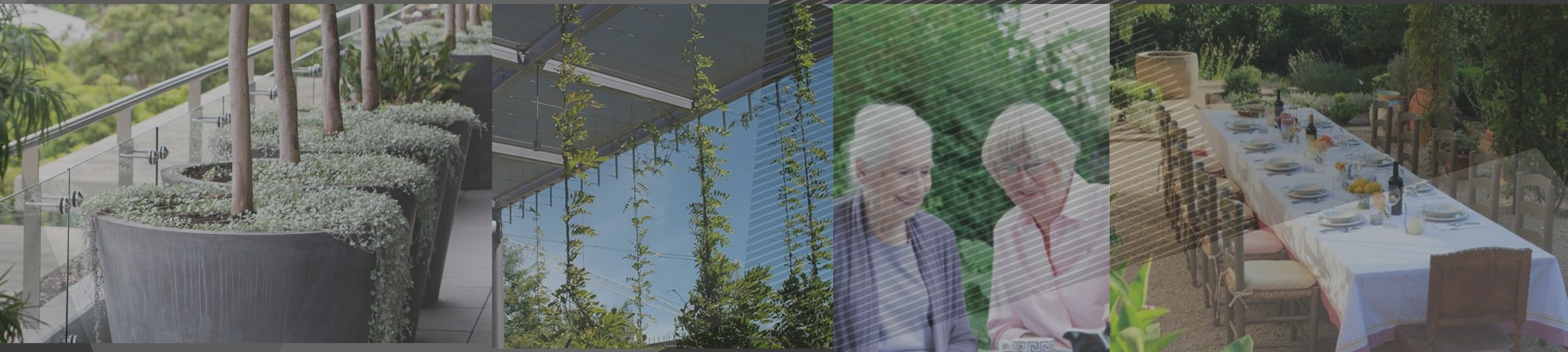




GREENGATE - AGED CARE VILLAGE GREEN PENRITH

Development Application

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Greengate
Retirement Living | Aged Care

Project Reference: 2518051

16th October 2019

Revision 03



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Authors	Matthew Dury, Kassie Cottee, Rebecca Godwin
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INTRODUCTION



PLACE Design Group were engaged by Greengate to undertake the design of landscaping elements that comprise the Greengate retirement village. The site is located at 3 Reserve Street, Penrith, NSW. The landscape design will contribute to the creation of vibrant and safe outdoor environment for residents and visitors.

The development will include the following uses:

- An outdoor theatre in Zone1 for leisure, relaxation and learning
- Bocce lawn to provide opportunities to maintain and enhance physical well-being
- Calming and meditative water feature adjacent to pathways that are under the cover of shade structures
- Herb garden with wheelchair accessibility, offering all users opportunities to grow edible plants
- Therapeutic, aromatic sensory planting common to Mediterranean garden
- Flexible design suitable for dementia patients
- Communal washing lines
- Green walling & cable support systems

The materiality of the public domain builds upon that of the proposed buildings designed by Jackson Teese Architects.

The principles outlined in the CPTED Guidelines have been applied to this site ensuring the following;

- Surveillance
- Access Control
- Territorial reinforcement
- Space Management

SITE CONTEXT PLAN



SITE CONTEXT PERSPECTIVE



SITE ANALYSIS



LEGEND

- Powerlines
- Solar path
- Existing trees
- Bus stop
- <...> Pedestrian island/blister crossings
- <...> Signalised pedestrian crossing
- Site boundary



LANDSCAPE MASTERPLAN



LEGEND

- 01 Raised planters located throughout the courtyards 1m minimum height
- 02 Open multifunction turf area
- 03 Tensile wire structure / lightweight pergola with climbers
- 04 Water feature/ reflection pools
- 05 Central mediterranean courtyard with catenary lighting
- 06 Large modern pots with specimen trees to both sides of courtyard
- 07 Water feature/sculpture and seating area
- 08 Art work/Sculpture
- 09 Drying area
- 10 Potential future thoroughfare connection
- 11 Post box
- 12 Architectural pots of varying sizes with specimen plants to building entry
- 13 Existing *Ficus hillii* to be retained
- 14 Landscape planter over OSD tank
- Extent of basement below

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR ILLUSTRATED DEEP SOIL PLANTING ZONES

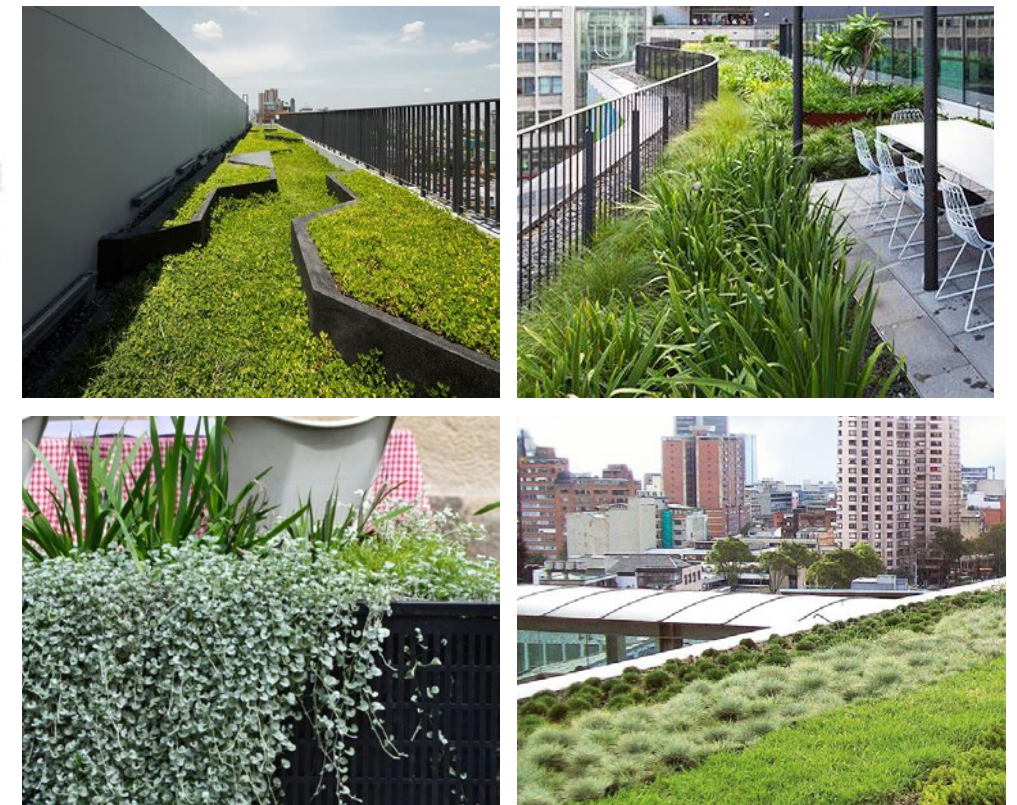
0 5 10 15 20M/ 1:400@A3



FIRST FLOOR PLAN

LEGEND

01 Landscape planting area



0 5 10 15 20M/ 1:400@A3



SECOND - THIRD FLOOR PLAN

LEGEND

01 Landscape planting area



0 5 10 15 20M/ 1:400@A3



FORTH - FIFTH FLOOR PLAN

LEGEND

- 01 Outdoor paved terrace area with river pebble ballast. Refer to pg.24 for further detail.
- 02 Landscape planting area



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FENCE STRATEGY DIAGRAM



LEGEND

-  1.8m Boundary fence and gate for pedestrian access. (Black palisade)
-  1.5m Boundary fence and gate for pedestrian access to communal areas. (Black palisade with hardwood timber piers)
-  1.2m Boundary fence and gate for pedestrian access to private units. (Black palisade with hardwood timber piers, offset min. 1m from site boundary)
-  Potential fence to future thoroughfare connection
-  Building entrance
-  Timber batten screen

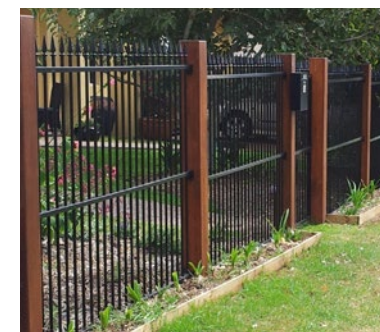
Refer to pg.25 for additional information on fencing detail.



