



## Arboricultural Report

3 TREE TOPS  
FOREST AVENUE  
WATERLOOVILLE  
HAMPSHIRE  
PO8 8JF

JULY 2017

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## **C O N T E N T S**

### **Arboricultural Report including Draft Arboricultural Implications Assessment**

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### **Arboricultural Method Statement**

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## **1.0 INTRODUCTION**

- 1.1 This report was instructed by Mr Mount. The report details all trees over 75mm at 1.5m above ground level that are relevant to the siting of the proposed development at 3 Tree Tops, Forest Avenue, Waterlooville, Hampshire. The position of the trees on the site is illustrated at **Appendix 1** on the site plan.
- 1.2 The existing tree stock has been identified and graded in line with the current British Standard BS 5837 2012: Trees in Relation to Design, Demolition and Construction - Recommendations to enable informed decisions to be made regarding tree retention. The report also details methods of construction to be implemented to safeguard the retained trees.
- 1.3 This report details the constraints placed on the proposed development from the rooting area of the trees below ground and above ground by their size and position.
- 1.4 This report will therefore inform the planning process for the proposed development to minimise any negative impact on the existing tree stock and ensure that retained trees shall be in harmony with the proposed development enabling their long-term retention.

## **2.0 SITE VISIT**

- 2.1 The site visit was undertaken on 13<sup>th</sup> June 2017. The trees were surveyed visually, externally and from ground level only. No samples or internal decay detection readings were taken for further analysis. All dimensions have been measured unless stated otherwise. Weather conditions at the time of the survey were dry, overcast and still.

## **3.0 SITE DESCRIPTION**

- 3.1 The site is located in Waterlooville Hampshire within a residential area. It currently comprises of a detached bungalow and double garage. The garden is mostly laid to lawn with a number of shrub beds and several trees.

## **4.0 TREE SURVEY DATA**

- 4.1 In accordance with British Standard BS 5837 2012: Trees in Relation to Design, Demolition and Construction - Recommendations, the characteristics of trees over 75mm stem diameter measured at 1.5m above ground level (or immediately above root flare if multi-stemmed) have been recorded. The following tree data tables should be read in conjunction with the annotated site plan shown at **Appendix 1** and the legend after the tables.

| Tree Number and Species          | Height (m) | DBH (mm)                 | Branch Spread (m) |   |   |   | Existing Height Above Ground Level of Canopy and 1 <sup>st</sup> Significant Branch (m) | Age Class | Estimated Remaining Contribution (Years) & Physiological Condition | Comments                                                                                                                                                                                                                                                                                                                                                                                                          | BS Category & Tree Work Necessary for Development | RPA (m <sup>2</sup> ) | RPA (m) |
|----------------------------------|------------|--------------------------|-------------------|---|---|---|-----------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------|---------|
|                                  |            |                          | N                 | S | E | W |                                                                                         |           |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |                       |         |
| T1<br>Oak<br><i>Quercus</i> sp.  | 16         | 550                      | 8                 | 7 | 8 | 7 | 4<br>4.5 West                                                                           | M         | 10 - 20<br>Poor                                                    | Sound base and lower stem with no obvious signs of defects at the time of inspection. A few clusters of water sprouts on the lower stem. Crown appears to have been over thinned historically resulting in lion tailing of the scaffold limbs. Over 80% of the scaffold limbs are covered with water sprouts. Numerous areas of die back on secondary branches throughout the canopy. No immediate work required. | C1<br>Retain and protect                          | 137                   | 6.6     |
| TG1<br>Oak<br><i>Quercus</i> sp. | 18         | 340<br>330<br>270<br>200 | 8                 | 7 | 4 | 7 | 6<br>6 South                                                                            | SM        | 40 +<br>Good                                                       | Four trees grown together forming one canopy. One tree has girdled roots and a small cavity at the base, moderate wound occlusion. Foliage size, colour and density normal. Good vigour. Sheds close to trees but only sited on paving slabs. No immediate work required.                                                                                                                                         | B2<br>Retain and protect                          | 55                    | 4.2     |

