RMTTree Consultancy Ltd

36 Chetwode Place, Aldershot, Hants, GU12 4BS – Email: rmttreeconsultancy@gmail.com
Tel: 07921 313967

BS5837:2012
Arboricultural Survey

Site Address:
5 High Gardens
Holly Bank Road
Hook Heath
Woking
GU22 0JN

Robert Toll
HND Urban Forestry - ND Forestry - MArborA

Ref: RMT882
Site inspection date: 1st August 2023
Date survey published: 18th August 2023
Prepared for Jason Stephens

Arboricultural Association
Professional Member
PRO2239

Contents

1 Instructions

1.1 I was instructed by the property owner Jason Stephens on the 11th July 2023 to undertake a survey of trees that are on or adjacent to 5 High Gardens, Holly Bank Road, Hook Heath, Woking, GU22 0JN in accordance with *British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations*.

2 Introduction

Site Description

2.1 The site is a residential property with a house, detached garage and paved driveway located in the southern half of the site. Centrally and to the south-east of the house is a grassed front garden. To the north, east and south of the house and garage is a rear garden. Adjacent to the rear elevation is a paved patio.

Image 1 – 5 High Gardens, Holly Bank Road, Hook Heath, Woking, GU22 0JN is shown by an indicative yellow line

Image courtesy of Google Map Data © 2023

Limitations

2.2 I carried out the survey from ground level with the aid of a Bosch GLM 120 C Professional Laser Measure to measure distances, a Nikon Forestry Pro height measurer and diameter tape.

2.3 Prior to visiting the property I was not supplied with a topographical survey.

2.4 I have annotated the trees and groups T1 – G9 onto the plans to the best of my ability. I did this by taking measurements from known site features annotated on the ordnance survey drawing and plotting the trees and groups accordingly.

2.5 I advise that topographical survey is carried out to accurately plot features in including trees.

2.6 All measurements taken to calculate root protection areas and canopy spreads have been measured wherever possible. Where it has not been possible to access certain areas, dimensions have been estimated.

2.7 This report does not constitute a safety survey of the trees included within it. It is advised that if there are concerns regarding the risk posed by trees to persons and property then a tree condition inspection should be commissioned.

Legal Restrictions

2.8 I have not contacted the local planning authority (LPA) directly to ascertain whether the trees on or adjacent to the site are protected by Tree Preservation Orders (TPO) or if they are within a Conservation Order.

2.9 On the 18th August 2023 I carried out a check on the Woking Borough Council online protected tree maps. They indicate that trees and groups T1 – G9 are protected by TPO reference 626/0076/1964

2.10 Trees protected by a TPO or Conservation Area benefit from statutory protection and no work can be carried out to them (including cutting roots, branches or felling) without the written consent of the LPA. In the event that planning permission is granted and trees are shown as removed or requiring works to facilitate development then this overrides the protection afforded by a TPO or Conservation Area. The removal of deadwood, the removal of dead trees or works to trees that are urgently necessary to remove an immediate risk of serious harm, can be carried out under exemption and without the submission of a formal application.

2.11 It is an offence under the Wildlife and Countryside Act 1981 and the Rights of Way Act 2000 to disturb nesting birds or roosting/breeding bats. When carrying out tree work care should be taken to avoid disturbance. If necessary, advice should be taken to avoid disturbance. If necessary, advice may need to be sought from a qualified Ecologist.

Tree survey

2.12 I visited the site on 1st August 2023 and surveyed a total of seven trees and two groups. The surveyed trees and groups have been categorised in accordance with British Standard 5837:2012 as shown at **Appendix 1** and the tree survey schedule can be seen at **Appendix 2**.

2.13 At the time of my survey one tree was considered to be category A and high value and six trees and one group were considered to be category B and moderate value. The remaining group was considered to be category C and low value.

