



NOTES
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General
 This plan is intended to provide an illustrative assessment of the impact on the existing tree stock in context of the proposed UCL Main Quad Teaching Facility and demonstrate how trees to be retained shall be protected during construction work in accordance with guidelines and standards set out in BS5837:2012.

Statutory designations (trees)
 The site lies within Bloomsbury Conservation Area administered by the London Borough of Camden. As such, all trees over 75mm diameter (measured @ 1.5m a.g.l.) are subject to statutory protection. Six weeks written notification must be given to the LPA in writing prior to carrying out tree works. The statutory designation of trees may change and it is recommended that the status of trees be checked with the Council prior to carrying out any tree works.

Boundary
 Indicative site boundary

Tree Survey
 1 Tree No.
 Crown spread (extent of current crown)

Proposed Teaching Facility
 Proposed building
 Ash Common name
 Root protection area (adjusted)

Arboricultural Method Statement
 The primary purpose of this plan is to aid the preservation of retained trees through setting out the appropriate working practices, demolition techniques and tree protection measures that are to be adopted when demolition and construction works are undertaken in the proximity of trees. The methodology of this Tree Protection Strategy follows a logical sequence of events. Variations to the sequence could significantly reduce the efficiency of the tree protection measures.

This plan should be incorporated into subsequent drawings and method statements used for design purposes or issued for use on site, to ensure that all parties are fully aware of the areas in which access and works may and may not take place.

A summary of tree protection will be provided to all personnel through the Site Induction. This summarises the key precautionary measures and responsibilities of all site personnel to ensure an awareness of trees during site works and that they are successfully protected throughout the demolition and construction works. It is the responsibility of the Principal Contractor to ensure that the Tree Protection Plans are implemented on site, maintained during the development process and understood by all site personnel and contractors prior to commencement of works.

Tree Works - All tree work will be carried out prior to groundworks and construction. For the schedule of tree works and detailed specification please refer to Schedule of Tree Work Report (TF/TW/1052) submitted under separate cover.

All tree works will be carried out by a competent person experienced in arboriculture and in accordance with BS 3998 Tree Work - Recommendations (2010). Prior to commencement of tree works all responsibilities under the Wildlife & Countryside Act (1981), as amended by the Countryside and Rights of Way Act 2000 must be observed. No tree works are to take place within the bird nesting season (March to August) unless a survey undertaken by a suitably experienced person establishes that active nests are absent.

Pre-commencement meeting - A pre-commencement meeting shall be held on site prior to commencement of enabling or construction works. This shall be attended by the Client's Representative, Contractor and Project Arboriculturist. The Local Authority Tree Officer will be notified and invited to attend. The methods of tree protection outlined within this statement shall be fully discussed at the meeting, so that all aspects of their implementation and sequencing are made clear to all parties. Precautionary areas will be identified together with any sections of existing walls displaying distortion by roots. Any clarifications or modifications to this statement shall be recorded and circulated to all parties in writing.

In brief, key work stages will be as follows:

- Stage 1 Pre-commencement meeting
- Stage 2 Carryout tree works (see Tree Works Schedule (TF/1052/TW/200))
- Stage 3 Installation of tree protection barriers and ground protection
- Stage 4 Preparation and excavation of pad foundation holes
- Stage 5 Pouring of concrete to form pad foundations
- Stage 6 Installation of framework, structure and rap
- Stage 7 Re-positioning of tree protection to set back position
- Stage 8 Installation of ramped access and emergency exit
- Stage 9 Dismantling of tree protection barriers and ground protection
- Stage 10 De-compaction of soft ground using Terraevent or similar

Tree Protection Measures
Tree Roots - The majority of tree roots are typically concentrated within the top 600mm of soil. Excavation, washings or cement near trees is likely to cause root damage. This may have an adverse impact on the trees health and stability. Any tree roots exposed during operations should be treated at once. Exposed roots smaller than 25mm diameter may be pruned back, preferably to a side branch, using proprietary cutting tools. In the event that roots are required to be pruned, sharp cutting tools are to be used to ensure the minimum damage is caused. Clean cuts can result in the redevelopment of fine roots. Poor untky cuts can, however, result in root die back and decay. No roots greater than diameters of 25mm are to be pruned without prior agreement with the Local Authority Tree Officer.

Storage of materials - All materials for construction purposes shall be stored within the designated works compound outside of the root protection area and on existing hard surfacing.

Indicative route for vehicles - All vehicles are prohibited from tracking within the RPA of retained trees and must operate outside of the RPA unless ground protection is installed (see ground protection below).

Cranes, rigs and booms - Precautionary measures must be observed. In addition to the site induction, all vehicles will operate with a banksman to ensure the limit of travel is observed. Where a crane is in operation, the exclusion zone formed by the tree constraints will be programmed into the cranes onboard limiter.

Unscheduled works - The Site Manager will notify the appointed Project Arboriculturist of any unscheduled works within the RPA or construction exclusion zone. The extent of works will be discussed and a method statement and provision for tree protection implemented. All unscheduled works must be agreed by the appointed Project Arboriculturist and if appropriate the Local Authority Representative consulted prior to commencement of the works.

Utilities - Existing utility routes will be used to service the Teaching Facility.

