ARBORICULTURAL IMPACT ASSESSMENT
to BS 5837:2012
at
Wombwell Hall
57 Park Street
Wombwell
South Yorkshire
S73 0HJ

Client:
Mr Ellis

Client Address:
Wombwell Hall
57 Park Street
Wombwell
South Yorkshire
S73 0HJ

JCA Ref:
17391-A/AJB

JCA Limited
Arboricultural & Ecological Consultants

Contents

1. Introduction

1.1 Purpose of the Report

1.1.1 This Arboricultural Impact Assessment has been prepared for the proposed development at **Wombwell Hall**, **57 Park Street**, **Wombwell**.

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 retained trees.

1.2 Terms of Reference

1.2.1 JCA Limited has been instructed by **Me Ellis** to prepare an Arboricultural Impact Assessment, based on our Arboricultural Report dated 13th August 2021 (JCA Ref: **17391/AJB**). The arboricultural survey and report conforms to the most recent specifications outlined in BS 5837: 2012 Trees in relation to design, demolition and construction - Recommendations.

1.2.2 We have been supplied with **Drawing Ref. Site Plan Proposed**, 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.

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 objective assessment of the existing vegetation.

1.3.2 The specific design of the proposed development has been considered within the Arboricultural Implication Assessment in **Section 3** and is detailed on the Arboricultural Implications Plan at **Appendix 7**.

1.4 Survey Details

1.4.1 The original survey took place during the month of August 2022 and was conducted by **Andrew Bussey** *LANTRA Accredited PTI.*

2. Tree Descriptions and Recommendations

2.1 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.

3. Arboricultural Implications Assessment (AIA)

3.1 Proposed Development

3.1.1 The proposed development will consist of the construction of two, detached, two-storey dwellings with associated garages and driveway.

3.1.2 All tree works required to accommodate the proposals are detailed in *italics* in the recommendation columns of the tables at **Appendix 1**. Please note that any works recommended during the initial survey are also listed in these tables in non-italics.

3.2 Tree Removals for Development

3.2.1 In this case no trees require removal to accommodate the proposed scheme.

3.3 Pruning for Development

3.3.1 Where the footprint of the proposed garages within the RPA of trees within **G6** (as indicated in blue shade on the plan at **Appendix 7**), root pruning will be required, under the supervision of an appointed arboriculturist. Root pruning will accommodate the proposed garages whilst preventing any 'ripping' damage, a problem commonly associated with mechanical excavations.

3.4 Temporary Protection Measures

3.4.1 <u>The Protective Barrier</u>

3.4.1.1 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/or ground protection. This will be the first job on site following the tree removal 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**).

3.4.1.2 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 which will distribute the weight of site vehicles, machinery or pedestrians whilst allowing moisture to reach the tree rooting area beneath. Such surfaces should be constructed in accordance with BS5837: 2012.

3.5 Implications for Retained Trees

3.5.1 Works within the RPA

3.5.1.1 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 minimise root damage.

3.5.1.2 Such areas are highlighted in **blue** on the Arboricultural Implications Plan at **Appendix 7**.

3.5.2 Demolition

3.5.2.1 No demolition activities are required adjacent to retained trees and as such, no mitigation measures are considered necessary.

3.5.3 Access/Construction of Hard Surfacing

3.5.3.1 The proposed scheme does not require the construction of hard surfaces within the RPA of retained trees. As such no specialised construction techniques/surface treatments will be required for this purpose.

3.5.4 Construction / Foundation Design

3.5.4.1 Prior to construction, all protective measures required and listed in **Section 3.4** (Temporary Protection Measures) must be correctly installed to prevent unnecessary damage to trees during the construction phase.

3.5.4.2 The footprint of the proposed dwellings do not incur the RPA of retained trees. As such no specialist construction or foundation methods are considered necessary for the sole purpose of preventing damage to trees.

3.5.4.3 Despite this, specialist foundation designs may still be required for other reasons, and advice should always be sought from a suitably qualified structural expert. 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 use by the appointed structural expert.

3.5.5 Utilities

3.5.5.1 Details on service routes have not been provided to JCA 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.

3.5.5.2 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.

3.5.6 Site Compound

3.5.6.1 The site compound, which typically includes the toilets, storage of materials and parking, must be located away from all of the trees and outside their RPAs. Care should also be taken to prevent soil contamination from chemical spillages, including petrol, diesel and oils.

3.5.7 Landscaping

3.5.7.1 Proposed fence lines may be constructed within the RPA of a tree if necessary, providing that appropriate considerations are taken with regards to the well-being of the effected tree. As such, no continual trenching is to be undertaken within the RPA (e.g. for small walls onto which panel fencing is installed). Excavations must be kept to a minimum and therefore only fence designs requiring intermittent posts will be acceptable within the RPA. Fences should also be kept as far away from the main stems of the trees as is reasonably possible.

