ATWORTH ARBORICULTURE LTD

BS5837 (2012) SURVEY
37, Horndean Road, Emsworth,
Portsmouth, PO10 7PU.

Prepared for: Mr. and Mrs. Duke.

Reference: AA/5837-14.01.26
28th January 2026

Atworth Arboriculture Ltd
01225 708508 – 07970467918
vincentcainey@yahoo.co.uk

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Instruction

Site: 37, Horndean Road, Emsworth, Portsmouth, PO10 7PU.

Client: Mr. and Mrs. Duke.

Mrs. Duke instructed Atworth Arboriculture Ltd to visit the above site and conduct a tree survey in accordance with 'BS 5837:2012' a guide for 'Trees In Relation To Construction', section 4. We were also instructed to calculate and plot the Root Protection Area (RPA) for each tree, a schedule of the relevant trees, including the basic data and a condition assessment.

Tree Preservation Order Status: N/A
Local Planning Authority: Hampshire County Council
Planning reference: N/A

I was supplied with the following documentation:

Location plan
Existing plan
Proposed Site plan

We were supplied with a site drawing and as part of the tree survey process have include a site plan prepared with PTMapper Pro™. Please be aware that I do not recommend scaling from the drawing, all measurements should be checked on site.

Please Note: All abbreviations introduced in brackets are used throughout the report.

Summary

The development proposes to demolish the detached garage. Build a 2 storey extension down the side of the house and a single storey extension to the rear of the property.

We inspected all the trees that could be affected, on or adjacent to the site and a schedule is appended as 5837 Survey Schedule.
3 trees were assessed in accordance with the cascade chart for tree quality (Table 1 section 4) of BS 5837:2012. 1 tree falls into category" B", Trees of moderate condition. 2 trees fall into category "C", trees of poor quality

This survey should be read in conjunction with the following document:

AA/5837-14.01.26
Root Protection Area Drawing

Survey date: 14th January 2026

Surveyed by: Vincent Cainey, Atworth Arboriculture Ltd

Report Author Vincent Cainey BSc Atworth Arboriculture Ltd

Ref: AA/5837-28.01.26

1.0 Tree Survey

1.1 This tree survey has been undertaken to the recommendations of BS 5837:2012 British Standard guide for 'Trees in Relation to Construction', section 4, each tree has been assessed and categorised with appropriate colour coding. The specific tree data is contained in the enclosed schedule.

1.2 This survey is concerned with the Arboricultural aspects of the site only and we are unaware of the planning status of the trees.

1.3 This survey does not set out the working specifications of tree protection measures or engineering design features. It does however set out the minimum area around each tree(s) to be protected during construction, the Root Protection Area (RPA).

1.4 The survey was conducted from ground level with the aid of binoculars, no internal investigations of the subject trees were undertaken, and no soil samples were removed. The trees were not tagged as they are easily identified on site and from the attached location plan.

1.5 The British Standard (5837) sets out to assist those concerned with trees in relation to construction. It does not set out to put arguments for or against development, or for the retention or removal of trees. It does set out how to decide upon trees for retention, means of protecting those trees during development and on means of incorporating trees into the developed landscape.

1.6 **Arboricultural Operations**: If pruning or felling operations are required, they must be undertaken in accordance with BS 3998:2010 Tree Works – Recommendations and by suitably qualified and insured Arboricultural contractors.

1.7 **Ecological Constraints:** The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000 and Habitat Regulations 2007 & 2009 provides statutory protection to birds, bats and other tree dwelling species. They could impose significant constraints on the use and timing of any tree matters considered in this report.

1.8 **Mitigation:** This survey sets out the working specifications of tree protection measures, and it provides generic mitigation for development within the RPA based upon similar projects and my experience of the subject. Specific detailed engineering principles and advice are beyond my area of expertise, and you must seek advice from a suitably qualified individual in order to provide site specific information.

1.9 **Documents:** This survey should be read in conjunction with the site drawing(s) and documents as specified on page 1.

2.0 In making our assessment, consideration has been given to:

- The health, vigour and condition of each tree
- Any structural defects and safe life expectancy
- The size and form of each tree
- The rare, unusual or component part of a group or formal feature
- Groups, woodland or avenues of trees that provide definite screening or Softening effect
- Groups forming distinct landscape features
- Significant historical, commemorative, conservation or other value i.e. Veteran tree or wood-pasture.
- Cultural benefit

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3.0 RPA: Root Protection Area

Using BS 5837:2012 a Root Protection Area (RPA) for each retained tree can be calculated by reference to section 4.6 of BS. The RPA is frequently described as a circle with a radius of prescribed distance within which no unspecified activity should occur. The shape and position of the RPA can be modified by an Arboriculturalist to meet the individual site constraints according to the likely distribution of the tree roots. Intrusion into the RPA can take place only where the ground is adequately protected in accordance with the requirements of section 7 of the BS.

Table 2 – Calculating the RPA
(BS 5837:2012 – extract)

Number of stems	Calculation
Single stem Tree	$\left[\text{RPA(m5)} = \frac{\text{Stem diameter (mm)}}{1000}\right] @1.5\text{m} \times 12 \quad \times 3.142$
Trees with 2 to 5 stems	$(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 \ldots + (\text{stem diameter 5})^2$
Trees with more than 5 stems	$(\text{mean stem diameter})^2 \times \text{number of stems}$
NOTE The 12x multiplier is based on NJUG 10 (9) and published work by Matheny	

4.0 Survey Codes

NO: Tree number on survey plan

SPECIES: Common/English name

HEIGHT: Height in meters

STEM DIAMETER: In millimetres measured at 1.5m above ground level

BRANCH SPREAD: In meters taken at the four cardinal points (N.E.S.W.)

HEIGHT OF CROWN: Clearance above ground level in meters

AGE CLASS:

Y	Young
SM	Middle aged
M	Mature
OM	Over mature
V	Veteran
D	Dead

PHYSICAL CONDITION:

G	Good
F	Fair
P	Poor
D	Dead

STRUCTURAL CONDITION:

Presence of any decay or physical defect

PRELIMINARY RECCOMENDATIONS:

i.e. further investigation, aerial inspection, decay detection, wildlife study.

ESTIMATED REMAINING CONTRIBUTION IN YEARS:

EG: less than 10, 10 to 20, 20 to 40, and 40+.
This is a subjective evaluation only.

CATEGORY GRADING:

See table in appendix for full explanation.

Code U	Trees in such a condition they Cannot realistically be retained	Dark Green
Code A	High Quality Category	GREEN
Code B	Moderate Category	BLUE
Code C	Low Category	GREY

V.Cainey BSc

28th January 2026