

Tree Planting Specification

Supplementary Document - Tree Strategy 2020-2030, Action Plan: Objective 2, 3 & 4

This specification has been produced in order to standardise tree planting techniques throughout Blackpool and is supported by scientifically-based information on the factors affecting tree establishment.

Blackpool Council

PARKS SERVICE



Contents

Tree Planting Specification	1
<i>Supplementary Document - Tree Strategy 2020-2030, Action Plan: Objective 2, 3 & 4</i>	1
Contents	2
1.0 Sustainability	3
2.0 Timing	3
3.0 Notch Planting in Green Open Spaces	3
2.1 Notch Planting	3
4.0 Pit Planting in Grass Verges & Green Open Spaces	3
4.1 The Planting Hole	3
4.2 Preliminaries to Planting	4
4.3 Planting the Tree	4
4.4 Tree Supports & Protection	4
4.5 Mulching	5
5.0 Tree Plantings in Hard surfaces	5
5.1 Approach	5
6.0 Aftercare	5
7.0 Document Control	7

1.0 Sustainability

As discussed within the Tree Strategy 2020 – 2030, when sourcing and purchasing trees: all specimens will be locally sourced and conform to BS 3936-1:1992 Nursery stock. Specification for trees and shrubs. By locally sourcing trees, we will be able to reduce the risk of pests and tree diseases, reduce logistical fuel usage and contribute to our local economy.

By using hessian tree ties and cardboard tree guards, no plastic will be used to support our tree's growth and development. Hessian and cardboard are biodegradable materials and therefore, will naturally breakdown over time reducing harmful effects of tight tree ties or restricting tree guards. This will reduce our tree failure numbers and also reduce their maintenance requirements. Bamboo canes for the cardboard tree guards and posts can be reused, once the trees are able to support themselves and if the canes and posts are still structurally stable.

2.0 Timing

- ✦ Bare root and root balled stock - September to April inclusive.
- ✦ Container grown stock including "Airpot" material - September to May inclusive.
- ✦ Evergreen material - September/November or March/May.
- ✦ Magnolia spp. & cvs. - April/May.
- ✦ Eucalyptus spp. - June /July.
- ✦ Preference for planting is during the autumn/early winter period.
- ✦ Planting should never be carried out during periods of hard frost or when snow is on the ground.

3.0 Notch Planting in Green Open Spaces

2.1 Notch Planting

To plant bare root whips and feathered whips in large numbers, notch planting is recommended.

A "T", "H", "V" or "L" notch will be cut in to the ground using a spade. However, to prevent poor root development, trees are best planted in a "T" or an "L" notch, with the ground level with the top of the root collar, straight and firmed in. Special forestry spades are available, but a normal garden spade is almost as effective.

Planting is much easier when the plants are carried in a planting bag worn over one shoulder. This allows roots to remain protected until planting and avoids the damage that may be caused by dragging a bag along the ground. If planting into a grass sward, the turf within a circle of about 20cm in diameter should be scraped away. This is known as screefing and also provides a degree of weed control, aiding subsequent maintenance.

4.0 Pit Planting in Grass Verges & Green Open Spaces

4.1 The Planting Hole

A circle of turf will be removed, 1.5m diameter, minimum: increase diameter for larger trees.

A square hole will be dug within the circle, to a depth of the root ball or a minimum of 300mm, i.e. a spit depth. Research has shown that wide rather than deep planting holes result in better tree establishment (*Whitcomb 1987*). It is also thought that root penetration outside the tree pit is quicker and easier through the corners of a square hole rather than round (*Kirkham 1990*).

For semi-mature trees, the tree circle will be a minimum of 3m diameter and the depth of the root ball.

Soil removed from the tree pit will be put back and no new soils will replace the backfill removed. The conditions of the soil should be assessed and organic matter should only be added to the backfill around newly planted trees if the soil is of a very poor quality, resembling builder's rubble. Therefore, it is important that that any rubble is removed and the compost when used is adequately mixed with the excavated material prior to back filling (*Hodge 1990*).

The prepared tree pit can, wherever possible be left fallow for a period before planting to allow for natural precipitation to permeate the site prior to planting.

4.2 Preliminaries to Planting

Underground utilities and services will be checked before any grassed verges and green open spaces are identified for planting. If these areas contain or are found to contain utilities and services via CAT scanning, then alternative locations will be found.

On delivery, the specimens should be checked to make sure they are in a good condition and exhibit no signs of ill health.

With container grown and containerised plants that may be dry, the root ball can be thoroughly soaked prior to planting, by submerging the container in a tub of water until all air is expelled from the compost. This operation should be carried out the day before planting. Examine the tree and prune out any damaged or unwanted branches or roots.

4.3 Planting the Tree

The tree should be placed upright in the centre of the tree pit and the roots spread out around the hole in order to encourage them to grow out to the corners of the square pit. Where plants have been grown in containers, the roots should be teased out and encouraged to grow outwards.

Planting depth is critical; planting too deep can cause trees to struggle and fail. The root collar/hypocotyl should be level with the surrounding ground. By using the shallow planting method, it is unnecessary to allow for settlement.

The backfill should be firmed evenly around the roots of the tree. Care should be taken not to compact on or around the roots. Brittle-rooted plants such as magnolias can be damaged by heavy firming and are best settled by light kneading or watering in.

All newly planted trees must be checked regularly during their first season, especially after windy conditions.

4.4 Tree Supports & Protection

A stake will only be used where deemed necessary, dependent on nursery stock size.

Where small tree plantings require support, a bamboo cane and cardboard tree guard is recommended, as the guard provides a fitting for the cane. Therefore, no plastic ties are required.

