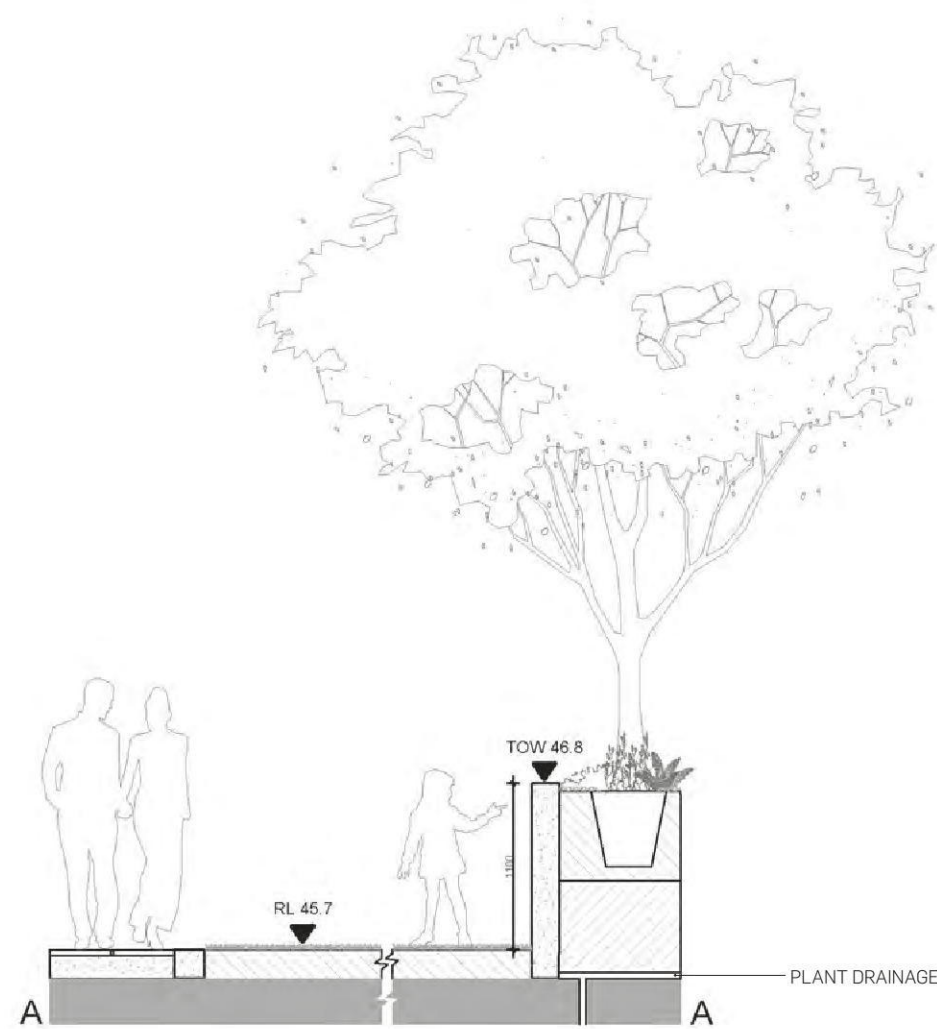
TYPICAL LANDSCAPE SECTIONS

GROUND LEVEL

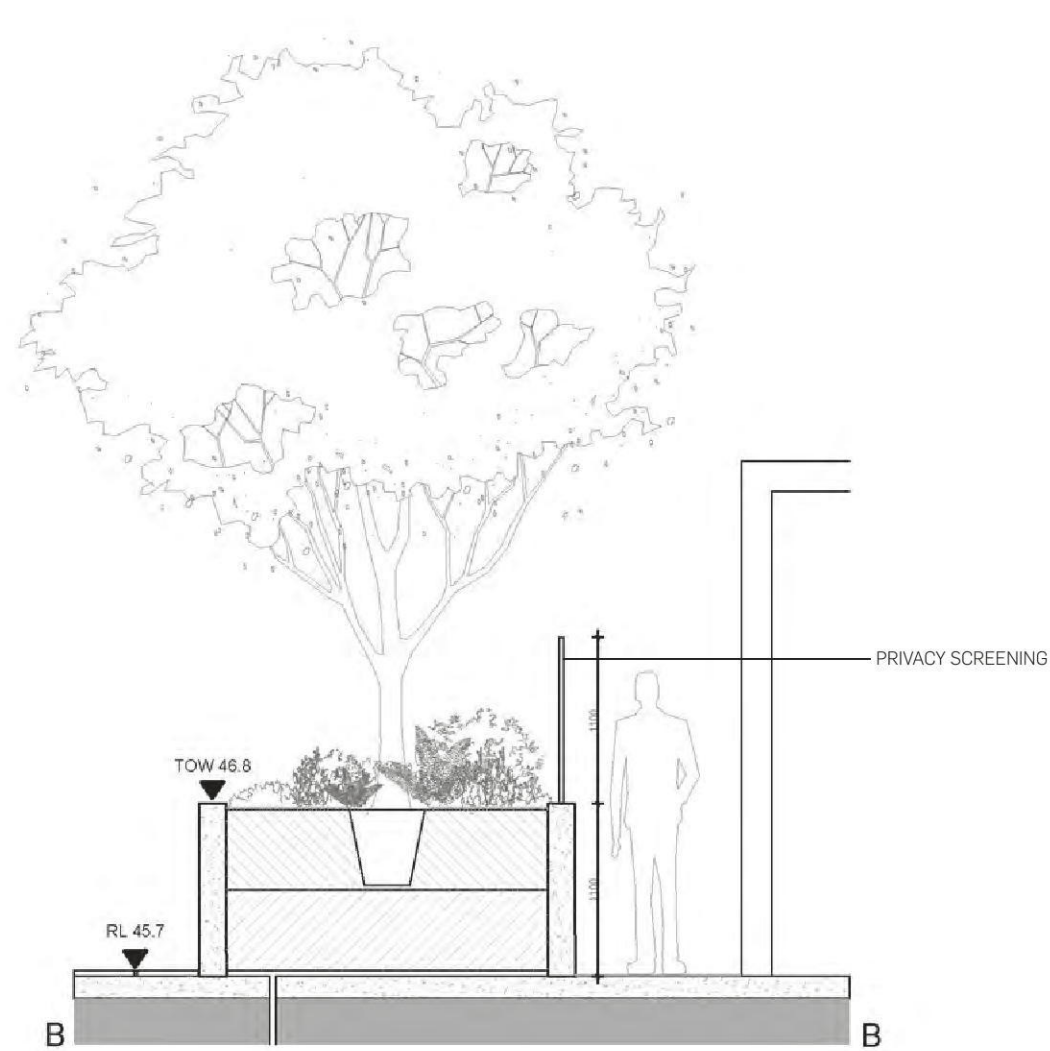


TYPICAL LANDSCAPE SECTIONS

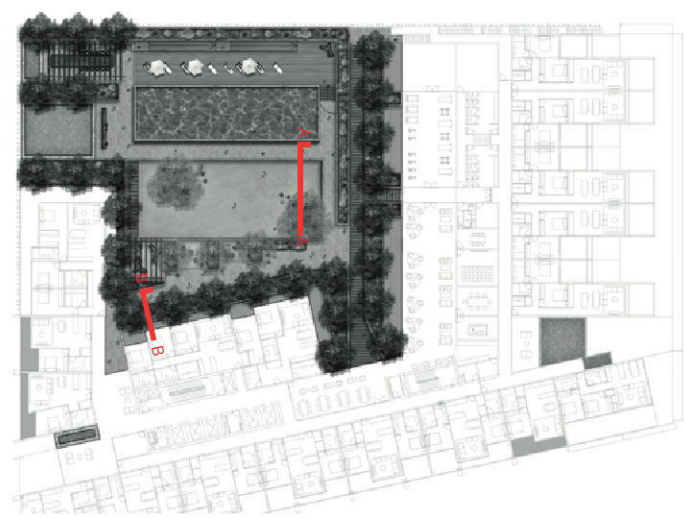
LEVEL 3



SECTION AA - GRASS AND RAISED GARDEN
SCALE 1:50



SECTION BB - PRIVATE COURTYARD AND RAISED GARDEN
SCALE 1:50

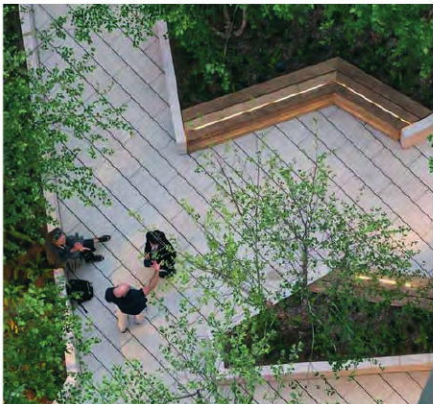
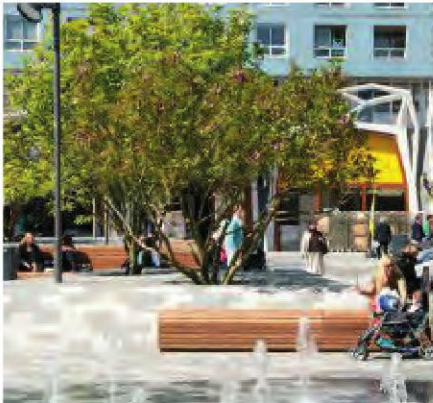


INDICATIVE PLANTING STRATEGIES

Species Selection

Plants have been chosen for their contrasting form, foliage and colour, promoting a diversity of trees and understory planting. Responding to the proposed streetscape planting on the site, the surrounding context and climatic conditions, we have proposed a combination of exotic and native plants, providing a strong connection to the surrounding streets.

