



Johnston Tree Consultancy

Arboricultural & Forestry Solutions

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Arboricultural Report

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NOVEMBER 2012

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1.0 INTRODUCTION

- 1.1 This report was instructed by Mr Waters in relation to the erection of a large shed in the rear garden of 23c Queens Road, Waterloooville. The report details trees over 75mm at 1.5m above ground level that are relevant to the siting of the proposed development. 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 on the 5th November 2012. 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 clear dry with no wind. A site plan showing the existing site layout was available at the time of survey.

3.0 SITE DESCRIPTION

- 3.1 The property is within the town of Waterloooville, located 8 miles north of Portsmouth, Hampshire. Queens Road itself is off of the A3 to the west, the area is predominately residential. The property is bounded by Park Wood to the southeast. Currently the site is comprised of a detached family home with integral garage.

4.0 TREE SURVEY DATA

- 4.1 In accordance with BS 5837 2012: Trees in relation to design, demolition and construction – Recommendations, the characteristics of single-stemmed trees over 75mm stem diameter measured at 1.5m above ground level have been recorded and they have been categorised in accordance with Table 1 of BS5837: 2012. The following tree data tables should be read in conjunction with the annotated site plan shown at **Appendix 1** and the legend on the page following the tables.

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Tree Number and Species	Height (m)	DBH (mm)	Branch Spread (m)				Existing Height Above Ground Level of Canopy (m)	Age Class	Estimated Remaining Contribution (Years) & Physiological Condition	Comments	BS Category & Tree Work Necessary for Development	RPA (m ²)	RPA (m)
			N	S	E	W							
T1 Oak <i>Quercus</i> sp.	22	770	8	10*	11	8*	1.8 9 North	M	40 + Good	In Park Wood. Adjacent to boundary. Sound base and stem with no obvious sign of defects. Previous crown raise over garden excellent wound occlusion. Dead wood throughout canopy. Ivy on main stem. No immediate work required (NIWR).	A1 Retain and protect Crown raise to a height of 3m where branches overhang proposed shed. Remove material no greater than 50mm diameter.	272	9.3
T2 Common Yew <i>Taxus baccata</i>	5	440	4	3	2.5	4	1.5 2 North	SM	40 + Good	In rear garden. Sound base and stem with no obvious sign of defects. Stem bifurcates at approximately 1.2m. Asymmetric crown where previous vegetation has been removed to the south side. Good extension growth. NIWR.	A1 Retain and protect	92	5.4
TG1 Common Hazel <i>Corylus avellana</i>	6	Multiple stems	2.5	4	1.5	4	2.5 3 South	M	20 Good	In rear garden. Two historic coppice stools with no recent management. Good vigour. NIWR.	A1 Retain and protect	341	10.5



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:

Y	Young recently planted or establishing tree that could be transplanted without specialist equipment, i.e. up to 12-14cms-stem girth.
S/M	Semi mature. An established tree but one that has not reached its potential ultimate height and has significant growth potential.
E/M	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.
M	Mature. A mature specimen with limited potential for any significant increase in size but with a reasonable safe life expectancy.
O/M	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.

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- 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**. This is the minimum area in m², which if being retained, must be left undisturbed around each tree to ensure its safe retention during the development process. In some circumstances, the incorporation of hard surfaces and other construction can take place within the RPA if it can be justified.
- 6.2 The shed falls within the RPAs of T1 Oak, T2 Common Yew and TG1 Common Hazel will be constructed using no-dig methods to prevent damage to the tree roots.

Table 2 Root Protection Area

Tree No	RPA in m ²	Recommended radial distances for RPAs (in metres from the centre of the tree to protective fencing)
T1	272	9.3
T2	92	5.4
T3	341	10.5

7.0 LEGAL CONSTRAINTS

- 7.1 Havant Borough Council has advised that all the trees included within this report are subject to Tree Preservation Order Number 1092, Woodland W1.

