

BS 5837:2012 Tree Survey Report

Springfields, Chichester Road, Bognor Regis, PO21 5EE

Site Surveyed by Stuart Campbell

Report prepared by
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6 March 2018



Gristwood&Toms

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1. INTRODUCTION

1.1 Assignment

I have been instructed by Louise Hinsley (Next Phase Planning & Development) on behalf of their client Mr Christopher Thorne.

My brief is:

- a) To carry out a survey of the trees in accordance to BS 5837:2012 (Trees in relation to design, demolition and construction – Recommendations) most likely to be affected by the proposed development located at Springfields, Chichester Road, Bognor Regis. PO21 5EE. My survey is to include the following:
 - sequential reference number (to be recorded on the tree survey plan)
 - species listed by common name
 - height
 - stem diameter, measured in accordance with BS 5837:2012
 - branch spread, taken as a minimum at four cardinal points, to derive an accurate representation of the crown
 - existing height above ground level of canopy
 - life stage (e.g. young, semi-mature, mature, over-mature)
 - general observations, particularly of structural and/or physiological condition (e.g. the presence of any decay and physical defect), and/or preliminary management recommendations
 - estimated remaining contribution in years
 - category **U** or **A** to **C** grading, to be recorded on the tree survey plan
- b) To produce a Tree Constraints Plan illustrating constraints imposed by trees, both above and below ground shown as Root Protection Areas (RPA) in the tree survey plan.

1.2 Documents and Information Provided

I was provided with the following information:

- Proposed site layout (dwg no.0520-01/03)
- TPO/BE/1/14

1.3 Relevant Background information

- a) I am advised by Louise Hinsley of the proposal to submit a planning application to develop land adjacent to Springfields, Chichester Road.
- b) It is necessary to identify at an early stage in the planning process those specimens that would be suitable for retention and would enhance any development, while at the same time highlighting any trees of limited value that potentially would be an unnecessary or unreasonable constraint to development.
- c) As part of this process consideration has to be given to (1) the above ground physical size and location of existing trees and (2) the root systems. It is important to recognise that tree roots are particularly vulnerable during any adjacent construction operations. Tree roots flourish where conditions are most favourable, these tend to be near the soil surface, for this reason the majority of tree roots grow in the upper 600mm of the soil. This means that disturbance such as shallow excavations, soil compaction by heavy plant or machinery or contamination by substances such as cement, diesel or chemicals can be damaging to the root system.
- d) The British Standard 5837:2012 provides guidance and specifies measures to be adopted in order to avoid or minimise damage to trees retained on or in proximity to construction sites. One of the key recommendations is that a Root Protection Area (RPA) should be established around individual or groups of trees identified as being worthy of retention.

1.4 Scope of this report

- a) This report includes:
 - Tree Survey
 - Arboricultural Implication Assessment
 - Tree Constraints Plan
- b) The trees were inspected using the visual tree assessment method described by Mattheck and Breloer (The Body Language of Trees, DOE booklet Research for Amenity Trees No. 4. 1994). No detailed tree examinations were undertaken as none were warranted in this case.

- c) I have been informed that the site lies within a Tree Preservation Order and the trees within the developmental area are protected.

2 SITE VISIT AND DATA COLLECTION

2.1 Site Visit

I carried out a site visit on the 6 March 2018. The weather at the time of inspection was clear, dry and good visibility.

2.2 Brief Site description

The site is located north of Bognor Regis and south of Chichester, east on the A259, Chichester Road. The site is bordered to the north and east by agricultural land. The site is visible from the adjacent Chichester Road and is accessed by a single track driveway leading to the neighbouring property south of Springfields.

2.3 Soil Type

No specific soil information had been provided to me at the time of writing.

3. TREE SURVEY

3.1 Tree Survey method

- a) All of my observations were from ground level without detailed investigations and I measured all dimensions unless otherwise indicated.
- b) I surveyed all trees objectively with some reference to design proposals supplied or suggested by the client.
- c) All trees were measured as per BS 5837:2012 recommendations. Those trees with a stem diameter of less than 75 mm at 1.5 m above ground level were excluded from the survey. I used Pear Technology software on a Panasonic ToughPad tablet which has an integrated GPS system, accurate to 1-2m, to locate and capture the individual tree data.

