



# ***Connick Tree Consultants***

## **TREE DEVELOPMENT SURVEY AND REPORT**

**(BS5837:2012 ARBORICULTURAL IMPACT ASSESSMENT)**

|                                 |                                              |
|---------------------------------|----------------------------------------------|
| <b>OUR REFERENCE</b>            | 205563/RT                                    |
| <b>LOCAL PLANNING AUTHORITY</b> | London Borough of Haringey                   |
| <b>CLIENT</b>                   | McGuinness Architects                        |
| <b>SITE</b>                     | 15 Broadlands Road, Highgate, London. N6 4AE |
| <b>REPORT BY</b>                | Mr Richard Tilling                           |
| <b>DATE</b>                     | 12 <sup>th</sup> January 2023                |

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## **1 INTRODUCTION**

### **1.1 INSTRUCTION**

Connick Tree Consultants were instructed by Mr Dario Fiorin of McGuinness Architects to produce an Arboricultural Impact Assessment of the proposed development works to construct a concrete pad and install an external Air Conditioning Condenser Unit at 15 Broadlands Road, Highgate, N6 4AE. This is undertaken in accordance with BS5837: 2012 Trees in relation to design, demolition, and construction - Recommendations.

### **1.2 SCOPE OF REPORT**

The survey included all trees within and adjacent to the site comprising of residential properties and associated infrastructure with a stem diameter of 75 mm or more, measured at 1.5m above the highest adjacent ground level and significant shrub groups which may be impacted upon by future development and construction access.

The tree information recorded relates to the tree condition, age, safe useful life expectancy, location, canopy spread, canopy height and tree height and direction of first significant branch as well as any work that is required. Where trees are located within neighbouring properties all measurements are estimated and the assessment in relation to their condition has been made upon those parts visible only.

No information regarding soil assessment was provided and no investigation was taken on site.

The report and recommendations relate to the condition of the trees and their surroundings at the time of inspection only. Trees are living organisms whose health and condition can change rapidly and all trees, even healthy ones, are at risk from unpredictable climatic and man-made events. This report and recommendations relate to the condition of the trees and their surroundings at the time of inspection only.

### **1.3 DOCUMENTATION**

We have been provided with the following information regarding the development:

- PDF- AL (G00) 051: Ground Floor Plan
- PDF- AL (G20) 002: Condenser Elevations-Proposed

### **1.4 QUALIFICATIONS AND EXPERIENCE**

I have based this report on my site observations and investigations, and I have come to conclusions in the light of my qualifications gained and experience obtained whilst working in the field of arboriculture. I have qualifications and practical experience in arboriculture and details of these can be supplied on request.



## 1.5 LIMITATIONS AND USE OF COPYRIGHT

All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means without our written permission. Its contents and format are for the exclusive use of the person, firm or company to whom it is addressed (and that of any other person, firm or company whose interest was disclosed to us prior to its preparation). It may not be sold, lent out or divulged to any third party not directly involved in this situation without the written consent of Connick Tree Care.

**DISCLAIMER:** I have no connection with any of the parties involved in this situation that could influence the opinions expressed in this report.

## 2 SITE VISIT AND OBSERVATIONS

### 2.1 SITE VISIT

A site visit was undertaken on the 25<sup>th</sup> August 2020 by Mr R.G. Tilling who is a qualified arboriculturist.

### 2.2 GENERAL OBSERVATIONS AND BACKGROUND

The site of the proposed development is located at the residential property of 15 Broadlands Road and lies to the north west of Highgate centre. The area is primarily residential with large, detached properties set back from the road.

The site consists of the detached two storey residential property with accommodation in the roof space, parking to the front and a driveway to the right-hand side of the property leading to a detached garage. The rear of the property is laid to lawn with trees and shrubs around the borders with a single mature Poplar tree adjacent to the patio area.

All the trees included in the survey are shown within the Tree Constraints Plan attached as Appendix II.



### 3 TREE SURVEY

In total 9 individual trees and 1 group of trees were recorded within or adjacent to the site during the survey process.

Attached as Appendix I is the tree survey schedule summarising the information obtained within the survey process.

The trees surveyed have been assessed and categorised in accordance with the Cascade chart in section 4 of the BS5837:2012. This has identified that there are the following within the site:

1 individual 'A' grade trees of a high quality and value, which are worthy of retention and a high level of protection.

2 individual category 'B' grade trees which are deemed to be of moderate quality and value, which are worthy of retention and protection.