8.0 SOIL ASSESSMENT

- 8.1 No formal soil assessment was provided at the time of survey. The British Geological Survey Web Site, Geology of Britain Viewer section shows the soil in the local vicinity to be of a London Clay formation. The soil on site may be subject to movement as an indirect result of

water uptake by roots and may influence the size and type of foundation required. However, as this falls outside of the authors' field of expertise this information should be verified by a structural engineer.

(<http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=po77sb>)

9.0 ARBORICULTURAL IMPLICATIONS ASSESSMENT

9.1 Description of Proposed Development

It is proposed to establish a large shed 7.5m x 3m within the rear garden of the property.

9.2 Drawings Used

A showing the existing site layout was provided scale 1:500. This 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**).

9.3 Direct Loss of Trees

It will not be necessary to remove any trees to facilitate the proposal.

9.4 Position of Trees in Relation to Proposed Development

It is not considered that the proposal will result in an increased pressure to undertake remedial work to the trees.

9.5 Protective Barriers

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). This is shown clearly on the TPP.

Once erected all weather signage should be displayed stating 'Construction Exclusion Zone – No Access'

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.



9.6 Changes in Ground Surface within RPAs

There are no proposed changes in ground surface within the RPA of any retained tree with the exception of the shed itself which will be supported by above ground supports.

9.7 Changes in Ground Level within the RPA

There are no proposed changes in the existing ground levels on the site within the RPA of any retained tree. However it will be necessary to ensure the ground is level before placing the above ground supports and this will be achieved as detailed within the Arboricultural Method Statement.

9.8 Temporary Ground Protection for Pedestrian Access

Pedestrian access will be required within the RPA of T1 Oak, T2 Common Yew and TG1 Common Hazel during construction of the shed. A single thickness scaffold board placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer 100mm depth wood chip on top of a geotextile membrane, will provide sufficient protection for this movement and support for scaffolding if required.

9.9 Foundations within RPAs

There are no foundations within the RPA of any retained tree with the exception of above ground supports for the shed. It is proposed that water from the shed roof will be routed to the ground beneath the shed to prevent desiccation of the soil profile.

9.11 Services

No overhead services are proposed.

No below ground services are proposed within the RPAs of any retained tree.

9.12 Scaffolding

No scaffolding will be established within the RPA of any retained tree or adjacent to the canopy of any retained tree.



10.0 CONCLUSIONS

- 10.1 The trees are considered to be of a moderate to high quality providing an important visual amenity role within the locale in addition to being an integral part of the woodland nature of the immediate vicinity.
- 10.2 Protective barriers will need to be established prior to any construction or demolition work being undertaken.
- 10.3 Access for pedestrians will be required within part of the RPA of T1Oak, T2 Common Yew and TG1 Common Hazel. Ground protection robust enough to prevent soil compaction and root damage must be established in these areas. This ground protection will also be robust enough to support scaffolding if required.
- 10.4 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.

The comments made with regard to the health of the trees within this report were correct at the time of inspection. Trees are dynamic structures and changes can occur in response to biological, mechanical or environmental changes at any time.

CREDENTIALS OF THE AUTHOR

Sarah Johnston M. Arbor. A., B.Sc. Arboriculture has worked in the Arboricultural profession for fourteen 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 both Professional Indemnity and Public Liability insurance cover trading as Johnston Tree Consultancy.



ARBORICULTURAL METHOD STATEMENT

1.0 CONTACT DETAILS

Developer	Mr Waters	23c Queens Road, Waterlooville, Hampshire, PO7 7SB 02392 474174 badgerlass104@aol.com
Architect	N/A	
Arboricultural Consultant	Sarah Johnston M.Arbor.A. B.Sc. (Hons.) Arboriculture	Johnston Tree Consultancy 16 Manor Close, Wickham, Hampshire, PO17 5BZ 07814 403146 johnstontreeconsultancy@gmail.com
Local Authority Case Officer	Unknown at Present	Havant Borough Council City Centre Road, Havant, PO9 2AX 02392 446015 planning.development@havant.gov.uk
Local Authority Tree Officer	Jamie Gargett	Havant Borough Council City Centre Road, Havant, PO9 2AX 02392 446525 jamie.gargett@havant.gov.uk



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 23c Queens Road, Waterloooville. 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 (TTP). 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.

