

arboricultural method statement, Freeman & Mason

our ref: [1688 / TGW/ AMS001] **project:** Mead House

date: 23/05/2025

1.0 Context

- 1.1 The works included within this arboricultural method statement are part of the Mead House proposed within the Planning Approval, Hillingdon Council
- 1.2 As part of the planning application a tree survey was carried out for the area affected by the works, there were no trees identified in proximity to the proposed internal works. The Tree Constraints Plan and construction phase plan did highlight trees to the front elevation which identifies the root protection areas of the surveyed trees.
- 1.3 This method statement refers to the protection of those trees and their rooting system that are potentially affected by the existing mains drainage and the proposed new connection, which all fall 7m outside of the trunk area.

2.0 Tree Protection Informative:

- 2.1 Trees that are in good health have grown and adapted to their surroundings. Any building works or construction activity which affects their surroundings could effect their vigour, future growth and safety.
- 2.2 The tree root system is the most susceptible to damage and can affect the health, growth, life expectancy and safety of the tree. Damage to the trunk and branches of a tree is not usually sufficient to kill the tree, but it can affect the shape and growth potentially making a tree unsafe.
- 2.3 Tree roots are typically concentrated within the uppermost 600mm and form a network of small diameter woody roots (typically less than 0.5mm or pencil thickness) with mass of finer roots. These tree roots can extend for a distance much greater than the height and spread of the tree, except where prevented by unfavorable surroundings and they are essential for the health of the tree and dependent on favorable soil conditions being maintained.
- 2.4 All parts of the root system, but especially the fine roots, are vulnerable to damage. Mature trees recover slowly, if at all, from damage to their woody roots.

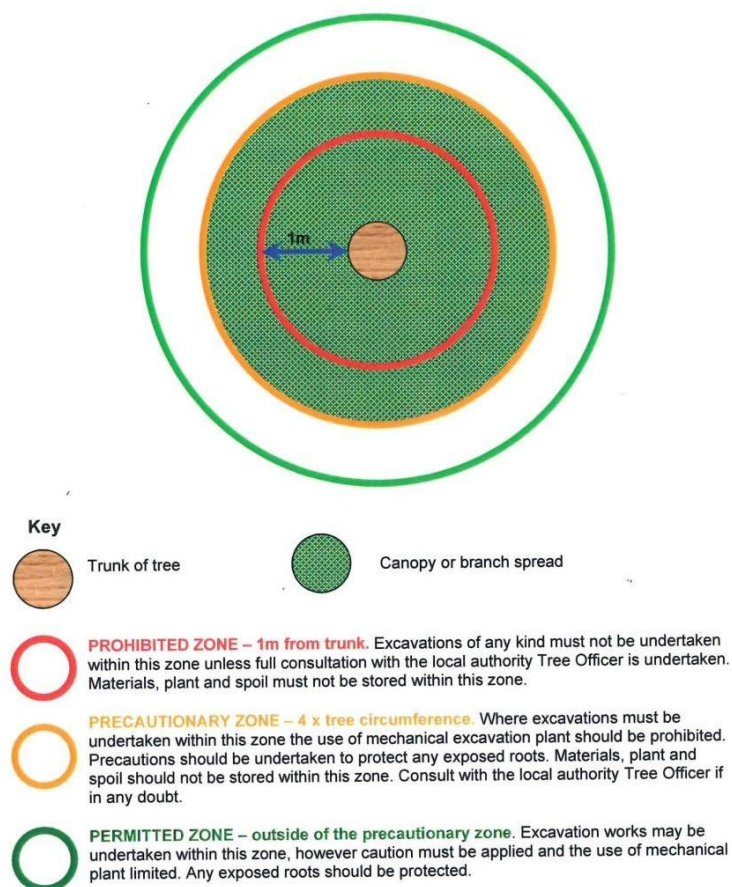
3.0 Construction Proposals

- 3.1 The above development requires the connection and upgrade of existing services into the site and as part of the proposals this will require incursion into the existing RPA of the above tree.