Proposed trees are primarily located along the new footpaths, providing shade to the walkways and seating benches on these circulation routes, the overall planting theme is to provide year round colour and vibrancy.

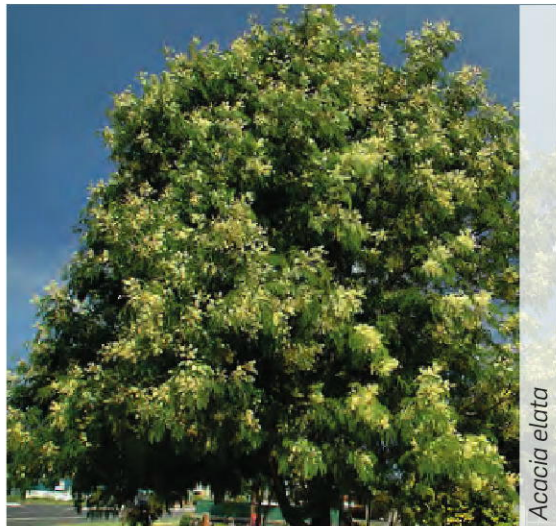


Botanical Name	Common Name	Height & Spread at Maturity (m)
PUBLIC DOMAIN + PODIUM TREES		
<i>Acacia elata</i>	Cedar Wattle	20.0 x 10.0
<i>Acacia fimbriata</i>	Fringed Wattle	15 x 10.0
<i>Eucalyptus fibrosa</i>	Broad-leaved Red-Ironbark	20.0 x 15.0
<i>Eucalyptus maculata</i>	Spotted Gum	20.0 x 15.0
<i>Eucalyptus microcarpa</i>	Grey Box	20.0 x 15.0
<i>Eucalyptus sclerophylla</i>	Hard-leaved Scribbly Gum	20.0 x 15.0
<i>Fraxinus griffithii</i>	Flowering Ash	6.0 x 4.0
<i>Magnolia grandiflora</i>	Magnolia 'little gem'	5.0 x 2.5
<i>Melaleuca linariifolia</i>	Snow-in-Summer	10.0 x 6.0
<i>Melaleuca styphelioides</i>	Prickly Paperbark	12.0 x 6.0
<i>Melia azedarach</i>	White Cedar	10.0 x 10.0
<i>Prunus x blireana</i>	Double-pink Flowering Plum	4.0 x 4.0
