

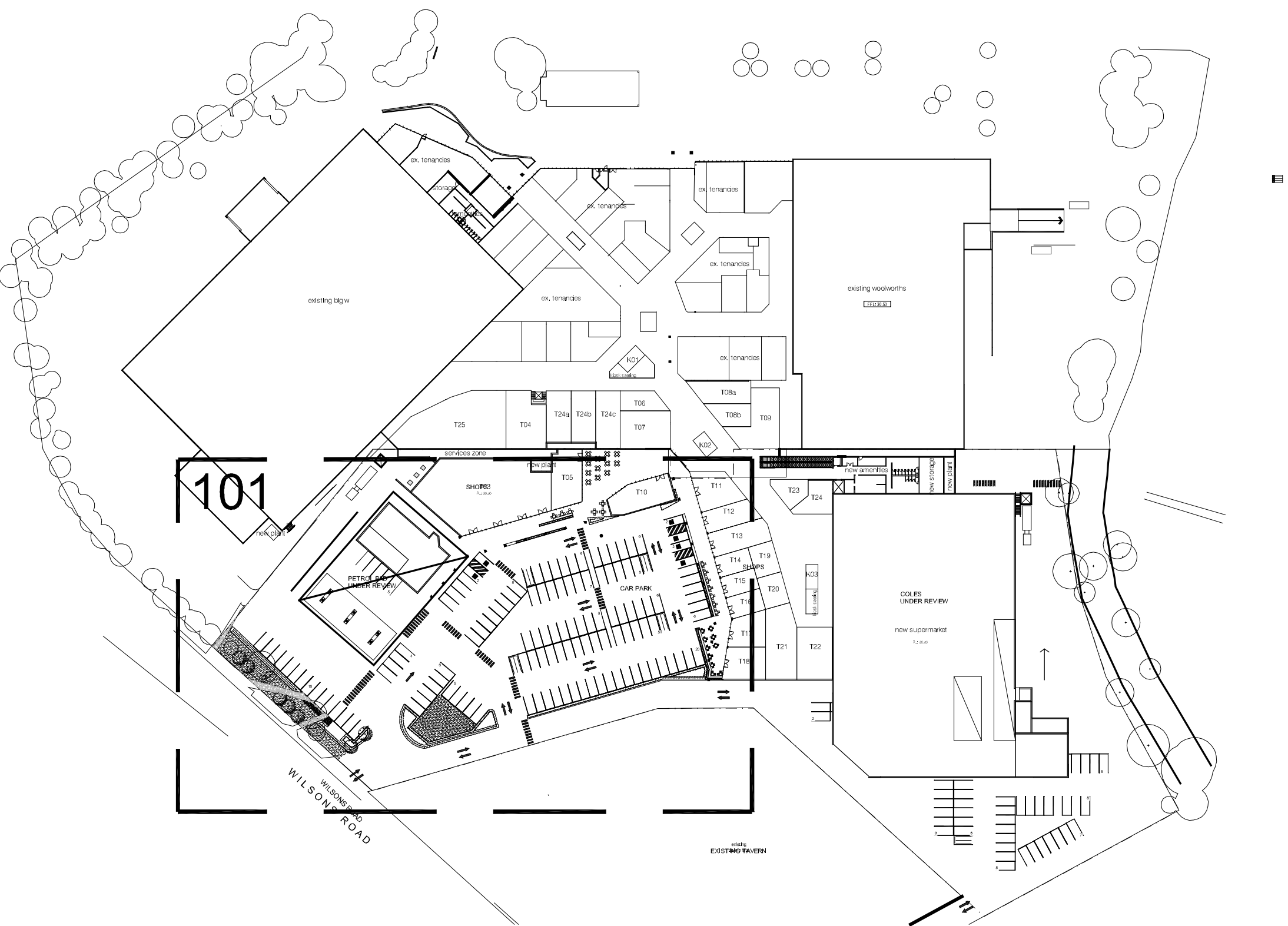
LAKE MACQUARIE FAIR

Wilsons Rd, Mt Hutton, NSW

LANDSCAPE

DRAWINGS

DWG NO.	DRAWING TITLE	SCALE
000	COVERSHEET	N/A
101	LANDSCAPE PLAN	1:200
501	LANDSCAPE DETAILS	AS SHOWN



 SITE PLAN
Not To Scale

P L A N T S C H E D U L E						
Symbol	Botanic Name	Common Name	Height x Width (Metres)	Pot Size	Spacing	Qty
	Trees					
TI	<i>Tristaniopsis laurina</i> 'Luscious'	Water Gum	10 x 8	75L	As Shown	7
	Shrubs / Accents					
AsM	<i>Acmena smithii</i> 'Minor'	Lillypilly	3 x 2	300mm	As Shown	101
De	<i>Doryanthus excelsa</i>	Gynea Lily	2 x 2	300mm	As Shown	21
	Groundcovers/ Grasses					
Cg	<i>Carpobrotus glaucascens</i>	Pig Face	0.2 x 1	150mm	5m2	153
DB	<i>Dianella caerulea</i> 'Breeze'	Breeze	0.6 x 0.6	150mm	5m2	171
PN	<i>Pennisetum alopecuroides</i> 'Nafray'	Swamp Foxtail 'Nafray'	0.8 x 0.5	150mm	5m2	299
Tj	<i>Trachleospermum jasminoides</i>	Star Jasmine	0.8 x 0.5	150mm	5m2	410

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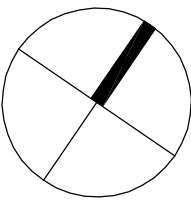
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C	Architectural Coordination	JW	NM	19.04.2016
B	Landscape Amendments	JW	NM	07.04.2016
A	For Comment	JW	NM	05.04.2016
Issue	Revision Description	Drawn	Check	Date

