

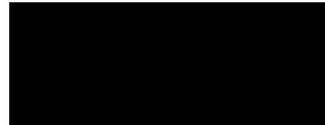


# ARBORICULTURAL REPORT

to BS 5837:2012 at:

**99 South End Road,  
London  
NW3 2RJ**

Prepared for:  
**David Long Architects**  
*Fordhams,*



Date: *April 2019*



 Institute of  
Chartered Foresters  
Registered Consultant





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## 1. Introduction

### 1.1 Instructions and Brief

- 1.1.1 We are instructed by David Long of David Long Architects to visit the site and prepare our findings in a report.
- 1.1.2 The report is required in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

### 1.2 Survey Details

- 1.2.1 The survey took place during February 2019.
- 1.2.2 The trees were surveyed visually from the ground using “Visual Tree Assessment” techniques and in accordance with the guiding principles of British Standard 5837:2012.
- 1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 1.2.4 We have been provided with a topographical survey with tree positions plotted. Where surveyed trees were not included on the topographical survey the tree positions were plotted using enhanced GPS technology (1-2m accuracy) and laser distance measurer.
- 1.2.5 This report has been prepared by Mr Adam Winson Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principle and Director of AWA Tree Consultants Ltd. The tree survey data collection was carried out by Mr James Brown BSc (Hons) Arboriculture, MArborA, Arboriculturist at AWA Tree Consultants.
- 1.2.6 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5**.

## 2. The Site

### 2.1 Location & Description

- 2.1.1 The site is located on South End Road in North London NW3.
- 2.1.2 The site is a terraced residential property with gardens to the front and rear. Neighbouring residential properties are situated to the east, south and west of the site, with South End Road bordering the site's northern boundary.
- 2.1.3 The approximate area of the survey is highlighted in the (2018) image below:



## 3. The Trees

### 3.1 Legal

- 3.1.1 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a check should be made with the Local Planning Authority to see if the trees are covered by a Tree Preservation Order or if they are within a Conservation Area. If either applies, then statutory permission is required before any works can take place.
- 3.1.2 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance. All tree work should be carried out according to British Standard 3998:2010 *Tree Work - Recommendations*.

### 3.2 Tree Survey Results

- 3.2.1 The tree survey revealed 8 items of woody vegetation, comprised of 7 individual trees and 1 hedge group. Other less significant shrubs have also been identified on the attached Tree Constraints Plan at Appendix 5, but were not surveyed in detail in this instance.
- 3.2.2 Of the surveyed trees: 1 tree is retention category 'U', 1 tree is retention category 'B' and 6 trees or hedges are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.3 The site's most significant tree is the Magnolia T8, in the property's rear garden, which is in good overall condition and provides moderate amenity value to the site. The crown of the tree is in contact with a neighbouring property to the south; it is recommended to reduce the tree's southern and western crown by around 1m to 1.5m, selectively pruning to suitable points. The pruning works should be undertaken between mid-summer and early autumn, as pruning wounds can bleed if pruned in late winter or early spring. The tree appears to have had minor reduction works to its northern and eastern crown in the past; the recommended reduction works to the tree's southern and western crown would therefore also create a more balanced, even crown form.
- 3.2.4 The remaining trees and shrubs in the property's front and rear gardens are all low value, retention category 'C'. While collectively the trees and shrubs provide some amenity value, individually they should not pose significant



constraints on development at the site. The shrubs in the property's front garden in particular appear to have been left unmanaged for some time, and if their removal was required for development purposes, replacement planting would easily mitigate for their loss and would likely improve the quality and amenity value of the property's green cover in the long term.

- 3.2.5 The Yew hedge G6 provides some screening between the site and the neighbouring property to the west but has been poorly pruned in the past which will likely limit its future prospects. The hedge is of very low value and should not pose a constraint on development at the property; the limited screening it currently provides can be easily replaced.
- 3.2.6 T1 appears to have been dead for some time and is recommended for removal regardless of development at the site.
- 3.2.7 The Cherry T7 is situated in the front garden of a neighbouring property to the east of the site and so was only given a cursory inspection with measurements estimated and condition values indicative only.
- 3.2.8 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 3.2.9 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of the low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.
- 3.2.10 The RPA for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.

