ARBORICULTURAL REPORT
AND
ARBORICULTURAL IMPACT ASSESSMENT
to BS 5837:2012
at
51 Main Street
Saxby All Saints
Brigg
Lincolnshire
DN20 0QF

Client:
Kathryn Dawson

Client Address:
51 Main Street
Saxby All Saints
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JCA Ref:
17458/EW-rev2

JCA Limited
Arboricultural & Ecological Consultants

Contents

1. Introduction

1.1 Purpose of the Report

1.1.1 This report is required at **51 Main Street, Brigg** to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.1.2 The purpose of this report is to assess the impact of the proposals on the existing tree stock and outline mitigation actions, where appropriate, to minimise potential damage to the trees which are to be retained. The report includes an assessment of the existing vegetation, along with recommendations based on the current context of the site, clearly defined from those required to facilitate the development.

1.2 Terms of Reference

1.2.1 JCA Ltd has been instructed by **Kathryn Dawson** to survey the site and prepare the findings in a report.

1.2.2 For this purpose, a topographical survey has been supplied (**Drawing No. 20042-P001**), which forms the basis for the Tree Constraints Plan at **Appendix 6**. The topographical survey, along with all other documents supplied to JCA, is assumed to be correct. No checking of such documents will be undertaken and JCA cannot be held responsible for incorrect data supplied by other parties.

1.3 Scope of the Report

1.3.1 This report is compiled in accordance with *BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'* and is based on an independent and objective assessment of the existing vegetation.

1.3.2 All trees within the site boundary with a stem diameter above 75mm are included.

1.3.3 Where applicable trees outside the site boundary, but close enough to be affected by the proposed development, are included.

1.3.4 The specific design of the proposed development has been considered within the Arboricultural Impact Assessment in **Section 6** and is detailed on the Arboricultural Implications Plan at **Appendix 7**.

1.4 Survey Details

1.4.1 The survey took place during August 2021 and was conducted by Emily Wilde *Fdsc (Arboriculture)*.

1.4.2 During this survey, all trees were inspected from ground level. Further investigations, such as a climbed inspection or a decay detection survey, have not been undertaken.

1.4.3 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible, measurements were estimated to the best ability of the surveyor. JCA endeavour to provide accurate information and will always take measurements unless inhibited by restricted access or other mitigating circumstances. Where measurements have been estimated, they are clearly highlighted at **Appendix 1**.

2. Site Description

2.1 Land Use

2.1.1 The site currently comprises a 3-bedroom cottage with a detached garage to the north.

2.2 Topography

2.2.1 The rear garden is raised slightly higher than the front of the site and **T1** sits within a raised planting bed along the boundary wall.

2.3 Treescape & Visual Amenity

2.3.1 The site is located in the small village of Saxby All Saints, which has significant mature and well-established vegetation both within and surrounding the village.

2.3.2 The trees on this site have a moderate impact on the local treescape and provide good amenity within the site.

2.4 Age Class Mix

2.4.1 The trees surveyed ranged in age from early-mature to mature.

2.5 Species Diversity

2.5.1 Species surveyed include Sycamore, Yew, Willow, Norway Maple and Apple.

3. Status of the Trees

3.1 A check was made on 21st July 2021 with ***North Lincolnshire Council.***

3.2 We are informed that there is a Tree Preservation Order that applies to trees **T1** and **T4** in force on this site (**TPO Ref: 201/2019**).

3.3 No work must be undertaken to trees subject to a Tree Preservation Order until an approved Works to Protected Trees application has been granted, or until planning permission has been granted which accurately specifies the required works to the trees. Prior to any works being undertaken to protected trees, those instructing and proposing to carry the work should satisfy themselves that all appropriate consents are in place to prevent potential breach of legislation.

3.4 The presence of a Tree Preservation Order (TPO) represents the Local Authority's desire to retain trees within the landscape. As such, trees covered by a TPO are generally more likely to require retention within a proposed scheme and this should be taken into account during the design process. In some cases, the removal of TPO trees may be agreed upon, providing the benefits of the proposed development are deemed greater than the material loss of the trees. The value of existing vegetation is just one factor in the decision-making process; all benefits of the proposed development will be taken into consideration in the usual manner.