<i>Robinia x ambigua</i> 'Decaisneana'	Pink robinia	8.0 x 5.0
<i>Syzygium australe</i>	Bush Cherry	10.0 x 8.0
<i>Tristaniopsis laurina</i>	Water Gum	12.0 x 8.0
SHRUBS AND HEDGES		
<i>Callistemon 'Captain Cook'</i>	Bottlebrush	4.0 x 3.0
<i>Callistemon 'Hannah Ray'</i>	Bottlebrush	2.5 x 2.0
<i>Callistemon 'Harkness'</i>	Gawler Hybrid / Bottlebrush	6.0 x 4.0
<i>Gardenia augusta</i>	Gardenia	2.0 x 1.0
<i>Grevillea 'Coconut Ice'</i>	Grevillea	2.0 x 2.0
<i>Grevillea 'Honey Gem'</i>	Grevillea	1.0 x 0.75
<i>Grevillea 'Ivanhoe'</i>	Grevillea	5.0 x 3.0
<i>Grevillea 'Superb'</i>	Grevillea	1.5 x 2.0
<i>Grevillea juniperina</i>	Grevillea	1.5 x 0.5
<i>Grevillea 'Pink Surprise'</i>	Grevillea	2.0 x 3.0
<i>Grevillea linearifolia</i>	Grevillea	2.0 x 2.0
<i>Grevillea rosmarinifolia</i>	Grevillea	0.5 x 2.0
<i>Leptospermum petersonii</i>	Lemon Scented Tea Tree	4.0 x 2.0
<i>Leptospermum flavescens</i>	Tea Tree	2.0 x 2.0

