# SYD05-06-07 KEMPS CREEK

# LOT 2 MAMRE RD, KEMPS CREEK NSW

LANDSCAPE CONCEPT PLAN - DRAFT FOR: COUNCIL SUBMISSION 06.09.2021 ISSUE H



### **DRAWING LIST:**

Coversheet

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Landscape Concept Plan 01

ARCHITECT:

**ENGINEER:** 







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### **KEY**



SITE BOUNDARY



PROPOSED TREE PLANTING (MIN 2M CLEAR TRUNK)

**KEYPLAN** 



LOW PLANTING (UNDER 1M IN HEIGHT)



GRASSED AREA (PERMEABLE)



PAVED / TILED SURFACE



CONCRETE SURFACE



BITUMEN SURFACE



COMPACTED DECOMPOSED GRANITE SURFACE (PERMEABLE)



SECURITY FENCE TO CLIENT'S SPECIFICATIONS (2400mm HT)



SECURITY CAMERA LOCATIONS



SEWER CONNECTION



RETAINING WALL

## WATER MAIN

## **DESIGN NOTES**

- 1. INTERNAL FOOTPATH
- 2. ESTATE STREETSCAPE (FOOTPATH, TURF VERGE, PLANTING, STREET TREE, STREET PLANTING)
- 3. GROUP OF TREES MIN 180L POT SIZE (PLEACHED) WITH 2M CLEAR TRUNK
- 4. FEATURE TREES IN GRASS MOUNDS (ENTRY FEATURE)
- 5. SITE ENTRY / EXIT
- 6. OUTDOOR RECREATIONAL FACILITY (PICNIC SHELTER x2, BIKE RACKS, BENCH SEATS, CANOPY TREES)
- 6A. STAFF COURTYARD AREA BY CLIENT
- 7. SETBACK PLANTING BUFFER
- 8. FIRE TRUCK ACCESS
- 9. FUTURE CARPARK EXPANSION
- 10. RETAINING WALL WITH 1000mm BALUSTRADE
- 11. ENTRY SIGNAGE TBC
- 12. OFFICE ENTRY PLAZA (TREES IN PAVING, SEATS)
- 13. FEATURE PEBBLE / ROCK BANDS





KEMPS CREEK BALLARD - SYD05

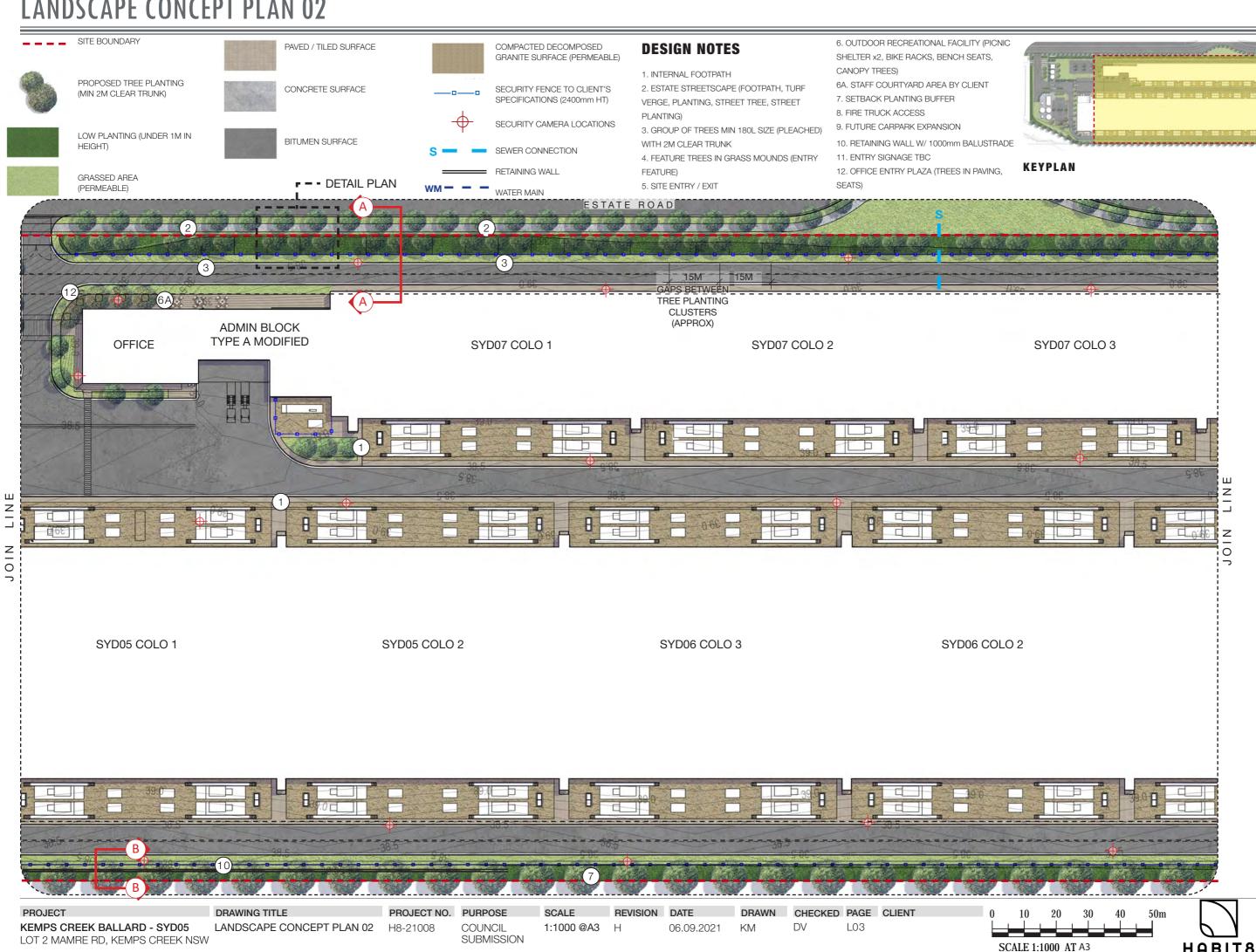
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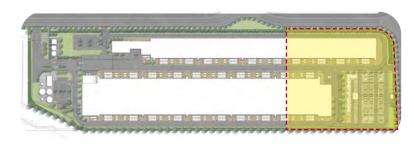
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## LANDSCAPE CONCEPT PLAN 02



