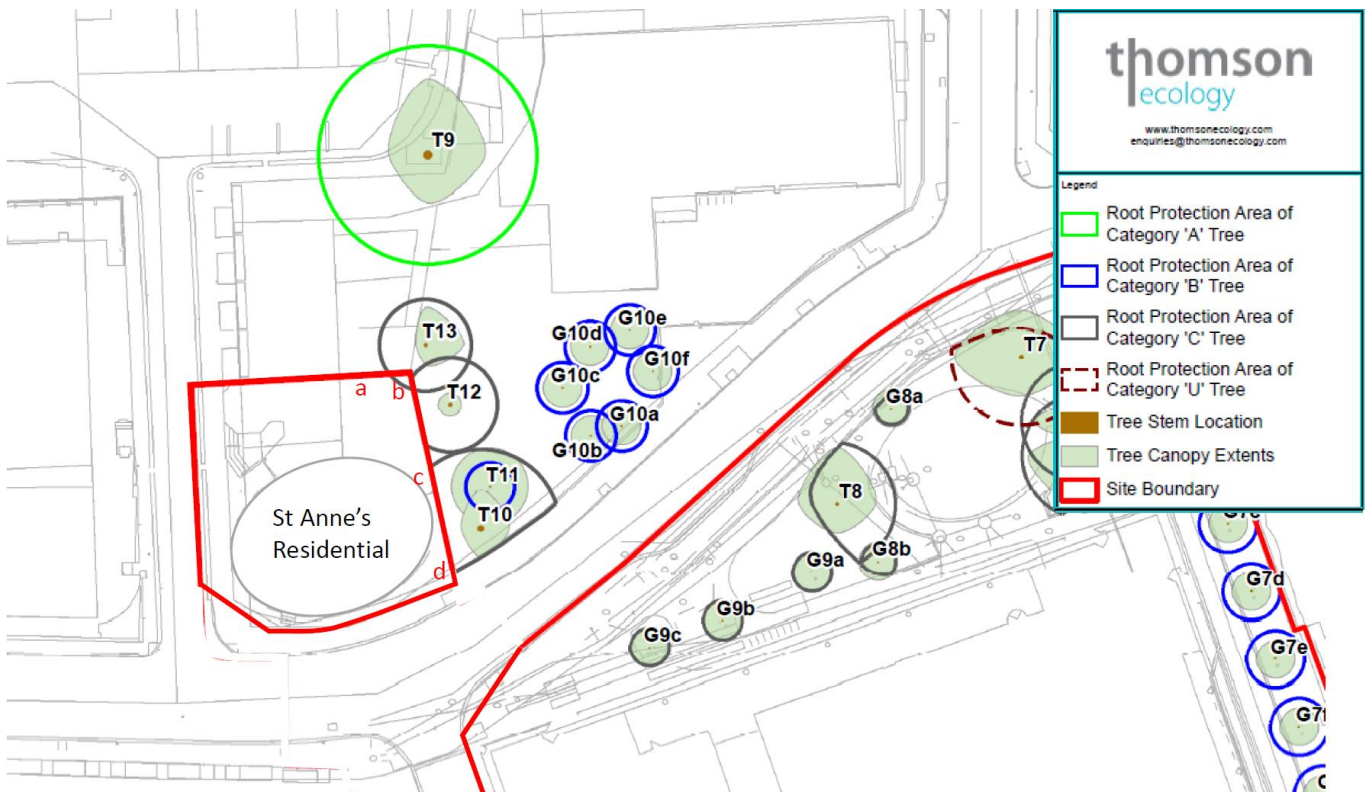


1.0 Tree Protection Plan

This Plan has been produced to satisfy part (b) of Condition 7 – ‘Trees Protection’ attached to planning permission reference 2016/6069/P, approving works to be carried out at 1 Triton Square and St Anne’s Residential, London. As required by part (b) of the condition, the report includes full details of the measures to be taken to protect retained trees within the residential element of the approved development throughout the construction period.

The proposals follow the recommendations given in the Thomson Ecology Arboricultural Report 2016 submitted in support of the planning application and follow guidelines and standards set out in BS5837:2012 “Trees in Relation to Construction”.

