Planting

I.01

New Tree - Mall / Plaza

Function

- Tree grates are required for new trees in high quality special places like Urban Plazas.
- Install where there is a high level of pedestrian activity.
- The use of continuous planting trenches, structural soil, structural cells, WSUD components, suspended pavements and other tree planting technology will be considered based on specific site conditions. Actual designs shall be developed and submitted to Council based on these technical details for consideration prior to installation.

Supplier

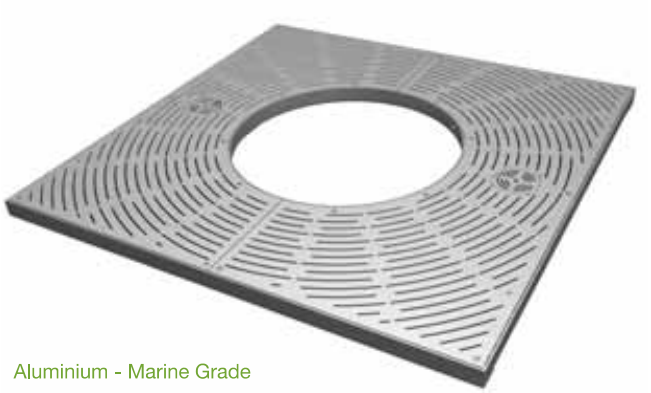
- Contractor to organise

Materials and Dimensions

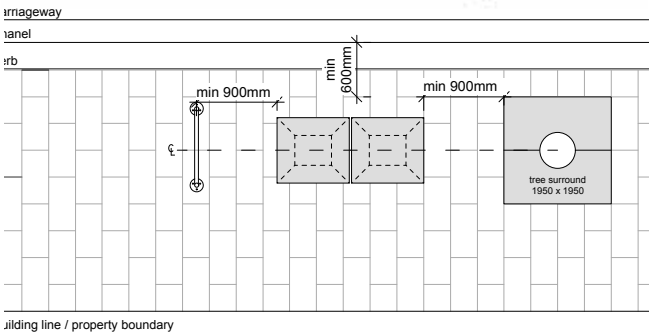
- Typical tree grate 1200 x 1200mm or sized to suit the size of paving units in the dominate surrounding paving to avoid cuts
- Tree species and container size as specified
- All planting and soils shall be in accordance with AS 2303:2015 - Tree Stock for Landscape Use, AS 4419—2003 - Soils for Landscaping and Garden Use, AS 4454-2003 Compost Soil Conditioners and Mulches, and AS 4373-2007 Pruning of Amenity Trees;
- Tree saplings shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound;
- Plants shall be free of weeds, insect pests, disease or physical injury;
- Plants delivered to site should be maintained until planted and clearly labelled.

Installation

- Tree Grate to be installed to manufacturer's specifications.
- Because of the presence of awnings or for streets with constrained width (less than 2.5 3metres) butt tree grates to back of kerb.
- For streets that are wider than 2.5-3m allow 300mm header.
- Align street furniture such as bins and bike racks to the centre of the tree pit where applicable.



Aluminium - Marine Grade

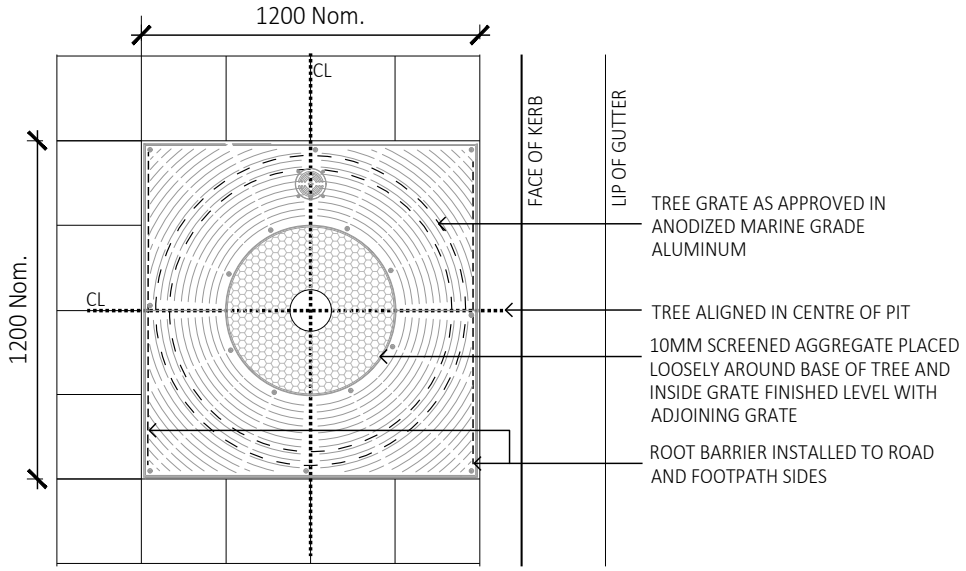


Typical layout - New Tree with tree grates

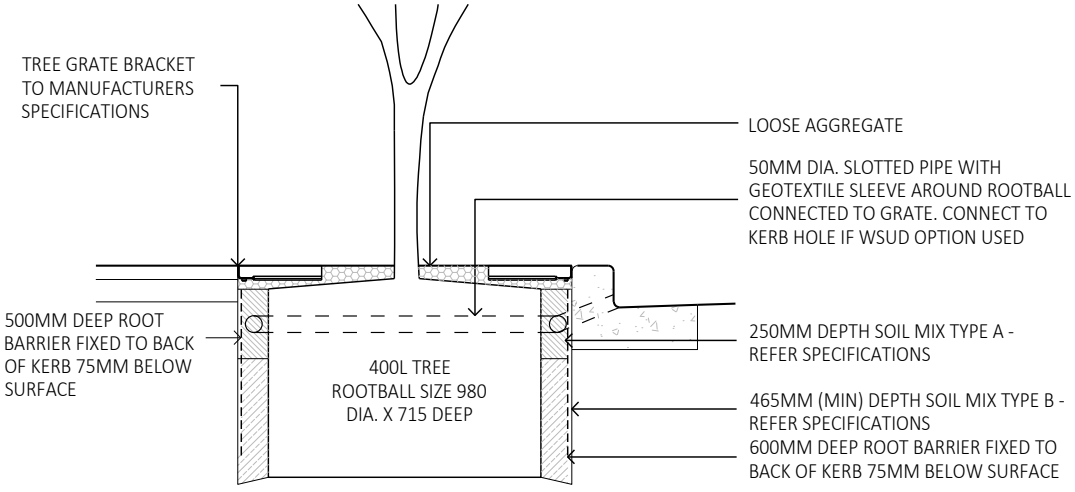
Maintenance

- Throughout the planting establishment period, carry out maintenance work including watering, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, and keeping the site neat and tidy.
- On-going maintenance may include: Replacement of any damaged or inferior plants, watering, pruning, replenishment and restoration of mulch.
- The tree grate to be maintained to manufacturer's specifications

Refer towards the end of this section for stormwater quality improvement principles and bioretention tree pit detail applications.



D01 NEW STREET TREE (400L) WITH TREE GRATE - PLAN
Scale 1:25



D02 NEW STREET TREE (400L) WITH TREE GRATE - DETAIL
Scale 1:25

NOTE:

1. TREE PIT SURROUND TO BE SIZED TO ALLOW 300MM X 300MM UNIT PAVING TRIM WITHOUT CUTTING PAVERS
2. STRUCTURAL ROOT CELLS TO BE USED IN CONJUNCTION WITH THESE TREE PITS WHEREVER POSSIBLE
3. WSUD OPTION: SHALL BE INSTALLED IN SANDY SOIL, ONLY AS DIRECTED BY THE COUNCIL

I.02

New Street Tree - Urban

Function

- Porous resin aggregate to be used throughout Bondi Junction, all Local and Strategic Centres, parks and open spaces (when applicable) around new trees to contribute to the quality and character of the streetscape.
- 400 L trees to be used for Bondi Junction
- 200 L trees to be used for local centres
- The use of continuous planting trenches, structural soil, structural cells, WSUD components, suspended pavements and other tree planting technology will be considered based on specific site conditions. Actual designs shall be developed and submitted to Council based on these technical details for consideration prior to any installation.

Supplier

- Contractor to nominate based on below specifications.

Materials and Dimensions

- 400 L Trees as specified for Bondi Junction
- 200 L Trees as specified for all other local centres
- All planting and soils shall be in accordance with AS 2303:2015 - Tree Stock for Landscape Use, AS 4419—2003 - Soils for Landscaping and Garden Use, AS 4454-2003 Compost Soil Conditioners and Mulches, and AS 4373-2007 Pruning of Amenity Trees;
- Tree saplings shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound;
- Plants shall be free of weeds, insect pests, disease or physical injury;
- Plants delivered to site must be delivered or transported in a covered (pantech) vehicle, prior to installation, to avoid wind burn.
- Delivered plants should be maintained until planted and clearly labelled.
- Porous Resin Aggregate as specified and approved

Installation

- Approved porous resin aggregate to replace existing stone set pits.
- Porous resin aggregate surrounds to be premixed, finished smooth, and level to adjacent surfaces and to a nominated depth and distance away the trunk of the tree.
- Aggregate shall be pea gravel mulch sieved to 7mm and an inert binder.
- Typical new tree porous resin aggregate tree surround 1200 x 1200 mm or sized to suit the size of paving units in the dominant surrounding paving to avoid cuts in case of a varied pit size.
- For light washed concrete and other concrete paths

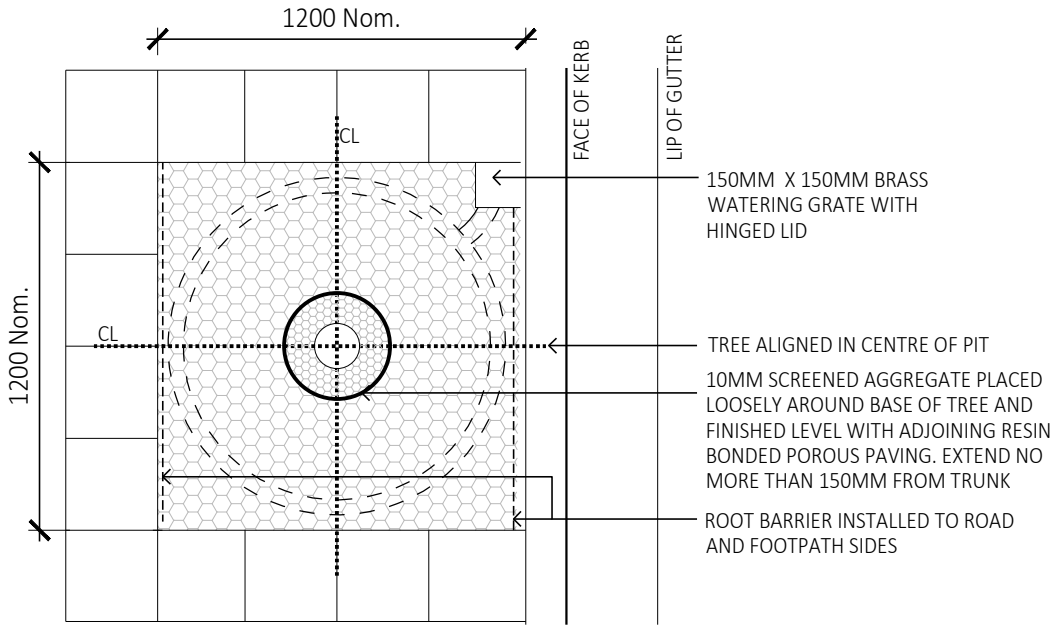
Typical Layout - Tree Surround

colour type 1 (pyramid hill grey) to be used. Refer detailed specifications for colours.

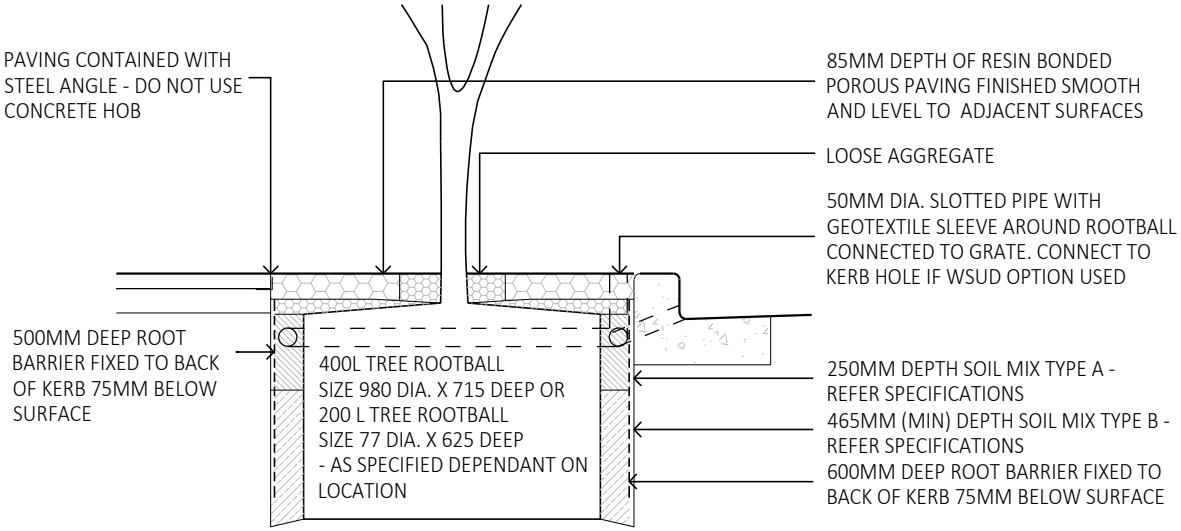
- For paved areas with paving types, 1, 2 and 3, resin aggregate colour type 2 (dark Grey) to be used.
- The porous resin aggregare should not be used as a continuous footpath treatment.
- Resin aggregate to be positioned accordingly if the tree pit size is different based on instructions.
- Ensure settlement of tree prior to installation of the resin aggregate.
- Because of the presence of awnings or for streets with minimum width (less than 2.5 3metres) butt the resin aggregate to back of kerb.
- For streets that are wider than 2.5-3m allow 300mm header.
- Align street furniture such as bins and bike racks to the centre of the tree pit where applicable.

Maintenance

- Throughout the planting establishment period, carry out maintenance work including watering, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, and keeping the site neat and tidy.
- On-going maintenance may include: Replacement of any damaged or inferior plants, watering, pruning, replenishment and restoration of mulch.
- The porous resin aggregate to be maintained to manufacturer's specifications



D01 NEW STREET TREE WITH POROUS RESIN AGGREGATE - PLAN
Scale 1:25



D02 NEW STREET TREE WITH POROUS RESIN AGGREGATE - DETAIL
Scale 1:25

NOTE:

1. TREE PIT SURROUND TO BE SIZED TO ALLOW 300MM X 300MM UNIT PAVING TRIM WITHOUT CUTTING PAVERS
2. STRUCTURAL ROOT CELLS TO BE USED IN CONJUNCTION WITH THESE TREE PITS WHEREVER POSSIBLE
3. WSUD OPTION: SHALL BE INSTALLED IN SANDY SOIL, ONLY AS DIRECTED BY THE COUNCIL

I.03

Existing Tree - Urban

Function

- Porous resin aggregate to be used throughout Bondi Junction, all Local and Strategic Centres, parks and open spaces (when applicable) around existing trees to contribute to the quality and character of the streetscape.

Supplier

- Contractor to nominate based on below specifications.

Materials and Dimensions

- Porous Resin Aggregate as specified & approved
- Approved porous resin aggregate to replace existing stone set pits.
- Aggregate shall be pea gravel mulch sieved to 7mm and an inert binder.
- Typical porous resin aggregate tree surround sized to suit the size of paving units in the dominant surrounding paving to avoid cuts.
- For light washed concrete and other concrete paths colour type 1 (pyramid hill grey) to be used. Refer detailed specifications for colours.
- For paved areas with paving types, 1, 2 and 3, resin aggregate colour type 2 (dark Grey) to be used.
- The porous resin aggregare should not be used as a continuous footpath treatment.
- Tree pit sizes may vary and resin aggregate to be positioned accordingly.
- Because of the presence of awnings or for streets with minimum width (less than 2.5 3metres) butt the resin aggregate to back of kerb.
- For streets that are wider than 2.5-3m allow 300mm header.

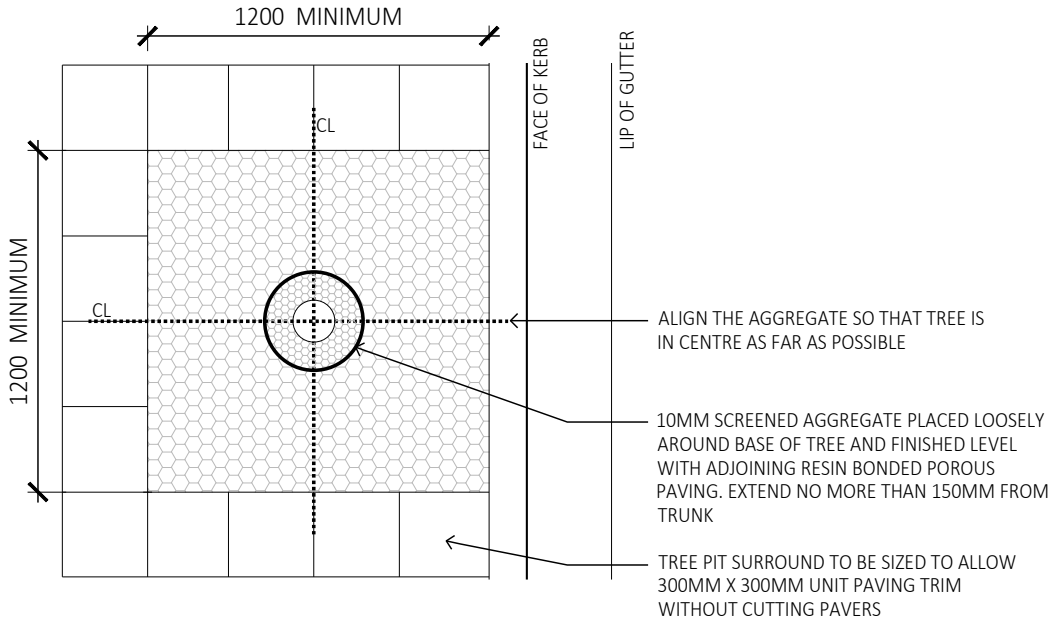
Installation

- Porous resin aggregate surrounds to be premixed, finished smooth, and level to adjacent surfaces and to a nominated depth and distance away the trunk of the tree.
- Where required & indicated, the existing pavement shall be cut by a road-saw to dimensions given. Cutting shall be only at right angles and parallel to the kerb. Cut shall have a striaght edge and smooth face.

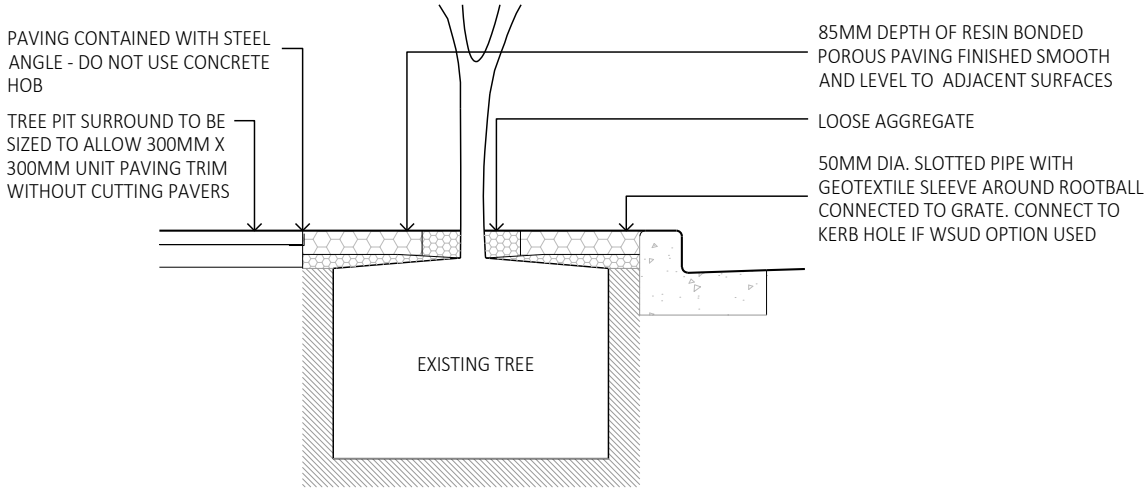
Maintenance

- Reinstate and make good to match exactly the surrounding pavement, to the satisfaction and approval of Council, all pavement, paving, concrete, brick or other surface damaged or affected by the tree base installation works.
- The porous resin aggregate to be maintained to manufacturer's specifications

Typical Layout - Tree Surround



D01 EXISTING STREET TREE WITH NEW POROUS RESIN AGGREGATE - PLAN
Scale 1:25



D02 EXISTING STREET TREE WITH NEW POROUS RESIN AGGREGATE - DETAIL
Scale 1:25

I.04

New Tree - Parks

Function

- The new tree planting details are to be used for planting in parks and reserves.