HABIT8





### **KEYPLAN**

SITE BOUNDARY

HEIGHT)

GRASSED AREA

PAVED / TILED SURFACE

CONCRETE SURFACE

BITUMEN SURFACE

COMPACTED DECOMPOSED GRANITE SURFACE (PERMEABLE)

SECURITY FENCE TO CLIENT'S SPECIFICATIONS (2400mm HT)

SECURITY CAMERA LOCATIONS

SEWER CONNECTION

RETAINING WALL

(PERMEABLE)

PROPOSED TREE PLANTING

LOW PLANTING (UNDER 1M IN

(MIN 2M CLEAR TRUNK)

## **DESIGN NOTES**

- 1. INTERNAL FOOTPATH
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**PROJECT** KEMPS CREEK BALLARD - SYD05

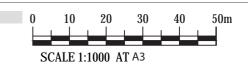
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REVISION DATE 06.09.2021

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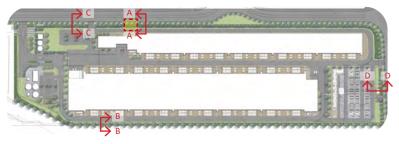




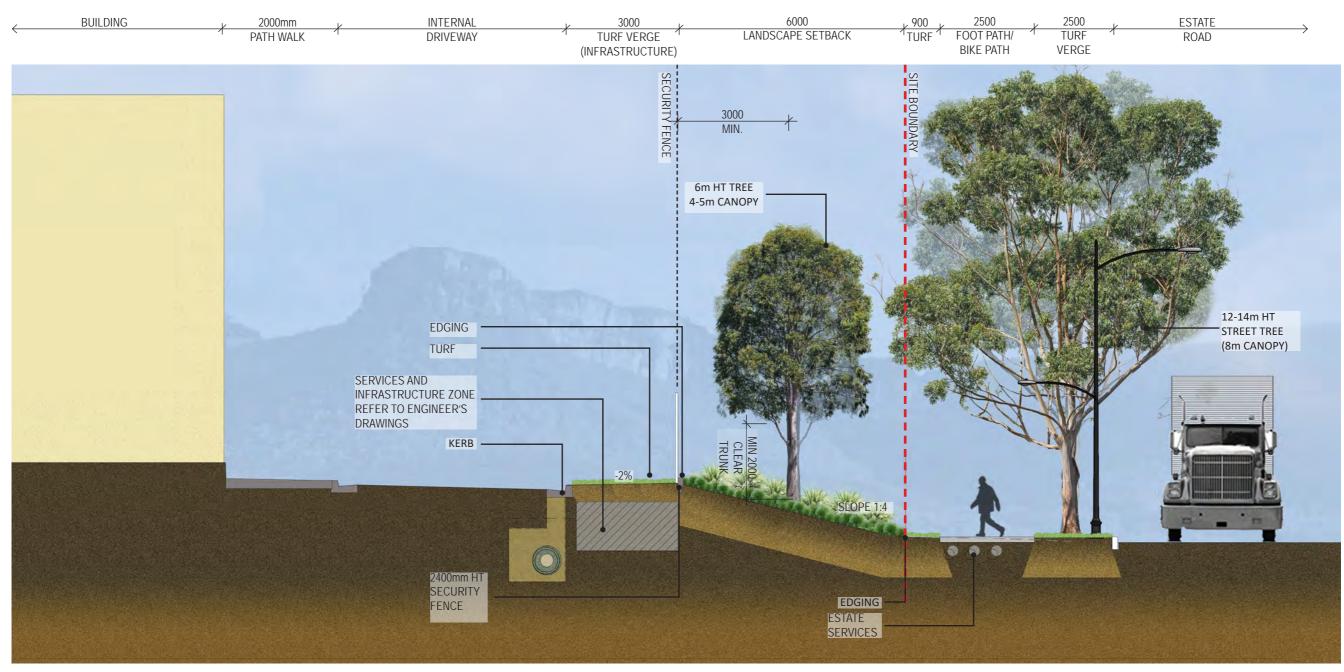


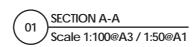
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# LANDSCAPE SECTION A-A



**KEYPLAN** 

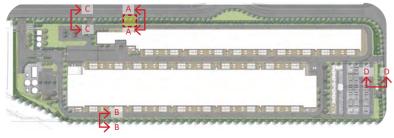




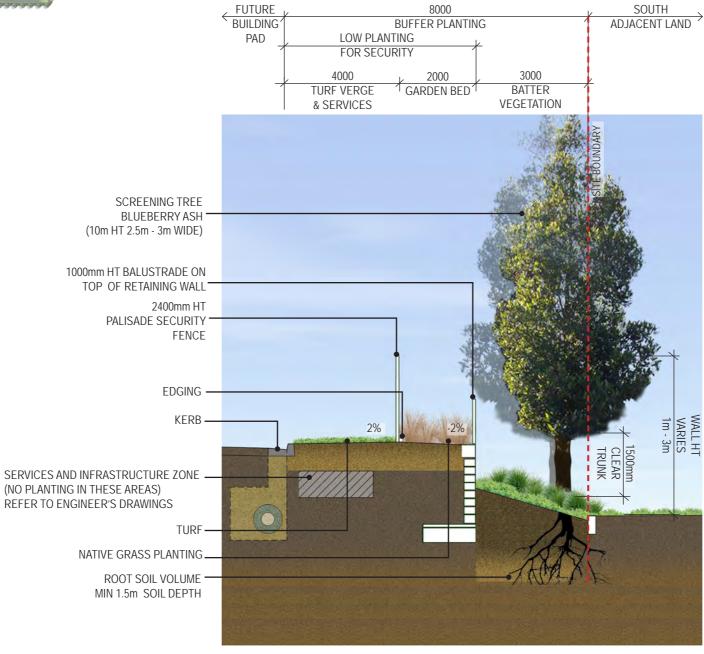


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## LANDSCAPE SECTION B-B



**KEYPLAN** 



### HEALTHY TREE GROWTH

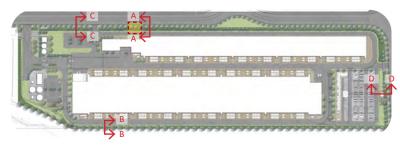
THE TREE ROOT VOLUME IS SUFFICIENT FOR OPTIMAL GROWTH AS THE VOLUME OF SOIL IS A LINEAR EXCAVATED CONTINUOUS TRENCH WITH 1500mm DEPTH OF IMPORTED SOIL THAT RUNS ALONG THE BOUNDARY.

