

ARBORICULTURAL REPORT

at

Long Acre

Main Street

Peterborough

Cambridgeshire

PE8 5LN

Client:

Claims Consortium Group
on behalf of AA

Client Address:

Blackdown House
Culmhead Business Centre
Culmhead
Taunton
Somerset
TA3 7DY

Client Telephone:

Insured:

Mr and Mrs Martin

Claim Number:

SHAA01022064

JCA Ref:

21119/AJB

Client Ref:

AA-18880

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1. Introduction

1.1 Purpose of the Report

- 1.1.1 This arboricultural report is required by our client as part of an investigation into suspected soil shrinkage subsidence damage at Long Acre, Main Street, Peterborough, Cambridgeshire, PE8 5LN.

1.2 Terms of Reference

- 1.2.1 We are instructed by Claims Consortium Group to visit the site and carry out an arboricultural survey covering all vegetation within likely influencing distance of the subject property. It has been requested that we only consider vegetation management options for the purpose of this report. However, vegetation management work should only be carried out once all other possible causal factors have first been discounted.
- 1.2.2 Site investigation details are not available at this time. For the purpose of this report, an assumption has been made that the soils are shrinkable. If this is not found to be the case, the recommendations contained within this report may need to be altered.
- 1.2.3 We are to prepare our findings in a detailed report, making specific recommendations as to any arboricultural management which may be required.

1.3 Scope of the Report

- 1.3.1 The subject property is a two-storey, detached house.
- 1.3.2 Damage has occurred to the house.
- 1.3.3 The distance between the vegetation surveyed and the building is measured from the closest part of the property.

2. Survey Conditions and Methods

2.1 Date of Inspection and name of Inspector

2.1.1 The site was surveyed during July 2023 by Matt Large DipArb L4 (ABC)TechArborA.

2.2 Data Collection Methods and Explanations

2.2.1 The inspection was carried out at ground level using visual assessment of the tree canopy, stem and rooting area. No digging or drilling was carried out by JCA Ltd.

2.2.2 The measurements were made using instruments including clinometers for tree HEIGHT, diameter tapes for STEM DIAMETER (measured at 1.5m above ground level) and tape measures or electronic distometers for CROWN SPREAD and DISTANCE TO PROPERTY. Where this was not possible, measurements were estimated.

2.2.3 AGE CLASS and LIFE EXPECTANCY values are estimated based upon our knowledge of trees and the way they grow. No core sampling was carried out on this occasion.

2.2.4 The term INFLUENCING DISTANCE as used in this report is guided from the NHBC's 'zones of influence' formula. It is an estimation of the potential of a tree or a shrub to cause damage to the subject property after due consideration of many factors including soil characteristics, specimen size, vigour, species, likely water uptake and distance from the property.

2.2.5 'NHBC WATER DEMAND' (low, moderate or high) are categories originated by the National House Building Council. The concept was designed to be used as an aid for determining the correct foundation depths for new build situations where there are existing trees present.

3. Ground Investigation, Soil & Root Analysis

3.1 Introduction

- 3.1.1 Investigations at the subject site into the foundation depths, soil and root types have not been provided at this time. The recommendations in this report are, therefore, based on the assumption that the soils contain clay, and are of moderate or high shrinkability.
- 3.1.2 Trees influence soil conditions, and in some soil types root activity can create a soil moisture deficit (S.M.D.), which means that the amount of water being used by the tree and by natural evaporation has exceeded the amount of water falling naturally through precipitation. This deficit can lead to soil shrinkage which in turn can cause a building to move particularly if its foundations are shallow. The result is SUBSIDENCE.
- 3.1.3 The soil's PLASTICITY INDEX, PLASTIC LIMIT, MOISTURE CONTENT and the likely water uptake of the tree/trees in question are key factors in determining whether shrinkage has occurred.
- 3.1.4 On shrinkable soils, damage to buildings can also occur as a result of tree removal. In such cases re-hydration of the soil causes an upwards movement of the ground known as HEAVE. Trees should not, therefore, be removed without due consideration of likely effects.
- 3.1.5 Microscopic examination of tree root anatomy generally enables the GENUS of roots recovered during the ground investigation to be established. However, it rarely identifies individuals to SPECIES level.
- 3.1.6 Certain species, for instance Willows and Poplars, are indistinguishable by these methods and identification can only be made at FAMILY level.
- 3.1.7 The diameter of the root and the direction in which it was growing can be an indication of its significance. In addition, the depth at which it was found is critical.
- 3.1.8 To establish whether the root is alive, iodine is used to test for starch which is stored in some cells of living tree roots but is broken down by micro-organisms upon the death of a root in the soil.
- 3.1.9 Live root samples are normally a prerequisite for establishing, on a balance of probability, which vegetation is the most likely cause of any damage noted.