Supplier

- Contractor or Council to organise.

Materials and Dimensions

- Tree species and container size as specified;
- All planting and soils shall be in accordance with AS 2303:2015 - Tree Stock for Landscape Use, AS 4419—2003 - Soils for Landscaping and Garden Use, AS 4454-2003 Compost Soil Conditioners and Mulches, and AS 4373-2007 Pruning of Amenity Trees;
- Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound;
- Plants shall be free of weeds, insect pests, disease or physical injury.
- Plants delivered to site must be delivered or transported in a covered (pantech) vehicle, prior to installation, to avoid wind burn.
- Delivered plants should be maintained until planted and clearly labelled.

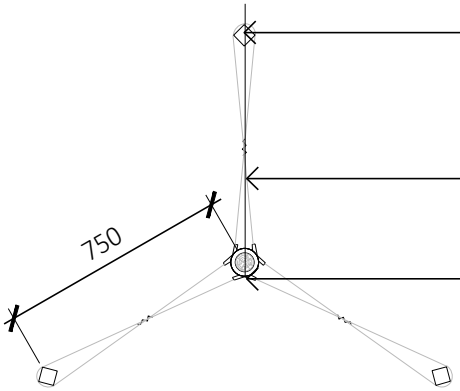
Installation

- Excavate a hole twice the diameter of the root ball. Break up the base of the hole to a depth of 100 mm, and loosen compacted sides of the hole to prevent confinement of root growth. Root ball should be placed on level and compacted subgrade.
- Supply and install 3 or 4 wooden stakes for all trees planted up to 75 litres in size and attach black mesh where detailed.
- Thoroughly water plants before and after planting, and as required to maintain growth rates.
- Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.
- Mulch shall be spread evenly to a depth of 75mm.
- Mulch shall be kept 50mm from stems to avoid collar rot.
- Watering shall be carried out on a regular basis twice weekly for the first 2 weeks and then as required according to weather conditions, rainfall and soil type.

Typical Layout - Tree Surround
- image is representational only

Maintenance

- Recurrent works – Throughout the planting establishment period, carry out maintenance work including watering, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating, reinstatement of mulch, top dressing and keeping the site neat and tidy.
- On-going maintenance may include: Replacement of any damaged or inferior plants, weeding, watering, pruning, replenishment and restoration of mulch.

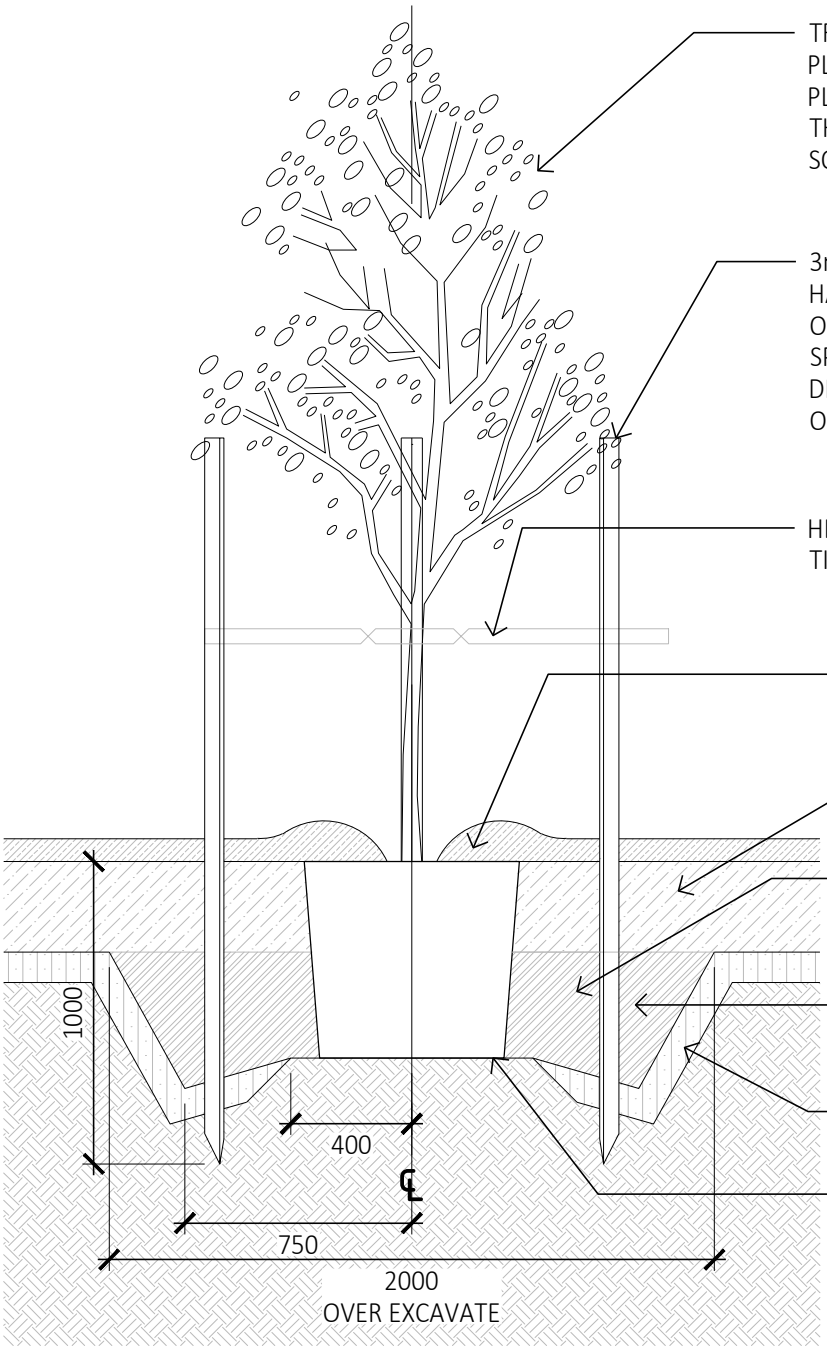


3no. 50 x 50 X 2400mm AUSTRALIAN HARDWOOD TIMBER STAKES

HESSIAN TIE IN FIGURE EIGHT NAILED TO TIMBER STAKES

HESSIAN TIE IN FIGURE EIGHT NAILED TO TIMBER STAKES

D01 NEW TREE IN PARKS - PLAN
Scale 1:25



TREE PLANTING AS SPECIFIED
PLACE IN PLANTING HOLE CENTRED AND PLUMB, WITH THE ROOT BALL LEVEL WITH THE FINISHED SURFACE OF SURROUNDING SOIL.

3no. 50 x 50 X 2400mm AUSTRALIAN HARDWOOD TIMBER STAKES POINTED AT ONE END. ENSURE FREE OF KNOTS, SPLINTERS, AND CRACKS. STAKES ARE TO BE DRIVEN MIN. 1000mm INTO GROUND FREE OF ROOTBALL.

HESSIAN TIE IN FIGURE EIGHT NAILED TO TIMBER STAKES

75MM DEPTH MULCH AS SPECIFIED. DISHED TO BASE OF TREE TO FORM WATERING RING

MINIMUM 300MM DEPTH 'A' TOPSOIL AS SPECIFIED

EXCAVATE TREE PIT HOLE TO BE MINIMUM 600MM WIDER THAN CONTAINER

MINIMUM 300MM DEPTH 'B' HORIZON IMPORTED TOPSOIL MIX AS SPECIFIED

100MM DEPTH CULTIVATED SUB GRADE

PLACE TREE ROOTBALL ON LEVEL AND COMPACTED SUBGRADE

D02 NEW TREE IN PARKS - DETAIL
Scale 1:25

I.05

New Street Tree - Nature Strip

Function

- The new street tree in mulch details are to be used for planting in all Local and Strategic Centres, parks and open spaces (when applicable) where specified, to contribute to the quality and character of the streetscape.
- The use of continuous planting trenches, structural soil, structural cells, suspended pavements and other tree planting technology will be considered based on specific site conditions. Actual designs shall be developed and submitted to Council based on these technical details for consideration prior to any installation.

Supplier

Contractor or Council to organise.

Materials and Dimensions

- Tree species and container size as specified;
- All planting and soils shall be in accordance with AS 2303:2015 - Tree Stock for Landscape Use, AS 4419—2003 - Soils for Landscaping and Garden Use, AS 4454-2003 Compost Soil Conditioners and Mulches, and AS 4373-2007 Pruning of Amenity Trees;
- Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound;
- Plants shall be free of weeds, insect pests, disease or physical injury;
- Plants delivered to site must be delivered or transported in a covered (pantech) vehicle, prior to installation, to avoid wind burn.
- Delivered plants should be maintained until planted and clearly labelled.
- Mulch as specified to a maximum depth of 75 mm. Mulch shall be free of deleterious and extraneous matter, including soil, weeds, rocks, twigs and the like.

Installation

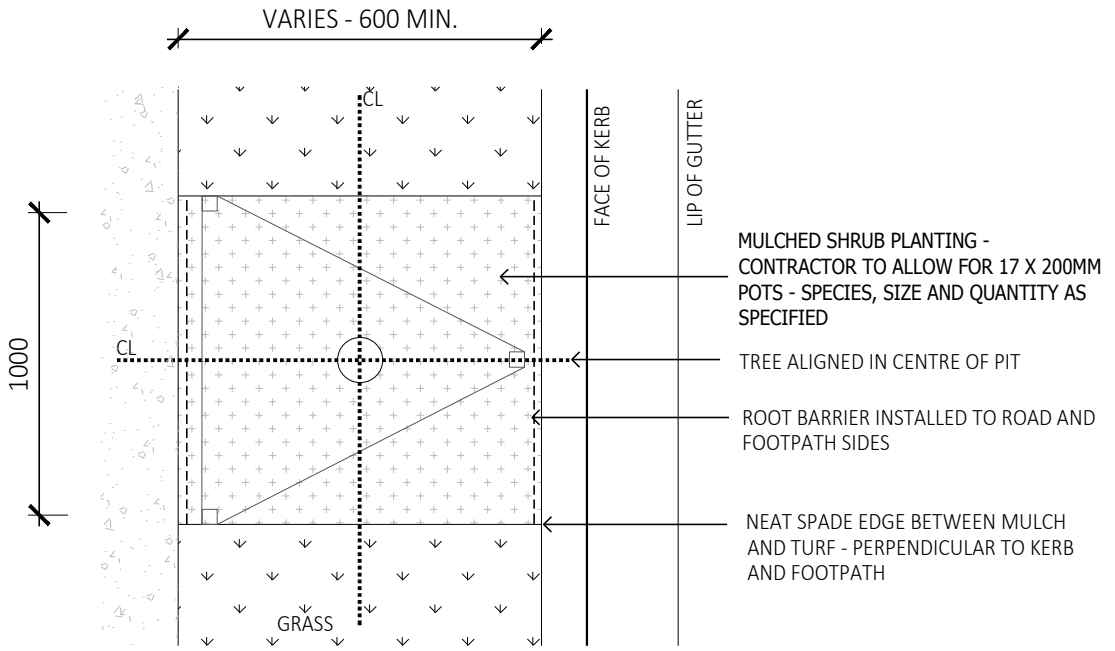
- Excavate a hole twice the diameter of the root ball. Break up the base of the hole to a depth of 100 mm, and loosen compacted sides of the hole to prevent confinement of root growth. Root ball should be placed on level and compacted subgrade.
- Thoroughly water plants before and after planting, and as required to maintain growth rates.
- Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.
- Mulch shall be spread evenly to a depth of 75mm.
- Mulch shall be kept 50mm from stems to avoid collar rot.

Typical Layout - Tree Surround
(Image is representational only)

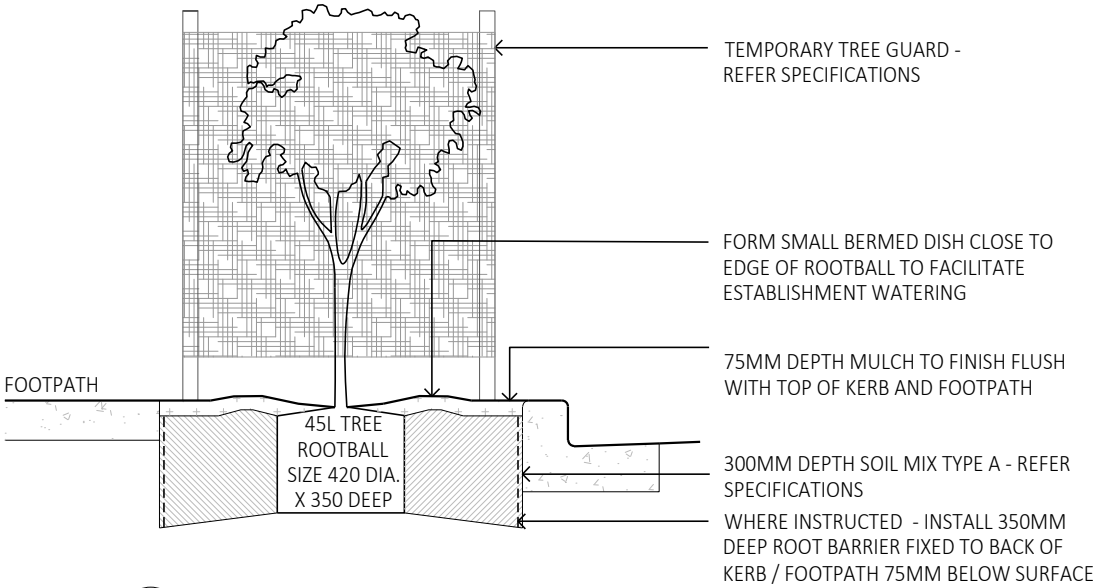
- Watering shall be carried out on a regular basis twice weekly for the first 2 weeks and then as required according to weather conditions, rainfall and soil type.

Maintenance

- Recurrent works – Throughout the planting establishment period, carry out maintenance work including watering, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating, reinstatement of mulch, top dressing and keeping the site neat and tidy.
- On-going maintenance may include: Replacement of any damaged or inferior plants, weeding, watering, pruning, replenishment and restoration of mulch.



D01 NEW STREET TREE IN MULCH - PLAN
Scale 1:25



D02 NEW STREET TREE IN MULCH - DETAIL
Scale 1:25

NOTE:

1. TREE PIT SURROUND TO BE SIZED TO ALLOW 300MM X 300MM UNIT PAVING TRIM WITHOUT CUTTING PAVERS
2. STRUCTURAL ROOT CELLS TO BE USED IN CONJUNCTION WITH THESE TREE PITS WHEREVER POSSIBLE

I.06

New Street Tree - Garden Bed

Function

- The new street tree in planting details are to be used for planting in all Local and Strategic Centres, parks and open spaces (when applicable) where specified, to contribute to the quality and character of the streetscape.
- The use of continuous planting trenches, structural soil, structural cells, suspended pavements and other tree planting technology will be considered based on specific site conditions. Actual designs shall be developed and submitted to Council based on these technical details for consideration prior to any installation.
- For WSUD option refer to bioretention raingarden or open bioretention tree pit.

Supplier

- Contractor or Council to nominate based on below specifications.

Materials and Dimensions

- Tree species and container size as specified;
- Shrub planting around tree as specified:
- All planting and soils shall be in accordance with AS 2303:2015 - Tree Stock for Landscape Use, AS 4419—2003 - Soils for Landscaping and Garden Use, AS 4454-2003 Compost Soil Conditioners and Mulches, and AS 4373-2007 Pruning of Amenity Trees;
- Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound;
- Plants shall be free of weeds, insect pests, disease or physical injury;
- Plants delivered to site must be delivered or transported in a covered (pantech) vehicle, prior to installation, to avoid wind burn.
- Delivered plants should be maintained until planted and clearly labelled.

Installation

- Excavate a hole twice the diameter of the root ball. Break up the base of the hole to a depth of 100 mm, and loosen compacted sides of the hole to prevent confinement of root growth. Root ball should be placed on level and compacted subgrade.
- Thoroughly water plants before and after planting, and as required to maintain growth rates.
- Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.
- Mulch shall be spread evenly to a depth of 75mm.
- Mulch shall be kept 50mm from stems to avoid collar rot.

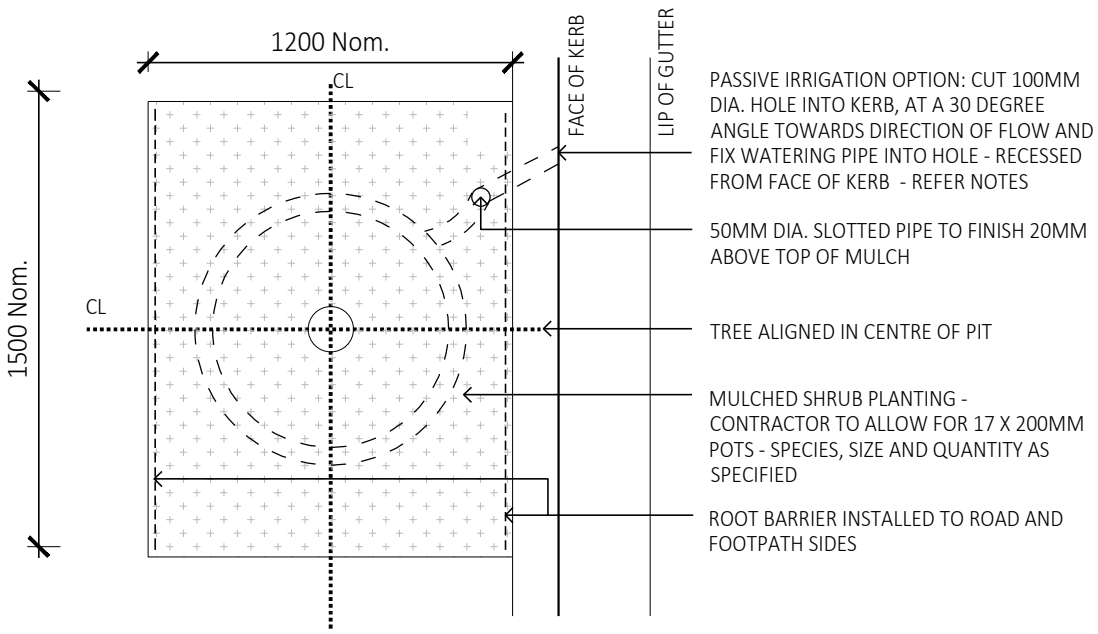
Typical Layout - Tree Surround

- Watering shall be carried out on a regular basis twice weekly for the first 2 weeks and then as required according to weather conditions, rainfall and soil type.

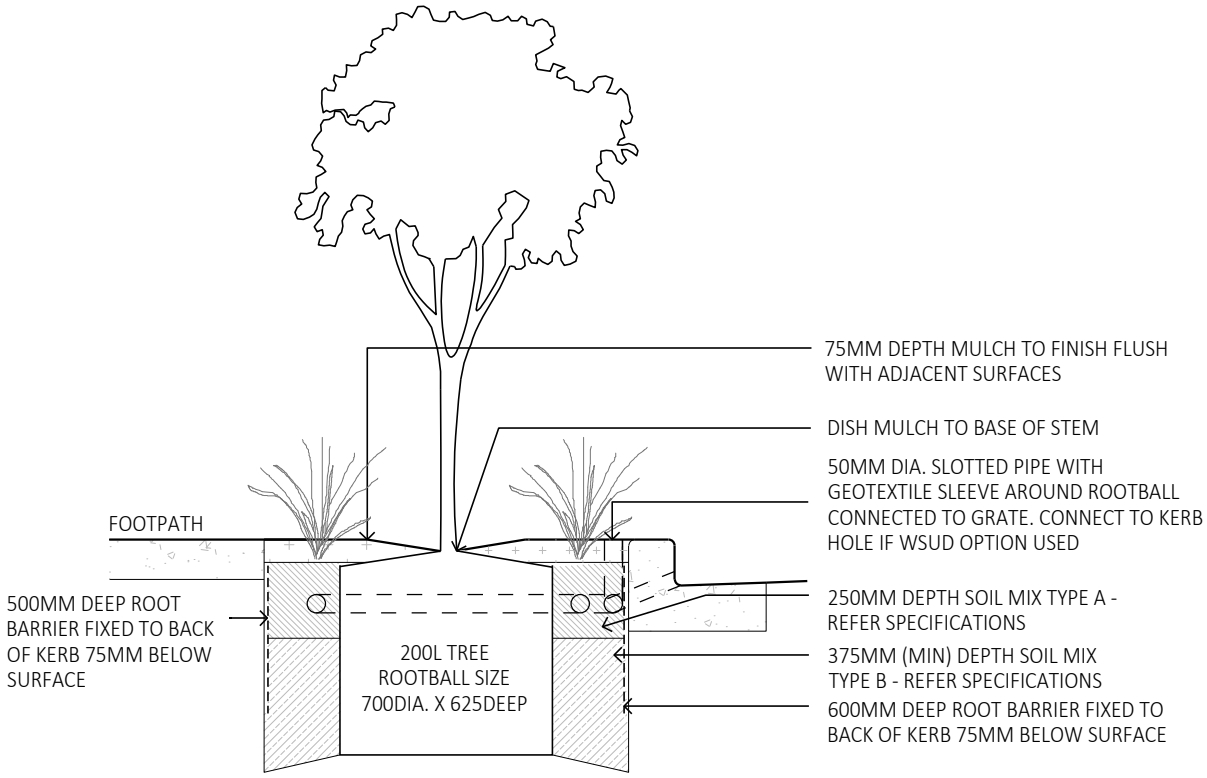
Maintenance

- Recurrent works – Throughout the planting establishment period, carry out maintenance work including watering, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating, reinstatement of mulch, top dressing and keeping the site neat and tidy.
- On-going maintenance may include: Replacement of any damaged or inferior plants, weeding, watering, pruning, replenishment and restoration of mulch.