### **3.3 Arboricultural Development Advice**

- 3.3.1 The higher value retention category 'B' trees should be retained, where possible, and incorporated into any new development design.
- 3.3.2 Where suitable, those category 'C' trees, shrubs and groups with reasonable future prospects (as detailed in Appendix 4) should be retained

as part of any new development. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

- 3.3.3 If required by the development proposals, occasional lower value, retention category 'C' trees, shrubs and groups could be removed, and replacement planting would largely mitigate their losses.
- 3.3.4 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, should be used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 3.3.5 If construction of new buildings is required within the trees RPA it may be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation.
- 3.3.6 Construction of hard surfaces, for drives and paths, within the RPA, can have negative impacts on tree roots. However, the potential negative impacts can often be overcome or minimised by employing a 'no-dig' type construction methods with a porous final surface.
- 3.3.7 The design of the new development should consider tree crown positions in relation to any new dwellings. The dappled shade of a tree is more pleasant than the deep shadow of a building, and some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. Whilst either shade or sunlight might be desirable, depending on the potential use of the area affected, the design should avoid unreasonable obstruction of light and should give adequate provision for future tree growth.

### **3.4 Protection of the Retained Trees**

- 3.4.1 The retained trees may require protection by fencing in accordance with BS 5837:2012, during the development phase.
- 3.4.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

## 4. Signature

I trust this report provides all the required information.

Signed

[Redacted Signature]

**Adam Winson**, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.

**4<sup>th</sup> April 2019**

**AWA Tree Consultants Limited**

[Redacted Company Name]

[Redacted Registration Number]



# Appendices

**Appendix 1: Authors Qualifications and Experience**

**Appendix 2: Survey Methodology and Limitations**

**Appendix 3: Explanation of Tree Descriptions**

**Appendix 4: Tree Data**

**Appendix 5: Tree Constraints Plan**

## Appendix 1: Authors Qualifications & Experience

**Mr Adam Winson** Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered.

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years, and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the Crown Court.

**Mr James Brown** BSc (Hons) Arboriculture, MArborA.

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James previously worked in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

**Mr Dave Farmer** FdSc (Arb), MArborA, PTI (Lantra).

Dave has a Foundation Degree in Arboriculture (with Distinction) and is qualified in Professional Tree Inspection. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. Dave has many years of experience within the tree care profession, including lecturing in arboriculture. His work focuses on diagnosing potential tree risk problems, and recommending appropriate treatments and work programmes.

**Dr Felicity Stout** Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA.

Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced Social Forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and has published in The Arboricultural Journal on this subject.

**Mr Patrick Rowntree** Cert Arb L3, TechArborA.

Patrick is a trained arborist with 5 years of experience in both the private and commercial sectors and is a technician member of the Arboricultural Association. Having travelled the world, both working as an arborist and playing professional rugby, Patrick was awarded a Distinction in the Extended Diploma in Forestry & Arboriculture. Patrick now uses his work and education experience at AWA, focusing on accurate tree data collection for tree surveys for development projects and assisting the team in the preparation of tree reports and tree plans to BS 5837:2012.

## Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS5837 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - 'Tree Work: Recommendations'.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

## Appendix 3: Explanation of Tree Descriptions

**HEIGHT** of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

**CROWN HEIGHT** is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

**STEM DIAMETER** is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

**CROWN SPREAD** is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

**AGE CLASS** of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

**PHYSIOLOGICAL CONDITION** is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

**STRUCTURAL CONDITION** is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

**LIFE EXPECTANCY** is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

### Retention Categories

**A (marked green on Appendix 5) = retention most desirable.** These trees are of very high quality and value with a good life expectancy.

**B (marked in blue on Appendix 5) = retention desirable.** These trees are of good quality and value with a significant life expectancy.

