

**Arboricultural method  
statement (Draft)**

**Trees**

**at and adjacent to**

**30a Parkhill Road,  
London  
NW3 2YP**

**for**

**Kilburn Nightingale Architects**

**Skerratt**

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## 1. Scope and status

### 1.1 Scope

- 1.1.1 This method statement sets out measures for the protection of 5 trees standing within or immediately adjacent to the property boundary of 30a Parkhill Road, London NW3 2YP in the course of proposed residential development.
- 1.1.2 The locations of the trees are shown on the **Tree protection plan in Appendix a.**
- 1.1.3 The development works to which this method statement refers include:
- The construction of a single-storey studio at the bottom of the rear garden linked to the existing dwelling with a lightweight glazed walkway.
  - Minor ancillary external works
- 1.1.4 The measures contained in this method statement are based on the advice and guidance set out in *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*

### 1.2 Status

- 1.2.1 This method statement forms a part of the building contract and its requirements are an integral part of the contract specification and schedule of works.
- 1.2.2 A copy of the method statement must be available for inspection on site at all times.
- 1.2.3 All persons working on site should be aware of the importance of avoiding damage to trees and should observe the necessary precautions. A guidance leaflet is included in this method statement in **Appendix c.**

## 2. Preparatory works prior to construction

### 2.1 Tree works

2.1.1 Preparatory tree works to retained trees are listed in the **Pre-contract tree works schedule** in **Appendix b** and should be carried out prior to the start of the main contract

2.1.2 All works will be carried out in accordance with *BS3998:2010 Recommendations for Tree Work*, by an appropriately qualified tree work contractor.

2.1.3 Unless otherwise specified, all arisings are to be taken off-site to an approved tip.

### 2.2 Protective measures: tree protection fencing

2.2.1 The extent and location of tree protection fencing is shown on the **Tree protection plan** in **Appendix a** and will be installed prior to the start of works. It is particularly important that no demolition, soil stripping, breaking out of existing hard surfaces, re-grading or other excavation takes place before protective fencing has been installed.

2.2.2 Tree protection fencing will comply with the advice and guidance contained in *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*.

2.2.3 2000mm high panels with a galvanised tubular frame and welded mesh infill (e.g. Heras round or square top panels or equivalent), mounted on proprietary concrete or rubber feet and braced on their inner (away from the proposed development footprint) side at each panel join will be acceptable as tree protection fencing on this site, as specified in *BS5837:2012*. Panels must be linked to each other with two anti-tamper couplers per panel join. The distance between couplers will be at least 1000mm in the vertical axis.

2.2.4 Areas separated from the construction site by protective barriers are **Construction Exclusion Zones (CEZ)**.

2.2.5 **CEZs** are total exclusion areas. Access to all of the following from the construction site will be excluded:

- Animals
- Pedestrians
- Vehicles and construction equipment
- Materials and equipment storage
- Contamination from materials used outside the **CEZ** – (for example spillage of diesel or other toxic liquids)
- Surface water runoff from outside the **CEZ**

## **2.3 Protective measures: ground protection**

- 2.3.1 Install and maintain a continuous ground protection layer in the area marked **Ground Protection Layer** on the **Tree protection plan** in **Appendix a**
- 2.3.2 The ground protection layer will be installed prior to the start of works. It is particularly important that no demolition, soil stripping, breaking out of existing hard surfaces, re-grading or other excavation takes place before ground protection layers have been installed
- 2.3.3 Existing hard surfacing is acceptable as a ground protection layer without reinforcement.
- 2.3.4 Elsewhere, ground protection will consist of a single layer of scaffold boards (or a sheet material of equivalent strength) butted up to each other laid on 100mm of shredded bark or woodchips above a geo-textile membrane.
- 2.3.5 Each successive section of ground protection will be laid by personnel and machinery working from the immediately preceding section or from existing hard surfacing.

## 3. Works during development

### 3.1 Storage, handling and use of materials

- 3.1.1 Phytotoxic materials (diesel and cement for example) must not be stored within the RPA of any retained tree.
- 3.1.2 Phytotoxic liquids will be stored in a purpose-built bunded container or compound to prevent the risk of spillage.

### 3.2 Safe positioning of equipment

- 3.2.1 Wheeled or tracked equipment (e.g. excavators and piling rigs) must be located in such a way that, when in use, no part extends into the crown spread of any retained tree. If lifting and handling equipment is working beneath the crown spread of a retained tree, a banksman will be employed to guide operations and minimise the risk of damage to the tree's branch system.

### 3.3 No fires on site

- 3.3.1 No fires will be lit anywhere on site.