Refer towards the end of this section for stormwater quality improvement principles and bioretention tree pit or raingarden detail applications.



D01 NEW STREET TREE IN PLANTING - PLAN
Scale 1:25



D02 NEW STREET TREE IN PLANTING - DETAIL
Scale 1:25

NOTE:

1. TREE PIT SURROUND TO BE SIZED TO ALLOW 300MM X 300MM UNIT PAVING TRIM WITHOUT CUTTING PAVERS
2. STRUCTURAL ROOT CELLS TO BE USED IN CONJUNCTION WITH THESE TREE PITS WHEREVER POSSIBLE

I.07

New Street Tree - Parking Lane

Function

- The passive irrigation detail for the new tree in parking forms part of the water sensitive urban design (WSUD) infrastructure of the Council.
- The detail is applicable for Bondi Junction; other commercial areas and streets with roadside planting or potential for median strip planting
- The use of continuous planting trenches, structural soil, structural cells, suspended pavements and other tree planting technology will be considered based on specific site conditions. Actual designs shall be developed and submitted to Council based on these technical details for consideration prior to any installation.
- For stormwater quality improvement option refer to open bioretention tree pit.

Supplier

- Contractor or Council to nominate based on below specifications.

Materials and Dimensions

- Tree and shrub species and container sizes as specified;
- All planting and soils shall be in accordance with AS 2303:2015 - Tree Stock for Landscape Use, AS 4419—2003 - Soils for Landscaping and Garden Use, AS 4454-2003 Compost Soil Conditioners and Mulches, and AS 4373-2007 Pruning of Amenity Trees;
- Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound;
- Plants shall be free of weeds, insect pests, disease or physical injury;
- Plants delivered to site must be delivered or transported in a covered (pantech) vehicle, prior to installation, to avoid wind burn.
- Delivered plants should be maintained until planted and clearly labelled.

Installation

- Excavate a hole twice the diameter of the root ball. Break up the base of the hole to a depth of 100 mm, and loosen compacted sides of the hole to prevent confinement of root growth. Root ball should be placed on level and compacted subgrade.
- Thoroughly water plants before and after planting, and as required to maintain growth rates.
- Tree in parking lane to be installed adjacent to existing gully pit or in locations where a new gully pit can be easily constructed over existing Council stormwater lines.
- WSUD option to be investigated on a case by case basis and should not be installed without direct approval from Council. Watering pipe not required in WSUD option.
- Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.
- Mulch shall be spread evenly to a depth of 75mm.
- Mulch shall be kept 50mm from stems to avoid collar rot.
- Watering shall be carried out on a regular basis twice weekly for the first 2 weeks and then as required according to weather conditions, rainfall and soil type.

Typical Layout - Tree Surround

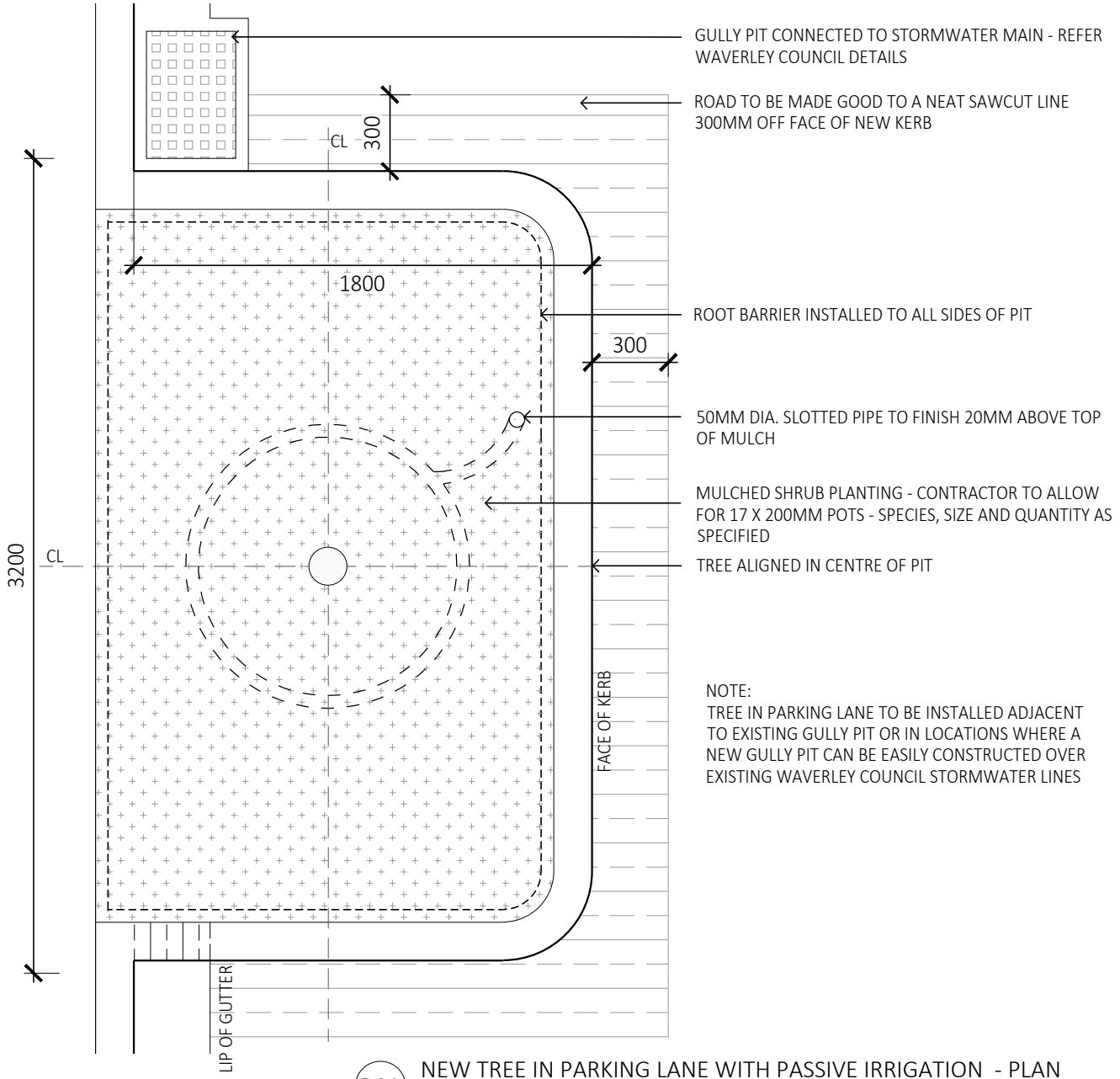
Maintenance

- Recurrent works for planting – Throughout the planting establishment period, carry out maintenance work including watering, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating, reinstatement of mulch, top dressing and keeping the site neat and tidy.

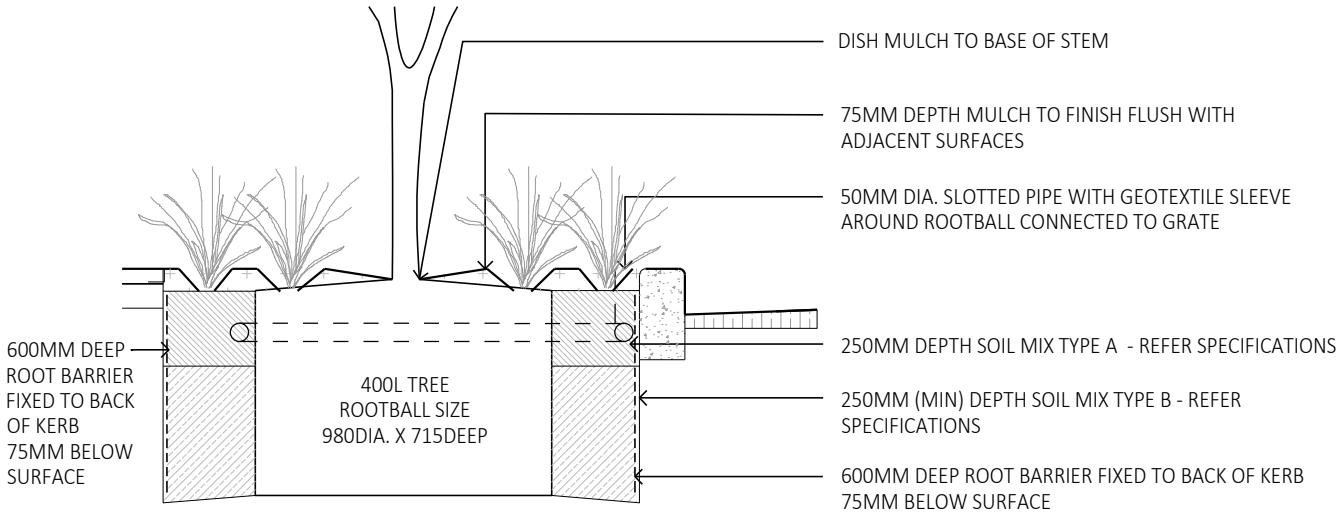
On-going maintenance may include:

- Replacement of any damaged or inferior plants, weeding, watering, pruning, replenishment and restoration of mulch.
- Tree pit - Manual removal of sediments from inlet pipe and filter - every 3-6 months
- If the filter sock has been removed from the irrigation pipe, flushing out the irrigation pipe - every 5-7 years

Refer towards the end of this section for stormwater quality improvement principles and bioretention tree pit detail applications.



D01 NEW TREE IN PARKING LANE WITH PASSIVE IRRIGATION - PLAN
Scale 1:25



D02 NEW TREE IN PARKING LANE WITH PASSIVE IRRIGATION - DETAIL
Scale 1:25

I.08

New Tree - Structural Root Cells

Function

- The detail is applicable for Bondi Junction; other commercial areas and streets with roadside planting.
- The use of continuous planting trenches, structural soil, structural cells, suspended pavements and other tree planting technology will be considered based on specific site conditions. Actual designs shall be developed and submitted to Council based on these technical details for consideration prior to any installation.
- For WSUD option refer to grated or open bioretention tree pits.

Supplier

Contractor to nominate based on below specifications.

Materials and Dimensions

- Tree species and container size as specified;
- All planting and soils shall be in accordance with AS 2303:2015 - Tree Stock for Landscape Use, AS 4419—2003 - Soils for Landscaping and Garden Use, AS 4454-2003 Compost Soil Conditioners and Mulches, and AS 4373-2007 Pruning of Amenity Trees;
- Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound;
- Plants shall be free of weeds, insect pests, disease or physical injury;
- Plants delivered to site must be delivered or transported in a covered (pantech) vehicle, prior to installation, to avoid wind burn.
- Delivered plants should be clearly labeld and maintained until planted.
- Structural root cells to be installed as per details and to manufacturer's recommendations.

Installation

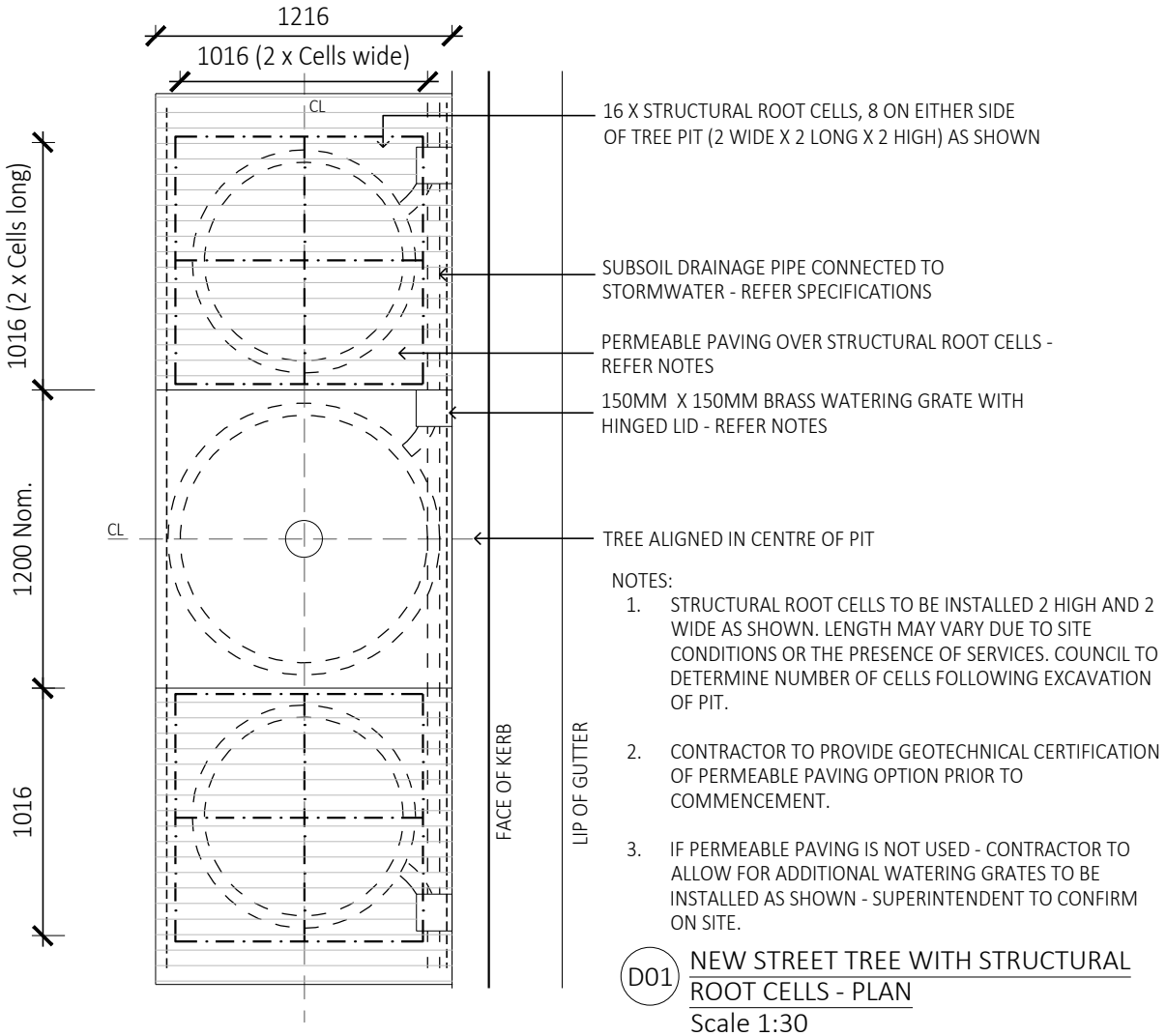
- Excavate a hole twice the diameter of the root ball. Break up the base of the hole to a depth of 100 mm, and loosen compacted sides of the hole to prevent confinement of root growth. Root ball should be placed on level and compacted subgrade.
- Thoroughly water plants before and after planting, and as required to maintain growth rates.
- Structural root cells to be installed 2 high and 2 wide as shown. length may vary due to site conditions or the presence of services. Council to determine number of cells following excavation of pit.
- Contractor to provide geotechnical certification of permeable paving option prior to commencement.
- If permeable paving is not used - contractor to allow for additional watering grates to be installed.
- Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.
- Watering shall be carried out on a regular basis twice weekly for the first 2 weeks and then as required according to weather conditions, rainfall and soil type.

Typical Layout - Tree Surround

Maintenance

- Recurrent works – During planting establishment period, carry out maintenance work including watering, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating and keeping the site neat and tidy.
- On-going maintenance may include: Replacement of any damaged or inferior plants, weeding, watering and pruning.

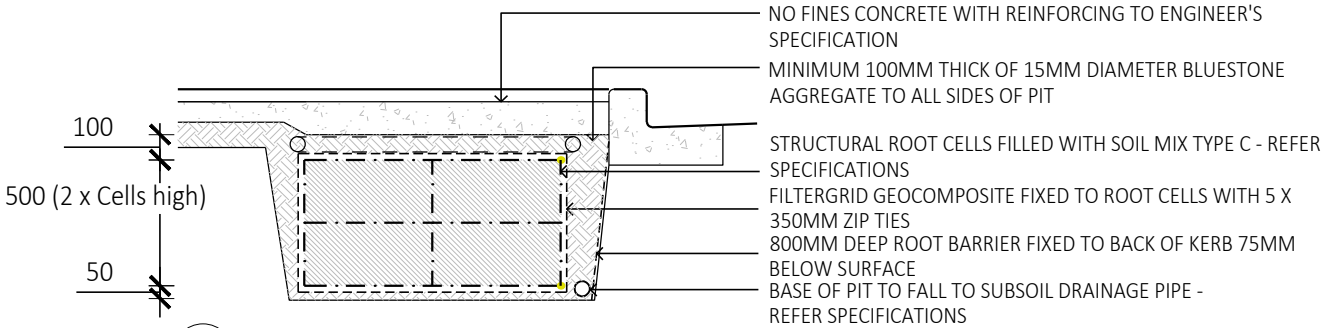
Refer towards the end of this section for stormwater quality improvement principles and bioretention tree pit detail applications.



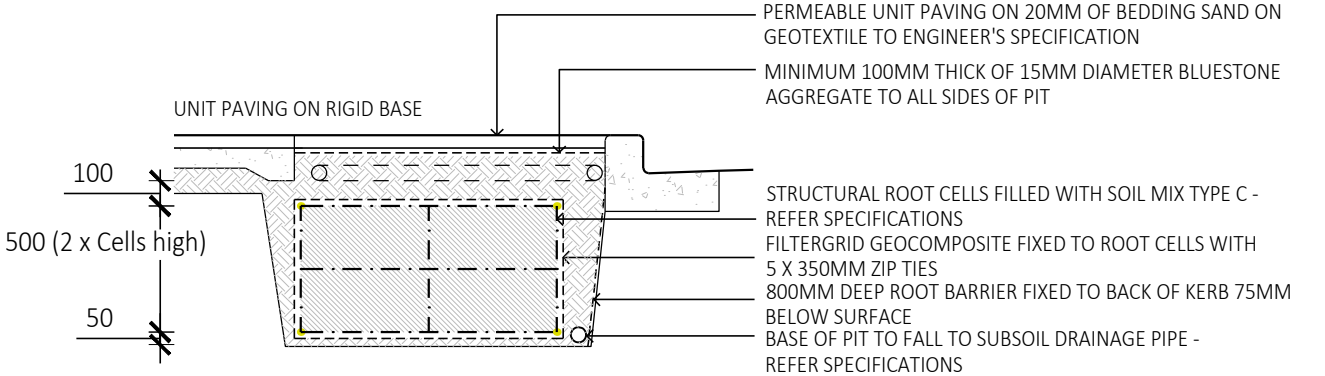
NOTES:

1. STRUCTURAL ROOT CELLS TO BE INSTALLED 2 HIGH AND 2 WIDE AS SHOWN. LENGTH MAY VARY DUE TO SITE CONDITIONS OR THE PRESENCE OF SERVICES. COUNCIL TO DETERMINE NUMBER OF CELLS FOLLOWING EXCAVATION OF PIT.
2. CONTRACTOR TO PROVIDE GEOTECHNICAL CERTIFICATION OF PERMEABLE PAVING OPTION PRIOR TO COMMENCEMENT.
3. IF PERMEABLE PAVING IS NOT USED - CONTRACTOR TO ALLOW FOR ADDITIONAL WATERING GRATES TO BE INSTALLED AS SHOWN - SUPERINTENDENT TO CONFIRM ON SITE.

D01 NEW STREET TREE WITH STRUCTURAL ROOT CELLS - PLAN
Scale 1:30



D02 NEW STREET TREE WITH STRUCTURAL ROOT CELLS - DETAIL
Scale 1:30



D03 OPTION - WITH PERMEABLE PAVING - DETAIL
Scale 1:30

I.09

Turf

Function

To provide areas of lawn in parks, reserves and street verges.

Supplier

- Contractor to nominate based on below specifications.

Materials and Dimensions

- Contractor to supply and install turf as specified.
- All planting and soils shall be in accordance with AS 4419—2003 - Soils for Landscaping and Garden Use and AS 4454-2003 Compost Soil Conditioners and Mulches.
- Contractor to obtain turf rolls from a specialist grower of cultivated turf.
- Use turf roll of even thickness, free from weeds and other foreign matter.
- Supplied turf is to demonstrate vigorous growth, be free from obvious signs of stress, weed, pest or disease infestation, damage or physical defects.