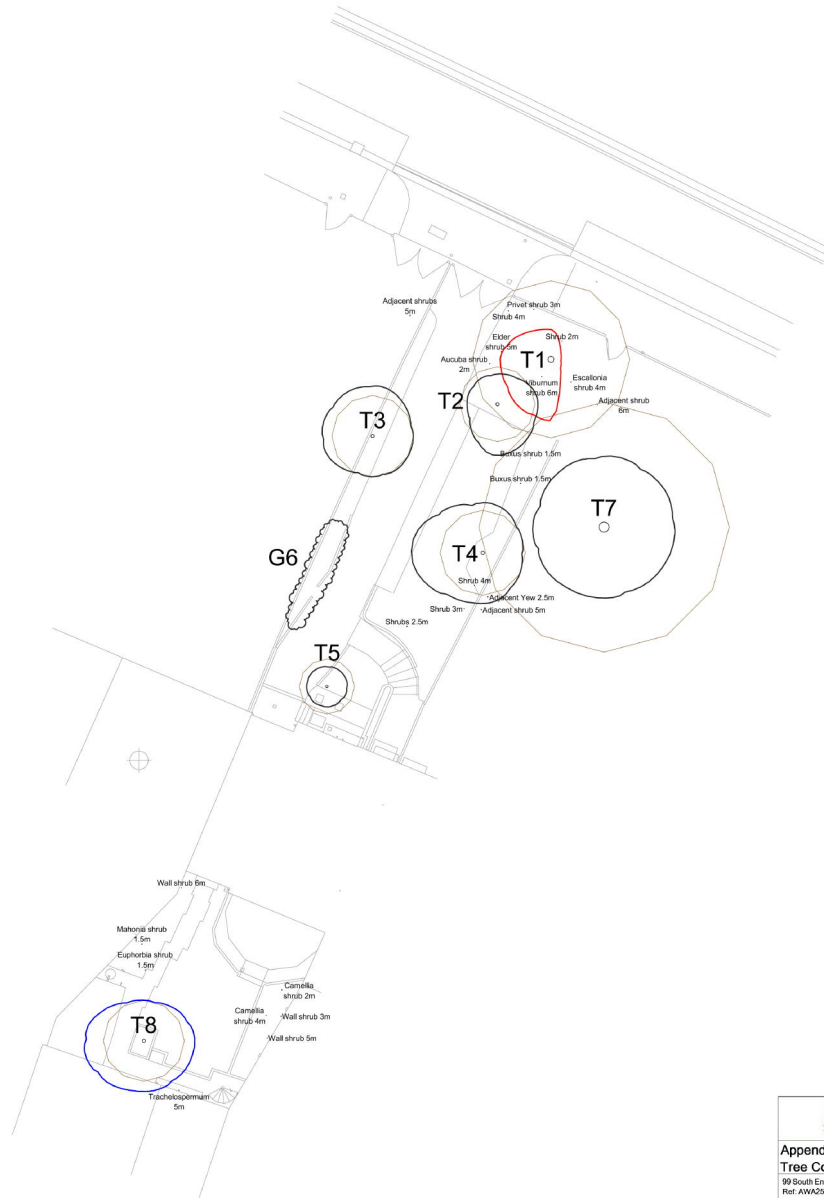
**C (marked in grey on Appendix 5) = trees which could be retained.** These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

**U (marked in red on Appendix 5) = trees for removal.** These trees are in such a condition that any existing value would be lost within 10 years.

| Tree ID | Tree Species      |                           | Measurements |            |       |                 | Crown (m) |            |          |     | Tree Condition |                   |  |  | Value   |   |               | Management   |                 |          |   |  |
|---------|-------------------|---------------------------|--------------|------------|-------|-----------------|-----------|------------|----------|-----|----------------|-------------------|--|--|---|---|---------------|--------------|-----------------|----------|---|--|
|         | Common Name       | Latin Name                | Maturity     | Height (m) | Stems | Stem Dia (mm)   | Estimated | Ave Height | N        | E   | S              | W                 | Roots  | Stem   | Crown   | Comments  | Physiological | Structural   | Life Expectancy | Amenity  | Category                                  | Works                                      |
| T1      | Hawthorn          | <i>Crataegus monogyna</i> | Dead         | 6          | 3     | 230, 170, 130   | No        | 1          | 1.5      | 0.5 | 3              | 2.5               | Ivy covered  | Multiple stemmed at base. Slight lean south. Stubs. Old pruning wounds. Bark damage. Ivy covered. Tight unions | All dead/ absent. Major dieback. Moderate deadwood                  |   | Dead          | Dead         | n/a             | Dead     | U   | Removal required regardless of development |
| T2      | Maple             | <i>Acer palmatum</i>      | Semi-mature  | 4.5        | 4     | 100, 60, 50, 80 | No        | 2          | 1.5      | 2   | 2.5            | 1.5               | Ivy covered  | Multiple stemmed at base. Slight lean. Old pruning wounds. Stubs   | Normal  | Numerous old pruning wounds and stubs to main stems | Good          | Good         | 20 to 40 yrs    | Moderate | C   | No works required in current site context  |
| T3      | Hawthorn          | <i>Crataegus monogyna</i> | Semi-mature  | 6          | 1     | 120             | No        | 2          | 2.5      | 2   | 2              | 2.5               | No visual defects                                      | Twin stemmed at base. Vertical. Ivy covered. Stubs. Old pruning wounds. Bark damage. Tight unions              | Minor deadwood  | Ivy prevented detailed inspection                   | Fair          | Fair         | 20 to 40 yrs    | Moderate | C   | No works required in current site context  |
| T4      | Maple             | <i>Acer palmatum</i>      | Mature       | 6          | 1     | 170             | No        | 1.5        | 2.5      | 2   | 2.5            | 3.5               | No visual defects                                      | Single stemmed. Multiple stemmed at 1.5m. Slight lean north west. Bark damage                                  | Normal  | Considerable bark damage                            | Good          | Good         | 20 to 40 yrs    | Moderate | C   | No works required in current site context  |
| T5      | Portuguese Laurel | <i>Prunus lusitanica</i>  | Semi-mature  | 5.5        | 1     | 110             | No        | 0.5        | 1        | 1   | 1              | 1                 | No visual defects                                      | Single stemmed. Vertical   | Normal  |   | Good          | Good         | >40 yrs         | Moderate | C   | No works required in current site context  |
| G6      | Yew               | <i>Taxus baccata</i>      | Semi-mature  | 2          | 10+   | 40              | No        | 0.5        | See plan |     |                | No visual defects | Single and Multiple stemmed. Old pruning wounds. Stubs | 50% dead/ absent. Moderate dieback. Minor deadwood. Old pruning wounds   | Yew hedge. Poorly pruned. Limited future prospects. Very low value. | Poor  | Fair          | 10 to 20 yrs | Low             | C        | No works required in current site context |  |



