

**ARBORICULTURAL REPORT
AND
ARBORICULTURAL IMPACT ASSESSMENT
to BS 5837:2012
at
Land south of Hanson Close
Manchester
Greater Manchester
M24 2HD**

Client:

MSM Aerospace Fabricators

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JCA Limited

Arboricultural & Ecological Consultants

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1. Introduction

1.1 Purpose of the Report

- 1.1.1 JCA Limited has been instructed by **MSM Aerospace Fabricators** to survey the trees at **Land south of Hanson Close, M24 2HD** and prepare the findings in a report.
- 1.1.2 This report provides detailed, independent, arboricultural advice on the trees in the context of potential development, conducted in accordance with the guidelines contained within BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS5837:2012).
- 1.1.3 This report will categorise the trees in accordance with the British Standard, which will help guide the design of potential development in terms of constraints and opportunities related to trees, and provide details of which trees should be retained and which could be removed.
- 1.1.4 The specific design of the proposed development has been considered within the Arboricultural Impact Assessment in **Section 4** and is detailed on the Arboricultural Implications Plan at **Appendix 6**.

1.2 Terms of Reference

- 1.2.1 For this purpose, a topographical survey (**Ref: Toppo 7936A.dwg**) was supplied, which forms the basis for the Tree Constraints Plan at **Appendix 5**. 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 Tree Survey Details and Methodology

- 1.3.1 The survey took place during October 2022 and was carried out by
Phil Humeniuk Fdsc (Arboriculture). LANTRA Accredited PTI.
- 1.3.2 During this survey, all trees were inspected from ground level. Further investigations, such as a climbed inspection or a decay detection test, have not been undertaken but may be recommended where deemed appropriate.
- 1.3.3 Only those trees within the site boundary with a stem diameter above 75mm have been included. Where applicable, trees outside the site boundary, but close enough to be affected by a proposed development, are also included.

- 1.3.4 Tree data was collected in accordance with **Section 4.4** and **Section 4.5** of BS5837: 2012. Full details of all trees surveyed are recorded in the tables at **Appendix 1** which can be cross referenced with the Tree Constraints Plan at **Appendix 5**. A full explanation of the tables can be found at **Appendix 2**.
- 1.3.5 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible, due to restricted access or other mitigating circumstances, measurements were estimated to the best ability of the surveyor. Where measurements have been estimated, these are clearly highlighted at **Appendix 1** with a '#' symbol.

2. Status of the Trees

- 2.1 A check was made with **Rochdale Borough Council** in October 2022 to determine whether any of the trees surveyed as part of this report are subject to any statutory controls.
- 2.2 We are informed that **no** trees within our survey are subject to any Tree Preservation Orders (TPO) and the site is not located within a Conservation Area.
- 2.3 Prior to any works being undertaken to trees, those instructing and proposing to carry out the work should satisfy themselves that all appropriate consents are in place to prevent potential breach of legislation.

3. Tree Survey Details

3.1 Tree Retention Categories

- 3.1.1 Below is a summary of the surveyed vegetation with retention categories identified in accordance with BS5837: 2012. For a full explanation of the retention categories, please refer to **Appendix 2 (Section A2.3)**.

Retention Categories of the Surveyed Vegetation					
Retention Category	Trees	Groups	Hedges	Woodlands	Totals
A	0	0	0	0	0
B	1	2	0	0	3
C	4	3	0	0	7
U	1	0	0	0	1
Totals	6	5	0	0	11

- 3.1.2 As a general rule, those trees listed as retention category 'A' or retention category 'B' are the most valuable items of vegetation and as such the removal of these is likely to be met with resistance by the Local Planning Authority (LPA).
- 3.1.3 Those items listed as retention category 'C' are of lesser value and the removal of these is generally less likely to be met with resistance by the LPA.
- 3.1.4 Items listed as retention category 'U' comprise of dead trees or trees of limited safe life expectancy and are often recommended for removal, irrespective of any proposals.
- 3.1.5 The above information should guide the design in terms of which trees could be removed and which trees should be retained. However, due to changing attitudes with regards to environmental awareness, it should be noted that all trees are considered to have value. As such, it is advised that as many trees as possible be retained, regardless of their BS5837: 2012 retention category status. The retention of trees is further advised to avoid the need to plant replacement specimens, which are usually required to be planted on a 2:1 or 3:1 ratio, and due to their ecological value, which will be assessed as linear habitat units within Biodiversity Metric 3.1.