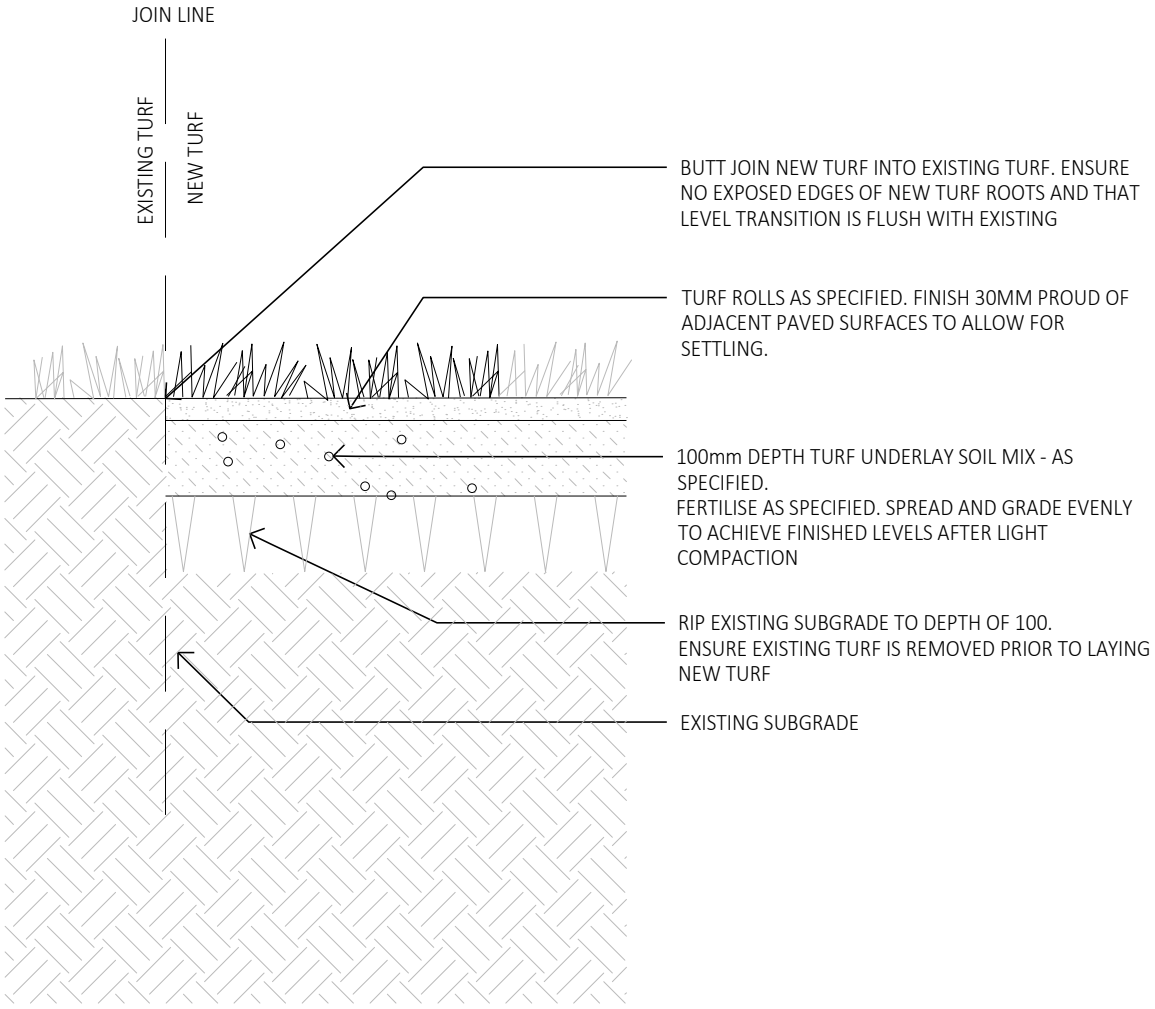
Installation

- Deliver the turf sods from the supplier within 24 hours of cutting, and lay it within 36 hours of cutting.
- Prevent it from drying out between cutting and laying. If it is not laid within 36 hours roll it out on a flat surface with the grass up, and water as necessary to maintain a good condition.
- Lightly tamp to an even surface immediately after laying, avoiding air pockets. Do not use a roller.
- Water immediately after laying. Moisten the topsoil to its full depth. Continue watering as necessary to maintain moisture to this depth.
- Apply slow release fertiliser as required and specified
- Allow for topdressing of the turf following installation, to establish surface smoothness and turf density following establishment.

Turf

Maintenance

- Lift failed turf and relay with new turf to give a good even layer whilst still revealing the grass shoots.
- Lawn areas shall be mown at a height consistent with the growth habit of the grass variety. A regular height range of 40mm to 60mm shall be maintained.
- Recurrent works – Throughout the planting establishment period, carry out maintenance work including watering, mowing, weeding, rubbish removal, fertilising, pest and disease control, reseeding, returfing, top dressing and keeping the site neat and tidy.



D01 TURF PLANTING- KEY-IN DETAIL
Scale 1:10

I.10

Mass Planting

Function

Provide planting to garden beds in parks, reserves and suburban streets

Supplier

- Contractor or Council to nominate based on below specifications.

Materials and Dimensions

- Contractor to supply and install plants as specified.
- All planting and soils shall be in accordance with AS 4419—2003 - Soils for Landscaping and Garden Use and AS 4454-2003 Compost Soil Conditioners and Mulches.
- Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound.

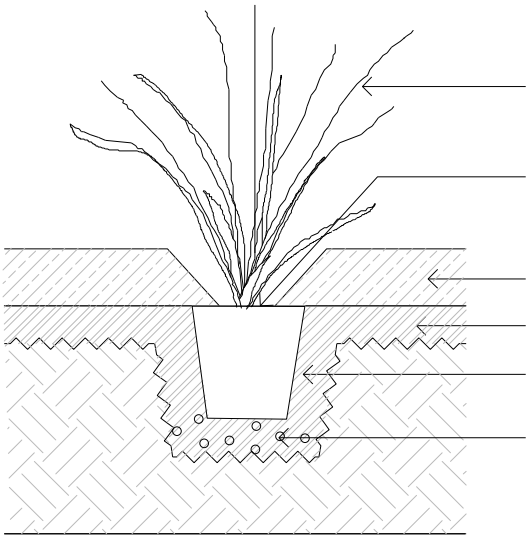
Installation

- Subsoil to be ripped and cultivated to a minimum depth of 200mm with 300mm garden soil mix to be spread over the prepared subsoil base
- Topsoil to be spread on the prepared subsoil and grade evenly, compacted lightly and uniformly in 150mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface which has the following characteristics:
  - Finished to design levels, allowing for mulch or turf, which is to finish flush with adjoining hard surfaces such as paths and edge
  - Smooth and free from stones or lumps of soil
  - Graded to drain freely, without ponding, to catchment points
  - Graded evenly to adjoining surfaces, and
  - Ready for planting
- Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.
- Thoroughly water the plants before planting, immediately after planting, and as required to maintain growth rates free of stress.
- Fertilise and backfill. Use fertilizer as specified.
- Mulch as specified

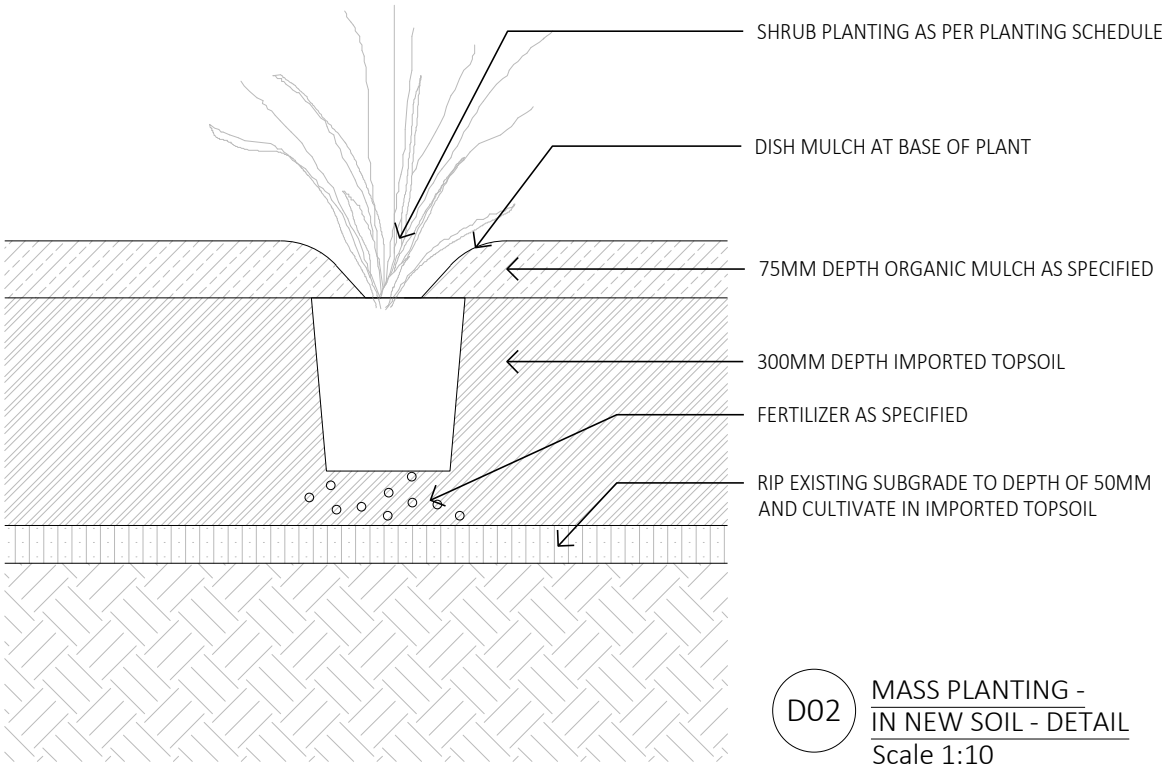
Mass Planting

Maintenance

- Throughout the planting establishment period, carry out maintenance work including watering, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting, cultivating, pruning, hedge clipping, aerating, reinstatement of mulch, top dressing and keeping the site neat and tidy.
- On-going maintenance may include: Replacement of any damaged or inferior plants, weeding, watering, pruning, replenishment and restoration of mulch.



D01 MASS PLANTING - IN EXISTING SOIL -DETAIL
Scale 1:10



D02 MASS PLANTING - IN NEW SOIL - DETAIL
Scale 1:10

I.11

Stormwater Quality Improvements

Stormwater quality improvement details form part of the water sensitive urban design (WSUD) infrastructure of Council.

Bioretention

Bioretention systems filter stormwater vertically through a vegetated filter media. Treated stormwater is then collected by a perforated underdrain and directed to the downstream stormwater drainage system.

The primary objective of a bioretention tree pit or raingarden treatment area is to filter pollutants to improve stormwater quality. Other potential benefits include:

- Stormwater flow management i.e. reduction of runoff frequency and volumes or flow rates
- Improved irrigation of vegetation, improved vegetation quality and reduced need for hand watering, especially through dry weather periods
- Reduced maintenance and increased lifespan of traditional stormwater drainage infrastructure
- Increased pervious surfaces resulting in less stormwater runoff, more comfortable micro-climate and reduced heat island effect
- Improved visual amenity
- Improved human health and wellbeing.

Application

Bioretention systems can be implemented in almost any size and shape, in many different locations including streetscapes, traffic calming devices, parks or as part of drainage works. It is important to have:

- Sufficient biofilter area of 1% to 2% of the impervious catchment area
- Sufficient depth (normally at least 800mm) between the inlet and outlet of a bioretention system. However, there are design solutions to overcome depth constraints such as the creation of a saturated zone.
- Pre-treatment to capture sediment to prevent clogging.

Streetside garden with established bioretention raingarden at Hollywood Avenue

Newly constructed bioretention raingarden at Gray Street North

Developers and designers are required to carry out feasibility assessment considerations as directed by and in consultation with the Council prior to application and implementation of these details. The design elements to be applied should be determined based on the essential components required and the functions these are expected to carry out after consultation with the Green Infrastructure Team of the Council.

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I.12

Bioretention Tree pit with Tree grate

Function

- Bioretention tree pits with tree grates are to be implemented in pedestrian plaza spaces as directed by the Council, based on their assesment of pollutants of concern, type of stormwater treatment required and available catchment area and on the location of the project under development.
- Technical details are to be developed further based on consultation with the Council and site specific designs shall be submitted to the Council, based on these technical details, for consideration prior to any installation.

Supplier

Contractor or Council to nominate based on below specifications.

Materials and Dimensions

- Tree species as specified in the planting schedule and as confirmed by Council. Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound. Plants shall be free of weeds, insect pests, disease or physical injury.
- Paving, kerbs as per PDTM depending on location of the bioretention open tree pit.
- All concrete works to structural engineers details
- Tree grates as specified by the Council. These grates could be special-order items.
- All required materials such as liners, structural root cells, tree pit and structural cell media, transition layer materials, drainage layer materials etc should be as specified and as approved by the Council.

Installation

- Setout and earthworks to be as documented and to be inspected by Council.
- Inspections to be carried out by the Council at every stage of installation as listed in the hold points, some of which can be at completion of of all new drainage conduits, pits and grates, liner, slotted and solid subsoil drains, the flushing points and caps, completed water-tight seals of any pipe penetration through liner, installation of the drainage media and the finished levels of the drainage layer, at installations of the first layer of structural root cells and soil, top layer of structural root cells, soil and the heavy mesh fabric, installation of the transition layer and the finished levels of the transition layer, filter media and the finished levels of the filter layer, installation of tree pit and grate, planting and installation of pavers.
- Defects period is 52 weeks.

Example Typical Layout - Bioretention Tree pit with Tree grate

Maintenance

- Throughout the planting establishment period, carry out maintenance work including watering if required, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating, and keeping the site neat and tidy.

On-going maintenance may include:

- Replacement of damaged or inferior tree, weeding, pruning and replenishment and restoration of filter media if required.
- Manual removal of sediment from sediment forebay or scour pad every 3-6 months
- Manual scraping/tilling of clogged layer of filtration media. Clogged layer to be appropriately disposed off approximately every 5-7 years testing dependent.

I.13

Bioretention Tree pit - Open

Function

- Bioretention open tree pits are to be implemented in locations such as streetscapes, traffic calming devices, parks or as part of drainage works as specified by the Council, based on an assesment of pollutants of concern, type of stormwater treatment required and available catchment area and on the location of the project under development.
- Technical details are to be developed further based on consultation with the Council and site specific designs shall be submitted to the Council, based on these technical details, for consideration prior to any installation.

Supplier

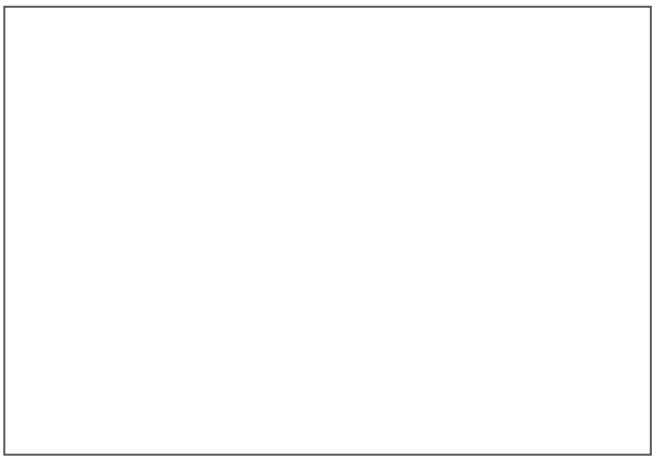
Contractor or Council, as specified, to organise.

Materials and Dimensions

- Tree species and grasses & groundcovers as specified in the planting schedule and as confirmed by Council. Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound. Plants shall be free of weeds, insect pests, disease or physical injury.
- Paving, kerbs as per PDTM depending on location of the bioretention open tree pit.
- All concrete works to structural engineers details
- All required materials such as liners, structural root cells, bioretention and structural cell media, transition layer materials, drainage layer materials etc should be as specified and as approved by the Council.

Installation

- Setout and earthworks to be as documented and to be inspected by Council.
- Inspections to be carried out by the Council at every stage of installation as listed in the hold points, some of which can be at completion of all new drainage conduits, pits and grates, liner, slotted and solid subsoil drains, the flushing points, completed water-tight seals of any pipe penetration through liner, installation of the drainage media and the finished levels of the drainage layer, at installations of the first layer of structural root cells and soil, top layer of structural root cells, soil and the heavy mesh fabric, installation of the transition layer and the finished levels of the transition layer, filter media and the finished levels of the filter layer, gravel mulch & planting and installation of pavers.
- Defects period is 52 weeks.



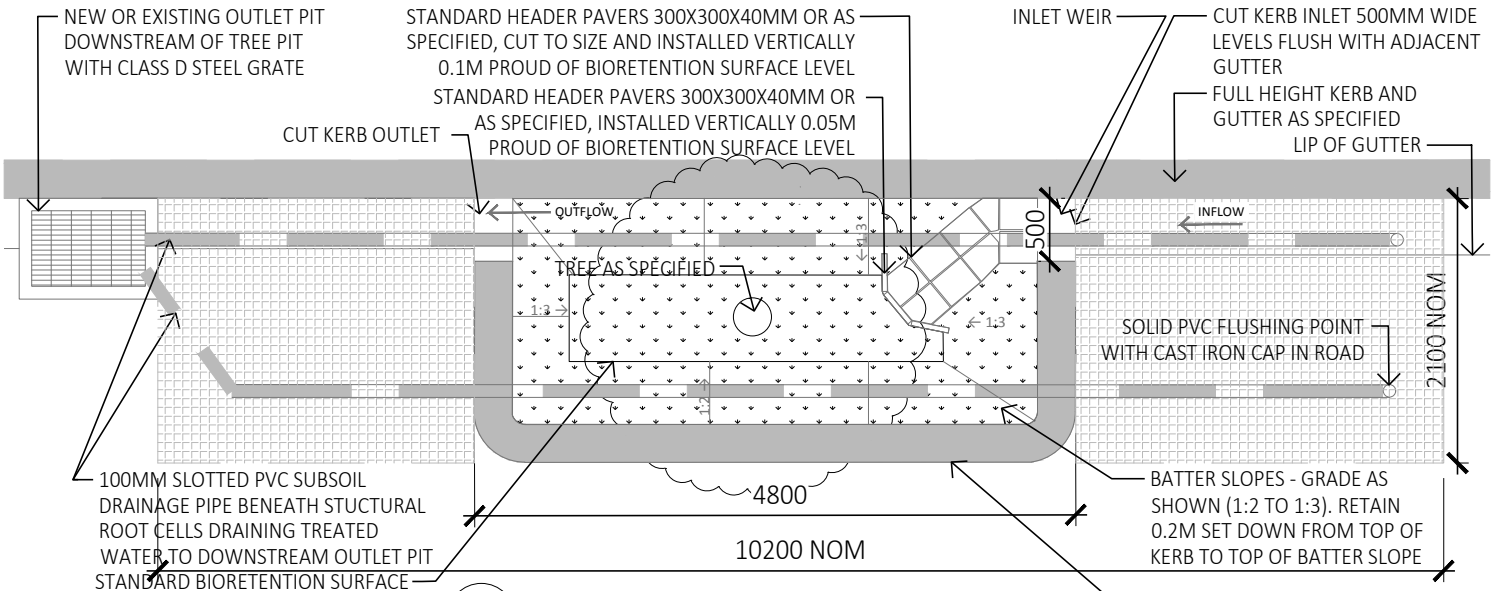
Typical Layout - Tree Surround - Image to be provided when available

Maintenance

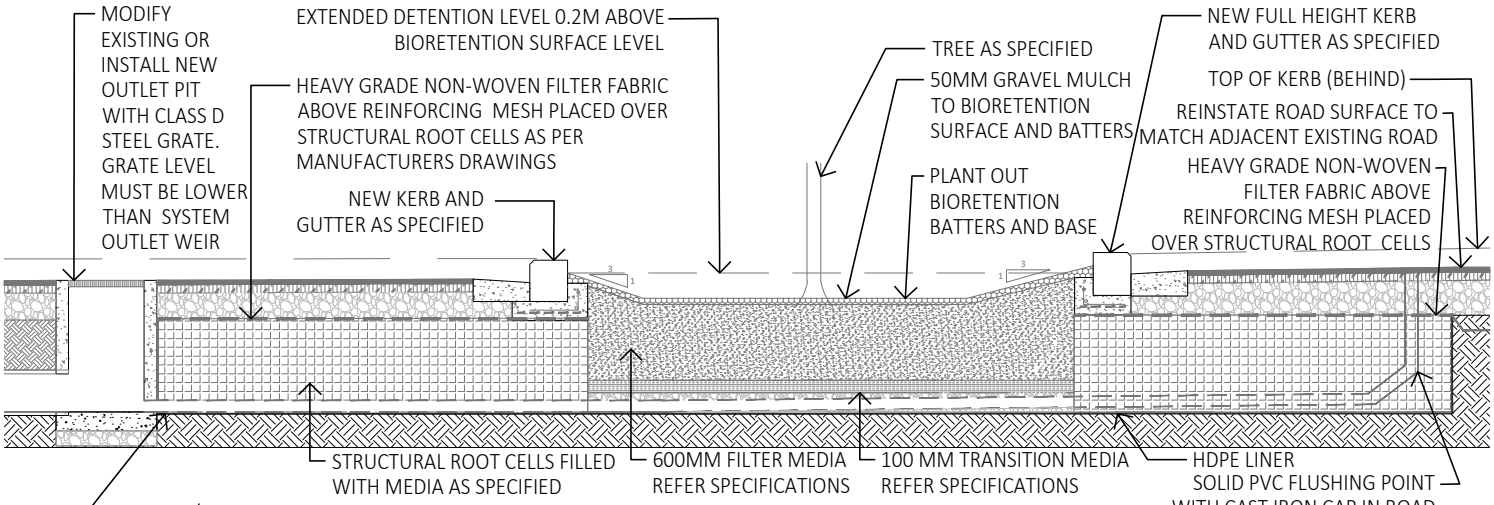
- Throughout the planting establishment period, carry out maintenance work including watering if required, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating, reinstatement of gravel mulch, top dressing and keeping the site neat and tidy.

