

# Master Specification

## Part PR-LS-M1

### Maintenance of Plants

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**Government of South Australia**  
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## PR-LS-M1 Maintenance of Plants

### 1 General

- a) This Master Specification Part specifies the requirements for maintenance of tubestock, general nursery stock, aquatic plants, and advanced trees, including:
  - i) the documentation requirements, as set out in section 2;
  - ii) the requirements for replacement of defective, damaged or dead plants, as set out in section 3;
  - iii) the plant watering requirements, as set out in section 4;
  - iv) the weed control requirements, as set out in section 5;
  - v) the pest and disease control requirements, as set out in section 6;
  - vi) the requirements for maintenance of marker stakes, tree guards, tree stakes, tree ties and weed mats, as set out in section 7;
  - vii) the mulch maintenance requirements, as set out in section 8;
  - viii) the formative pruning requirements, as set out in section 9;
  - ix) the plant and tree pruning requirements, as set out in section 10;
  - x) the native grass plant pruning requirements, as set out in section 11
  - xi) the follow-up fertiliser requirements, as set out in section 12;
  - xii) the requirements for removal of tree stakes, marker stakes and tree guards, as set out in section 13; and
  - xiii) the Hold Point requirements, as set out in section 14.
- b) The maintenance of plants must comply with the Reference Documents including AS 4373 Pruning of amenity trees.
- c) The Contractor must undertake the maintenance of plants and removal of rubbish in accordance with this Master Specification Part for the duration of the Landscape Maintenance Period.
- d) The requirements in this Master Specification Part set out the maintenance works to be performed by the Contractor, as appropriate for seasonal weather conditions.
- e) The Contractor must submit a monthly landscape maintenance report to the Principal.
- f) The Contractor must ensure that, where required under the *Controlled Substances Act 1984* (SA) and the *Controlled Substances (Pesticides) Regulations 2017* (SA), all workers undertaking pest control work must hold a current Pest Management Technician's License. The Contractor must provide evidence of the Pest Management Technician's Licenses prior to commencement of a spraying program, as part of the Quality Management Records.

### 2 Documentation

#### 2.1 Construction Documentation

In addition to the requirements of PC-CN3 "Construction Management", the Construction Documentation must include the schedule set out in Appendix 1: Maintenance of plants schedule, in accordance with section 5g) and 6d).

## 2.2 Quality Management Records

In addition to the requirements of PC-QA1 “Quality Management Requirements” or PC-QA2 “Quality Management Requirements for Major Projects” (as applicable), the Quality Management Records must include current Pest Management Technician’s Licenses, in accordance with section 1f).

## 3 Replacement of defective, damaged or dead plants

- a) Replacement of plants as required by sections 3b) and 3c) must be carried out in accordance with PR-LS-C2 “Planting”.
- b) Where plants within the planted area of the Site have become damaged, defective or have died as a result of the Contractor’s operations:
  - i) subject to section 3d), the Contractor must remove and replace the plants within 7 days of when the damage, Defect or death occurred, with plants of the same species and provenance; and
  - ii) replacement plants must be established to healthy vigorous growth.
- c) Where plants within the planted area of the Site have become damaged, defective or have died as a result of vandalism:
  - i) the Contractor must seek approval from the Principal to remove and replace the plants, which will constitute a **Hold Point**. Removal of plants impacted by vandalism must not commence until this Hold Point has been released;
  - ii) the Contractor must remove and replace the plants within 7 days of the Hold Point being released with plants of the same species and provenance. If the same species and provenance is not available, the Contractor must seek prior approval from the Principal as part of the Hold Point in section 3d) to replace the plants with an alternative species; and
  - iii) the plants must be established to healthy vigorous growth.
- d) When replacing plants, if the same species and provenance is not available, the Contractor must seek prior approval from the Principal to replace the plants with an alternative species, which will constitute a **Hold Point**. Replacement of plants with an alternative species must not commence until this Hold Point has been released.