Where the root size of a newly planted tree and cane does not provide adequate anchorage or support, the use of a short stake and a single hessian tie will be used wherever possible. The stake will be round and extend to one third of the overall tree height (*See figure 1, Patch 1987*).

Only hessian ties will be used and twisted loosely to create a buffer. They should be fastened no more than 30mm from the top of the stake. Any lower and this will allow the tree to chafe against the top of the stake. For large trees, use a nail through the hessian tie into the stake, to prevent the tie from sliding down or around the stake. Leave approximately 5mm of the nail protruding to allow for easy adjustment during the growing season.

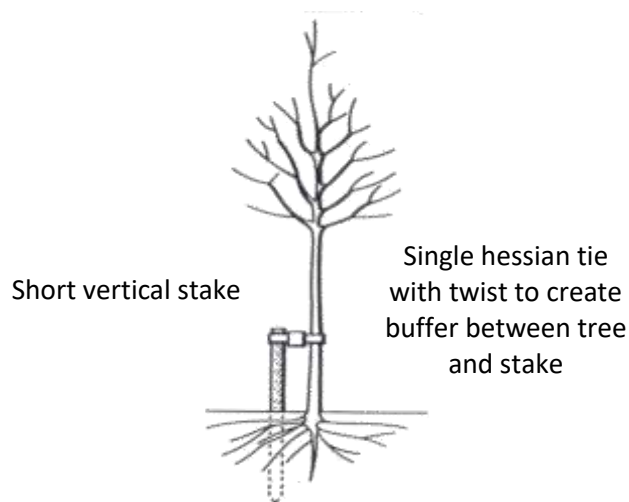


Figure 1. Short Staking

Where it is not possible to use a single stake, i.e. a root balled tree or bent trunks, the following two methods can be adopted (*See figure 2 & 3*). The hessian tie and stake are to be positioned at 1/3 of the trees height.

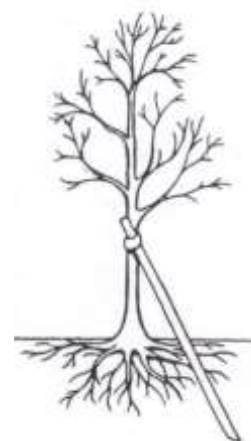


Figure 2. Oblique Staking

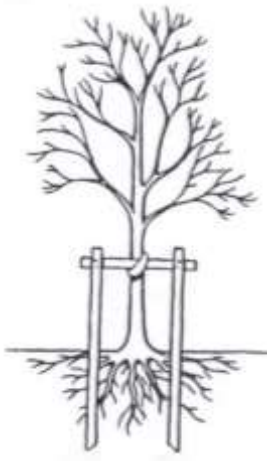


Figure 3. Crossbar Staking

Selected trees in woodland locations or green open spaces can be fitted with a bamboo cane and cardboard tree guards for protection from rabbits and squirrels.

For grass verges and parks where larger trees will be planted, there are a variety of options for staking and protection. This will be chosen based on the area and the likelihood and type of damage i.e. pests, ASB, vehicles and mowers, strimmers etc.

For semi-mature trees or where deemed necessary, underground anchors or overhead guying kits will be utilised in order to secure the tree by using the product technical guidance document. Once installed, pipe insulation foam should be placed around the wire and taped in place, to increase visibility and for protection (for an example see figure 4).



Figure 4. Tree guying on Munster Avenue, Bispham

4.5 Mulching

If planting is carried out during a dry period, ensure that the tree is irrigated prior to applying the mulch.

The tree circle will be mulched with the woody mulch, taking care not place it too close to the root collar, as this will cause the bark to rot and invasion by disease.

Ensure that a space of a minimum of 100mm is left free of mulch around the root collar to avoid contact of the mulch with the trunk.

5.0 Tree Plantings in Hard surfaces

5.1 Approach

Due to the varying surfaces such as pavements, paved areas, hard landscaped areas like Blackpool town centre, tree plantings will be customised based on their requirements whilst taking into account utilities and services.

Best practice will be followed and guidance from researched documents such as *Trees in Hard Landscapes: A Guide for Delivery* and installation systems such as GreenBlue Urban should be utilised in order to provide the best environment for the root system.

6.0 Aftercare

All newly planted trees are to be thoroughly watered immediately after planting (twice within the first 48 hours) and during any prolonged periods of dry weather.

Once planted, trees should be inspected on a biannual basis or during prolonged periods of dry weather, for signs of poor condition or damage. Any trees that die within the first 7 years after planting will be replaced with trees or shrubs of the same species and size.

All future tree works on the planted trees should be carried out between September and February, to avoid interference with the nesting bird period.

Any weeds found growing around the newly planted trees should be removed, annually in subsequent years after planting. This will help with the uptake of valuable resources such as water, nutrients and light. This must be done manually without the use of herbicides.

Tree ties should be inspected annually, and adjusted if required. Tree ties and stakes should be removed within three years of planting unless establishment is deemed to be unusually slow.

For semi-mature trees, overhead guying should be loosened during the spring/summer period to allow canopy and stem movement to encourage root development. During the autumn/winter period, the guying can then be tightened to allow support for the harsher coastal weather. The guying should be removed within three years of planting, which can be reused for other semi-mature planting projects and contribute towards sustainability standards.

New bark mulch should be applied around the base of each tree to a depth of no less than 75mm, each year for at least the first three years. This will conserve water close to the soil surface and inhibit weed growth.

7.0 Document Control

Document owner:	Paul Hodgson
Document number:	V1
Document category:	Environmental
Document location:	Parks Service
Last edited:	26/04/2021

Record of Amendments

Date	Version	Amended by	Description of changes
07/06/2021	V2	Paul Hodgson	Added guying section to Tree Support & Protection and Aftercare

Approved by

Name	Title	Signature	Date