6 individual trees and 1 group which have been identified as category 'C' grade trees of low quality and value, which should only be retained and protected when they do not pose a constraint on the development.

0 individual 'U' grade trees have been identified as requiring removal for reason of sound arboricultural management.

The location of the trees is shown on the Tree Constraints Plan attached as Appendix II. All trees surveyed have been given a unique identification number and are identified on the schedules and plans by a 'T' prefix for individual trees and by a 'G' for groups of trees.

#### 3.1 TREES SUBJECT TO STATUTORY CONTROLS

The Local Planning Authority has not yet been contacted to establish whether any Tree Preservation Order (TPO) covers any of the trees, or to determine if the site is situated within a Conservation Area (CA). However, an online search of the Haringey Council mapping system has determined that the site is situated within the Highgate Conservation Area.



## 4 TREE CONSTRAINTS

### 4.1 ROOT PROTECTION AREA

To avoid damage to the tree roots or rooting environment, a minimum area in m<sup>2</sup> should be left undisturbed around each retained tree (category A, B and C trees).

The root protection area's (RPA's) of the tree recorded within the survey are shown in the Tree Constraints Plan (Appendix II).

The root protection area has been calculated using the formula specified within section 4.6 of the BS5837:2012 standard and should initially be plotted as a circle centred on the base of the stem.

The RPA can be modified where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically. Any deviation in the RPA from the original circular plot should reflect soundly based arboricultural assessment of potential root disturbance and consider the following factors, whilst still providing adequate protection for the root system.

- The morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground services).
- Topography and drainage.
- The soil type and structure.
- The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

The calculated RPA should be capped at 707 m<sup>2</sup>, which is equivalent to a circle with a radius of 15m or a square with approximately 26m sides (BS 5837:2012 Trees in relation to design, demolition and construction).

Trees T3, T4, T5, T6, T7, T9, T15 have had the Root Protection area adjusted due to the presence of existing foundations.

### 4.2 CONSTRUCTION EXCLUSION ZONE

The Construction Exclusion Zone (CEZ) required by the current edition (2012) of BS 5837 Trees in Relation to Design, Demolition and Construction relates to the stem diameter of each tree when measured at a height of 1.5m from ground level. The CEZs are to be afforded protection at all times and will be protected by fencing.

### 4.3 ABOVE GROUND CONSTRAINTS

The current height and canopy spread of the trees is an important factor which needs to be considered when deciding the layout of a proposed development. The shading of trees, and/or their size can cause anxiety to residents, leading to pressure for pruning or removal.

The survey has identified that due to the nature of the proposed development, there will be no above ground constraints for the external AC Condenser unit.

5 ARBORICULTURAL IMPACT ASSESSMENT

The following Arboricultural Impact Assessment has been made in relation to the proposed development details provided by our client. This is for the construction of a concrete pad and install an external Air Conditioning Condenser Unit. The location of the footprint of the proposed development has been included within the attached Tree Protection Plan.

5.1 SIGNIFICANT TREES

The survey process has identified that there is 1 ‘A’ grade tree of a high quality and value within the surveyed site. This tree is identified as T3 a London Plane (Platanus x hispanica) on the schedule.

5.2 TREE REMOVAL FOR REASONS OF SOUND ARBORICULTUAL MANAGEMENT

The survey process has identified that 0 trees within the site require removal due to reasons of sound arboricultural management.

5.3 TREE LOSS

Consideration has been given to retaining all trees on site. However, ultimately their removal is dependent on their condition and proximity to the development. This has identified that 0 trees will require removal to facilitate the development.

5.4 IDENTIFIED IMPACTS

5.4.1 ROOT PROTECTION AREAS

The survey process and the Tree Protection Plan (Appendix III) has indicated the extent of the theoretical Root Protection Areas (RPA) of the surveyed trees and identifies the potential impacts resulting from the proposed development. The details of the impacts are identified within table 3 below:

Table 3: Identifying development impacts.

| Tree No. | Development Section | Total RPA m² | Impact of proposed development.                                                                     |
|----------|---------------------|--------------|-----------------------------------------------------------------------------------------------------|
| T11      | Concrete Pad        | 221.7        | The proposed concrete pad will impact upon up to 0.62m² of the total minimum RPA equating to 0.28%. |



## 5.4.2 TREE CROWNS

The survey process and the Tree Protection Plan (Appendix III) has indicated the extent of the crown spread, crown clearance and height of the surveyed trees and identifies that there will be no additional impact resulting from the proposed development.