LEGEND

Key Plan:



S I T E I M A G E



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Client:
Charter Hall

Project:
Lake Maquarie Fair
Wilsons Rd, Mt Hutton
NSW

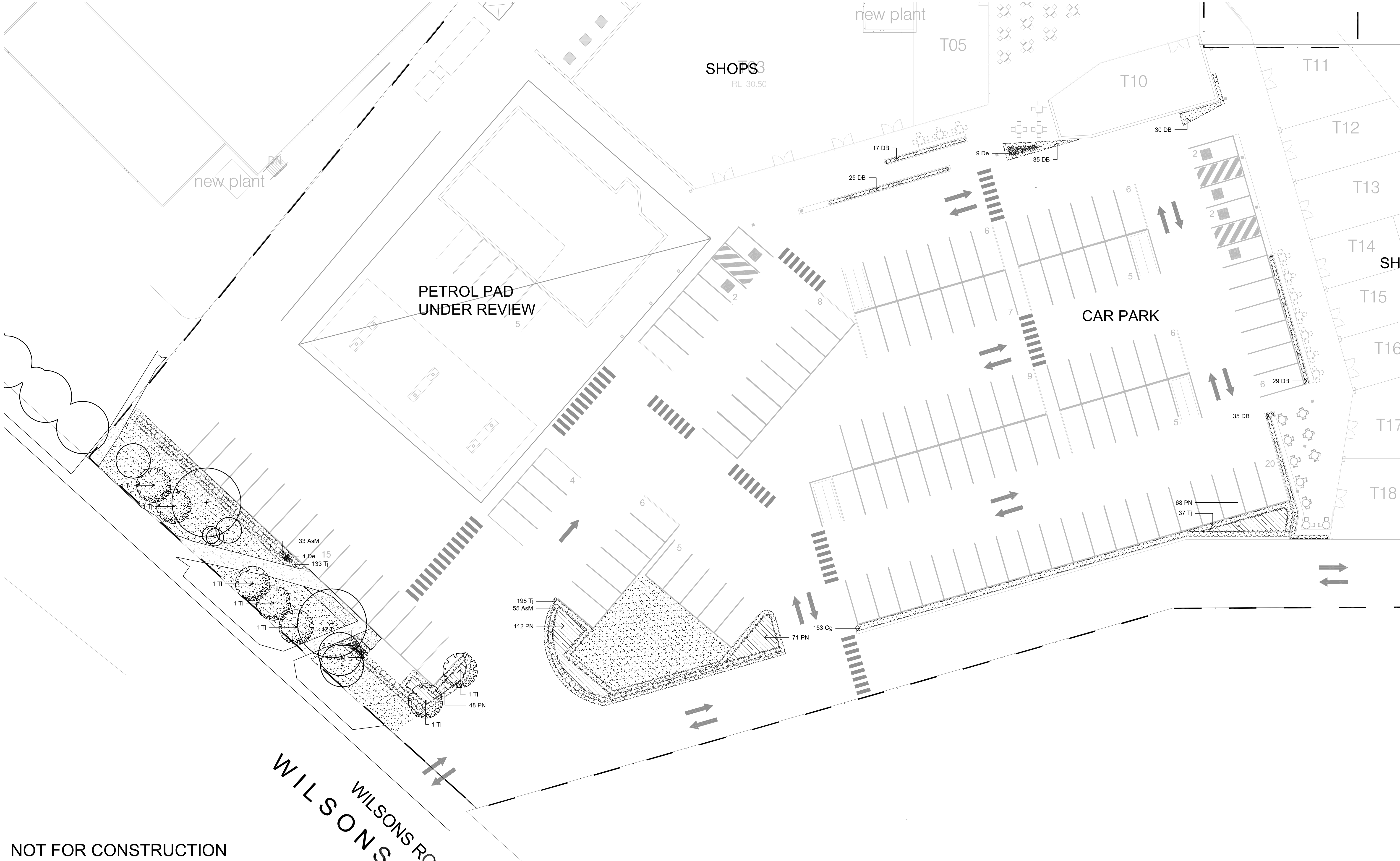
Drawing Name:
Coversheet

PRELIMINARY

Scale:
Job Number:
Drawing Number:
Issue:

SS16-3212
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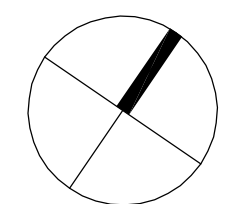
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LEGEND	
	Site Boundary
	Existing Tree (To be retained)
	Proposed Tree
	Proposed Shrubs and Accents
	Proposed Grasses and Groundcovers
	Turf
	Steel Edge
	Existing Concrete Path
	Proposed Concrete Path

Key Plan:



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**Lake Maquarie Fair
Wilsons Rd, Mt Hutton
NSW**

Drawing Name:
Landscape Plan

PRELIMINARY

Scale: 1:200 @ A1
Job Number:
SS16-3212

0 1 2 4 6 10m
Drawing Number:
101 Issue:
C



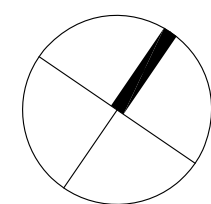
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C	Architectural Coordination	JEF	NM	07.09.2106
B	Landscape Amendments	JEF	NM	05.09.2106
A	Architectural Coordination	JW	NM	23.08.2016
Issue	Revision Description	Drawn	Check	Date

LEGEND	
	Site Boundary
	Existing Tree (To be retained)
	Proposed Tree
	Proposed Shrubs and Accents
	Proposed Grasses and Groundcovers
	Turf
	Steel Edge
	Existing Concrete Path
	Proposed Concrete Path

Key Plan:



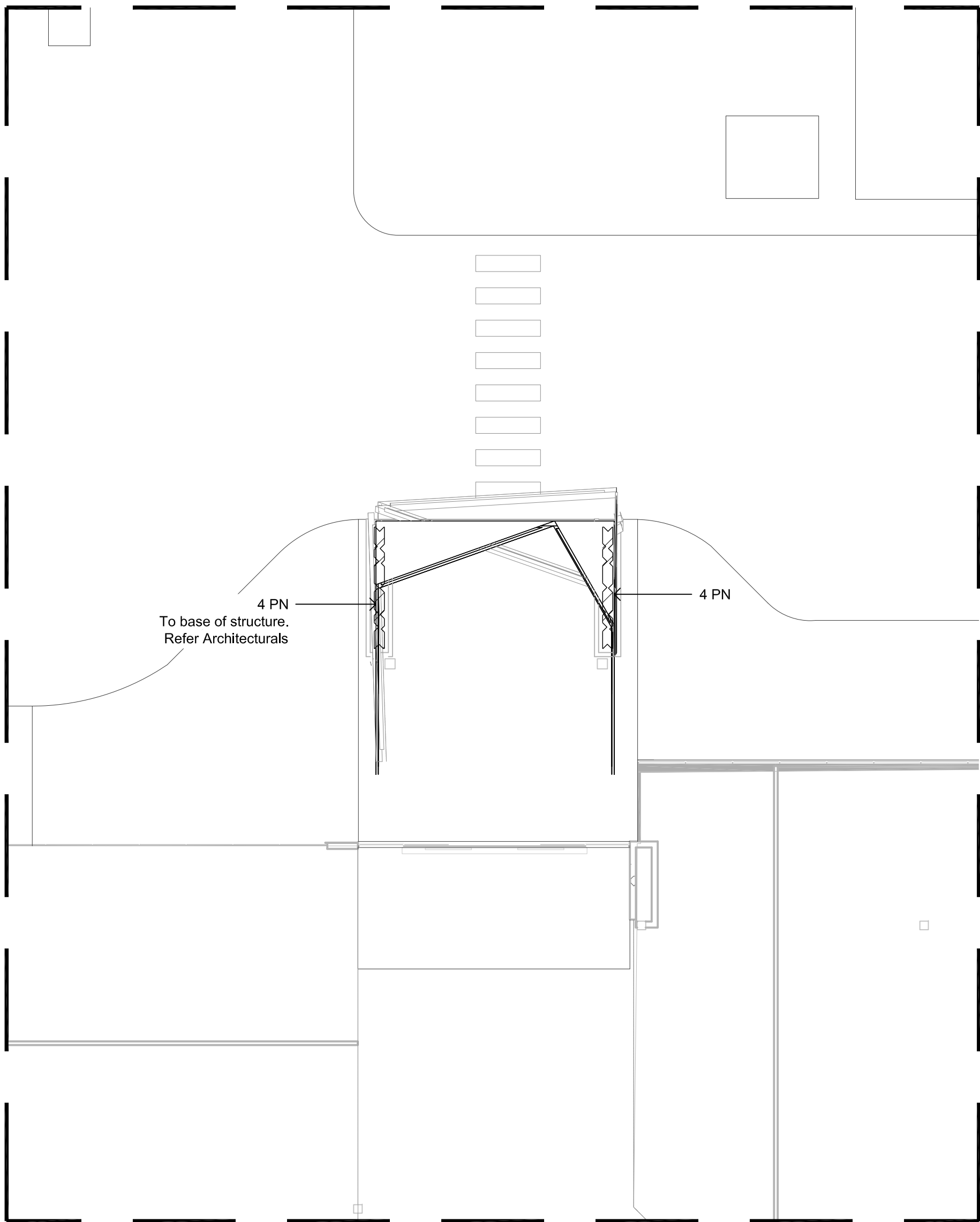
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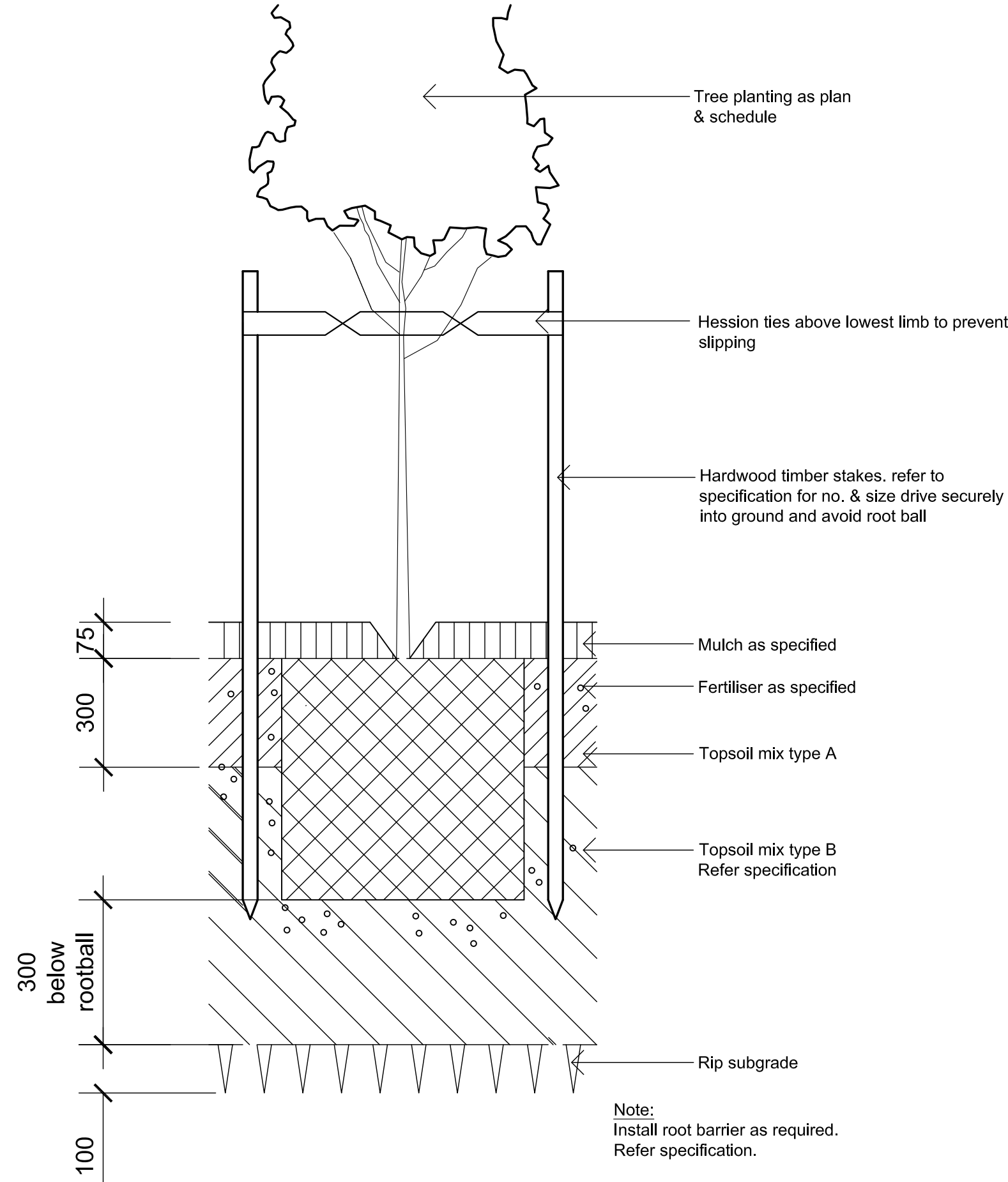
Project:
**Lake Macquarie Fair
Wilson's Rd, Mt Hutton
NSW**

