



## Basics of Tree Transplanting: A Client Guide

Tree transplanting is a delicate operation that, when executed properly, preserves valuable trees and integrates them into new landscapes as assets with increased value. This guide outlines the essential steps and considerations for successful tree transplanting, small or large. Large tree transplantations require competent and experienced professionals.

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### 1. Pre-Transplant Assessment

#### Evaluate Tree Suitability:

- **Health & Structure:** Assess the tree's overall health, form, and structural integrity. Trees in poor condition may not survive the transplanting process.
- **Species Consideration:** Some species are more amenable to transplanting than others. Research or consult experts to determine suitability. Some trees will simply never be able to be transplanted.
- **Size & Age:** Larger and older trees present more challenges and may have lower survival rates.

#### Site Analysis:

- **Obstructions:** Identify underground utilities, nearby structures, or other obstacles that may impede root ball preparation or relocation. Ensure there is sufficient access to the new site as this is most often the biggest constraint after a tree has been deemed transplantable.

#### Regulatory Compliance:

- **Application Requirements:** Check if there are any legal requirements for removal or transplantation of trees in your area with your municipal corporation, forest department or council.
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## 2. Planning & Preparation

### Receptor Site (where the tree will be planted to)

- **Environmental Factors:** Consider soil conditions, drainage, sunlight, and space availability at the new site.
- **Planting hole soil:** Ensure the new location has similar soil to the original site. Amend if necessary.
- **Planting hole size:** Make the hole wider than what the root ball will be by at least 20%, preferably 30%.

### Root Ball Preparation:

- **Size Guidelines:** Aim for a root ball diameter at least 8–10 times the trunk/stem diameter at breast height (DBH) (or 1.5 meters (5 feet) from ground level). For instance, a tree with a 10 cm (4 inches) DBH should have a root ball of 80–100 cm (~2.5 -3.2 feet) in diameter.
- **Depth Consideration:** Ensure sufficient depth to encompass most of the root system. Generally, a maximum of 1 meter (3 feet) depth is sufficient.

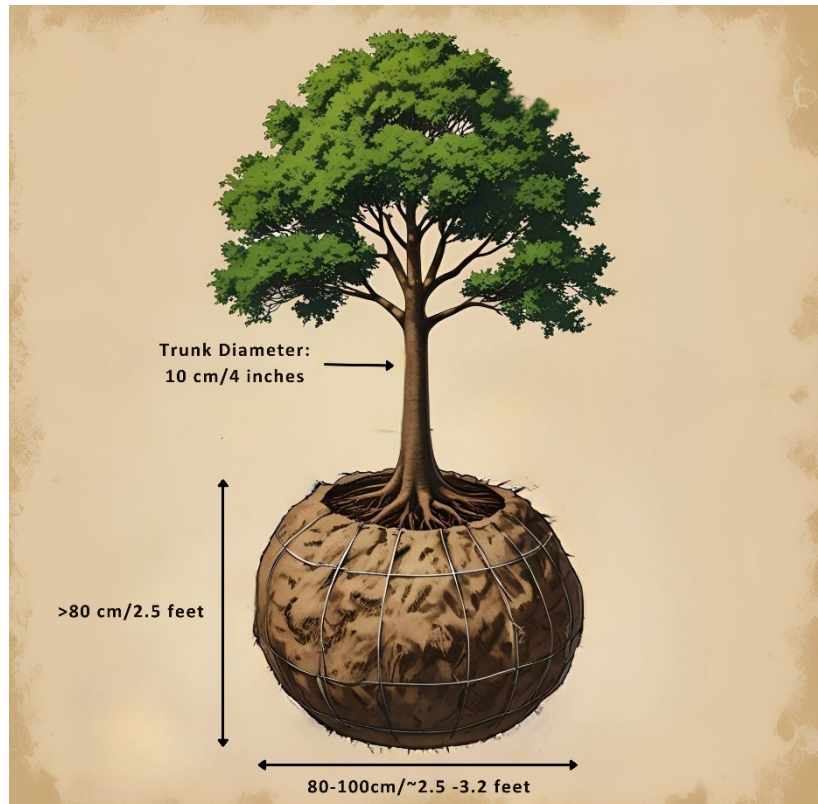
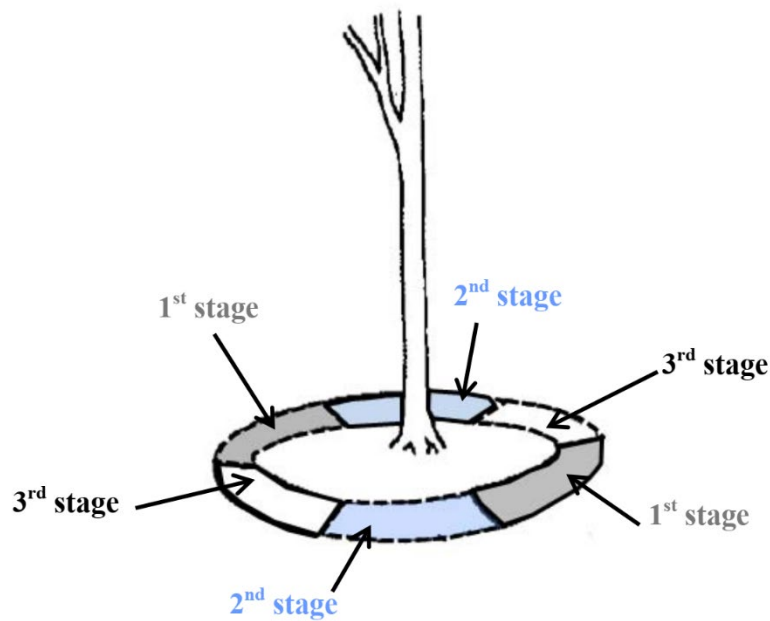