Botanical Name	Common Name	Height & Spread at Maturity (m)
PODIUM LANDSCAPE ONLY		
<i>Camellia sasanqua</i>	Camellia	2.0 x 1.0
<i>Daphne odora</i>	Winter Daphne	3.0 x 1.5
<i>Gardenia augusta</i>	Gardenia	2.0 x 1.0
<i>Leucadendron 'Sundance'</i>	Conebushes	1.5 x 1.5
<i>Nandina domestica</i>	Sacred Bamboo	1.8 x 1.5
<i>Nandina domestica 'Nana'</i>	Dwarf Sacred Bamboo	1.2 x 1.0
<i>Syzygium paniculatum 'Nana'</i>	Dwarf Bush Cherry	3.0 x 1.5
<i>Viburnum tinus</i>	Laurustinus	2.5 x 2.0
<i>Westringia fruticosa</i>	Coastal Rosemary	1.5 x 1.5
TREE FERNS + ACCENT PLANTS TO COURTYARDS		
<i>Lobelia gibberoa</i>	Lobelia	3.5 x 4.0
<i>Agave Americana Marginata</i> <i>M Variegated</i>	Varigated Octopus Agave	1.8 x 1.8
<i>Cyathea australis</i>	Black / rough Tree Fern	12.0 x 3.5
<i>Dicksonia antarctica</i>	Brown / Soft Tree Fern	15.0 x 6.0
GROUND COVERS, BULBS, CLIMBERS AND GRASSES		
<i>Agapanthus africanus</i>	Blue African Lily	0.6 x 0.6
<i>Helichrysum citrispinum</i>		0.3 x 0.4
<i>Iris pseudacorus</i>	Yellow Flag	1.0 x 0.5
<i>Narcissus 'King Alfred'</i>	Daffodil	0.6 x 0.2
<i>Jonquil erlicheer</i>	Jonquil	0.4 x 0.2
<i>Stachys byzantina</i>	Lambs' Ears	2.5 x 4.0
<i>Wisteria floribunda</i>	Japanese Wisteria	6.0 x 3.0
<i>Hedera helix</i>	European Ivy	Varies
<i>Themeda australis 'Mingo'</i>	Kangaroo Grass	0.2 x 0.6
<i>Eragrostis leptostachya</i>	Paddock Lovegrass	0.9 x 0.2
<i>Leucophyta brownii</i>	Cushion Bush	1.0 x 0.5
<i>Poa labillardierei</i>	Tussock Grass	1.0 x 1.0
<i>Asperula conferta</i>	Common Woodruff	Varies
<i>Xerochrysum viscosum</i>	Sticky Paper Daisy	0.5 x 0.7

INDICATIVE PLANTING PALETTE

TREES (AUSTRALIAN NATIVE OR ENDEMIC TO PENRITH)