Drawing Name:
Landscape Plan - Lower Car Park

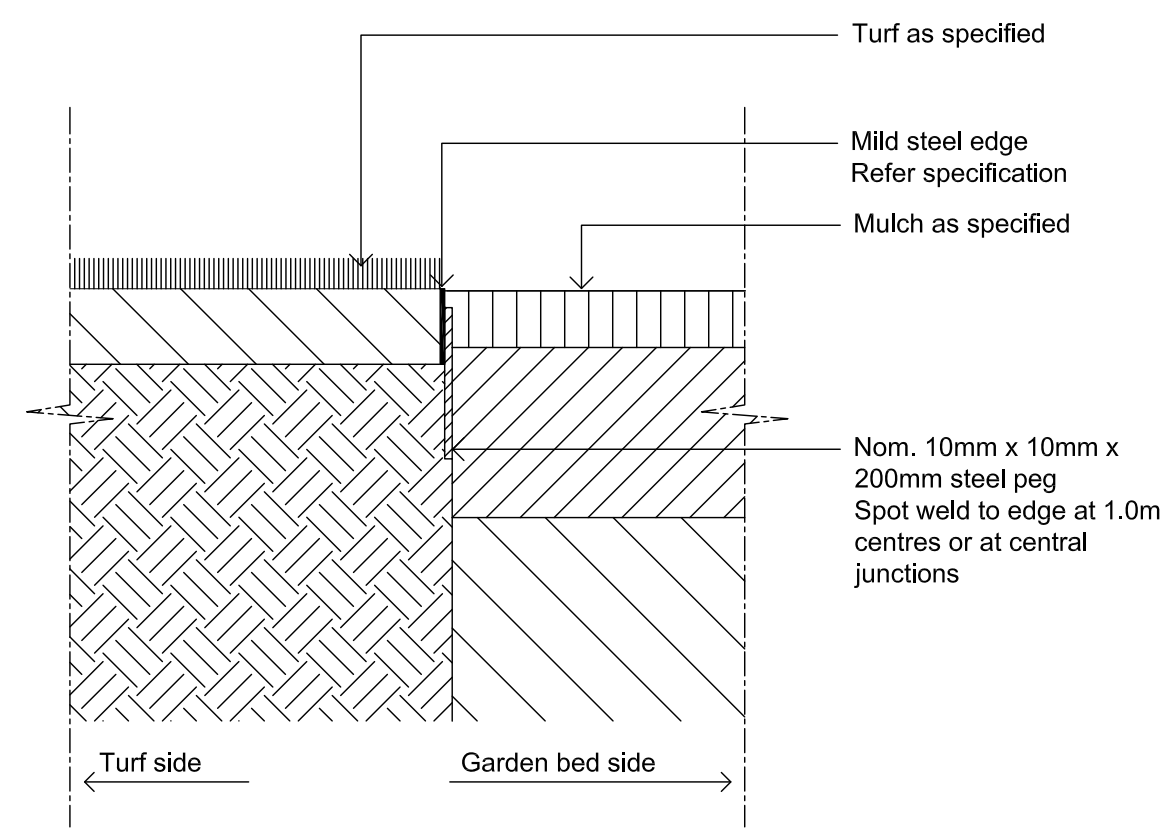
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Scale: 1:200 @ A1
Job Number:
SS16-3212
Drawing Number:
102
Issue:
C