3.5.7.2 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, and are implemented in accordance with BS5837: 2012. If there is any concern of damaging retained trees, further advice should be sought from a qualified Arboriculturalist.

3.5.7.3 No 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.

3.6 Remedial Measures

3.6.1 Part of the proposed development will encroach into the RPAs of trees within **G6**, 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.

4. Conclusions

4.1 We are informed that there is an Area Tree Preservation Order in force at this site.

4.2 Some tree works were recommended during the original survey, irrespective of the development proposals. This is to manage potential risks or for general maintenance purposes. These are detailed in **non-italics** in the tables at **Appendix 1**.

4.3 The proposed development will consist of the construction of two, detached, two-storey dwellings with associated garages and driveway.

4.4 The arboricultural implications of the development have been considered and are discussed in **Section 3**.

4.5 Trees within **G6** require root pruning under arboricultural supervision in order to facilitate the proposed development. Tree works required to accommodate the proposals are detailed in ***italics*** in the tables at **Appendix 1**.

4.6 All development work carried out in close proximity to trees should be done so in a manner sympathetic to their needs. Otherwise the condition of the trees may deteriorate in the months and years following the development, leading to a loss of amenity and potentially hazardous trees.

4.7 The protection of retained trees can be achieved by the creation of a Construction Exclusion Zone based on the Root Protection Area of a tree. The Root Protection Area of each tree or group is marked on the Tree Constraints Plan at **Appendix 6**.

4.8 The proposed development should be accompanied by an Arboricultural Method Statement (AMS) detailing the specific protection measures necessary for each tree. This should specify the required fencing standard and positions (the creation of the Construction Exclusion Zone), acceptable construction techniques and necessary tree works.

4.9 Upon instruction JCA are able to provide a comprehensive Arboricultural Method Statement in order to ensure the continued health of trees throughout the proposed development. We are also able to provide tree planting schemes and organise tree works.

4.10 The data gained during the original survey provides an indication of the health of the trees. However, it does not enable a comprehensive assessment of their condition over time. Trees are living organisms which are affected by many factors including weather conditions, diseases/disorders, light levels and human activities. Due to this, the report is only valid for a period of 1 year from the date of issuing. Should an update or revision of this report be required outside of this time period, JCA may require a further site visit to ensure that the condition of the trees has not significantly changed. It is advised that the trees are inspected regularly, in the interests of risk management.

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	Root Protection Area (m)
T 1	Early-mature Cypress *Cupressus sp.*	9	0	0 n/a	30#	1.8 1.8 1.8 1.8	Single-stemmed and vertical with a balanced crown.	No action required. n/a	GOOD	GOOD	LOW	HIGH	20+	C 1	3.6
T 2	Mature Sycamore *Acer pseudoplatanus*	20	3	5 n/a	88#	9 8 # 9 6	Within falling distance of the road. Single-stemmed and vertical with a balanced crown. Dense Ivy prevented a detailed inspection.	Remove Ivy. Moderate	GOOD	GOOD	MOD	MOD	40+	A 1	10.6
T 3	Mature Sycamore *Acer pseudoplatanus*	19	4	7 n/a	75	6 9 # 5 4	Overhanging the footpath and road. Single-stemmed and leaning with a slightly unbalanced crown and slightly leaning to the north-west. Dense Ivy prevented a detailed inspection.	Remove Ivy. Moderate	GOOD	GOOD	MOD	MOD	40+	B 1	9
T 4	Early-mature Holly *Ilex aquifolium*	13	1	2 n/a	38	2.5 3 3 3.5	Within falling distance of the road. Single-stemmed with a slight lean and a reasonably balanced crown. Within falling distance of the road.	No action required. n/a	GOOD	GOOD	MOD	LOW	40+	B 1	4.56
T 5	Mature Sycamore *Acer pseudoplatanus*	18	4	6 n/a	70 #	6 8 # 7.5 4.5	Single-stemmed and vertical with a balanced crown that overhangs the road. Dense Ivy prevented a detailed inspection.	Remove Ivy. Moderate	GOOD	GOOD	MOD	MOD	40+	B 1	8.4
G 6	Mature Lime *Tilia sp.*	To 20	1	2 n/a	To 68 #	See plan	A linear group of 11 trees of a good vertical form. Epicormic growth limited the inspection of the base of all the trees within the group.	No action required. *Root prune the area shown in blue shade on the plan at* ***Appendix 7*** *under arboricultural supervision.* n/a	GOOD	GOOD	HIGH	MOD	40+	A 1 2	To 6.6
T 7	Early-mature Hawthorn *Crataegus monogyna*	7	2	3 n/a	18, 15	3 4 3.5 2.5	Twin-stemmed at ground level with a balanced crown that overhangs the footpath and road.	No action required. n/a	GOOD	GOOD	LOW	HIGH	20+	C 1	2.81
T 8	Early-mature Sycamore *Acer pseudoplatanus*	13	3	3 n/a	40	3 5 # 4.5 # 6 #	Single-stemmed and leaning with an unbalanced crown that overhangs the footpath and road. Suppressed by T9.	No action required. n/a	GOOD	FAIR	MOD	MOD	20+	C 1	4.8
T 9	Mature London Plane *Platanus x hispanica*	20	4	5 n/a	70 #	8 7 # 6 # 7 #	Twin-stemmed at 4m with a balanced crown that overhangs the footpath and road. Limited inspection due to restricted access.	No action required. n/a	GOOD	GOOD	MOD	MOD	40+	A 1	8.4
T 10	Early-mature Lime *Tilia sp.*	14	0	0 n/a	50 #	5 4 5 # 5 #	Multi-stemmed at 1.5m with a balanced crown. Epicormic growth limited the inspection.	Remove epicormic growth. Moderate	GOOD	GOOD	MOD	MOD	20+	B 1	6