3.2 Appraisal/discussion of trees surveyed

- a) The details of the individual trees I plotted and assessed are detailed in the schedule, below. Together with an explanation of the BS 5837:2012 tree grading criteria.
- b) I assessed 7 individual trees which were located as a small linear group on the southern boundary of the site. There were 4 number trees of *moderate quality* (Category B) which collectively form a significant landscape feature to the south of the developmental area. The remaining 3no trees I categorized as C class – *low quality offering only temporary or transient landscape benefits*.

CATEGORY	DEFINITION	TREES
B	Trees of moderate quality	4
C	Trees of low quality	3
U	Those in such a condition that they cannot be retained	
TOTAL		7

4. ARBORICULTURAL IMPLICATIONS ASSESSMENT

4.1 Proposed site use and existing trees

B CLASS TREES

Tree T.1, T3, T4 & T5.(Photo no.1) – Holm oak (*Quercus ilex*). A small linear group of mature evergreen oaks visible from the adjacent A 259, Chichester Road providing screening benefits to the adjacent property, Springfields. All the trees are in a fair condition and unsympathetic past management has resulted in unsightly stubs and minor deadwood throughout their canopies. All the trees had two or more stems at 1.5m above ground level resulting in a low canopy spread. Future management of the trees may require the crown lifting of the lower branches to allow access beneath the canopy of the trees. The close proximity of such shade bearing trees will undoubtedly impact on the design of the new building and in particular where there are rooms which require natural light.



Photo no.1-Trees T1,3,4 & 5, visible from Chichester Road.

C CLASS TREES

Tree T2, T6 & T7. – Holm oak (*Quercus ilex*). The trees have been categorized as C – trees of low quality offering only temporary landscape benefits. Tree T2 of semi-mature age is of poor condition, its growth suppressed by the close proximity of T1 and T3.

Tree T6 & T7: Two mature Holm oak trees growing either side of the driveway close to the property have previously been heavily reduced resulting in vigorous regrowth and an upright habit. There was evidence of decay to the lower stem of T.6 as a result of the removal of a stem just above ground level providing an entry point for infection. Both trees are unremarkable trees of very limited merit with an estimated remaining life expectancy of at least 10 years.