1.8M Black palisade boundary fence example



1.2-1.5m Black palisade fence with hardwood timber pier example



1.2-1.5m Black palisade fence with hardwood timber pier example



Vertical timber batten screen to substation and drying area



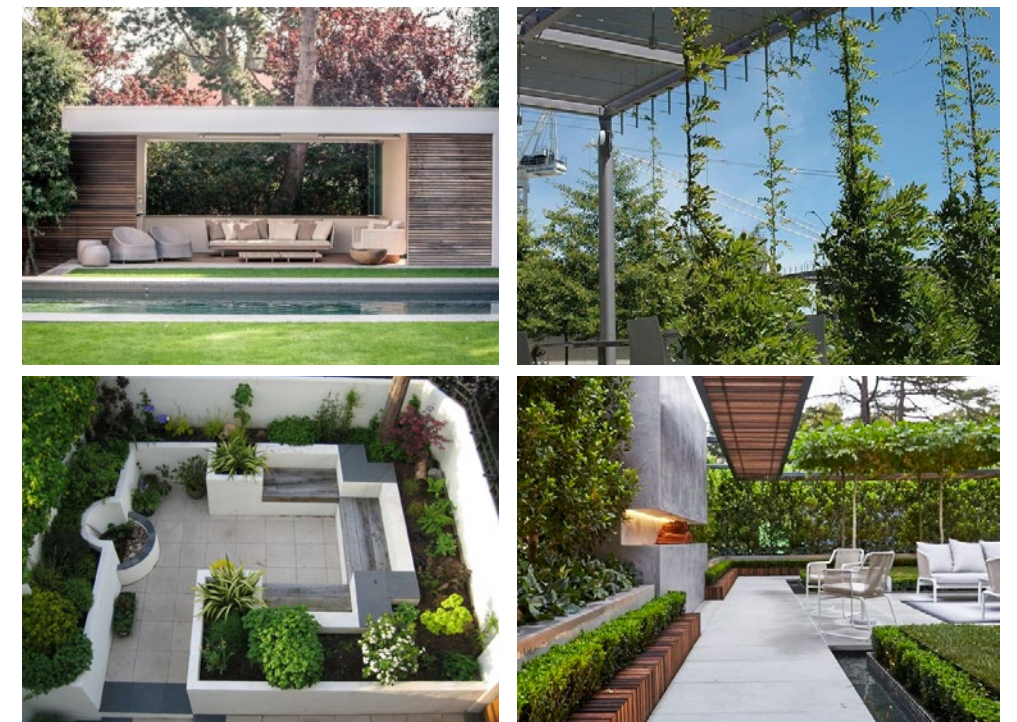
Rear fixed typical batten screen detail

LANDSCAPE PLAN - ZONE 1



LEGEND

- 01 Shallow linear water feature (differing effects)
- 02 Integrated outdoor furniture
- 03 Pergola structure overhead
- 04 'Urbanline' resin timber bridge over water
- 05 1m high planter wall to ensure sufficient soil volume for optimal tree growth
- 06 Outdoor bench seat with arm and back rests
- 07 Retractable movie screen (furniture can be rearranged / for events)
- 08 Signage Wall (refer perspective)
- 09 Architectural pots of varying sizes with specimen plants
- 10 Open lawn area



The design of this courtyard includes a variety of mature trees, mass planting and water in order to help create a micro-climate within the development. This in turn helps address Penrith's hot summer climate offering shading and natural cooling. Furthermore, the variety of spaces provides opportunity for both summer and winter enjoyment. With open spaces and deciduous plantings, the design allows sun to enter and warm the development during winter.

LANDSCAPE SKETCH - ZONE 1

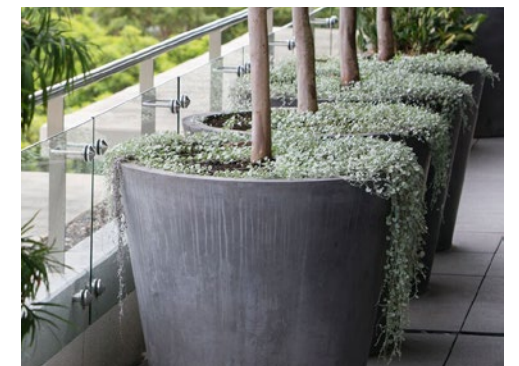


LANDSCAPE PLAN - ZONE 2



LEGEND

- 01 Catenary lighting over with pendant and LED fairy lights
- 02 Water feature/ Reflection pool framing space
- 03 Large modern concrete pots with standard fig trees
- 04 Outdoor dining precinct with space for long table
- 05 1m high planter wall to ensure sufficient soil volume for optimal tree growth with lower bench seats (including ergonomic back and arm-rests)
- 06 Rustic pavement with smaller pots
- 07 Sculptural water feature with bench seat adjacent
- 08 Trellis structure with vertical wires and climbers to frame the space



The design of this courtyard includes a variety of mature trees, mass planting and water in order to help create a micro-climate within the development. This in turn helps address Penrith's hot summer climate offering shading and natural cooling. Furthermore, the variety of spaces provides opportunity for both summer and winter enjoyment. With open spaces and deciduous plantings, the design allows sun to enter and warm the development during winter.

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LANDSCAPE SKETCH - ZONE 2

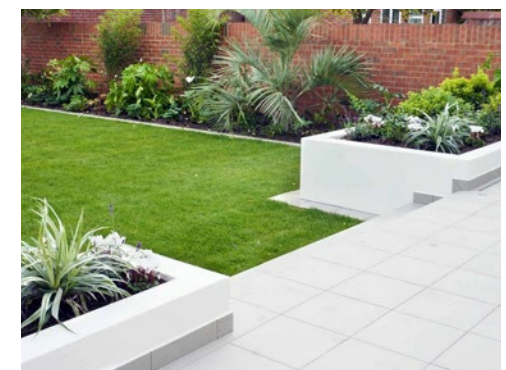


LANDSCAPE PLAN - ZONE 3



LEGEND

- 01 Circulation path (granite paver) with pots / planting
- 02 Open turf area (bocce or boules)
- 03 1m high planter wall to ensure sufficient soil volume for optimal tree growth
- 04 Pergola structure connected to architectural shelter
- 05 Streetscape (outside of site boundary)
- 06 1.5m black palisade perimeter fence
- 07 Wheel-chair accessible herb garden with integrated seat
- 08 Outdoor dining tables and chairs
- 09 Park benches with armrests + back rests



The design of this courtyard includes a variety of mature trees, mass planting and water in order to help create a micro-climate within the development. This in turn helps address Penrith's hot summer climate offering shading and natural cooling. Furthermore, the variety of spaces provides opportunity for both summer and winter enjoyment. With open spaces and deciduous plantings, the design allows sun to enter and warm the development during winter.