### **Key to Terms**

- Identification numbers have been used and correspond to the site plan shown at **Appendix 1**.
- Vegetation type has been categorized as one of the following: Tree (T), Hedge (H), Shrub (S), Group (G), Stump (ST)
- Species are listed by common and botanical name where appropriate.
- Where possible, measurements have been made in accordance with the conventions detailed below. Where this was not possible, due to site conditions or the vegetation being in third party ownership, dimensions have been estimated. \* Indicates estimated measurement.
- Height has been recorded to the nearest half metre.
- Stem diameter has been measured at 1.5m and recorded in millimetres, except where forking or swelling has meant that this is not possible, stem diameter has then been recorded at the narrowest point below these features. Multi-stemmed trees have had individual stems measured at 1.5m. Where this was not possible the actual height where the diameter was measured is recorded. G.L. = Ground Level.
- Crown spread has been recorded to the nearest half metre. Rounded up for dimensions up to 10m and the nearest whole metre for dimensions over 10m.
- Age class has been recorded as follows:

|            |                                                                                                                                                                                                    |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Y</b>   | Young recently planted or establishing tree that could be transplanted without specialist equipment, i.e. up to 12-14cms-stem girth.                                                               |
| <b>S/M</b> | Semi mature. An established tree but one that has not reached its potential ultimate height and has significant growth potential.                                                                  |
| <b>E/M</b> | Early mature. A tree reaching its ultimate potential height, whose growth rate is slowing down but will increase in stem diameter and crown spread, and has a safe life expectancy.                |
| <b>M</b>   | Mature. A mature specimen with limited potential for any significant increase in size but with a reasonable safe life expectancy.                                                                  |
| <b>O/M</b> | Over mature. A senescent or moribund specimen with a limited safe life expectancy. Possibly also containing significant structural defects with attendant safety and/or duty of care implications. |
- Physiological Condition has been recorded as Good, Fair or Poor.
- Recommendations for tree management have been based on current Arboricultural Best Practice as set out by the Arboricultural profession and all relevant publications.

## 5.0 TREE QUALITY ASSESSMENT

- 5.1 The trees have been categorized according to BS5837: 2012 as a guide to their condition and value in terms of visual amenity.
- 5.2 The trees are coloured on the plan attached at **Appendix 1** and the colours are explained in the key of the plan.

## 6.0 ROOT PROTECTION AREAS

- 6.1 In accordance with BS5837: 2012, the root protection area (RPA) of the trees has been calculated and shown in the following table and on the plan attached at **Appendix 2**.

**Table 2 Root Protection Area**

| Tree No | RPA in m <sup>2</sup> | Recommended radial distances for RPAs (in metres from the centre of the tree to protective fencing) |
|---------|-----------------------|-----------------------------------------------------------------------------------------------------|
| T1      | 137                   | 6.6                                                                                                 |
| T2      | 55                    | 4.2                                                                                                 |

## 7.0 LEGAL CONSTRAINTS

- 7.1 Havant Borough Council has stated that T1 Oak and Oaks within TG1 are subjects of a Tree Preservation Order. The site does not fall within a Conservation Area.

## 8.0 ARBORICULTURAL IMPLICATIONS ASSESSMENT

### 8.1 Description of Proposed Development

It is proposed to establish an additional garage on the end of the existing double garage with another parking space to the front.

## 8.2 Drawings Used

A site plan showing the existing and proposed site layouts was provided at the time of survey, scale 1: 200. It has been used to prepare the Tree Quality Assessment Plan (**Appendix 1**), the Root Protection Area Plan (**Appendix 2**) and the Tree Protection Plan (**Appendix 3**).

## 8.3 Direct Loss of Trees

No trees are to be removed to facilitate this development.

## 8.4 Position of Trees in Relation to Proposed Development

It is not considered that the proposal will increase future pressure to fell any trees retained on the site.

## 8.5 Protective Barriers and Ground Protection

Protective barriers in accordance with Figure 2 of BS 5837: 2012 (**Appendix 4**) should be erected around the trees to be retained. The fencing is to be supported with an appropriate stabilizing system (**Appendix 5**). Where possible, the positions of these fences should be based on a distance equivalent to the radius of each tree's RPA. All site personnel shall be made aware of the importance of root protection areas and shall ensure that they are properly maintained at all times. Once established the fencing will define the boundary of the Construction Exclusion Zone (CEZ).

Once erected all weather signage should be displayed stating 'Construction Exclusion Zone'.

No development works shall commence within the CEZ until written confirmation has been obtained from the Local Planning Authority. The project Arboriculturalist shall supervise all work within the RPAs.

Ground protection to tolerate pedestrian movement only will be established as per the Tree Protection Plan at **Appendix 3**.

## 8.6 Changes in Ground Surface within RPAs

There are no proposed changes of ground surface within the RPAs of any retained tree. Note the RPA of T1 has been off-set by 20%.

