

ARBORICULTURAL REPORT & Impact Assessment to BS 5837:2012 at:

Hillsborough House, Boat Lane, Hoveringham, Nottingham, Nottinghamshire NG14 7JP

> Prepared for: GraceMachin 2 Hollowstone, The Lace Market, Nottingham, Nottinghamshire NG1 1JH

Date: December 2020

Reference: AWA3476



Office: 0114 272 1124 Mobile: 0776 631 0880 Email: info@awatrees.com Website: awatrees.com Union Forge, 27 Mowbray Street, Sheffield, S3 &EN. AWA Tree Consultants Limited. Company No. &520123. Registered in England & Wales.



Contents

1.	Introduction	on3										
	1.1	Instructions and Brief										
	1.2	Survey Details										
2.	The Site	4										
	2.1	Location and Description4										
3.	The Trees.	5										
	3.1	Legal5										
	3.2	Tree Survey Results										
4.	Arboricult	ural Impact Assessment7										
	4.1	Proposed New Development										
	4.2	Direct Impacts										
	4.3	Indirect Impacts										
	4.4	Suitable Mitigation										
	4.5	Protection of the Retained Trees										
5.	Signature	9										
Ap	pendix 1:	Authors Qualifications & Experience11										
Aŗ	pendix 2:	Survey Methodology and Limitations of Report12										
Ap	Appendix 3: Explanation of Tree Descriptions											
Aŗ	opendix 4:	Iree Data14										
Ap	opendix 5:	Tree Constraints Plan15										
Aŗ	Appendix 6: Tree Impacts Plan16											



1. Introduction

1.1 Instructions and Brief

- 1.1.1 We have been instructed by GraceMachin to visit the site and prepare our findings in a report.
- 1.1.2 The report is required in accordance with BS 5837:2012 Trees in relation to design, demolition and construction Recommendations, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Survey Details

- 1.2.1 The survey took place during November 2020.
- 1.2.2 The trees were surveyed visually from the ground using "Visual Tree Assessment" techniques and in accordance with the guiding principles of British Standard 5837:2012.
- 1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 1.2.4 We have been provided with a topographical survey with tree positions plotted. Where surveyed trees were not included on the topographical survey the tree positions were plotted using enhanced GPS technology (1-2m accuracy) and laser distance measurer.
- 1.2.5 This report has been prepared by Mr Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principle and Director of AWA Tree Consultants Ltd. The tree survey data collection was carried out by Mr James Brown BSc (Hons) Arboriculture, MArborA, PTI (Lantra) Arboriculturist at AWA Tree Consultants Ltd.
- 1.2.6 Full qualifications and experience are included within Appendix 1. Explanatory details regarding the survey methodology are included within Appendix 2. A full explanation of the tree data can be found at Appendix 3. Full details of all the trees surveyed are found in Appendix 4. For tree locations refer to the Tree Constraints Plan at Appendix 5 and for detail of the impacts of the new development refer to the Tree Impacts Plan at Appendix 6.



2. The Site

2.1 Location and Description

- 2.1.1 The site is located on Boat Lane in Hoveringham, Nottinghamshire and comprises part of the garden of a detached residential property. Lodgefield Lane is situated to the east of the site and Boat Lane is situated to the south.
- 2.1.2 The approximate area of the survey is highlighted in the image below (Google Earth, 2018):





3. The Trees

3.1 Legal

- 3.1.1 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a check should be made with the Local Planning Authority to see if the trees are covered by a Tree Preservation Order or if they are within a Conservation Area. If either applies, then statutory permission is required before any works can take place (unless such works are approved by planning permission).
- 3.1.2 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.
- 3.1.3 All tree work should be carried out according to British Standard 3998:2010 Tree Work - Recommendations.