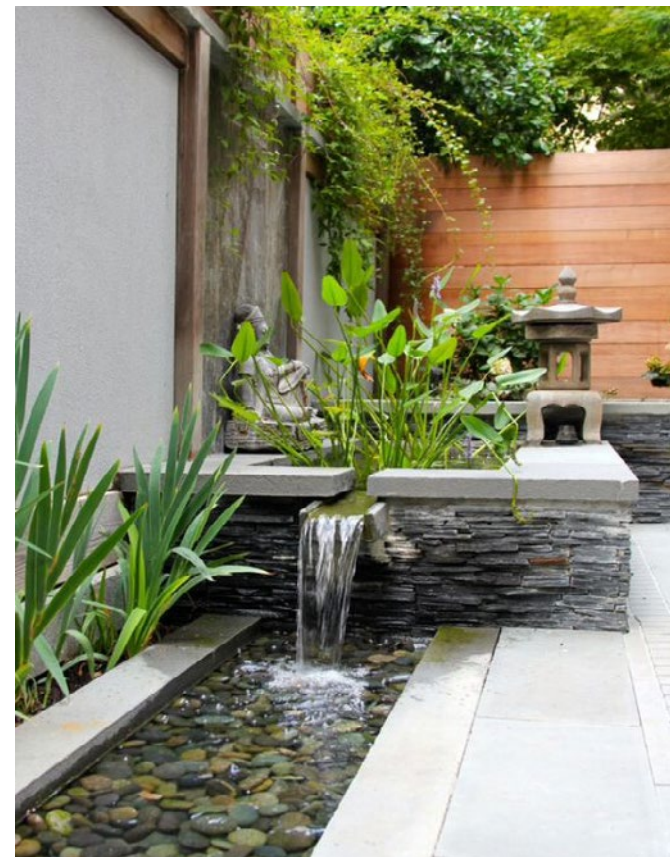
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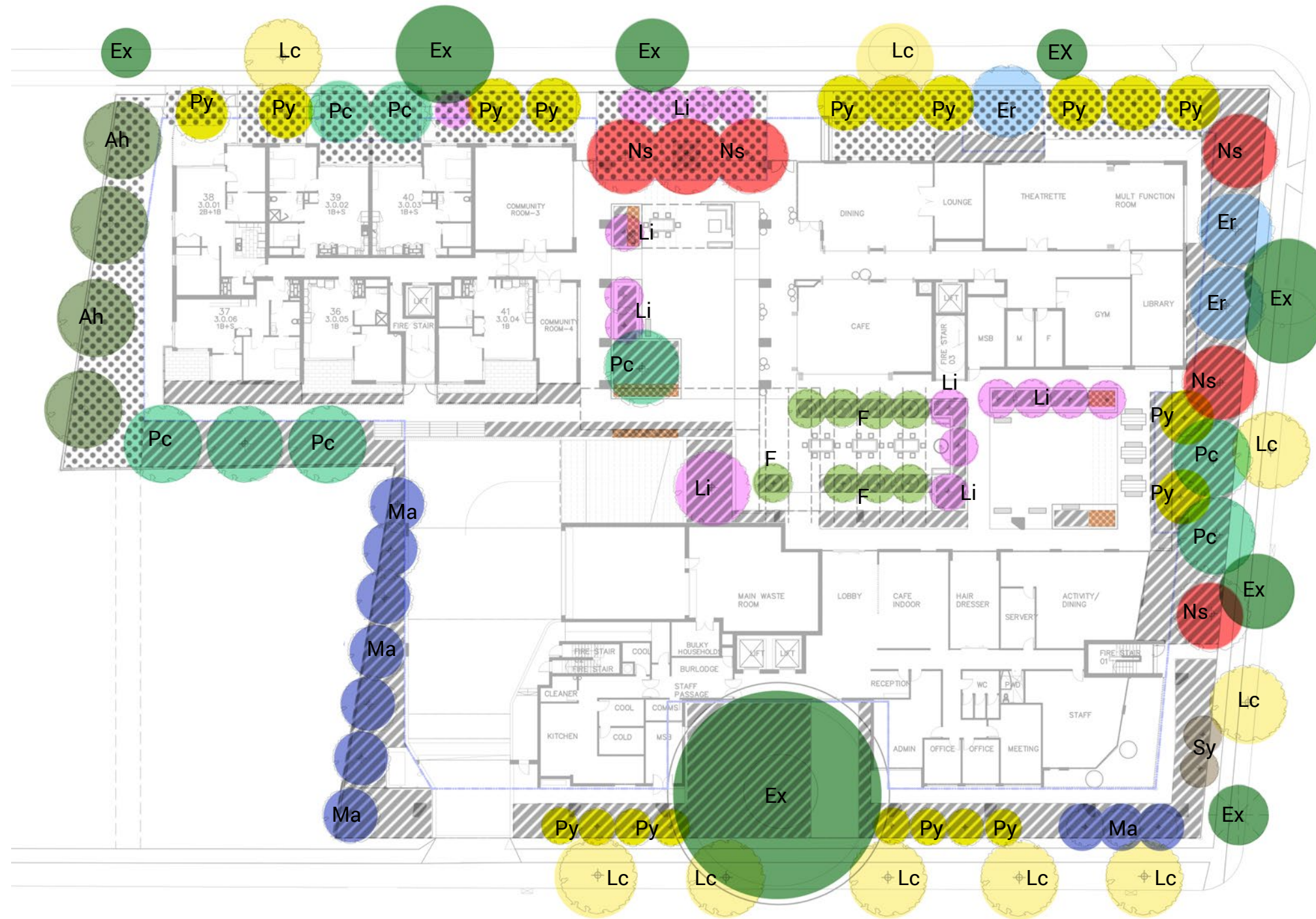
LANDSCAPE SKETCH - ZONE 3



PRECEDENT IMAGES



INDICATIVE PLANTING PLAN



LEGEND

- Ex Existing Trees to be retained
- Ah Angophora hispida
- Pc Pistacia chinensis
- Li Lagerstroemia indica sp.
- Ma Magnolia grandiflora 'Little Gem'
- Er Elaeocarpus reticulatus
- F Ficus sp.
- Lc Lophostemon confertus
- Ns Nyssa sylvatica
- Sy Syzygium australe sp.
- Py Pyrus calleryana sp.
- Shrubs and grasses - shade tolerant
- Shrubs and grasses - full sun/ part shade
- Climbing plants

TREES



Lagerstroemia indica ‘Lipan’
(Lipan Crepe Myrtle)



Magnolia ‘Little Gem’
(Dwarf magnolia)



Pistacia chinensis
(Chinese pistache)



Pyrus calleryana ‘Chanticleer’
(Ornamental Pear)

SHRUBS



Jasminum sambac ‘Arabian Jasmine’
(Arabian Jasmine)



Metrosideros ‘Fiji Fire’
(Fiji Fire)



Murraya paniculata
(Mock Orange)



Michelia figo
(Port Wine Magnolia)



Raphiolepis delacourii
(Hybrid Indian Hawthorn)



Strelitzia reginae
(Bird of Paradise)

HEDGES



Acmena smithii
(Lilly Pilly)



Acmena smithii ‘Allyn Magic’
(Drawf Lilly Pilly)



Euonymus ‘Tom Thumb’
(Euonymus Dwarf Spindle Bush)



Photinia glabra ‘Rubens’
(Small leaf Photinia)



Viburnum odoratissimum
(Sweet Viburnum)



Westringia fruticosa
‘Wygabbie Bule’
(Coast Rosemary)

GROUNDCOVERS



Agapanthus ‘White’
(Agapanthus)



Agapanthus ‘Blue’
(Agapanthus)



Dietes grandiflora
(Wild Iris)



Liriope muscari ‘Variegata’
(Turf Lily)



Trachelospermum
jasminoides
(Star Jasmine)