## 6 SUMMARY

On completion of the site survey and report it is concluded that the proposed development will have no significant impact upon any trees within and adjacent to the site.

- 1 category 'B' tree recorded as T11 a mature Sycamore has been identified as having encroachments upon the RPA with the maximum impact of 0.28% .

The default position for within the BS5837: 2012 document recommends that any development is situated outside of the RPA of any retained tree. However, where there is a requirement to construct within it, it is required to demonstrate the tree can remain viable and that the area lost can be compensated for elsewhere. It is believed that the small nature of the development and hand dig methodologies and above ground connections to the AC unit will not impact on the viability of T11 nor T15.

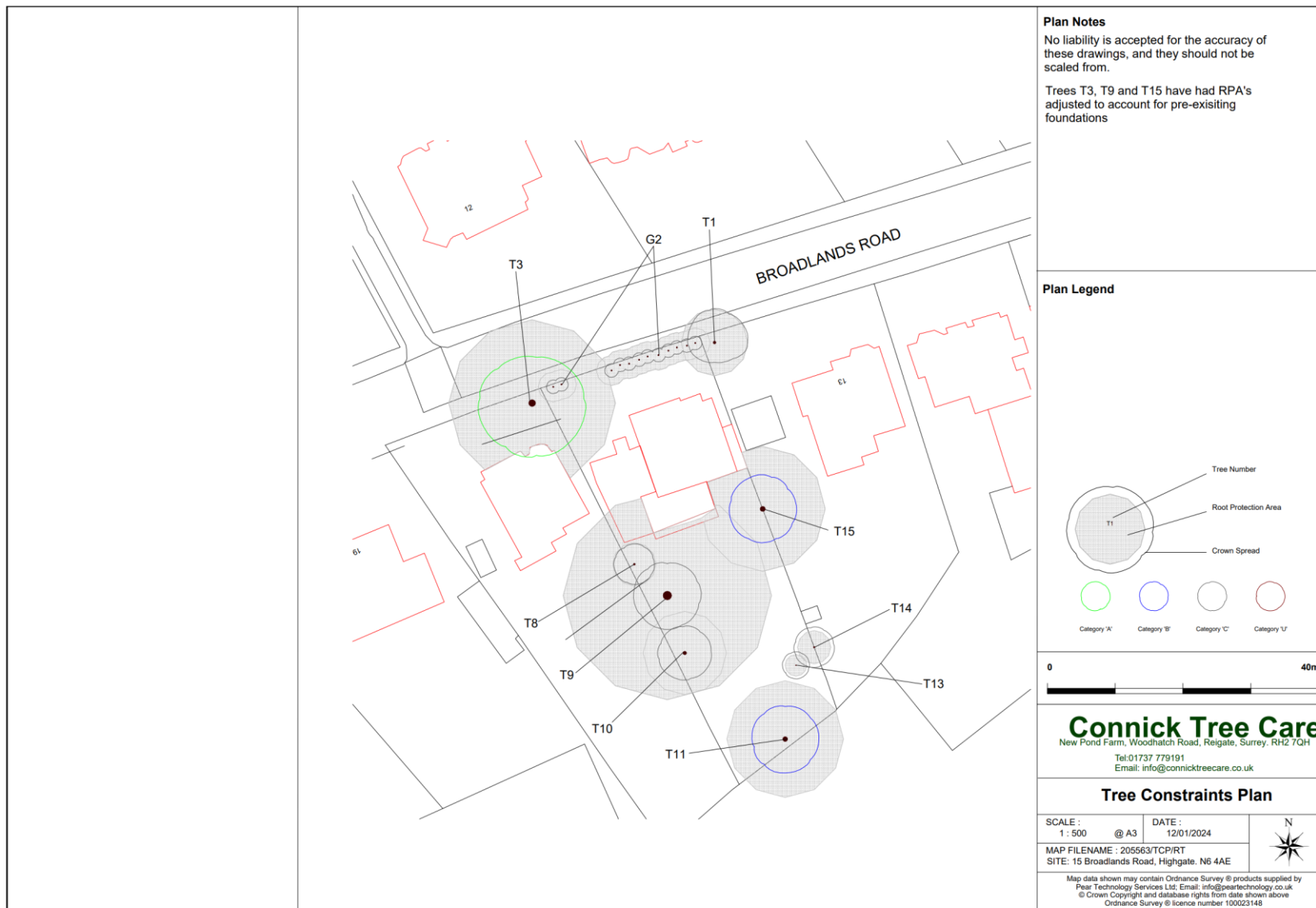
The advice given above is a summary of the required precautions to ensure that the proposed development can be constructed with a minimal impact to all retained trees. The exact methods of construction required in and adjacent to the RPA of retained trees and a final Tree Protection Plan will be addressed within a separate Arboricultural Method Statement.