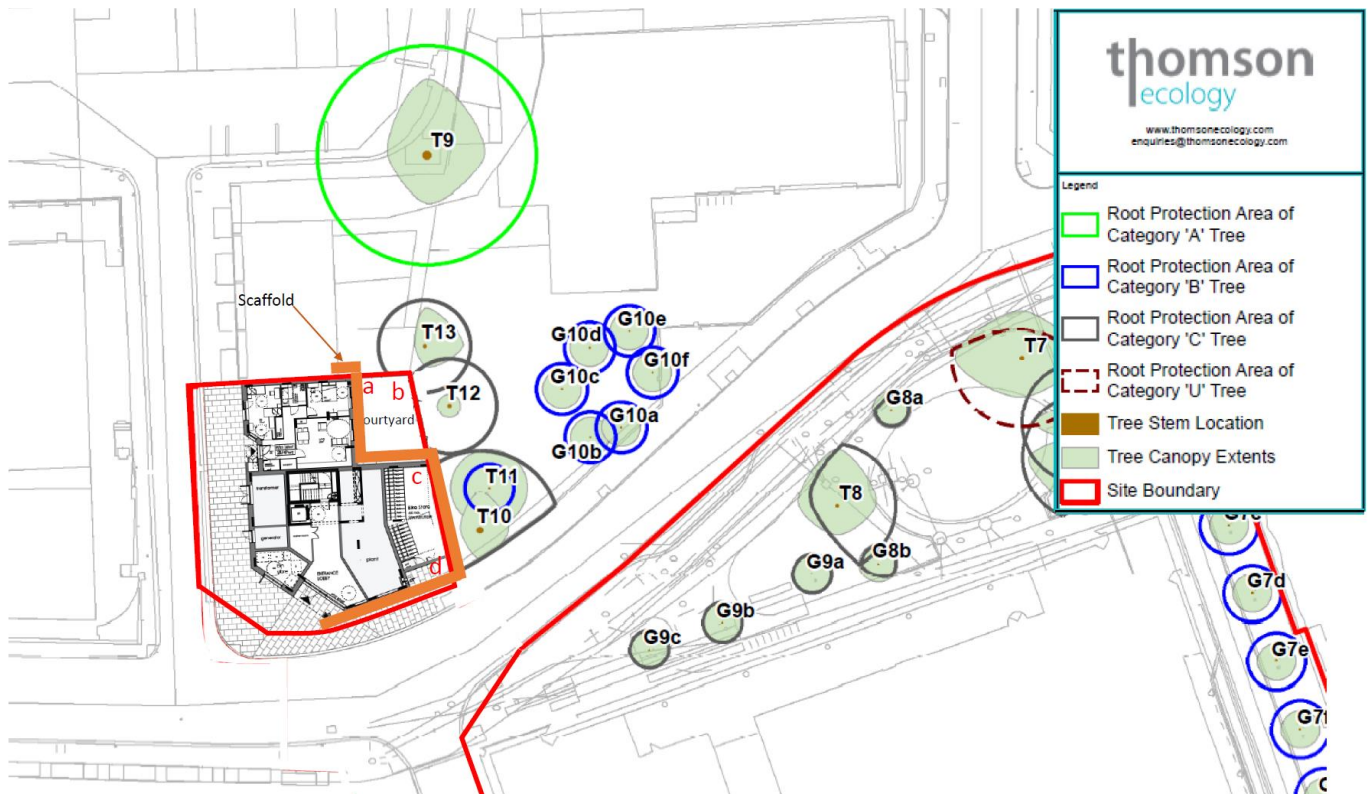
The plan below identifies the site and building boundaries for the residential element of the development. The site boundary shall comprise a timber screen hoarding min 2.4m high running continuously around the perimeter. Where a tree protection area lies adjacent, this hoarding will form part of that protective enclosure.



The trees indicated on the plan take their references from the Arboricultural report. They all sit outside the St Anne’s Residential buildings site plan and the trees are in the ownership of the adjacent college. They are also outside the red line of the planning permission however in accordance with the Arboricultural Report they will be treated as follows;

Tree ref.	Comments
T10 - Acer	Large C-Grade Tree in poor condition – Root Protection may be required from c to d . Canopy is outside the site boundary. Hand dug trenches will uncover the root system.
T11 – Cockspur Thorn	Small B-Grade Tree in fair condition – No Action proposed – roots and canopy are outside the site boundary.
T12 – Red Oak	Large C-Grade Tree in poor condition – Root Protection may be required in the courtyard from b to c . Hand dug trenches will uncover the root system. Canopy is outside the site boundary.
T13 - Acer	Large C-Grade Tree in poor condition – Root Protection may be required in the courtyard at b . Hand dug trenches will uncover the root system. Canopy is outside the site boundary.
G10 – Cockspur and Hawthorns	Small B-Grade Trees in fair condition – No Action proposed – roots and canopy are outside the site boundary.