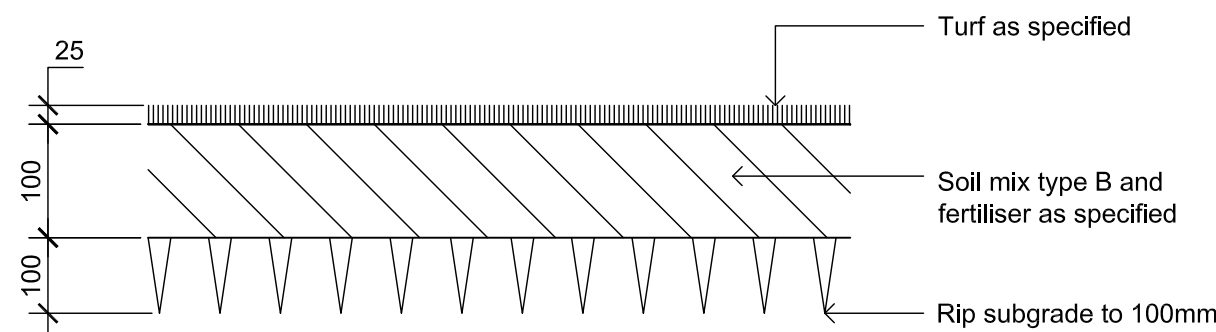
LANDSCAPE PLAN - 501.1
1:100



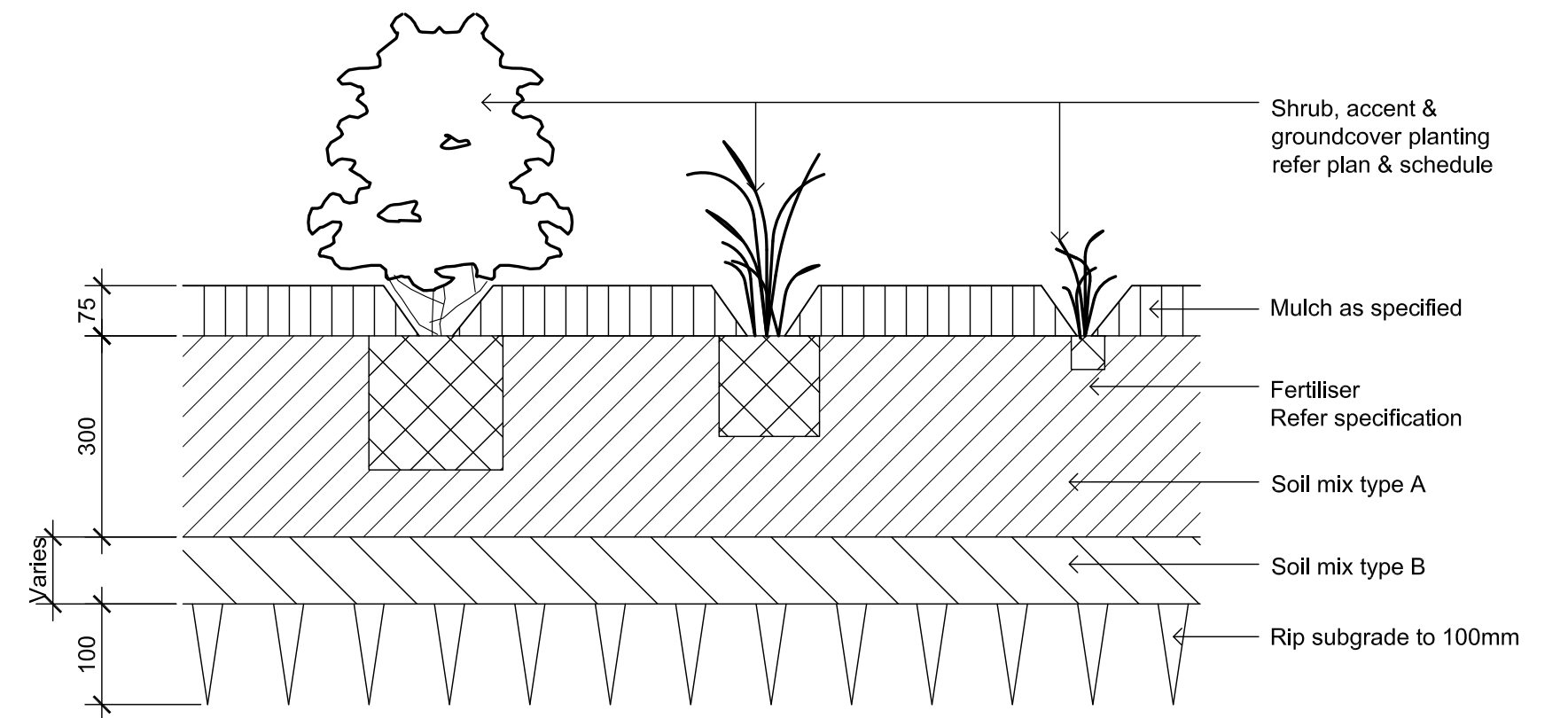
DETAIL - 75-200L TREE PLANTING ON GRADE
1:10



