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MODEL Lithgow Street

35-45 Lithgow Street, Abbotsford

Wurundjeri Woi-wurrung Country

Landscape Concept Design

ratio:

Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

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Acknowledgment of Country

We respectfully acknowledge the Traditional Custodians of the lands where we live and work. We appreciate the rich cultures and deep spiritual connection to Country and pay our respects to Elders past, present, and emerging.

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Introduction

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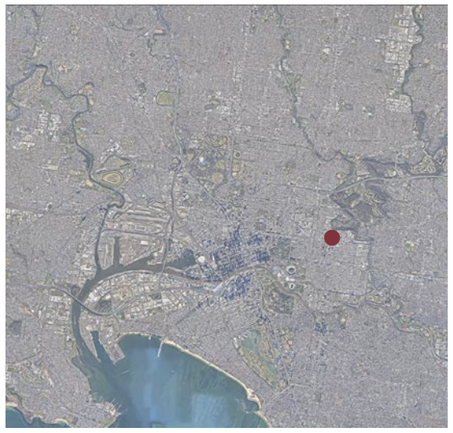
Site Context

Lithgow St, Abbotsford

- Lithgow Street, Abbotsford is a highly walkable, transit-rich inner-city corridor located just 2 km northeast of Melbourne's CBD.
- The street is characterized by a charming mix of heritage homes, thoughtfully modernised residences, and a rich history of industrialization.
- Residents enjoy seamless access to trams, buses, and trains, vibrant cafes, boutique shops, and nearby green spaces and cultural assets, all within a heritage-steeped, low-traffic street setting.

KEY PLAN



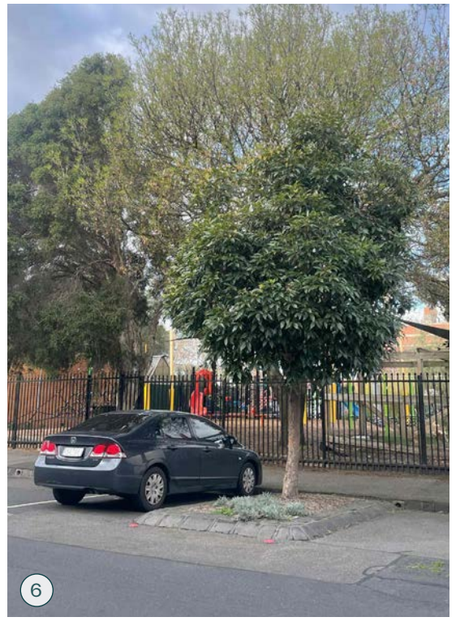
Existing Conditions

Lithgow St, Abbotsford

KEY PLAN

LEGEND

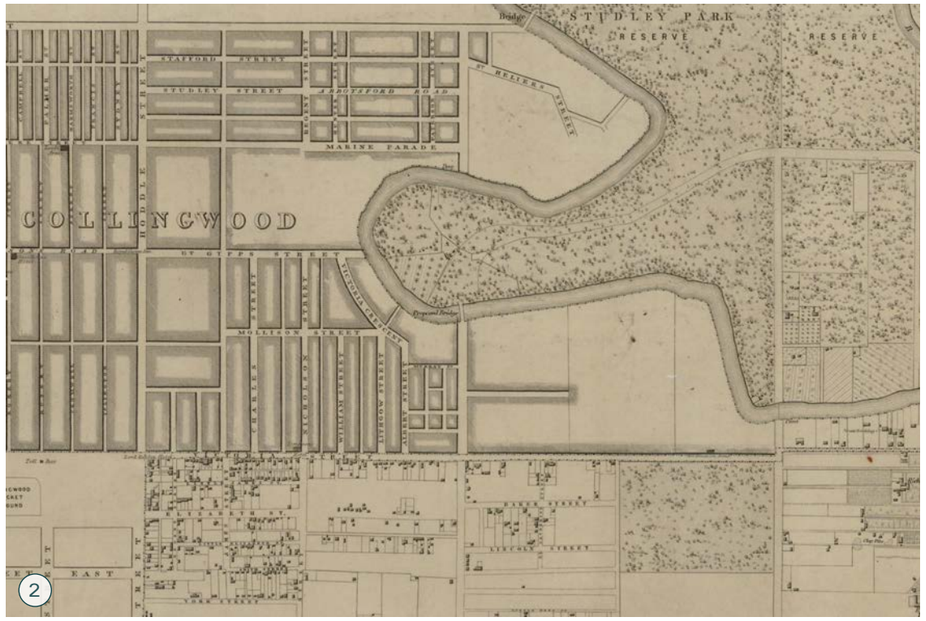
1. Existing *Lophostemon confertus* with shrub planting
2. Main building entrance
3. Existing built form on site
4. Existing *Lophostemon confertus* in curb
5. Climbing plants interating with architecture
6. Existing *Lophostemon confertus* as car park divider
7. Abottsford Primary School



Site History

Schweppes Warehouse

1



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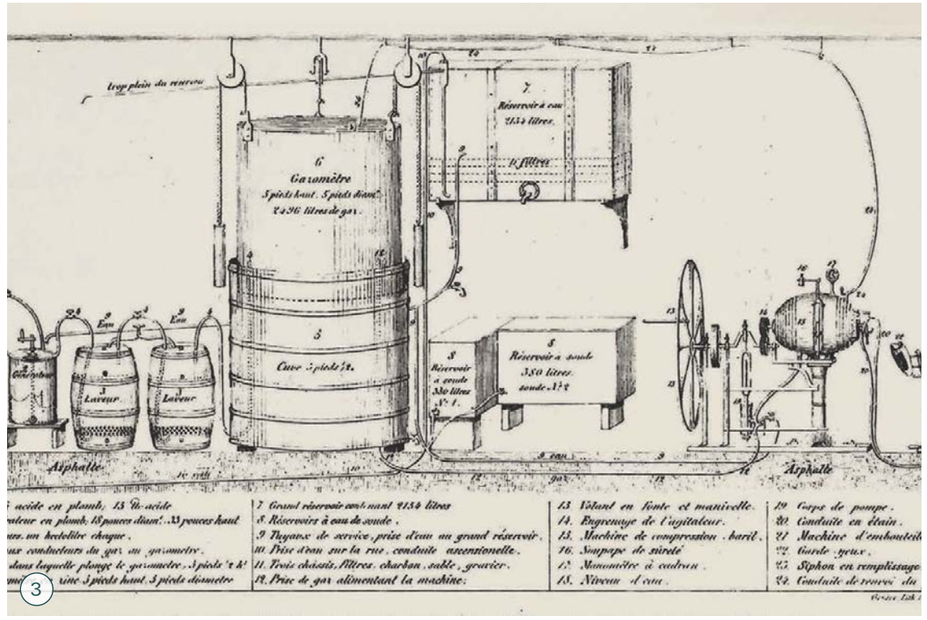

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LEGEND

1. Original advertisement from the Lithgow St warehouse
2. Approximately 1850s map showcasing the industrial surrounding of Lithgow St
3. Making process of the classic Schweppes tonic

— The iconic warehouse on Lithgow St was built in 1886 by Jacob Schweppe and used as the hub of the cordial empire for several decades.
— The building itself is two storeys with a three storeyed section at north end former cordial factory in red brick with bluestone plinths and sills.
— Openings are slightly arched continuous to with ground stuccoed floor lintels and openings. A square tapering chimney in the south-west corner is an important heritage element.
— The main facade to Lithgow Street has bluestone quoining to the vehicular entrances and a gabled treatment with steeply pitched slated and parapetted gables in the Tudoresque manner, three upper level portions projecting by one brick course to heighten the illusion.

EVC Study

Indigenous Flora

Ecological Vegetation Classes

- Ecological Vegetation Classes (EVCs) are the standard system used in Victoria to describe and map native vegetation.
- Each EVC represents a group of plant communities that occur in similar environmental conditions (such as landform, soil and climate), and share characteristic species, vegetation structure and ecological processes.
- EVCs are benchmarked against their pre-1750 condition and are assigned a conservation status, which helps guide biodiversity planning, impact assessment and ecological restoration.

EVC 55 - Plains Grassy Woodland

- Plains Grassy Woodland is a low to medium open woodland found on fertile volcanic plains and gently undulating terraces.
- The canopy is typically sparse to moderately dense, dominated by River Red-gum, Yellow Box or Grey Box.
- Shrubs are usually sparse or absent, while the ground layer is species-rich and grassy, dominated by Kangaroo Grass, Wallaby-grasses and Spear-grasses, with a wide variety of wildflowers such as Chocolate Lily, Bluebells and Everlastings.
- Once widespread across Victoria, it has been heavily cleared and fragmented for agriculture, with remnants now mainly occurring along roadsides, in reserves and as scattered paddock trees. It is listed as endangered due to extensive habitat loss.