### 3.4 Special Construction Area

- 3.4.1 Follow the procedures set out in this section within the **Special Construction Area** shown on the **Tree protection plan in Appendix a.**

#### *Non-destructive root investigation*

- 3.4.2 Identify the location and size of large diameter (20mm or greater) tree roots within the **Special Construction Area**, by supervised hand digging with hand operated non-powered tools, prior to the start of construction.
- 3.4.3 The investigation will extend to the full depth of the proposed construction activity - excavation to reduced levels for floor slab or for strip foundations.
- 3.4.4 Digging will be carried out in 100mm layers and the ground will be probed before the start of each layer to locate large diameter roots.
- 3.4.5 Large diameter roots will be retained undamaged and immediately protected on exposure with moist hessian sacking. The hessian protective layer will be kept moist and retained until it is removed.

#### *Excavation to reduced levels for floor slab assembly and strip foundations*

- 3.4.6 Excavation to finally approved reduced levels will be carried out by hand using hand-operated, non-powered tools.
- 3.4.7 Small diameter roots exposed in the course of excavation will cut cleanly at their point of origin or flush with face the excavation from which they enter the working area, with a sharp saw or loppers to promote rapid recovery.

## *Construction of floor slab assembly and strip foundations*

- 3.4.8 The hessian protective covering round retained roots will be kept in place until immediately prior to the final stage of the particular construction activity.
- 3.4.9 Within 500mm of any retained root, all construction works will be carried out by hand.
- 3.4.10 Where a retained root passes through the line of a strip foundation, construct a void around it at least 2 times its diameter, positioned symmetrically around its central axis. Fill the void with clean, sharp sand prior to capping.
- 3.4.11 Where a retained root runs within the depth of the proposed floor slab assembly, leave a channel for it to run through, at least 2 times its diameter in the horizontal axis and at least a single diameter depth above. Backfill the channel with clean, sharp sand or an equivalent flexible, inert material prior to capping.

## **3.5 Making good**

### *Soft landscaping areas*

- 3.5.1 Within the RPAs of retained trees, the ground surface will be cultivated by hand using hand operated tools only.
- 3.5.2 Roots exposed in the course of cultivation will be retained and immediately re-covered.
- 3.5.3 Where imported topsoil is used for backfilling or for the preparation of soft landscaping areas, it must be of good quality, be free of contaminants and foreign bodies and conform to the requirements for multipurpose topsoil set out in BS3882:2007.

## 4. Summary of methods

### 4.1 Conflicts and remedial actions

4.1.1 The main potential sources of damage to trees are listed in **Table 1** below together with the remedial measures that should be adopted to minimise or avoid damage.

Source of damage	Remedial actions	See	Trees at risk
Damage to tree stems and branches	Erect and maintain tree protection fencing	Sections: 2.2, 3.2, 3.3 <b>Tree protection plan</b>	001
Damage by surface compaction from site traffic/storage of materials	Maintain ground protection layer: observe <b>Special Construction Area</b> requirements	Section: 2.3, 3.4 <b>Tree protection plan</b>	001
Damage from spillage of toxic materials	Phytotoxic materials to be stored in a banded compound/ container outside RPAs	Section: 3.1	All
Damage to tree roots	Observe <b>Special Construction Area</b> procedures	Section: 3.4, 3.5 <b>Tree protection plan</b>	001, 002

