

**ARBORICULTURAL IMPACT ASSESSMENT  
to BS 5837:2012  
at  
Land on Huddersfield Road  
Birstall  
West Yorkshire  
WF17 9PY**

**Client:**  
Wharfedale Limited

**Client Address:**  
Smithies Lane  
Birstall  
West Yorkshire  
WF17 9HR

**Client Telephone:**  
01924 476496

**JCA Ref:**  
15964-A/AJB



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## 1. Introduction

### 1.1 Purpose of the Report

- 1.1.1 This Arboricultural Impact Assessment has been prepared for the proposed development at **Land on Huddersfield Road, Birstall**.
- 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 **Wharfedale Limited** to prepare an Arboricultural Impact Assessment, based on our Arboricultural Report dated 20<sup>th</sup> May 2020 (JCA Ref: **15964/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. 20220209-WLLR-MWA-XX-XX-M2-A-0001\_Wharfedale**, 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 May 2020 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 a convenience store.
- 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 order to facilitate the proposed development, it will be necessary to remove one tree within **G4** and **T5**, both low value trees which fall into retention category 'C'. The removal of these trees will have a negligible effect on the local treescape, as such, no mitigation measures are considered to be required on this occasion.

### 3.3 Pruning for Development

- 3.3.1 No pruning works are required to accommodate the proposed development.

### 3.4 Impacts Upon Retained Trees

- 3.4.1 The trees to be retained at this site are either located behind a quarries rock face or up a steep banking, well away from potential construction activities, as such no tree protection measures are required on this occasion. Additionally, the need to have an Arboricultural Method Statement produced for this development is not deemed to be necessary.

## 4. Conclusions

- 4.1 We are informed that there is no Tree Preservation Order (TPO) in force and that the trees which are the subject of this report are not within a Conservation Area.
- 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 a convenience store.
- 4.4 The arboricultural implications of the development have been considered and are discussed in **Section 3**.
- 4.5 One tree within **G4** and **T5** require removal in order to facilitate the proposed development. Tree works required to accommodate the proposals are detailed in *italics* in the tables at **Appendix 1**. Those trees requiring removal are shown in red on the Arboricultural Implications Plan at **Appendix 7**, where the proposals can also be viewed.
- 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 An Arboricultural Method Statement (AMS) is not considered to be required on this occasion.
- 4.8 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 <i>Botanical Name</i>	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
G 1	Early-mature Sycamore & Common Ash <i>Acer palmatum &amp; Fraxinus excelsior</i>	To 14	0+	0+ n/a	To 40	See plan	Located on a wall top overhanging the footpath and the road. A group of trees of poor form. Many have been topped or have large pruning stubs. Limited long term future, hence removal is advised.	Remove.  Low	FAIR	POOR	LOW	MOD	<10	U
T 2	Early-mature Sycamore <i>Acer pseudoplatanus</i>	14	0	1 n/a	25# x 8 Avg.	6# 6# 6#	Multi-stemmed at ground level with a balanced crown. Possible included bark present at the stem junction. Not fully inspected due to poor terrain.	Monitor biennially.  Low	GOOD	FAIR	LOW	MOD	10+	C 1
G 3	Young to Mature Mixed species <i>Details in observations</i>	To 15	0+	0+ n/a	To 85#	See plan	A group of Sycamore, Hawthorn, Goat Willow and English Oak located on a steep bank situated behind a quarry face. Not fully inspected due to poor terrain and limited access.	No action required.  n/a	GOOD	GOOD	MOD	MOD TO HIGH	40+	B 2
G 4	Semi-mature Goat Willow <i>Salix caprea</i>	To 7	2+	2+ n/a	To 18#	See plan	Two insignificant trees of leaning form.	No action required. <i>Remove the tree shown in red on the plan at Appendix 7 in order to facilitate the proposed development.</i>  n/a	GOOD	FAIR	LOW	HIGH	10+	C 1
T 5	Early-mature Sycamore <i>Acer pseudoplatanus</i>	14	5	2 SW	38, 28, 20#	6# 6# 5#	Multi-stemmed at ground level with a balanced crown. Included bark present at the stem junction. Not fully inspected due to limited access.	Monitor biennially. <i>Remove as not suitable for retention as part of the proposed development.</i>  Low	GOOD	FAIR	LOW	MOD	10+	C 1
G 6	Semi-mature Sycamore <i>Acer pseudoplatanus</i>	To 3	0+	0+ n/a	To 15	See plan	A group of topped trees of low value. Limited long term future, hence removal is advised.	Remove.  Low	FAIR	POOR	LOW	MOD	<10	U