Landscape Vision

2

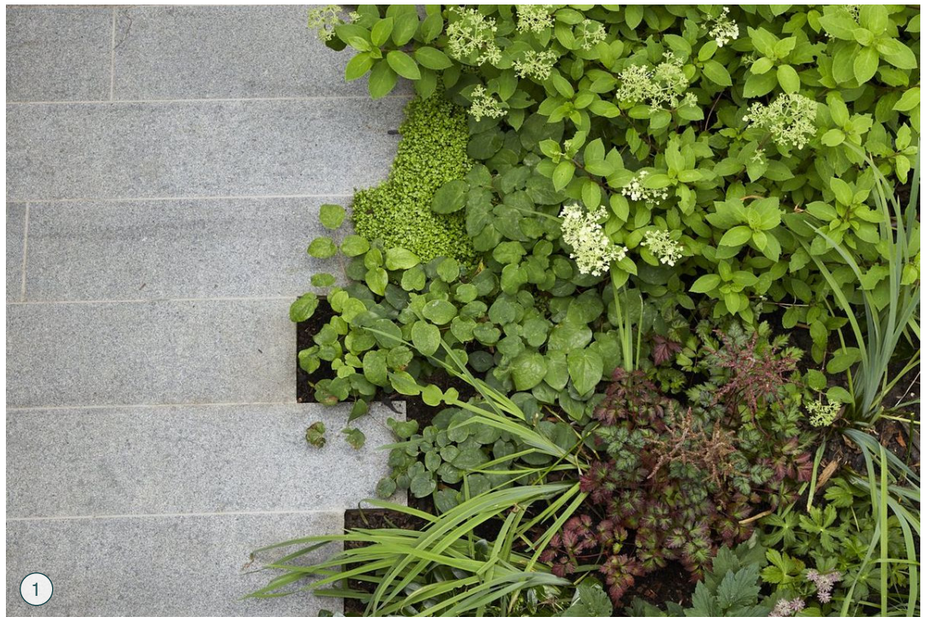
Landscape Character

Ground Level - Public & Private Greenery

- The ground plane forms a green threshold between the building and its urban context, offering residents a calm and immersive retreat.
- Shaded by tall, elegant trees and layered with rich fern understorey, the landscape feels cool, sheltered, and restorative.
- Soft textures, filtered light, and a sense of enclosure define this level, a place of arrival and quiet reflection.
- The landscape evokes the character of a temperate forest and flowing grassland, creating a tranquil base for the building and an immediate connection to nature.

LEGEND

1. Rich native shade tolerant planting
2. Central laneway framed by ferns
3. Native palette to provide enhanced pollination and biodiversity
4. Streetscape seating set in native perennial garden
5. Year round flowering native palette in full sun zones



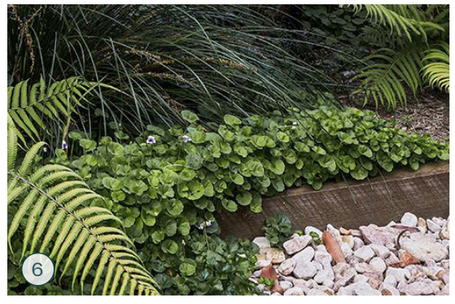
Landscape Character

Level 01 - Outdoor Wellness

- The landscape focuses on wellbeing and retreat.
- Framed by natural materials and surrounded by textured, aromatic planting, this level accommodates spa and sauna facilities that open onto greenery.
- Planting is arranged to provide privacy, movement, and softness, while maintaining openness to sky and light.
- The atmosphere is warm, sensorial, and restorative, a place to unwind within a garden that feels both elevated and grounded.
- This zone embodies a balance between structure and sanctuary, encouraging daily moments of calm.

LEGEND

1. Immersive spa experience
2. Elevated pools offering views across the neighborhood
3. Shallow soil native planting and rockery
4. Mallee tree character to frame the unique architecture
5. Native grasses to provide movement and reflect sunlight
6. Native fernery and groundcovers to south elevation and low light zones



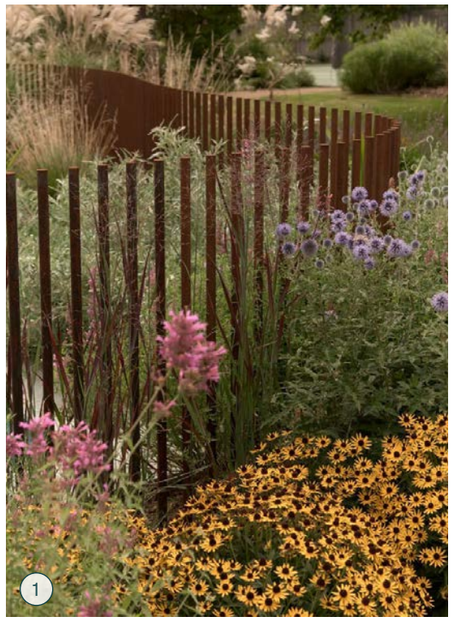
Landscape Character

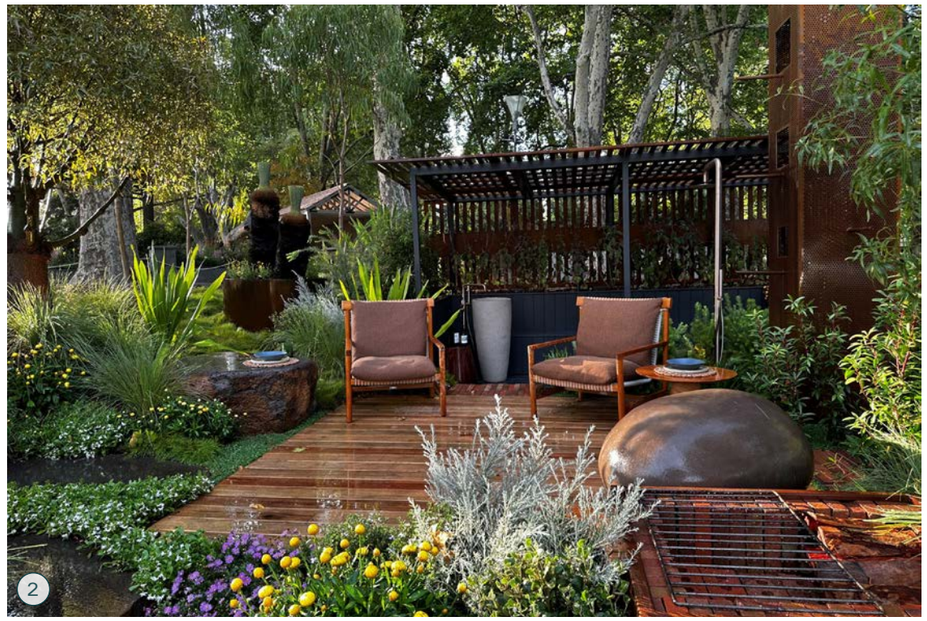
Level 06 - Rooftop Terrace

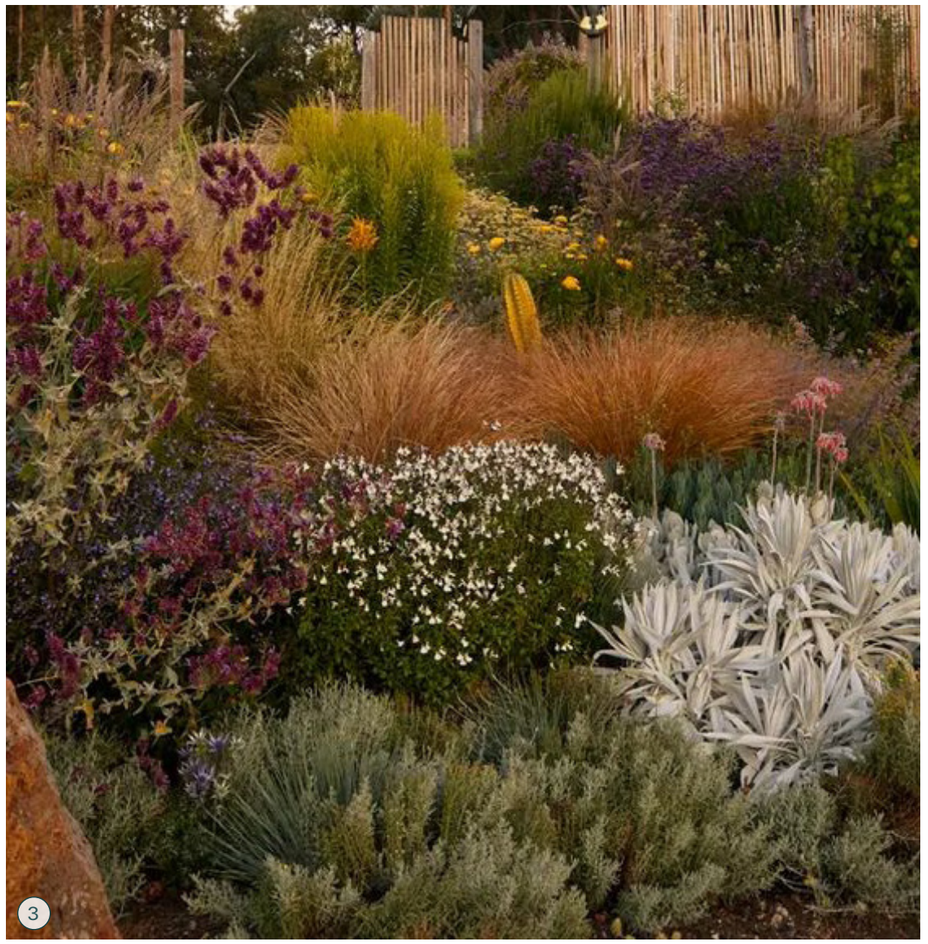
- The rooftop landscape expresses lightness, openness, and community.
- Hardy perennials, compact shrubs, and native grasses create a vibrant mosaic of colour and texture that responds to changing light and season.
- Planters, seating nodes, and open edges are softened with cascading greenery, framing views of the city and sky.
- The atmosphere is social yet relaxed, a communal garden where residents can gather, rest, or simply enjoy being surrounded by nature above the bustle of the street.

