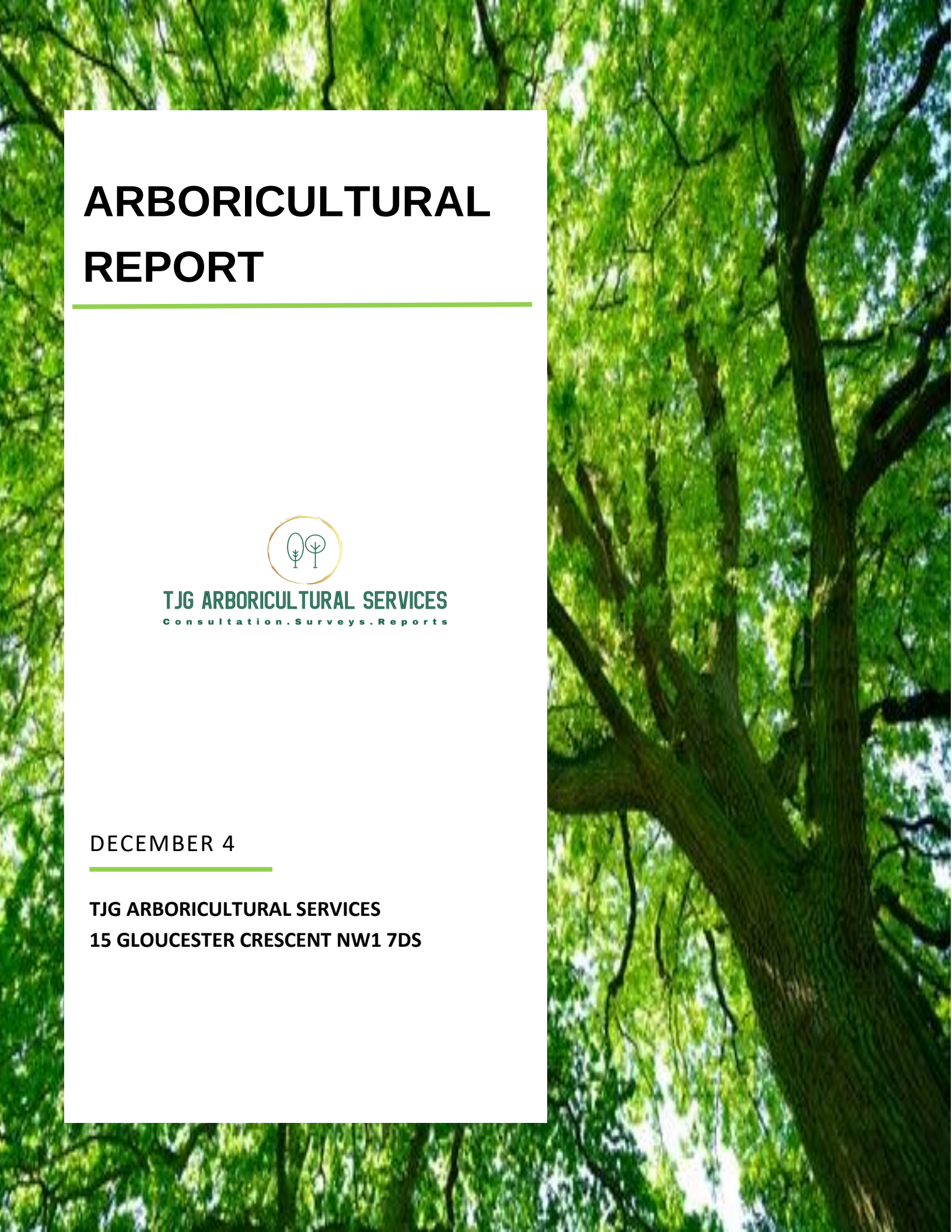


ARBORICULTURAL REPORT

TJG ARBORICULTURAL SERVICES
Consultation.Surveys.Reports

DECEMBER 4

TJG ARBORICULTURAL SERVICES
15 GLOUCESTER CRESCENT NW1 7DS

ARBORICULTURAL REPORT

Proposed Development at 15 Gloucester Crescent, London, NW1 7DS.

CONTENTS

1. Instructions.

1.1 TJG Arboricultural Services have been commissioned to provide an Arboricultural report to inform the process regarding the proposed development at 15 Gloucester Cresent, NW1 7DS.