## APPENDIX I TREE SURVEY SCHEDULE

| Tree no. | Species                                      | Height (m) | Stem diameter (mm) | Branch spread (m) | Height of crown clearance (m) | Height and direction of first branch (m) | Age class   | Overall Physiological condition | Overall Structural condition | RPA radius (m)/ Area (m <sup>2</sup> ) | Observations/Comments                                                                                                                                           | Estimated remaining contribution (years) | Category grading |
|----------|----------------------------------------------|------------|--------------------|-------------------|-------------------------------|------------------------------------------|-------------|---------------------------------|------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------|
| T1       | Sweetgum ( <i>Liquidamber styraciflua</i> )  | 12.5       | 400                | 5                 | 3                             | 3m,n                                     | Semi-mature | Good                            | Good                         | 4.8<br>72.3                            | Tree in neighbouring property of number 13. Boundary wall is cracked, possibly due to tree roots, liaise with neighbour to ensure tree does not become an issue | >40 yrs                                  | C                |
| G2       | Laurel Hedgerow                              | 4          | 180                | 1                 | 1                             | 1m,n                                     | Semi-mature | Fair                            | Fair                         | 2.6<br>14.7                            | Boundary hedge of laurel, maintained lower growth with grown out tops, requires management to bring back into regular form.                                     | 20 to 40 yrs                             | C                |
| T3       | London Plane ( <i>Platanus x hispanica</i> ) | 18         | 1000               | 7                 | 4                             | 4m,w                                     | Mature      | Good                            | Good                         | 12<br>542.7                            | Tree in neighbouring property of number 17, crown pruning wounds evident                                                                                        | >40 yrs                                  | A                |
| T4       | Previously removed                           | -          | -                  | -                 | -                             | -                                        | -           | -                               | -                            | -                                      | Number retained to maintain consistency with previous planning application                                                                                      | -                                        | -                |
| T5       | Previously removed                           | -          | -                  | -                 | -                             | -                                        | -           | -                               | -                            | -                                      | Number retained to maintain consistency with previous planning application                                                                                      | -                                        | -                |
| T6       | Previously removed                           | -          | -                  | -                 | -                             | -                                        | -           | -                               | -                            | -                                      | Number retained to maintain consistency with previous planning application                                                                                      | -                                        | -                |
| T7       | Previously removed                           | -          | -                  | -                 | -                             | -                                        | -           | -                               | -                            | -                                      | Number retained to maintain consistency with previous planning application                                                                                      | -                                        | -                |
| T8       | Silver Birch ( <i>Betula pendula</i> )       | 12         | 260                | 3                 | 3                             | 3m,w                                     | Semi-mature | Good                            | Good                         | 3.1<br>30.6                            | Asymmetric leaning stem to west, growing on boundary fence line, full inspection restricted by wood stacked at base                                             | 20 to 40 yrs                             | C                |