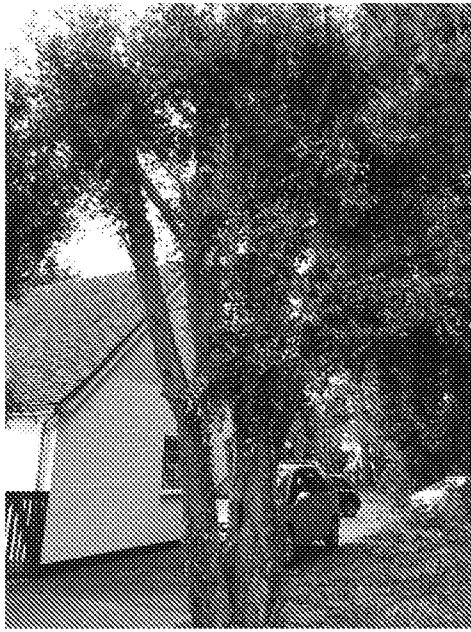


Photo no.2-Tree T.6

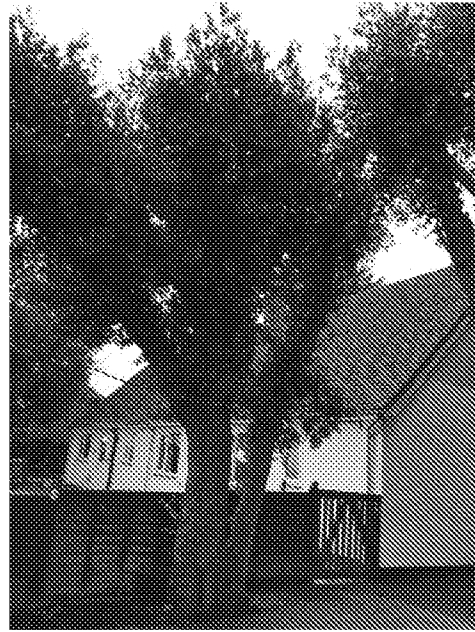


Photo no.3-Tree T.7

4.2 Root Protection Areas

In accordance with BS 5837: 2012, the root protection area (RPA) of the trees has been calculated and shown in the following tree survey plan. This is the minimum area in metre squared, which if being retained, must be left undisturbed around each tree to ensure its safe retention during the development process. In some instances, the incorporation of hard surfaces and other construction can take place within the RPA.

Although aerial parts of the tree, trunk, branches and twigs are obvious, extensive and irreparable damage can be caused to the roots and the rooting environment without any immediately noticeable effect. Severance of large roots in close proximity to the stem can result in the immediate loss of stability and/or rapid death whilst damage to more distal parts of the root system or rooting environment will result in a slow decline in tree health over a period of several years, resulting in premature loss.

5. CONCLUSION

5.1 Based on the information supplied and my site visit my conclusions are as follows:

Although retention of the category C trees may be desirable in context with their surroundings, I do consider those trees to be of limited value and an unnecessary or unreasonable constraint to development. Collectively the category B class trees make a significant visual contribution to the wider locality. A precautionary approach towards tree protection should be adopted and any operations, including access, proposed within the RPA (or crown spread where this is greater) should be described within an **arboricultural method statement**, in order to demonstrate that the operations can be undertaken with minimal risk of adverse impact on trees retained.

Stuart Campbell ND. arb
Arboricultural Consultant

Dated 26/1/2018

Tree Survey Explanatory Notes

- **Measurements/estimates:** All dimensions measures unless otherwise indicated.
- **Species:** I base the species identification on visual observations and list the botanical name
- **Height:** I estimated the average crown height to the nearest metre for individual trees.
- **Spread (SPD):** I estimated to the nearest metre the average crown spread from the centre of the trunk to the tips of the live lateral branches (Cardinal Points).
- **Diameter:** These figures relate to 1.5m above ground level or as per the BS 5837 recommendations and I record them in millimetres with a diameter tape.
- **Life Expectancy:** Remaining Contribution in years.
- **Age Class:** I indicate age class as **OM** = Over mature, **M** = Mature, **EA** = Early Mature **SM** = Semi Mature **Y** = Young
- **Root Protection Area (RPA m2):** This has been capped at 707m², which is equivalent to a circle with a radius of 15 metres or a square with approximately 26 metre sides. Where the linear root protection radius has been capped
- **Physiological Condition:** An assessment of the physiological condition (i.e. health/vitality) of the tree categorised into:
 - GOOD** a tree in a healthy condition with no significant problems
 - FAIR** a tree generally in good health with some problems that can be remediated
 - POOR** a tree in poor health with significant problems that can't be remediated
 - DEAD** a tree without sufficient live material to sustain life
- **Structural Condition**
An assessment of the structural/safe condition of the tree categorised into:
 - GOOD** a tree in a safe condition with no significant defects
 - FAIR** a tree in a safe condition at present but with defects or with significant defects that can be remediated
 - POOR** a tree with significant defects that can't be remediated

Notes related to both physiological and structural condition follow the categorization in order to support the statement and give greater detail on the true quality and value of the tree.

- **Preliminary Management Recommendations,**
These may include further investigations for the presence or extent of decay or climbed inspections, ivy removal or pruning works when access is a non-moveable aspect etc (NB this is not intended to be a specification for tree work and further advice maybe required prior to implementation). Trees assessed as being in apparently immediately hazardous condition will be notified to the client separately as soon as practicable.

Trees unsuitable for retention				
Category and definition		Criteria		Identification on plan
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years		- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve;		DARK RED
Trees to be considered for retention				
Category and definition	Criteria - Subcategories			Identification on plan
	1 Mainly arboricultural values	2 Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects including unsympathetic past management and minor storm damage) Such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A classification	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
Category C Trees of low with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary/transient landscape benefits	Trees with no material or conservation or other cultural value	GREY