#### 8.7 Changes in Ground Level within the RPA

There are no proposed changes in the existing ground levels within the RPAs of any retained tree. The proposed foundations will be at the periphery of the off-set RPA of T1 Oak and work in this area will be supervised to ensure minimal disruption.

#### 8.8 Services

No overhead services are proposed.

No underground services are to be installed within the RPAs of any retained tree outside of the existing service runs.

#### 8.10 Foundations within RPAs

The proposed foundations will be at the periphery of the RPA of T1 Oak. Given this these will be excavated under arboricultural supervision to ensure no damage to any significant roots if encountered.

The new fencing will require new posts, the pits for these will be hand excavated under supervision.

#### 8.11 Access for Machinery and Site Storage

Machinery access and storage of materials can be stored on the existing driveway or in the garage.

### 9.0 CONCLUSIONS

9.1 The trees are predominately of a moderate quality providing a screening/softening role.

9.2 No trees are to be removed to facilitate the development.

9.3 The establishment of the protective barriers, ground protection and the excavations for the proposed foundations and fence posts should be supervised by the Project Arboriculturalist and confirmation of adherence with the Arboricultural Method Statement and Tree Protection Plan should be made to the Local Authority Tree Officer before any development starts.

9.4 Given these conclusions the following section 'Arboricultural Method Statement' details the recommendations/methodology for the construction of the proposed works in terms of the effect on trees on the site.

**Details within this AIA are considered correct at the time of writing but modifications may need to be made as more information becomes available.**

### ***Important Notes***

*The comments made with regard to the health and stability of the trees within this report were correct at the time of inspection. It should be recognized that trees are dynamic structures that can never be completely predictable and may become unstable or partially unstable even in average weather conditions. Changes can occur not only to environmental triggers but also in response to biological or mechanical events.*

### ***Inspection Caveats***

*The inspection was carried out from ground level. Binoculars were used to observe features higher in the canopies.*

*Foliage, extension growth and/or bud proliferation were assessed visually.*

*No soil or tissue samples were taken during this inspection.*

*No invasive diagnostic equipment was used to detect decay.*

*A nylon hammer was used to test for possible decay and dead or loose bark around the lower stems and bases of the trees.*

*Ivy has been removed during the inspection process only where reasonable and practicable. Where this has not been possible it has been noted as a recommendation to be removed to allow detailed re-inspection.*

*No tree is ever absolutely safe due to the unpredictable laws and forces of nature.*

**ARBORICULTURAL METHOD STATEMENT****1.0 CONTACT DETAILS**

|                                     |                                                                |                                                                                                                                                                                                       |
|-------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Developer</b>                    | Unknown at Present                                             |                                                                                                                                                                                                       |
| <b>Architect</b>                    | Chris Westbury                                                 | Nouveau Architecture<br>8 Bere Lane, Knowle Village, Hampshire,<br>PO17 5GL<br>07775 772172<br><a href="mailto:chris@nouveau-architecture.co.uk">chris@nouveau-architecture.co.uk</a>                 |
| <b>Arboricultural Consultant</b>    | Sarah Johnston<br>M.Arbor.A.<br>B.Sc. (Hons.)<br>Arboriculture | Johnston Tree Consultancy<br>16 Manor Close, Wickham, Hampshire, PO17<br>5BZ<br>07814 403146<br><a href="mailto:johnstontreeconsultancy@gmail.com">johnstontreeconsultancy@gmail.com</a>              |
| <b>Local Authority Case Officer</b> | Unknown at present                                             | Havant Borough Council<br>Public Service Plaza, Civic Centre Road,<br>Havant, PO9 2AX<br>02392 44 65 23<br><a href="mailto:planning.development@havant.gov.uk">planning.development@havant.gov.uk</a> |
| <b>Local Authority Tree Officer</b> | Jamie Gargett                                                  | Havant Borough Council<br>Public Service Plaza, Civic Centre Road,<br>Havant, PO9 2AX<br>02392 44 65 25<br><a href="mailto:jamie.gargett@havant.gov.uk">jamie.gargett@havant.gov.uk</a>               |

## 2.0 INTRODUCTION

- 2.1 This Arboricultural Method Statement (AMS) has been produced in line with BS 5837 2012: Trees in relation to design, demolition and construction-Recommendations to aid the successful retention of trees on and adjacent to the proposed development at 3 Tree Tops, Forest Avenue, Waterlooville, Hampshire. No development shall take place on the site until this document has been submitted to and approved in writing by Havant Borough Council.
- 2.2 This document sets out the methodology for all proposed works that affect trees on and adjacent to the site. Compliance with this method statement will be a requirement of all relevant contracts associated with the development proposals. Copies of this document will be available on site for inspection.
- 2.3 For details of trees to be retained and location and types of special protection methods, reference should be made to the Tree Protection Plan (TPP). A copy of which should be displayed prominently on site.