2.0 Construction Exclusion Zones and Root Protection Areas



Construction Exclusion Zones (CEZ) for Trees T11, 12, 13 will be formed by the site hoarding which will prevent the construction activity from reaching the tree stem or canopies. A CEZ will be established for T10 to protect it from the scaffold erection process along **c - d**.

The Arboricultural Report anticipates that the root-balls for Trees T10, 12, 13 may extend below the footings of the existing boundary walls **a - b - c - d**. It is not known whether the existing footings interrupt the roots or whether the roots run under footings.

The boundary walls between **a - b - c** are to be replaced with new boundary walls on the same alignment as part of the proposed works. These are stand-alone walls which do not form part of the building perimeter envelope.

The excavation for the new boundary wall footings along **a - b - c** will be carried out if at all possible such that any roots found running under are not damaged or severed.

If tree roots from T12 and T13 are found to run under the boundary wall **a - b - c** into the courtyard then works in the courtyard will be carried out with restrictions as set out in CEZ 2 below.

The boundary wall between **c - d** is to be replaced by a new piled footing to the building east flank wall. Any roots from Tree T10 which run under the existing boundary wall footing will be severed by the construction works.

Prior to the construction works commencing, during the demolition period, trial trenches will be hand dug along the western side of wall **b - c** and **c - d** to discover the extent of the roots to Tree T10, T12 and T13.

A qualified and experienced arboriculturist will be appointed to assess the root paths and confirm whether the trees would survive the severance of their roots and the pressure on the ground adjacent from the access scaffolding along **c - d**.

The Arboricultural report advises that Tree T10 is of poor quality and anticipates that it may not be possible to retain it. Extract here:

5.3.3 The three Category C trees, T10, T12 and T13 have all been previously topped and do not currently have much live crown. Whilst it is expected that regrowth will initially be vigorous, the practice of topping is not considered good arboricultural practice and can lead to structural problems from weakly attached regrowth. Category C trees are a material consideration in the planning process, but should not be a constraint. The retention of these trees at the expense of the proposed development is not recommended.

3.0 Supervision

1. Before commencement of demolition or construction works a qualified and experienced arboriculturist shall be appointed to oversee key stages of work.
2. The arboriculturist shall hold a pre-commencement meeting with the site manager, relevant construction staff and Local Authority Tree officer to agree measures to be taken.

4.0 Sequence of works pre-commencement:

1. Carry out the trial trench hand digging on the western side of wall **b – c – d** to uncover any root systems that may have grown under or through the boundary wall footing. The boundary wall footing is expected to be at least 600mm deep and it is not expected that the tree roots will be deeper than this. The excavation should not need to be dug deeper than the boundary wall footing.
2. Review with the arboriculturist the uncovered root systems in the courtyard and assess whether root protection areas are required in the Courtyard.
3. Assess the viability of tree T10 if its roots need to be severed.
 - a. Either remove Tree T10 or
 - b. Sever the root system along **c – d** and install vertical root barrier and, to protect T10 from the scaffold erection, establish a CEZ alongside it.

5.0 Restrictions post commencement:

Dependent on the findings of the trial holes and as assessed and agreed with the Arboriculturist it is anticipated that CEZ's may need to be established as follows.

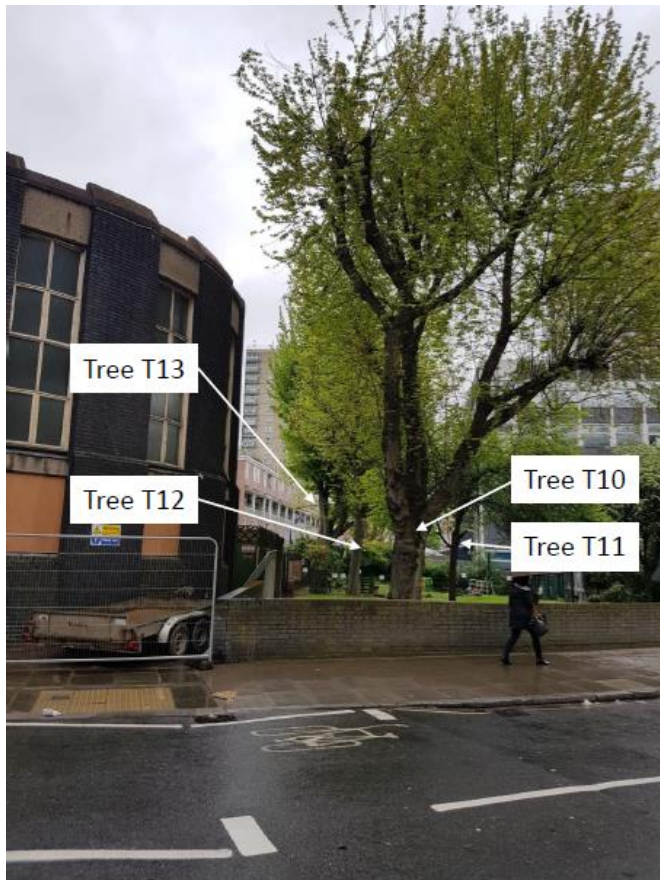
- CEZ 1 – within the Courtyard – in the event that the trial holes uncover roots under the existing boundary wall footing.
 - i. No excavation will be permitted below the level of the existing wall footings.
 - ii. No plant or vehicles will be permitted in the CEZ's
 - iii. No materials, fuels or chemicals will be stored in the CEZ areas.
 - iv. No fires will be lit within the confines of the building site.
 - v. No drainage or irrigation pipes shall be installed within the CEZ areas.
 - vi. Any unwanted vegetation shall be removed by hand.
- CEZ 2 – outside the site in the College land – in the event that the arboriculturist assesses that the T10 will survive the severance of its roots by the new building perimeter wall foundations.
 - vii. No excavation will be permitted
 - viii. Protection fencing will be erected to protect the trees from construction activities (scaffold erection). The fencing shall remain in place until the new reinstatement works require its removal.
 - ix. No structures or fixtures of any kind will be permitted to be fastened to any part of the protected trees.