1.2 The report has been produced with reference to British Standard 5837:2012 *Trees in relation to design, demolition and construction – recommendations.* The report is aimed at protecting the existing trees within and adjacent the boundary of the site.

The report is supported by the following information:

- A schedule of the relevant trees including tree data and condition assessment.
- A Tree Constraints Plan (TCP)
- An Arboricultural Impact Assessment.
- An Arboricultural Method Statement
- Tree Protection Plan (TPP).

2. Introduction.

2.1 The proposed development shall see the removal of an existing hard surface patio area, which is to be replaced by a single storey rear extension.

2.2 TJG Arboricultural Services were provided with an overview of the site boundary. A tree constraints plan was created to inform the design decision in respect of the impact of any proposed works on the below and above ground parts of trees located on and adjacent to the site.

2.3 As part of the survey all trees were subject to a ground based visual tree assessment (Mattheck and Breloer, 1994) which was carried out by a qualified arboricultural inspector (Lantra Professional Tree Inspection certificate). The

survey is a preliminary assessment and observations have been made solely from visual inspections. This is not a safety survey. No internal decay detection devices have been used to assess the condition of the trees recorded on site.

2.4 The report's recommendations relate only to the conditions found on site at the time of the survey. Any recommendations contained in the report are valid for a period of 12 months from the date of the survey. Any significant alteration to the site that may affect the trees that are present or have planning implications (level changes, post extreme weather events, hydrological changes, additional tree works) will necessitate a re-assessment of the trees and site.

2.5 The tree survey which forms part of this report (see attachment Schedule of Trees) was produced to inform the design and development process. This is not a safety survey, any obvious risks that have been identified have been included in the survey with any preliminary remedial works.

3. Ecological constraints.

3.1 The wildlife and countryside act 1981 and amendments made within and subsequent to the countryside and rights of way act 2000 provides statutory protection to bats, birds and other species that inhabit or use trees. The protection afforded to these species could impose significant constraints on the use of a particular site as well as significantly restrict the timing of any proposed works.

3.2 TJG Arboricultural Services do not offer professional advice on any restrictions in addition to any tree restrictions highlighted in this report. Any potential issues are outside my area of expertise, and you must seek advice from a qualified ecologist to ascertain if any further restrictions apply.

4. Tree Preservation Orders and Conservation areas.

4.1 I have checked with The London Borough of Camden's planning department and have been informed that one tree onsite is subject to a Tree Preservation Order. I was informed that 1 London plane tree is subject to a TPO, I believe this to be T4. The site is located within the Primrose Hill conservation area.

4.2 Any tree works recommended for trees subject to a TPO or within a conservation area may need to be applied for (or notified to the council in the case of a conservation area) separately, unless full planning permission is granted, and this report constitutes an approved document with the main planning application.

5. Site visit.

5.1 A site visit was carried out on Monday 30th October 2023, by Trevor Garvey for TJG Arboricultural Services LTD. All observations were made from ground level using the VTA method. All measurements except stem diameter and crown spread for cardinal points were estimated.

5.2 The trees this report concerns are located within the rear garden of 15 Gloucester Cresent.

5.3 15 Gloucester Cresent is located in the densely populated urban area of Primrose Hill, London. The site is bordered by residential gardens and properties to the north, east, south and west.

5.4 Access to the site is via Gloucester Cresent from the western boundary of the site.

Fig 1 aerial view of location (Google Earth).

6. Data collection.

6.1 Information regarding the trees within and adjacent the site boundary was recorded using pocket GIS software. Each tree was inspected and allocated an identification number as indicated in the schedule of trees. For each tree, the following information was collected:

- Species
- Common name
- Age
- Height
- Stem diameter (measured in mm at 1.5m)
- Crown spread
- Height and direction of first significant branch
- Category (in accordance with BS 5837 cascade chart shown below)
- Condition
- Safe Useful Life Expectancy (SULE)
- Recommended works
- Comments

An overview of tree categorisation's from British Standard 5837:2012.