4. Status of the Trees

- 4.1 A Tree Preservation Order (TPO) and Conservation Area check was made in July 2023 with East Northamptonshire Council.
- 4.2 We are informed that there is a Tree Preservation Order (TPO) in which may afford protective status to the trees detailed as T4, G5, T6, T7, T8, G9, T10 and T11 within this report.
- 4.3 Before any tree works are undertaken to protected trees, written consent from the Local Authority must first be obtained. An application for tree works form must therefore be completed and submitted to the Local Authority outlining all the proposed works along with a suitable justification. A waiting period of eight weeks is then required.
- 4.4 No work must be done to protected trees until permission has been granted.

5. Tree Descriptions & Recommendations

- 5.1 Descriptions of the surveyed vegetation and all recommended work are detailed in the tables at Appendix 1.
- 5.2 Please refer to the site plan at Appendix 2 for the locations of the vegetation surveyed and all the relevant site features.

6. Discussion

- 6.1 Having made a detailed survey of the site and assuming the presence of shrinkable soil (subject to confirmation), there is a potential that subsidence damage has occurred as a result of drying shrinkage caused by vegetation within influencing distance of the property.
- 6.2 We consider the vegetation identified as H1 and T4 to have the potential to be contributing to the damage observed at the subject property. We have therefore recommended that H1 and T4 be removed as a precautionary measure and that the stumps be treated to prevent regrowth.
- 6.3 As T4 is protected (assumed) third-party tree, the owner and Local Authority will require sufficient proof that the tree is contributing to the damage. In this case we have evidence of:
- The tree being within influencing distance of the damaged property.
 - Cracking damage to the subject property.

As a protected (assumed) third-party tree, owner and Local Authority are likely to also require the following:

- The soils being confirmed as being shrinkable and desiccated.
 - Roots matching this species found in the Trial Pits at/below foundation level.
 - Crack/Level monitoring indicating cyclical movement.
- 6.4 We consider the vegetation identified as H2, H3, G5, T6, T7, T8 and G9 to be of possible future concern to the subject property, if left unmanaged. We have therefore recommended that H2, H3, G5, T6, T7, T8 and G9 be maintained at their current height and spread over the forthcoming years. This work is only recommended as a precaution and is not considered a priority to resolve the damage observed at the subject property.
- 6.5 We have summarised all our tree specific recommendations in Section 7 and made general recommendations in Section 8. The effect of these recommendations should be to prevent further damage by reducing the moisture uptake close to the problem areas.