3.5 We are informed that the site is also within a Conservation Area which applies to all trees on site.

3.6 If any works are required to trees not covered by the TPO, a 'notice of intent' must be submitted to the Local Authority, outlining all the proposed works along with a suitable justification. A waiting period of six weeks is then required, during which time the Local Authority may or may not decide to afford the trees with further protective status. If, after the required timescale has lapsed and/or the authority does not wish to allocate a Tree Preservation Order (TPO), the works may commence as planned.

3.7 ***No work must be done to any trees until the above process has been completed and the trees have not been allocated with a TPO.***

4. Tree Descriptions and Recommendations

4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**. A full explanation of the tables can be found at **Appendix 2**. Please refer also to the Tree Constraints Plan at **Appendix 6** for tree locations.

5. Discussion Relating to the Existing Treescape

5.1 Tree Condition & Recommended Works

5.1.1 The tree survey revealed a total of **6** items of vegetation (**4** individual trees and **2** groups of trees). **3** trees and **1** group were identified as retention category 'B' and **1** tree, and **1** group were identified as retention category 'C'. Please refer to **Appendix 2** for retention category and definition criteria.

5.1.2 Within the survey, tree works have been identified for reasons of public safety, to ensure the long-term health of the trees or for general maintenance purposes. Such recommendations have been made without regard to any projected layout and should be undertaken irrespective of development. These are summarised in the following sections. For full details on all recommendations, please refer to **Appendix 1**. For an explanation of the priority ratings, see **Appendix 2 (A2.2.5)**.

5.2 Tree Removals for Arboricultural Purposes

5.2.1 No trees have been identified as category 'U' and as such no trees are recommended for removal in the current context of the site.

5.3 Remedial Tree Works & Monitoring

5.3.1 No remedial works or further monitoring were deemed necessary at this time

6. Arboricultural Impact Assessment (AIA)

6.1 Proposed Development

6.1.1 The proposed development will consist of the extension of the main property to the rear and side of the building and an extension of the garage which will include the demolition of a small retaining wall.

6.1.2 We have been supplied with **Drawing No. 20042-P001 B**, which details the proposed development. The tree data has been overlaid onto the proposed designs to create the Arboricultural Implications Plan, which can be found at **Appendix 7**. This provides the basis for which this Arboricultural Impact Assessment has been prepared.

6.1.3 All tree works required to accommodate the proposals are included at **Appendix 1**, which lists all works recommended during the initial survey and those required for the development.

6.2 Tree Removals for Development

6.2.1 No trees are required to be removed to accommodate the proposed scheme.

6.3 Pruning for Development

6.3.1 No above ground pruning is required to accommodate the proposed development.

6.3.2 Where the footprints of the proposed structures pass within the RPA of retained trees, root pruning will be required, under the supervision of an appointed arboriculturist. Root pruning will accommodate the proposed structure structures whilst preventing any 'ripping' damage, a problem commonly associated with mechanical excavations. Root pruning is relevant to one tree within **G2**. The existing low retaining wall along the raised bed of **T1** is to be demolished to allow for the northeast elevation wall of the garage to be erected; there may be some roots exposed during this operation, if so, these may also require pruning.

6.4 Temporary Protection Measures

6.4.1 The Protective Barrier

6.4.1.1 In order to ensure the effective protection of retained trees during development, a protective barrier will be installed, in accordance with BS5837: 2012 and may comprise of protective fencing and ground protection. This will be the first job on site following the and pruning works. The fencing should ideally be positioned to protect the entire **Root Protection Area** (**RPA**) of the retained trees, in order to create a **Construction Exclusion Zone** (**CEZ**).

6.4.1.2 Routes for pedestrian and site traffic will be located outside, and diverted away from, the RPAs of the retained trees wherever possible. Where this is not practicable, temporary protective surfaces (ground protection) must be laid over the exposed RPAs to reduce/limit soil compaction. The ground protection must therefore distribute the weight of site vehicles, machinery or pedestrians whilst allowing moisture to reach the tree rooting area beneath. Such surfaces must be constructed in accordance with BS5837: 2012.

6.5 Implications for Retained Trees

6.5.1 Works within the RPA

6.5.1.1 Where the proposals require work to be undertaken within the RPA of a tree which is to be retained, specialist measures must be adopted during the construction phase to avoid ground compaction and minimise root damage.

6.5.1.2 Such areas are highlighted in **blue** on the Arboricultural Implications Plan at **Appendix 7** and are addressed in the following sections.