LEGEND

1. Integrated balustrade and garden
2. Intimate seating and gathering zones set within the landscape
3. Layered native palette to provide seasonal interest
4. Independent seating and gathering area
5. Informal steppers throughout garden zones
6. Dappled light and afternoon shading



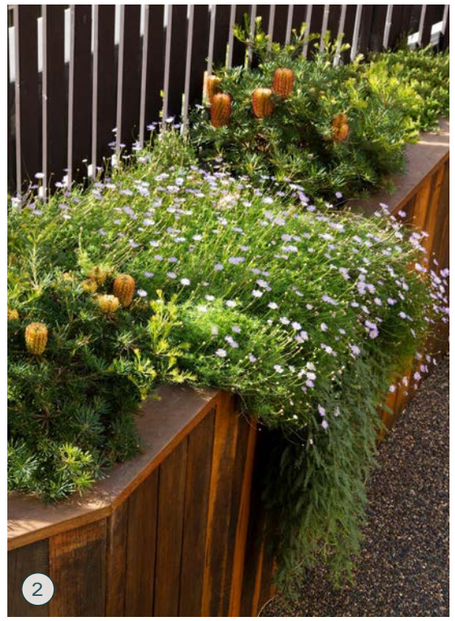




Landscape Character

Integrated Balustrade & Planters

- Informal, draping plants spill gently over the edges of the facade-edge planters, creating a soft, cascading effect that contrasts with the architectural lines.
- These planters are filled with a curated mix of native species, chosen for their varied textures and tones—from vibrant green to deep, rich green foliage.
- This layered planting palette adds visual depth and movement, while reinforcing a lush, naturalistic character that softens the building's edge and enhances its connection to the surrounding landscape.



LEGEND

1. A range of grey and green plant selections and trailing forms
2. Varied textural range to complement the historic built form
3. Evergreen plant selection to soften the architecture facade
4. Integrated planters to trail over the facade edge and soften the terraces

Landscape Concept

3

Design Pillars

Celebrate Connection to Country & Yarra River

- Honour the rich cultural heritage of the Wurundjeri Woi-wurrung by embedding indigenous stories and native planting.
- Deepen the relationship between land, people, and history through understanding of local waterway influences.

Promote Native Floral Diversity

- Craft a calm, immersive sequence of landscape zones that showcase the rich floral tapestry of Australia's native plant palette within an urban context.

Enhance Urban Ecology

- Rebuild local biodiversity .
- Integrate native plant communities that support pollinators, provide habitat, and reconnect the site to the ecological systems of the Yarra River.

Foster Human Connection

- Shape inclusive, welcoming spaces that encourage gathering, rest, and movement.
- Landscape becomes a bridge between nature, heritage, and everyday community life.

Ground the Design in Industrial Heritage

- Celebrate the site's legacy in industry as the Schweppes warehouse.
- Promote landscape integration with the historic facade and chimney stack.

Landscape Plan

Ground Level - Private & Public Greenery

LEGEND

1. Central laneway
2. Nesting tree
3. Private garden bed
4. Private lawn
5. Private terrace
6. Shaded fernery
7. Streetside swale
8. Outdoor cafe seating
9. Heritage chimney stack
---- Deep soil

Landscape Plan

Level 01 - Outdoor Wellness

LEGEND

1. Private terrace
2. Juliette planter
3. Outdoor wellness pools
4. Sauna
5. Raised planter with semi-mature trees
6. Heritage chimney stack

Landscape Plan

Level 02 - Balustrade & Planters

LEGEND

1. Private terrace
2. Juliette planter
3. Heritage roof
4. Heritage chimney stack

Landscape Plan

Level 03 - Balustrade & Planters

LEGEND

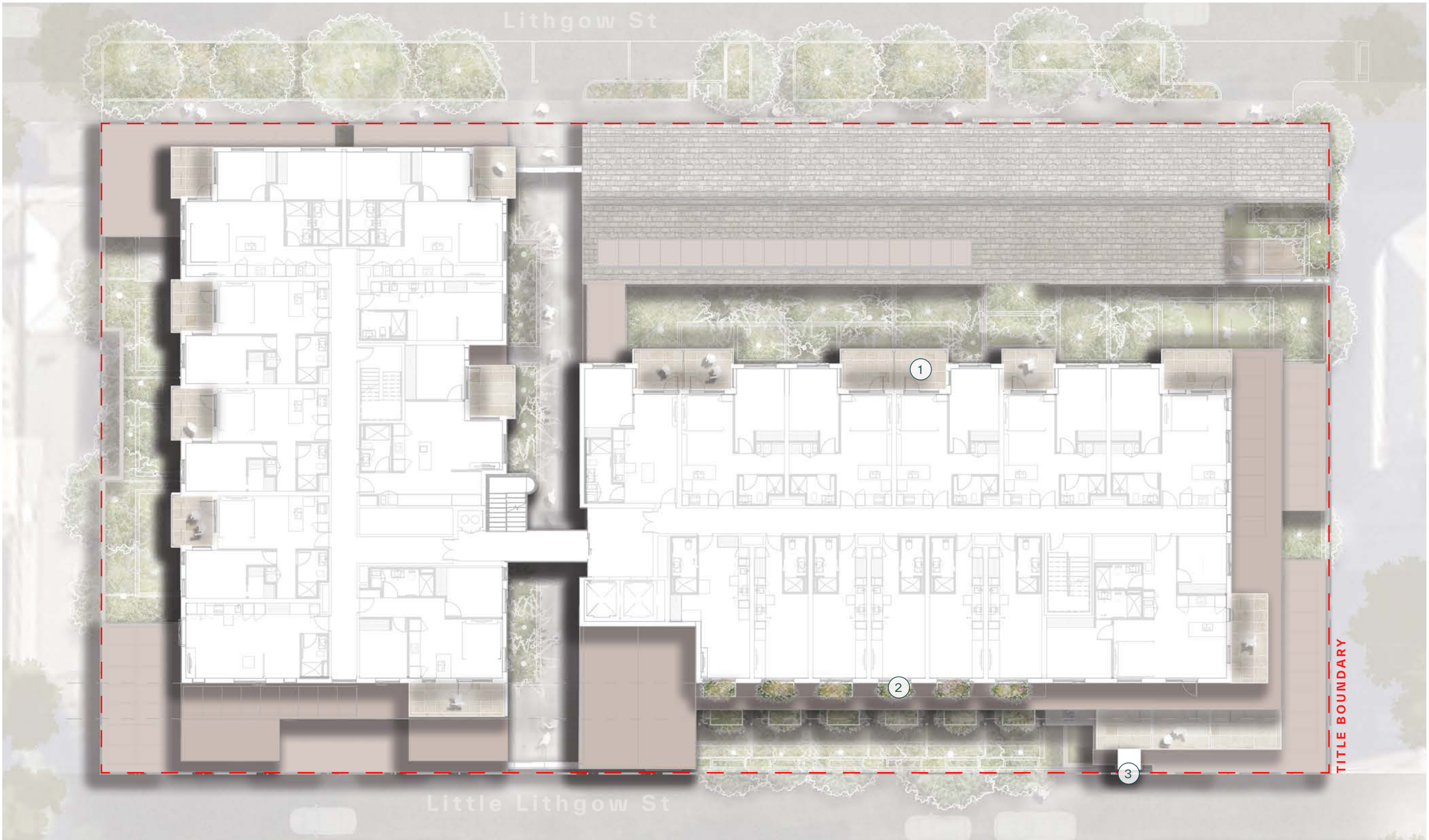
1. Private terrace
2. Juliette planter
3. Heritage chimney stack