7. Summary of Tree Specific Recommendations

Item	Species	Vegetation Management Option	Location/ Ownership	Planning Restriction
H1	Firethorn	Remove to ground level as a precautionary measure and treat the stumps to prevent regrowth.	Policy Holder	No TPO/Not in a Conservation Area
H2	Cherry Laurel	Maintain at current height and spread over the forthcoming years.	Policy Holder	No TPO/Not in a Conservation Area
H3	Lonicera	Maintain at current height and spread over the forthcoming years.	Policy Holder	TPO (potentially)
T4	English Oak	Remove to ground level as a precautionary measure and the treat stump to prevent regrowth.	Third Party - Manor Farm House	TPO (potentially)
G5	Black Pine	Maintain at current height and spread over the forthcoming years.	Policy Holder	TPO (potentially)
T6	Black Pine	No action required	Policy Holder	TPO (potentially)
T7	English Walnut	Maintain at current height and spread over the forthcoming years.	Policy Holder	TPO (potentially)
T8	Hornbeam	Maintain at current height and spread over the forthcoming years.	Policy Holder	TPO (potentially)
G9	Hornbeam	Maintain at current height and spread over the forthcoming years.	Policy Holder	TPO (potentially)
T10	Birch	No action required	Policy Holder	TPO (potentially)
T11	Wild Cherry	No action required	Policy Holder	TPO (potentially)

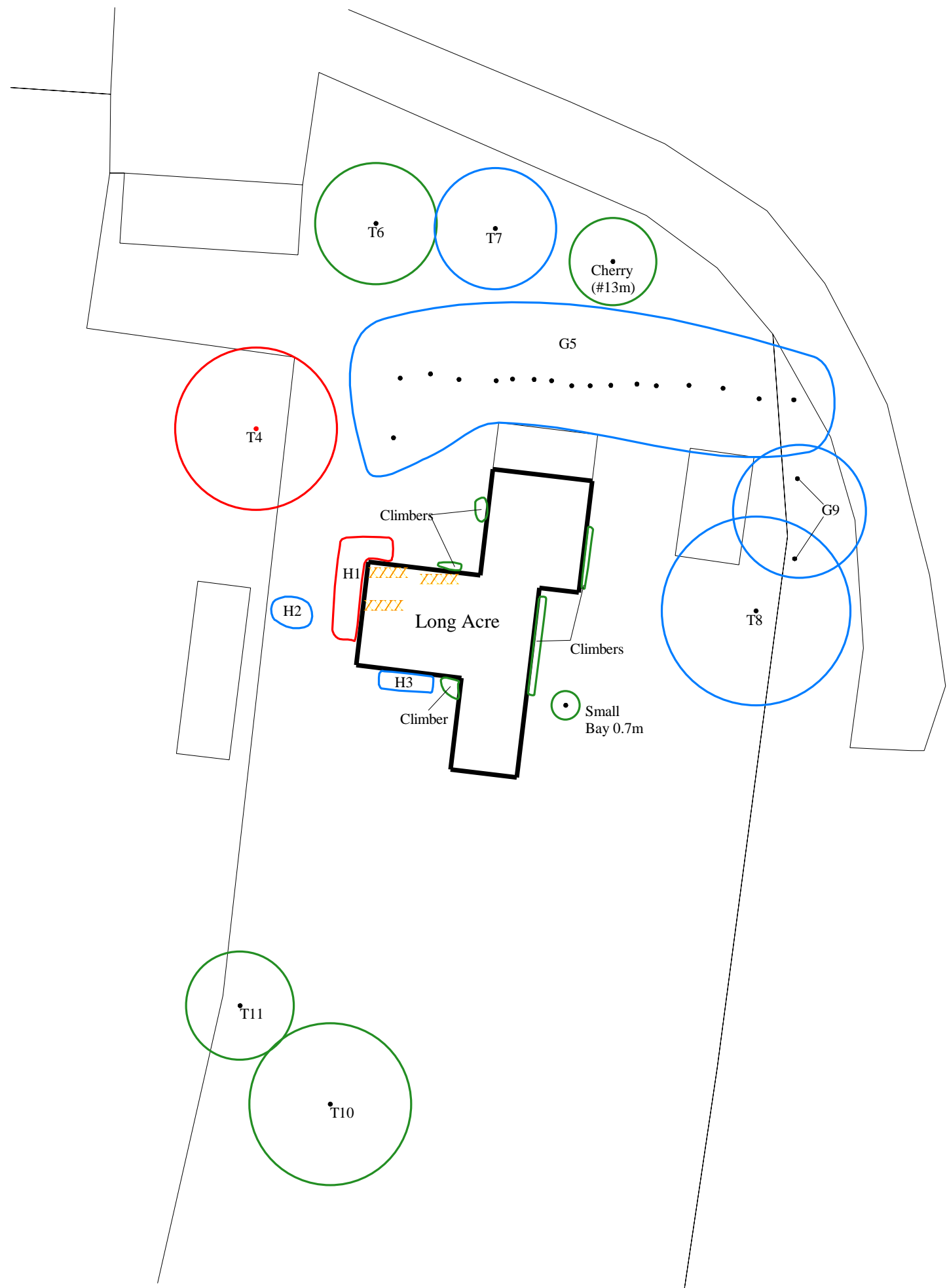
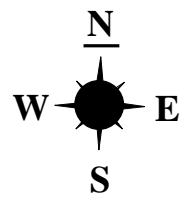
8. General Recommendations and Observations