TYPICAL PLANTING PALETTE- FULL SUN/PART SHADE

SYM	BOTANICAL NAME	COMMON NAME	HEIGHT	SPACING	POT SIZE
TREES					
	Angophora hispida	Dwarf Apple	8m	As Shown	200L
	Pistacia chinensis	Chinese pistache	15m	As Shown	200L
	Ficus sp.	Fig Tree	5m	As Shown	200L
	Lagerstroemia indica 'Natchez'	Crepe Myrtle	3.5m	As Shown	200L
	Lagerstroemia indica 'Lipan'	Lipan Crepe Myrtle	3.5	As Shown	200L
	Lagerstroemia indica 'Natchez'	Crepe Myrtle	3.5m	As Shown	200L
	Lagerstroemia indica 'Souix'	Crepe Myrtle	5m	As Shown	200L
	Jacaranda mimosifolia	Jacaranda	10m	As Shown	400L
	Magnolia grandiflora 'Little Gem'	Chinese Magnolia	7m	As Shown	200L
	Nyssa sylvatica	Tupelo	11m	As Shown	200L
	Pyrus calleryana 'Chantideer'	Ornamental Pear	11m	As Shown	200L
	Pyrus calleryana 'Cleveland'	Ornamental Pear	10m	As Shown	200L
	Syzygium australe sp.	Brush cherry	5m	As Shown	200L
SHRUBS AND HEDGES					
	Acmena smithii	Lilly Pilly	2.0m	500mm	5L
	Acmena smithii 'Allyn Magic'	Drawf Lilly Pilly	1.0m	500mm	5L
	Alternanthera dentata	Ruby Leaf Alternanthera	0.5m	4/m²	150mm
	Azalea 'Alba Magnifica'	Azalea	1.0m	2/m²	200mm
	Azalea gretel	Azalea	1.0m	2/m²	200mm
	Azalea indica	Azalea	1.2m	2/m²	200mm
	Azalea 'Pride of Dorking'	Evergreen Azalea	1.0m	2/m²	200mm
	Azalea 'Red Glitter'	Azalea- single rose red blooms	1.0m	2/m²	200mm
	Buxus microphylla	Japanese Box	1.0m	300mm	200mm
	Buxus sempervirens	European Box	1.0m	300mm	200mm
	Callistemon viminalis 'Little John'	Drawf Bottlebrush	0.6m	4/m²	150mm
	Camellia japonica sp.	Camellia	3.0m	750mm	25L
	Camellia sasanqua sp.	Camellia	3.0m	750mm	25L
	Carissa 'Desert Star'	Natal Plum	1.0m	4/m²	200mm
	Cuphea hyssopifolia 'Jocelyn's Pink'	False Heather	0.6m	4/m²	150mm
	Echium candicans	Pride of Madeira	1.5m	2/m²	5L
	Euonymus 'Tom Thumb'	Euonymus Dwarf Spindle Bush	0.8m	300mm	200mm
	Gardenia augusta 'Florida'	Gardenia Florida	1.0m	4/m²	200mm
	Hebe sp.	Hebe	1.0m	4/m²	200mm
	Ixora coccinea 'Flame of the woods'	Jungle Flame	1.0m	3/m²	200mm
	Ixora chinensis	Prince of Orange	1.0m	3/m²	200mm
	Lavandula angustifolia 'Munstead'	Munstead Lavender	1.0m	4/m²	200mm
	Lavandula sp. stoechas 'Avonview'	Bush Lavender	1.0m	4/m²	200mm
	Metrosideros 'Fiji Fire '	Fiji Fire	1.0m	300mm	5L
	Michelia figo	Port Wine Magnolia	3.0m	1/m²	25L
	Murraya paniculata	Orange Jessamine	3.0m	750mm	25L
	Photinia glabra 'Rubens'	Small Leaf Photinia	2.0m	750mm	25L
	Plumbago auriculata 'Blue'	Blue Plumbago	2.0m	1/m²	5L
	Raphiolepis delacourii	Hybrid Indian Hawthorn	1.5m	500mm	5L
	Raphiolepis 'Snow Maiden'	Snow Rose	0.75m	500mm	5L
	Rhododendron sp.	Rhododendron	1.0m	2/m²	5L
	Rosmarinus officinalis	Rosemary	1.0m	2/m²	5L
	Salvia leucantha	Mexican Sage	1.0m	4/m²	150L
	Strelitzia reginae	Bird of Paradise	1.5m	3/m²	5L
	Syzygium 'Aussie compact'	Aussie Compact Bush Cherry	1.0m	300mm	5L
	Syzygium australe 'Select'	Lily Pilly Select	3.0m	750mm	25L
	Syzygium australe 'Winter Lights'	Syzygium Winter Lights	3.0m	750mm	25L
	Tibouchina 'Allure'	Tibouchina Allure	1.0m	2/m²	5L
	Tibouchina heteromalla 'Jules'	Silver Leafed Princess Flower	1.0m	2/m²	5L
	Viburnum odoratissimum	Sweet Viburnum	4.0m	750mm	25L
	Westringia fruticosa 'Aussie Box'	Coastal Rosemary	1.0m	500mm	5L
	Westringia fruticosa 'Wygabbie Bule'	Coastal Rosemary	1.0m	500mm	5L
GRASSES & GROUND COVERS					
	Agapanthus 'White'	Agapanthus	0.6m	5/m²	150mm
	Agapanthus 'Blue'	Agapanthus	0.6m	5/m²	150mm
	Carpobrotus edulis	Hottentot Fig	0.3m	4/m²	150mm
	Dietes grandiflora	Wild Iris	0.6m	7/m²	75mm Tube
	Gardenia augusta 'Radicans'	Rock Gardenia	0.3m	4/m²	150mm
	Jasminum sambac 'Arabian Jasmine'	Arabian Jasmine	0.5m	4/m²	150mm
	Juniperus conferta 'Pacific Blue'	shore juniper	0.7m	7/m²	150mm
	Liriope muscari 'Evergreen Giant'	Turf Lily	0.7m	5/m²	150mm
	Liriope muscari 'Variegata'	Turf Lily	0.7m	7/m²	150mm
	Serissa foetida Pink 'Snow Rose'	Snow Rose	0.6m	4/m²	150mm
	Serissa foetida Pink 'Snow Leaves'	Serissa Snow Leaves	1.0m	4/m²	150mm
	Trachelospermum jasminoides	Star Jasmine	0.6m	5/m²	150mm

TREES



Cyathea australis
(Rough Tree Fern)



Cyathea cooperi
(Lacy Tree Fern)



Dicksonia antarctica
(Soft Tree Fern)

SHRUBS



Alpinia zerumbet
(Shell Ginger)



Asplenium australasicum
(Bird's Nest Fern)



Clivia miniata
(Orange Lily)



Crinum pedunculatum
(Swamp Lily)



Fatsia japonica
(Japanese Fatsia)



Hedychium coronarium
(White Ginger)



Lepidozamia peroffskyana
(Pineapple Zamia)



Macrozamia communis
(Burrawang)



Philodendron 'Xanadu'
(Philodendron Xanadu)



Rhaps excelsa
(Laddy Palm)

GROUND COVERS



Cissus rhombifolia
(Grape Ivy)



Dichondra repens
(Kidney Grass)