Trees considered for retention	
Category A	Trees considered to be of high quality with an estimated remaining life expectancy of at least 40 years
Category B	Trees considered to be moderate quality with an expected life expectancy of at least 20 years
Category C	Trees of low quality with an estimated life expectancy of at least 10 years or young trees with a diameter below 150mm
Trees not considered for retention	
Category U	Trees that are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

BS 5837:2012

7. Arboricultural impact assessment.

7.1 5 trees and 1 group have been surveyed and considered to be potentially impacted by the proposed development. 2 category A trees, 1 category B tree, 2 category C trees and 1 category C group have been recorded.

7.2 The tree constraints plan which accompanies this report shows the above ground constraints (shading has been omitted from certain trees as it will not have any effect on the final development) and the below ground constraints i.e. the anticipated extent of tree roots using a calculation using the stem diameter (section 4.6 BS5837:2012) and taking into consideration any site conditions which may affect root growth.

7.3 The crown spread of individual trees are shown as a circle in the colour of the categorisation assigned to the tree from the cascade chart. The above ground constraints posed by the trees onsite have been taken into consideration in both the terms of remedial work required and the potential positioning of any structures taking into account shading and future growth where relevant.

7.4 The root protection area (RPA) is shown as a circle centered on the base of the stem. Site conditions such as nearby structures may indicate that root growth may have deviated from this format or that roots may be found in higher or lower density within parts of the RPA.

7.5 The trees which were surveyed are located within the rear garden of 15 Gloucester Crescent.

7.6 Trees T2 T3 T4 T5 G1 are to be retained, therefor there is no detrimental impact on these trees. 1 tree T1 shall be removed to facilitate the design lay out. T1 is a small shrub that is not visible to the public, the loss of this shrub shall not have an overly negative effect on the character of the site or the local area.

7.7 The proposed development is located away from the from the above ground parts of T2 T3 T4 T5 G1. Therefor the proposed development does not impact on the above ground parts of T2 T3 T4 T5 G1. Access to the site shall be via the front garden of the property. No pruning operations are required to facilitate site access.

7.8 The proposed extension is located within the RPA of T1 T2. Construction work within the RPA of retained trees has the potential to cause active and passive damage to tree roots.

7.9 The proposed development shall be located outside the RPA's of T3 T4 T5 G1. Therefor the proposed development does not impact the below ground parts of these trees.

7.10 The proposed extension is located within the RPAs of T1 T2. Construction work within the RPA's can lead to active and passive damage to tree roots. Active damage being the physical striking of roots, passive damage being the altering of soil conditions through either soil compaction of the obstruction of the flow of gaseous exchange which can lead to conditions which prevent tree roots from carrying out their physiological functions, this can lead to premature tree death.

7.11 A trial trench shall be hand dug to ascertain the presence of tree roots growing in the direction of the proposed building. Once the location of any tree roots has been identified, a suitable foundation type shall be selected. If practical due to a low or non-presence of tree roots, strip foundations with the use of lentels to bridge over any major roots which may be present shall be used.

7.12 If roots are found in a high enough density that lentels are not practical, then pile or screw foundations shall be used. Prior to any screws or piles being inserted trial pits shall be excavated to find the best location for foundations.

7.13 The proposed extension shall sit within the footprint of the already present hard surface patio. The hard surfacing already in lace shall prevent the flow of gaseous exchange into this part of the RPA. The proposed extension shall not alter soil conditions currently experienced within this section of the RPA.

7.14 Control measures as described within the Arboricultural Method Statement shall be implemented during the design and construction phase to ensure tree roots of retained trees are protected.

8. Conclusion.

8.1 The design proposals for the development have been assessed broadly in accordance with BS5837:2012 "*trees in relation to design, demolition and construction – recommendations".*

8.2 It is my opinion that the trees identified for retention can be afforded due respect and provided adequate protection, ensuring their safe and healthy retention during the development process.

8.3 4 trees and 1 group shall be retained, therefor there is no detrimental impact on these trees or the character/amenity value of the local area. 0 retained trees require pruning operations. 1 tree is to be removed as detailed within the Arboricultural Impact Assessment.

8.4 Provided a robust scheme of tree protection is provided TJG Arboricultural Services believes the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

Signed…… Date…4/12/2023

Trevor Garvey (Dip Arb, TechArborA).

Arboricultural Method Statement for tree protection throughout the duration of works.

