ARBORICULTURAL SAFETY SURVEY
at:
Darley Cliffe Hall
Kingswell Road
Barnsley
South Yorkshire
S70 4AG

Client:
Mark Ludlam

Client Address:
Spelbrook
19 Peel Moat Road
Heaton Moor
Stockport
SK4 4PL

JCA Ref:
15687/DK

JCA Limited
Arboricultural & Ecological Consultants

Contents

1. Introduction

1.1 Purpose of the Report

1.1.1 This report details the findings of an expert arboricultural safety survey and risk assessment of the trees at **Darley Cliffe Hall, Kingswell Road, Barnsley, South Yorkshire, S70 4AG**.

1.1.2 This report details the relevant arboricultural information which is required to inform the owners of the condition of their trees and provides specific management actions that, once undertaken, demonstrate that a duty of care has been taken with regards to tree management.

1.2 Terms of Reference

1.2.1 We are instructed by **Mark Ludlam**, to visit the site and prepare my findings in a report.

1.2.2 For this purpose, we have drafted a plan of the site.

1.3 Scope of the Report

1.3.1 This report, and any recommendations made is compiled in accordance with current industry standards and best arboricultural practice.

1.3.2 One tree has been inspected in order to assess and, if necessary, reduce its potential risk of harm.

1.4 Survey Details

1.4.1 The survey was conducted during the month of January 2020 by Dan Kemp *FdSc (Arboriculture)*.

1.4.2 Inspection was made visually from ground level, in order to assess the trees condition and potential to cause harm to property and management recommendations have been made.

1.4.3 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible measurements were estimated.

2. Explanation of Tree Descriptions

2.1 Measurements

2.1.1 *HEIGHT* of the tree is measured from the stem base to the top of the canopy.

2.1.2 *CROWN HEIGHT* is an indication of the height at which the main crown begins above ground level.

2.1.3 *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, just above the root buttress.

2.1.4 *CROWN SPREAD* is a measurement of the overall width of the crown, at its widest point.

2.2 Evaluations

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

2.2.2 *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.

2.2.3 *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.

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

2.2.5 *TARGET VALUE* is classed as high, moderate or low. This is an indication of the likelihood of persons or objects, the latter having variable significance, being within falling distance of a tree or its branches.

2.2.6 *PRIORITY*. A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

2.2.7 *RE-INSPECTION TIMING* is classed as; 6 months (0.5), 1 year (1), 2 years (2), or within 5 years (5). This is an indication of the timescale in which a tree should be re-inspected; a specific time of year for the inspection may also be detailed in the recommendations.

2.3 Safety Categories

2.3.1 *SAFETY CATEGORY* values for the trees are as follows:

2.3.2 ***A (marked in green on the plan) = posing no immediate risk: no action required.***
These trees are considered to be in an acceptable condition at present and require no action at this time. However, these trees may require future management in order to ensure that they remain safe.

2.3.3 ***B (marked in light blue on the plan) = posing a potential risk: action required.***
These trees pose a potential risk and therefore require active management. This may include remedial pruning (crown cleaning) or target management.

Such trees may also require a further, more detailed, investigation (such as a climbing inspection or a decay detection analysis) or may require future monitoring (re-surveying and re-assessing) at a timescale specified within this report.

2.3.4 ***R (marked in red on the plan) = trees to be removed.***
These trees require removal usually because they are dead, dying or dangerous and are therefore potentially hazardous. Such trees shall usually require removal as a matter of high priority.

Trees may also require removal in order to prevent damage occurring to existing structures or buildings (where trees are growing within close proximity or are in actual contact) or in order to benefit adjacent trees (where trees are growing in direct competition, the poorer of the two trees may be removed). Such work is usually of a lower priority.

3. Status of the Trees

3.1 A check was made on 15 January 2020 with Barnsley Council.

3.2 We are informed that there is a Group Tree Preservation Order (TPO) in force on this site.

3.3 Before any work is organised, an application form must be submitted to the Local Authority, outlining all the proposed works along with suitable justification. A waiting period of eight weeks is then required, after which time the council will either give consent to the works, refuse the works or grant a conditional consent.