Landscape Plan

Level 04 - Balustrade & Planters

LEGEND

1. Private terrace
2. Juliette planter
3. Heritage chimney stack

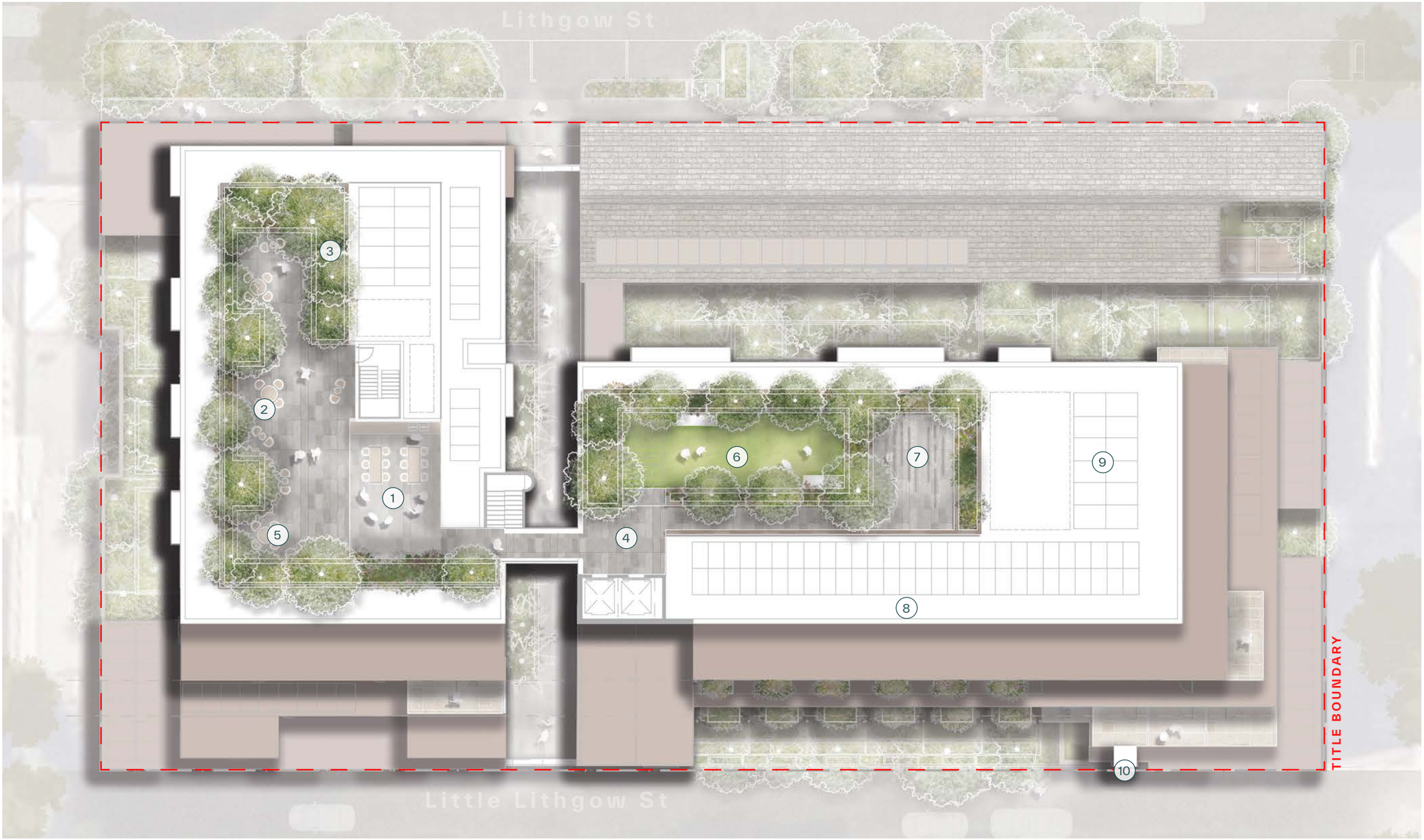


Landscape Plan

Level 06 - Rooftop Terrace

LEGEND

1. Undercover dining & BBQ area
2. Seating nodes
3. Raised planter with semi-mature trees
4. Paving on pedestal
5. Lightweight furniture
6. Enclosed dog run
7. Open air clothes line
8. Facade maintenance zone
9. PV panels
10. Heritage chimney stack



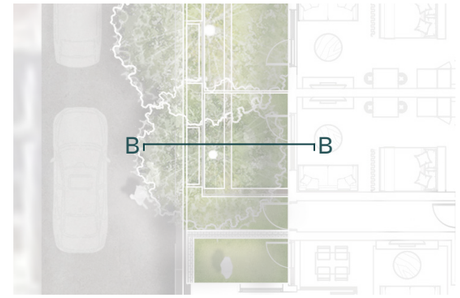
Landscape Plan

Ground Floor - Central Laneway

Apartment | Fernery Garden Bed | Central Laneway | Glazed Walkway | Private Garden Bed

Landscape Plan

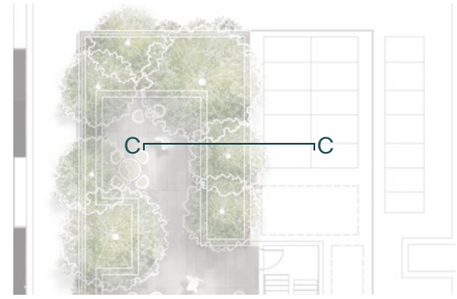
Ground Floor - Little Lithgow St



Little Lithgow St | Planter - Deep Soil | Private Terrace & Juliette Planter | Apartment

Landscape Plan

Level 06 - Rooftop Garden



Communal Rooftop

Raised Garden Bed with Perennial Planting

Rooftop with Maintenance Access

Planting & Materials

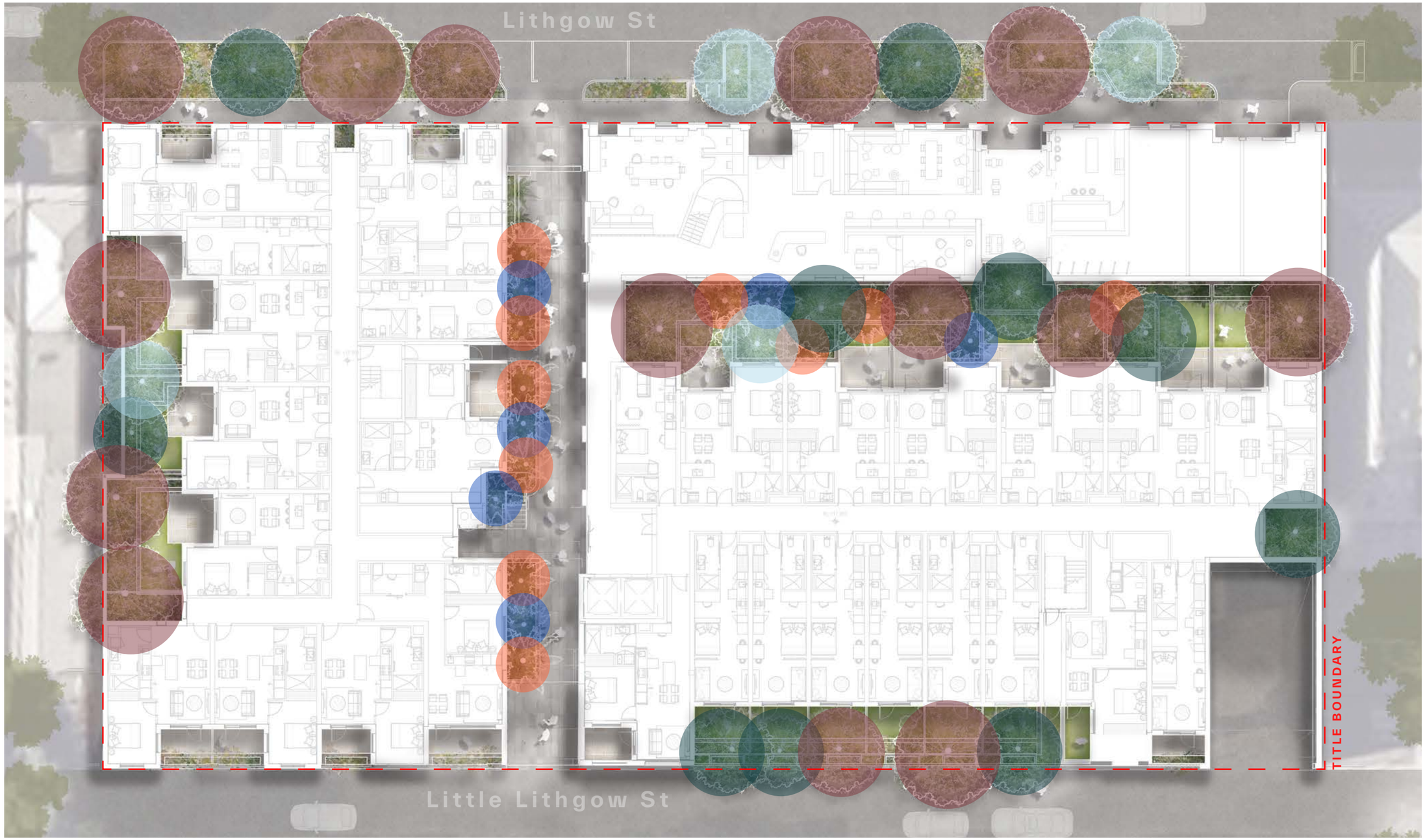
4

Planting Palette

Indicative Tree Location - Ground Floor

LEGEND

- Corymbia citriodora ‘Scentuous’
- Elaeocarpus reticulatus
- Eucalyptus leucoxylon 'Euky Dwarf'
- Waterhousea floribunda
- Cyathea cooperi
- Dicksonia antarctica