Figure 1 Example tree root ball dimensions

- **Larger trees/more delicate trees:** Instead of preparing the root ball in one go, they can be prepared over several months by cutting the roots in segments.



**The 4<sup>th</sup> stage in preparing the root ball by cutting its underside**

*Figure 2 Preparing a larger or more delicate tree for transplant*

#### Protection Measures:

- **Wrapping:** Use jute cloth, hessian or geotextile fabric to wrap the root ball, to minimise soil loss and root desiccation when lifting.
- **Moisture Maintenance:** Always keep the root ball moist to prevent drying out.

#### Timing:

- **Optimal:** Transplant when your tree has a lot of stored energy (not when growing new leaves, as a deciduous tree, nor when fruiting or flowering).
- **Weather Conditions:** Avoid transplanting during extreme weather conditions, such as heatwaves or heavy rains.

### 3. Transplanting Process

#### Excavation & Lifting:

- **Equipment Use:** Employ appropriate machinery to lift the tree carefully, from the base (except for palms, some of which can be handled by the stem) ensuring the root ball remains intact. Protect the stem from damage from machinery.
- **Handling:** Minimize handling of the tree to reduce stress and potential damage.



Figure 3 A crane lifting a tree in the correct manner (from the base and with protection on the stem in case of knocking)

#### Transportation:

- **Time Efficiency:** Aim to relocate the tree to its new site in the shortest time possible to enhance survival chances.
- **Stability:** Secure the tree during transport to prevent movement that could damage roots or branches.

#### Replanting:

- **Orientation:** Position the tree in the same orientation as its original location to maintain growth patterns. For example, make a mark on the stem on the north side and ensure it is on the north side when planting.
- **Staking:** Use sturdy supports, such as guy wires, to stabilize the tree until roots establish, if required.

## 4. Post-Transplant Care

### Immediate Actions:

- **Watering:** Water the tree thoroughly after planting and maintain consistent moisture levels. Put in a schedule to ensure it remains hydrated for at least 6 months but preferable, one year.
- **Mulching:** Ground to be kept mulched with organic matter at least up to the rootball taken and as much out as possible. Mulch is to not come in contact with the stem. Layer to be approximately 10cms deep.

### Ongoing Maintenance:

- **Monitoring:** Regularly inspect the tree for signs of stress, disease, or pest infestations.
- **Ground conditions:** Apply mulch regularly as it decomposes. Water during drought periods, at least for the first 3 years after transplant.

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*Note: This handout is intended as a general guide. For specific projects, please contact us.*

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