3.4 ***No work must be done to any trees until permission has been granted.***

4. Tree Descriptions and Recommendations

4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**. Please refer also to the site plan at **Appendix 5** for tree locations and **Section 2** for a full explanation of the tables.

5. Discussion

5.1 One mature Copper Beech was surveyed and was found to be in a good structural and physiological condition. However, cracks in a Grade 2 listed building (wall) are visible on both the north and south sides of the wall adjacent to the main stem of the tree.

The secondary thickening of the tree's root system is causing direct structural damage to the wall and therefore the tree has been recommended for removal so the wall may be repaired and to avoid future damage and repair works.

5.2 Please see the observations at **Appendix 1** for further discussion relating to the reasons for tree removal and the photographic evidence at **Appendix 6**.

5.3 We would be happy to assist should you have any queries regarding the points raised above.

Appendices

Appendix 1: Tree Descriptions and Recommendations

Tree Ref:	Age Species *Latin Name*	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
T 1	Mature Copper Beech *Fagus sylvatica* 'Atropurpurea'	20+	2 to 3 #	76	20 #	Vertical main stem to 4 to 5 metres with widely spreading crown. Crown tips nearly touching subject property. Main stem with several old branch wounds, one to north side with open wound. minor bark canker to 1 metre from ground level on north and east sides of main stem. Bark inclusions near base of main stem possible indications of original graft union. *Cryptococcus fagisugi* Beech bark scale insect exudations in fine longitudinal bark lesions of lower main stem and beneath several main branch unions in lower crown area. Damage in the form of cracking has occurred to a reportedly Grade 2 listed building (wall). The adjacent brick boundary wall is cracked on both the north and south sides. The crack damage has been caused by secondary thickening of the buttress/lateral root growth of the tree **T1** and will become more severe over the forth coming years. It is requested that the tree be removed in order that repairs to the damaged wall may be undertaken and to prevent damage to the wall continuing. Please see the attached photographs at **Appendix 6** for images of the damage observed at the property.	Good	Good	40+	MOD	Remove - fell to ground level and treat stump with a view to preventing regrowth.	MOD	R	N/A

Appendix 2: Explanation of Terms & Recommended Clearances

Canker Disease damaged area of a tree, usually caused by fungus or bacteria.

Co-dominant Stem A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.

Crown lift The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.

Crown reduce The reduction of a tree's height or spread while preserving its natural shape.

Crown thin The removal of some of the density of a tree's crown**,** usually 5-25% allowing more light through its canopy and reducing wind resistance.

Deadwood The removal of all dead, dying and diseased branches from a tree.

Dieback Where branches are beginning to show signs of death usually at the tips in the crown.

Epicormic shoots Small branches that grow in uncharacteristic clusters around the base or the stem of a tree, usually as a result of bad pruning or some other stress factor.

Included bark Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.

Pollarding A method of tree management in which the main trunk of the tree is cut at about 4m, and the resulting branches are then cropped on a regular basis.

Remedial pruning The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.

Recommended Clearances

JCA recommend the following distances are maintained:

Height for pedestrian access:	No less than 2.5m
Height for vehicular access:	No less then 4m for a minor road
	No less than 6m for major roads or where buses will pass.
Distance from overhead cables:	No less than 2m
Distance from building or other structure:	No less than 2m
Distance from lamppost or sign	Sufficient to not impede visibility for 2 years.

Appendix 3: Author Qualifications

Principal Consultant and Managing Director

Jonathan Cocking *F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor.* Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Director

Toby Thwaites *BSc (Hons), HND (Arboriculture), MArborA.*. Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Consulting Staff: Arboriculture

Toby Parsons *Cert. Arb. (RFS), Tech. Cert. (Arbor.A).* Toby joined JCA after spending 6 years working as a senior climber for various Arboricultural contractors in the East Midlands and the South-West. He has gained the Level 2 Certificate in Arboriculture (RFS) and an Arboricultural Technicians Certificate. Toby is LANTRA certified in Professional Tree Inspection.