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 'Construction Exclusion Zone – Keep Out'.

The TPP shows the location of the barriers prior to removal of the existing summer house and raised hard standing and after. No work is to be carried out until Havant Borough Councils' Tree Officer has inspected the fencing.

Temporary Ground Protection for Pedestrian Access

Pedestrian access will be required within the RPA of T1 Oak and T3 Common Hazel during construction of the shed. A single thickness scaffold board placed either on top of a compression-resistant layer (100mm depth wood chip on top of a geotextile membrane will provide sufficient protection for this movement and support for scaffolding if required.



Ground Preparation for Supporting Blocks

Ground preparation will ensure surface is as level as possible without excavation into the soil. Turf and surface vegetation may be removed using hand tools only or an appropriate systemic weed killer. Sharp sand or no fines aggregate will be used where it is necessary to infill larger areas.

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.

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 fencing to form the CEZ.
- Establishment of the temporary ground protection for pedestrians.

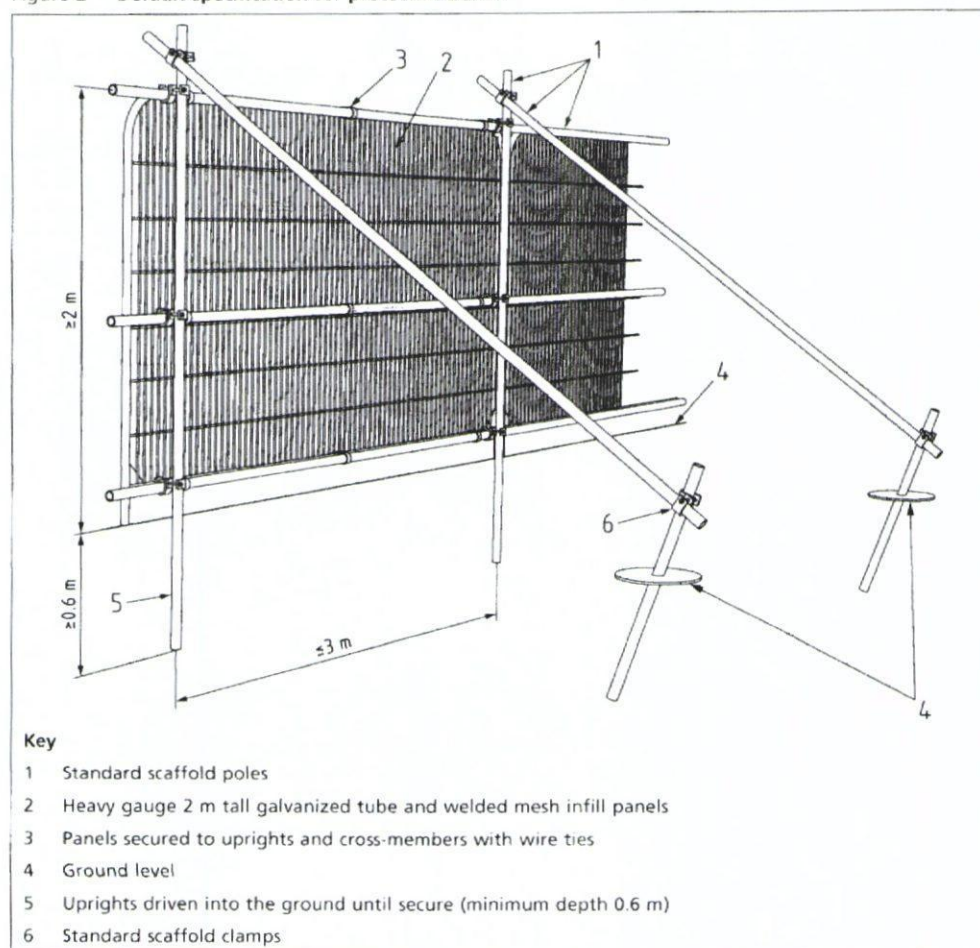
5.2 The project Arboricultural Consultant will be responsible for periodical monitoring and will inspect the protective fencing to ensure the CEZ is intact and monitor any works necessary within the exclusion zone. A record of site visits will be maintained for inspection on site and copies forwarded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