- 8.1 This report is based upon a visual inspection. JCA Limited 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.
- 8.2 All tree work must be carried out to BS 3998: 2010 - 'Recommendations for Tree Work'.
- 8.3 Any tree work should be carried out by qualified, experienced and skilled arboricultural contractors covered by adequate public liability and employers liability insurance. 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.
- 8.4 The influence of trees on the soil and on buildings may change as they grow, as climate varies, or as other changes occur in the local environment. It is therefore advisable to have trees inspected by JCA Limited annually.
- 8.5 That the project engineer considers all possible solutions which may not involve vegetation works, if there is a wider public or ecological interest in retaining the trees influencing the property.
- 8.6 The property and the damage should be monitored by the project engineer on a regular basis after the recommended tree works are complete.
- 8.7 If, after the works have been carried out, there is little improvement, this may mean that the situation cannot be rectified by arboricultural means alone. If this point is reached the situation must be reassessed in conjunction with other experts.
- 8.8 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this report are carried out under their supervision and within their timescale.
- 8.9 That the project engineer considers the possibility of heave.

Appendices

Tree Ref.	Age	Common Name	Botanical Name			Owner / Occupier	Observations								Vegetation Management Option
H 1	Mature	Firethorn	Pyracantha sp.	3	To 10	See plan	Policy Holder A maintained hedge.	GOOD	0.2+	NO DATA	20+	Yes	n/a	Yes	Remove to ground level as a precautionary measure and treat the stumps to prevent regrowth.
H 2	Mature	Cherry Laurel	Prunus laurocerasus	2	To 15	See plan	Policy Holder A maintained hedge.	GOOD	3.1+	MOD	20+	Yes	n/a	No	Maintain at current height and spread over the forthcoming years.
H 3	Mature	Lonicera	Lonicera sp.	1	To 10	See plan	Policy Holder Trimmed.	GOOD	0.4+	NO DATA	20+	Yes	n/a	No	Maintain at current height and spread over the forthcoming years.
T 4	Mature	English Oak	Quercus robur	#16	#60	#12	Third Party - Manor Farm House Reasonable form.	GOOD	#10	HIGH	40+	Yes	n/a	Yes	Remove to ground level as a precautionary measure and treat the stump to prevent regrowth.
G 5	Mature	Black Pine	Pinus nigra nigra	Avg #24	To 60	See plan	Policy Holder Trees of a reasonable form.	FAIR	6.6+	MOD	20+	Yes	n/a	No	Maintain at current height and spread over the forthcoming years.
T 6	Mature	Black Pine	Pinus nigra nigra	#23	#65	#9	Policy Holder Reasonable form.	FAIR	17.8	MOD	20+	No	n/a	No	No action required.
T 7	Early-mature	Walnut	Juglans regia	#12	#35	#9	Policy Holder Reasonable form.	GOOD	#15	MOD	20+	No	n/a	No	Maintain at current height and spread over the forthcoming years.
T 8	Mature	Hornbeam	Carpinus betulus	#18	#65	#14	Policy Holder Reasonable form.	GOOD	11.7	LOW	40+	Yes	n/a	No	Maintain at current height and spread over the forthcoming years.
G 9	Mature	Hornbeam	Carpinus betulus	#18	To 40#	See plan	Policy Holder Trees of a reasonable form.	GOOD	#12	LOW	20+	No	n/a	No	Maintain at current height and spread over the forthcoming years.
T 10	Mature	Birch	Betula sp	#20	#50	#12	Policy Holder Reasonable form.	GOOD	22.7	LOW	20+	No	n/a	No	No action required.