TYPICAL LANDSCAPE SECTION - SETBACK B-B Scale 1:100@A3



HABIT8

# LANDSCAPE SECTION C-C



### **KEYPLAN**

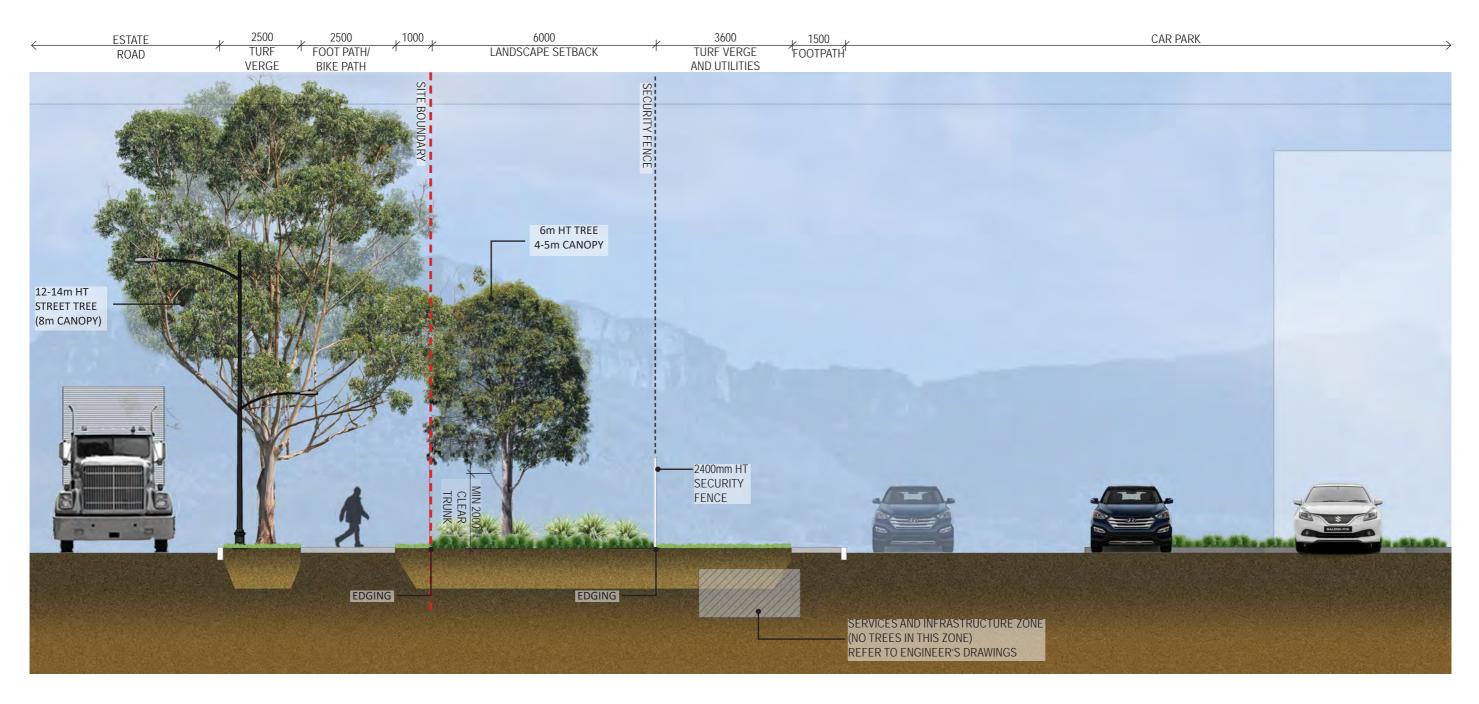
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KEMPS CREEK BALLARD - SYD05