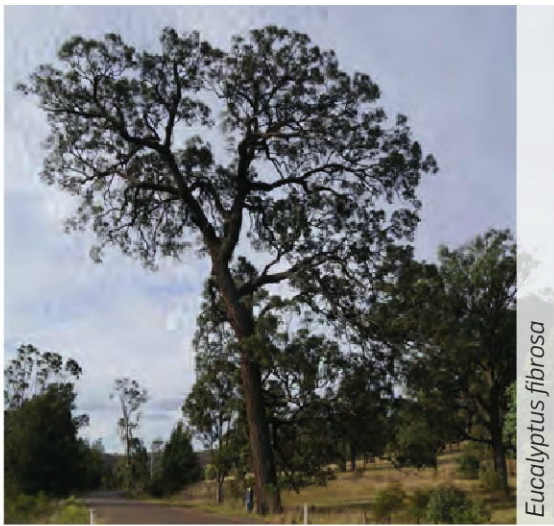
Acacia elata



Acacia elata



Acacia fimbriata



Eucalyptus fibrosa



Melaleuca linariifolia



Eucalyptus microcarpa



Eucalyptus microcarpa



Eucalyptus maculata



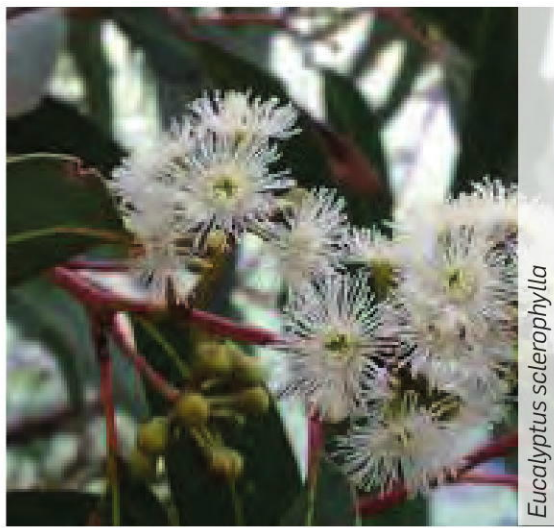
Eucalyptus maculata



Melaleuca linariifolia



Eucalyptus sclerophylla



Eucalyptus sclerophylla



Melaleuca styphelioides



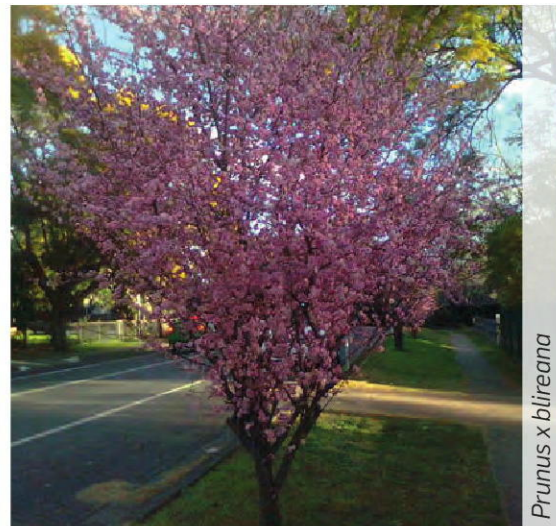
Melaleuca styphelioides



Tristaniopsis laurina

INDICATIVE PLANTING PALETTE

TREES (EXOTIC SPECIES)



SHRUBS



ACCENT + TREE FERNS



GROUNDCOVERS



MEADOW GRASSES



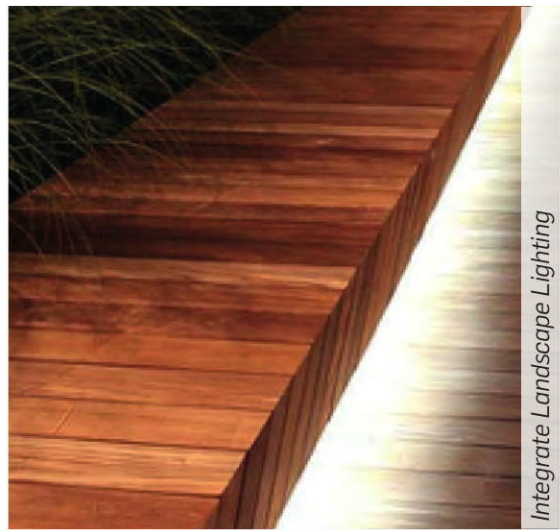
MATERIALS STRATEGY

All paving materials and street furniture would be subject to relevant Australian Standards and comply with Council's guidelines.