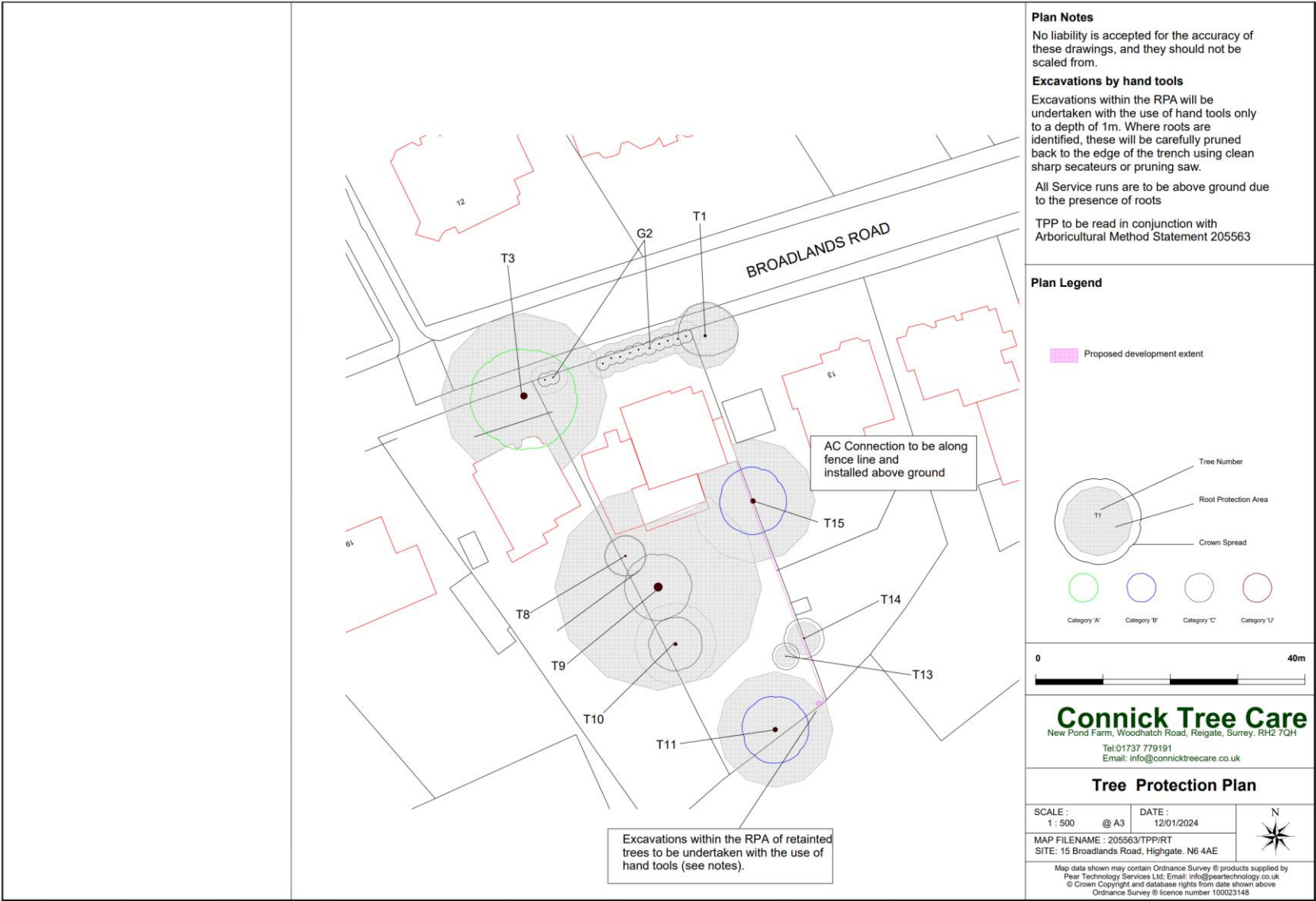
| Tree no. | Species                                                    | Height (m) | Stem diameter (mm) | Branch spread (m) | Height of crown clearance (m) | Height and direction of first branch (m) | Age class   | Overall Physiological condition | Overall Structural condition | RPA radius (m)/ Area (m <sup>2</sup> ) | Observations/Comments                                                                                                                                                                                                                                                                                 | Estimated remaining contribution (years) | Category grading |
|----------|------------------------------------------------------------|------------|--------------------|-------------------|-------------------------------|------------------------------------------|-------------|---------------------------------|------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------|
| T9       | Western Balsam Poplar<br>( <i>Populus trichocarpa</i> )    | 28         | 1260               | 3                 | 6                             | 9m,n                                     | Mature      | Good                            | Fair                         | 15.1<br>718.2                          | South east low stem with low resonance from base to 1.5m in height by cut stubs. Further delaminated bark to west at base to 800mm. Delaminated bark at base to north west stem between buttresses at ground level to 500mm. Tight bifurcated stem union at 4-5m. Crown has been reduced historically | 10 to 20 yrs                             | C                |
| T10      | Atlas Cedar<br>( <i>Cedrus atlantica</i> )                 | 15         | 500                | 4                 | 3                             | 1m,e                                     | Semi-mature | Good                            | Good                         | 6<br>113.1                             | Growing on boundary fence line, asymmetric crown with southerly bias due to competition with poplar. Minor ivy on lower stem obscuring full inspection                                                                                                                                                | >40 yrs                                  | C                |
| T11      | Sycamore<br>( <i>Acer pseudoplatanus</i> )                 | 20         | 700                | 5                 | 5                             | 5m,s                                     | Mature      | Good                            | Ivy                          | 8.4<br>221.7                           | Full inspection restricted due to location and ivy, tree overhangs playing field                                                                                                                                                                                                                      | >40 yrs                                  | B                |
| G12      | Previously removed                                         | -          | -                  | -                 | -                             | -                                        | -           | -                               | -                            | -                                      | Number retained to maintain consistency with previous planning application                                                                                                                                                                                                                            | -                                        | -                |
| T13      | Cheal's Weeping Cherry<br>( <i>Prunus Cheals Weeping</i> ) | 3          | 130                | 2                 | 2                             | 1.5m,n                                   | Young       | Good                            | Good                         | 1.6<br>7.6                             | No visible defects                                                                                                                                                                                                                                                                                    | >40 yrs                                  | C                |
| T14      | Common Yew<br>( <i>Taxus baccata</i> )                     | 7          | 200                | 3                 | 2                             | 1m,w                                     | Semi-mature | Good                            | Good                         | 2.4<br>18.1                            | No visible defects                                                                                                                                                                                                                                                                                    | >40 yrs                                  | C                |
| T15      | Common Lime<br>( <i>Tilia europaea</i> )                   | 15         | 750                | 5                 | 4                             | 4m,w                                     | Mature      | Good                            | Good                         | 9<br>254.5                             | On boundary line, unsure of ownership, basal area obscured so full inspection of the tree could not be carried out, crown previously managed.                                                                                                                                                         | >40 yrs                                  | B                |