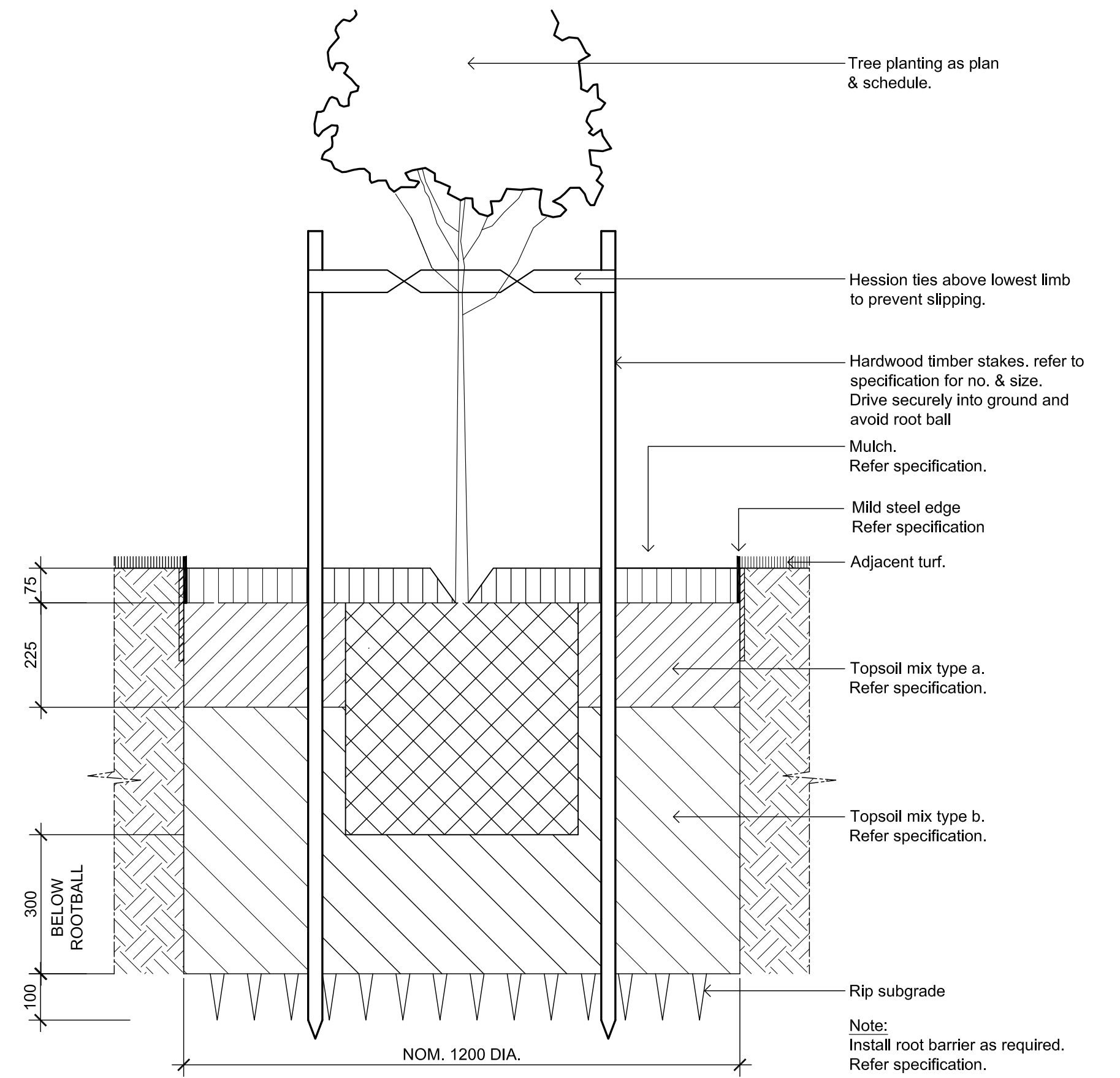
TYPICAL MILD STEEL EDGE
SCALE 1:10



DETAIL -TURF ON EVEN GRADE
1:10



DETAIL - SHRUB, ACCENT & GROUNDCOVER PLANTING ON GRADE
1:10



DETAIL - 75-200L TREE PLANTING ON GRADE
1:10
TURF WITH STEEL EDGE

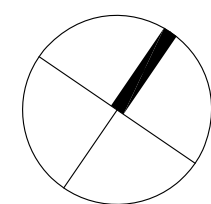
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E	Architectural Coordination	JEF	NM	07.09.2106	
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Charter Hall

Project:
**Lake Macquarie Fair
Wilson's Rd, Mt Hutton
NSW**

Drawing Name:
Landscape Plan & Details

DEVELOPMENT APPLICATION
Scale:
Job Number:
Drawing Number:
Issue:

SS16-3212

501 E

SPECIFICATION

GENERAL NOTES

References

All plans and details included in the project documents shall be read in conjunction with this specification. All structural and civil works components of the landscape design shall be referenced to engineers' details and specifications. Read this specification in conjunction with the plant and materials schedule on this drawing. If in doubt about any detail or if conflicts are found in the documents, seek advice.

Workmanship and Materials

The whole of the landscape works shall be carried out by a competent, trained and qualified landscape contractor who is experienced in horticultural practices, landscape construction and planting techniques. The landscape contractor shall hold a current Building Contractors License and/or be a financial member of LNA Landscape Association NSW & ACT or equivalent organisations in other states.

EXISTING TREES

Trees to be Retained and Protected

Identify and mark trees and shrubs to be retained using a suitable non-injurious, easily visible and removable means of identification. Protect from damage the trees and shrubs to be retained, including those beyond the site area, both above and below the ground. If a tree becomes damaged during the works or it is proposed to perform work on a tree, give written notice immediately and obtain instructions.

Work near Trees

Keep the area of the drip-line free from construction material and debris. Do not place bulk materials and harmful materials under or near trees. Do not place spoil from excavations against tree trunks. Prevent wind-blown materials such as cement from harming trees and plants. Do not remove topsoil from, or add topsoil to, the area within the drip-line of trees.

EARTHWORKS

Excavation, Trimming and Filling

Except as otherwise note in the contract, bulk excavation is excluded from the landscape works. Trim and fill the excavated ground surfaces to achieve design levels to accommodate finish materials as detailed. Compact the finished surface as required for the finished ground treatment.

Sub-soil Drainage

Keep the excavated works drained and free of standing water. Allow to supply and install sub-soil drainage pipes as required for the new works to ensure that all gardens are well drained. Connect the sub-soil drainage pipes to the nearest downstream stormwater pits. Include pipe filter socks.