Andrew Bussey. Andrew joined JCA having spent 12 years working as a tree surgeon for various private companies and a Local Authority. He has various NPTC qualifications, is QTRA qualified and is currently studying for his Arboricultural Technicians Certificate.

Phil Humeniuk *FdSc (Arboriculture).* Phil joined JCA having spent 3 years working for various tree surgery companies and as a Tree Officer for a Local Authority. He also has several years experience working as a consultant both for JCA and for another consultancy. Phil obtained his foundation degree in Arboriculture at the University of Central Lancashire and has various NPTC's and is LANTRA certified in Professional Tree Inspection.

Emily Wilde *FdSc (Arboriculture).* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

Mick Eltringham *ND (Forestry).* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

Charles Cocking *FdSc (Arboriculture), MArborA.* Charles joined JCA in January 2014 as an Apprentice having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York, and is now part of our qualified Arboricultural consultancy team.

Dan Kemp *FdSc (Arboriculture).* Dan joined JCA with nearly 30 years' experience in arboriculture. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

Consulting Staff: Ecology

Amanda Beck *Cert He in Field Ecology.* Amanda joined JCA's ecology department in 2018, previously working as a freelance Ecological Consultant in North Wales and Liverpool and as a trainee Ecologist in South Wales. Amanda has extensive practical experience in surveying for botanical, amphibians, terrestrial and marine mammals along with invertebrate research work. She has practical experience in habitat management and creation and is a CIEEM student member.

Joe Earnshaw *BSc (Hons), MSc Biodiversity and Conservation, Student CIEEM Member*. Joe joined JCA's ecology department in 2018. He has a bachelor degree in Animal Management, from Askham Bryan College, York and has further obtained an MSc in Biodiversity and Conservation from the University of Leeds. Joe has expertise in aquatic invasive species identification/control and has practical experience in artificial badger sett and wetland creation. Joe is a member of the West Yorkshire Bat Group and volunteers with the Rivers Trust as part of their river monitoring project.

Administrative Staff

Sue Guest Administrative Team Leader.
Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.
Simeon Haigh *BSc (Hons).* IT Director.
Lorraine Spink Administrative Assistant.
Lisa Hampson Marketing Manager.

Appendix 4: General Guidelines

A4.1 All work must be to BS 3998: 2010 - '*Recommendations for tree work'*.

A4.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors, and should be covered by adequate public liability insurance.