LOT 2 MAMRE RD, KEMPS CREEK NSW

DRAWING TITLE

LANDSCAPE SECTION C-C

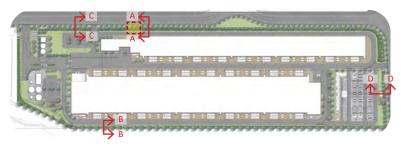




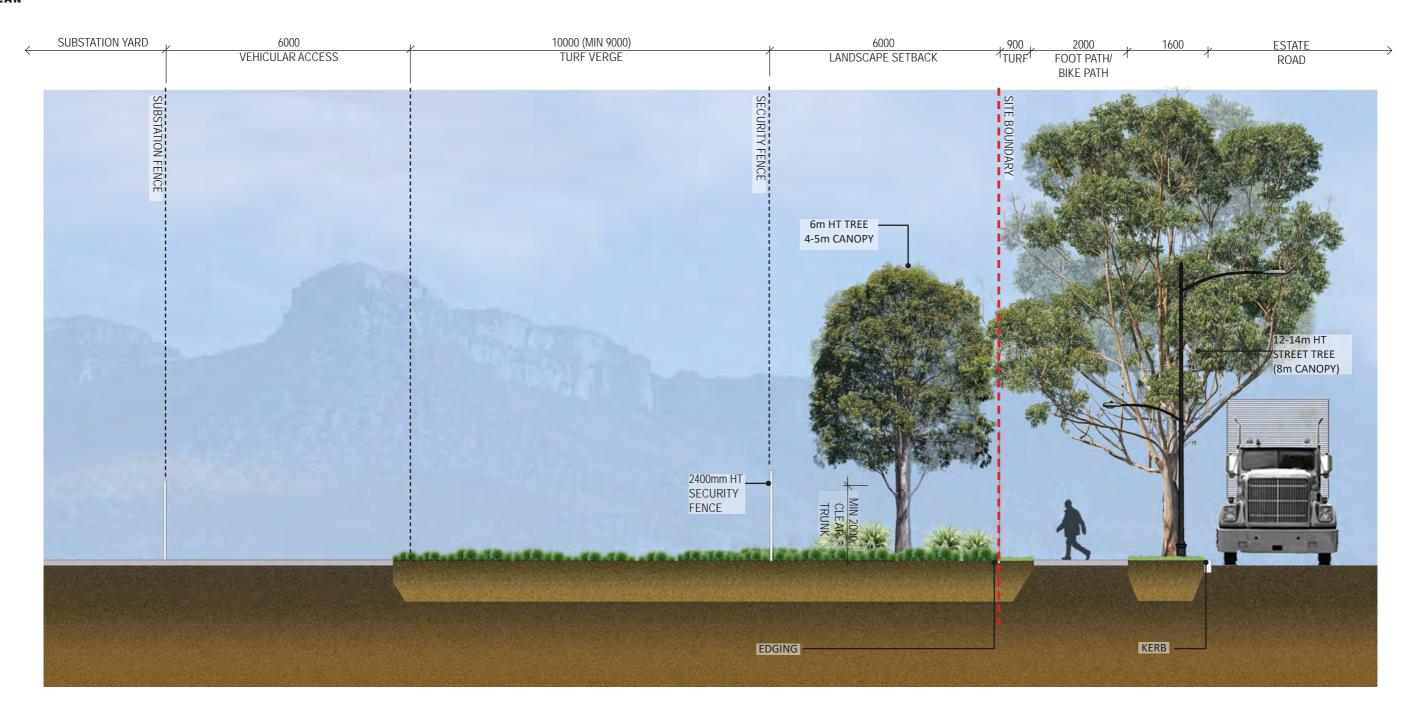




# LANDSCAPE SECTION D-D



### **KEYPLAN**

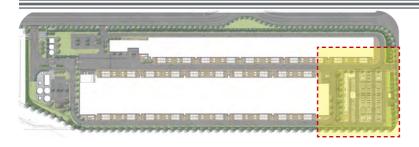






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## SWITCHYARD: EAST ELEVATION







KEYPLAN

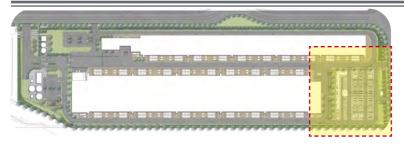
## **DESIGN NOTES**

- 1. CONTROL METERING BUILDING
- 2. 2400mm HT PALISADE SECURITY FENCE
- 3. SWITCHYARD EQUIPMENT
- 4. SETBACK TREES (6M HT.)
- 5. STREET TREES (PART OF SEPARATE APPLICATION)
- 6. SUBSTATION BUILDING
- 7. MAINTENANCE PARKING





## SWITCHYARD: SOUTH ELEVATION







### **DESIGN NOTES**

- 1. PLANT BUILDING
- 2. 2400mm HT PALISADE SECURITY FENCE
- 3. SWITCHYARD EQUIPMENT
- 4. SCREENING TREE BLUEBERRY ASH (10M HT)
- 5. BATTER VEGETATION (UNDER 1M)
- 6. SUBSTATION BUILDING
- 7. CONTROL METERING BUILDING





Microsoft

## INDICATIVE PLANT SCHEDULE

Plant list sourced from "Penrith City Council DCP