3.2 Recommended Work for Arboricultural Reasons

- 3.2.1 Where necessary, recommendations have been prescribed for reasons of public safety, to benefit the trees and/or for general maintenance purposes. Such recommendations have been made for Arboricultural reasons and should be undertaken irrespective of development.
- 3.2.3 Full details of all recommended works are detailed in the 'Recommendations Column' of the Tree Data Tables at **Appendix 1**.
- 3.2.4 For an explanation of the priority ratings, see **Appendix 2 (A2.2.5)**.
- 3.2.5 All trees which are to be retained within the proposed development should be inspected on a regular basis in the interests of risk management. They should have a biennial re-inspection regime, ideally with each inspection being undertaken during a different season, in order to observe any defects, pests and diseases that are only evident at certain times of year.

4. Arboricultural Impact Assessment (AIA)

4.1 Proposed Development

- 4.1.1 The proposed development will consist of the construction of three new industrial units with improved access and new, on-site parking areas.
- 4.1.2 We have been supplied with **Drawing ref no:22.135_01_002_D. dwg**, 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 6**. This provides the basis for which this Arboricultural Impact Assessment has been prepared.
- 4.1.3 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 required Arboricultural works recommended during the initial survey are also listed in these tables in non-italics.

4.2 Tree Removals for Development

- 4.2.1 There is little room for development within this site without the removal of some trees.
- 4.2.2 **Two** trees require removal to accommodate the proposal; one tree from a “*two-tree*”, retention category ‘C’ group and one retention category ‘C’ tree.
- 4.2.3 These trees can be removed without significantly affecting the visual amenity of the surrounding area.
- 4.2.4 The removal of trees for development can often be mitigated (either partially or entirely) by the replacement of suitable specimens within a planting scheme. Whilst not always necessary, the planting of trees can improve the aesthetic value of the surrounding area and may be conditioned in the usual manner.

4.3 Pruning for Development

- 4.3.1 To accommodate the proposals, it will be necessary to prune some of the trees being retained, in order to provide suitable clearances and working distances for pedestrians and vehicles and to afford reasonable clearances from buildings. Also known as ‘access facilitation pruning’ this is relevant to **G5, G7, T8 and G11**.
- 4.3.2 Root pruning is to be undertaken by the Arboricultural consultant during supervision. This is relevant to one tree in **G5**.

4.4 Temporary Protection Measures

4.4.1 The Protective Barrier

- 4.4.1 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 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)**.
- 4.4.2 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.

4.5 Implications for Retained Trees

4.5.1 Works within the RPA

- 4.5.1.1 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.
- 4.5.1.2 Such areas are highlighted in **blue** on the Arboricultural Implications Plan at **Appendix 6** and are addressed in the following sections.

4.5.2 Demolition

- 4.5.2.1 It is proposed to remove the existing hard surfacing within the RPAs of retained trees. This operation will require the supervision of an arboriculturalist.
- 4.5.3.1 For this method, the existing hard surface will first be broken by mechanical means. Care will be taken to only break the existing hard surface and not to disturb the underlying soil (where the tree roots are located). Once the surfacing has been broken into manageable sizes, it will be carefully removed from the area.
- 4.5.3.2 Once all the rubble has been removed from the area, it can then be re-instated with the new hard standing.

4.5.3 Access/Construction of Hard Surfacing

- 4.5.3.1 The existing surfaces that are to be removed as part of the development proposals are present within the RPAs of the trees being retained (see **Section 4.5.2** on demolition). The existing surfaces provide ground protection for the rooting areas and as such, these are to be retained during construction up until the final stages of development, at which point they may be removed. This will afford the maximum protection to these trees.

4.5.4 Construction / Foundation Design

- 4.5.4.1 The footprints of the proposed structures does not encroach into 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.
- 4.5.4.2 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.
- 4.5.4.3 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.

4.5.5 Tree Shade

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

4.5.6 Utilities

- 4.5.6.1 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.
- 4.5.6.2 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.

4.5.7 Site Compound

- 4.5.7.1 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 their RPAs.
- 4.5.7.2 Care should also be taken to prevent soil contamination with chemical spillages, including petrol, diesel and oils.

4.5.8 Landscaping

- 4.5.8.1 Proposed new 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.
- 4.5.8.2 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.

4.6 Remedial Measures

- 4.6.1 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).
- 4.6.2 The site offers a limited scope for landscaping and new tree planting. All areas identified for the new trees should also be protected by fencing during the construction phase to prevent the compaction of the soil.