Tree Ref.	Age Common Name Botanical Name				Owner / Occupier Observations								Vegetation Management Option
T 11	Mature Wild Cherry Prunus avium	#16	#45	#8	Policy Holder Reasonable form.	FAIR	19.2	MOD	20+	No	n/a	No	No action required.



Appendix 2: Site Plan

ADDRESS: Long Acre, Main Street, Polebrook, Peterborough, Cambridgeshire, PE8 5LN.
JCA REF: 21119/AJB

NOT TO SCALE PAPER SIZE: A3

SURVEYED BY: ML	DRAWN BY: AK	APPROVED BY: AM
	CANOPY OF TREE/SHRUB/GROUP TO BE RETAINED; NO ACTION REQUIRED	
	CANOPY OF TREE/SHRUB/GROUP TO BE RETAINED; CURRENT OR FUTURE MANAGEMENT REQUIRED	
	CANOPY OF TREE/SHRUB/GROUP TO BE REMOVED	
	STEM OF TREE/SHRUB TO BE RETAINED	
	STEM OF TREE/SHRUB TO BE REMOVED	
	OUTLINE OF SUBJECT PROPERTY	
	APPROXIMATE LOCATION OF THE DAMAGE	

JCA Limited
Arboricultural & Forestry Consultants

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.

Operations Director

Charles Cocking FdSc (Arboriculture), MArborA. Charles joined JCA in January 2014 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 a Professional Member of the Arboricultural Association. Charles now oversees all internal operations for the company.

Consulting Staff: Arboriculture

Andrew Bussey. Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications, is QTRA qualified and is a LANTRA Accredited Professional Tree Inspector.

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.

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.

Luke Wickham FdSc (Arboriculture and Urban Forestry). Luke joined JCA in 2021 after obtaining his Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. Having previously worked within the industry for the past 4 years, running his own small business and sub-contracting for local firms, Luke brings a sound knowledge and understanding of the practical and academic sides of the industry.

Andrew McPhaden BSc (Hons) TechArborA. Andrew joined JCA in 2022 having spent 5 years working as an Arborist for various private companies in both the UK and Germany. During his time abroad he obtained the European Tree Worker Certification along with a tree inspector certification from the Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau.

Matt Large DipArb L4 (ABC) TechArborA. Matt is based in Northampton and assists JCA by undertaking surveys in the south of the country. He has been involved in the arboricultural sector since 1996 and obtained a Level 4 Diploma in Arboriculture in 2011. Matt is a LANTRA Accredited Professional Tree Inspector.

Jonnie Setterfield BSc (Hons) MArborA. / Richard Daubeny Level 3 Arboriculture / Peter Wilkins BA (Hons) MArborA MIEnvSc. Jonnie, Richard and Peter are based in the south-east of the UK and assist JCA by undertaking surveys in the south of the country.

Ben Watkins Dip Arb L4. TechArborA, PTI Certified. Ben is based in the south-west of the UK and assists JCA by undertaking surveys in the south-west of the country.

Administrative Staff

Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.

Lorraine Spink Administrative Assistant.
Adie Gray IT Officer.

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

The contents of this report are true to the best of our knowledge and belief.

Signed



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Andrew Bussey *LANTRA Accredited PTI.*

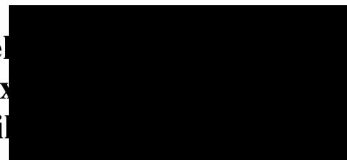
23rd August 2023

For and on behalf of **JCA Ltd**

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Professional Tree and Ecology Advice nationwide

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- Tree Safety Surveys
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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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