**Table 1: Summary of Potential Damage Sources and Remedial Measures**

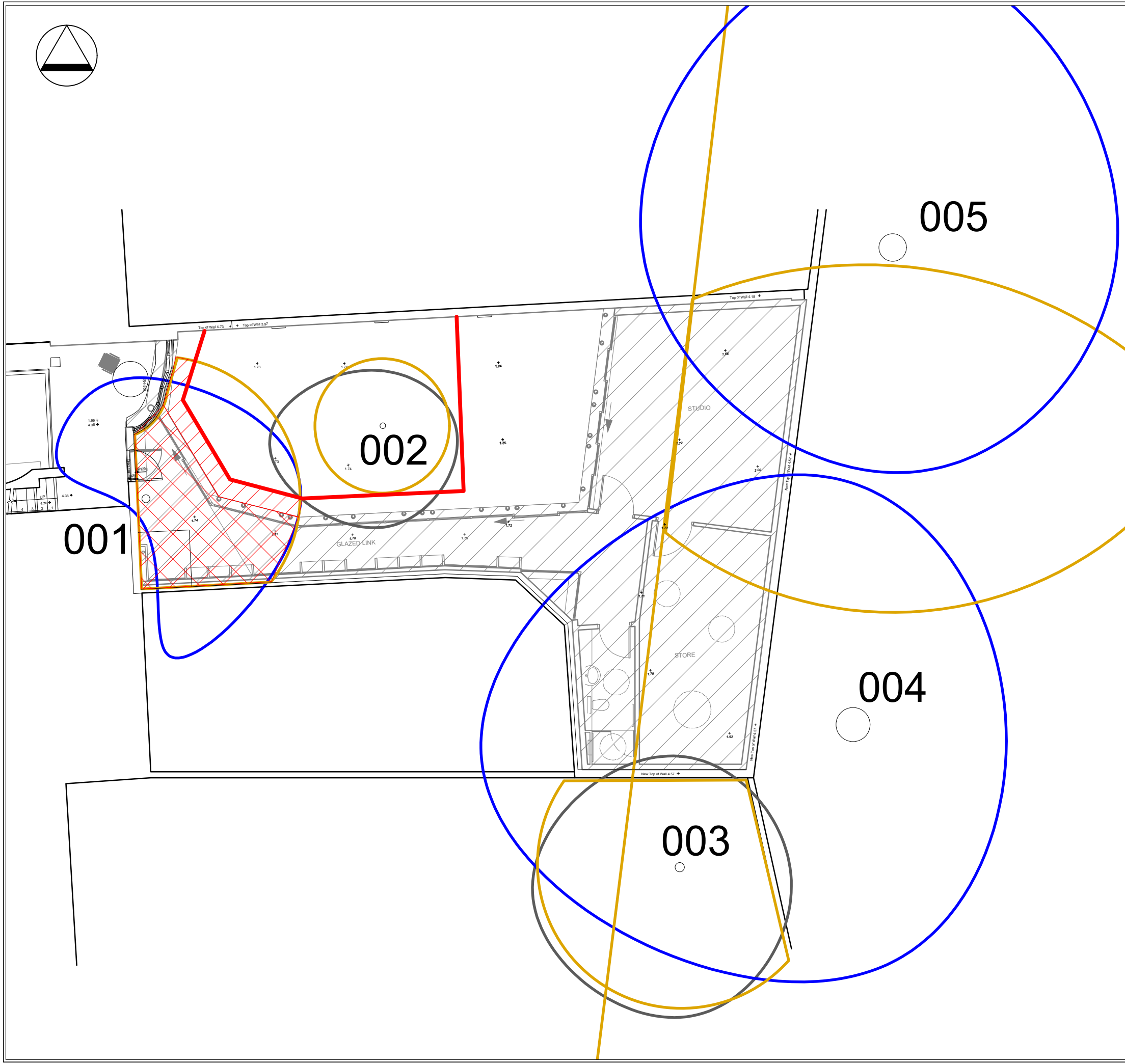
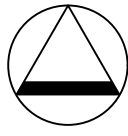
## 5. Inspection & supervision

- 5.1 The Arboricultural Consultant will provide supervision and make inspections at the following stages:
- Completion of tree protection fencing and ground protection layers
  - Start of non-destructive root investigation in the **Special Construction Area**
  - Groundworks in the **Special Construction Area**
- 5.2 The Arboricultural Consultant will circulate notes of his inspections by email, directly to the Local Authority and to the Client.

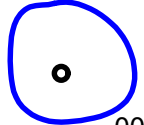
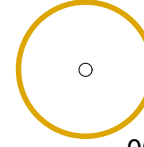
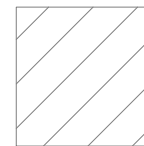
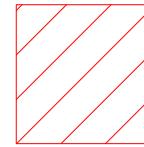
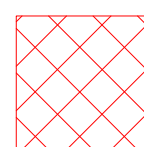



## **Appendix a**

### **Tree protection plan**



**KEY**

- 
**004**  
 EXISTING TREE  
 Trees are coloured on plan to correspond with the Retention Categories specified in BS5837:2012 Trees in relation to design, demolition and construction - Recommendations as follows:  
 Category A - GREEN  
 Category B - BLUE  
 Category C - GREY  
 Category U - RED
- 
**003**  
 ROOT PROTECTION AREA as defined in BS5837:2012 Trees in relation to design, demolition and construction - Recommendations
- 
 FOOTPRINT OF PROPOSED DEVELOPMENT
- 
 GROUND PROTECTION LAYER
- 
 SPECIAL CONSTRUCTION AREA
- 
 TREE PROTECTION FENCING


REVISION	CHK'D	APP'D	DATE

Client:  
**KILBURN NIGHTINGALE ARCHITECTS**

Job Title:  
30A PARKHILL ROAD  
LONDON  
NW3 2YP

Drawing Title:  
**TREE PROTECTION PLAN (DRAFT)**

Drawing Number: 534.03.00	Scale: 1:100 (A3)
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Date: 28.08.17	Drawn by: RS
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**Skerratt**  
arboricultural advice