6.5.2 Demolition

6.5.2.1 In order to meet the needs of this proposal, demolition of existing structures is required adjacent to **G5** there is also the removal of the low retaining wall adjacent to **T1**. Due to this, specialist demolition methods will be required to prevent damage to the retained trees. This may include collapsing structures in a direction away from trees, utilising hand-dig methods within RPAs etc. Full details on such methods will be included in an Arboricultural Method Statement, including where arboricultural supervision is necessary.

6.5.3 Access/Construction of Hard Surfacing

6.5.3.1 In this case, the proposed scheme does not require the construction of access roads, driveways or other hard surfaces within the RPA of retained trees. As such no specialised construction techniques/surface treatments will be required for this purpose.

6.5.3.2 Whilst no permanent surfaces are required within the RPA of retained trees, it will be necessary to lay temporary access routes during the construction phase. Where access is required within the RPA, a combination of protective barriers and ground protection (see **Section 6.4.1**) will be implemented to prevent damage to tree roots.

6.5.3.3 The chosen solution must be fit for purpose and suitable for its intended use, whether for pedestrian or vehicular access. It must dissipate compaction to the soil (which can damage roots), allow gaseous diffusion to/from the soil and allow water percolation through the soil surface. The specific construction principles of any required surfaces should be included in an Arboricultural Method Statement and confirmed by a suitably qualified engineer.

6.5.4 Construction/ Foundation Design

6.5.4.1 The footprint of proposed garage extension incurs the RPA of **T1**. Due to this, a specialist foundation design must be implemented to reduce excavation and the detrimental impact this can have on tree roots. A pile and beam foundation would be required for the north-eastern and south-eastern elevations, with the beams laid above the existing ground level where possible to reduce excavations within the RPA. Traditional strip foundations could be used along the south-western elevation as this lies to the periphery of the RPA where significant roots are unlikely to be.

6.5.4.2 This method will minimise foreseeable damage and will allow the retention of this tree, whilst accommodating the proposed development. Full details of these works including engineers' diagrams with existing and proposed levels should be included in an associated Arboricultural Method Statement, along with any phasing of protection methods and arboricultural supervision which may be necessary.

6.5.4.3 Advice should always be sought from a suitably qualified Structural Engineer. In some cases, the water demand of trees can be an important consideration when determining the appropriate foundation design. Because of this, water demands for the trees identified on this site are included at **Appendix 1**, in accordance with **NHBC chapter 4.2**, for the use of the appointed structural expert.

6.5.4.4 The footprint of proposed rear house extension incurs the RPA of one of the trees within **G2**. In this case, because of the minimal nature of the incursion, it is considered appropriate to undertake root pruning. This will allow for the construction of the building, without causing 'ripping' damage to the roots, a problem commonly associated with mechanical excavation, whilst also preventing the need for specialist foundation designs.

6.5.4.5 Advice should always be sought from a suitably qualified Structural Engineer. The water demand of trees can be an important consideration when determining the appropriate foundation design. Due of this, water demands for the trees identified on this site are included in **Appendix 1**, in accordance with **NHBC chapter 4.2**, for the use of the appointed structural expert.

6.5.5 Ground level changes

6.5.5.1 No significant ground level changes are to be undertaken within the RPAs of retained trees, unless otherwise stated or agreed with the appointed Arboricultural Consultant or the LPA. The requirement to raise/lower ground levels within RPAs must be communicated to these parties at the earliest practical convenience.

6.5.6 Tree Shade

6.5.6.1 Due to the location of the trees, and their distance from to the proposed buildings, issues related to shading are unlikely and do not require mitigation.

6.5.7 Utilities

6.5.7.1 Details on service routes are not available at this time. Where utilities need to be brought onto the site, these should be routed away from the RPAs of retained trees. Where this is not possible, methodologies on the installation of underground services without damage to tree roots should be considered.

6.5.7.2 All service providers should be consulted prior to commencement of works with the aim of minimising the number of service runs on the site. Any foreseeable incursions to RPAs should be communicated to the appointed arboricultural consultant and the LPA at the earliest possible time to prevent breach of planning conditions and damage to retained trees.

6.5.8 Site Compound

6.5.8.1 The site compound, which typically includes the site office, mess facilities, toilets, storage of materials and parking, must be located away from the trees and outside the RPAs.