## 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 should be removed or treated in such a way as to make them safe where they have high ecological value, such as in a woodland setting.

## 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

<b>Arboriculture</b>	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.
<b>Canker</b>	Disease damaged area of a tree, usually caused by fungus or bacteria affecting the bark.
<b>Co-dominant stem</b>	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.
<b>Crown lift</b>	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
<b>Crown reduction</b>	The reduction of a tree's height and spread while preserving its natural shape.
<b>Crown thin</b>	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.
<b>Deadwood</b>	Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.
<b>Dieback</b>	Where branches are beginning to show signs of death usually at the tips in the crown.
<b>Epicormic shoots</b>	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).
<b>Included bark</b>	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
<b>Pollarding</b>	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.
<b>Remedial pruning</b>	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.
<b>RPA</b>	Root Protection Area – Theoretical rooting area of a tree as defined in BS5837:2012 <i>Trees in relation to construction</i> .

## 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

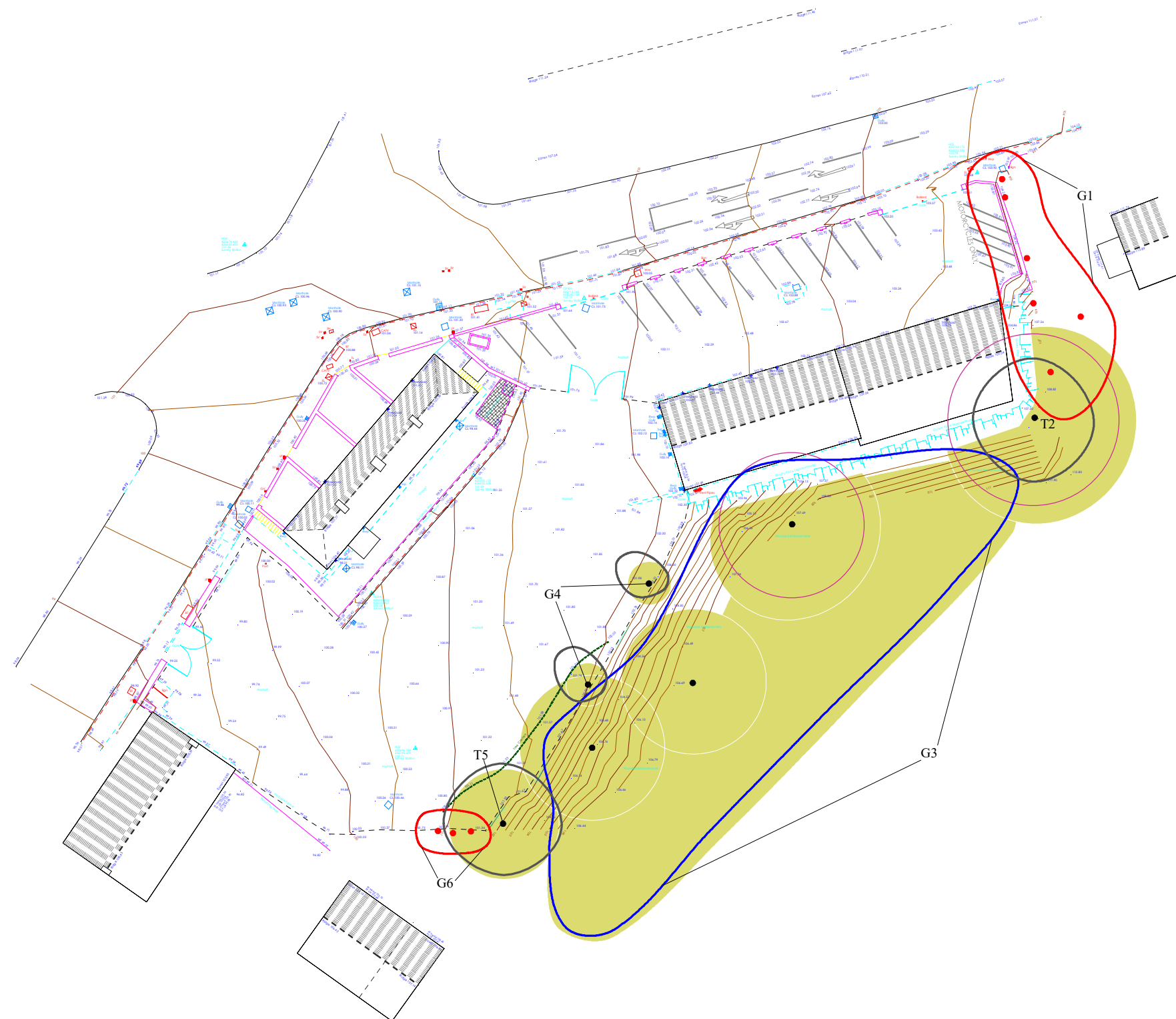
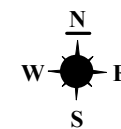
**Adam West, Principal Ecologist** *BSc (Hons) Animal and Wildlife Management*. Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Bachelor's degree, for which he was awarded 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.