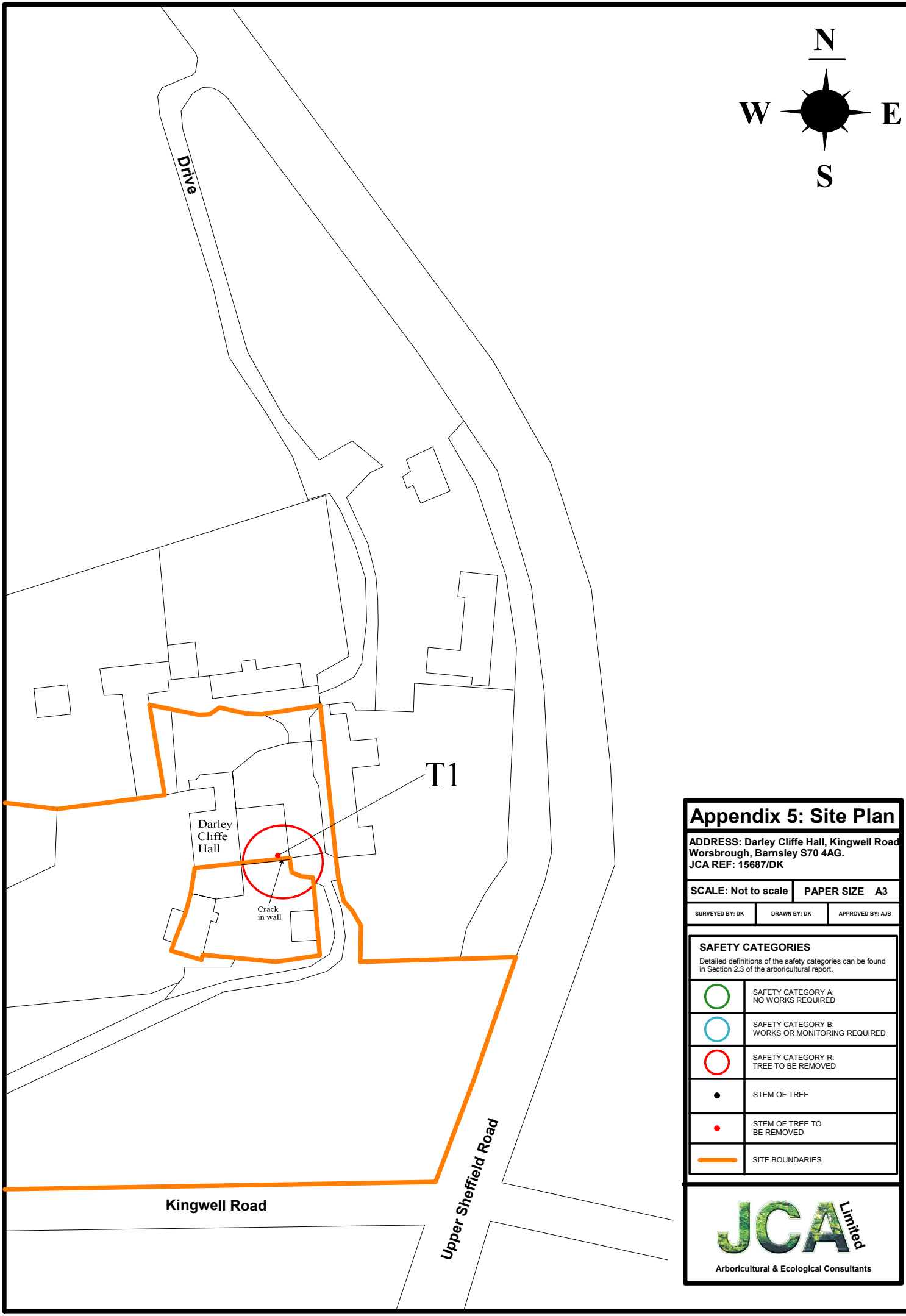
A4.3 This report is based upon a visual inspection. The consultant shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.

A4.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.

A4.5 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this report are carried out under his supervision and within his timescale.

A4.6 It is advisable to have trees inspected by an arboricultural consultant regularly. In this instance it is recommended that these inspections are made as per the recommended re-inspection timings at **Appendix 1**.

Appendix 5: Site Plan



Appendix 5: Site Plan

ADDRESS: Darley Cliffe Hall, Kingwell Road Worsbrough, Barnsley S70 4AG.
JCA REF: 15687/DK

SCALE: Not to scale	PAPER SIZE A3

SURVEYED BY: DK	DRAWN BY: DK	APPROVED BY: AJB

SAFETY CATEGORIES

Detailed definitions of the safety categories can be found in Section 2.3 of the arboricultural report.

	SAFETY CATEGORY A: NO WORKS REQUIRED
	SAFETY CATEGORY B: WORKS OR MONITORING REQUIRED
	SAFETY CATEGORY R: TREE TO BE REMOVED
	STEM OF TREE
	STEM OF TREE TO BE REMOVED
	SITE BOUNDARIES

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Appendix 6: Photographic Evidence

Photograph 1: Tree in relation to its surroundings.

Photograph 2: Crack in north side of Grade 2 listed wall (left image). Crack in south side of Grade 2 listed wall with historical repair work (right image).

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed

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Dan Kemp *FdSc (Arboriculture)*.

16th January 2020

For and on behalf of ***JCA Ltd***

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Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

HEAD QUARTERS:

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