6.5.8.2 Care should also be taken to prevent soil contamination with chemical spillages, including petrol, diesel and oils.

6.5.9 Landscaping

6.5.9.1 Any patios, garden paths or other hard surfaces within RPAs which may not be shown on the projected layout (**Appendix 7**), may be constructed using no-dig techniques, providing that they do not cover more than 20% of the RPA and are implemented in accordance with BS5837: 2012. Such surfaces are to be kept as far away from the main stems of the trees as is reasonably practicable. JCA shall be consulted prior to any additional construction of hard surfaces is carried out.

6.6 Remedial Measures

6.6.1.1 Protective fencing specifications and on-site positioning, along with details of any necessary specialist construction methods, can be provided in an Arboricultural Method Statement (AMS).

6.6.1.2 Part of the proposed development will encroach into the RPAs of retained trees, resulting in possible root loss. It would therefore be prudent to apply appropriate mycorrhizae fungi to the soils around these trees after the construction phase is complete. Certain mycorrhiza fungi form a symbiotic relationship with tree roots. A tree root associated with such mycorrhiza will take up nutrients more effectively and this will therefore help the tree to produce new roots more effectively, so benefitting their recovery.

7. Conclusions

7.1 The trees surveyed were generally found to be in good condition.

7.2 **T1** and **T4** are protected by a Tree Preservation Order and all trees within the survey are protected by virtue of them being in a Conservation Area.

7.3 None of the trees have been recommended for removal, pruning works or further monitoring for arboricultural reasons.

7.4 The arboricultural implications of the development have been considered and discussed in **Section 6**.

7.5 Some trees require pruning in order to facilitate the proposed development. These are discussed in **Section 6.3** and detailed on the plan at **Appendix 7**.

7.6 All development work carried out in proximity to trees must be executed in a manner sympathetic to their needs. Otherwise, the condition of the trees may deteriorate in the months and years following development, leading to a loss of amenity and resulting in potentially hazardous trees. Care must therefore be taken to ensure that the retained trees are suitably protected.

7.7 In accordance with **Section 6.1** of **BS 5837: 2012**, the next stage on this site should be the preparation of an **Arboricultural Method Statement (AMS)**, to ensure that all the retained trees survive the development process. An **AMS** details which trees are to be removed, which trees are to be retained and any other tree works which are required to facilitate development. The **AMS** will also advise on temporary protective barriers, temporary ground protection, site supervision, location of services and it will detail specialist construction techniques.

7.8 In accordance with **Section 6.3** of **BS 5837: 2012**, site supervision at key stages of the development is likely to be advisable.

Appendices

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 1	Mature Sycamore *Acer pseudoplatanus*	14	3	3 n/a	88	7# 7 5# 6	Single-stemmed and vertical with a balanced crown. Growing on raised level from driveway. The crown overhangs the boundary and garage roof.	No action required. *Demolition of garage wall and low retaining wall to be carried out under arboricultural supervision. Root prune where necessary.* n/a	GOOD	GOOD	MOD	MOD	40+	B 1
G 2	Early-mature Yew *Taxus baccata*	8	5	4 n/a	55 38/35 56	See plan	Linear group of 3x Yew trees. Previously crown lifted.	No action required. *Root pruning required under arboricultural supervision.* n/a	GOOD	GOOD	MOD	MOD	40+	B 1
T 3	Mature Weeping Willow *Salix babylonica*	8	0	5 n/a	58	3.5 3.5 2.5 2	Single-stemmed and vertical with a slightly unbalanced crown. Previously topped.	No action required. n/a	GOOD	GOOD	MOD	HIGH	20+	B 1
T 4	Early-mature Norway Maple *Acer platanoides*	11	1.5	2.5 n/a	51	4 4.5 4 4.5	Twin-stemmed at 3.5m with a balanced crown. Pruning wound at 2m, stub remains.	No action required. n/a	GOOD	GOOD	MOD	MOD	40+	B 1
G 5	Semi-mature Plum *Prunus sp*	to 4	1	0.5 n/a	to 20	See plan	Two trees forming an homogenous crown. Fairly sparse.	No action required. n/a	FAIR	FAIR	LOW	MOD	10+	C 1
T 6	Mature Apple *Malus sp.*	6	1.5	1	45	4 3 3 2	Multi-stemmed at 1.5m with a slightly unbalanced crown. Cavity to the south stem with good surrounding wound wood.	No action required. n/a	GOOD	FAIR	MOD	MOD	10+	C 1

Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements/ Reference Information

A2.1.1 *REF NUMBER.* All items surveyed are allocated a reference number preceded with a letter, identifying the type of vegetation surveyed: T = an individual tree, G = a group of trees or an area of vegetation, W = woodland, H = a hedgerow.