Planting Palette

Indicative Tree Location - Level 01

LEGEND

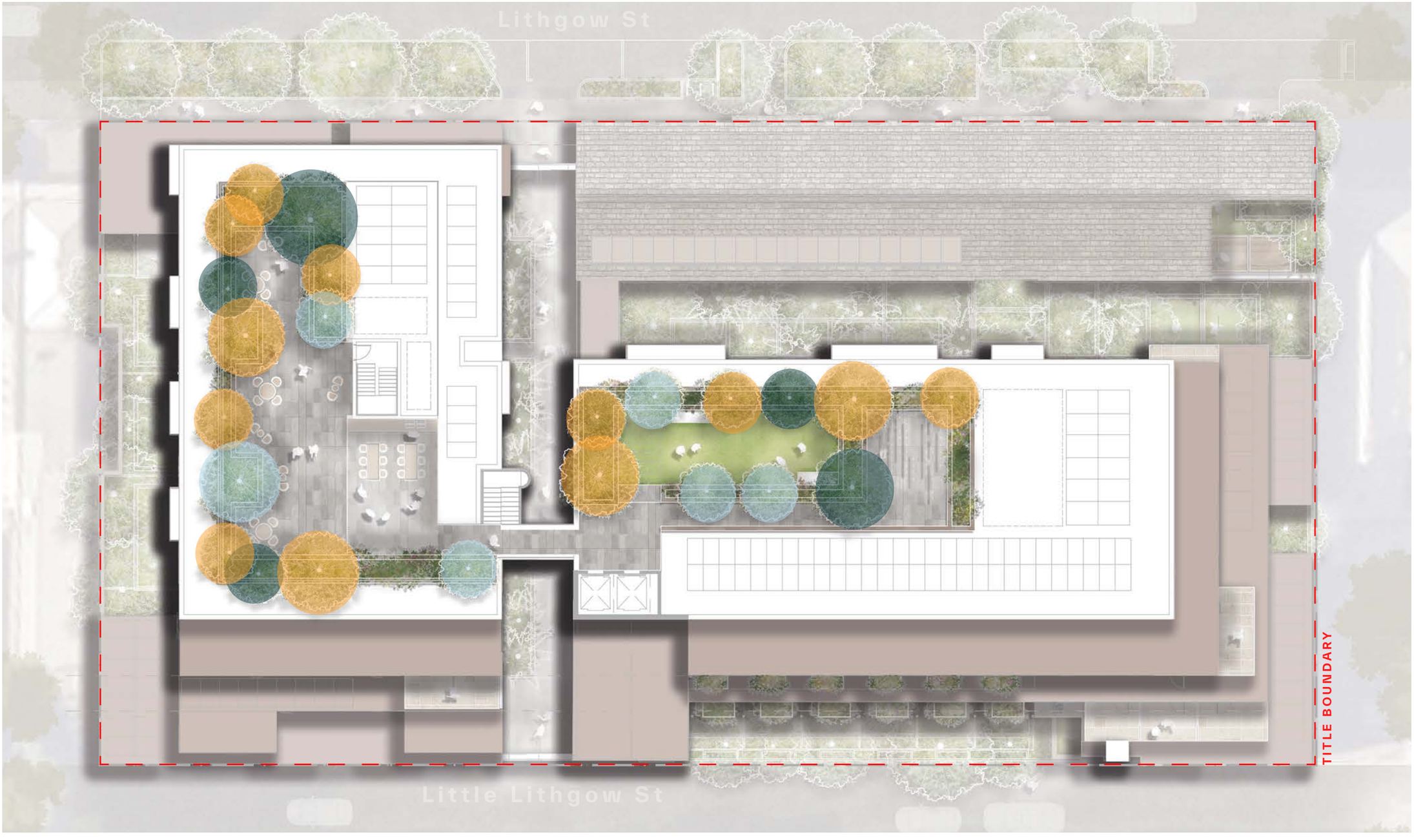
- Corymbia citriodora ‘Scentuous’
- Elaeocarpus reticulatus
- Eucalyptus leucoxylon 'Euky Dwarf'
- Waterhousea floribunda
- Cyathea cooperi
- Dicksonia antarctica

Planting Palette

Indicative Tree Location - Level 06

LEGEND

- Corymbia citriodora ‘Scentuous’
- Elaeocarpus reticulatus
- Eucalyptus leucoxylon 'Euky Dwarf'
- Waterhousea floribunda
- Cyathea cooperi
- Dicksonia antarctica



Planting Palette

Indicative Plant Selection

Ground Level - Private & Public Greenery

- This layered planting palette is designed to bring softness, biodiversity, and year-round interest to a contemporary BTR landscape. Distributed across the building, it balances lush greenery at the ground plane with vibrant, sun-tolerant plantings on elevated terraces and rooftops, creating a unified yet adaptable planting strategy suited to varying light, wind, and microclimatic conditions.
- At ground level, the focus is on calmness and refuge. Canopy trees with smooth, pale trunks and aromatic foliage establish scale and provide dappled shade, while smaller evergreen species contribute texture and seasonal colour through soft flowering displays and glossy foliage.
- Beneath them, a rich understorey of ferns and shade-loving plants forms a cool, green carpet. Their feathery and broad leaves evoke a sense of tranquility and moisture, softening built edges and enhancing the pedestrian experience within courtyards and entry zones.

Waterhousea floribunda

Dicksonia antarctica

Cyathea cooperi

Acacia cognata 'Lime Light'

Viola banksii

Plectranthus argentatus

Westringia fruticosa

Dianella caerulea 'King Alfred'

Lomandra longifolia 'Tanika'

Grevillea x hydrida 'Bronze Rambler'

Planting Palette

Indicative Plant Selection

Level 01 - Outdoor Wellness

- This level supports space for outdoor wellness, including spa and sauna zones framed by resilient, textural planting.
- Hardy shrubs and structural grasses define these areas, creating natural privacy screens and a sense of retreat.
- Their mixed foliage, ranging from fine and upright to dense and rounded, provides contrast and rhythm, while silvery and aromatic leaves contribute to a restorative sensory atmosphere.
- Subtle flowering tones in whites, pinks, and bronzes complement the warmth of timber decking and the calming palette of the wellness facilities, blurring the boundary between nature and relaxation.

Corymbia citriodora 'Scentuous'

Anigozanthos flavidus pulcherimus

Elaeocarpus reticulatus

Grevillea x hydrida 'Bronze Rambler'

Banksia spinulosa 'Birthday Candles'

Poa labillardierei

Austrodanthonia spp.

Planting Palette

Indicative Plant Selection

Level 06 - Rooftop Terrace

- The rooftop level showcases a vibrant and drought-tolerant mix of perennials and compact shrubs.
- Here, bright yellows, whites, and subtle mauves punctuate expanses of green, reflecting sunlight and animating the skyline garden.
- Tufting grasses and trailing groundcovers weave between flowering accents, softening built edges and providing resilience against wind and heat.
- The result is a landscape that evolves vertically offering residents connection to nature at every level.


Elaeocarpus reticulatus


Eucalyptus leucoxylon 'Euky Dwarf'


Pandorea jasminoides


Xerochrysum bracteatum


Scaevola aemula


Xerochrysum bracteatum


Lomandra longifolia ‘Tanika’


Grevillea x hybrida ‘Bronze Rambler’


Scaevola aemula


Chrysocephalum apiculatum


Dichondra repens

Planting Palette

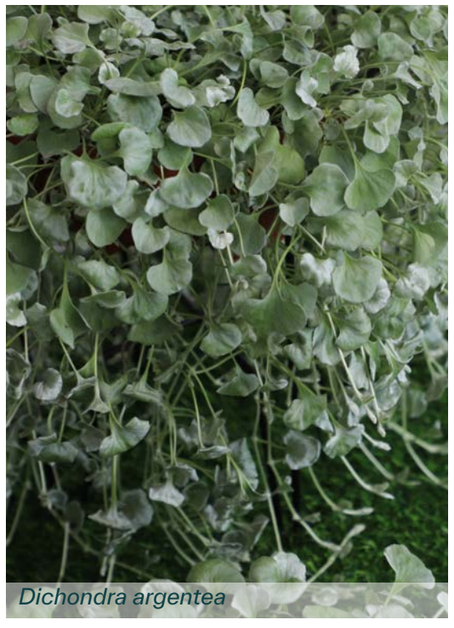
Indicative Plant Selection

Integrated Balustrades & Planters

- Balustrade planters introduce greenery directly at eye level, softening the building's architectural lines and strengthening the connection between interior and exterior spaces.
- These linear planters host a carefully curated mix of compact, wind-tolerant species selected for their refined form, durability, and year-round appeal.
- Cascading groundcovers and trailing foliage spill gently over edges, providing movement and visual softness against built structure, while small-scale shrubs and tufting grasses offer texture and colour variation.
- The planting composition emphasises subtle contrast, silvery and emerald greens, punctuated with seasonal flowering highlights, ensuring visual interest from both inside the dwellings and from the street below.