3.2 Tree Survey Results

- 3.2.1 The tree survey revealed 6 items of woody vegetation, comprised of 5 individual trees and 1 hedge.
- 3.2.2 2 trees are retention category 'B', and 3 trees and 1 hedge are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).
- 3.2.3 The most significant trees are the Pine T2 and Lime T4. Both are large, relatively prominent trees which provide moderate amenity value to the site and the surrounding area.
- 3.2.4 The Pine T2 has been previously heavily pruned in the past, with numerous significant pruning wounds and stubs to its stem and lower crown. The pruning works have likely being undertaken primarily to clear the adjacent telephone line to the east of the tree. There are minor bark wounds and bleeds to the eastern side of the tree's stem, but with no visible decay.
- 3.2.5 The Lime T4 also appears to have been pruned in the past, with numerous minor pruning wounds throughout its crown from previous crown reduction works, and occasional minor old pruning wounds to its stem from removed epicormic growths. Dense epicormic growths and Ivy prevented a detailed inspection of the base of tree.
- 3.2.6 The Hollies T1 and T3 are of low arboricultural value and should not pose



significant constraints on development at the site. The trees have numerous pruning wounds with occasional minor cavities to their stems and lower crown from previous crown lifting works. The main stems of the Holly T3 are rubbing and have a partially included bark union at their base.

- 3.2.7 The Cypress T5 is in good overall condition with no visual defects but is of low arboricultural value.
- 3.2.8 The Beech hedge G6 appears to have only recently been planted and is of very low value. The hedge appears to have been regularly managed from the lane to the east.
- 3.2.9 The tree Root Protection Area (RPA) for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots' actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.
- 3.2.10 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of the low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

Arboricultural Report at: Hillsborough House, Boat Lane, Hoveringham Ref: AWA3476



4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a new access drive at the site. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

4.2 Direct Impacts

- 4.2.1 From assessing the new development proposals, 2 trees will require removal to facilitate the development as they are situated in the footprint of the proposed access drive.
- 4.2.2 The trees that are required to be removed are the Hollies T1 and T3, they are of low value and their removal will have little negative impact.

4.3 Indirect Impacts

- 4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendix 5 and 6, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 4.3.2 Potentially damaging activities are proposed in the vicinity of retained trees. The proposed new access drive is situated within the RPA of retained trees T2 and T4. The construction of hard surfaces within the RPA can have negative impacts on tree roots, however, the potential negative impacts can be overcome or minimised by employing a `no-dig' type construction method with a porous final surface.
- 4.3.3 New entrance gates are proposed within the RPA of retained tree T2, however, the encroachment is very minor, and the retained tree should remain largely unaffected by the works, provided care is taken during construction.
- 4.3.4 The proposed new boundary fencing within the RPA of retained trees T2 and T4 should not significantly adversely impact on the health or future condition of the trees, provided posts and panels type footings are used as opposed to strip footings, with the holes for the posts dug by hand, avoiding significant tree roots where possible.

4.4 Suitable Mitigation

4.4.1 The development of the site provides an excellent opportunity to



undertake new tree planting throughout the site as part of a soft landscaping scheme. As such, suitable new tree planting has the potential to mitigate for the required tree removals and, in the longer term, has the potential to improve the sites tree cover.

4.5 **Protection of the Retained Trees**

- 4.5.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.5.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.



5. Signature

I trust this report provides all the required information.

Signed

Adam Winson.

.....

Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, ACIEEM.

14th December 2020

AWA Tree Consultants Limited Union Forge 27 Mowbray Street Sheffield S3 8EN

www.awatrees.com



Office: 0114 272 1124 Mobile: 0776 631 0880 Email: info@awatrees.com Website: awatrees.com Union Forge, 27 Mowbray Street, Sheffield, S3 &EN. AWA Tree Consultants Limited. Company No. 8520123. Registered in England & Wales.





Appendix 1: Authors Qualifications and Experience Appendix 2: Survey Methodology and Limitations Appendix 3: Explanation of Tree Descriptions Appendix 4: Tree Data Appendix 5: Tree Constraints Plan Appendix 6: Tree Impacts Plan



Appendix 1: Authors Qualifications & Experience

Mr Adam Winson Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years, and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the Crown Court.

Mr James Brown BSc (Hons) Arboriculture, MArborA, PTI (Lantra)

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James previously worked in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

Mr Dave Farmer FdSc Arboriculture, MArborA, PTI (Lantra)

Dave has a Foundation Degree in Arboriculture (with Distinction) and is qualified in Professional Tree Inspection. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. Dave has many years of experience within the tree care profession, including lecturing in arboriculture. His work focuses on diagnosing potential tree risk problems, and recommending appropriate treatments and work programmes.