HARDWORKS

Furniture, Handrails, Balustrades

Supply and install the scheduled items in accordance the manufacturer's recommendations, as detailed and in the locations shown on plan. Provide all footings and fixings required for the items to be stable and in accordance with applicable codes and standards.

Garden Walls, Fences, Steps, TGSi and Edging

Construct garden walls as shown on plan, as detailed and of the material scheduled. Provide footings, step nosings, tactile surfaces to comply with standards and applicable legislation.

Continuous, Unit and Loose Pavement

Install the scheduled material pavement to the locations shown on plan. Ensure that all subgrade/subsurface works are complete prior to commencing paving. Confer with the engineer to ensure the structural integrity of the installation.

SOFTWORKS

Soil Testing

Undertake at least two (2) soil tests, in locations as advised by Project Manager, and provide results and recommendations for the improvement of plant growth and to adjust the soil to achieve appropriate planting medium (including pit levels) for successful plant growth.

Subsoil

Excavate all garden beds to bring the subsoil to at least 300mm below finished design levels. Shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees to be retained. Excavate all turf areas to bring the subsoil to at least 100mm below finished design levels. Shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees to be retained. Cultivate the subsoil to a further depth of 100mm. Remove stones exceeding 25mm, clods of earth exceeding 50mm, and weeds, rubbish or other deleterious material brought to the surface during cultivation. Do not disturb services or tree roots, if necessary cultivate these areas by hand. During cultivation, thoroughly mix in materials required to be incorporated into the subsoil, as recommended in the soil testing results and to manufacturer's recommendations. Trim the surface to design levels after cultivation.

Topsoil

Import topsoil for the garden and turf areas, unless the topsoil can be provided from material recovered from the site, as recommended in the soil testing results. Spread the topsoil on the prepared subsoil and grade evenly, compact 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.

Compost

Provide, in accordance with AS 4454, well rotted vegetative material or animal manure, free from harmful chemicals, grass and weed growth.

Fertiliser

Provide proprietary fertilisers, delivered to the site in sealed bags marked to show manufacturer or vendor, weight, fertiliser type, N:P:K ratio, recommended uses and application rates.

Plants

Supply plants in accordance with the landscape drawings and

schedules, which have the following characteristics:

- Large healthy root systems, with no evidence of root curl, restriction or damage;
- Vigorous, well established, free from disease and pests, of good form consistent with the species or variety;
- Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at the site, and in particular shade conditions;
- Grown in final containers for not less than twelve weeks;
- Trees, unless required to be multi-stemmed, shall have a single leading shoot; and
- Containers shall be free from weeds and of appropriate size in relation to their container.

Plant Installation

Following excavation of the planting hole place and spread 15gms of wetting agent pre-mixed with one (1) litre of water. Place the plant correctly orientated to north or for best presentation. Backfill the planting holes with specified topsoil mixture. Lightly tamp and water to eliminate air pockets. Ensure the topsoil is not placed over the top of the rootball. Keep the plant stem at the same height above the ground as it was above the soil in the container. Apply fertiliser, as recommended in the soil testing results or in accordance with the manufacturer's recommendations around the plants in the soil at the time of planting.

Embankment Stabilisation

Where necessary to prevent soil erosion or soil movement, stabilise embankments. As a minimum this should be on slopes ≥1:3. Stabilise embankments using biodegradable fibre reinforced with heavy weight polymer mesh. Lay mesh from top to bottom of slope. Install in accordance with manufacturer's specification, including 300 x 300 mm anchor trenches at top and bottom, backfilled with soil over the mesh and compacted, and U-shaped galvanised steel pegs at 1000 mm centres and 250mm centres at edge overlaps. Plant after matting is installed.

Root Barrier

Supply and install root control barriers to all new tree plantings adjacent to walls, paths and all trunk service trenches, where their proximity poses a threat to the stability of the infrastructure. Install in accordance with manufacturer's recommendations.

Mulch

Mulch shall be approved recycled wood fibre or pine bark mulch. Place mulch in all garden beds to a depth of 75mm, after all specified plants are installed. Keep mulch clear of all plant stems and rake to an even surface flush with the surrounding surfaces evenly graded between surface levels. Over fill to allow mulch to settle to the specified depth.

Stakes and Ties

Stakes shall be durable hardwood, straight, free of knots and twists, pointed at one end, in the following quantities and sizes for each of the various plant pot sizes:

- Plants (>25 lt): 1 off 38 x 38 x 1200mm;
- Semi-advanced plants (>75 lt): 2 off 50x50x 1800mm;
- Advanced (>100 lt): 3 off 50 x 50 x 2400mm.

Turf

Turf shall be delivered to site as 25mm minimum thick cut rolls. Obtain turf from a specialist grower of cultivated turf. Provide turf of even thickness, free from weeds and other foreign matter. Deliver turf to the site within 24 hours of being cut, and lay it within 24 hours of delivery. Prevent it form drying out between cutting and laying. Lay the turf in the following manner:

- In stretcher pattern, joints staggered and close buttet;
- Parallel long sides of level areas, with contours on slopes; &
- To finish flush, after tamping, with adjacent finished surfaces of ground.

IRRIGATION

All proposed landscape areas shall be irrigated.

The irrigation system shall be an automatic fixed drip system, with an irrigation controller self operated via a soil moisture sensor. The system shall be compatible to the type of plant material and rates of water required. Where appropriate adjustable and fully serviceable. The layout of the entire irrigation is to ensure that each individual plant receives the required amount of water to maintain healthy and vigorous growth. The irrigation system shall be such that, component theft, vandalism, over-spray and wetting of paths shall be reduced to a minimum or completely eliminated by the use of drip, pop-up sprinklers and judiciously placed fixed spray emitters. Do not use fine mist type emitters that provide a drifting mist that may wet paths and the buildings.