**Root Protection Area: RPA**

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE.

**THIS 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.



THIS PLAN IS TO BE PRINTED IN COLOUR  
AND READ IN CONJUNCTION WITH THE  
JCA ARBORICULTURAL REPORT  
(JCA REF: 15964-A/AJB)

**Appendix 6:**  
**Tree Constraints Plan**

**ADDRESS:** Land on Huddersfield Road,  
Birstall, West Yorkshire, WF13 9PY.  
**JCA REF:** 15964-A/AJB.

SCALE : 1:500

PAPER SIZE : A3

SURVEYED BY: AIB

DRAWN BY: AIB

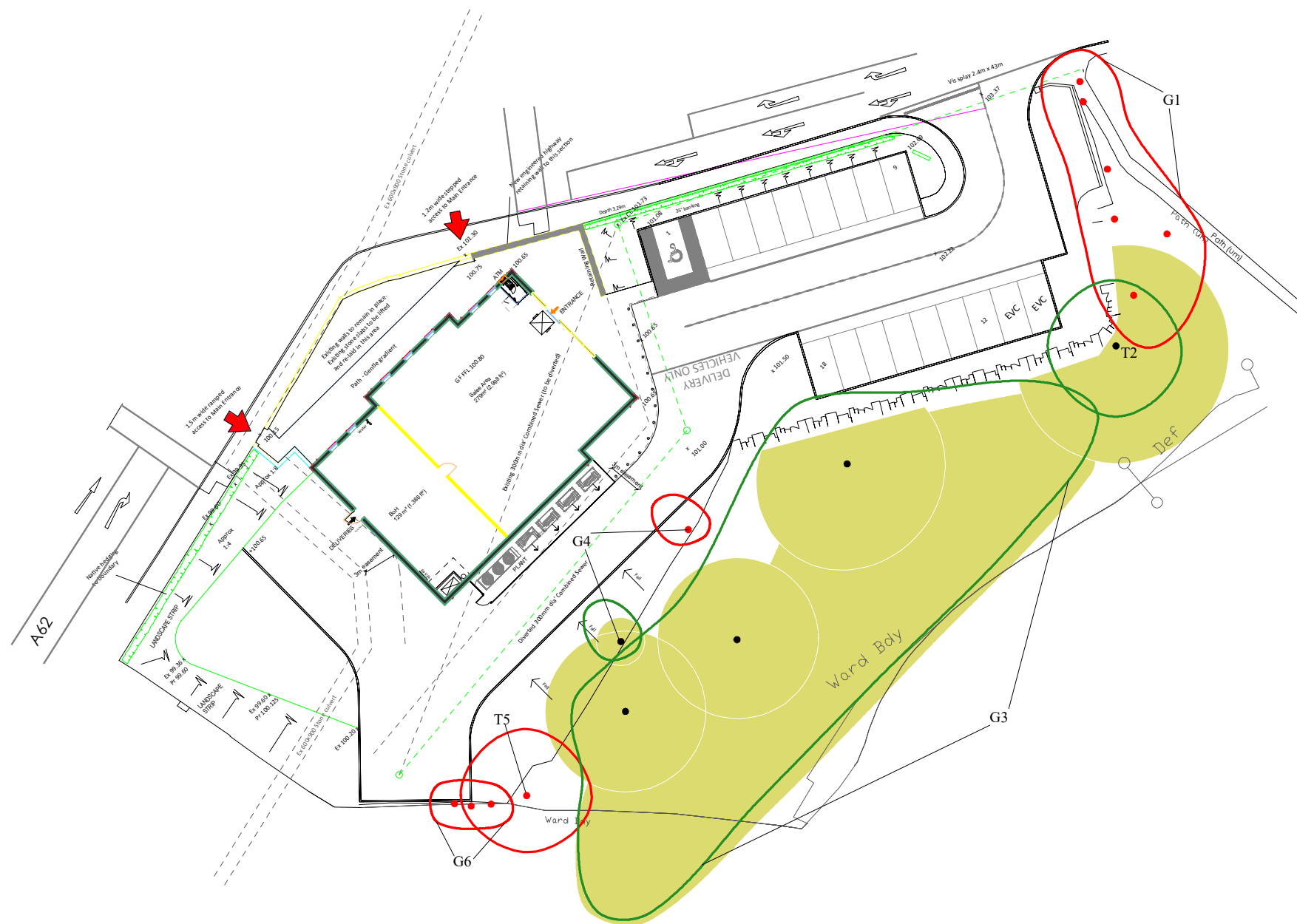
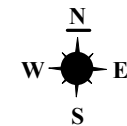
APPROVED BY: CC

BRITISH STANDARD 5837:2012: 4.5  
RETENTION CATEGORIES

Detailed definitions of these categories 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)

Arboricultural & Ecological Consultants



## Appendix 7: Arboricultural Implications Plan

ADDRESS: Land on Huddersfield Road,  
Birstall, West Yorkshire, WF13 9PY.  
JCA REF: 15964-A/AJB.

SCALE : 1:500 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

**JCA** Limited  
Arboricultural & Ecological Consultants

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(JCA REF: 15964-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

**REDACTED**

.....

**Andrew Bussey** *LANTRA Accredited PTI.*

7<sup>th</sup> March 2022

For and on behalf of **JCA Ltd**

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# JCA Ltd. Arboricultural and Ecological Consultants

## Professional Tree and Ecology Advice nationwide

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### ARBORICULTURAL SERVICES

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#### Guidance for Architects and Developers

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

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#### Advice for Engineers, Loss Adjusters and Insurers

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

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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

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#### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

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#### Tree Health and Pest and Disease Management

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

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### ECOLOGICAL SERVICES

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#### 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

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#### Ecological Post-Planning Services

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

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#### HEAD QUARTERS:

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