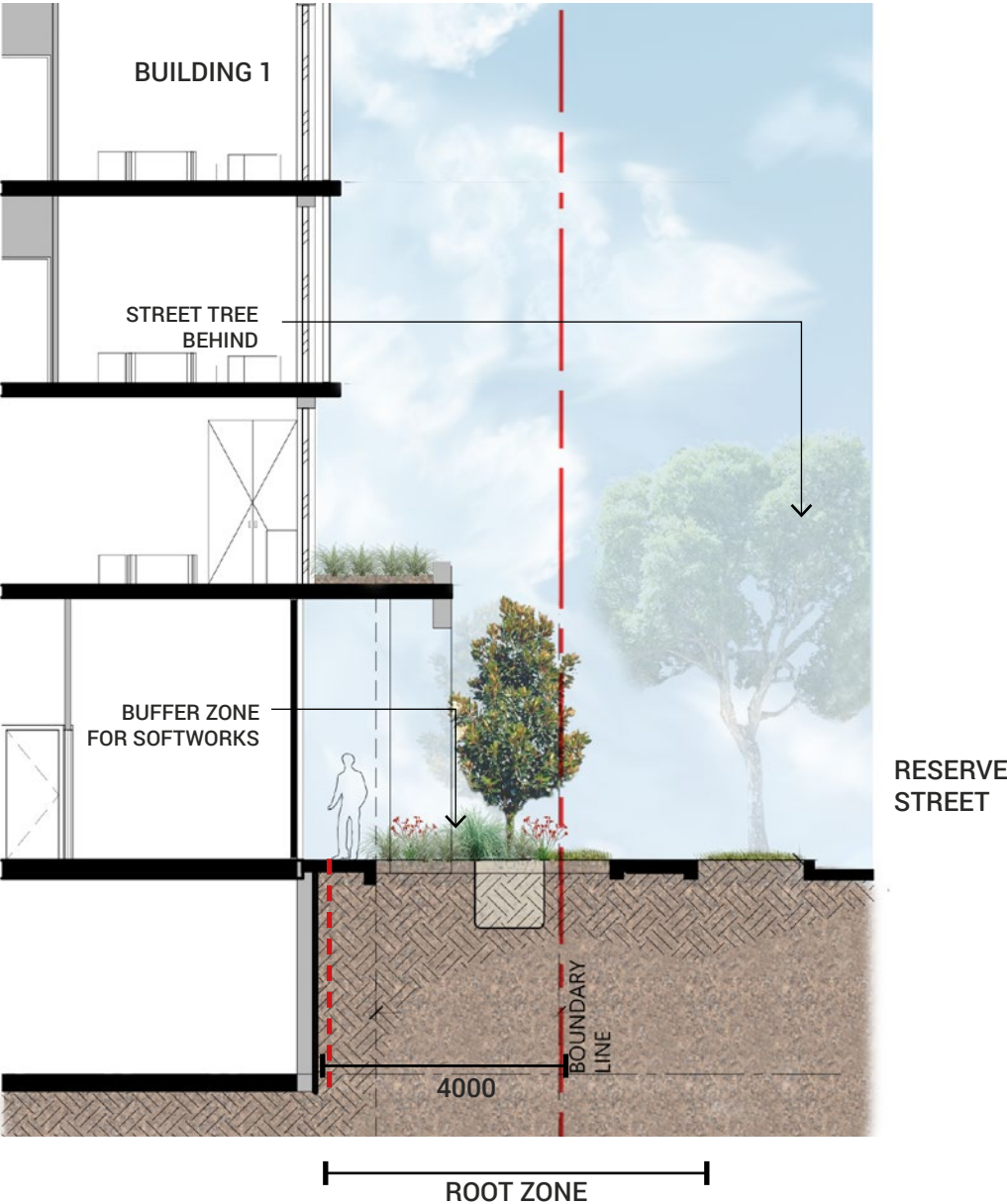


Liriope muscari "Evergreen Giant"
(Turf Lily)

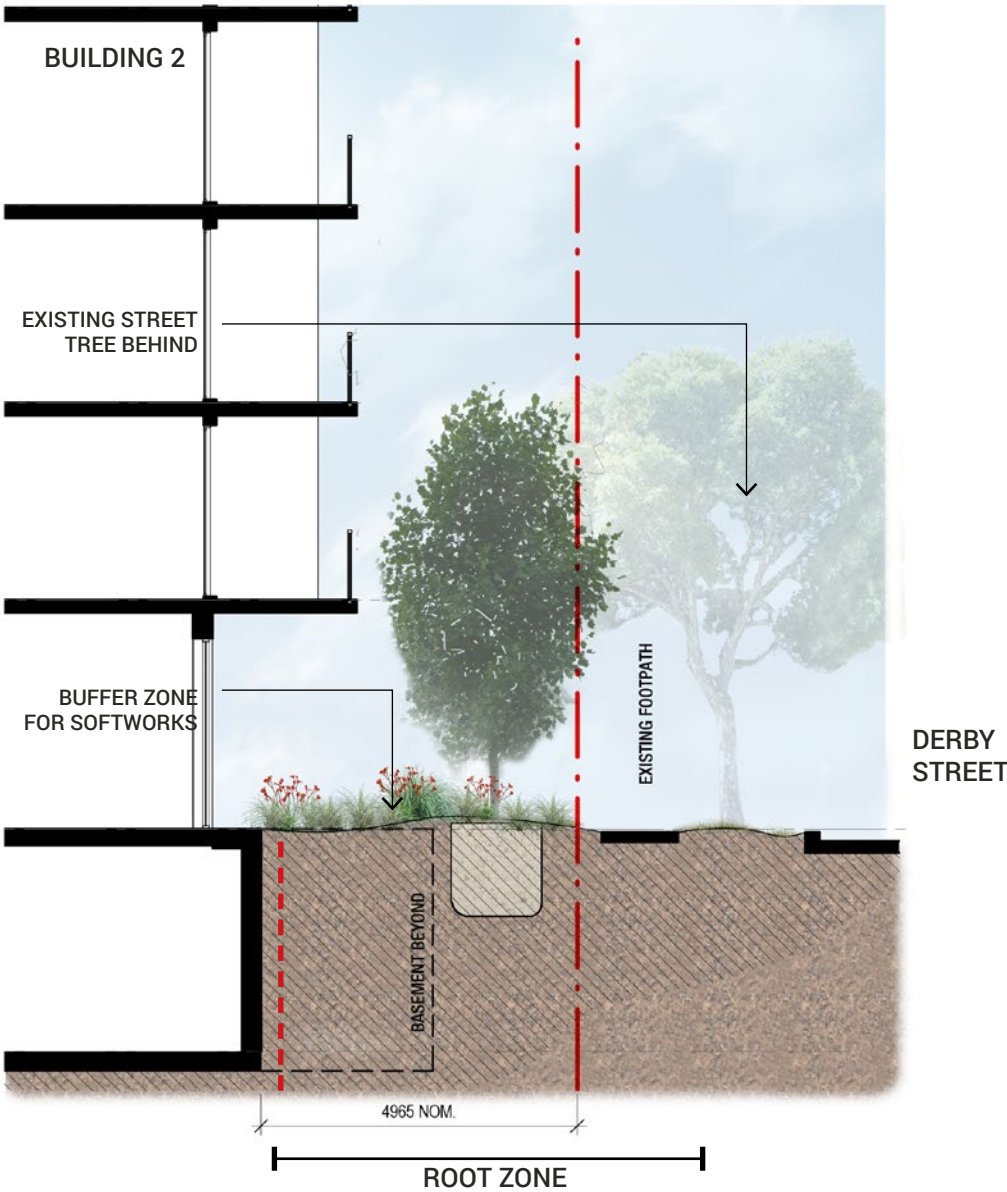
TYPICAL PLANTING PALETTE-SHADE TOLERANT

SYM	BOTANICAL NAME	COMMON NAME	HEIGHT	SPACING	POT SIZE
TREES & PALMS					
	Cyathea australis	Rough Tree Fern	5m	As Shown	Trunk 3-4m
	Cyathea cooperi	Lacy Tree Fern	7m	As Shown	Trunk 3-4m
	Dicksonia antarctica	Soft Tree Fern	2m	As Shown	Trunk 1-2m
	Elaeocarpus eumundi	Quandong	7m	As Shown	200L
	Elaeocarpus reticulatus	Blueberry Ash	15m	As Shown	200L
SHRUBS					
	Alpinia zerumbet	Shell Ginger	1.5m	4/m ²	150mm
	Asplenium australasicum	Bird's Nest Fern	0.5m	4/m ²	200mm
	Cordyline fruticosa rubra	Cordyline rubra	1.5m	4/m ²	200mm
	Cordyline australis 'Red Sensation'	Red Cabbage Tree	1.5m	3/m ²	5L
	Crinum pedunculatum	Swamp Lily	1.0m	4/m ²	5L
	Cycas revoluta	Sago palm	1.0m	2/m ²	25L
	Doryanthes excelsa	Gynea Lily	2.0m	2/m ²	5L
	Fatsia japonica	Japanese Fatsia	1.0m	4/m ²	5L
	Hedychium coronarium	White Ginger	1.0m	4/m ²	5L
	Indigofera australis	Austral Indigo	1.8m	2/m ²	5L
	Lepidozamia peroffskyana	Pineapple Zemias	1.5m	2/m ²	5L
	Macrozamia communis	Burrawang	1.5m	3/m ²	5L
	Philodendron 'Xanadu'	Philodendron 'Xanadu'	1.2m	4/m ²	200mm
	Phormium tenax sp.	New Zealand Flax	1.5m	3/m ²	5L
	Rhaps excelsa	Lady Palm	2.5m	3/m ²	5L
GRASSES & GROUND COVERS					
	Cissus rhombifolia	Grape Ivy	0.3m	3/m ²	150mm
	Clivia miniata	Kaffir Lily	0.6m	4/m ²	150mm
	Dianella caerulea	Flax Lily	0.6m	4/m ²	150mm
	Dianella tasmanica 'Tasred'	Flax Lily	0.6m	4/m ²	150mm
	Dichondra repens	Kidney Grass	0.3m	7/m ²	75mm Tube
	Liriope muscari "Evergreen Giant"	Turf Lily	0.7m	5/m ²	150mm
	Lomandra longifolia	Matt Rush	1.0m	4/m ²	150mm
	Viola Hederacea	Australian Native Violet	0.1m	7/m ²	150mm