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	Root Protection Area (m)
T 11	Early-mature Wild Cherry *Prunus avium*	15	5	7 n/a	30	5 2 4.5 3.5 #	Twin-stemmed at 6m with an unbalanced crown, generally displaying a poor, drawn form.	No action required. n/a	GOOD	FAIR	LOW	MOD	10+	C 1	3.6
T 12	Early-mature Sycamore *Acer pseudoplatanus*	15	7	7 n/a	42	3 5 4.5 4.5	Single-stemmed and vertical with a balanced crown, with an overall slender form.	No action required. n/a	GOOD	GOOD	MOD	MOD	10+	C 1	5.04
G 13	Mature Mixed species *Details in observations.*	To 20	0	0 n/a	To 103	See plan	A group of Red Horse Chestnut, Lime, London Plane and Cypress of good form. A basal wound was noted to one Lime, as notated on the plan at **Appendix 6**.The Red Horse Chestnuts were noted to have the brown bark lesions which are associated with Bleeding Canker of Horse Chestnut.	Monitor the Lime and Red Horse Chestnuts biennially. Low	GOOD	GOOD	HIGH	MOD TO HIGH	40+	1 A 2	To 12.36

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.

Appendix 3: General Guidelines

A3.1 All tree work should 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 therein.

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 on a regular basis.

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 or fruit.

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.

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.

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

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.

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.

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.

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.

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

Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.
Lorraine Spink Administrative Assistant.
Lisa Beedham Marketing Manager.

Appendix 6:
Tree Constraints Plan

ADDRESS: Wombwell Hall, 57 Park Street, Wombwell, Barnsley, South Yorkshire, S73 0HJ. JCA REF: 17391-A/AJB.

SCALE : 1:500	PAPER SIZE : A3

SURVEYED BY: AJB	DRAWN BY: AJB	APPROVED BY: LW

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
	ROOT PROTECTION AREA (PRIOR TO OFF-SETTING)

JCA Limited

Arboricultural & Ecological Consultants

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 17391-A/AJB)