On-going maintenance may include:

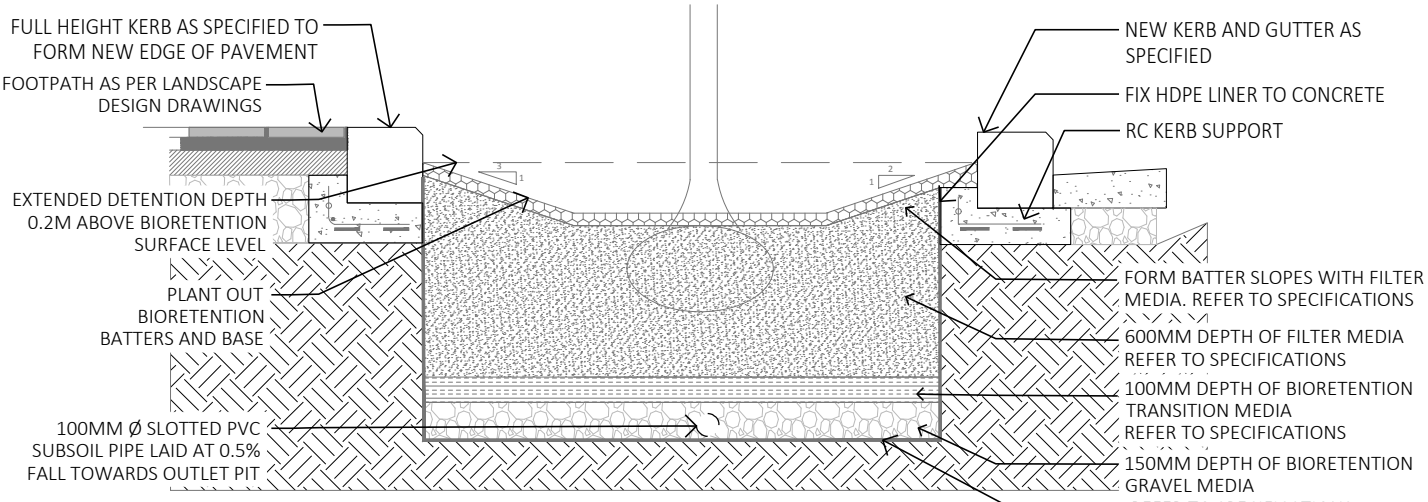
- Replacement of any damaged or inferior plants, weeding, pruning, replenishment and restoration of gravel mulch.
- Manual removal of sediment from sediment forebay or scour pad every 3-6 months
- Manual scraping/tilling of clogged layer of filtration media. Clogged layer to be appropriately disposed off approximately every 5-7 years testing dependent.



D01 BIORETENTION TREE PIT - OPEN - PLAN
Scale 1:60



D02 BIORETENTION TREE PIT - OPEN - LONG SECTION
Scale 1:60



D03 BIORETENTION TREE PIT - OPEN - DETAIL
Scale 1:30

I.14

Bioretention Raingarden

Function

- Bioretention raingardens are to be implemented in locations such as streetscapes, traffic calming devices, parks or as part of drainage works as specified by the Council, based on their assesment of pollutants of concern and type of stormwater treatment required, for the area under development.
- Technical details are to be developed further based on consultation with the Council and site specific designs shall be submitted to the Council, based on these technical details, for consideration prior to any installation.

Supplier

Contractor or Council, as specified, to organise.

Materials and Dimensions

- Grasses, groundcovers and shrub species as specified in the planting schedule and as confirmed by Council. Plants shall be well-formed, healthy, hardened off stock where possible with a sturdy root system and not root bound. Plants shall be free of weeds, insect pests, disease or physical injury.
- Paving as per PDTM depending on location of raingarden
- All concrete works to structural engineers details
- All required materials such as liners, bioretention media, transition layer materials, drainage layer materials etc should be as specified and as approved by the Council during consultation.

Installation

- Setout and earthworks to be as documented and to be inspected by Council.
- Inspections to be carried out by the Council at every stage of installation as listed in the hold points, some of which can be at completion of all new drainage conduits, pits and grates, liner, slotted and solid subsoil drains, the flushing points and caps, completed water-tight seals of any pipe penetration through liner, installation of the drainage media and the finished levels of the drainage layer, at installations of the transition layer and the finished levels of the transition layer, filter media and the finished surface levels of the system, gravel mulch and planting.
- Defects period is 52 weeks.

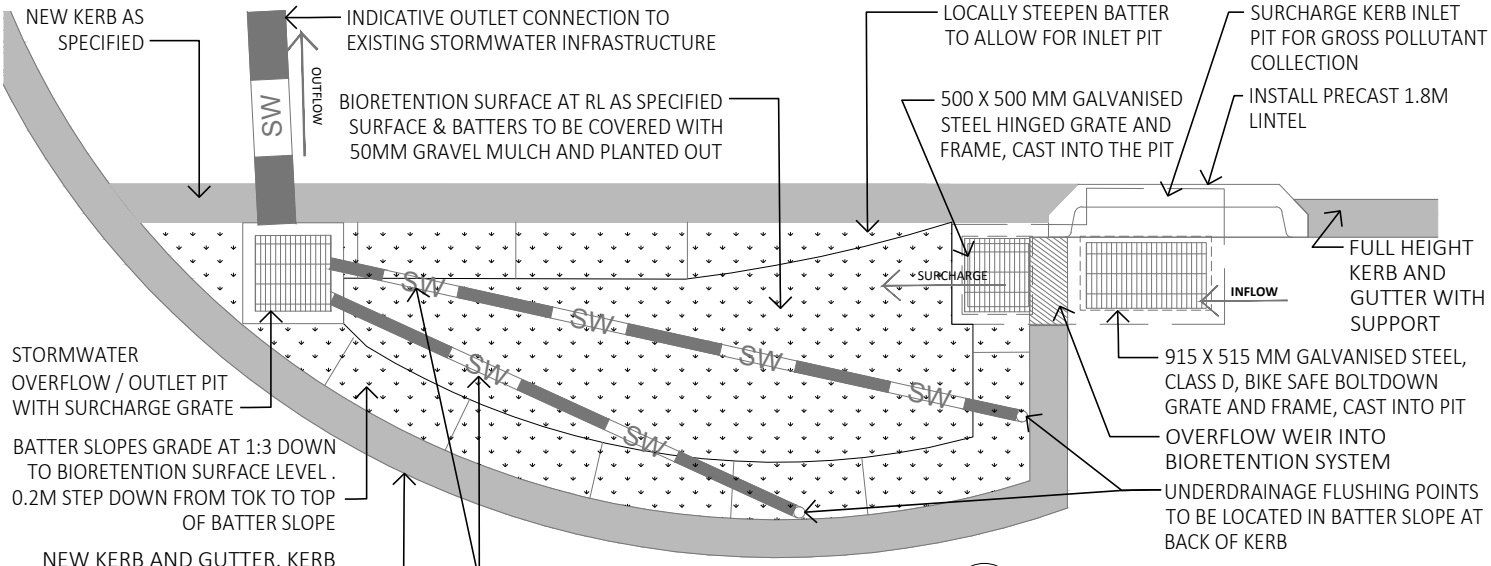
Bioretention Raingarden at Gray Street North

Maintenance

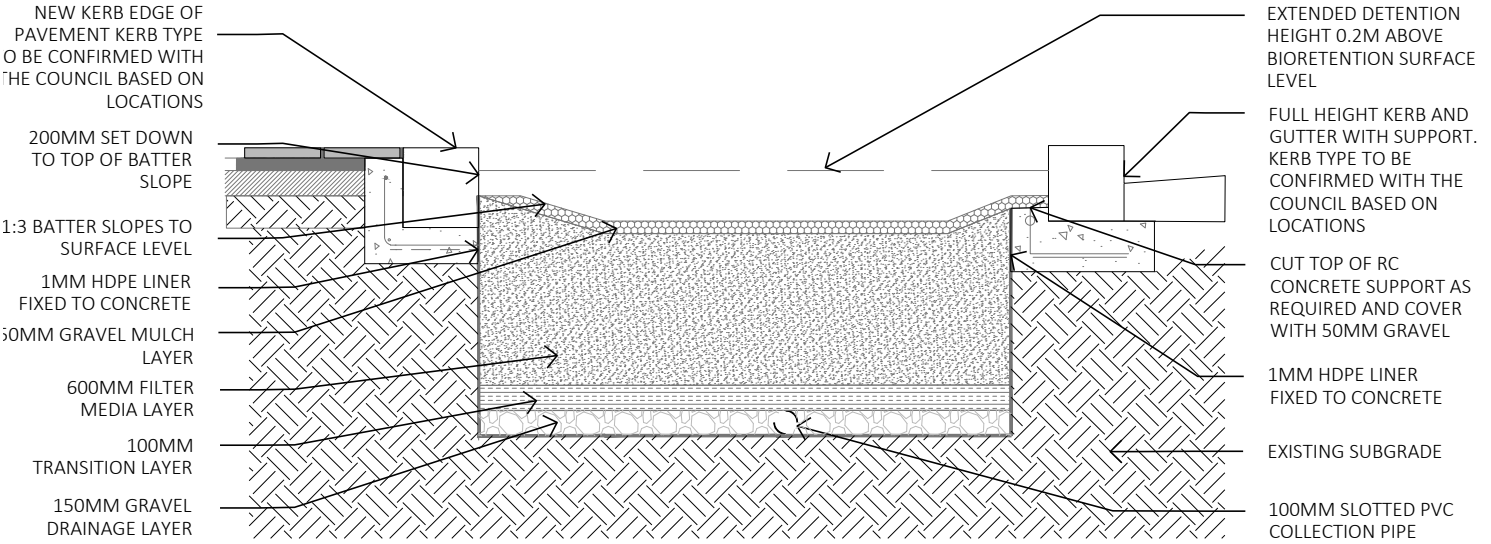
- Throughout the planting establishment period, carry out maintenance work including watering if required, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting if required, cultivating, aerating, reinstatement of gravel mulch, top dressing and keeping the site neat and tidy.

On-going maintenance may include:

- Replacement of any damaged or inferior plants, weeding, pruning, replenishment and restoration of gravel mulch.
- Manual removal of sediment from sediment forebay or scour pad every 3-6 months
- Manual scraping/tilling of clogged layer of filtration media. Clogged layer to be appropriately disposed off approximately every 5-7 years testing dependent.



D01 BIORETENTION RAINGARDEN - PLAN
Scale 1:60



D02 BIORETENTION RAINGARDEN - DETAIL
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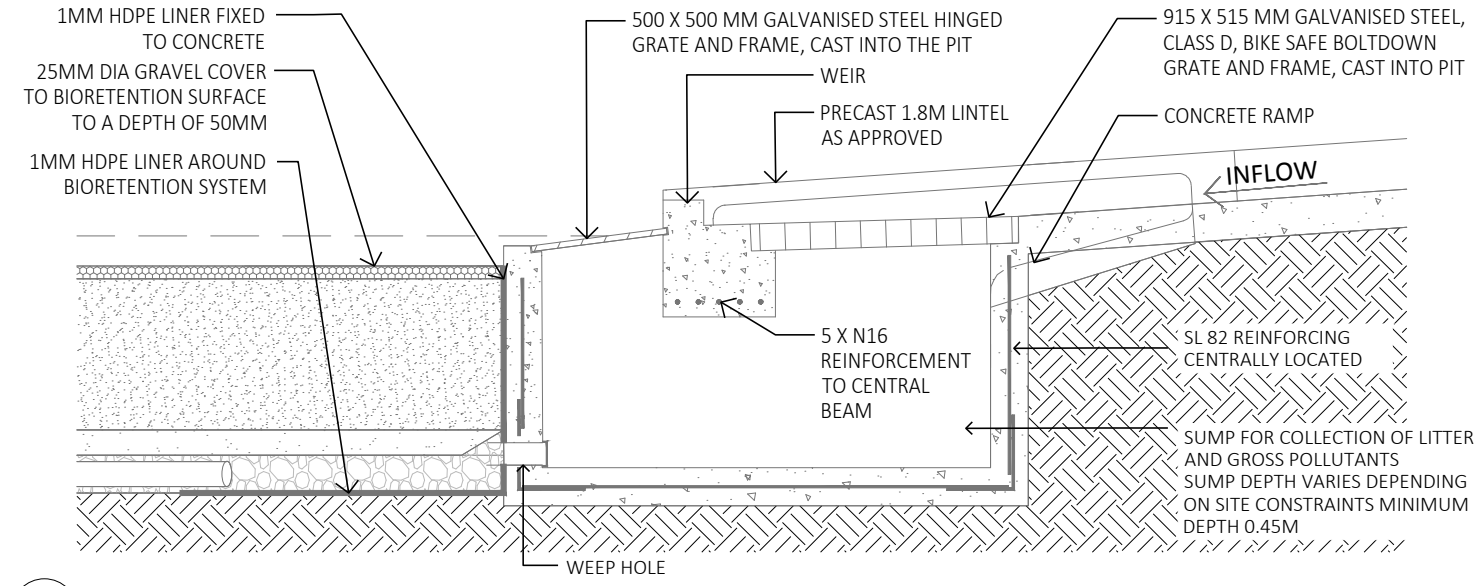

D03 BIORETENTION RAINGARDEN - INLET LONG SECTION
Scale 1:30

I.15

Waverley Council Plants Species List

The following planting palette is to be used within Waverley Council's Parks and Streetscape. For street tree species selection refer to the Street Tree Masterplan.

Various attributes and applications of each plant have been given in the palette which will enable the users to choose a species suitable for their purpose.

The palette presents a useful tool for ensuring good habitat is planted within the Council limits.

Trees in Parks

Species	Common Name	Indigenous / Native / Exotic	Coastal Exposure	Form	Size (H x W)	Life Expectancy	Application					Notes on Form / Maintenance / Performance
							Accent Plants	Re-vegetation	Parks	Plants for Stormwater Quality Improvement	Playgrounds	
Small (to 6 metres)												
Angophora hispida	Dwarf Apple	Native	Second Line Coastal	Multi-trunked large shrub-sized	6m	80-100	No	Yes	Yes	No	Yes	Large clusters of creamy white flowers in Summer - January. Nectar source for many birds & invertebrates. Very Hardy. Re-sprouts well after wildfires. Can be trained as a single trunked street tree. Occurs natuarally on ridgetops, most commonly in heath and open woodlands
Acacia longifolia	Sydney Golden Wattle	Native	No	Round, large shrub sized	6m	10-20 yrs	No	Yes	Yes	No	Yes	Bright Yellow rod shaped flowers in abundance from early winter through early spring. Highly attractive small tree; striking flower display, tolerates a range of soils. Borers an issue in late life. Good as windbrekas and for erosion control. Nitrogen fixer.
Callistemon citrinusalso known as Melaleuca citrina(Callistemon lanceolatus is an older name)	Crimson Bottle-brush	Native	Front Line/ Second Line	Round, large shrub sized	3-4m	<50	Possibly	No	Yes	Yes	Yes	Showy, crimson-red, bottlebrush form twice a year - Spring and Autumn (if well watered). Can attract Noisy Miners. Choose planting sites carefully. Especially if trying to provide small bird habitat. Many bird species use the tree as a food source. Can also be planted in very wet soils.
Callistemon citrinus 'Kings Park Special'	Kings Park Special	Cultivar	No	upright-rounded large shrub sized, pendulous branches	4x 3m	<50	Yes	No	Yes	No	Yes	Bright red, multiple heads on branch terminals from Mid-September to October. Possible small flowering in autumn. Fast growing. Responds well to pruning after flowering. Can be planted in a wide variety of soils. Can suffer frost damage. Good for small landscapes where space is limited.
Corymbia eximia 'nana'	Dwarf Yellow Bloodwood	Native	Front Line/ Second Line	Compact Rounded	6-8m x 4m	Long, beyond 100 yrs	Yes	Yes	Yes	Yes	Yes	Creamy white to golden yellow in winter spring - August to October. Slighty open canopy, big yellow flowers, patchy, grey and brown bark, frequently on a crooked trunk. Does well on poor gravelly or sandy soils. Remains healthy in drought. Suffers frost damage. Extremely sutable for height restricted areas. Attracts nectar loving birds. Honey producing plant. Excellent as a street tree. Makes a good feature tree, shade tree or as part of wind break, native shelter.
Cupaniopsis anacardioides	Tuckeroo	Native	Front Line Coastal	Rounded	6m x 6m	40-70	No	No	Yes	No	Yes	Small white flowers in autumn. Dome - formed into umbrella with annual pruning. Incredibly hardy species. Tolerant of drought and vandalism. Very high survival rates on establishment. Downside is fruit load which can be a hazard on sealed surfaces. Fruit is favourite of many fruit eating birds.
Eucalyptus luehmanniana	Yellow-top Mallee Ash	Native	Second Line	Multi-trunked large shrub-sized	6m x 4m	possibly >40	No	No	Yes	No	Yes	Creamy white flowers from mid winter to late spring. Grows in high rainfall areas as well . Rare eucalyptus. Can be grown as a single trunk small tree. Grows well in poorly drained, skeletal, sandy soils.
Melaleuca armillaris	Bracelet Honey Myrtle	Native	Front Line-Second Line	Rounded	5m x 5m	>60	Possibly	Yes	Yes	Yes	Yes	Cylindrical bottlebrush-style, red or pink buds, open to white or pink flowers in spring and summer. Fast growing species with a good canopy intially which suffers from thinning out with age. Susceptible to bracket fungi in later years w/ associated branch drop. Myrtle rust host. Bird Habitat

Monotoca elliptica	Tree Broom-heath	Native	Front Line Coastal	Bushy shrub-like	4-10m tall	Long, beyond 100 yrs	No	Yes	Yes	No	No	Small cream coloured flowers from July to September. Grows in scrub or sclerophyll forest, most often on coastal dunes. Fruits eaten by Noisy Miners. Foodplant of a variety of butterflies.
Pandanus leucanthusalso known as Pandanus odorifer	Screw Pine	Native	Front Line Coastal	Palm-like, small branched	4m	Typically 50-80	No	Yes	Yes	No	Yes	White fragrant flowers in summer. Used to make perfume elsewhere in the world. Prop roots emerge at times. Grow well in sandy, rocky soils as well as seasonally waterlogged soils.
Pyrus calleryana	Callery pear	Exotic	No	Conic rounded crown	5-8m	15-20 years	Yes	No	Yes	Yes	No	White five petaled flowers in early spring. Deciduous tree. Fruit small and woody, when softened by frost are eaten by birds. Summer foliage is dark green and very smooth. In autumn these turn brilliant colours of yellow, orange, red, pink purple and bronze. Wood used for instruments and veneers. The tree is known for its pungent, often unpleasant smell during its flowering stage, which has been described as reminiscent of rotting fish, chlorine, or semen.
Tristaniopsis laurina	Water Gum	Native	Possible secondline coastal	Oval	5m x 3-6m	Long, beyond 100 yrs	Yes	Yes	Yes	No	Yes	Bright yellow flowers in short clusters in spring and summer. Low maintenance. Fast growing. Drought resistant. Tolerates light frost. Likes full sun or light shade. Good as a feature plant, wind break, street tree. Used for erosion control, as a bird nesting plant and as a pollution tolerant. Attracts a wide range of birds, butterflies, insects and possums.
Medium (6 to 12 metres)												
Agathis robusta	Queensland Kauri Pine	Native	No	Conical conifer	25-30m	Very long	No	No	Yes	No	No	Timber is highly prized for furniture.
Agonis flexuosa	Willow Myrtle	Native	Front Line/ Second Line	Umbrella - Pendular	6m x 8m	Long (R)	Yes	No	Yes	No	Yes	Clusters of small white flowers between leaves in spring and summer. Myrtle rust host. Great native alternative to a Willow Tree.
Allocasuarina littoralis	Black She-Oak	Native	Front Line/ Second Line	Elongated Oval	12m	>15 upto 50	No	Yes	Yes	No	Possibly on boundaries	Fast growing, nitrogen fixing tree. Makes excellent wind-break or shelterbelt species
Banksia integrifolia	Coast Banksia	Native	Front Line Coastal	Twisted Informal	4-15m x 1-6m	40-100	Yes	Yes	Yes	No	Yes	Adult leaves are stiff and arranged in whorls with a silvery underside. Pale yellow flowers through autumn followed by woody cones. Spot flowering can occur all year through. Can be multi-trunked in some situations. Fast growing, narrow upright. Useful low maintenance street tree. Can be pruned. Drought and frost tolerant. It has excellent resistance to Phytophthora cinnamomi. Attracts birds, bees, buuterflies, insects, arboreal mammals and is a good seed source for cockatoos.
Banksia marginata	Silver Banksia	Native	Front Line/ Second Line	Plants can have various leaf types and growth habits includ-ing weeping foliage	1-12m	80+	No	Yes	Yes	No	Yes	Numerous yellow or golden green flowers in a compact candle-shaped spike from september through april but can be all year long, followed by persistent woody cones. Form and size can vary considerably even within the same area. Varia-tions also occur in leaf size and shape and physical features such as stem and leaf surfaces. Very hardy, long lived, salt tol-erant, drought and frost tolerant and can survive in exposed windy sites. Prefers well drained soils but can tolerate moist or waterlogged sites. Attracts honey eating birds, insects and other wildlife. Can be susceptable to Phytophthora cin-namomi disease.