Drainage - No Additional surface or foul drainage is required. Surface water will water will be distributed over the soft ground by perforated pipes.

Levels - All existing levels shall be retained. No excavation shall occur within the RPA of retained trees unless otherwise agreed within an approved plan by the local authority in discharge of these conditions.

Canalvered area - area canalvered on steel beams suspended above ground level. Ground floor formed of decking to maintain moisture and gaseous exchange with soils below. Staircase to first floor providing secondary fire escape.

Ground Protection - Ground protection for pedestrian movements only within the RPA will be constructed in the form of 100mm depth of wood chips to form a compressible layer. For pedestrian operated plant up to a gross weight of 2t, proprietary interlinked ground protection boards placed on top of a compression resistant layer laid onto a geotextile membrane. Ground Protection for vehicular movements will be formed by a temporary load bearing surface such as Evertrakway (www.evertrakway.co.uk). Any hollows within the existing ground surface will be filled to provide a flat surface. A geotextile material will then be laid within the position shown. The track way will then be laid and secured in place in accordance with manufacturer's instructions.

Tree Protection - Following the completion of tree removal or facilitative tree works, tree protection barriers and ground protection as specified will be installed to protect all retained trees. All tree protection barriers must be fit for purpose. The barriers will be erected PRIOR to any works in the vicinity of the trees or the delivery of machinery, materials, plant or equipment to the site or any adjacent land thereto. The area excluded from activity by the barriers forms the Construction Exclusion Zone. Where appropriate, site hoarding will be aligned with the barriers to form the Construction Exclusion Zone.

Type 1 Barriers - Will consist of weldmesh panels on rubber or concrete feet and secured with two anti-tamper couplers installed so that they can only be removed from inside the fence. The panels should be supported on the inner side by stabilizer struts secured with ground pins unless similar fencing is agreed with the Local Planning Authority see Default specification for protective barrier (extract of Fig.3 BS5837:2012).

Type 2 Barriers - Will consist of marine grade sheet ply forming a free standing box 3.6m high to exclude the trees trunk from accidental physical damage during installation of the access ramp.

Once the barriers have been properly installed and erected in position, the fenced area is to be considered sacrosanct and must not be removed or altered in any way without prior approval from the Project Arboriculturist or Local Authority Tree Officer. Inspection of fencing: The Project Arboriculturist shall be informed as soon as the construction exclusion zone has been fenced so that it can be inspected and the adequacy deemed appropriate and in accordance with the approved Method Statement.

All Weather notices identifying tree protection barriers and the Construction Exclusion Zone are to be fixed to the outside of all tree protection barriers.

Within the Construction Exclusion Zone: No excavation or changes in soil levels unless specified within the approved plans. No storage of plant, equipment or materials. No Spillage or discharge of chemical substance, cement washings or other materials

Indicative position of foundation pads - Foundations shall be formed by concrete pad foundations. Prior to pouring of concrete, the surrounding area will be protected to avoid overwash or contamination of surrounding soils.

Indicative position of foundation pad within RPA - Excavation of the foundation hole shall be carried out using hand held tools only. Excavation shall not exceed 1200mm depth. Roots smaller than 25mm diameter may be pruned back, preferably to a side root using proprietary cutting tools. Prior to pouring of concrete, the resultant hole shall be lined with a non porous membrane to protect the soil from potential toxic effects of concrete. Overwash or contamination of surrounding soils will be avoided. Where roots are larger than 25mm in diameter are encountered, the excavated pit shall be backfilled with soil and a new pit excavated (in consultation with the engineer) to avoid major roots. All excavation shall be carried out under a watching brief by a qualified and experienced arboriculturist.

Access ramp and staging - The access ramp and staging within the RPA of Ginkgo (T8 & T9) will be formed by ArborRat load bearing void former or similar and installed above ground level in accordance with the manufacturers guidelines.

De-compaction of soft ground - Following dismantling of all temporary structures or a time to maximise benefit to the tree, the soft ground area will be subject to de-compaction using Terraevent system or similar to the crown extents in accordance with the manufacturers recommendations and guidance

ARBORICULTURAL MONITORING & RECORDING
 All works within the Root Protection Area (RPA) and close to the crown extents of retained trees will be carried out under an Arboricultural Watching Brief by the Project Arboriculturist.

The agreed work stages and scope of arboricultural monitoring shall be informed by this Method Statement. It is the responsibility of the Client to appoint a Project Arboriculturist and agree the level of monitoring and recording prior to commencement.

The frequency of site visits will be determined by the work stage and operations prior to commencement of each stage. As a minimum, a site visit will be made at the commencement of each stage and within one week of commencement of works on site. Following completion of each work stage, the appointed Project Arboriculturist will circulate a report to the Site Manager within two weeks. The reports shall be retained to form an auditable log for inspection by the LPA at such time as is requested.

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Drawing
 TREE PROTECTION PLAN &
 ARBORICULTURAL METHOD STATEMENT

Scale	Date	Drawn
1:200	JAN '17	AR
Drawing No.	Revision	
tf 1052/TPP/300	A	

Legend

	Preliminary		Issued for Design/Information
	Issued for Planning Approval		Issued for Tender
	Issued for Construction		As Built

Drawing sheet size - A3