A2.1.2 *SPECIES: COMMON AND BOTANICAL NAME*. The common and botanical names of the species present are noted. If the species is not clear or identifiable, then a general common name and genus will be noted.

A2.1.3 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.

A2.1.4 *HEIGHT* of the tree is measured in metres from the stem base to the top of the crown.

A2.1.5 *CROWN HEIGHT* is an indication of the height above ground level at which the crown begins.

A2.1.6 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; diameter measurements are taken for each stem. If more than five stems are present, an average stem diameter is taken. If for whatever reason it is not practical to measure multiple-stemmed trees in this way, the diameter is measured close to ground level, just above the root buttress.

A2.1.7 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches to all four cardinal points.

A2.1.8 *HEIGHT AND DIRECTION OF LOWEST BRANCH.* The height and direction of the lowest significant branch is noted because of potential issues relating to clearances and the need for tree pruning.

A2.1.9 *NHBC WATER DEMAND.* The water demand of each tree, as listed in NHBC Standards 2010 Chapter 4.2 ‘Building near trees’. This is included to aid structural engineers, architects and other members of the design team as it determines foundation depth and other considerations with regard to trees.

A2.2 Evaluations

A2.2.1 *PHYSIOLOGICAL CONDITION* is classed as good, fair, poor, or dead. This is an indication of the health and vitality of the tree and takes into account vigour, presence of disease and dieback.

A2.2.2 *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.

A2.2.3 *LIFE EXPECTANCY* is classed as; 0, less than 10 years, 10+ years, 20+ years, or 40 + years. This is an indication of the minimum number of years before removal of the tree is likely to be required.

A2.2.4 *AMENITY VALUE.* A general indication is given in respect to the amenity/landscape value of the tree/group within the surrounding area.

A2.2.5 *PRIORITIES.* 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.

A2.3 Retention Categories

A2.3.1 ***A (marked green on the Tree Constraints Plan) = Trees of high quality.***

These trees are of high quality and value with a good life expectancy (usually with an estimated remaining life expectancy of 40 years).

A2.3.2 ***B (marked in blue on the Tree Constraints Plan) = Trees of moderate quality.***

These trees are of moderate quality and value with a reasonable life expectancy (usually with an estimated life expectancy of at least 20 years).

A2.3.3 ***C (marked in grey on the Tree Constraints Plan) = Trees of low quality.***

These trees are of low quality and value but which are in adequate condition to remain or are young trees with a stem diameter below 15cm (usually with an estimated life expectancy of at least 10 years).

A2.3.4 Trees categorised as retention category ‘A’, ‘B’ or ‘C’ are then justified by being further divided into 3 subcategories:

1 = Mainly arboricultural qualities.

2 = Mainly landscape qualities.

3 = Mainly cultural values, including conservation value.

A2.3.5 ***U (marked in red on the Tree Constraints Plan) = Trees usually unsuitable for retention due to poor condition.***

These trees are in such a condition that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. This may be due to any of the following:

1) Failure is likely due to serious, irredeemable, structural defects.
2) Removal of other category U trees will render them exposed and unstable.
3) They are in serious, overall decline or are dead.
4) They are of low quality and suppressing adjacent trees of better quality.
5) Diseases are present which may affect the health of adjacent trees.

These trees are to be removed or managed in a way which reduces their risk of failure, where they have high ecological value, such as in a woodland setting.

Appendix 3: General Guidelines

A3.1 All tree work must be undertaken to BS 3998: 2010 '*Recommendations for tree work'* or other recognised industry practice.

A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.

A3.3 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.

A3.4 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.

A3.5 No liability can be accepted by JCA in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.

A3.6 It is advisable to have trees inspected by an arboricultural consultant regularly.

Appendix 4: Glossary of Terms & Abbreviations

Arboriculture The cultivation of trees in order to produce individual specimens of the greatest ornament, for shelter or any primary purpose other than the production of timber.

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

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 reduction The reduction of a tree's height and spread while preserving its natural shape.

