



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 schedules on the drawings. 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 AND SHRUBS

Trees and Shrubs 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 and Shrubs

Keep the area of the drip-line free from construction material and debris. Do not place bulk materials and harmful materials under foliage canopies or near trees. Do not place spoil from excavations against tree trunks. Prevent wind-blown building materials, such as cement, from covering trees and other 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 noted in the contract, bulk excavation is excluded from the landscape works. After the completion of bulk excavation by others, trim and fill the excavated ground surfaces to achieve design levels to accommodate finish materials as detailed. Prepare the sub-grade surface as required for the various finished ground treatments.

Site 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 and course sharp aggregate backfilling of trenches.

Landscape Structures

All landscape structures shall have a common appearance in detail and material content while providing for the functional design requirements. The structure of all elements shall consist of a base frame of structural grade hardwood timber of sizes that sustain spans and maintain stability. Refer to draw details for further information.

SOFTWORKS

Site Soil Testing

Where site soil is to be retrieved from site and stored on site for reuse, undertake at least two (2) soil tests in locations as advised by the Project Manager or as shown on the plans. Provide results and recommendations regarding soil additives for the benefit of healthy plant growth and to adjust the soil components to achieve an appropriate planting medium for successful plant development. Where topsoil is imported to site no testing of the imported soil is necessary but ensure that imported soil can be supplied with test data to verify that it suits the design plants.

Subsoil

Excavate and/or fill all garden beds to bring the top of subsoil to at least 300mm below finished design soil levels. Excavate all turf areas to bring the subsoil to at least 100mm below finished design levels. In all areas shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees and shrubs to be retained. Cultivate or rip the subsoil to a further depth of 100mm before placing top soil. Remove stones of size 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 existing 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 again after cultivation.

Subsoil Drainage

Provide and install subsoil drainage equal to Vinidex 65mm (min) Drainocul with filter sock at the base of slopes, on the high side of paths, at the base behind retaining walls and where water is likely to accumulate at depth in the soil. Connect all subsoil drainage to the nearest downstream stormwater pit to ensure that subsoil water is managed and channelled to a stormwater drainage system. On sites with cross fall of less than 1:50 install subsoil drains to remove excess water from the subsoil in areas where water is likely to accumulate and may not penetrate lower strata naturally. Rip the sub-base surface 150mm deep before placing any soil. Install drainage pipes in subsoil trenches backfilled with 10mm blue metal (basal) equal to ANL Blue Metal.

Coordinate the connection of subsoil drains to stormwater pits with the Civil or Hydraulic contractor.

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 edges;

Plant Schedule

Botanic Name	Common Name	Mature Size	Pot Size	Density
GROUND FLOOR				
BOUNDARY TREES				
<i>Eucalyptus tereticornis</i>	Forest Red Gum	30 x 10	45L	As Shown
<i>Eucalyptus amplifolia</i>	Cabbage Gum	30 x 10	45L	As Shown
<i>Angophora floribunda</i>	Rough Barked Apple	30 x 10	45L	As Shown
<i>Eucalyptus baueriana</i>	Blue Box	20 x 8	45L	As Shown
AMENITY PLANTING				
<i>Lomandra longifolia</i>		.8 x .8	150mm	5/sqm
<i>Juncus usitatus</i>		.6 x .3	150mm	5/sqm
FLOOD STORAGE BASIN				
<i>Isachne globosa</i>	Swamp Millet		40mm Hiko / 50mm Tubestock	
<i>Eleocharis spachelata</i>			40mm Hiko / 50mm Tubestock	
<i>Hypolepis muelleri</i>	Harsh Ground Fern		40mm Hiko / 50mm Tubestock	
<i>Phragmites australis</i>	Common Reed		40mm Hiko / 50mm Tubestock	
<i>Cynogeton microtuberosum</i>			40mm Hiko / 50mm Tubestock	
<i>Machaerina juncea</i>	Bare Twig-rush		40mm Hiko / 50mm Tubestock	
<i>Machaerina articulata</i>	Jointed Twig-rush		40mm Hiko / 50mm Tubestock	
<i>Carex appressa</i>	Tall Sedge		40mm Hiko / 50mm Tubestock	
<i>Cynogeton procerum</i>	Water Ribbons		40mm Hiko / 50mm Tubestock	
<i>Cladium procerum</i>			40mm Hiko / 50mm Tubestock	
<i>Microlaena stipoides</i>	Weeping Grass		40mm Hiko / 50mm Tubestock	
<i>Entolasia stricta</i>	Wiry Panic		40mm Hiko / 50mm Tubestock	
<i>Opismenus aemulus</i>	Basket Grass		40mm Hiko / 50mm Tubestock	
<i>Lomandra filiformis</i>	Wattle Mat-rush		40mm Hiko / 50mm Tubestock	
<i>Pratia purpurascens</i>	White Root		40mm Hiko / 50mm Tubestock	
<i>Dichondra repens</i>	Kidney plant		40mm Hiko / 50mm Tubestock	
<i>Centella asiatica</i>	Pennywort		40mm Hiko / 50mm Tubestock	
PROSPECT CREEK REVEGETATION CUMBERLAND RIVERFLAT FOREST				
<i>Eucalyptus tereticornis</i>	Forest Red Gum		40mm Hiko / 50mm Tubestock	
<i>Angophora floribunda</i>	Rough Barked Apple		40mm Hiko / 50mm Tubestock	
<i>Eucalyptus amplifolia subsp. Amplifolia</i>	Cabbage Gum		40mm Hiko / 50mm Tubestock	
<i>Acacia parramattensis</i>	Sydney Green Wattle		40mm Hiko / 50mm Tubestock	
<i>Bursaria spinosa subsp. spinosa</i>	Sweet Bursaria		40mm Hiko / 50mm Tubestock	
<i>Sigesbeckia orientalis</i>	Indian weed		40mm Hiko / 50mm Tubestock	
<i>Microlaena stipoides var. stipoides</i>	Weeping grass		40mm Hiko / 50mm Tubestock	
<i>Opismenus aemulus</i>	Australian Basket Grass		40mm Hiko / 50mm Tubestock	
<i>Dichondra repens</i>	Kidney Weed		40mm Hiko / 50mm Tubestock	
<i>Entolasia marginata</i>	Bordered Panic		40mm Hiko / 50mm Tubestock	
<i>Solanum prinophyllum</i>	Forest Nightshade		40mm Hiko / 50mm Tubestock	
<i>Pratia purpurascens</i>	White Root		40mm Hiko / 50mm Tubestock	
<i>Desmodium gunnii</i>	Slender Tick Trefoil		40mm Hiko / 50mm Tubestock	
<i>Echinopogon ovatus</i>	Forest Hedgehog Grass		40mm Hiko / 50mm Tubestock	
<i>Commelina cyanea</i>	Scurvy Weed		40mm Hiko / 50mm Tubestock	
<i>Veronica plebeia</i>	Trailing Speedwell		40mm Hiko / 50mm Tubestock	