## 4 Watering of plants

- a) The Contractor must ensure that all plants in the planted area of the Site maintain growth and are free from water stress at all times. Water stress may result from a lack of appropriate available water or an over-supply of water.
- b) Water used for watering of plants must be of adequate quality for plant survival.
- c) Where the hand watering method is used:
  - i) following planting and initial watering, each plant must receive a minimum of 10 litres of clean potable water according to the following schedule:
    - A. at both urban and rural sites, and unless directed otherwise by the Principal, summer active native grass plants (C4 species) must receive one watering per month from November to April;
    - B. at urban sites, and unless directed otherwise by the Principal, winter active native grass plants (C3 species) must receive 2 waterings per month from September to May; and
    - C. at rural sites, and unless directed otherwise by the Principal, winter active native grass plants (C3 species) must receive one watering per month from September to May; and

- ii) the Contractor must include a record of hand watering events in the monthly landscape maintenance report required by section 1e).
- d) The watering bowl must be kept intact at all times, unless otherwise directed by the Principal.
- e) Where an irrigation system is present, the Contractor must:
  - i) use the irrigation system to water the plants to maintain good health and growth;
  - ii) monitor the watering program and irrigation system to ascertain any faults and malfunctions;
  - iii) rectify any faults or malfunctions of the irrigation system within 24 hours of being identified; and
  - iv) ensure that all plants are receiving the correct amount of water.

## 5 Weed control

- a) Planted areas and mulched beds must be kept free of weeds.
- b) Weeds in areas immediately adjacent to the planted area of the Site (such as rubble verges, maintenance paths and rubble hardstands) must be controlled by the Contractor before they reach maturity and are able to reproduce to avoid weeds spreading into planted and grassed areas.
- c) Weeds growing inside tree guards or within the plant's structure must be hand-pulled and disturbance to the soil must be minimised.
- d) For tubestock, general nursery stock and advanced trees and palms, an area of 1,200 mm diameter around all plants must be kept free of weeds.
- e) If herbicides are used:
  - i) a herbicide marker dye must be incorporated;
  - ii) the herbicide must be used according to the manufacturer's recommended rates;
  - iii) where weed control is to be undertaken in and around waterways and wetlands, Roundup Biactive (or equivalent) must be used; and
  - iv) any off-target damage must be rectified by the Contractor.
- f) If selective herbicides are used:
  - i) a herbicide marker dye must be incorporated;
  - ii) the selective herbicides must be used in accordance with the manufacturer's recommended rates;
  - iii) the manufacturer's instructions must be followed when weed control is undertaken around waterways and wetlands;
  - iv) the selective herbicides must be included in the schedule required by section 5g); and
  - v) any off-target damage must be rectified by the Contractor.
- g) The Contractor must recommend the preferred methods of weed control for the Project, including details of the chemicals and application rates to be used, and submit this information to the Principal in the schedule set out in Appendix 1: Maintenance of plants schedule as part of the Construction Documentation.
- h) Appendix 1: Maintenance of plants schedule must be updated by the Contractor and submitted to the Principal when any items on the schedule are changed during the Landscape Maintenance Period set out in the Contract Documents.

## 6 Pest and disease control, and rubbish removal

- a) The Contractor must ensure that insect pests, fungus and diseases are controlled by means of appropriate treatments for the duration of the Landscape Maintenance Period.
- b) All chemicals used for pest and disease control must be used in accordance with the manufacturer's recommendations and submitted to the Principal in the schedule required by section 6d).
- c) The Contractor must avoid off-target damage and rectify any off-target damage that occurs.
- d) The Contractor must recommend the preferred methods of pest and disease control for the Project, and chemicals and application rates to be used, and submit these details to the Principal in the schedule set out in Appendix 1: Maintenance of plants schedule as part of the Construction Documentation.
- e) Appendix 1: Maintenance of plants schedule must be updated by the Contractor and submitted to the Principal when any items on the schedule are changed during the Landscape Maintenance Period.
- f) For the duration of the Landscape Maintenance Period, the Contractor must:
  - i) undertake inspections of the Site at intervals no longer than monthly;
  - ii) remove all rubbish from the Site; and
  - iii) dispose of all rubbish in an environmentally responsible manner and otherwise in accordance with the environmental requirements of the Contract Documents.

## 7 Maintenance of marker stakes, tree guards, tree stakes, tree ties and weed mats

- a) Where marker stakes, tree guards, tree stakes, tree ties or weed mats within the planted area of the Site have become damaged or defective during the Landscape Maintenance Period, they must be:
  - i) replaced as soon as identified by the Contractor with the same product; and
  - ii) installed in accordance with the manufacturer's instructions.
- b) When attending the Site to check the items listed in section 7a), the Contractor must also:
  - i) check that any irrigation systems are functioning properly; and
  - ii) follow the requirements in section 4e) if there are any faults or malfunctions.