Crown thin The removal of some of the density of a tree's crown**,** usually 5-15% allowing more light through its canopy and reducing wind resistance.

Deadwood Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.

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

Epicormic shoots Small branches that grow in clusters around the base of the stem of a tree or within the crown. This is usually as a result of bad pruning or some other stress factor, although can be a natural growth pattern for some species of tree (eg Lime species).

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 and principle branches of the tree are cut to the same height, and the resulting branches are then cropped on a regular basis.

RPA Root Protection Area – Theoretical rooting area of a tree as defined in BS5837:2012 *Trees in relation to construction*.

Topping Topping is a form of pruning that removes terminal growth leaving a 'stub' cut end. Topping causes serious health problems to a tree.

Appendix 5: 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

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.

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.

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.

Ryan Bateman *BSc (Hons), FdSc (Arboriculture), TechArborA.* Ryan joined JCA in 2020 after working as a Lecturer on the Foundation Degree in Arboriculture at Askham Bryan College in York. Ryan has both practical skills, NPTC qualifications and theoretical knowledge and owned his own contracting business prior to, and whilst working as a lecturer.

Robert Armitage *BSc (Hons) Arboriculture, MArborA.* Rob joined JCA in 2021 with over six years' experience within arboricultural consultancy, predominantly within the context of the UK planning system. Rob has recently attained professional membership of the Arboricultural Association.

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.

Consulting Staff: Ecology

Adam West, Principal Ecologist *BSc (Hons) Animal and Wildlife Management*. Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Batchelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

Joe Earnshaw, Assistant Ecologist *BSc (Hons), MSc Biodiversity and Conservation, Qualifying CIEEM member.* Joe joined the ecology department of JCA in 2018 after taking part in JCA's student training programme. He initially obtained a bachelor's degree in animal management from Askham Bryan College, York. He has since furthered his education and brings to the company an MSc in Biodiversity and Conservation from the University of Leeds. Joe has expertise in aquatic invasive species identification and control. Joe holds a Natural England Level 1 bat survey class licence.

Poppy McDermott, Seasonal Ecologist *BSc (Hons) Ecology and Conservation.* Poppy joined JCA after completing her degree for three years at Nottingham Trent University in Ecology and Conservation. She has gained practical experience in protected species surveying and report writing whilst at university and is hoping to further develop these skills and consultancy experience whilst at JCA.

Administrative Staff

Simeon Haigh *BSc (Hons)*. IT Director.
Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.
Lorraine Spink Administrative Assistant.
Lisa Beedham Marketing Manager.

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W E

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T1

G2

T3

T4

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Appendix 6: Tree Constraints Plan

ADDRESS: 51 Main Street, Saxby All Saints, Brigg, Lincolnshire, DN20 0QF. JCA REF: 17548/EW

SCALE : 1:200	PAPER SIZE : A3

SURVEYED BY: EW	DRAWN BY: EW	APPROVED BY: ME

BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES

Detailed definitions of these catagories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.

	CATEGORY A: 'RETENTION MOST DESIRABLE'
	CATEGORY B: 'RETENTION DESIRABLE'
	CATEGORY C: 'TREE WHICH COULD BE RETAINED'
	CATEGORY U: 'TREE FOR REMOVAL'
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 17458/EW-rev1)

0 1 2 3 4 5 10 15 20 metres

Root Protection Area: RPA

THE ROOT PROTECTION AREA SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCROACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.

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Appendix 7: Arboricultural Implications Plan

ADDRESS: 51 Main Street, Saxby All Saints, Brigg, Lincolnshire, DN20 0QF.
JCA REF: 17548-rev2/EW

SCALE : 1:200	PAPER SIZE : A3

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA
	ROOT PROTECTION AREA ENCROACHED BY THE PROPOSED DEVELOPMENT
	PROPOSED DEVELOPMENT
	PROPOSED DEMOLITION

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 17548-rev2/EW)

0 1 2 3 4 5 10 15 20 metres

JCA Limited

Arboricultural & Ecological Consultants

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

.....

Emily Wilde *FdSc (Arboriculture)*.

12th August 2021
(revised 20th September 2021)

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

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Professional Tree and Ecology Advice nationwide

ARBORICULTURAL SERVICES

Guidance for Architects and Developers

- British Standard 5837 Tree Surveys
- Arboricultural Implication Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

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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