SECTIONS - TREE PLANTING IN DEEP SOIL

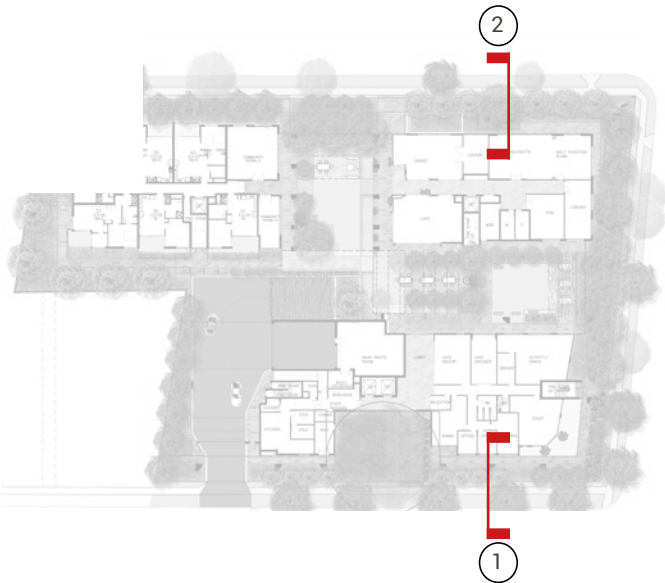


1/22 SECTION 01 - RESERVE STREET DEEP SOIL ZONE

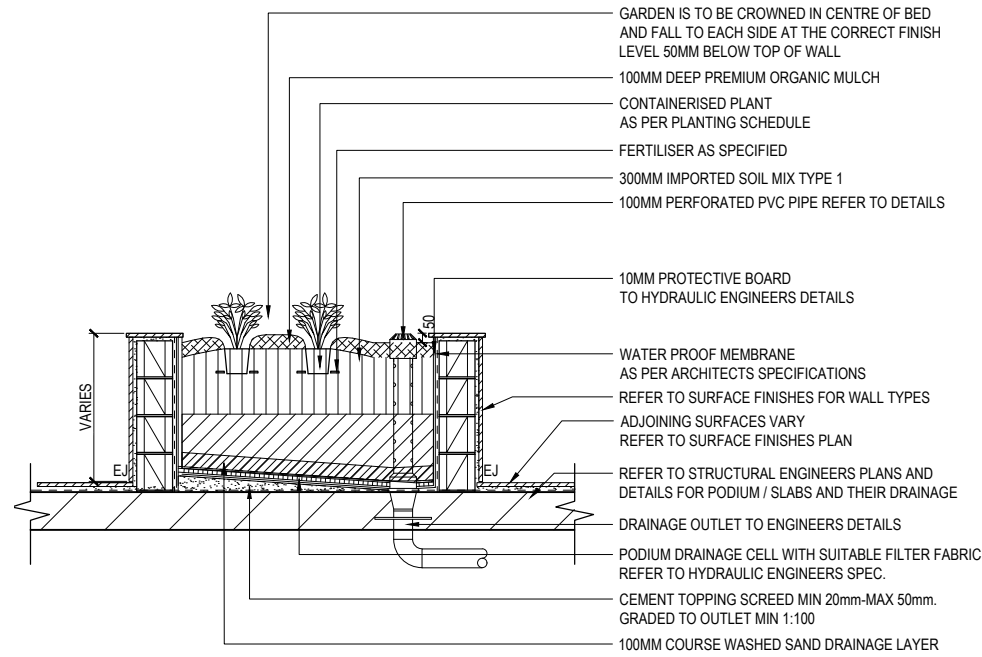


2/22 SECTION 02 - DERBY STREET DEEP SOIL ZONE

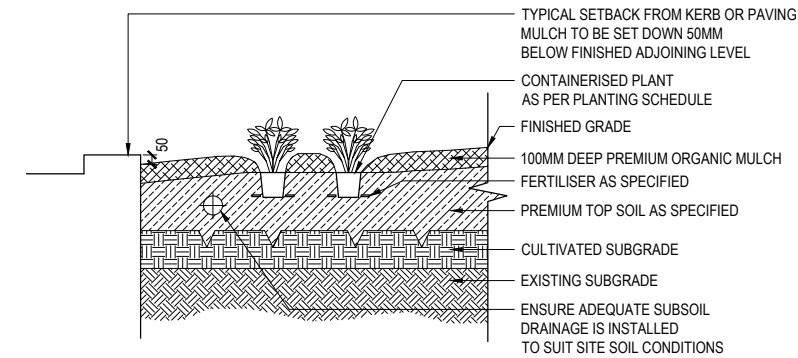
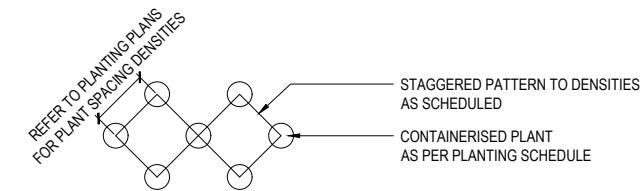
- Minimum 2 - 7.16m wide planting zone from building setback to property boundary
 - Unencumbered ground plane to ensure maximum soil volume for optimal tree growth
 - Variety of planting species along street frontages including deciduous tree species to provide shade is summer and allow light to penetrate the development in winter
- Root barrier protection