SMALL TREE SPEC	CIES
BOTANICAL NAME	COMMON NAME
Acer negundo 'Sensation'	Sensation Maple
Acmena smithii	Lilly Pilly
Angophora hispida	Dwarf Apple
Backhousia citriodora	Lemon Scented Myrtle
Banksia integrifolia	Coast Banksia
Brachychiton populneus	Kurrajong
Callistemon salignus	Willow Bottlebrush
Callistemon viminalis 'Kings Park Special'	Weeping Bottlebrush
Cupaniopsis anacaroides	Tuckeroo
Fraxinus griffithii	Evergreen Ash
Lagerstroemia hybrids 'Indian Summer Range'	Crepe Myrtle Lipan, Biloxi
Lophostemon confertus	Brush Box
Magnolia grandiflora 'Exmouth'	Bull Bay Magnolia
Melaleuca linariifolia	Snow in Summer
Pistachia chinensis	Chinese Pistachio
Pyrus calleryana 'Bradford'	Pear
Tristaniopsis laurina	Water Gum
Waterhousea floribunda and cultivars	Weeping Lilly Pilly
Syzygium leuhmannii	Riberry, Small leafed lilly pilly
Ulmus parvifolia (cult)	Chinese elm
Acacia longifolia	Sydney Golden wattle
Acacia parramattensis	Parramatta Wattle
Melaleuca decora	White Feather Honeymyrtle
Melaleuca linariifolia	Snow-in-Summer

