Ducie Street / Piccadilly Tree Lifting and Replanting Method Statement

1.Tree Inspection

Inspect tree to identify any defects in form or presence of deadwood. Deadwood to be pruned out according to BS 3998:2010 (Chapter 7) but for defects inform consult Manchester City Council Officers for advice before taking any action.

Inspect for any signs of pests or disease. If found and in situ treatment is not considered to be an effective remedy consult Manchester City Council Tree Officer / qualified arborist for advice.

2.The Contractor

A GMRAPS permit will be required for working on the highway. The contractor will need to supply the City Councils Highway's department with evidence of the required insurance cover, working method statement, H&S plan and proof of NRSWA accreditation for working on the highway.

A traffic management plan will need to be submitted to the City Council for temporary closure of sections of the highway to facilitate the removal of the trees by a grab or telehandler.

3.Removal of Spoil to expose Extent of Tree Roots

Consult service plans and undertake CAT scan to identify the location of services in an area 2m square from the centre of the existing tree pit.

Install Chapter 8 compliant barriers to separate area of working from pedestrians.

Remove pin kerb edge around aperture of tree pit opening and remove off site.

Remove block pavers and flags around the existing aperture 500mm in all directions and store safely for later use or remove off site as instructed.

Excavation work should be carried out carefully and follow recognised safe digging practices – contractors to follow Health and Safety Executive HSG47 guidance.

Once a locating device has been used to determine cable positions and routes, excavation may take place, with trial holes dug using suitable hand tools as necessary to confirm this.

Excavate alongside the service rather than directly above it. Final exposure of the service by horizontal digging is recommended, as the force applied to hand tools can be controlled more effectively.

Insulated tools should be used when hand digging near electric cables.

4.Tree Roots

The soil surrounding the rooting zone should be watered thoroughly prior to digging to keep it intact and reduce as much soil loss as possible when in transit. To ensure the tree is properly hydrated, it should be watered 1-2 days prior to moving.

Excavation work should be carried out to a depth of around 800 - 1000mm – the approximate maximum depth of the rootball that would be expected for the species of tree and the number of years in situ on Ducie Street / Piccadilly. Careful hand digging should be undertaken around and under the root zone, to isolate a 'rootball' structure for lifting.

It is important to retain as many of the tree's roots as possible as this will enhance the tree's potential for successfully re-establishing when planted in it is new location. Where root spread exceeds the width of the excavation area outlined in stage 2 consult with a qualified arborist about the potential for root pruning, a good clean cut will be required to reduce the likelihood of infection and stress.

5.Lifting and Moving the Tree

Tie the branches before lifting but not too tight to avoid snapping.

Secure hessian strapping around the trunk of the tree to the height of the lowest branch to reduce any impact damage during lifting and transportation.

Pass straps under and around the rootball for lifting by a grab / telehandler. Supporting slings must be located around the rootball and not around the stem

Lift the tree slowly to retain as much rootball intact as possible.

Place the rootball onto a piece of damp hessian sacking and enclose the rootball ensuring that the roots are covered at all times to prevent them from drying out by the sun or wind during transportation.

6. Replanting

Before moving the tree from its current position, ensure that the new planting location is prepared to receive the tree.

Prior to digging of tree pit services assessment to be undertaken as outlined in section 3.

Mark out the estimated spread of roots, adding an extra 30-60cm. Excavate to at least a depth of 1000m and fork over the base and sides to remove any polishing from the initial dig.

Lay minimum of 100-150mm depth of clean non-calcareous stone, 20mm nominal size, no fines, over the base of newly excavated and crowned pits to allow surplus water to drain away from the rooting zone. Ensure that pit bases are broken up first. lay a non-woven geotextile over the top of the stone to prevent soil being washed into the drainage layer.

If soil on existing site (following testing) proves inadequate any Imported topsoil must meet the criteria set out in BS 3882:2015 'Specification for topsoil'. 'General – Purpose Category', premium quality, with a light texture, dry/friable and weed and pest free. Imported multipurpose subsoil must meet the requirements set out in BS 8601:2013 - Specification for subsoil and requirements for use.

The Contractor must supply appropriate documents showing that it meets the standards and its source. Certificate of testing will be required from a recognized laboratory before importing to site.

Topsoil to be mixed with 'Carbon Gold Tree Growth Enhancer' (Supplier Carbon Gold, Tel: 0117 2440032). To be mixed as manufactures recommendations at 5% by soil volume.

If replanting cannot take place immediately, pack the rootball with organic matter and wrap it in hessian sacking, before placing it in a cool, shaded spot. Keep the rootball well watered if warm and dry.

Place the tree in the hole, and make sure that the roots are not restricted by the sides of the hole if necessary, adjust the size of the hole to accommodate them. It is important to keep the rootball wet but if the soil conditions adjacent to where the planting hole are too wet then machinery used to relocate the tree can damage the soil structure reducing its permeability to oxygen and water. Where possible the tree should be planted in the same orientation as it was originally growing in.

Install irrigation pipe around rootball, with watering inlet and cap set slightly above the tree pit surface.

The old soil-mark at the base of the trunk of the tree should be used as a guide to the correct planting depth, however when positioning the tree in the new hole, it should be placed 5-8cm higher than the soil mark to allow for settling. Planting a tree too deep may result in girdling problems later, i.e. the roots of the tree wrap themselves around the trunk in such a way that they obtain little or no nutrients. If the tree is planted too shallow and the upper roots are exposed, they will be vulnerable to drying out or frost damage.

Firm around the base of the trunk to improve the stability of the rootball and to eliminate air pockets to avoid potential frost damage to the roots. Install a non-woven geotextile around the base of the tree to achieve coverage of at least one meter square and cover with woodchip to aid with moisture retention and weed suppression. Woodchip conforming to medium/coarse grade (nominal particle size 40-60mm) weed and pest free, suitable for professional landscaping applications, laid to a minimum 75mm depth, leaving a clear collar of at least 50mm around the base of the tree trunk.

The tree will require underground guying or staking for up to two years after planting especially on exposed sites where wind can be destabilising to provide enough time for the roots to establish and anchor themselves into the ground.

Once the roots have become properly established the stakes should be removed as the strength of the trunk can be reduced by long term staking.

7.Aftercare

Moving a tree can cause significant stress, so for at least the first two years after relocating carry out the following:

- Regular watering during the growing season especially during hot dry periods. Provide at least 90 litres of water per tree at bi-weekly intervals between 1st May and 30th September unless weather conditions dictate otherwise. During drought and hot weather watering visits to be increased to weekly intervals. It may be necessary to commence watering earlier during a dry Spring. Watering should be via the irrigation pipe 50% and 50% within tree base.

- applying a mulch of organic matter around the tree but keep the base of the trunk clear (to avoid girdling) as this will help conserve moisture and suppress weeds.

- In spring there may be a need to apply tree a general fertiliser if the surrounding soil is poor. However, an assessment should be made of the soil as applying fertiliser when not needed can produce unwanted new growth resulting in more water stress on the tree.