## 3.0 PHASING OF DEVELOPMENT

### 3.1 Phase 1 – Pre Development Phase

#### Protective Barriers

Tree protection measures to be installed under the supervision of the retained Arboriculturalist for all the trees in accordance with the Tree Protection Plan **Appendix 3**.

The protective barriers erected will be in accordance with Figures 2 and 3 of BS 5837:2012 (**Appendix 4 and 5**) and will form the boundary of the construction exclusion zone (CEZ). Where feasible, the positions of the fencing will be based on a distance equivalent to the radius of each tree's RPA. Once erected all weather signage should be displayed stating 'Tree Protection Area Keep Out'.

#### Ground Protection

To tolerate pedestrian movement this will comprise of a geo-textile membrane with 150mm wood chip and scaffold boards or similar laid on top.

#### Materials, Access and Storage

Access for machinery will be via the existing driveway and the materials can be stored in the existing garage or on the driveway.

### 3.2 Phase 2 – Construction Phase

#### Protective Barriers

Once established the protective barriers are not to be moved without written consent from Havant Borough Council.

#### Excavation of Foundations and Fence Post Holes

The proposed foundation will be at the periphery of the off-set RPA of T1 Oak; given this the foundations will be excavated under arboricultural supervision to ensure minimal disruption. If any significant roots are found the tree officer will be advised.

The new fence and side gate are within the RPA of T1 Oak and these will be hand excavated to ensure minimal disruption.

All excavations will be lined with DPM to prevent concrete leeching into the soil and killing fine roots responsible for water and nutrient uptake.

## **4.0 GENERAL ARBORICULTURAL CONSIDERATIONS**

- 4.1 Protective barriers must be regarded as sacrosanct, and must only be moved under direct supervision of the LPA or named Arboriculturalist to enable the undertaking of works within the RPAs of trees, as set out in this AMS, and approved in writing by the LPA. It is of paramount importance the fencing is repositioned correctly after any agreed operations.
- 4.2 No materials, chemicals, machinery or vehicles must be stored within the RPAs as defined on the TPP and identified on site by protective fencing and aboveground root protection.
- 4.3 Ground protection must not be lifted or removed without prior consultation with the LPA or named Arboriculturalist.
- 4.4 Damage caused to protective fencing or ground protection must be reported to the site supervisor and the named Arboriculturalist to ensure appropriate repair.
- 4.5 Any damage to retained trees must be reported without delay to the site supervisor, the LPA and the named Arboriculturalist so appropriate remedial work can take place without delay.
- 4.6 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 5 metres of the trunk of the retained trees or any other trees on the site.
- 4.7 No fires will be lit on site.

- 4.8 Notice boards, telephone cables or any other signage or services are not to be attached to any part of the retained trees.

## 5.0 SUPERVISION AND MONITORING

- 5.1 The project Arboriculturalist shall be responsible for monitoring/supervising the following works.

- Establishment of protective barriers and ground protection
- Excavation of foundations and fence post holes.

- 5.2 The project Arboricultural Consultant will be responsible for periodical monitoring and will inspect the protective fencing to ensure the CEZ is intact and monitor any works necessary within the exclusion zone. A record of site visits will be maintained for inspection on site and copies forwarded to the agent and planning authority when requested.

***Please note this AMS is not a contract. The retention and services of a project Arboriculturist for supervision and monitoring must be agreed prior to commencement of construction operations.***

### CREDENTIALS OF THE AUTHOR

*Sarah Johnston M. Arbor. A., B.Sc. Arboriculture has worked in the Arboricultural profession for thirteen years. Her experience has been gained from undertaking practical tree work as well as working as an Arboricultural Surveyor and Tree Officer for Eastleigh and Havant Borough Councils respectively. In addition Sarah worked as a consultant for Marishal Thompson for two years from 2005 when she became self-employed. Sarah is a Professional Member of the Arboricultural Association and holds Professional Indemnity Insurance cover trading as Johnston Tree Consultancy.*