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## **Appendix b**

### **Pre-contract tree works schedule**

# Pre-contract tree works schedule

Skerratt

Tree No.	Species	Height (m)	Diam (cm)	Crown Spread (m)				Crown Height (m)	Item
				N	E	S	W		
001	Evergreen Magnolia ( <i>Magnolia grandiflora</i> )	11	210	3	4	4.5	2.5	4/2	Lift crown to 4m above ground level
002	Pear ( <i>Pyrus communis</i> )	5	150 @ 1m	1.5	2	2.5	3	2/1	Reduce lateral spread on development to the minimum necessary to allow approved construction works to be carried out (approximately 700mm)
003	Leyland Cypress ( <i>X Cupressocyparis leylandii</i> )	10	250 est	3	3	4e	4	1/1	No action required
004	London Plane ( <i>Platanus x hispanica</i> )	20	910	6.5	4	6.5	10	6/6	No action required
005	London Plane ( <i>Platanus x hispanica</i> )	20	740	8	6	6	6.5	6/6	No action required

## Specification

### General

All works must be carried out in accordance with the provisions of *BS3889:2010 Tree works*

#### 1. Felling

- 1.1 Where necessary to avoid damage to neighbouring trees and vegetation, trees for removal will be dismantled in sections and lowered under controlled conditions
- 1.2 No retained tree will be used as an anchorage point for any tree removal operation

#### 2. Stump grinding

- 2.1 Stump grinding will be to a sufficient depth to extend through the base of the central part of the stump
- 2.2 Chippings from stump grinding will be treated as arisings and removed from site to an approved disposal location

#### 3. Pruning: General

##### *Active Target pruning*

- 3.1 Pruning cuts will be made close to the point of origin of the branch or branchlet to be removed (to avoid stubs which can inhibit wound occlusion)
- 3.2 Where there is a visible branch bark ridge and branch collar, pruning cuts will be made between the outer edge of the branch bark ridge and the outer edge of the branch collar
- 3.3 Where no branch collar is visible, cuts should be made from the outer edge of the branch ridge at right angles to the grain of the branch to be removed

##### *Size and location of pruning cuts*

- 3.4 The size and number of all pruning cuts will be kept to a minimum consistent with the specified management objective
- 3.5 Preference will be given to the removal of a larger number of secondary branches rather than the removal of larger primary branches (to minimise pruning wound diameter) to achieve the specified management objective
- 3.6 Pruning cuts will not exceed 30% of the diameter of the parent branch or stem

#### 4. Remove dead wood (safety)

- 4.1 Remove dead secondary branches and branchlets of 25mm diameter or greater at their point of origin following the principles of Active Target pruning

#### 5. Crown lift (to a specified height)

- 5.1 Achieve the clearance specified between ground level and the lowest point of overhanging crown
- 5.2 Achieve the specified increase in headroom by removing secondary branches with the smallest possible diameter in accordance with the principles of Active Target pruning
- 5.3 Where necessary to avoid pruning wounds in excess of 30% of the diameter of the parent branch or stem, shorten rather than remove the limb to be pruned back to a healthy lateral with the largest possible diameter in relation to its parent branch.
- 5.4 Shortening cuts will be made distal to the union with the lateral branch using Active Target pruning principles

## **Appendix c**

**Tree protection notice**  
**Tree protection notes**

TREE PROTECTION ZONE

**KEEP OUT**

NO DIGGING OR TRENCHING

NO STORAGE OF PLANT AND MATERIALS

NO VEHICULAR ACCESS

NO FIRES TO BE LIT

NO CHEMICALS TO BE STORED OR HANDLED IN THE  
VICINITY OF THIS ZONE

AVOID PHYSICAL DAMAGE TO TREES

REPORT DAMAGE TO TREES OR FENCING IMMEDIATELY

30a PARKHILL ROAD  
LONDON  
NW3 2YP

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# CARING FOR TREES



## **TREE PROTECTION NOTES**

Trees are thin skinned and easily damaged

Their roots spread widely and run close to the ground surface.

All of the following can cause serious damage:

- Heavy traffic over and the storage of heavy materials above tree roots
- Direct damage to stems and branches from badly handled construction equipment,
- Root damage caused by unnecessary excavation
- Leakage of toxic liquids and powders above roots and close to tree stems.

Please keep the trees on site safe by following these simple rules carefully and in full.

There is a protective fence round each retained tree. These fenced-off areas are **CONSTRUCTION EXCLUSION ZONES (CEZ)**. Don't enter any CEZ unless authorised to do so

## **In Construction Exclusion Zones**

- Don't store any materials
- Don't use heavy machinery
- Don't handle toxic materials
- Stick to the planned work programme. Don't undertake unscheduled variations
- Don't light fires
- Report any damage to protective fencing to the Site Manager

## **Work Planning**

Plan your work so that construction machinery does not come into contact with and cause damage to branches and stems of retained trees.

Appoint someone to supervise movement of machinery and equipment close to CEZs

Tell the Site Manager if tree pruning is needed to get machinery in, out or around the site. Don't do it yourself