Table 1 – Tree categorisations as BS5837:2012

Category A	Category B	Category C	Category U
T5	T1, T2, G3, T4, T6, T7, T8	G9	-

2.14 It was noted that there are other trees that are located on or adjacent to 5 High Gardens, Holly Bank Road, Hook Heath, Woking, GU22 0JN but they have not been included within this report. This is because it is deemed that they are:

- far enough from the area proposed for development that they will not be affected;
- they will be adequately protected by the tree protection measures afforded to the surveyed trees;
- they are specimens of limited significance;

Measurements

2.15 Wherever possible all diameter measurements have been measured using a diameter tape at a height of 1.5m. Where it has not been possible to access the stems at 1.5m above ground level due to such things as dense Ivy, trees being offsite or the tree being inaccessible, an estimated measurement has been taken. All estimated measurements include the word “estimated” or the abbreviation “est” in the tree survey schedule shown at **Appendix 2**.

2.16 In some instances the diameter measurement has been taken at a height other than 1.5m due to such things as low fork unions. Where this has occurred, I have detailed this in the tree survey schedule shown at **Appendix 2**.

Canopy spreads

2.17 The canopy spreads have been measured from ground level using a laser measure and visual assessment The canopy spreads have annotated on the tree constraints plan and tree protection plan at **Appendices 3 and 4**.

Root protection area (RPA) definition

2.18 The RPA is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability and where the protection of the roots and soil structure are treated as a priority.

2.19 Section 4.6.2 of BS5837:2012 states the following:

The RPA of each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution.

(British Standard 5837:2012 – Trees in relation to design, demolition and construction – Recommendations – The British Standard Institute 2012).

2.20 The RPAs of trees T1 and T2 has been offset to demonstrate a more probable root morphologies as shown at **Appendix 3**. The RPAs of trees T1 and T2 are considered to have been influenced by the presence of the respective house and garage foundations. Foundations create a physical barrier that deflects roots so they grow parallel to the face of the foundation.

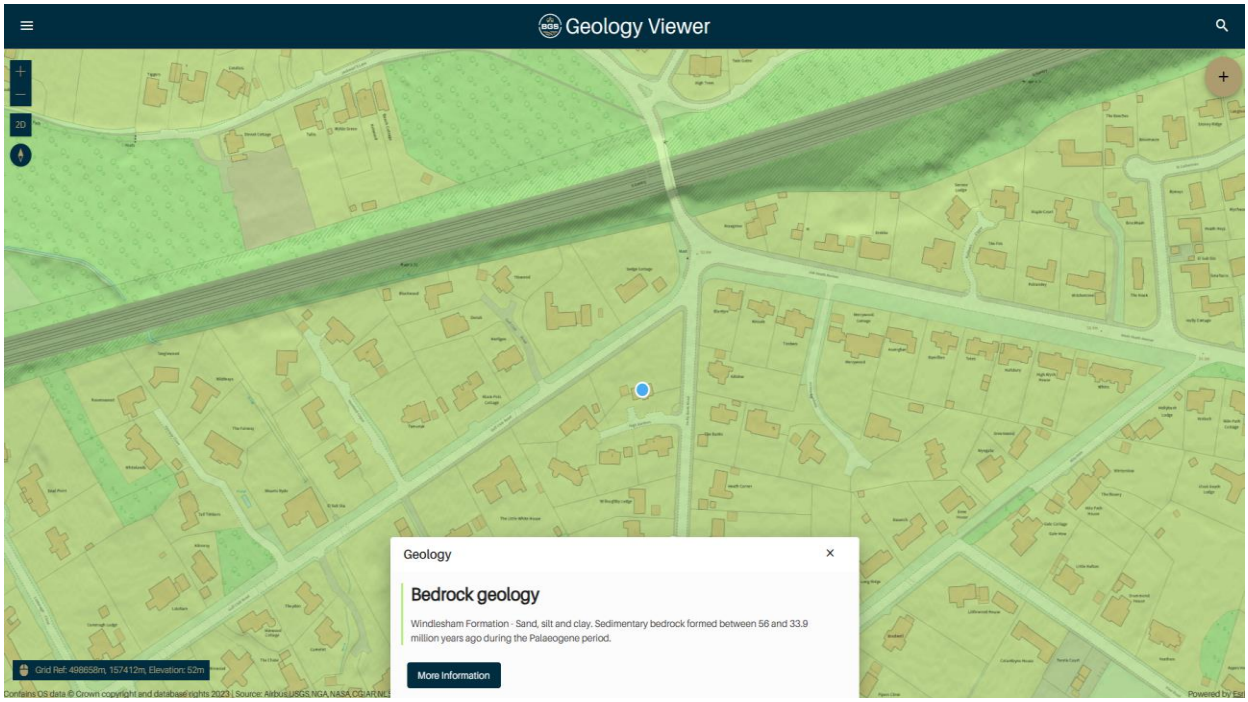
2.21 *I have considered the effect of existing roads on the morphology of RPAs of T1, T2, T4 and T8. On this occasion the proximity of these mature trees to the road leads me to conclude that there will be roots radiating to provide stability and these will result in result in fibrous root development under the adjacent roads.*

