

Public Realm

Master Specification

PR-LS-C4 Tree and Palm Transplanting

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Document Management

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Contents

Contents	3
PR-LS-C4 Tree and Palm Transplanting	4
1 General	4
2 Timing of Works	4
3 Soil Testing	4
4 Tree and Palm Preparation	4
5 Planting Procedure	5
6 Tree and Palm Support	5
7 Mulch	6
8 Watering	6
9 Antitranspirants	6
10 Reinstatement of Site	7
11 Maintenance	7
12 Practical Completion	7
13 Hold Points	7

PR-LS-C4 Tree and Palm Transplanting

1 General

- 1.1 This Part specifies the requirements for transplanting / relocation of trees and palms.
- 1.2 An arborist specified in this Part shall have a minimum Certificate III in Arboriculture and be experienced in this type of work. A report shall be prepared by the arborist addressing all of the clauses in this Part prior to tree and palm relocation. Provision of this Arborist Report shall constitute a **Hold Point**.
- 1.3 The work shall be supervised by an arborist.
- 1.4 All clauses of this Part apply unless otherwise specified in the Contract Documents.
- 1.5 If not specified in the Drawings or Design Report, the clauses in this Part shall be followed.

2 Timing of Works

- 2.1 The arborist shall specify the timing of all works required for tree and palm relocation in the Arborist Report.

3 Soil Testing

- 3.1 Soil tests shall be carried out prior to tree and palm relocation in accordance with PR-LS-C7 "Topsoiling". Analysis of the soil at the proposed transplant site and any imported backfill material shall be carried out so that appropriate amendments may be applied. Analysis may include pH, EC, Organic Matter, Major and Trace Elements and Exchangeable Cations.
- 3.2 Soil tests shall be conducted by a laboratory accredited under ISO 9001 and results shall be submitted to the Principal as a Soil Test Report.

4 Tree and Palm Preparation

General

- 4.1 The north side of the tree or palm trunk shall be marked prior to removal to facilitate the original orientation at the new site.

FronD Preparation Method for Palms

- 4.2 The Arborist Report shall specify frond preparation method for palms.

Formative Pruning for Trees

- 4.3 The Contractor, under the direction of the arborist, shall selectively remove specific branches to enhance form and improve structure, and to directionally shape the tree. With smaller diameter branches it may be necessary to reduce the branch to a dormant bud. Formative pruning shall aim to reduce the development of structural weaknesses and to accommodate site constraints and reduce encroachment on utilities or buildings as the tree grows.
- 4.4 All pruning shall conform to AS 4373 "Pruning of Amenity Trees".

Root Preparation and Excavation Requirements and Responsibilities

- 4.5 An arborist shall undertake an assessment and recommend the preferred method of root preparation and excavation for the project and include this methodology in the Arborist Report.
- 4.6 Unless specified otherwise in the Arborist Report, root preparation shall occur a minimum of 6 months prior to the relocation and transplanting of trees and palms.

Transport and Lifting

- 4.7 An arborist shall undertake an assessment and recommend the preferred method of tree and palm lifting and transport, and include in the Arborist Report.
- 4.8 Lifting of trees and palms shall be carried out or supervised by a qualified and suitably experienced arborist.
- 4.9 An arborist shall determine if covers are required to protect the tree or palm during transportation.

5 Planting Procedure

Preparation of Planting Hole

- 5.1 Excavated site soil may be used as backfill if it is free of weeds, deleterious materials and particles larger than 25 mm.
- 5.2 The Contractor shall remove from site any unsuitable material brought to the surface during excavation.
- 5.3 An arborist shall specify requirements for preparation of the planting hole taking into consideration the Soil Testing results and include this information in the Arborist Report.

Orientation

- 5.4 The tree or palm shall be orientated at the new site in the same direction as at the original site.

Drainage and Inspection Point

- 5.5 If specified in the Arborist Report, drainage and inspection points shall be installed. Inspection pipes shall be installed in the 4 corners of the planting hole. Inspection pipes shall be 150 mm diameter slotted PVC pipe with a screw inspection lid located within a valve box with lock. The top of the valve box shall be 50 mm below the surface of the mulch and the screw inspection lid shall be 150 mm below the finished ground level.