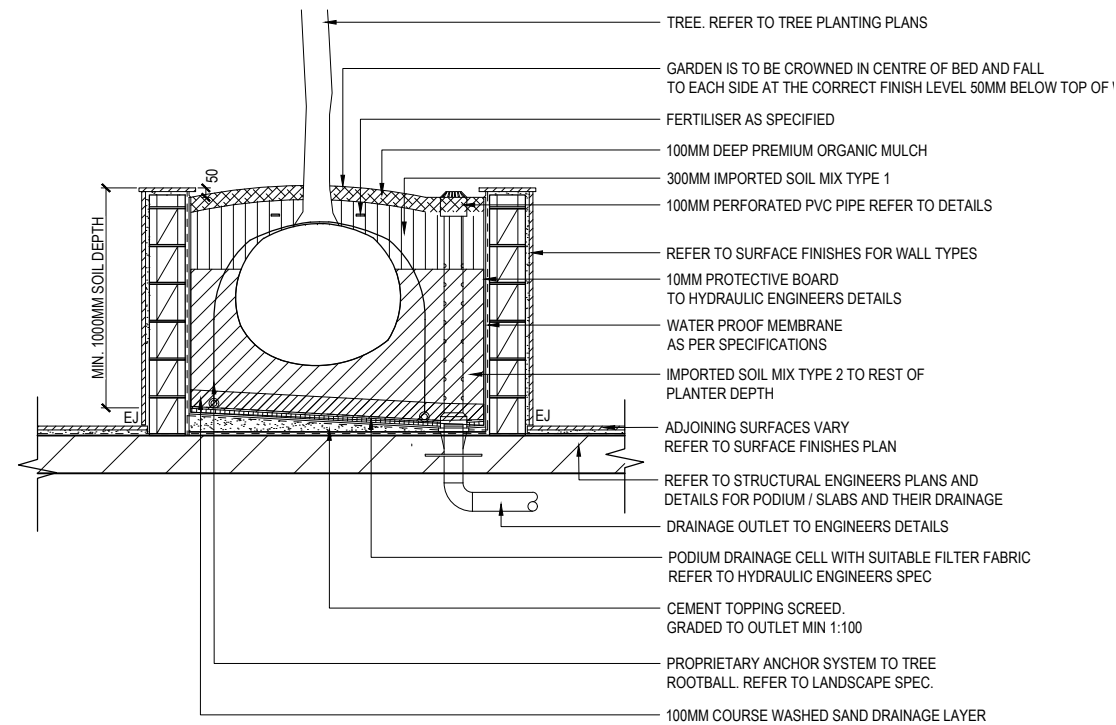
LANDSCAPE DETAILS



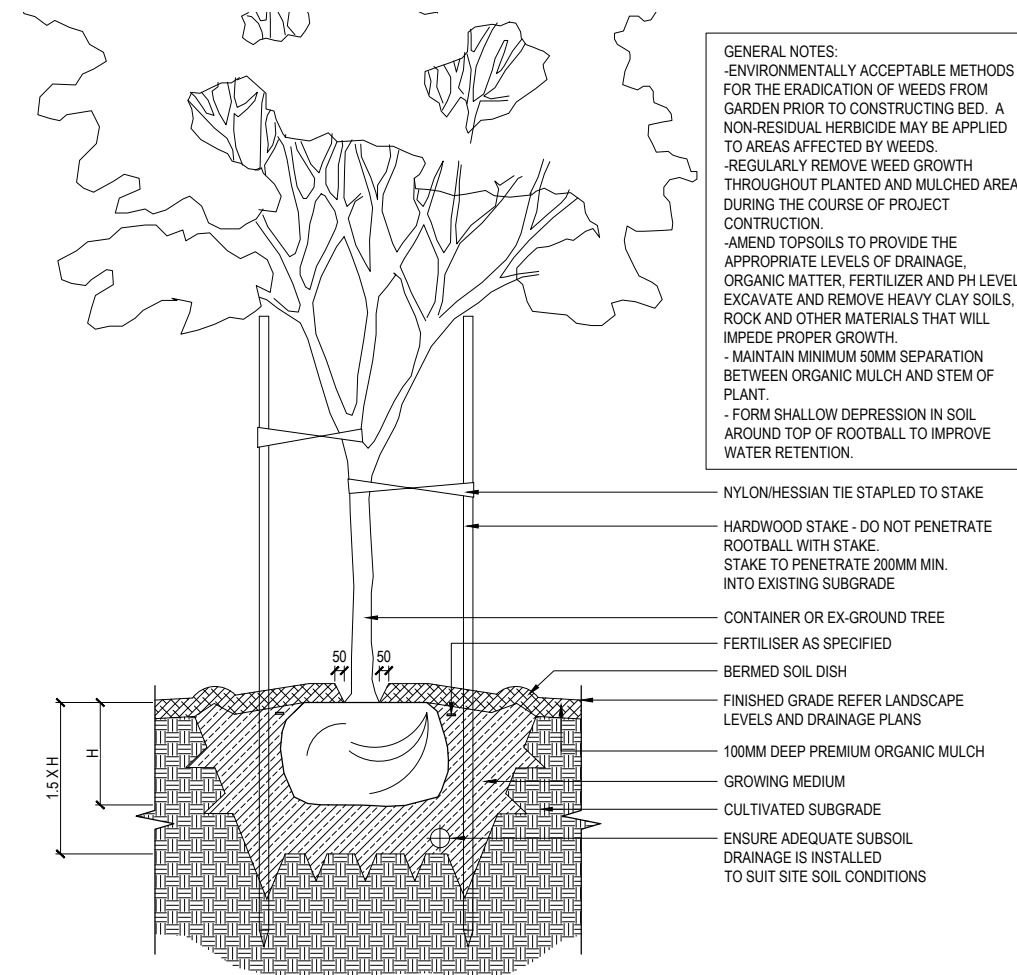
TYPICAL MASS PLANTING ON SLAB DETAIL
SCALE 1:40



TYPICAL MASS PLANTING ON GRADE DETAIL
SCALE 1:40



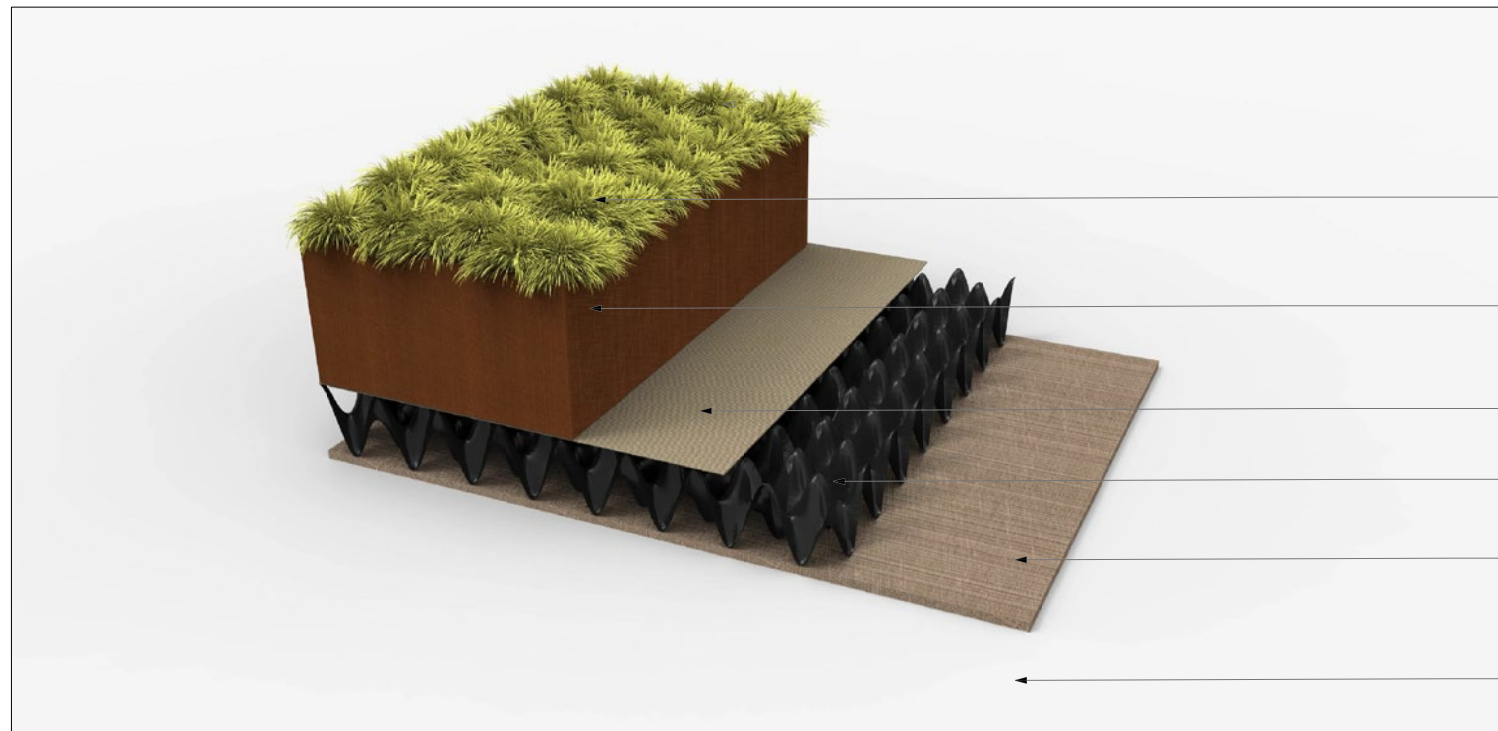
TYPICAL TREE ON SLAB DETAIL
SCALE 1:40



TYPICAL TREE ON GRADE DETAIL
SCALE 1:40

GENERAL NOTES:
-ENVIRONMENTALLY ACCEPTABLE METHODS FOR THE ERADICATION OF WEEDS FROM GARDEN PRIOR TO CONSTRUCTING BED. A NON-RESIDUAL HERBICIDE MAY BE APPLIED TO AREAS AFFECTED BY WEEDS.
-REGULARLY REMOVE WEED GROWTH THROUGHOUT PLANTED AND MULCHED AREAS DURING THE COURSE OF PROJECT CONSTRUCTION.
-AMEND TOPSOILS TO PROVIDE THE APPROPRIATE LEVELS OF DRAINAGE, ORGANIC MATTER, FERTILIZER AND PH LEVEL. EXCAVATE AND REMOVE HEAVY CLAY SOILS, ROCK AND OTHER MATERIALS THAT WILL IMPEDE PROPER GROWTH.
- MAINTAIN MINIMUM 50MM SEPARATION BETWEEN ORGANIC MULCH AND STEM OF PLANT.
- FORM SHALLOW DEPRESSION IN SOIL AROUND TOP OF ROOTBALL TO IMPROVE WATER RETENTION.