- Smooth and free from inorganic matter, stones or clods of soil;
- Graded to drain freely, without ponding, to catchment and/or sub-soil drains;
- 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, inorganic matter, grass, weeds and the reproductive parts of unwanted plants.

Fertiliser

Provide proprietary fertilisers, delivered to the site in sealed containers marked to show manufacturer or vendor, weight, fertiliser type, N-P-K ratio, recommended uses, application rates and safety procedures. Apply appropriate fertiliser suited to the provenance of plants (indigenous or exotic) included in the design.

Plants

Supply plants in accordance with the landscape design 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/variety;
- Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at the site in full sun, partial shade or full 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 the specified plant size.

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 that the backfill soil is not placed over the top of the root ball and that the root ball is not higher than the soil in which it is planted. Apply fertiliser, as specified around the plants in the soil at the time of planting.

Embankment Stabilisation

Where necessary and shown on the drawings prevent soil erosion or soil movement by stabilising embankments as follows. As a minimum, this should be on slopes steeper than or equal to 1:3 gradient. Stabilise embankments using biodegradable fibre reinforced heavy weight jute fabric. Lay fabric from top to bottom of slope. Install in accordance with manufacturer's specification, including 300 x 300mm square trench at top and bottom of slope, backfilled with soil over the fabric and compacted into the trenches. Using U-shaped galvanised steel pegs at 1000 mm centres generally and 250mm centres at edge overlaps, secure the fabric to the prepared soil surface. Plant through the fabric after it is installed.

Root Barrier

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

Mulch

Unless noted otherwise, mulch shall be approved native eucalypt 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 plane, flush with the surrounding surfaces evenly graded between design 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 plants >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. Turf shall have an 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 from drying out between cutting and laying. Lay the turf in the following manner:

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

Species: *Stenotaphrum secundatum* Sir Walter Soft-leaf Buffalo.

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. Unless contracted otherwise, the Landscape Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices for 52 weeks from Practical Completion of the works. The landscape maintenance works shall include, but not be limited to:

- Replacing failed plants;
- Pruning;
- Insect and pest control;
- Fertilising;

- Maintaining and removing 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. Enter data daily and review information every 2 weeks. Observe trends and develop a maintenance regime around seasonal and observed event occurrences.

Maintenance Activities

During the defect maintenance period 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. Observe and replace failed plants within 2 weeks of observation.

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. Observe daily and prune plants as necessary to maintain acceptable growth habit.

Insect, disease 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. Observe daily and act as necessary to control any infestation or disease. 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. Apply 6-12 monthly. 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). Inspect and act at least every 2 weeks.

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. Observe weekly and replenish mulch as required.

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. Mow weekly/fortnightly in warmer months. Mow monthly or as required in cooler months. Top dress at approximately 6 monthly intervals.

Irrigation and watering - Maintain the irrigation system to ensure that each individual plant receives the required amount of water to maintain healthy and vigorous growth. Adjust and calibrate as required. Provide additional watering, if necessary but inspect irrigation weekly and make repairs as necessary.

Erosion control - Where necessary, maintain the erosion control fabric in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary. Inspect every 2 weeks and act to repair any damage as soon as possible.

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. Constant observation and removal of weeds is essential.

NOT FOR CONSTRUCTION

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The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

B	Revised for Comments	JD	NM	11.08.2020
A	For Comment	JD	NM	29.07.2020
Issue	Revision Description	Drawn	Check	Date

LEGEND

Key Plan:

SITE IMAGE



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Client:

Fairfield Council

Project:

Fairfield SRC

Windemere and Hassell St

Drawing Name:

Landscape Details and
Plant Schedule

PRELIMINARY

Scale: 1:500 @ A1

Job Number:

SS19-4294

Drawing Number: 0 2 5 10 15 25m

501 B