Appendix 4 – Default Specification for Protective Fencing

Figure 2 Default specification for protective barrier



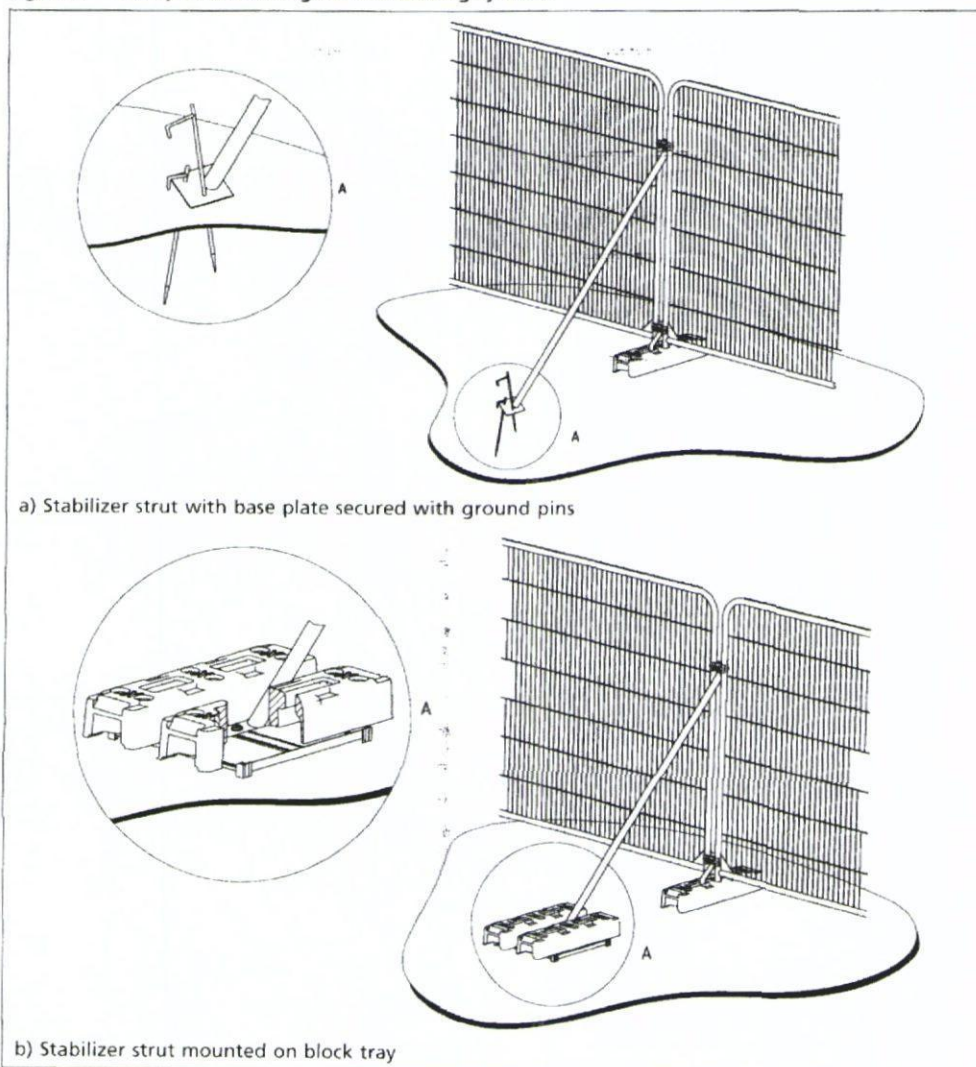
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APPENDIX 5 – Examples of Above-Ground Stabilizing Systems

BRITISH STANDARD

BS 5837:2012

Figure 3 Examples of above-ground stabilizing systems



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