5. Summary

- 5.1 The arboricultural implications of the development have been considered and discussed in **Section 4**.
- 5.2 All development work carried out in close 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.
- 5.3 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.
- 5.4 It is advised that in accordance with **Section 5.6 of BS 5837: 2012** that a **Tree Planting Scheme** is prepared which will help to ensure that the site retains a sustainable tree cover. A carefully designed **Tree Planting Scheme** will incorporate tree species in harmony with the development whilst seeking to improve the overall age range and species diversity.
- 5.5 In accordance with **Section 6.3 of BS 5837: 2012**, site supervision at key stages of the development is likely to be advisable.
- 5.6 The data gained during the 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, this 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	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 1	Semi mature English Oak <i>Quercus robur</i>	8.5	3	3 SE	32	4 4 4 #4	Single stemmed with a good form and balanced canopy overhanging the footpath and road. No significant defects. Good future potential.	No action required.	GOOD	GOOD	LOW	HIGH	40+	B 1
G 2	Semi mature Flowering Cherry <i>Prunus sp.</i>	To 6.5	2.5	2.5 S	26, 17 & 28	See plan	Two in group; both multi-stemmed with unbalanced canopies overhanging the footpath. Tight unions and occasional pruning wounds from crown lifting. Epicormic shoots observed.	<i>Remove western specimen to facilitate development.</i>	GOOD	GOOD	LOW	MOD	20+	C 2
T 3	Semi mature Common Alder <i>Alnus glutinosa</i>	8	1	1 n/a	18	3 3 3 3	Single stemmed with a balanced canopy. No significant defects.	No action required.	GOOD	GOOD	LOW	MOD	40+	C 1
T 4	Young Flowering Cherry <i>Prunus sp.</i>	5	1	1 E	13 15 13	2.5 2 2 2	Multiple-stemmed from ground level with a balanced crown. A low value specimen with poor form.	<i>Remove to facilitate development.</i>	GOOD	GOOD	LOW	MOD	20+	C 3
G 5	Early mature Monterey Cypress <i>Cupressus macrocarpa</i>	13	1	1 n/a	67 58 64	See plan	Three in group; all single stemmed with merging canopies overhanging the footpath. No significant defects. Shrubs; <i>Forsythia</i> , <i>Pyracantha</i> and <i>Viburnum</i> shrubs at bases.	<i>Crown lift to provide 3m clearance; root prune under supervision.</i>	GOOD	GOOD	MOD	HIGH	40+	B 2
G 6	Young to semi mature Common Alder <i>Alnus glutinosa</i>	To 11	2	3 N	15 to 25	See plan	Clusters of Alder with occasional Cherry & Beech; located on raised ground. Crowns merge and overhang the footpath. Occasional pruning wounds (healing well). Individually of low arboricultural value.	No action required.	GOOD	GOOD	MOD	MOD	40+	C 2
G 7	Early mature to mature Crack Willow <i>Salix fragilis</i>	To 12	3	2.5 W	Av. 45	See plan	Group of predominantly Willow, mostly multi-stemmed at 1.5m with occasional scattered Birch, Hawthorn, Maple and Cotoneaster throughout the understorey. Multiple included unions, branch fails and minor deadwood throughout the canopies. Crowns merge and overhang the footpath and road. Dense band of Portuguese Laurel and honeysuckle to the furthest point south. Japanese Knotweed observed within the group (See plan).	<i>Crown lift to provide 3m clearance.</i>	GOOD	FAIR	MOD	HIGH	20+	C 2
T 8	Semi mature Norway Maple <i>Acer platanoides</i>	9.5	2	2 W	23 20	3 5.5 2 3	Twin-stemmed from 0.5m with an included union and unbalanced crown due to suppression from neighbours. Poor form with low arboricultural value.	<i>Crown lift to 2.5m over the footpath.</i>	GOOD	FAIR	LOW	MOD	20+	C 1

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	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 9	Mature Crack Willow <i>Salix fragilis</i>	12	3	3 W	70	7 #8 7.5	Multi-stemmed from 2.2m with a balanced crown overhanging the footpath and road. Large surface roots and the onset of basal decay observed.	No action required.	GOOD	GOOD	LOW	HIGH	20+	C 1
T 10	Mature Crack Willow <i>Salix fragilis</i>	N/A	n/a	n/a n/a	#65	0 0 0	A collapsed dead tree.	Remove (low priority).	DEAD	DEAD	DEAD	HIGH	Dead	U
G 11	Mature Goat Willow <i>Salix caprea</i>	To 10	2.5	2.5 N	up to 45	See plan	Limited inspection due to density adjacent River Irk. Predominantly Willow with occasional Ash & Sycamore. Canopies merge and overhang the boundary. Provides opportunities for wildlife. Extensive Japanese Knotweed throughout this area.	<i>Prune back the canopies to ensure 2m clearance from the building.</i>	GOOD	FAIR	LOW	HIGH	20+	B 2

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: 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.