Suggested/recommended control measures for construction works in or near to the root protection zone are discussed in this chapter. The table below sets out a simple schedule of works that should be followed to ensure the trees are adequately protected:

Planning consent	Check planning decision for any specific recommendations relating to trees
Site preparation	Any tree work recommendations authorized to be carried out. Installation of any tree protection measures.
Construction preparation	Site cabins and materials delivered.
Demolition/construction phases	Construction as per arboricultural method statement. Supervised work within RPAs.
construction completion	Site inspection by arboriculturist. Tree protection measures removed.
Soft landscaping	New tree planting.

1. Tree works prior to construction.

1.1 Following the approval of London Borough of Camden Councils appointed tree officer, all tree works shall be carried out to BS3998:2010 "*tree work – recommendations"* or BS 5837:2012 "*trees in relation to design, demolition and construction – recommendations".* Tree works should be undertaken before the commencement of other site operations.

2. Protective fencing.

2.1 Protective fencing shall be installed as per the dimensions set out within the Tree Protection Plan. Protective fencing shall be erected to protect the unmade ground within the RPA of T2 T4 T5 G1. Existing garden fencing around the perimeter shall be retained to protect RPA's which are located off-site.

2.2 Protective fencing shall be installed as per BS5837:2012 "trees in relation to design, demolition and construction". The fencing shall be installed prior to construction beginning and in a manner in which it cannot be easily moved and shall remain in place until construction has been completed (Fig 2).

2.3 Once the fences have been positioned the RPA's shall become construction exclusion zones (CEZ). Signs shall be affixed to the fencing notifying site operatives of their importance (Fig 3).

2.4 Within Construction Exclusion Zones the following guidelines shall be followed:

- No mechanized digging or excavations
- No movement of construction traffic on unmade ground or parking of vehicles
- No storage of building materials
- No storage of fuels or chemicals
- No fires to be lit within close proximity to trees

3. Site access.

3.1 Site access shall be from Gloucester Cresent, to the west of the site.

4. Contractor's car parking.

4.1 All contractor parking shall be located offsite. No contractor parking shall be within the RPA of retained trees.

5. Site huts and storage.

5.1 Site huts and storage for materials and plant shall be located within the front garden area of the site.

5.2 Any materials which are moved closer to the proposed development prior to immediate use shall be stored on adequate ground and not inside the RPA's of retained trees.

5.3 Any materials which have the potential to spill/leak shall be stored away from the RPA of retained trees on an anti-pollutant geotextile to prevent soil contamination if necessary.

6. Demolition.

6.1 The existing hard surfaced patio shall be broken up using handheld tools only. The existing hard surface shall be broken up and removed with operatives working backwards out of the RPA using the hard surfacing as ground protection.

7. Service installation.

7.1 No services shall be installed within the RPA's of retained trees.

8. Ground level changes.

8.1 There shall be no ground level changes within the RPA of retained trees.

9. Ground protection.

9.1 Existing hard surfacing shall be retained for as long as possible to act as ground protection during the construction phase. If temporary access is required within the RPA of retained trees then the following shall apply.

9.2 Ground protection shall be installed with operatives working inwards into the RPA, ground protection shall be removed with operatives working backwards out of the RPA.

9.3 Suitable ground protection shall be installed as per BS5837:2012 trees in relation to design, demolition and construction.

9.4 For pedestrian access into the RPA a single thickness of scaffold board placed upon a compression resistant layer as in 100mm of woodchip laid onto a geotextile membrane.

9.5 For pedestrian operated plant up to a gross weight of 2 t, proprietary, inter linked ground protection boards placed on top of a compression resistant layer of 150mm of woodchip laid onto a geotextile membrane.

9.6 For wheeled or tracked plant exceeding 2 t gross weight proprietary systems to an engineering specification suitable for the likely loading shall be installed.

10. Foundations within Root Protection Areas.

10.1 Foundations shall be installed within the RPA of T2. Final foundation types are to be selected at the completion of a trial trench to be dug in the location shown on the Tree Protection Plan. Strip foundations with lentels are to be used if conditions allow, otherwise screw or piled foundations are to be used.

10.2 Trial pits shall be dug by hand to ascertain suitable locations for screw/pile foundations if required. Any roots encountered with a diameter smaller than 25mm may be pruned using a clean sharp pair of secateurs.