## 8 Maintenance of mulch

The mulch in the planted areas of the Site must be topped up annually for the duration of the Landscape Maintenance Period to meet the original specified type, extent and depth at final handover as specified in the Design Documentation.

## 9 Formative pruning

- a) Within the first 12 months after planting and then annually for the duration of the Landscape Maintenance Period thereafter, specific branches must be selectively removed to enhance form and improve structure, and to directionally shape the young trees in the planted areas of the Site.
- b) Formative pruning must aim to reduce the development of structural weaknesses, accommodate site constraints and reduce encroachment on Utility Services, buildings or pathways as the tree grows.

- c) The Contractor must ensure that the pruning of trees is undertaken in accordance with AS 4373 Pruning of amenity trees by a person with appropriate qualifications in horticulture or arboriculture.

## 10 Pruning of plants and trees

Plants and trees must be pruned by the Contractor to ensure they do not encroach onto pathways, concrete spoon drains, kerbing, inlet and outlet drainage inlet and outlet structures, gates, maintenance access facilities, road carriageways or otherwise hinder the line of sight of signage and intersections.

## 11 Pruning of native grass plants

The Contractor must prune the native grass plant sward and remove the cut thatch in accordance with the following requirements by species:

- a) group 1: summer active native grass plants (C4 species):
  - i) *Aristida* sp. must be pruned to a height of 150 mm in December or January to remove seed heads and thatch;
  - ii) *Chloris* sp. must be pruned to a height of 100 mm to 150 mm in December or January to remove seed heads (or later if seeding is not a problem at the location);
  - iii) *Enneapogon* sp. must be pruned to a height of 100 mm to 150 mm in December or January to remove seed heads (or later if seeding is not a problem at the location);
  - iv) *Themeda* sp. must be pruned to a height of 150 mm to 200 mm in February or March to remove seed heads and thatch; and
  - v) *Eragrostis* sp. must be pruned to a height of 100 mm in November or December to remove seed heads and thatch; and
- b) group 2: winter active native grass plants (C3 species):
  - i) *Neurachne* sp. is a low growing grass and pruning is only required after the seed has dropped;
  - ii) *Austrostipa* sp. must be pruned to a height of 150 mm to 200 mm in December or January to remove seed heads and thatch;
  - iii) *Rytidosperma* sp. must be pruned to a height of 100 mm to 150 mm in November to January to remove seed heads and thatch;
  - iv) *Microleana* sp. is a generally low growing grass and must be pruned to a height of 50 mm to 100 mm in May to December with a line trimmer or mower; and
  - v) *Poa* sp. must be pruned to a height of 150 mm in April or May to remove seed heads and thatch.

## 12 Follow-up fertiliser

- a) The Contractor must apply follow-up applications of fertiliser to plants in the planted areas of the Site annually or as required to maintain healthy vigorous growth.
- b) Follow-up fertiliser must be applied in accordance with the manufacturer's recommendations.

## 13 Removal of tree stakes, marker stakes and tree guards

The Contractor must remove tree stakes, marker stakes and tree guards at the end of the Landscape Maintenance Period, unless an alternative has been approved by the Principal.



## 14 Hold Points

Table PR-LS-M1 14-1 details the review period or notification period, and type (documentation or construction quality) for each Hold Point referred to in this Master Specification Part.

**Table PR-LS-M1 14-1 Hold Points**

Section reference	Hold Point	Documentation or construction quality	Review period or notification period
3c)i)	Approval for the removal and replacement of plants (including details of alternative plant species) due to vandalism	Documentation	5 Business Days review
3d)	Approval to replace plants with an alternative species	Documentation	5 Business Days review

# 15 Appendix 1: Maintenance of plants schedule

METHOD:

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HERBICIDE DETAILS:

DESCRIPTION	APPLICATION RATE	
Chemicals to be used for broadleaf weeds	Rate per litre	
Chemicals to be used for foliar spray	Rate per litre	
Chemicals to be used for herbaceous weed control, if applicable	Rate per litre water	Litres per hectare

PESTICIDE DETAILS:

DESCRIPTION (Chemicals to be used for pest and disease control)	APPLICATION RATE per litre

.....  
Contractor's signature

.....  
Date