Banksia serrata	Old Man Banksia	Native	Front Line/ Second Line	Informal oval, prostrate in exposed coastal situations	3-15m x 2-4m	Over 100 years	No	Yes	Yes	No	Yes possibly	Cream, yellow or brown coloured flowers in spikes from late summer through autumn followed by woody seed cones. Leaves are stiff with serrated edges. Prefers sandy soils and good drainage. Very hardy once established. Attracts birds, insects, arboreal mammals and is a good seed source for cockatoos. In bushlands can be susceptable to Phytophthora cinnamomi disease.
Callistemon viminalis	Weeping Bottlebrush	Native	No	Oval Weeping	8m	>50	Yes	No	Yes	No	Yes	Can attract Noisy Miners. Choose planting sites carefully. Especially if trying to provide small bird habitat. Attractive red bottlebrush shaped flowers in spikes from spring through autumn or all the year through. Leaves are lanceolate. Common along watercourses. Does best in moist well drained soils in full or partial sun but can grow in heavily waterlogged soils as well as shady wet situations. Good screen plant, in erosion control or as a street tree.
Callistemon salignus also knows as Melaleuca salicina	Willow Bottlebrush	Endemic to Eastern Australia	Possible secondline coastal	Spreading	1-10m x 1-5 m	20-40 yrs	No	No	Yes	Yes	Possible	The pink to red new foliage and its yellow flowers are the best qualities of this very adaptable bottlebrush. Flowering in spring, summer and atumn. Can tolerate waterlogged soils for extended periods as well as is drought tolerant. Roots can become invasive, so keep away from buildings. Tolerates heavy frost. Pollution tolerant. Likes full sun or light shade. Good as a screening plant, windbreak, for erosion control and in bog gardens. Attracts bees, nectar eating birds, butterflies and other insects.
Calodendrum capense	Cape Chestnut	Exotic	No	Broad Domed	10m x 6m	no data	Yes	No	Yes	No	Yes	Suitable for special areas only. Pink flowers in large massed terminal heads in spring. Excellent specimen and avenue tree. Dense canopy. When in bloom, the whole tree turns pink.
Casaurina equisetifolia	Coast Sheoak	Native	Front Line Coastal	Columnar irregular	9m x 5m	40-50	No	Yes	Yes	No	Possible on borders	Wide spreading. Good wind breaker. Drooping branches.
Ceratopetalum gummiferum	NSW Christmas Bush	Native	No	Pyramidal	10m x 4m	Long, beyond 100 yrs	Yes	Yes	Yes	No	Yes	Very showy massed display of red sepals. Inconspicuous white flowers followed by bright red showy sepals. Flowers appear in October followed by the sepals around christmas time.
Elaeocarpus reticulatus	Blueberry Ash	Native	No	Slender oval	6-10m x 4m	>50	Yes, in a cluster	Yes	Yes	No	Yes	Look good in groups. Beautiful downward facing white to pale pink flowers with fringed petals, hanging like bells in late spring, followed by small oval bright blue fruits ripening through april to october. Flowers have a light fragrance. Does well in full sun or partial shade. Can be used for hedging. Nectar attracts birds, bees, butterflies and insects.
Eucalyptus haemastoma	Scribbly Gum	Native	Front Line/ Second Line	Elongated umbrella shaped	8m x 6m	Long beyond 100 yrs	No	Yes	Yes	No	Yes	Consistent with character of the area. Open crown of grey/ silver coloured foliage - often multiple trunks. Flowers white, from autumn through spring. Nectar attracts birds and insects. Attracts the larvae of scribbly gum moth.
Ficus coronata	Creek Sandpaper Fig	Native	No	Irregular	6-12m x 3-5m	no data	No	Yes	Yes	No	Possibly	Common near water courses. Food plant for caterpillars of butterflies, many species of birds and the flying fox. Very hardy. Can tolerate poor soil and poor light. Has texturally interesting leaves. Fruits grow off trunk and leaf bases.

Ficus rubiginosa	Port Jackson Fig	Native	Second Line Coastal	Dome shaped, spreading	10m x 12m	Over 100 years	No	Yes	Yes	No	No	Can be kept under 7m high with yealy to two yearly pruning. Can develop invasive root system around built infrastructure. Foliage bright shiny green with rusty underside. Fruits eaten by several species of birds and also flying foxes.
Glochidion ferdinandi	Cheese Tree	Native	Second Line Coastal	Rounded	8m x 5m	>60	No	Yes	Yes	No	Yes	Shrub to medium sized broad tree. A handsome easily established species with good habitat value. Can be weedy in bushland remnants. Thirsty. Small greenish yellow flowers between July and December. Fruit is red small and pumpkin shaped. Fruits are eaten by several species of birds.
Hibiscus tiliaceus 'Rubra'	Bronze Cotton-wood	Exotic	Second Line Coastal	Rounded	6-8m x 6-8m	no data	Yes	No	Yes	No	Yes	Dense, low crown. Suffer in drought conditions and can be suseptible to unsightly mealy bug infestions. High establishment rates and a fast grower. Bright powder-yellow flowers with a deep red spot in the middle, in spring. Red green foliage. Dense habit.
Melaleuca leucadendra	Fine Leafed Paperbark	Exotic	No	Columnar	10m x 7m	>15 yrs	No	No	Yes	No	Possible	Myrtle rust host. Cream, white or greenish white flowers in spikes at any time in the year. Bark is white.
Melaleuca linariifolia 'snow in summer'	Melaleuca 'Snow in Summer'	Native	No	Round	8-10m x 5-7 m	60 yrs	Yes	No	Yes	No	Yes	Myrtle rust host. A hardy tree. Prominent fluffy white flowers in clusters in spring and summer. Leaves are linear in shape. Adaptable to a wide range of climates and soils.
Syzigium australe	Brush Cherry	Native	Common to coastal and highland rain forests. Neither frontline or secondline coastal.	columnar bushy	6-15m tall in cultivation x 3-6m	no data	No	Yes	Yes	No	Yes	White flowers from November to February followed by large fleshy pink-red attractive fruits, edible and often made into jams. Wind tolerant. Foliage grows right down to ground making it a good choice for hedging. Prone to psyllids. Prefers rich soils. Non-Invasive roots. Adaptable to most conditions.
Large (over 12 metres)												
Acmena smithiialso known as Sizygium smithii	Lillypilly	Native	No	Round	15-20m	100-200 yrs	Yes	Yes	Yes	No	No	Be careful where these berry-producing plants are installed. They will attract birds such as Currawongs that also feed on small birds. White fragrant flowers in spring followed by abundant pale pink-maroon fruits in autumn. Trunk is rich red-brown in colour with a bubbly texture. Excellent insect & bird attracting tree. Many varieties are available.
Araucaria columnaris	Cook Island Pine	Exotic	Front Line Coastal	Columnar	25m x 7m	Long	Possible	No	Yes	No	Yes	Slender spire-like crown. Short branches in whorls around the trunk.
Araucaria heterophylla	Norfolk Island Pine	Exotic	Front Line Coastal	Pyramidal	30m x 15m	Long	Possible	No	Yes	No	Yes	Whorled braches. Fast growing amongst araucarias.
Brachychiton acerifolius	Illawarra Flame Tree	Native	No	Columnar spreading	10-40m x 5-15 m	Long	Yes	Yes	Yes	No	No	Suitable for special areas only. Spectacular bell shaped crimson flowers, in clusters in spring and summers. Deciduous in summers. Hardy in a wide range of soils. Great as a feature plant. Attracts bees, nectar eating birds, butterflies and insects.
Casaurina glauca	Swamp she-oak	Native	Front Line Coastal	Columnar conical	10-20m x 6-8 m	100-200 yrs	No	Yes	Yes	No	No	A good windbreak tree. Wind and salt tolerant. Good for saline soils. Good for seasonal waterlogging areas. Fast growing, nitrogen fixing. Likes full sun. Has excellent potential to remediate discharge areas affected by salinity and seasonally waterlogging. Useful for sites subjected to heavy erosion as it has strong propensity to form root suckers.

Corymbia gummifera	Red Bloodwood	Native	Second Line Coastal	Columnar with long trunks with irregular canopy	20-25m x 10m	Over 100 years	No	Yes	Yes	No	No	Profuse white or creamy flowers on terminal branchlets from late summer to early autumn. Nectar attracts birds and insects. Fruit eaten by cockatoos. Sap eaten for food by glider possums. Older trees develop hollow branches which provide breeding & roosting opportunities for many species.
Corymbia maculata	Spotted Gum	Native	Second Line Coastal	Columnar with long trunks	30m x 10m	no data	No	Yes	Yes	No	No	Might work in a grouped planting due to interesting bark, but not really in keeping with character of area. Small white flowers. Flowering from May to September. Moderately drought tolerant. Is an important commercial timber species. Shallow roots. Susceptible to stem girdling by parrots.
Eucalyptus botryoides	Bangalay	Native	Frontline coastal	Tall upright with spreading canopy	20m x 7-9 m	Long lived upto 600 yrs	No	Yes	Yes	No	No	Only suitable place for such a tree where it would not need its limbs pruned. Has a habit of shedding limbs without warning even when the tree is in a healthy condition. Known for its hard, pink to dark red wood. Timber good for furniture.
Eucalyptus leucoxylon Megalocarpa	Yellow Gum	Not indigenous	Second Line Coastal	Round	8-10 m x 5- 6 m	no data	Yes	No	Yes	No	Yes	High branching, varied form Will attract honeyeaters such as bullying Noisy Miners. Roots known to cause sewer and drain bloackages. Grey green foliage, pendulous branches. Flowers large pink appearing in summer.
Eucalyptus piperita	Sydney Peppermint	Native	Second Line Coastal	Tall irregularly shaped	20m x 15m averages 8-10 m in height with a spread of 4-5 m	no data	No	Yes	Yes	No	No	Creamy white flowers in clusters. Foliage has strong distinctive peppermint aroma. Requires full sun. Nectar and pollen highly sought after by fauna when tree is in flower. Grey flaky rough bark.
Eucalyptus robusta	Swamp Mahogany	Native	No	Irregular columnar	20-30m tall	Over 20 years	No	Yes	Yes	No	No	Has a habit of shedding limbs without warning even when the tree is in a healthy condition. White creamy flowers in autumn to winter. Grows well in swampy waterlogged soils.
Eucalyptus tereticornis	Forest Red Gum	Native	Second Line Coastal	Very tall, linear	30m-50m x 10m	15-40 years	No	No	Yes	No	No	A very tall tree not really of local character. Fast growing. Mainly cultivated in forestry plantations. White filamentous flowers June to November. Drought sensitive.
Ficus macrophylla	Moreton Bay Fig	Native	No	Large spreading umbrella shaped	15 - 35m x 15-35m	Long	No	Yes	Yes	No	No	Large Evergreen Banyan Tree. Known for its imposing buttress roots. It is a strangler fig which strangles its host and eventually becomes a free standing tree by itself.
Ficus microcarpa var. Hillii	Hill's Weeping Fig	Not indigenous Native to Queensland	No	Broad canopy	15 - 20m x 12-16m	Long	No	No	Yes	No	Yes	Large Tree. Dense foliage. A very hardy tree. Roots are invasive and wide spreading. Should not be planted close to buldings and pipes.
Jacaranda mimosifolia	Jacaranda	Exotic	No	Dome shaped, branches ascending	10m x 8 m	80 - 90 years	Yes	No	Yes	No	Yes	Suitable for special areas. Beautiful long lasting blue flowers in summer with green soft foliage. Fast growing. Likes full sun in most soil types. It can handle periods of drought and periods of wet weather. Deciduous.

Lophostemon confertus	Brush Box	Native	Possible secondline coastal	Dense elongated rounded canopy	10-15m x 6-12 m	Over 20 years	Yes	No	Yes	Yes	Yes	Can be a weed in Sydney bushland. Good for urban landscapes. Very hardy & reliable. Lush dense foliage. Bark has salmon tones. White flowers in spring and summer. Robust strong and tolerates a wide variety of soils and climatic conditions. Can be pruned. Fire retardant, smog and drought tolerant. Fast growing. Good as a wind break, screen, in erosion control. Is a honey producing, bird nesting plant. Disease & pest resilient. Rarely sheds limbs.
Magnolia grandiflora	Bull Bay Magnolia	Exotic	Second Line coastal. These trees are tolerant of the typically sandy conditions associated with living along the coast.	Oval dome shaped	25m x 10 m	80-100 years	Yes	No	Yes	No	Yes	Suitable for special areas only. A beautiful dense tree with dark green glossy leaves. Large, elegant, cup shaped, white fragrant flowers in spring to summer.
Melaleuca quinquenervia	Broad Leaf Paperbark	Native	No	Columnar, elliptical	15-20m x	More than 100 years	No	Yes	Yes	No	No	Myrtle rust host. Very fast growing. White to cream coloured bottle brush like flowers at the end of summer and into autumn. Suitable for parks and gardens only as it develops a massive trunk. Used for revegetation where erosion control is required. Resistant to termite attack. Attracts wide range of fauna, specially birds and bats.
Melia azedarach var. australasica	White Cedar	Native	Deciduous native	Umbrella shaped	6-12m in height x 6-12m spread	20 years	Yes	No	Yes	No	No	A good choice if you need a deciduous native tree. Deciduous between June and August. Fruits are poisonous to humans. Fragrant lilac flowers in summer. Drought and frost tolerant once established. Prefers partial shade.
Zelkova serrata	Green Vase, Japanese Elm	Exotic	No	Triangular upturned vase shaped	12-15m x 10-12 m	20-80 yrs	Yes	No	Yes	Yes	Yes	Hardy. Deciduous. Leaves are alternatively arranaged. Short main trunk, low braching. Famous for its fall colours - foliage turns lemon-yellow to bright-red in autumn. Fast growing. Deep root system. Likes full sun or partial shade.

Palms in Parks

							Application					
Species	**Common Name**	**Indigenous / Native / Exotic**	**Coastal Exposure**	**Form**	**Size (H x W)**	**Longevity (Years)**	**Accent Plants**	**re-vegetation**	**parks**	**Plants for Stormwater Quality Improvement**	**Playgrounds**	**Notes on Form / Maintenance / Performance**
Archontophoenix cunninghamiana	Bangalow Palm	Native	No	Tall, slender	20m x	possibly 40-60 years	No	Yes	Yes	No	Yes	Attractive red fruits. Good for wet areas and gullies. Popular in parks.
Howea forsteriana	Kentia Palm	Native	Second Line Coastal	Tall, slender	5-10m x 2m	possibly 40-60 years	No	No	Yes	No	Yes	Palm. Species considered vulnerable by world Conservation Union. Elegant. Does not do well in temperatures below 10. Slow growing.
Livistona australis	Cabbage-tree Palm	Native	Front Line Coastal	Tall, slender	25-30m x 4-6m	possibly 40-60 years	No	Yes	Yes	No	Yes	Salt, frost and wind tolerant

Shrubs

Species	Common Name	Indigenous / Native / Exotic	Coastal Exposure	Form	Size (H x W)	Application						Notes on Form / Maintenance / Performance
						Accent Plants	Streetscape (traffic calming devices and verges)	Re-vegetation	Parks	Plants for Stormwater Quality Improvement	Playgrounds	
Small (less than 1m)												
Acacia myrtifolia	Myrtle Wattle, Red-stemmed wattle	Native	No	Irregular, bushy	1-2m x 1-2m	No	No	Yes	Yes	No	Yes	Distinctive reddish stem. Globular, clustered, cream flowers in spring. Mature plant does not have true leaves but has leaflike flattened stems called phyllodes. They are elliptic & slightly curved. Hardy in most reasonably drained soils and can be lightly pruned. Prefers full sun and is moderately frost tolerant.
Acacia suaveolens	Sweet scented Wattle	Native	Possible secondline coastal	Prostrate to erect	0.3 - 3.0 m tall	No	No	Yes	Yes	No	Possible	Sweet smelling pale yellow to near white globular flowers in small clumps from winter to early spring.Lives upto 15 years. Highly variable both in foliage ans growth patern.Flowers and seeds are a food source for a variety of birds and invertebrates. Easy to maintain. Can be pruned. Species provides winter colour and can be used as low screen plant.
Baeckea imbricata	Spindly Heath Myrtle	Native	Front Line Coastal	Erect or spreading, bushy	1m x 1m	No	No	Yes	Yes	No	Possible	White flowers from early spring to late autumn. Interesting cross leaf arrangement. Very hardy. Tolerates high winds. Likes full sun to low sun. Can be grown as a low hedge.
Correa reflexa	Common Correa / Native Fuchsia	Native	No	Mound-shaped, can be Prostrate	0.5-1.2m x 0.5-1m	No	No	No	Yes	No	Yes	Bell shaped long flowers, pale green, red, or red with cream tips mainly from winter to early spring but flowers most year through. Attracts honey eating birds, bees, butterflies and other insects. Prefers well drained soils and likes semi-shade but can grow in any conditions. Hardy. Rarely troubled by pests or disease. Good groundcover or border plant.
Darwinia fascicularis	None recorded	Native	Requires adequate moisture	neat compact round	1mx1m	Possible	Yes	Yes	Yes	No	Yes	Light green needle-like leaves crowded at the end of branches, opposite or whorled around the stem. Attractive flowers in clusters nestled in the foliage from early spring to late autumn. They open creamy-white and turn bright red with age. Useful for cut flowers. Requires good drainage. Frost hardy. Grow well in full sun to heavy shade.
Micromyrtus ciliata	Fringed Heath-myrtle	Native	Possible secondline coastal	small Spreading, prostrate	0.5m - 1m x 0.5 - 2m	Yes	No	Yes	Yes	No	Yes	Small white, red or pink flowers from spring to early summer. Scented foliage. Drought resistant. Likes full sun to light shade and well drained soils. Good for cut flowers, as a border plant, feature plant, groundcover fragrant oils, erosion control, pipe and drain friendly. Honey producing. Attracts bees, butterflies and other insects.
Olearia tomentosa	Toothed Daisy Bush or Downy Daisy Bush	Native	No	Compact mounding	0.75-1 m x 0.75-1 m	Yes	Possible	Yes	Yes	No	Yes	Masses of daisy flowers open up mauve and age to pure white. Flowering in spring and summer. Can be pruned. Prefers moist free draining soil and sunny or light shade conditions. Attracts bees and butterflies. Drought resistant, tolerates light frost.
Pimelea linifolia	Slender Riceflower, Queen-of-the-bush	Native	No	Prostrate to erect, Stems globulous	Prostrate to 1.5m high	Yes	Possible	Yes	Yes	No	No	Attractive white to pink flowers in bracteate heads in winter and spring, resembling exploding fireworks. Spectacular in masses. Elongated bluish green leaves. Toxic to livestock. Best planted in well drained soils in a protected position. Bark can be processed in a strong thread. Good for urban bushlands.