Dr Felicity Stout Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA. PTI (Lantra)

Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced Social Forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and has published in The Arboricultural Journal on this subject.

Mr Tom Readman Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA

Tom joined AWA from his previous role as a tree risk surveyor with Harrogate Borough Council, where he undertook tree risk surveys at a range of sites and prescribed suitable works. Tom also has extensive previous experience as a climbing arborist. Tom achieved at Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture and is now completing a Foundation Degree in Arboriculture, while working at AWA. Tom's work focuses on tree risk surveys and accurate tree data collection for development projects to BS 5837:2012.



Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations.* The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS 5837:2012 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - `*Tree Work: Recommendations'*.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.



Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked in green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees for removal. These trees are in such a condition that any existing value would be lost within 10 years.

	Tree Species			Measurements					Cro	own ((m)		Tree Condition							Va	lue	Management
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	s	w	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T1	Holly	llex aquifolium	Semi- mature	9	1	270	No	3.5	3	2	2	2.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Minor cavities. Minor decay. Stubs. Epicormic growths	Old pruning wounds. Minor snapouts. Stubs	Numerous minor old pruning wounds and stubs to stem and lower crown from previous crown lifting works. Occasional minor decayed cavities in old pruning wounds. Old pruning wounds at base from removed epicormic growths. Crown overhangs outbuilding.	Fair	Fair	20 to 40 yrs	Low	С	Removal required to facilitate development
Τ2	Pine	Pinus nigra	Mature	17	1	720	No	6.5	4	2	4.5	2	No visual defects	Single stemmed. Slight lean east. Old pruning wounds. Bark damage	Old pruning wounds. Minor deadwood. Stubs. Bark damage	Very slight lean east. Numerous minor old pruning wounds to stem. Numerous significant old pruning wounds and stubs to crown, predominantly from crown reduction works from south and east, likely to clear adjacent telephone line. Main stem previously topped. Bark wounds and bleeds to south eastern side of stem near base, but no visible decay.	Fair	Fair	>40 yrs	Moderate	В	No works required



	Tree Species			I	Measu	rement	s	Crown (m)					Tree Condition							Va	lue	Management
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	s	w	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T3	Holly	llex aquifolium	Early- mature	11	2	340, 250	No	2.5	4	3	4	3.5	No visual defects	Twin stemmed at 0.5m. Vertical. Old pruning wounds. Stubs. Minor cavities. Minor decay. Rubbing stems. Bark damage	Old pruning wounds. Stubs. Minor snapouts. Rubbing limbs. Minor deadwood	Numerous minor old pruning wounds and stubs to stem and lower crown from previous crown lifting works. Occasional minor decayed cavities in old pruning wounds. Old pruning wounds. Old pruning wounds. Old pruning wounds. A from removed epicormic growths. Partially included bark union at junction of two main stems at 0.5m. Main stems rub.	Fair	Fair	20 to 40 yrs	Low	С	Removal required to facilitate development
T4	Lime	Tilia sp.	Early- mature	13	1	530	No	4	3.5	3.5	3.5	3.5	No visual defects	Single stemmed. Vertical. Epicormic growths. Ivy covered. Old pruning wounds	Minor deadwood. Old pruning wounds	Dense epicormic growths and Ivy prevented detailed inspection of base. Previous minor crown redcution works have been undertaken. Numerous minor old pruning wounds to stem from removed epicormic growths.	Fair	Fair	>40 yrs	Moderate	в	No works required
Т5	Cypress	Cupressus sp.	Semi- mature	7.5	2	100, 160	No	0	1	1	1	1	No visual defects	Twin stemmed at base. Vertical. Tight unions	Normal		Good	Good	>40 yrs	Low	с	No works required
G6	Beech	Fagus sylvatica	Young	1	10+	20	No	0		See	plan		No visual defects	Single and Multiple stemmed. Old pruning wounds	Old pruning wounds	Small Beech hedge bordering fence	Good	Good	>40 yrs	Low	С	No works required











