Things to bear in mind when you transplant a tree in the landscape

Importing new trees

1. Carefully select the species. Is the tree going to grow to an appropriate size to accommodate the available space? Do you have sufficient root volume for the chosen tree to grow and mature in? Does the species have any bad habits (i.e. excessive leaf litter, fruit, allergenic flower production, surface orientated roots, etc)? Will the species tolerate local environmental and soil conditions? What level of winter sun or filtered light is required under or around the tree, in particular on the south side?

2. Choose your stock wisely. There is often a need for expediency in the establishment of the urban landscapes. This often results in using larger tree stock planted at denser spacing. This has impacts on the tree species available, i.e. a limited palette of tree species, and can also result in poor tree establishment, performance and increased management requirements. The larger a tree is at the time of planting, the longer it will take to recover from transplant shock and establish in the landscape. Generally speaking, the time it takes to recover from transplanting is between 6 - 12 months per 25 mm of trunk diameter. It is estimated to take a transplanted tree approximately 9 months per 25 mm trunk diameter to recover in Melbourne. The larger the tree the more watering and after-care maintenance is required. The bigger the tree the more resources required to move it and install it. A tree with a trunk diameter between 75 mm to 100 mm is the optimum size to plant in the urban landscape. A transplanted tree of this size will establish quickly and more easily, is large enough to have an impact in the landscape and survive urban abuse. Money that could be used to purchase larger tress may be better used to create more optimum planting systems, for example improved soil conditions, drainage, irrigation, and surface treatments. In regard to transplanted trees; "...the first year they sleep, the second year they creep, and the third year they leap." (Urban, 2008).

3. Other things to keep in mind include;

   - Buy only trees that have an appropriate crown to root volume ratio. Big trees in small containers are most likely to fail.
   - Look for trees that have good overall form, structure, foliar cover, have not been excessively pruned or are not too "leggy".

4. Plant it well. Keep these points in mind;

   - Plant during the cooler months (April - September). Planting during the warmer months will put additional stress upon the tree.
   - Dig your hole 3 times the diameter of the root ball.
   - Dig you hole no deeper that the depth of the root ball. Plant the tree proud (up to ⅓ the depth of the root ball) if planting on poorly drained soils.
   - Ensure that the soil dug to create the hole is tilled and broken up well before returning it to the hole. Generally, most landscape soils require no further amelioration other than water and air.
   - Lightly tamp the soil in around the root ball ensuring no air pockets or gaps are left between the root ball and the surrounding landscape soil.
   - Raise a berm or soil wall approximately 50 - 100 mm high around the edge of the root ball to direct water to the root ball.
   - Mulch around the tree to the edge of the planting pit and to a depth of 75 - 100 mm ensuring that mulch over the root ball does not exceed 30 mm in depth.
   - Water the tree in once it has been planted. This will help settle the soil and eliminate gaps or air pockets.

5. Look after it. After all this effort to select and plant a tree, to neglect it following this will result in disappointing growth and possible failure of the tree.
    - Initially in the first month or two, water the tree with similar amounts and at similar frequencies as was done in the nursery gradually weaning the tree off the intensive irrigation program that is generally applied in the nursery. Always ask your nursery person how much water and how often it was applied before leaving with your tree.
    - Once the tree is weaned, apply water weekly (twice weekly during hot and/or windy weather) at rates of 2 - 4 litres per centimetre of trunk calliper. The lower amount on poorly drained sites and the higher amount on free draining soils. Reduce water frequencies during cool wet weather.
    - Maintain the mulch levels around the tree.
    - Keep weeds out of the planting area.

Transplanting existing trees

1. Only select a tree or a palm that is healthy, vigorous and has good form and structure. Trees that do not fit this description are more likely to fail and will require more intensive management following transplant.

2. Only tackle something that you feel confident in moving otherwise hire a professional. Remember, landscape soils weigh between 1.7 and 2.2 tonne per cubic meter.

3. General rule of thumb is that the root ball diameter should be 8 - 10 centimetres for every centimetre of trunk calliper. Less for palms.

4. Carefully bind the root ball with hessian or similar material to ensure it does not fall apart during the moving process.

5. Plant and maintain as discussed earlier.