LANDSCAPE MAINTENANCE

The Landscape Contractor shall rectify defects during installation and that become apparent in the works under normal use for the duration of the contract Defects Liability Period. The Landscape Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices for 52 weeks. The landscape maintenance works shall include, but not be limited to, the following:

- Replacing failed plants;
- Pruning;
- Insect and pest control;
- Fertilising;
- Stakes and ties;
- Maintaining mulch;
- Mowing and top dressing;
- Irrigation and watering;
- Erosion control; and
- Weeding and rubbish removal.

Maintenance Log Book

Implement and keep a maintenance log book recording when and what maintenance work has been undertaken and what materials, actions and decisions have been used, implemented and concluded to keep the landscape always looking its best.

Maintenance Activities

Schedule the following activities to occur on a timely basis.

- Plant replacement** - Replace plants that have failed to mature, die or are damaged. Replacement plants shall be in a similar size and quality and identical species or variety to the plant that has failed. Replacement of plants shall be at the cost of the landscape contractor unless advised otherwise. If the cause of the failure is due to a

controllable situation then correct the situation prior to replacing plants.

- Pruning** - Prune dead wood, broken limbs, dead or infected foliage and as needed to develop strong, healthy plants to achieve the shape and form expected of the plant type.
- Insect and pest control** - Avoid spraying:
 - if ever possible;
 - in wet weather or if wet weather is imminent;
 - if target plants are still wet after rain;
 - in windy weather; and
 - if non-target species are too close.Immediately report to the Project Manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work. When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations. Record in the logbook all relevant details of spraying activities including:
 - Product brand / manufacturer's name,
 - Chemical / product name,
 - Chemical contents,
 - Application quantity and rate,
 - Date of application and location,
 - Results of application, and
 - Use approval authority.
- Fertilising** - Fertilise gardens with a proprietary slow release fertiliser applied in accordance with the manufacturer's directions and recommendations. Record in the logbook all relevant details of fertilising including:
 - Product brand / manufacturer's name,
 - Fertiliser / product name,
 - Application quantity and rate, and
 - Date of application and location.
- Stakes and ties** - Adjust and replace as required to ensure plants remain correctly staked. Remove those not required at the end of the planting establishment period (Defects Liability Period).
- Maintaining mulch** - Maintain the surface in a clean, tidy and weed free condition and reinstate the mulch as necessary to ensure correct depth as specified.
- Mowing and top dressing** - Mow the turf to maintain a grass height of between 30-50mm. Do not remove more than one third of the grass height at any one time. Remove grass clippings from the site after each mowing. Top dress to a maximum of 10mm to fill depressions and hollows in the surface.
- Irrigation and watering** - Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy and vigorous growth, adjust and rectify as required. Provide additional watering, if necessary.
- Erosion control** - Where necessary, maintain the erosion control devices in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary.
- Weeding and rubbish removal** - During the plant establishment period remove by hand, rubbish and weed growth that may occur or re-occur throughout all planted, mulched and paved areas. The contractor shall target weeds that are capable of producing a major infestation of unwanted plants by seed distribution. Whenever possible, time weed removal to precede flowering and seed set.

Maintenance Program

	Activity	Frequency							Action
		D	W	2W	3W	M	3M	6M	
1	Logbook	+		+		+			Complete a logbook entry every day at site and at least every two weeks. All actions listed below require a logbook entry. Upon request, make the logbook available for inspection. Submit copies of new entries in the logbook to the Contract Administrator on a monthly basis. Please note that more frequent, short, occasional inspection should result in less maintenance work when problems are observed earlier than they might otherwise have been seen.
2	Plant Replacement			+		+			Inspect and replace failed plants within 2 weeks of observation of failure. Match species, size (original) and location of new with old.
3	Mulch			+		+			Inspect and replace mulch deficiencies within 2 weeks of observation. Prior to placing new mulch aerate the soil by fork turning to a depth of at least 100mm, roughly level the soil and then place mulch. Do not disturb major plant roots while aerating soil.
4	Erosion Control			+					Inspect every two weeks and repair ground, soil and mulch immediately. Maintain erosion control device as necessary.
5	Stakes and ties			+					Inspect every two weeks, adjust and/or replace as necessary but remove as plants mature and are able to support themselves.
6	Weed and Rubbish removal			+					Inspect and remove immediately upon observation. Leave no waste on site. Dispose of waste material at a designated waste disposal site
7	Pruning			+					Inspect every 2 weeks and prune as necessary to remove dead wood, improve plant shape and promote healthy vigorous new growth.
8	Spraying			+					Inspect every 2 weeks and action as necessary. Do not spray if other non-chemical methods will satisfy the need to remove insects. Spray for disease control only when absolutely necessary.
9	Urgent Works			+					Complete within 1 week (7 days) of notification. Inspect and clear drains.
10	Planting and fertilising				+		+		Inspect every 2 weeks and remove spent flowers and dead stalks as they become apparent. Fertilise gardens every 3 months or other frequency in accordance with fertiliser manufacturer's directions.
11	Watering	+		+					Water when and where necessary every day at site and at least every 2 weeks generally. Do not allow soil and plants to dehydrate. Allow for prolonged rain, windy and dry periods. Water in the early morning or late afternoon to avoid excessive evaporation during the heat of the day.
12	Mowing, top dressing and edging			+		+		+	Summer fortnightly. Winter monthly. Top-dress 6 monthly.

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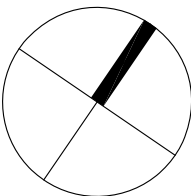
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A	Landscape Amendments	JEF	NM	05.09.2106
Issue	Revision Description	Drawn	Check	Date

LEGEND

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Drawing Name:

Landscape Specification

Scale:

Job Number:

SS16-3212

Drawing Number:

Issue:

502 B