| Tree ID | Tree Species |                     | Measurements |            |       |                 | Crown (m) |            |     |     | Tree Condition |     |                            |   | Value                              |   | Management    |            |                 |          |          |  |
|---------|--------------|---------------------|--------------|------------|-------|-----------------|-----------|------------|-----|-----|----------------|-----|----------------------------|---|------------------------------------|---|---------------|------------|-----------------|----------|----------|--|
|         | Common Name  | Latin Name          | Maturity     | Height (m) | Stems | Stem Dia (mm)   | Estimated | Ave Height | N   | E   | S              | W   | Roots                      | Stem  | Crown                              | Comments  | Physiological | Structural | Life Expectancy | Amenity  | Category | Works  |
| T7      | Cherry       | <i>Prunus sp.</i>   | Early-mature | 9          | 1     | 500             | Yes       | 3          | 3.5 | 3.5 | 3.5            | 3.5 | Limited access around base | Single stemmed. Vertical. Bark damage. Minor decay. Tight unions. Minor cavities. Epicormic growths | Old pruning wounds. Minor deadwood | Adjacent, no access   | Fair          | Fair       | 10 to 20 yrs    | Moderate | C        | No works required in current site context  |
| T8      | Magnolia     | <i>Magnolia sp.</i> | Early-mature | 8          | 4     | 110, 90, 50, 60 | No        | 1.5        | 2   | 2.5 | 2.5            | 3   | No visual defects          | Multiple stemmed at base. Vertical. Old pruning wounds. Stubs                                       | Minor deadwood. Old pruning wounds | In small walled bed. Moderate northern stem previously removed at base leaving stub. Has had previous crown reduction works. Southern crown is in contact with neighbouring property. | Good          | Good       | >40 yrs         | Moderate | B        | Reduce southern and western crown by around 1m to 1.5m regardless of development, pruning to suitable points. Prune between mid-summer and early autumn. |



**AWA**  
TREE CONSULTANTS

**Appendix 5:**  
**Tree Constraints Plan**  
99 South End Road, London  
Ref: AWA202

BRITISH STANDARD BS5837:2012  
RE-TENTION CATEGORIES  
CONSERVATION OF TREES AND  
WOODLANDS IN THE U.K.

SCALE: 1:200 PAPER: A3

|  |  |
|--|--|
|  | CATEGORY A: HIGH VALUE<br>RETENTION MOST DESIRABLE |
|  | CATEGORY B: MODERATE VALUE<br>RETENTION DESIRABLE  |
|  | CATEGORY C: LOWER VALUE<br>COULD BE RETAINED       |
|  | CATEGORY D:<br>FOR REMOVAL                         |
|  | RPA: ROOT PROTECTION AREA                          |
|  | TREE STEM  |