3 Soil Assessment

3.1 The soil assessment is necessary to establish whether the soil on the proposal site is shrinkable. Tree roots and those of other vegetation have the potential to extract moisture from shrinkable soils such as clay, making the soil expand and contract as the soil desiccates and re-hydrates. Where new structures are proposed on shrinkable soils and close to trees, foundations will need to be sufficiently deepened or able to withstand to minimise the risk of indirect damage to foundations.

3.2 No soil assessments have been undertaken however a check on the Geology of Britain Viewer gives the soil type as Windlesham Formation - Sand, silt and clay. This means that the underlying soil is shrinkable and as such foundations will need to be deepened because of the risk indirect damage by clay shrinkage. If further assessments are undertaken that show that there is shrinkable clay, then foundations must be designed in accordance with the guidance within the National House Building Council's Standards Chapter 4.2 Building near trees or similar guidance.

Figure 2 – The Geology of Britain Viewer 1:50,000 scale indicates that the underlying geology at 5 High Gardens, Holly Bank Road, Hook Heath, Woking, GU22 0JN is shrinkable Windlesham Formation - Sand, silt and clay.



RMT Tree Consultancy Ltd - email: rmttreeconsultancy@gmail.com - Tel: 07921 313967

Appendix 1 – British Standard 5837:2012 tree categorisation chart

TREES UNSUITABLE FOR RETENTION				
CATEGORY AND DEFINITIONS	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, 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; see **4.5 of BS5837:2012***			RED RGB 127.000.000
TREES TO BE CONSIDERED FOR RETENTION				
CATEGORY AND DEFINITIONS	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 those that are essential components of groups or 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 RGB 000.255.000
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and 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 designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract 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 RGB 000.000.255
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	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 collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	GREY RGB 091.091.091

Appendix 2 - Tree survey schedule

Tree No.	Species	Height (m)	Trunk dia. at 1.5m	Canopy Spread	Crown Height (m)	Age Class	Physiological Condition	Structural Condition	Comments/ Recommendations	Useful Life Expect	BS5837 grade	Root Protection Area	
												Radius	RPA Area
T1	Red Oak *(Quercus rubra)*	27m	1148mm	N3m E10m S12m W14m	N11m S3m	Mature	Good	Fair	Co-dominant form with recently removed adjacent tree. Crown has been previously reduced.	20+	B	13.8m	596.2m²
T2	Red Oak *(Quercus rubra)*	25m	1352mm	N12m NE18m E15m S13m W12m	3m	Mature	Good	Good	Some areas of minor distal dieback predominantly in the upper central and northern crowns.	20+	B	15.0m	706.9m²
G3	Scots Pine *(Pinus sylvestris)* (x4)	25m	716mm	N4m E4m S4m W4m	9m	Mature	Good	Good		20+	B	8.6m	231.9m²
T4	Scots Pine *(Pinus sylvestris)*	25m	753mm	N3.5m E4m S4m W4m	12m	Mature	Good	Fair	Vegetation impedes survey. Several vertical limbs and stems at 6m agl and above.	20+	B	9.0m	256.5m²
T5	Copper Beech *(Fagus sylvatica 'Purpurea')*	28m	757mm	N6m E6m S7.5m W6m	3m	Mature	Good	Good		40+	A	9.1m	259.2m²
T6	Scots Pine *(Pinus sylvestris)*	21m	612mm	N3.5m E3.5m S6m W1.5m	7m	Mature	Good	Fair	Co-dominant form with adjacent tree. Co-dominant side branch historically removed at c2m agl.	20+	B	7.3m	169.4m²
T7	Scots Pine *(Pinus sylvestris)*	20m	559mm	N3.5m E3m S2m W3.5m	7m	Mature	Good	Fair	Co-dominant form with adjacent tree.	20+	B	6.7m	141.4m²