Dichondra repens

Acacia cognata 'Lime Light'



Dichondra argentea

Westringia fruticosa

Plectranthus argentatus

Tasmannia lanceolata

Poa labillardierei

Planting Palette

Indicative Plant Schedule

TREE SCHEDULE							
CODE	**BOTANIC NAME**	**COMMON NAME**	**MATURE SIZE** (h x canopy) (m)	**TRUNK SIZE** (diameter, mm)	**POT SIZE** (mm or L)	**NATIVE STATUS**	**QUANTITY**
TREES							**55**
COR cit	*Corymbia citriodora 'Scentuous'*	Dawrf Lemon-Scented Gum	8 x 6	100	20L	Native	16
ELA ret	*Elaeocarpus reticulatus*	Blueberry Ash	4 x 5	150	20L	Native	15
EUC leu	*Eucalyptus leucoxylon 'Euky Dwarf'*	Dwarf Yellow-Gum Tree	7 x 5	200	20L	Native	10
WAT flo	*Waterhousea floribunda*	Weeeping Lilly Pilly	15 x 10	200	20L	Native	14
FERNS							**16**
CYA coo	*Cyathea cooperi*	Rough Tree Fern	4 x 2.5	300	20L	Native	10
DIC ant	*Dicksonia antarctica*	SoftTree Fern	4 x 2	300	20L	Native	6

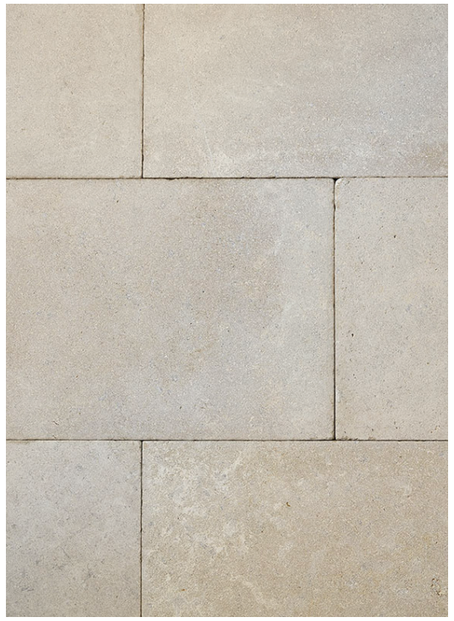
SHRUB SCHEDULE					
CODE	**BOTANIC NAME**	**COMMON NAME**	**MATURE SIZE** (h x w) (m)	**POT SIZE** (mm or L)	**NATIVE STATUS**
SHRUBS & ACCENTS					
Acc	*Acacia cognata 'Lime Light'*	Dwarf River Wattle	1 x 1	140mm	Native
Anf	*Anigozanthos flavidus pulcherimus Yellow Gem*	Kangaroo Paw 'Yellow Gem'	1.5 x 8	140mm	Native
Asa	*Asplenium australasicum*	Bird's Nest Fern	1 x 1.5	140mm	Native
Bas	*Banksia spinulosa 'Birthday Candles'*	Birthday Candles	0.6 x 1.5	140mm	Native
Brk	*Bracteantha 'Kimba Pearl'*	Strawflower 'Kimba Pearl'	0.4 x 0.4	140mm	Native
Brm	*Brachyscome microcarpa*	Creeping Daisy	0.2 x 0.8	140mm	Native
Cha	*Chrysocephalum apiculatum 'Desert Flame'*	Common Everlasting	0.3 x 0.5	140mm	Native
Dic	*Dianella caerulea 'King Alfred'*	King Alfred	0.7 x 0.7	140mm	Native
Ern	*Eremophila nivea 'Gubburra Bells'*	Silky Eremophila	1.5 x 1.5	140mm	Native
Grh	*Grevillea x hydrida 'Bronze Rambler'*	Bronze Rambler	0.5 x 3	140mm	Native
Men	*Melaleuca nesophila*	Showy Honey Myrtle	4 x 2.5	140mm	Native
Pla	*Plectranthus argentatus*	Silver Spurflower	0.8 x 1	140mm	Native
Tal	*Tasmannia lanceolata*	Mountain Pepper	1 x 1	140mm	Native
Wac	*Wahlenbergia communis*	Tufted Bluebells	0.3 x 0.3	140mm	Native
Wef	*Westringia fruticosa 'Flat n'Fruity'*	Coastal Rosemary	0.3 x 0.8	140mm	Native
Xeb	*Xerochrysum bracteatum 'Pilbara Lemon'*	Paper Daisy 'Philbara Lemon'	0.4 x 0.4	140mm	Native
GRASSES & RUSHES					
Aus	*Austrodanthonia spp.*	Wallaby Grass	0.5 x 0.5	140mm	Native
Lol	*Lomandra longifolia 'Tanika'*	Mat Rush 'Tanika'	1 x 1	140mm	Native
Pol	*Poa labillardierei*	Tussock Grass	1 x 1	140mm	Native
GROUNDCOVERS					
Dia	*Dichondra argentea 'Silver Falls'*	Silver Falls	0.1 x spreading	140mm	Native
Dir	*Dichondra repens 'Emerald Falls'*	Emerald Falls	0.1 x spreading	140mm	Native
Vib	*Viola banksii*	Native Violet	0.1 x spreading	140mm	Native

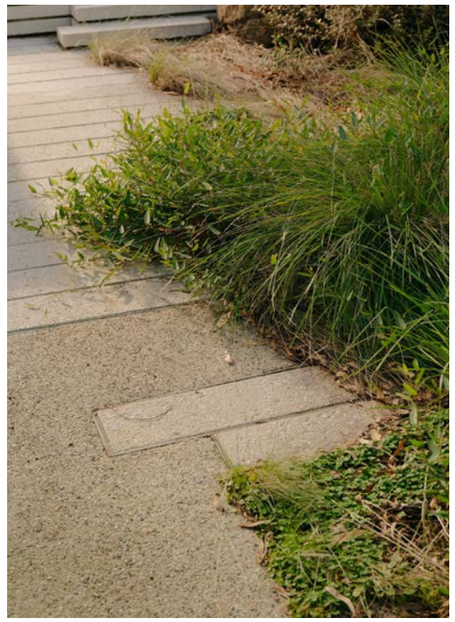
Materials

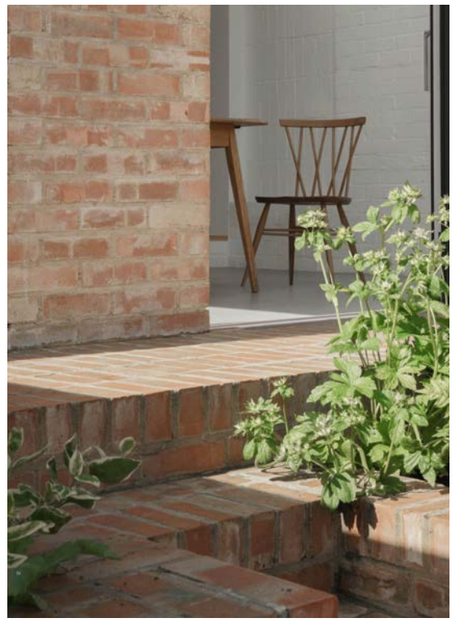
Indicative Material Palette

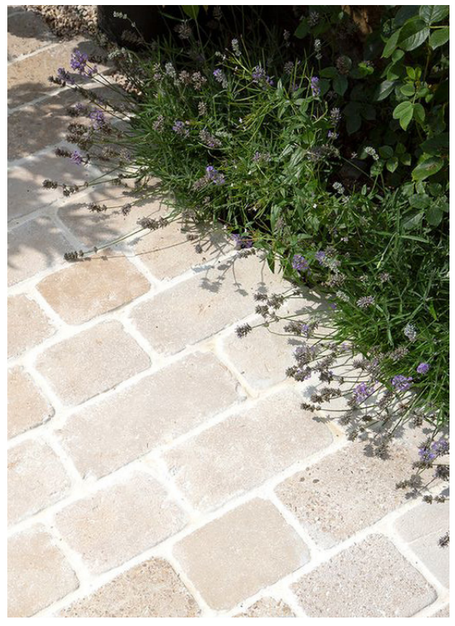
Ground Level to Rooftop

- Showcase timber as the dominant material in the architecture.
- Combination of retained heritage brickwork and terrace pavers to draw the facade heritage into the landscape design.
- Integration of native and indigenous species to complement the architectural language.
- Drive the local colours and textures through planting design.