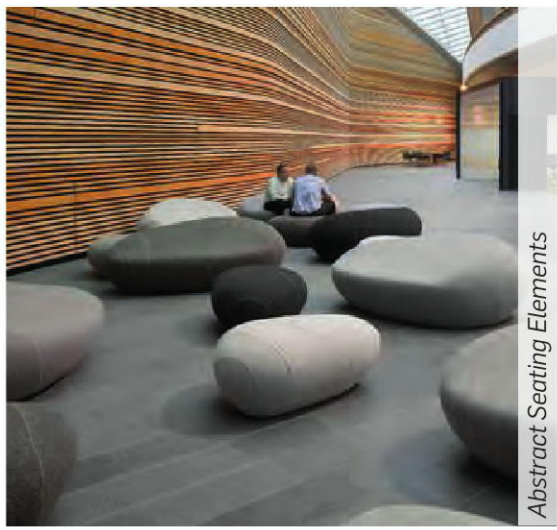
Paving will consist of contrasting finishes, textures and materials (concrete and stone). The public domain will provide seamless connections into the existing landscape and between the lower ground uses.

Raised garden beds will sit on the podium in order to provide the required soil depth, seating will be integrated into these structures. Flush trees will create an unobstructed landscape to allow pedestrians to move freely.

Seating benches have been provided in the public domain and on the podium along pathways, tables and chairs can also be accommodated in spaces



Integrate Landscape Lighting



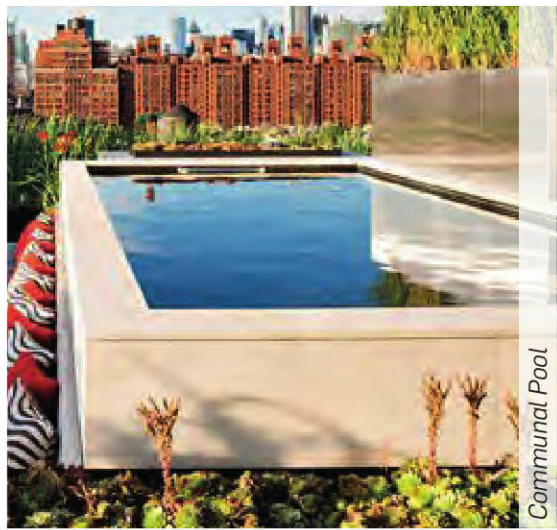
Abstract Seating Elements



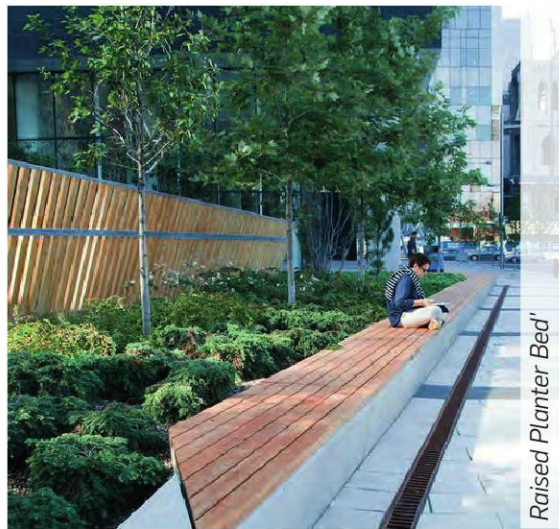
Moveable seating



Pool Decking



Communal Pool



Raised Planter Bed



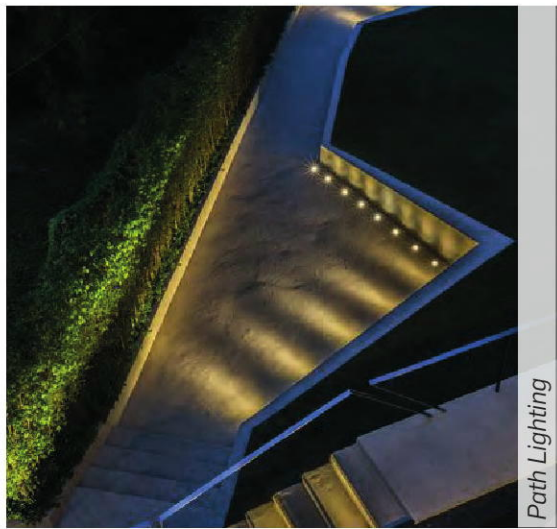
Paving Edge



Tree Grate



Paving and Drainage



Path Lighting



BRISBANE
GOLD COAST
MELBOURNE
PERTH
SYDNEY
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