Documents of reference:-

- a) Thomson Ecological Arboricultural Report 2016
- b) BS 5837: 2012

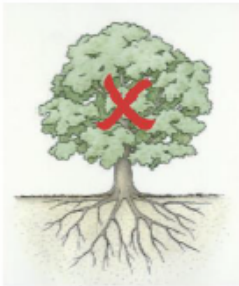
Appendix A – Photos



Appendix B – Proposed Tree Protection Measures/Signage

TREES

ROOT ZONES NEED TO BE PROTECTED

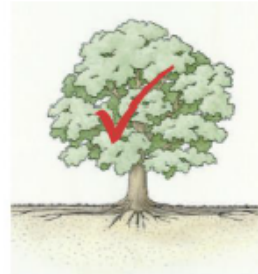


Tap Roots area myth, the majority of roots within top 600mm of topsoil

Tree roots can extend far beyond drip-line (crown spread)

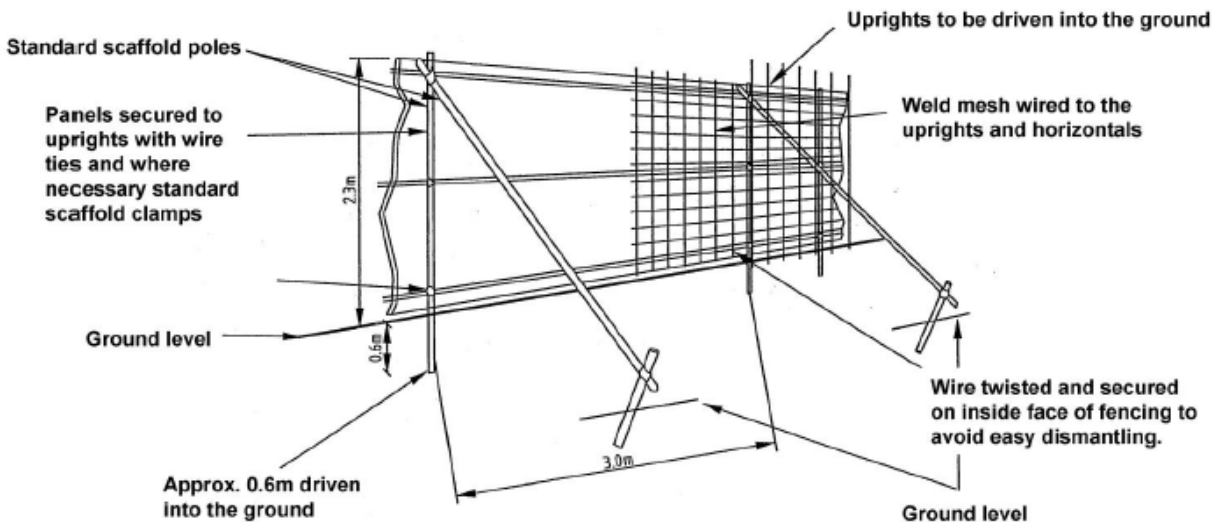
Root system often not symmetrical

Common for roots to extend up to 2x crown spread



Tree protection requirements from BS 5837:2005

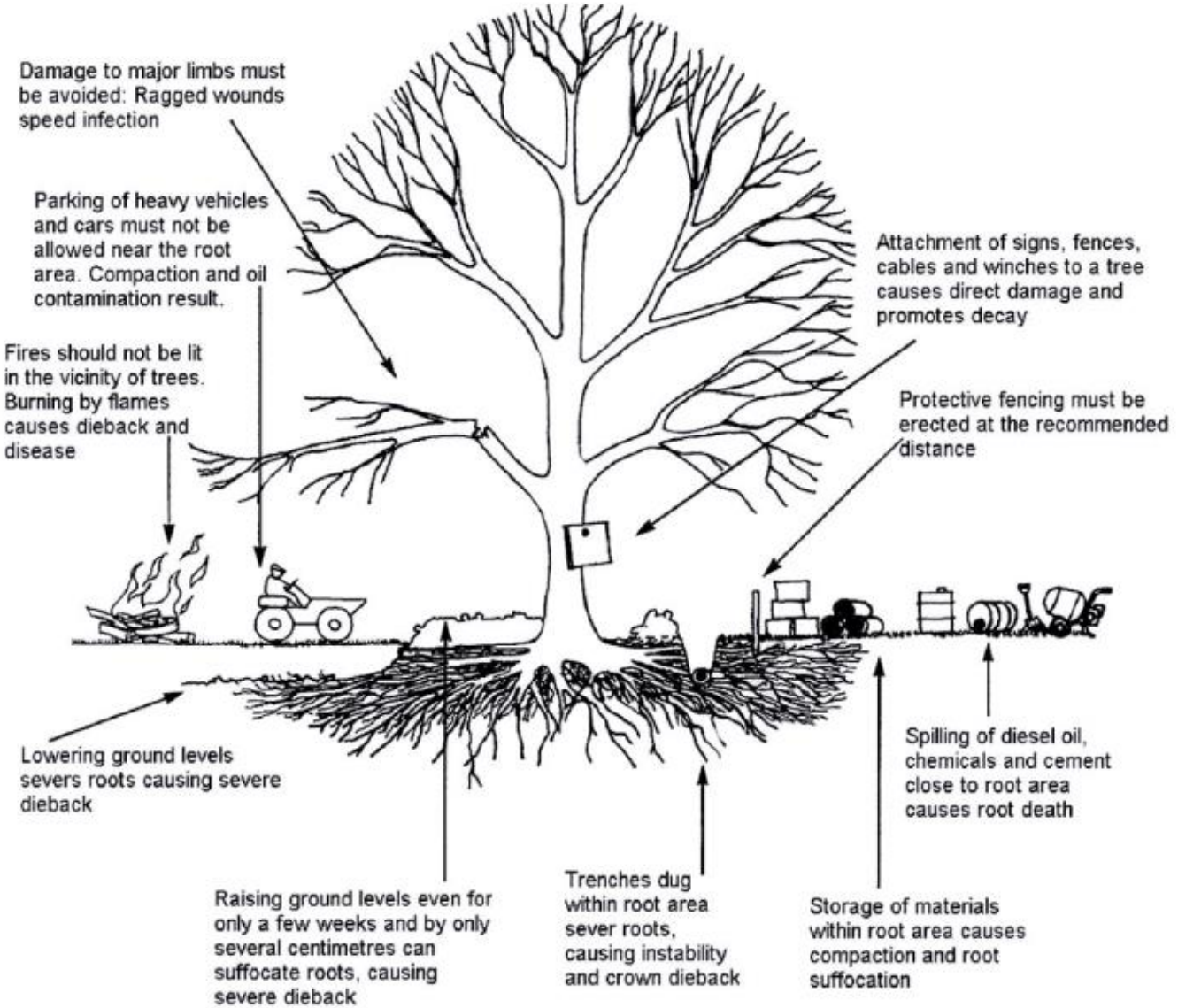
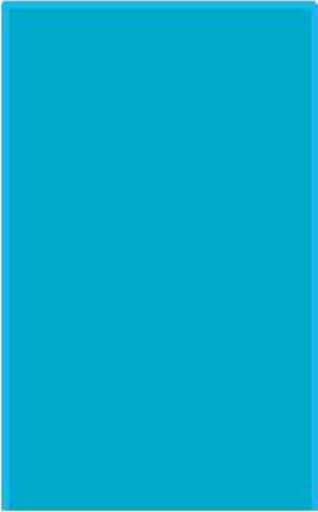
Standard scaffold clamps



TREES

ALL TREES ON THIS SITE ARE
PROTECTED

THE MAIN CAUSES OF TREE DEATH INCLUDE:





**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**