Details & Specifications

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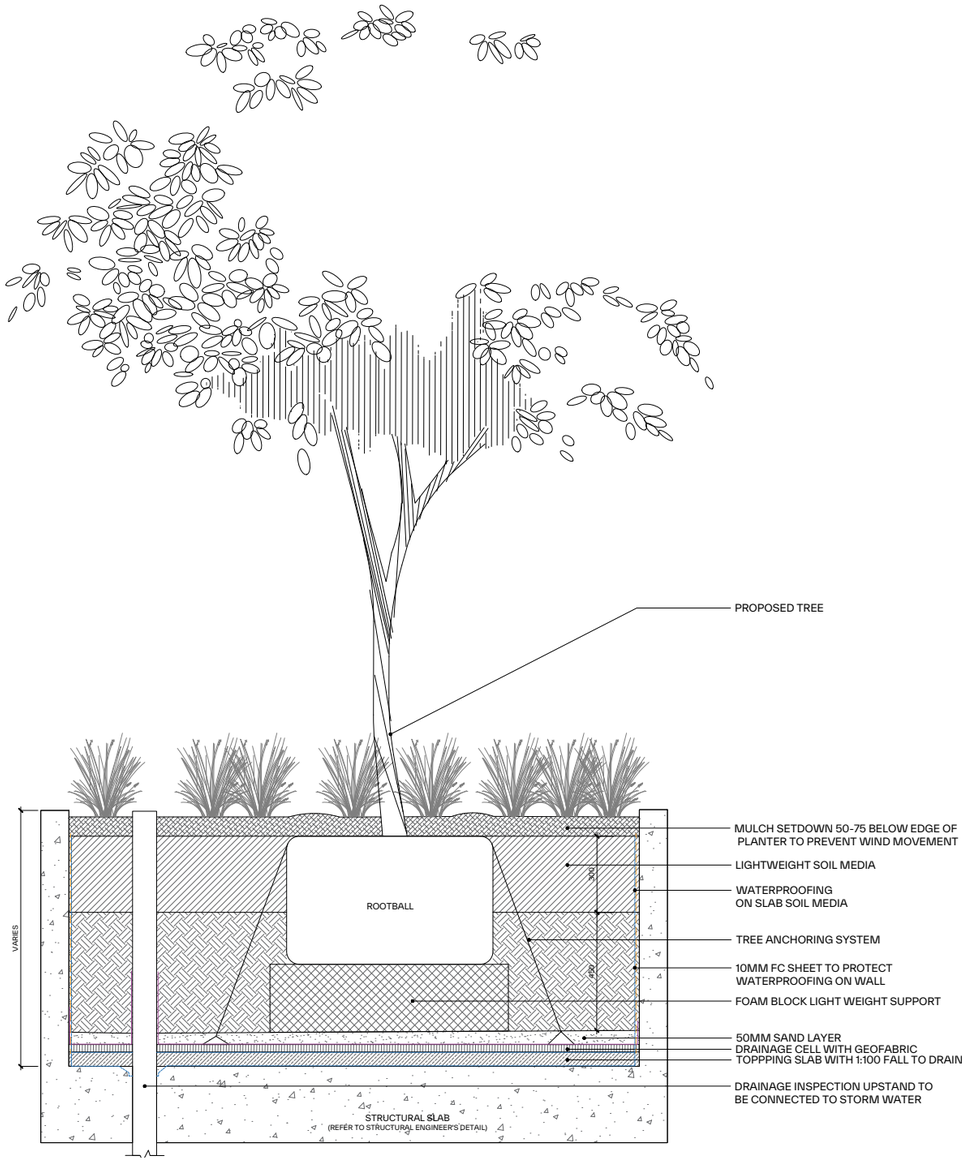
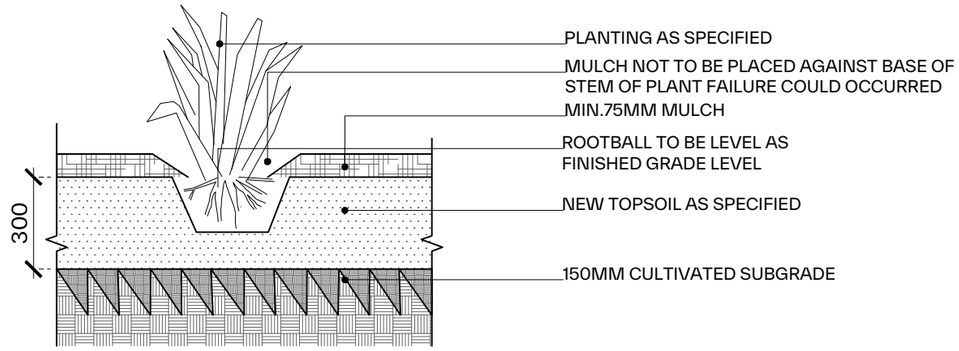
Typical Details

Planting



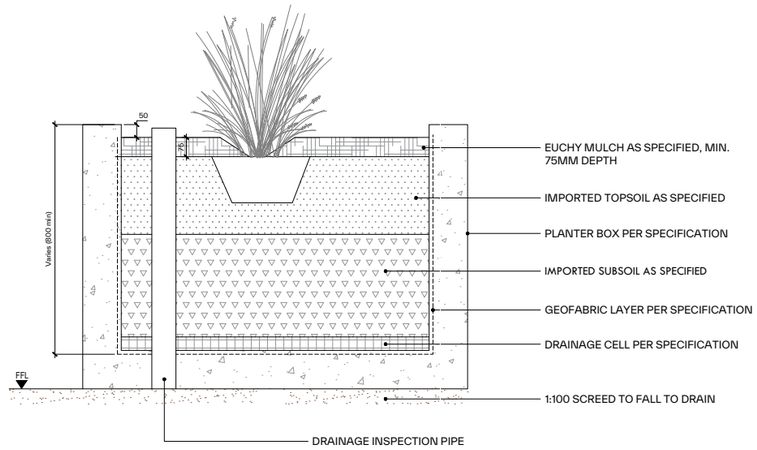
Typical Tree Planting on Slab

Detail



Typical Shrub Planting

Detail



Typical Shrub Planting on Slab

Detail

Specifications

Performance Notes

PLANTING

These notes are to read as a general guide for implementation of the landscape plan. This drawing is not for construction and is to be used for Town Planning purposes only. Final locations of all services and other assets may not be known at the Town Planning stage. It is the responsibility of the contractor to locate and identify all services prior to commencement of works and protect all services during the works. Contractor shall undertake dial before you dig before commencing work.

SOIL PREPARATION

Imported topsoil is to be free of weeds, rubble and other materials damaging to plant. Imported top soil is to be laid over a prepared sub-base which has had any materials damaging to plant growth (e.g. rubble and large rocks) removed, spread to the appropriate depth and cultivated into the existing site soil to a minimum depth of 150mm.
Ensure the soils comply with the latest Australian Standards (AS 4419-2018-Soils for landscaping and garden use). Imported top soil is to be lightly and uniformly compacted in 150mm layers.

PLANTING

Planting shall be carried out using accepted horticultural practices with all plants conforming to the species, size and quantities indicated on the Landscape Plan and Plant Schedule. Plants should be locally sourced.
Plants shall be thoroughly soaked through immersion in water prior to planting and if the planting soil is very dry then the planting hole is also to be filled with water and allowed to drain completely. Deep watering will encourage deep rooting.
Use plants with the following characteristics: Large healthy root systems with no evidence of root curl or pot bound restriction or damage, vigorous, well established, free from disease and pests and of good form, consistent with the species or variety.
Planting holes for shrubs and groundcovers are to be of minimum size 75mm larger than the planting pot in all directions. Semi-advanced tree planting holes are to be the same depth as the rootball and Planting hole to be twice as deep as root ball with at least 150mm around sides for backfilling with imported soil.

MULCH

Fine 'Euchy Mulch' is to be supplied to all garden beds laid to a minimum depth of 75mm, with a surrounding berm constructed at edge of root-ball to hold water. Mulch is to consist of fine dark coloured chipped or shredded euca with not more than 5% fines content by volume (preferably zero fines). Mulch is to be kept back 100mm from the stems of all plants to prevent collar rot. Alternative non- combustible mulch materials from sustainability sourced pebbles, finely crushed recycled bricks or similar.

IRRIGATION

GENERAL

All garden bed, turf areas and raised planters are to be irrigated.

RESPONSIBILITIES

General Requirement: Provide automatically controlled, dripline irrigation systems, as documented.
Performance Requirements:
Achieve the documented flow rates over the irrigated area.
Meet statutory requirements for backflow prevention.

STANDARDS

Water supply General: To AS/NZS 3500.1 (2021).
Backflow prevention and water efficiency: To PCA (2022).

INTERPRETATION

Abbreviations General: For the purposes of this worksection, the following abbreviations apply:
LDPE: Low-density polyethylene.
Definitions General: For the purposes of this worksection, the following definitions apply:
Emitter: A device used to control the rate at which water is applied to a specific area.

SUBMISSIONS

Shop drawings General: Submit drawings and schedules showing the layout and details of the system, including the following:
Micro-irrigation stake layout.
Irrigation controller cabinets.

INSPECTION

Notice Inspection: Give notice so that inspection may be made of the following:
Excavated surfaces ready for installation.
Concealed or underground services ready for backfilling.

AUTOMATIC CONTROL VALVES

General Type: 24 V solenoid actuated hydraulic valves with flow control and a maximum operating pressure rating of at least 1 MPa and able to be serviced without removal from the line.
Materials:
≤ DN 50: Dezincification resistant copper alloy body and bonnet, screwed ends. Stainless steel bonnet holding down bolts and internal metal parts.
≥ DN 65: Cast iron body and bonnet, flanged ends. Stainless steel bonnet holding down bolts and internal metal parts.
Isolating valve: Provide a ball or gate valve of the same size immediately upstream of each automatic control valve.
Housing: House both valves in the same valve box large enough to permit easy operation and servicing of the valves.

SOIL MOISTURE SENSORS

Type: Fixed ceramic moisture sensors.
Connection: Fit to the irrigation controller via moisture control units.

IRRIGATION CONTROLLERS

Type: Automatic controllers that are easily programmed and include the following:
Manual cycle and individual control valve operation.
Manual on/off operation of irrigation without loss of program.
≥ 4 on/off cycles per day.
Day omit.
240 V input and 24 V output capable of operating 2 control valves simultaneously.
Not less than 24 hour battery program backup.
Power surge protection.
Mounted in a lockable cabinet of minimum IP54 to AS 60529 (2004) in external locations.
Electrical connection: If connected to wall outlets, provide 3 core 10 A, 240 V flexible cord and plug. Provide an isolating switch at the controller.

DRIP IRRIGATION SYSTEMS

INTEGRATED DRIP LINE SYSTEMS

Type: Tubing with integral drippers inserted into the tube during manufacture.
Discrete drip emitter systems
Tubing: Polyethylene micro-irrigation pipe.
Drippers: Turbulent flow types, easily dismantled for cleaning.
Emitters Type: If the difference in elevation between the control box and all emitters is:
Less than 1500 mm: Pressure compensated or non-pressure compensated type.
Not less than 1500 mm: Pressure compensated type only.
Fittings Type: Barbed fittings rated for the pressure class of the pipe, fastened with ratchet type clamps.
Valve boxes Requirement: Provide the following in each valve box:
- Automatic control valve.
- Isolating valve.
- Filter: 100 µm.
- Pressure-reducing valve with 170 kPa outlet pressure.