Tree No.	Species	Height (m)	Trunk dia. at 1.5m	Canopy Spread	Crown Height (m)	Age Class	Physiological Condition	Structural Condition	Comments/ Recommendations	Useful Life Expect	BS5837 grade	Root Protection Area	
												Radius	RPA Area
T8	Common Oak *(Quercus robur)*	24m	1046mm	N4m E10m S9m W7.5m NW6m	7m	Mature	Good	Fair	Crown biased to the north and east. Main stem leans to south by 30 degrees and straightens to vertical at 10m agl.	20+	B	12.6m	495.0m²
G9	Scots Pine *(Pinus sylvestris)* (x2)	19m	534mm	N3m E3m S3m W3m	12m	Mature	Good	Fair	Unremarkable group. Etiolated specimens.	10+	C	6.4m	129.0m²

Appendix 3 – Tree Constraints Plan – RMT882 – TCP

Tree constraints plan (TCP) showing retained trees, tree numbers, root protection areas (magenta circles/polygons) and canopy spreads (green lines). The plan has been provided separately as a PDF at a scale of 1: 250 @ A2.

RMTTree Consultancy Ltd

Key

Address: 5 High Gardens, Holly Bank Road, Hook Heath, Woking, GU22 0JN

Title	Tree Constraints Plan	Root Protection Area				
Drawing no.	RMT882 - TCP	Canopy Spreads				
Scale	1:250 @ A2					
Date	August 2023					

N

RMT Tree Consultancy Ltd - email: rmttreeconsultancy@gmail.com - Tel: 07921 313967

Appendix 4 – Qualifications and experience

Robert Toll has been working with trees since 2004 when he completed his studies.

In 2000 he began his studies at Riseholme College, Lincoln where achieved a pass with merit in Forestry at National Diploma level. In 2002 he attended Moulton College in Northampton where he gained a Level Five Higher National Diploma in Urban Forestry with merit.

In 2004 Robert began work as a temporary tree inspector at Northampton Borough Council, undertaking inspections of trees in response to enquiries from the public. After 4 months Robert took up a permanent tree inspector role at Coventry City Council which predominantly involved undertaking safety inspections of trees on school sites.

In 2006 Robert moved to Warwick District Council to take up a temporary post of Tree Protection Officer which involved reviewing old area tree preservation orders and identifying those trees which were considered worthy of protection under new specific orders. He also streamlined the council procedure for making new tree preservations orders, cutting the time from making to serving from up to 2 weeks to within 2 hours.

In 2008 Robert moved to Hart District Council, Hampshire to take up the role of Tree Officer within the planning department. This role included determining works trees applications, commenting on planning proposals, liaising with the public and providing arboricultural advice to other departments within the Council.

Between 2014 and 2016 Robert took up the role of Tree Officer at Elmbridge Borough Council, Surrey, once again carrying out tasks such as determining works trees applications, commenting on planning proposals and liaising with the public. While at Elmbridge Borough Council he passed the Arboricultural Association's Professional Tree Inspection course.

Robert is a professional member of the Arboricultural Association.