Large (more than 1m)												
Acacia sophorae	Coastal Wattle	Native	Frontline coastal	Prostrate or decumbent	2-3 m	No	No	Yes	Yes	No	No	Bright yellow flowers occuring in the axils of the phyllodes as elongated spikes in late winter and spring. Suited for a wide range of soils. Does not like waterlogged conditions. Tolerates sea spray and sand blast and provides protection for less hardy plants. Tolerant of light frost. The plant has become a weed in certain areas. Used for dune stabilisation.
Adenanthos sericeus	Albany Wolly Bush	Not Indigenous	possible frontline coastal	Upright oval	0.5 - 5m x 2m	Yes	No	No	Yes	No	No	Small red inconspicuous flowers throughout the year forming a great source of nectar for honeyeaters. Silver-grey attractive contrasting foliage. Grows in a wide range of soils provided those are free-draining. Likes full sun but can adapt to semi-shade. Very hardy. Can be pruned. Vulnerable to borers. Also susceptible to Phytophthora cinnamomi and can have major issues with mealybugs.
Atriplex nummularia	Old Man Saltbush	Not Indigenous Native to Australia	Front Line Coastal	Bushy, irregular	3 x3m	No	Yes	No	Yes	Yes	Yes	Silvery grey foliage. Very adaptable. Very hardy. Can tolerate severe drought as well as periodic flooding. Salt and frost tolerant. Suitable for pruning. Useful as a windbreak. Can be grown as a hedge.
Baeckea linifolia	Weeping baeckea	Native	No	Weeping, in a 'tree' shape with a bare trunk	1.5-2m high - 2m	Possible	Possible	No	Yes	Yes	Yes	Small white tea-tree like flowers in massed displays along the weeping branches in summer. Hardy in most well drained soils. Prefers full sun or dappled shade. Tolerates moderate frost. Once established can withstand extended dry conditions. Wind tolerant, fast growing.
Banksia ericifolia	Heath Banksia	Native	Possible secondline coastal	Round	3-6m x 3-6 m	Yes	possible	Yes	Yes	No	Yes	Very beautiful plant, large striking spikes of yellow to reddish-orange flowers contrast with small, linear, light-green to greyish-green leaves. Flowering autumn to early spring. Attracts honey-eating birds. Likes sandy well drained soils. Portrays the unique australian image. very adaptable and hardy. Tolerates frost. Likes full sun or semi-shade conditions.
Banksia robur	Swamp Banksia	Native	possible secondline coastal	Spreading	2-2.5m x 2m	Yes	Possible	No	Yes	Yes	Yes	Greenish-yellow long flower heads changing to dull orange and brown with age, in winter and early spring, but can occur throughout the year. Leaves are stiff, leathery, egg shaped and broadest at the tip, and shiny above, dull beneath. Seeds in hairy woody follicles, retained on the plant for a considerable period. Will tolerate poor soils and poor drainage. Very hardy.
Bauera rubioides	Dog Rose	Native	Needs moist soil	Spreading	0.3-1.5m x 0.5 - 1m	Yes	No	Yes	Yes	Yes	Yes	Grows well in moist soils and flowers well in shady spots. Attractive delicate white or deep to mid pink flowers with a mass of yellow stamens, flowering sporadically throughout the year. Makes great understorey and is a good feature plant. Can be grown as a low hedge or screen. Likes consistent moist soil. Attracts bees and butterflies. Can be shortlived if not planted in right soil and water conditions.
Callistemon 'Captain Cook'	Captain Cook	Not Indigenous, Cultivar	Possible secondline coastal	Erect, compact, spreading	1.5-2m x 1-1.5 m	Yes	Yes	No	Yes	No	Yes	Bright pinkish- red bottle-brush shaped flowers in spring and summer. Lance shaped leaves. Hardy. Flowers best in full sun or partial shade. Drought resistant. Long lived. Ideal for screening, hedging or as a feature plant. Attracts bees, nectar eating birds, butterflies and other insects.

Callistemon 'Western Glory'	Bottle brush	Not Indigenous, Hybrid	No	Bushy	2-3m x 2-3 m	Yes	Possible	No	Yes	No	Yes	Bright red to rose pink bottle-brush shaped flowers in mid to late spring. Lance shaped leaves. Hardy. Flowers best in full sun or partial shade.Tolerates drought & moderate frost. Ideal for screening, hedging or as a feature plant. Attracts birds.
Calytrix tetragona	Common Fringe-myrtle	Native	No	Bushy rounded	1-2.5m x 0.5-1.5m	No	No	No	Yes	No	Yes	Leaves are tiny, slightly fleshy and give out a spicy perfume when bruised. White or pink star-shaped floers in clusters in October upto December. Hardy. Attracts bees in flowering season. After flowering the caiyces hang on for some weeks with long curling threads in golden bronze or purpulish coulrs and give the plant a feathery effect. Good as feature plant, screen or as a windbreak. Tolerates light frost. Drought resistant.
Correa alba	White Correa	Native	Front Line Coastal	Bushy, round mound shaped	1.5m x 1.5m	No	Yes	Yes	Yes	No	Yes	Low, dense shrub. Leaves are oval and greyish in colour. White flowers from leaf axils in a flora ltube split to give a star shape, from late autumn to winter. Can flower at other times in the year. Very hardy. Resistant to salt sprays and moderate frost. Responds well to pruning. Attracts nectar eating birds and other insects. Good border plant. Attractive foliage.
Crinum pedunculatum	Swamp Lily	Native	Secondline coastal	Tufting	2.0m x 2.0-3.0 m	Yes	Yes	Yes	Yes	No	Yes	Pleasantly perfumed white showy flowers in clusters from november to march. Grows well in swampy areas. Does well in full sun to 70% shade. Can be planted successfully below eucalypts. Sutable for coastal areas and tolerates frost. Susceptible to some caterpillars and snails and slugs.
Doryanthes excelsa	Gymea Lily	Native, Endemic to coastal areas of NSW near Sydney	Possible secondline coastal	Clumplike with swordlike leaves with flowers borne on stems 2-4 m high.	2-4m x 2-3 m	Yes	Possible	Yes	Yes	No	Yes	Attractive flowers, bold foliage. Large red trumpetlike flowers on terminal heads on Long flowering stems 2-4 m high from October to November. Plants do best in deep soil. Suitable for large rockeries and gardens, as a feature plant, as a screen and windbreak. Likes full sun or partial shade. Plant frost resistant but flowers need frost protection. Pollution tolerant, used in erosion control. Attracts nectar feeding birds, butterflies, bees and other insects.
Grevillea mucronulata	Green spider flower	Native, Endemic to NSW	No	Spreading or decumbent to erect	1-3m x 1-3m	No	No	No	Yes	Yes	Yes	Green to reddish brown spider-like flowers in pendant clusters most of the year. Leaf and flower colours vary. A hardy plant. Likes well drained sunny areas. Attracts bees and honeyeaters.
Grevillea sericea	Pink Spider Flower	Native	No	Bushy rounded	0.5 - 2m x 2m	No	Possible	No	Yes	No	Yes	Cream, pink or mauve spider-like flowers mainly from August to December, but flowers all year. Leaves in whorls of 3. Prefers sunny to semi-shade conditions. Does not attract birds or bees. Fast growing. Good as a hedge plant.
Grevillea speciosa	Red Spider Flower	Native, Endemic to NSW	No	Bushy rounded	0.4-3m x 2m	No	Possible	Yes	Yes	No	Yes	Masses of bright red spider-like flowers mainly through winter and spring but flowers June through to March. Ideal for smaller nectar feeding birds like spinebills and honeyeaters. Fast growing. Likes full sun or light shade.
Hakea gibbosa	Hairy Hakea	Native	No	Irregular Oval	1-3m x 1.5m	No	No	Yes	Yes, away from pedestrian areas	No	No	Very prickly do not plant near pedestrian areas. Stiff grey-green long needle-like leaves covered with fine hair. Has a particularly attractive dense habit. Small cream coloured flowers in loose clusters during early winter followed by large ovoid pods. Likes open sun and makes a good screening hedging plant.
Hakea teretifolia	Daggar Hakea	Native	No	Spreading	1-2.5m x 0.5 - 2.5m	No	No	Yes	Yes, away from pedestrian areas	No	No	Prickly. White flowers on braches, from September to February. Interesting dagger shaped seed pods. Attracts small birds and honeyeaters. Is a good prickly deterrant.

Jacksonia scoparia	Dogwood	Native	No	Broomlike open weeping habit	3-4m tall	No	No	No	Yes	No	Yes	Masses of yellow to light orange pea-like flowers in recemes from late spring to summer. Greyish foliage. Flat angular or winged branches which are entirely leafless. Hardy and adaptable. Does well in full sun or partial shade. Good as a small shade tree, specimen or fence cover. Requires good drainage.
Kunzea ambigua	Tick bush	Native	No	Stiff, upright spreading with fibrous bark in NSW. Some forms are low with a weeping habit	2.5m - 5m x 2.5m - 5m	No	No	Yes	Yes	Yes	Yes	Masses of small, honey-scented white flowers borne in heavy sprays in spring. Leaves are small and crowded. Distinctive bowl-shaped seed capsules, often with a rosy bloom. Adapts to many situations. Good as a background shrub, for screening or as a feature plant. Grows well in sandstone and granite based soils. Very hardy. Can withstand moderate frost. Attracts bees, nectar eating birds, butterflies and other insects.
Leptospermum laevigatum	Coastal Tea Tree	Native	Possible frontline secondline coastal	Muiti-stemmed, spreading umbrella shaped	1.5 - 4 x 3m	No	No	Yes	Yes	No	No	White 5 petalled flower, flowering April to October. Foliage greyish, attractive. Fruit woody, attractive, flat topped containing many seeds. Salt resistant and very hardy. Plants prefer full sun or partial shade. Highly invasive outside its natural habitat.
Leptospermum squarrosum	Pink Tea-tree, Peach blossom tea-tree	Native	Possible secondline coastal	Muiti-stemmed, erect, globular	2.5 - 4m x 1.5 m	Yes	Possible	Yes	Yes	No	Yes	White to pink 5 petalled flower, flowering irregularly but often from autumn, through winter up to spring. Fruit woody, attractive, flat topped containing many seeds. Extremely hardy. Tolerant of both well drained and damp conditions. Good as an informal hedge, windbreak and is salt resistant.
Leptspermum polygalifolium	Yellow Tea-tree, Tantoon	Native	No	Muiti-stemmed	0.5-3m tall	Yes	Yes	No	Yes	Yes	Yes	White to greenish attractive flowers in spring to early summer. Leaves are sometimes aromatic. Fruit woody, attractive, flat topped containing many seeds. Has high wildlife value and is valued as an ornamental and a hedge plant. Tolerates light frost and low level non-continuous waterlogging.
Macrozamia communis	Burrawang	Native	Possible frontline secondline coastal	Tufted palmlike	2-4 m tall	No	No	Yes	Yes	No	No	Type of australian cycad. Large trunked. Sought after for its highly ornamental qualities. Prefers partially shaded locations. Can adapt to full sun with adequate watering. Transplants readily. Can be affected by mealybugs. Can live upto 120 years. Generally forms subterranean stems when in sand dunes.
Melaleuca ericifolia	Swamp Paperbark	Native	No	Tall umbrella shaped, can be multi-stemmed	Upto 8 m tall	No	No	No	Yes	No	No	Profuse, cream coloured bottle brush-like flowers in spring and summer. Pale white or brownish papery bark. Tolerant of most soils and situations including waterlogging and heavy frost. Responds to pruning, can be grown as a hedge or screen. Excellent as a shelterbelt for animals and a wind break. Likes full sun or partial shade. Grows well besides streams and coastal swamps. This melaleuca has fragrant flowers which attract birds.
Melaleuca nodosa	Ball Honey Myrtle, Prickly-leaved paperbark	Native	No	Irregular umbrella shaped	1-4m tall	No	No	Yes	Yes	No	No	Corky to papery bark. White to yellow flowers in dense inflorescenses from September to November but also April through to January. Leaves narrow, needle-like. Fruits are woody, cup-shaped. Hardy. Adaptable to wide variety of climates and soils. Attracts native bees, honey bees and other insects.
Philotheca myoporoides 'Profusion'	Long-Leaf Wax Flower - compact form	Native cultivar	No	Globular	0.8 - 1m x 0.8 - 1m	Yes	Possible	Yes non-cultivar	Yes	No	Yes	Masses of starry whilte flowers following pink buds in spring. Adapts well to wide range of environments. Leaves have a wonderful apple-like fragrance when crushed. Frost tolerant. Grows well in full sun or partial shade. Attracts insects.

Syzygium australe 'Aussie Copper'	Brush Cherry, Aussie copper Lilly Pilly	Native	No	Columnar	1-4m x 1.5 m	Yes	Possible	No	Yes	No	Yes	Glossy green leaves with coppery coloured new growth. White filamentous flowers in spring. Attractively shaped red coloured fruits. Non-invasive roots. Good as specimen, can be grown as a hedge, along roadside, as a windbreak and is fast growing. Resistant to drought, pollution, frost, coastal exposure and tropical heat. Suitable for most soil conditions. Likes full sun or light shade.
Syzygium australe 'Blaze'	Lilly Pilly, Rose apple	Native	No	Globular oval	1.5 - 2.5m x 1.2 - 1.5m	Yes	Yes	No	Yes	No	Yes	A small naturally dense shrub with mid-sized glossy green leaves with bright red new growth. White to cream powder-puff flowers in spring are followed by pinkish fruits that attract birds. Low maintenance, drought tolerant, can grow in any soil types. Likes full sun to light shade conditions. Responds well to pruning and can be grown as a hedge. Good for screening, as a windbreak, erosion control and is playground friendly. Attracts bees, birds and butterflies. Fruits are edible and are eaten fresh or as a jam.
Syzygium Australe 'Select'	Lilly pilly 'select form', select scrub cherry	Native	No	Columnar	3-5m x 1.5 m	No	No	No	Yes	No	Yes	A compact, bushy, large Australian native shrub with glossy dark green foliage and flushes of bronze-tinged new growth. 'Select' is a form of Syzygium australe that was introduced to replace the original species because of its resistance to Psyllid and 'clean' status. Fluffy white pendulous flowers in mid Summer followed by edible purplish-red berries. Thrives in full sun but will tolerate part shade. Is tolerant of most soil types and conditions and will withstand light frosts once established. Fast growing. Responds well to pruning and shaping. Great plant for hedging, screening and topiary work.
Westringia fruticosa	Coastal Rosemary	Native	Front Line Coastal	Globular	1.5m x 1.5m sometimes 2m x 4m	Yes	Yes	Yes	Yes	Yes	Yes	Flowers are lightly scented, small white to pale mauve, hairy and have upper petal divided in two lobes. Flowering throughout the year but mainly spring to summer. Foliage grey to dark green with underside of leaves having a silvery tint. Very hardy, fast growing and long lived. Will grow in full sun or partial shade in most soil conditions. Can be pruned. Drought frost and salt spray tolerant. Good as a specimen plant or for hedging and screening. Responds well to pruning and can be grown as a hedge.

Tufting Plants

Species	Common Name	Indigenous / Native / Exotic	Coastal Exposure	Form	Size (H x W)	Application						Notes on Form / Maintenance / Performance
						Accent Plants	Streetscape (traffic calming devices and verges)	Re-vegetation	Parks	Plants for Stormwater Quality Improvement	Playgrounds	
Anigozanthos 'Bush gem'	Kangaroo Paw	Native / Cultivars	Possible second line coastal	Free branching	0.6- 0.8 m x 0.45 m	Yes	No	No	Yes	No	Yes	Prolific flowering. Tough, disease tolerant plants. Varieties available. Bird attracting. Good for cut flowers. Full sun or partial shade conditions. Drought tolerant, coastal - salt tolerant, light frost tolerant.
Anigozanthos 'Bush Gold'	Kangaroo Paw	Native	Possible second line coastal	Tufting	0.8 - 1m x 0.5 - 0.6 m	Yes	No	No	Yes	No	Yes	Yellow gold flowers all year through. Good for cut flowers. Attracts bees, nectar eating birds & butterflies. Good disease tolerance. Full sun or partial shade conditions. Drought tolerant, coastal - salt tolerant, light frost tolerant.
Carex appressa	Tall Sedge	Native	Possibly not	Densely tufted	0.8 - 1m x 1 m	No	No	Yes	Yes	Yes	No	Foliage may scratch, so keep away from pedestrian traffic. Forms great foliage contrast. Very hardy and can be used in both wet and dry aspects of landscape. Ideal for rain gardens. Full sun to partial shade conditions. Medium frost tolerant.
Carex inversa	Common Sedge, Knob sedge	Native	Possible Front Line Coastal	Loosely tufted	0.1 - 0.5 m x 0.1 - 0.3 m	No	No	No	Yes	Yes	No	High frost tolerance, high coastal tolerance, high drought tolerance
Clivea minata	Clivea	Exotic	No	Tufting	0.45m x 0.45 m	Yes	No	No	Yes	No	Yes	Stunning large funnel-shaped, faintly perfumed flowers in vibrant shades of red, yellow and orange in spring and summer followed by showy brightly coloured berries. Good ornamental plant. Can withstand light frost. Requires dappled shade outdoors.
Dianella congesta	Beach flax lily	Native	Front Line Coastal	Tufting	1.0 x 2.5m	Yes	Yes	No	Yes	No	Yes	Mid- to dark blue flowers in spring-summer followed by bright shiny blue-purple berries. A very hardy plant.
Dianella caerulea	Blue flax lily	Native	Possible secondline coastal	Tufting	1.2m x 0.6m	Yes	Yes	Yes	Yes	Yes	Yes	Dark green blade like leaves with blue flowers in spring and summer followed by indigo coloured berries. Very hardy and long living. Attracts fruit eating birds and butterflies.
Dichelachne crinata	Long Haired Plume Grass	Native	Possible secondline coastal	Tufting, erect	1.5m tall	No	No	Yes	Yes	No	No	Tall upright seed heads whitish purple. Does well near the shore as well as in woodlands. Does well in full sun to 50% shade.
Dichopogon fimbriatus also known as Arthropodium fimbriatum	Nodding Chocolate lily	Not Indigenous	No	Tuberous tufting	0.5-1.0m x 0.4m	No	No	No	Yes	No	Yes	Strong chocolate fragranced beautiful purple flowers with fringed petals from beginning of spring to late summer. Does well in all soils. Resilient and can survive a range of temperatures extremes, fires and grazing. Does well in full sun.
Diplarrena moraea	Butterfly flag iris	Exotic	No	Tufting	0.6 x 0.4m	Yes	No	No	Yes	No	Yes	Lightly scented white tri-petaled flowers in spring and summer, long narrow leaves. Does well in full sun. Frost hardy. Good resistance to insect and disease attack.
Ficinia nodosa (formerly: Isolepis nodosa cv arida)	Knobby Club Rush	Native	Front Line Coastal	Tufting	0.8 x 0.6m	No	No	Yes	Yes	Yes	Possibly yes	Upright to gently weeping sedge with evergreen deep green cylindrical foliage. Can take full exposure to ocean winds. Does well inland too. Semi-spherical brownish/cream flower at the top of the stems in spring and summer. Does well in full sun to 70% shade. Can handle light frost.
Gahnia aspera	Rough SawSedge	Native	No	Tufting	0.75 x 0.6m	No	No	Yes	Yes	No	No	Long straplike leaves. Cream flowers in dense clusters. Attractive red berries. Keep away from pedestrian areas as leaves are very rough and can cut deep. Tolerates semi-shade. Does well in moist soils. Frost tolerant.
Imperata cylindrica	Blady grass, Cogon grass	Native	Possible second line coastal	Tufting, Erect	0.6 - 3.0 m x 0.3m	No	No	Yes	Yes	No	Possibly yes	Fluffy white inforescence. Has medicinal properties and can be used in papermaking, construction, as fibre and as an ornamental. Good for soil stabalization and erosion control. Tends to become an invasive weed in some areas as it adapts well to harsh conditions and any soil types.
Juncus krausii	Sea Rush, Salt marsh rush	Native	Salt marshes, estuarine and coastal areas	Tussock forming	1.0m x 1.0m	No	No	Yes	Yes	Yes	No	Deep green, cylindrical reed like, arching foliage. Grows well in full sun to 90% shade in permanently wet to dry soils. Flowers clustered, brownish, small in spring-summer.
Juncus usitatus	Common Rush	Native	No	Desnsely tufted	0.4-1.1 m tall	No	No	Yes	Yes	Yes	No	Usually good around streams and river banks and damp sites. Good for wetland rehabilitation. Can become very dominant in wet environments.