10.3 Trial pits which encounter tree roots greater than 25mm shall be backfilled with soil as soon as possible if the screw cannot be inserted without damaging the tree root. If screws/piles can be inserted, then the root is to be wrapped in a hessian sack which is to be removed prior to backfilling.

10.4 Any areas which shall require concreting shall be lined with a non-permeable polythene textile to prevent the leaching and soil contamination.

11. Hard surfacing within Root Protection Areas.

11.1 No new hard surfacing shall be installed within the RPA of retained trees. Where existing hard surfacing is already present this can be either retained or replaced.

12. Soft landscaping within exclusion zones.

12.1 Soft landscaping shall respect the rooting areas of retained trees. The removal of spoil and import of materials shall be outside specified RPA's.

12.2 Should excessive work be required within the RPA's, handheld tools only shall be permitted in this area.

12.3 Water shall be readily available onsite and used to flush any spilt material through the soil to limit contamination of tree roots.

12.4 If any tree roots are uncovered, they shall be wrapped in a hessian cloth and covered with topsoil as soon as possible.

13. Responsibilities.

13.1 It will be the responsibility of the main contractor to ensure that any planning conditions attached to planning consent are always adhered to and that a monitoring regime in regard to tree protection is adopted on site.

13.2 The main contractor will be responsible for contacting the Local Planning Authority (LPA) at any time issues are raised related to the trees on site.

13.3 If at any time pruning works are required permission must be sought from the LPA first and then carried out in accordance with BS 3998 Recommendations for Tree Works 2010.

13.4 The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the development processes. Ground protection will remain in position until completion of ALL construction works on the site.

14. Arboricultural supervision.

14.1 It is recommended a number of short inspections of the subject trees should be undertaken by a consultant arboriculturist familiar with BS5837 (2012) operations during the extent of the project. This inspection will ascertain the

extent, if any, of stress and damage caused by construction works in the root protection zones.

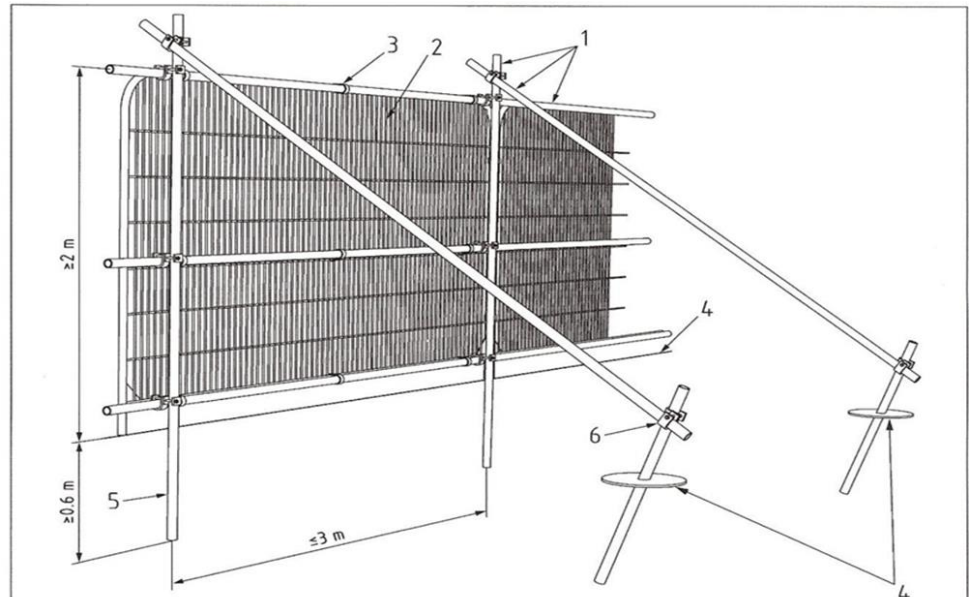
14.2 Site supervision shall be carried out by a qualified Arboriculturist during any trial pit or trial trench excavations. Photographic evidence shall be provided to the Local Authority detailing the findings of the pits or trenches.

14.3 Any mechanical excavation works undertaken within the RPA should be supervised by an arboriculturist.

Note: The Tree Schedule, Tree Constraint Plan and Tree Protection Plan have been made available as attachments.

APPENDIX.

Fig 2 example of protective fencing BS5837:2012.



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Fig 3 example of protective fencing sign.

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