N W E S

PARK STREET

PARK HOLLOW

26

Wombwell Hall

T1 T2 T3 T4 T5

G6

ESTIMATED TREE LOCATION

G13

LIME WITH BASAL WOUND

ESTIMATED TREE LOCATIONS

T7 T8 T9 T10 T11 T12

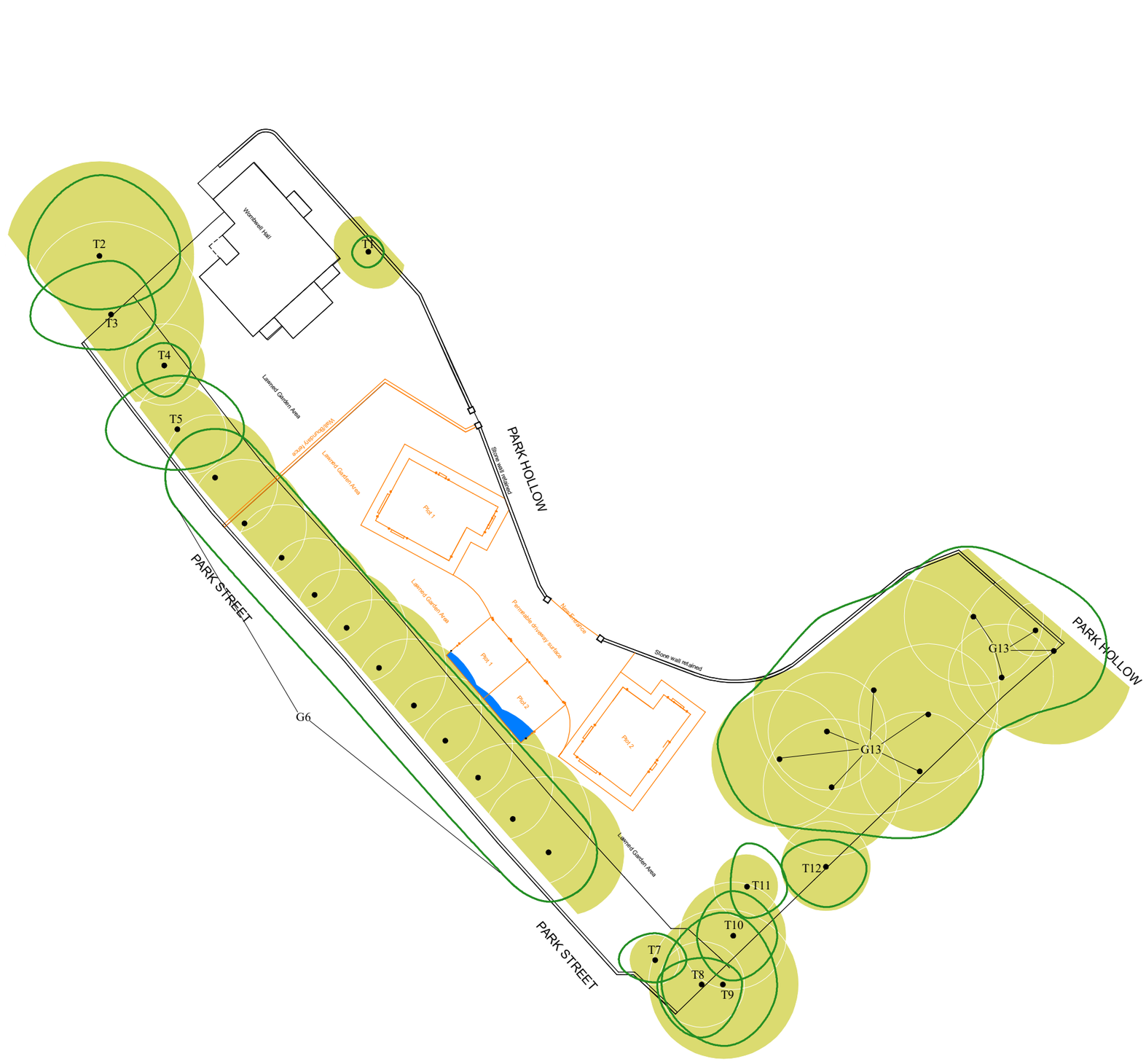
0 1 5 10 15 20 30 40 50 metres

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.



Appendix 7: Arboricultural Implications Plan

ADDRESS: Wombwell Hall, 57 Park Street, Wombwell, Barnsley, South Yorkshire, S73 0HJ. JCA REF: 17391-A/AJB.

SCALE : 1:500	PAPER SIZE : A3

	TREE TO BE RETAINED
•	STEM OF TREE TO BE RETAINED
	ROOT PROTECTION AREA
	PROPOSED DEVELOPMENT
	ROOT PROTECTION AREA ENCROACHED BY THE PROPOSED GARAGES. ROOT PRUNING UNDER ARBORICULTURAL SUPERVISION TO BE UNDERTAKEN IN THIS AREA.

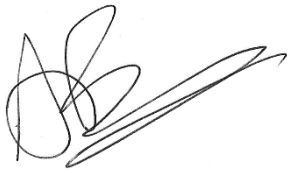
JCA Limited

Arboricultural & Ecological Consultants

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 17391-A/AJB)

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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Andrew Bussey *LANTRA Accredited PTI.*

10th March 2022

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

Registered Office

Unit 80
Bowers Mill
Branch Road
Barkisland
Halifax
HX4 0AD

Tel: 01422 376335
Fax: 01422 376232
Email: info@jcaac.com

www.jcaac.com

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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:

Unit 80 Bowers Mill,
Branch Road,
Barkisland,
Halifax, HX4 0AD.

Tel: 01422 376335
Mobile: 07778 391986
Email: jon@jcaac.com
Website: www.jcaac.com

Company Reg No. 05005041
VAT No. 686 4674 78