Liriope muscari	Evergreen Giant, Big Blue Lilytuft	Exotic	No	Grasslike, tufting	0.6 x 0.5m	Yes	Yes	No	Yes	No	Yes	Small showy white to violet-purple flowers in tiered whorls in late summer. Glossy dark arching leaves. Low maintenance, drought tolerant, hardy. Grows well in full sun or partial shade. Prone to snail attacks.
Libertia paniculata	White Native Iris, Grass Flag	Native	No	Tufting, weeping	0.5 - 0.7m x 0.2 - 0.5 m	Yes	Yes	Yes	Yes	No	Yes	White flowers in spring. Grows well in light shade. Tolerates light frost. Attracts butterflies and other insects.
Lomandra longifolia	Mat Rush	Native	Possible frontline coastal	Tufting	0.7 - 1.0m x 1.0m - 1.3 m	No	Yes	Yes	Yes	Yes	No	Grassy. Leaves are glossy green, shiny, firm and flat. Flowers are scented and attracts pollinating beetles. Flowering late winter/ early spring till summer, straw-coloures sessile flowers. Highly drought tolerant but can also withstand occasional flooding and low temperatures. Used for basket weaving and tubers are eaten. Grows well in full sun to 70% shade. Will handle full exposure to coastal winds.
Lomandra longifolia 'Tanika'	Lomandra Tanika	Cultivar	Possibly not	Tufting	0.5-0.6m x 0.65 m	Yes	Yes	No	Yes	Yes	Yes	Soft evergreen grasslike foliage. Drought & frost tolerant. One of the toughest plants. Good for full sun to moderate shade conditions. Small yellow flowers from april to October. Is soft to touch.
Patersonia glabrata	Native Iris	Native	No	Tuberous tufting	0.3-0.8 m tall	No	No	Yes	Yes	No	Yes	Recommended as a rockery plant in sunny situations. It has erect dark green leaves 15-30 cm long and blue to light purple tri-tepal flowers from september to november.
Patersonia longifolia	Native Iris, Dwarf purple flag	Native	No	Tuberous tufting	0.4 m x 0.4m	No	No	Yes	Yes	No	Yes	Purple tri-tepal flowers. Require full sun and good drainage. Occurs on the coast and adjacent to sandstone plateaus. Bluish green leaves. Smaller plant than the sericea.
Patersonia sericea	Native Iris, Silky purple flag	Native	No	Tuberous tufting	0.6m x 0.6 m	No	No	Yes	Yes	No	Yes	Deep violet-blue tri-tepal flowers from June to November. Grass-like silky greyish green leaves. Thrives in hot dry situations
Phormium cookianum also knows as Phormium colensoi	Mountain flax	Exotic	Possibly not	drooping tufting	1m tall x 1m wide - 2m long leaves	Yes	No	No	Yes	No	Yes	Greenish yellow or orange flowers grow into twisted seed pods. Used in maori traditional textiles. Bright gree nfoliage. Low maintenance plant. Good for wet or dry conditions, sun or shade, exposed or sheltered. Good food source for native birds.
Poa affinis	Tussock Grass	Native	Possibly not	Tufted	1.2 m tall	No	No	Yes	Yes	No	No	Grass - grows in dryish sandstone areas or in soils based on sandstone
Poa poiformis	Coast Tussock Grass	Native	Coastal foreshores and estuaries	Densely tufted	1m x 1m	No	No	Yes	Yes	No	Possibly yes	Grass - blue green leaves, full sun to partial shade conditions. Drought tolerant, salt tolerant, frost hardy. Fast growing. Grows in most soil types. Good for feature planting or revegetation projects.
Sarcocornia quinquenervia	Glasswort	Native	Grows along coasts, in dry lakes, saltmarshes and saltpans. Grows between mangroves and the shoreline.	No data	No data	No	No	Yes	Yes	No	No	Listed as "Endangered Ecological Community" in NSW.Used in salads and dishes.
Suaeda australis	Seablite	Native	Coastal or estuarine shorelines or salt marshes	Spreading habit with branching occurring from base	0.1 m - 0.9m tall	No	No	Yes	Yes	No	No	Leaves are light green to purpulish-red in colour, succulent, linear and flattened.
Themeda australis (coastal form)	Kangaroo Grass	Native	Coastal headland heaths	Densely tufted	1.5 m tall	No	No	Yes	Yes	Yes	No	Green to blue-green foliage in spring, changes to purple and later brown during aytumn and winter. Vigorously growing. Highly shade tolerant. Drought tolerant.

Groundcovers

						Application						
Species	Common Name	Indigenous / Native / Exotic	Coastal Exposure	Form	Size (H x W)	Accent Plants	Streetscape (traffic calming devices and verges)	Re-vegetation	Parks	Plants for Storm-water Quality Improvement	Playgrounds	Notes on Form / Maintenance / Performance
Banksia integrifolia (prostrate form)	Prostrate Banksia, Banksia 'Roller Coaster'	Not Indigenous, Cultivar	Possible Front Line Coastal	Prostrate	0.15m tall x 4m wide	No	No	No	Yes	No	No	Lemon Yellow flowers in spikes from autumn to winter. Good for semi arid conditions, beach reclamation and erosion control. Drought tolerant and hardy to light frost. New growth is bronzy green. Leaf underside is very light contrasting with the dark green on top.
Bolboschoenus caldwellii	Club Rush	Native	For swamps	Grasslike, Erect	0.3 - 0.9 m x 0.3m	No	No	Yes	Yes	Yes	No	Full sun or partial shade, frost hardy and salt tolerant, easy to care. Stems are triangular in shape. Good wetland plant.
Brachycome angustifolia	Stiff Daisy	Native	No	Low spreading	0.3m tall	No	No	No	Yes	No	Yes	Pink or light purple daisy flowers in spring. Moist soils in full sun or semi-shade conditions preferred.
Carex pumila	Strand or Spreading Sedge	Native	Front Line Coastal on sand dunes along the coast	Grass, Erect, Loosely tufted	0.05-0.2m tall	No	No	Yes	Yes	No	No	Useful sand binding plant
Carpobrotus glaucescens	Pig Face	Native	Front Line Coastal	Prostrate, creeping	0.1 - 0.3m x 1-3m	No	No	Yes	Yes	No	Yes	Succulent coastal groundcover with deep pink flowers in spring and autumn. Low maintenance. Good as a groundcover, feature plant or border plant. Fast growing. Helps with erosion control. Attracts bees, butterflies and other insects.
Chrysocephalum apiculatum	Yellow buttons	Native	Suitable for both inland and coastal plantings.	Low, spreading	0.2-0.6m x 1m	No	No	Yes	Yes	No	Yes	Golden yellow buttonlike flowers throughout the year but mostly spring. Beautiful silvery grey foliage. Caterpillars and aphids tend to attack the flower buds and new shoots. Reasonably long lived 6-10 yrs. Frost-hardy, salt, wind & drought tolerant. Fast growing. Prefers full sun. Food plant to Austalian painted lady, a butterfly. Long-lasting cut flowers.
Cotula coronopifolia	Water Buttons	Naturalised non native	No	Erect to spreading	0.05-0.1 m tall	No	No	Yes	Yes	Yes	No	Yellow buttonlike flowers in winter and spring. Grows well in wet soils that are periodically flooded. Good for waterlogged soils. Very salt-tolerant.
Dichondra repens	Kidney weed	Native	No	Small prostrate herbaceous plant	0.2m x 1.5m	No	Possible	Yes	Yes	No	Yes	Good lawn substitute. Grows well in most climates. Fast growing.
Einadia nutansalso known as Chenopodium nutans	Nodding Saltbush, Climbing saltbush	Native	Front Line Coastal	Prostrate or twining	Prostrate or twining to 1m tall X 1m	Yes	No	Yes	Yes	No	Yes	Climbing groundcover. Leaves flat, triangular arrowhead shaped, alternate or opposite. Flowers inconspicuous green balls in summer, transforming into very conspicuous tiny attractive bright-red squashed spherical berries in autumn. Requires low maintenance and low water.
Grevillea 'Poorinda Royal Mantle'	Prostrate Grevillea	Not Indigenous Cultivar	possible secondline coastal	Prostrate, dense, spreading	0.1 m x 3-8m	No	No	No	Yes	No	Yes	Toothbrush type red flowers all year through. Attractive toothed leaves. Attracts bees, nectar eating birds, butterflies and other insects. Low maintenance, drought resistant. Good for erosion control. Fast growing. Good for covering large areas.
Grevillea curviloba	Prostrate Grevillea	Native, Endemic to Perth	No	Prostrate to erect	2.5m x 3-4.6m	No	No	No	Yes	No	Yes	Spider type white or cream flowers in late winter to mid-spring Aug-Oct. Attracts native bees. Grows well in sun or partial shade. Good for planting under large Eucalypts. Fast growing. Drought tolerant. Requires pruning.
Grevillea 'gaudichaudii'	Gaudichaudii	Endemic to NSW	possible secondline coastal	Prostrate	0.2- 0.3m x 1 to 3m	Possible	Possible	No	Yes	No	Yes	Red toothbrush style flowers in spring and summer. Ferny, naturally dense foliage. Useful weed deterrant. Good for erosion control. Fast growing.Attracts nectar eating birds, butterflies and insects. Sunny, light shade coditions preferred. Tolerates light frost. Low maintenance, drought resistant. It is a naturally occurring hybrid between Grevillea acanthifolia subsp. acanthifolia and Grevillea laurifolia.
Hibbertia diffusa	Wedge Guinea Flower	Native	No	Prostrate	0.3- 0.5m x 0.5 - 1.5m	No	No	Yes	Yes	Yes	Yes	Yellow flowers over long periods in spring and summer. Hardy. Requires sunny or partial shade conditions and resonable drainage.

Pachystegia insignis	Yellow Rock Daisy	Exotic	Frontline / secondline coastal	Globular	0.8 - 0.9 m x 1.2 m	Yes	No	No	Yes	No	Yes	Beautiful tough ornamental plant. Soft velwet leaves. Large white gerbera like flowers with yellow centres. Likes full sun
Pelargonium australe	wild Geranium	Native	Frontline / secondline coastal	Sprawling	0.3 - 0.5m x 0.5-0.6 m	No	No	Yes	Yes	No	Yes	Flowers pink to white with dark markings, in umbels from October to March. Prefers sunny or lightly shaded places. Wind and salt tolerant
Lobelia alata	Coastal Lobelia	Native	No	Trailing	0.3 x Trailing	No	No	Yes	Yes	No	Yes	Good in swampy heaths, brackish marshes, wet rocks near sea. Mauve lobe shaped flowers in spring. Winged stems. Can withstand frost for short periods.
Melanthera biflora	Beach Sunflower	Native	Possible secondline coastal	sprawling, scrambling habit	2m tall	No	No	Yes	Yes	No	Yes	Medicinal value. Leaves valued against stomachache, flowers are used as a purgative. Plant can become woody at the base. Scrambles over ground or grows into other plants for support. Yellow daisylike flowers. Moderately salt tolerant.
Myoporum parvifolium	Creeping Boobialla	Not Indigenous	No	Prostrate	0.3m x 2m	No	No	No	Yes	No	Yes	Flowers star shaped, white or pale pink with purple spots. Flowering through late spring through to early autumn. Hardy plant. Good in sunny positions. Does not do well in shade.
Oplismenus aemulus	Basket Grass	Native	No	weak trailing Creeping grasslike	0.3m tall	No	No	Yes	Yes	No	Yes	Creeping grass, prefers shady forests, flowers most of the year.
Plectantrus parviflorus	Native Spur Flower	Native	No	Spreading, mound shaped	0.4-0.5 m x 0.3-0.4 m	No	No	No	Yes	No	Yes	Blue-lilac perfumed flowers in spires in spring summer and autumn. Leaves are variegated. Attracts butterflies and native bees. Low maintenance hardy plant. Grows well in sunny as well as difficult shady areas.
Pratia purpurascens	White Root	Native	No	ground hugging or standing	0.15 tall	No	No	Yes	Yes	No	Possible	Grows in damp sheltered areas. Small herbaceous plant. Single white to pale purple flowers at end of long stalks. Flowering December to May
Scaevolia aemula	Fairy Fan Flower	Native	Secondline coastal	Prostrate	0.12 m x 1m	No	No	Yes	Yes	No	Yes	White or blue flowers on spikes from August to March. Prefers sunny or partially shaded conditions. Tolerates salt sprays and periods of drought.
Scaevola calendulacea	Dune Fan Flower	Native	Front Line Coastal	Spreading	0.2 m x 2m	No	No	Yes	Yes	No	Yes	High salty winds tolerant. Moderately fragrant blue flowers from late spring ot late autumn
Sporobolous virginicus	Sand counch, Saltland genie	Native	Front Line Coastal. High salt tolerance	Creeping	0.3-0.5 m tall	No	No	Yes	Yes	Yes	No	Common to coastline
Viola hederacea also known as Viola banksii	Native Violet	Native	No	Spreading	0.2 - 0.4m x 0.3 - 2m	No	No	Yes	Yes	Yes	Yes	Can be used as a lawn substitute in absense of foot traffic.
Xerochrysum bracteatum, name Change from Bracteantha bracteata	Yellow Diamond Head, Everlasting Daisy	Native	No	Dense, Clumping	0.2-0.5m x 0.2-0.5m	Possible	No	Yes	Yes	No	Yes	Golden flowers produced most of the year with best bloom in spring. Quick growing. Good for cut flowers.

Ferns

Species	Common Name	Indigenous / Native / Exotic	Coastal Exposure	Form	Size (H x W)	Application						Notes on Form / Maintenance / Performance
						Accent Plants	Streetscape (traffic calming devices and verges)	Re-vegetation	Parks	Plants for Stormwater Quality Improvement	Playgrounds	
Adiantum aethiopicum	Common Maidenhair Fern	Native	No	Low, spreading clumps	0.1-0.45m in height x 0.6-1.0m wide	No	No	Yes	Yes	No	Yes	Soft lacy plants. Very tough. Likes moist shaded locations. Good groundcover fern. Fronds are horizontal and layered.
Asplenium australasicum	Bird's Nest Fern	Native	No	Dome shaped, Spreading,	1.5 m tall x upto 3m wide	Yes	No	Yes	Yes	No	Yes	Can grow on trees, rocks and in the soil. Consists of large elliptical shaped fronds arising from a central stem. Very hardy. Likes plenty of moisture although plants tend to rot in poorly drained soils. Prefers filtered sun.
Blechnum ambiguum	(none recorded)	Native	No	Semi-erect	0.5m tall	No	No	Yes	Yes	No	Possible	Pendant shaped fronds. Fronds are pale green with pinkish new growth. Common on wet rocks, open forests and rain forests.
Cyathea australis	Rough Tree-fern	Native	Possible secondline coastal	Palm-like Tree Fern	Up to 12m tall x 4-6m wide	Yes	No	Yes	Yes	No	Yes	Has a mass of hair-like scales on it s trunk. Extremely hardy species capable of withstanding direct sun when the roots are wet. Tolerant of salty winds. Provides nesting substrate for red bees. This bee is a pollinator of other plants in Australia. Adaptable ot a variety of climate and soils.
Cyanthea cooperi	Lacy Tree Fern	Native	No	Palm-like Tree Fern	12m tall with 0.15 dia trunk	Yes	No	Yes	Yes	No	Yes	Delicate lacy bright green fast growing fronds. Has a more slender trunk than the C. australis with distinctive coin spots where old frond shave broken off the trunk. Very hardy.
Dicksonia antarctica	Soft Tree Fern	Native	No	Palm-like Tree Fern	12-15m x 6m	Yes	No	Yes	Yes	No	Yes	Likes moist areas with high water content. Has small round sori. Can be used as a host for epiphyte ferns, orchids and bryophytes. Provides shelter for more delicate ferns.Can be easily transplanted. Is a food source. Thrives equally well in sun or shade provided it has adequate water.
Doodia aspera	Rasp Fern	Native	No	Spreading	0.35m tall	Possible	No	Yes	Yes	No	Yes	Fern adapted to both sunny and shaded areas. Grows best in shady conditions. Grows well in rainforests and eucalypt forests. Reddish new growth. Tolerant of short dry periods. Adaptable to cultivation. Drainage needs to be sufficient to prevent waterlogging.
Histiopteris incisa	Bats Wing Fern	Native	No	No data	1-2m long fronds	Possible	No	Yes	Yes	No	Possibly No	Usually found in moist areas. Fronds are widely spaced. Soft in texture. Requires little sunlight. Highly aesthetic in appearance. Can become invasive in wet forests.
Hypolepis muelleri	Ground Fern	Native	No	Erect	0.3 to 1m tall with an erect habit	No	No	Yes	Yes	No	Possibly No	Grows along creeks and swamps in open forest or margins of rainforest. The fronds are erect, stiff and harsh but soft to touch.
Pteridium esculentum	Austral bracken	Native	No	Dense, spreading, Creeping roots.	0.6-1.5m tall	No	No	Yes	Yes	No	Possibly No	Used as food, medicine. Common in dry and wet sclerophyll forest. Forms dense understory. Is food for a variety of insects. Can be invasive.

Vines / Climbers

Species	Common Name	Indigenous / Native / Exotic	Coastal Exposure	Form	Size (H x W)	Application						Notes on Form / Maintenance / Performance
						Accent Plants	Streetscape (traffic calming devices and verges)	Re-vegetation	Parks	Plants for Stormwater Quality Improvement	Playgrounds	
Billardiera scandens	Apple Berry	Native	Possible secondline coastal	Climbing	0.2- 1.5 m high x 0.5 - 3m wide	Yes	No	Yes	Yes	No	Yes	Good plant for all purposes. Non-invasive. Tough and adaptable. Excellent feature plant and screening plant. Attractive bell shaped pink and white flowers in clusters throughout spring. Good nectar provider for native birds. Fruits are edible.
Cissus antarctica	Kangaroo Vine	Native	No	Vigorous dense Climber	0.3-4 m high x 0.5 - 6 m wide	No	No	Yes	Yes	No	Yes	It is tough and reliable. Can also be used as groundcover. Can grow in light shady to dark shady areas. Good for erosion control. Pollution tolerant, fast growing.
Cissus hypoglauca	Water Vine	Native	No	Woody, Climbing	Large	No	No	Yes	Yes	No	Yes	Edible fruits, used to make jams and jellys. Grows in well developed upland rain forest. Sap can be drunk as water.
Hardenbergia violacea	Purple Coral Pea	Native	No	Scrambling or more clumping shrubby plant habit; woody, evergreen	0.2-0.8 m x 2-3m	Yes	Yes	Yes	Yes	No	Yes	Bright purple and possibly pink white & violet pea flowers in masses, in winter spring and possibly summer. Drought tolerant. Not frost tolerant. Fast growing. Highly sensitive to waterlogged soils. Tolerates partial shade. Popular as a garden ornamental. Attracts bees, butterflies and other insects.
Hibbertia scandens	Climbing Guinea Flower	Native	frontline / secondline coastal	Good Creeping and twining plant	0.3 x 3m	Possible Yes	Yes	Yes	Yes	No	Yes	Groundcover under trees/climber. Ideal for trailing down rockeries. Large attractive bright yellow flowers on dark green decorative foliage. Low maintenance. Can be clipped to a low hedge. Great for erosion control. Can grow in sun or shade. Highly salt talerant. Attracts bees, butterflies and lizards.
Pandorea pandorana	Wonga Wonga Vine	Native	possible secondline coastal	Woody climbing vine	Height 2-20 m; width 1-9 m	No	No	Yes	Yes	No	Yes	Flowers from winter to summer, has massive pendulous flowers with variable colour from pure white with purple-maroon veining through to yellow. A good butterfly food plant.
Sarcopetalum harveanum	Pearl Vine	Native	possible secondline coastal	Slender vine	No Data	No	No	Yes	Yes	No	Yes	Grows in well developed lowland and upland rain forest. Red and yellow flowers occur on racemes in summer. Flowers are tiny. Fruit is red and resembles miniature grapes. It is food for larvae of two types of moth.
Stephania japnonica var. discolor	Stephania, Snake Vine	Native	possible secondline coastal	Slender vine, a twining climber	No Data	No	No	Yes	Yes	No	Yes	Flowers mostly in summer. Drooping habit. Grows in or near all types of warmer rainforest, sometimes in open forest or in coastal dune communities. Leaf underside is very light.

Turf

Species	Common Name	Indigenous / Native / Exotic	Coastal Exposure	Form	Size (H x W)	Notes on Form / Maintenance / Performance
Stenotaphrum secundatum	Buffalo	Exotic	Good Salt Tolerance	Coarse leaf type		Good shade tolerance. High traffic tolerance. Medium aggressive. Low invasive properties.
Cynodon dactylon	Couch	Exotic	Good salt tolerance	Fine leaf type		Does well in full sun. Poor shade tolerance. High traffic tolerance. Highly aggressive. Average mowing required.
Sporobolus virginicus	Seashore dropseed or marine counch	Native	High salt tolerance	coarse broad leaf	creeping to 50cm tall	Good for grazing. High tolerance to salinity and waterlogging. Useful for stabilising sea-shores.
Zoysia macrantha	Nara grass	Native	High salt tolerance, thrives near coastal areas	Soft. Finer than buffalo	Mowing height 25-50mm	Excellent winter colour and can out-compete weeds when established. Great all-purpose turf. Low maintenance and highly drought tolerant. Moderate shade tolerance.
Pennisetum clandestinum	Kikuyu	Exotic	Good Salt Tolerance	Coarse leaf type		Inexpensive to purchase, quick ot propagate, requires minimal care. Remains healthy and grows and repairs quickly. Good for community areas and schools. Needs more lawn mowing than some other types. High invasive propeties. Good Shade tolerance.

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