## APPENDIX II TREE CONSTRAINTS PLAN



APPENDIX III

TREE PROTECTION PLAN





## APPENDIX IV QUALIFICATIONS AND EXPERIENCE

### Richard Tilling

| Subject                                                                                           | Level | Date                               |
|---------------------------------------------------------------------------------------------------|-------|------------------------------------|
| Microdrill Training                                                                               | Pass  | November 2019                      |
| Getting to grips with subsidence                                                                  | Pass  | March 2019                         |
| <b>Undertaking Aerial Inspections</b>                                                             | Pass  | February 2019                      |
| Lantra Accredited Professional Tree Inspection                                                    | Pass  | May 2010 - Refreshed<br>May 2018   |
| CMI Level 3 certificate in First Line Management                                                  | Pass  | July 2017                          |
| NPTC Level 3 Certificate of Competence in the<br>Thorough Examination of Arboricultural Equipment | Pass  | April 2006 –<br>Refreshed May 2016 |
| IOSH Training - Managing Safely                                                                   | Pass  | April 2013                         |
| Higher National Diploma in Arboriculture                                                          | Pass  | September 1992 –<br>June 1995      |

## 2. CAREER SUMMARY

I began my career in the Arboricultural industry in 1995 following the successful completion of a Higher National Diploma course at Houghall Agricultural College in County Durham. The Course included three placements. Three months with Guildford Borough Council's Arboricultural Department, three months at the National Trusts Winkworth Arboretum and twelve months working for an independent Tree Surgery company.

Upon leaving college I worked for a sole trader Tree Surgeon for two years working mainly for domestic customers. This was followed by sixteen years working for larger tree surgery firms carrying out both domestic and commercial work where I completed certification in climbing and chainsaw use, risk assessments and health and safety.

I progressed from climbing supervisor, followed by two years of quoting for private work, through general management to Contract Management in one of the largest UK tree firms where I managed Council tree contracts including Sutton, Bromley, Bexley, Richmond upon Thames, Hounslow and Islington councils.

During my career within the Arboricultural industry, I have built up valuable practical based Arboricultural knowledge, in depth contract management skills and gaining certification including Professional Tree Inspection Course over ten years ago and LOLER inspection: Certificate of Competence in the Thorough Examination of Arboricultural Equipment over fifteen years ago.



My qualifications have allowed me to carry out varied tree survey work including a full survey of Camden Councils tree stock, 'dead, dying and dangerous' surveying for The Royal Borough of Kingston upon Thames Council, Health and Safety surveying for Transport for London (Southern) and climbing bat roost inspection surveying for Chiswick House and Gardens.

My Contract Management role has giving me experience of Health and Safety, Asset Management and Contract meetings.

I joined Connick Tree Care in January 2018 to expand my knowledge in tree assessment and to get back to a closer relationship with trees and woodland as a whole. I now work as an Arboricultural Consultant with a wide experience of individual tree assessments including Micro drilling, health and safety surveying, Climbing inspections, full site surveying, Insurance or Mortgage surveys and woodland inspection.