5.0 Excavations within the RPA (based of guidance offered in NJUG)

- 5.1 There are certain areas around trees, illustrated in Figure 1 – 'Tree Protection Zone', where excavation either must not be undertaken or only undertaken under strict conditions to avoid or minimise any damage to a tree's root system.
- 5.2 For the purposes of this document, they are called zones;
- the Prohibited Zone (1m from the trunk)
 - the Precautionary Zone (4 x the tree circumference)
 - the Permitted Zone (outside of the Precautionary Zone)

FIGURE 1 – Tree Protection Zone



- 5.3 Whenever possible apparatus should always be diverted or re-aligned outside the Prohibited or Precautionary Zones. Under no circumstances can machinery be used to excavate open trenches within the Prohibited Zone.
- 5.4 To avoid damage to tree roots, existing ground levels are to be retained within the RPA. Intrusion into soil (other than for piling) within the RPA is not acceptable, and topsoil within it is to be retained in situ.
- 5.5 Approved excavations within the Root Protection Zone of those trees to be retained are to be excavated by four different acceptable methods:

a) Trenchless Wherever possible trenchless techniques should be used. The launch and reception pits should be located outside the Prohibited or Precautionary Zones. In order to avoid damage to roots by percussive boring techniques it is recommended that the depth of run should be below 600mm. Techniques involving external lubrication of the equipment with materials other than water (e.g. oil, bentonite, etc.) must not be used when working within the Prohibited Zone. Lubricating materials other than water may be used within the Precautionary Zone following consultation and by agreement.

B) Air Spade compressed air soil displacement in accordance with clause 7.2 of BS 5837:2012; this system uses specialist equipment to cut a trench through the soil by jetting away the existing topsoil and subsoil particles from around the existing root structure whilst leaving them in place. If necessary, once excavated then the roots may be pruned back as below.

b) Broken Trench - Hand-dug This technique combines hand dug trench sections with trenchless techniques if excavation is unavoidable. Excavation should be limited to where there is clear access around and below the roots. The trench is excavated by hand with precautions taken as for continuous trenching as in (c) below. Open sections of the trench should only be long enough to allow access for linking to the next section. The length of sections will be determined by local conditions, especially soil texture and cohesiveness, as well as the practical needs for access. In all cases the open sections should be kept as short as possible and outside of the Prohibited Zone.

c) Continuous Trench - Hand-dug The use of this method must be considered only as a last resort if works are to be undertaken by agreement within the Prohibited Zone. The objective being to retain as many undamaged roots as possible. Hand digging within the Prohibited or Precautionary zones must be undertaken with great care requiring closer supervision than normal operations. After careful removal of the hard surface material digging must proceed with hand tools. Clumps of roots less than 25mm in diameter (including fibrous roots) should be retained in situ without damage. Throughout the excavation works great care should be taken to protect the bark around the roots. All roots greater than 25mm diameter should be preserved and worked around. These roots must not be severed without first consulting the owner of the tree or the local authority tree officer / arboriculturist. If after consultation severance is unavoidable, roots must be cut back using a sharp tool to leave the smallest wound.

- 5.6 Fine roots are vulnerable to desiccation once they are exposed to the air. Larger roots have a bark layer which provides some protection against desiccation and temperature change. The greatest risk to these roots occurs when there are rapid fluctuations in air temperature around them e.g. frost and extremes of heat. It is therefore important to protect exposed roots where a trench is to be left open overnight where there is a risk of frost.
- 5.7 Regardless of which option is used the following guidance should be followed:

- 1) Exposed roots are to be immediately wrapped or covered to prevent desiccation and to protect them from rapid temperature changes. Any wrapping are to be removed prior to backfilling, which is to take place as soon as possible.
- 2) Roots smaller than 25 mm diameter may be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw), except where they occur in clumps.
- 3) Roots occurring in clumps or of 25 mm diameter and over are to be severed only following consultation with an arboriculturist.
- 4) Prior to backfilling, retained roots are to be surrounded with topsoil or uncompacted sharp sand (builders' sand is not be used), or other loose inert granular fill.
- 5) Soils or other suitable material are then to be replaced. This material should be free of contaminants and other foreign objects potentially injurious to tree roots and approved by the project arboriculturist.