Hazel Irving *FdSc (Arboriculture and Urban Forestry).* Hazel joined JCA in 2022 after obtaining her Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. She has previously worked in the horticulture industry, volunteered with the National Trust and Yorkshire Arboretum and completed the 2021 student research internship at the RHS Wisley Plant Health Centre.

Scott Hincks *City & Guilds (Forestry).* Scott joined JCA in January 2022 and brings 25 years of tree management experience. He has worked as an Arborist operating in the Utility and Domestic areas, including working for Network Rail, Northern Electricity board, Canal & River Trust, National Trust, Housing Associations and Local Authorities. Scott has many NPTC certificates in practical Arboriculture and volunteers his time and skills to the Woodland Trust.

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.

Megan Brown, Graduate Ecologist *MSc Zoo Conservation Biology, BSc (Hons) Zoology*. Megan joined JCA in 2021 after completing her master's degree in Zoo Conservation Biology from Manchester Metropolitan University. After graduating from Newcastle University with First Class Honours in Zoology, Megan joined a local survey group and now has over two years of experience in conducting ecological surveys across a variety of habitat types and taxa. She is continuing to broaden her survey experience at JCA while applying her knowledge, identification and report writing skills to her role as a Graduate Ecologist.

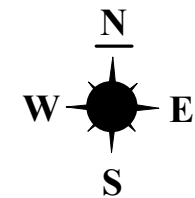
Audrey Bourdais Paull, Graduate Ecologist *BSc (Hons) Zoology*. Audrey joined JCA in 2022 after graduating in Zoology from the University of Leeds. Audrey volunteered for many years with various wildlife conservation and rescue organisations, as well as working on various projects to develop a variety of field survey techniques, report writing and data analysis skills. Audrey is looking forward to developing her ecology consultancy experience with JCA, as well as combining her previous dog training and detection work with ecology to expand into ecology detection dogs.

Helen Chambers, Seasonal Ecologist *MSc by Research in Environmental Studies, BSc (Hons) Wildlife Conservation with Zoo Biology*. Helen joined JCA in 2022 after completing her master's by research degree at the University of Salford. In 2019 Helen graduated with First Class Honours BSc Wildlife Conservation with Zoo Biology, where she gained theoretical knowledge of, and practical experience with, wildlife monitoring and wildlife legislation. She is hoping to further develop her ecological surveying and report writing skills at JCA.

Administrative Staff

Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.

Lorraine Spink Administrative Assistant.
Lisa Beedham Marketing Manager.



THIS PLAN IS TO BE PRINTED IN COLOUR
AND READ IN CONJUNCTION WITH THE
JCA ARBORICULTURAL REPORT
(JCA REF: 19349/PH/V2)

Root Protection Area: RPA

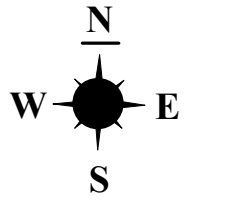
THE ROOT PROTECTION AREA SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.

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 5: Tree Constraints Plan			BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES	
LAND SOUTH OF HANSON CLOSE, MIDDLETON GREATER MANCHESTER, M24 2HD. JCA REF: 19349/PH/V2			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.	
SCALE 1:500	PAPER SIZE A2			CATEGORY A: 'RETENTION MOST DESIRABLE'
				CATEGORY B: 'RETENTION DESIRABLE'
SURVEYED BY: PH	DRAWN BY: PH	APPROVED BY: TT		CATEGORY C: 'TREE WHICH COULD BE RETAINED'
 Arboricultural & Ecological Consultants				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)

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Appendix 6: Arboricultural Implications Plan	
LAND SOUTH OF HANSON CLOSE, MIDDLETON GREATER MANCHESTER, M24 2HD. JCA REF: 19349/PH/V2	
SCALE 1:500	PAPER SIZE A2
 Arboricultural & Ecological Consultants	
	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

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

P. Humeniuk

.....
Phil Humeniuk *FdSc (Arboriculture). LANTRA Accredited PTI.*

9th November 2022

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)

Tree Advice for the Legal Profession

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

Advice for Engineers, Loss Adjusters and Insurers

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

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Advice for Local Authorities and Social Housing

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

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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