ROOFTOP LANDSCAPE DETAILS



TYPICAL ROOFTOP SOIL PROFILE AXONOMETRIC
SCALE 1:20

MASSED PLANTING - 10 PLANTS PER SQUARE METRE AS SPECIFIED BY THE DESIGNER

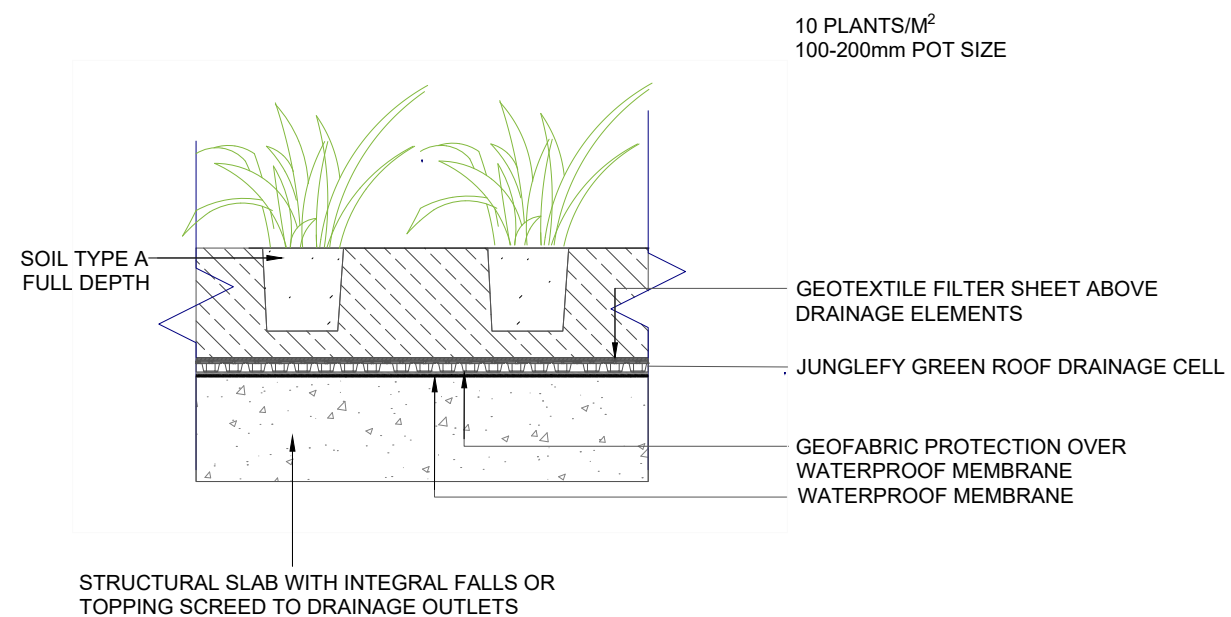
JUNGLEFY A-HORIZON SOIL PROFILE FROM 120-400MM. IF PROFILE GREATER THAN 400MM A JUNGLEFY B HORIZON TO REMAINDER OF DEPTH.

GEOTEXTILE FILTER SHEET TO PREVENT SOIL FROM MIXING WITH DRAINAGE SYSTEM.

JUNGLEFY GREEN ROOF DRAINAGE CELL.

GEOTEXTILE MEMBRANE PROTECTION OVER WATERPROOF MEMBRANE. NOTE: WATERPROOFING IS TO BE WARRANTIED TO 15 YEARS MINIMUM AND HAVE A ROOT INHIBITOR.

ROOF ENGINEERED TO HANDLE SATURATED GROWING MEDIA LOADS, WEIGHT OF PLANTS AND ANY LIVE LOADS FROM PEOPLE.



TYPICAL ROOFTOP SOIL PROFILE
SCALE 1:20

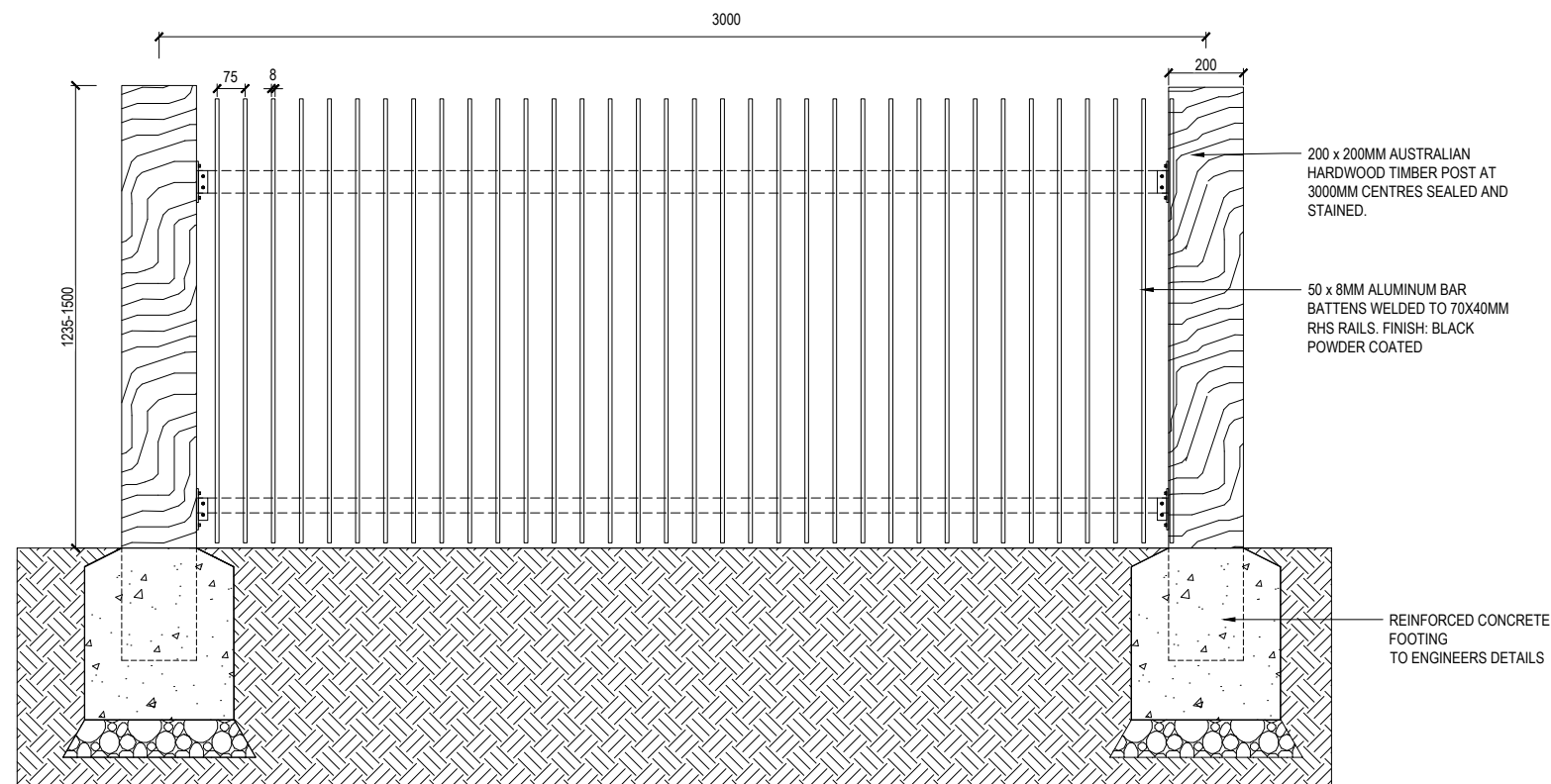


BALLAST TO BUILDING 1,2 & 3

Material: Washed River pebble
Colour: Hunter River
Size: Minimum 50mm and 80kg/m2

*Planting details provided by Junglefy

FENCE DETAIL



1.2-1.5M HIGH BOUNDARY FENCE - BLACK PALISADE WITH HARDWOOD TIMBER PIERS
SCALE 1:20