LARGER TREE SPECIES			
BOTANICAL NAME	COMMON NAME		
Melaleuca quinquenervia	Broad-leaved Paperbark		
Washingtonia robusta	Fan palm		
Casuarina glauca	Swamp Oak		
Eucalyptus amplifolia	Cabbage Gum		
Eucalyptus crebra	Narrow Leaved Ironbark		
Eucalyptus fibrosa	Broad Leaved Ironbark		
Eucalyptus longifolia	Woolybutt		
Eucalyptus moluccana	Grey Box		
Eucalyptus punctata	Grey Gum		
Eucalyptus saligna	Sydney Blue Gum		
Eucalyptus tereticornis	Forest Red Gum		
Eucalyptus tereticornis	Forest Red Gum		

NATIVE PLANT SPECIES				
BOTANICAL NAME	COMMON NAME			
GROUNDCOVERS, FERNS, HEDGES, GRASSES & CLIMBERS				
Adiantum aethiopicum	Maidenhair Fern			
Alternanthera denticulata	Lesser Joyweed			
Baumea articulata	Bare Twig-rush			
Carex appressa	Tall sedge			
Cissus antarctica	Native Grape			
Clematis aristata	Old Man's Beard			
Convolvulus erubescens	Australian Bindweed			
Danthonia racemosa	Wallaby Grass			
Dianella longifolia	Flax Lily			
Dichondra repens	Kidney Weed			
Hardenbergia violacea	Purple Twining-pea			
Hydrocotyle geraniifolia	Pennywort			
Juncus usitatus	Common Rush			
Kennedia rubicunda	Dusky Coral Pea			
Lomandra longifolia	Spiny Mat Rush			
Microlaena stipoides	Weeping Grass			
Pandorea pandorana	Wonga Vine			
Paspalum distichum	Water Couch			
Poa labillardieri	Tussock Grass			

LARGER TREE SPECIES			
BOTANICAL NAME	COMMON NAME		
Araucaria columnaris & A. heterophylla	Cook Pine/ Norfolk Island Pine		
Angophora floribunda	Rough-barked Apple		
Corymbia maculata	Spotted Gum		
Ficus microphylla. F.microcarpa var. hillii	Fig		

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### **PLANT IMAGES**







MAGNOLIA "COOLWYN GLOSS" ELAEOCARPUS RETICULATUS





**CUPANIOPSIS ANACARDIOIDES** 



**EUCALYPTUS AMPLIFOLIA** 





WATERHOUSEA FLORIBUNDA GLOCHIDION FERDINANDI



MELALEUCA LINARIIFOLIA



SYNCARPIA GLOMULIFERA



MELALEUCA STYPHELIOIDES



TRISTANIOPSIS LAURINA



BANKSIA SERRATA



**CALLISTEMON SP** 

## **GREENER PLACES PRINCIPLES**



PRINCIPLE 1. Integration

infrastructure with urban development and grey infrastructure



PRINCIPLE 2. Connectivity



PRINCIPLE 3. Multifunctionality

create an interconnected deliver multiple ecosystem network of open space services simultaneously

## PLANTING STRATEGY



**INTEGRATION:** STREET TREE PLANTING, SETBACK PLANTING AND BUFFER PLANTING SHALL BE INTEGRATED WITH SOFT ENGINEERING SWALES AND SHALL LINK WITH THE RE-VEGETATED CREEK CORRIDOR

## CONNECTIVITY:



### THE STREETSCAPE USES PEDESTRIAN AND BIKE PATHS TO CONNECT ALL BUILDINGS WITHIN THE DEVELOPMENT WITH PUBLIC SPACE AND THE CREEK CORRIDOR WHILE LINKING IN WITH THE REGIONAL BIKE NETWORK.

### **MULTIFUNCTIONALITY:**

SCALE

THE PLANTING STRATEGY ALLOWS FOR THE VARIOUS MICRO-CLIMATE ECOSYSTEMS CREATED BY BUILT FORM AND ROADS. ALL PLANTING LINKS BACK TO THE LOCAL ENDEMIC PLANTING AND CREEK CORRIDOR ENVIRONMENT.

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## TYPICAL SPECIFICATION + MAINTENANCE NOTES

#### **SERVICES**

Before landscape work is commenced the Landscape Contractor is to establish the position of all service lines and ensure tree planting is carried out at least 3 metres away from these services. Service lids, vents and hydrants shall be left exposed and not covered by any landscape finishes (turfing, paving, garden beds etc.) Finish adjoining surfaces flush with pit lids.