PIPING

General Materials: To AS/NZS 3500.1 (2021) clauses 2.4 and 2.5 and as documented.

VALVE BOXES

General Construction: UV-resistant high impact plastic with high impact snap lock plastic cover and adequately sized for clear access to components inside the box.

EXECUTION

GENERAL

Backflow prevention Requirement: To PCA (2022) and Network Utility Operator requirements.

DRIP IRRIGATION SYSTEMS

INSTALLATION

Discrete drippers: Connect directly into piping or provide appropriately sized micro-tubes.
Piping: Lay polyethylene micro-irrigation pipe on finished ground surface under planting bed mulch and anchor at 1500 mm maximum intervals with U-shaped stakes.
Air release valves: Provide at the highest point in each section to drain the system when flow stops.

COMPLETION

General Requirement: On completion of the irrigation system, carry out the following:
Flush system thoroughly. Check heads, sprays and drippers and clean if blocked.
Clean strainers.
Adjust for even distribution with no dry areas.

LANDSCAPE - MAINTENANCE

GENERAL

RESPONSIBILITIES

General Requirement: Provide landscape maintenance of the contract area during the maintenance period.
Performance
Extent of maintenance:
Weeding of lawn, garden bed areas and pavement.
Supply and spreading of fertiliser to lawn, garden bed areas and pots.
Supply and installation of mulch to existing garden bed areas and pots.
Pruning, trimming and tree surgery.
Adjustment of tree stakes and ties.
Pest and disease control of plants and lawns.
Mowing and edge trimming to all lawn areas including collection and removal of clippings.
Diagnosis of cause of dead or failed plants and recommendations for corrective actions.
Replacement of dead or failed plants and lawns.
Maintenance of irrigation systems.
Removal of rubbish and debris in garden areas.
Removal of leaves, mulch and organic debris from pavement and drains.
Keeping a logbook of maintenance activities and procedures.
Providing monthly reports.

THE SITE

Secure area
Entry permits: Make available, to persons entering designated secure areas, valid entry permits. Make sure these persons comply with conditions of entry.
Secure area visitors: Submit the full name, address and date and place of birth of persons required to enter designated secure areas.
Purpose of submission: For review.
Timing of submission: At least 10 working days before entry is required.
Protection of persons and property
Temporary works: Provide and maintain required guards, fencing, footpaths, signs and lighting.
Access ways and services: Do not obstruct or damage footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Determine the location of such services. Rectify immediately any obstruction or damage to such services and provide temporary services whilst repairs are carried out.
Trees and properties: Do not interfere with or damage trees and properties that are to remain on or adjacent to the site, including adjoining property encroaching onto the site. Rectify immediately any interference or damage to such trees and properties.

GENERAL CONDITIONS
Contractor and staff Representative: Nominate a senior partner/person experienced in maintenance nursery practices and horticulture, to be responsible for taking and carrying out instruction, and reporting to the principal.
Special instructions
Priority: If instructed by the principal, attend to certain areas and procedures as a priority. Obtain approval for additional costs before starting the works.
Notice Inspection: Give at least two working days' notice of the following operations:
Application of herbicide.
Application of fertiliser.
Each site maintenance visit.
Work affecting public access or amenity on the Thursday of the week before the work is planned.
Water restrictions: Give immediate notification of any new restrictions that affect maintenance.
Reporting
Monthly report: Submit regular reports by the last Friday of each month to SELECTIONS, MAINTENANCE REPORT, Monthly reports schedule and as follows:
General status of the works.
Soil test results included as required for the fertilising programs.
Any plant replacement requirements.
Irrigation operation schedules and water consumption.
Incident reports: Report immediately, verbally and confirm in writing, any disturbance or incidence affecting or likely to affect the scheduling of the works.
Records
Logbook: Keep on site and make available for inspection a logbook, recording the following on a weekly basis:
Description, time and method of application of toxic material.
Maintenance work details.
Inclement weather to verify inability to carry out work within the specified time frame.
Replacement plants
Plant species: Submit the supplier's certification as evidence that plants are true to the required species and type, and free from diseases, pests and weeds at the time of delivery.
Coordination with others
Other contractors: Coordinate work with other contractors to minimise conflicting activities and delays. If disturbances to planned works are unavoidable, make arrangements to work around them.

PRODUCTS

FERTILISER
General Description: Proprietary fertilisers, delivered to the site in the manufacturer's labelled and unopened bags or containers.
Labelling
General: To the applicable statutory requirements, including manufacturer or supplier, weight, fertiliser type, N:P:K ratio, recommended uses and application rates. Label type: To withstand transit without erasure or misplacement

EXECUTION

GENERAL
Weeding
Requirement: Remove unwanted broad-leaf plants and grasses considered invasive to the locality.
Program:
Lawns: Quarterly and as required to maintain the general lawn condition.
Trees and shrubs: As required for planted, paved and mulched areas to be weed-free when observed at fortnightly intervals.
Vigorous ground covers: Keep 200 mm clear from the base of any shrub or tree. Remove as follows:
Small areas: By hand.
Large areas: Proprietary herbicides.
Herbicide application: Apply to the manufacturer's recommendations.
Pest and disease control
Requirement: Control any pests or diseases affecting the lawn and garden bed areas as follows:
Identify the problem.
Execute the correct treatment until the problem has been eliminated.
Apply hazardous material out of normal working hours.
Protect staff and public from exposure to hazardous materials.

GRASS SURFACES

Mowing and trimming
Preparation: Remove litter and fallen branches before mowing.
Grass height: Consistent with the growth habit of the grass variety and maintained at 25 to 40 mm throughout the year. Do not remove more than one-third of the grass height at any one time.
Program: Weekly during the mowing season, November to March and at fortnightly intervals from April to October. Do not mow during wet conditions.
Raking: Once every month before mowing during the mowing season, rake the grass with a flexible rake. On alternate mowings, adopt a north-south and east-west pattern.
Edge trimming: At the same time as mowing, trim lawn edges to plant beds, pathways, base of trees and other obstacles. Do not damage trees and shrubs.
Non-selective herbicide: Make sure application does not exceed the area limits of normal manual trimming. Repair any damage from overuse or over spray.

Fertilising Program:
Regular application: Each September and April.
Additional application: Each November and February at reduced rates.
Soil pH adjustment: Apply additional fertilisers and soil conditioners as indicated from soil testing or from the physical soil structure. Maintain a pH range of 5.5 to 6.5.
pH testing program: Two year schedule starting in the first year of the contract.
Application: Spread as follows:
Dry: Crush lumps and broadcast dry material by hand or mechanically when the lawn is dry.
Spray: Acceptable.
Prevent fertiliser from leaching to adjoining planted beds, particularly those with sensitive native trees and shrubs.
Top dressing
Top dressing for established lawns: Weed-free imported sandy topsoil to a depth of 5 mm.
Top dressing for remediation of depressions or irregularities: Apply coarse or medium texture soil to AS 4419 (2018), suitable for application to turf or grass seeded areas.

Renovation
Established lawns of sandy soil profile: Renovate by dethatching or verticutting.

TREES AND SHRUBS

Pruning and trimming
General: Prune to reflect the natural growth, flowering and regrowth habit of the individual species.
Program generally: Spring and Summer and on a spot basis as required.
Shrubs: Prune after flowering.
Hedge trimming: Schedule trimming at times that maintains the character and design of hedges. Allow up to three times per season.
Tip pruning:
Purpose: To encourage development of new shoots during the active growing season.
Method: Removal of the top 25 mm or growing tip of each branch.
Restriction: Do not remove buds before the flowering season in those plants that have terminal flowers.
Radical pruning:
Purpose: To maintain a hedge or formal shape or if a particular problem, growth habit, damage, or disease requires branch removal.
Tree pruning:
Purpose: To eliminate diseased or damaged growth, avoid inter-branch contact and thin out crowns in a natural manner.
Maintain sight lines to signs and lights.
Maintain visibility for personal security.
Crown-lifting or tree branch removal:
To AS 4373 (2007).
Give notice and engage a suitably qualified arborist.

Fertilising
Fertilising program: Base the program on soil testing results.
Soil testing: Test soil as follows:
At the start of the contract.
Take samples from a cross-section of planting beds.
Soil pH adjustment: Apply additional fertilisers and soil conditioners as indicated.

RAINGARDEN

The bioretention soil media specifications require three layers of media. Filter media (600mm deep or as specified in the engineering design), a transition layer (100mm deep) and a drainage layer (150mm deep). The biofiltration system will operate so that water will infiltrate into the filter media and move vertically down through the profile.
Maintaining the prescribed hydraulic conductivity is crucial. Permeability testing using the Australian Standard (AS4419-2003) method will generally be suitable for determining the hydraulic conductivity of a particular soil.
In general the media should be a sandy loam to loamy sand soil with an appropriately high permeability under compaction and should be free of rubbish and deleterious material. The soils should contain some organic matter for increased water holding capacity but be low in nutrient content. In general appropriate material is likely to be approximated by a mix of 80-90% sand, 10-20% loam soil and 3-10% composted organics or peat.

ratio:

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Wurundjeri Country
Level 5, 65 Dover Street
Cremorne VIC 3121
P (03) 9429 3111

Geelong
Wadawurrung Country
82 Ryrie Street,
Geelong VIC 3220
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Sydney
Gadigal Country
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Brisbane
Jagera Country
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