Watering Basin

- 5.6 A watering basin shall be constructed with soil around the perimeter of the root ball. The watering basins holding capability shall be determined by the Arborist Report.
- 5.7 The watering basin shall be kept intact at all times, unless instructed otherwise by the Principal.

Backfill

- 5.8 Where in the opinion of the arborist excavated material is unsuitable for backfill, imported soil shall be used. Imported soil shall be matched as closely as practicable to the existing site soil. A soil laboratory accredited under ISO 9001 shall be used to determine the soil type. Organic matter shall not be added to the backfill material.
- 5.9 Any soil deficiencies identified in the Soil Test Report shall be rectified prior to placing backfill.

Fertiliser and Soil Additives

- 5.10 Refer to the Arborist Report and Soil Test Report for requirements for fertiliser and / or soil additives.

6 Tree and Palm Support

General

- 6.1 Tree and palm support installation shall be recommended and installed by an arborist experienced in guying methods. The methods used shall be safe for pedestrians.

Guying Types

- 6.2 A qualified arborist shall specify suitable guying types including anchors.

Support Attachments

- 6.3 An arborist shall specify appropriate support attachments. Attachments shall not damage the tree or palm and shall be installed in accordance with manufacturer's recommendations. Once it has been determined by an arborist or the Principal that the tree or palm has stabilized itself with its new root system, the support attachments shall be removed.

7 Mulch

General

- 7.1 Unless specified otherwise in the Arborist Report, mulch shall be evenly spread to a depth of 100 - 120 mm. Mulch material shall not be placed in contact with the trunk of the tree or palm. The mulch shall be well leached and free from deleterious material such as soil, weeds, sticks and sawdust and shall have a low fines content.

Mulch Types

- 7.2 Mulch shall be well leached before application and be free from deleterious materials such as soil, weeds, sticks, sawdust, nails, staples, cardboard and plastic and have a low fines content.
- 7.3 Mulch shall have a minimum 70 percent hardwood content.
- 7.4 Prior to supply and installation a sample bag of mulch shall be provided to the Principal for approval.

8 Watering

General

- 8.1 The Arborist Report shall recommend watering requirements before, during and after tree and palm relocation.
- 8.2 Immediately following planting, the root ball shall be soaked to ensure that air pockets are removed and the entire root ball is wet.
- 8.3 The Contractor shall ensure that trees and palms maintain health and are free of water stress at all times until the end of the maintenance period.
- 8.4 The Contractor shall monitor moisture levels to determine the exact watering requirements to ensure tree and palm survival.

Method of Watering

Irrigation System

- 8.5 Where an irrigation system is installed it shall be designed and installed in accordance with PR-LS-C9 "Irrigation".
- 8.6 The Contractor shall ensure that the irrigation system is fully operational at all times, and that all trees and palms are receiving the correct amount of water as specified in the Arborist Report.

9 Anti-transpirants

- 9.1 A qualified arborist shall determine if anti-transpirants are required. Anti-transpirants shall be applied in a spray form by an arborist.

10 Reinstatement of Site

- 10.1 The area where the tree or palm was removed shall be reinstated to the condition existing prior to the Contractor commencing work.

11 Maintenance

- 11.1 The tree or palm shall be maintained in accordance with the Arborist Report from the day of planting until the end of the maintenance period.
- 11.2 A bi-monthly Maintenance Report outlining tree and palm health status, works undertaken during the previous period, and future works required to maintain tree and palm health shall be provided to the Principal on a bi-monthly basis.

12 Practical Completion

- 12.1 Practical Completion shall mean a healthy and upright tree or palm has been achieved by the correct application of the prescribed methods outlined in the Arborist Report.

13 Hold Points

- 13.1 The following is a summary of Hold Points referenced in this Part:

Document Ref.	Hold Point	Response Time
1.2	Provision of the Arborist Report including Maintenance Requirements.	5 working days