PLANTING MIXTURE - (300mm DEPTH)

Imported Garden Mix.

Type: Premium

Available: Australian Native Landscapes (ANL)

TURF SOIL MIX (150mm DEPTH)

Type: Turf underlay

Available: Australian Native Landscapes (ANL)

#### **MULCH**

APPLICATION: Place mulch to the required depth, (refer to drawings) clear of plant stems, and rake to an even surface finishing 25mm below adjoining levels. Ensure mulch is watered in and tamped down during installation.

MULCH TYPE: (75mm DEPTH)

Type 1 (Base of Trees):

Pine bark: From mature trees, graded in size from 15mm to 30mm, free from wood slivers. Dark brown in colour and texture

Batters and Edges Re-vegetation Mulch

Shall be "GO Compost" as available from Soilco or approved equal.

#### PI ANT MATERIAL

All plants supplied are to conform with those species listed in the Plant Schedule on the drawings. Generally plants shall be vigorous, well established, hardened off, of good form consistent with species or variety, not soft or forced, free from disease or insect pests with large healthy root systems and no evidence of having been restricted or damaged. Trees shall have a leading shoot. Immediately reject dried out, damaged or unhealthy plant material before planting. All stock is to be container grown for a minimum of six (6) months prior to delivery to site.

#### **FERTILISER**

MASS PLANTING AREAS: Fertiliser shall be 'Nutricote' or approved equivalent in granule form intended for slow release of plant nutrients over a period of approximately nine months. Thoroughly mix fertiliser with planting mixture at the recommended rate, prior to installing plants.

TURF: Shall be Shirleys No. 17 or approved equal thoroughly mixed into the topsoil prior to placing

TREES IN GRASS AND SUPER ADVANCED TREES: Pellets shall be in the form intended to uniformly release plant food elements for a period of approximately nine months equal to Shirleys Kokei pellets, analysis 6.3:1.8:2.9. Kokei pellets shall be placed at the time of planting to the base of the plant, 50mm minimum from the root ball at a rate of two pellets per 300mm of top growth to a maximum of 8 pellets per tree.

#### STAKING AND TYING

Stakes shall be straight hardwood, free from knots and twists, pointed at one end and sized according to size

of plants to be staked.

a. 100-greater than 200litre 3x(1800x50x50mm)

Ties shall be 50mm wide hessian webbing or approved equivalent nailed or stapled to stake. Drive stakes a minimum one third of their length, avoiding damage to the root system, on the windward side of the plant.

**PROJECT** 

Obtain turf from a specialist grower of cultivated turf. turf shall be of even thickness, free from weeds and other foreign matter; lay in stretcher pattern with joints staggered and close butted, perpendicular to gradient of FSL. Water immediately after laying.

TURF TYPE: Couch (Confirm with council prior to construction)

#### LANDSCAPE MAINTENANCE PROGRAM

Maintenance shall mean the care and maintenance of the landscape works by accepted horticultural practice as rectifying any defects that become apparent in the landscape works under normal use. This shall include, but shall not be limited to, watering, mowing, fertilising, re-seeding, returfing, weeding, pest and disease control, staking and tying, replanting, cultivation, pruning, aerating, renovating, top dressing, maintaining the site in a neat and tidy condition as follows:-

#### GENERAL

The landscape contractor shall maintain the landscape works for the term of the maintenance (or Plant establishment) period to the satisfaction of the council. The landscape contractor shall attend to the site on a weekly basis. Landlord to maintain all landscape areas in perpetuity (life of the development).

#### WATERING

Grass, trees and garden areas shall be watered regularly so as to ensure continuous healthy growth.

#### RUBBISH REMOVAL

During the term of the maintenance period the landscape contractor shall remove rubbish that may occur and reoccur throughout the maintenance period. This work shall be carried out regularly so that at weekly intervals the area may be observed in a completely clean and tidy condition.

#### **REPLACEMENTS**

The landscape contractor shall replace all plants that are missing, unhealthy or dead at the Landscape Contractor's cost. Replacements shall be of the same size, quality and species as the plant that has failed unless otherwise directed by the Landscape Architect. Replacements shall be made on a continuing basis after the plant has died or is seen to be missing.

#### STAKES AND TIES

The landscape contractor shall replace or adjust plant stakes, and tree guards as necessary or as directed by the Landscape Architect. Remove stakes and ties at the end of the maintenance period if so directed.

General: Prune to reflect the natural growth flowering and regrowth habit of the individual species. Shrubs: Prune after flowering - Spring and Summer and on a spot basis as required. Hedge trimming: Schedule trimming at times which will maintain the character and design of hedges Allow up to three times per season.

Tip pruning: To encourage development of new shoots during the active growing season. Do not remove buds before the flowering season in those plants that have terminal flowers. Radical pruning: To maintain a hedge or formal shape or when a particular problem, growth habit. damage, or disease requires branch removal.

Trees: Prune 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, or maintain visibility for personal security. Tree branch removal to AS 4373. Give notice and engage a suitably qualified 'arborist'.

#### MULCHED SURFACES

All mulched surfaces shall be maintained in a clean and tidy condition and be reinstated if necessary to ensure that a depth of 75mm is maintained. Ensure mulch is kept clear of plant stems at all times. Remove all mulching materials off lawn or paved areas and maintain a clean and tidy appearance when viewed on a weekly basis.

#### PEST AND DISEASE CONTROL

The landscape contractor shall spray against insect and fungus infestation with all spraying to be carried out in accordance with the manufacturer's directions. Report all instances of pests and diseases (immediately that they are detected) to the Landscape Architect.

### GRASS AND TURF AREAS

The landscape contractor shall maintain all grass and turf areas by watering, weeding, re-seeding, rolling, mowing, trimming or other operations as necessary. Seed and turf species shall be the same as the original specified mixture. Grass and turf areas shall be sprayed with approved selective herbicide against broad leafed weeds as required by the Landscape Architect and in accordance with the manufacturer's directions. Grass and turf areas shall be fertilised once a year in autumn with "Dynamic Lifter" for lawns at a rate of 20kg per 100m2. Fertiliser shall be watered in immediately after application. Irregularities in the grass and turf shall be watered in immediately after application. Grass and turf areas shall be kept mown to maintain a healthy and vigorous sward. Mowing height: 30-50mm.

### TREE PRUNING

Trees to be underpruned to a clear height of 2500mm.

SCALE

NTS

The tree canopies are to be pruned so that no branches are within 3000mm of a building or fence

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#### WEED ERADICATION

Eradicate weeds by environmentally acceptable methods using a non-residual glyphosate herbicide (eg. 'Roundup') in any of its registered formulae, at the recommended maximum rate. Regularly remove by hand, weed growth that may occur or recur throughout grassed, planted and mulched areas. Remove weed growth from an area 750mm diameter around the base of trees in grassed areas. Continue eradication throughout the course of the works and during the maintenance period.

#### SOIL SUBSIDENCE

Any soil subsidence or erosion which may occur after the soil filling and preparation operations shall be made good by the landscape contractor at no cost to the client.

MAITENANCE PERIOD: (26 Weeks) - Confirm with Project Manager

#### **IRRIGATION PERFORMANCE SPECIFICATION NOTES**

IRRIGATION OVERVIEW - Confirm with Project Manager at tender stage

#### EXTENT (Setback and Carpark Landscape Areas)

All mass planting landscape areas and trees are to have full coverage by a fully automatic irrigation system. The design, materials and installation

are to be in accordance with Sydney Water Codes and all relevant Australian Standards.

- 1. An automatic irrigation system is to be installed to all turf and garden bed areas.
- 2. The irrigation system shall be designed and installed by a licensed contractor to relevant Australian standards and Sydney water guidelines.
- 3. The irrigation system shall be connected into the rainwater tank system and pump

Provide 13mm dripline to all garden bed areas with appropriate 13mm joiners. Dripline to be Toro drip or similar with 400mm centre drippers.

Install line at 500mm spacings with the first line to be 150mm in from edge. Install dripline after planting and prior to mulching to allow for an adequate mulch cover. Anchor at 1.5m maximum intervals with u-shaped stakes. Dripline pattern to suit planting.

#### CONTROL VALVES

24v solenoid actuated hydraulic valve with flow control. Control valves to be Toro ezflow series solenoids 25mm or approved equal. Provide a gate valve of the same size immediately upstream of each valve. House both valves in a high impact plastic valve box with a high impact plastic cover at finished ground level. Support the box with bricks on each side. Controller to be Toro greenkeeper or approved equal with a rain switch.

Install a master valve/pressure regulating valve equal to Toro p220 with exreg pressure regulation valve. Filter to be installed equal to Toro y filter 75mm screen filter.

#### CONTROL WIRES

Connect the control valves and soil moisture sensor to the controller with double insulated underground cables laid alongside piping where possible. Lay intertwined for their full length without joints except at the valves and branches off common wires. Provide waterproof connectors.

Provide a backflow prevention device to Sydney water standards AS 3500.

### **RELEVANT AUSTRALIAN STANDARDS**

Soil: AS4419, AS3743, AS4454. Mulch: AS4454. Tree Stock: AS2303. Pruning: AS4373. Tree Protection: AS4970.

Contractors to comply with the above Australian Standards.



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